Comparative Remarks on Wh-adverbials in Situ in Japanese and Chinese

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7.1 Introduction

This chapter concerns island effects arising with wh-in-situ in Japanese and Chinese. As has been known since Huang (1982) and Lasnik and Saito (1984, 1992), wh-in-situ in the two languages exhibits the so-called argument-adjunct asymmetry. The asymmetry can be illustrated by the Japanese examples in (1) and the Chinese ones in (2) (from Huang 1982:526–527).

(1) a. *[[Kare-ga naze kaita] hon]-ga itiban omosiroi-no? he-NOM why wrote book-NOM most interesting-Q
   ‘Books that he wrote why are most interesting?’
   b. [[Dare-ga kaita] hon]-ga itiban omosiroi-no? who-NOM wrote book-NOM most interesting-Q
   ‘Books that who wrote are most interesting?’

(2) a. *[NP [s, Ta weishenme xie] de shu] zui youqu? he why write de book most interesting
   ‘Books that he wrote why are most interesting?’
   b. [NP [s, Shei xie] de shu] zui youqu? who write de book most interesting
   ‘Books that who wrote are most interesting?’

The (a)-examples in (1) and (2) are ungrammatical, containing a why-type adverbial inside a relative clause island. In the (b)-examples, by contrast, a relative clause

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Japanese syntax in comparative perspective

does not constitute an island for \textit{wh}-licensing. The \textit{wh}-phrases are argument NPs here. Thus \textit{wh}-in-situ in Chinese and in Japanese has often been treated in the same way when it comes to the presence and absence of island effects such as complex NP island effects (Lasnik and Saito 1984, 1992; Chomsky 1986:153).

There is one generalization that has been well accepted in the literature: whereas \textit{wh}-nominals do not obey island constraints, \textit{wh}-adverbs obey them (see Huang 1982:chap. 7; Nishigauchi 1990:92; Lin 1992; Aoun and Li 1993b; Tsai 1994a, 1994b, 1999; cf. Reinhart 1998). This morphosyntactic generalization can be stated a bit more precisely in the following manner:

\begin{equation}
\text{(3) An in-situ \textit{wh}-phrase is island-insensitive iff it is (or contains) a \textit{wh}-nominal.}^2
\end{equation}

We call this generalization the Noun versus Adverb Generalization (NAG), because it entails that \textit{wh}-adverbs, in contrast to \textit{wh}-nominals, are island-sensitive.

Let us review some initial empirical arguments in favor the NAG that originally come from Huang’s seminal work (1982) on \textit{wh}-in-situ. Huang points out that, in Chinese, \textit{wh}-adverbs like ‘why’ behave differently from \textit{wh}-PPs like ‘for what reason’ with regard to island-sensitivity. Example (4) is grammatical, in contrast with (2a), even though these two questions are semantically very similar (Huang 1982:527).

\begin{equation}
\text{(4) } [\text{NP } [S \text{Ta \textit{wei-le} shenme yuanyin xie} \text{ de shu}] \text{ zui youqu.} \\
\quad \text{he for-PERF what reason write de book most interesting}]
\end{equation}

‘Books that he wrote for what reason are most interesting?’

Because \textit{wei-le shenme yuanyin} ‘for what reason’ clearly contains a lexical noun inside, the contrast between (2a) and (4) lends initial support for the NAG. Huang has also shown that the generalization extends to \textit{wh}-adverbials including ‘when’ and ‘where’, as in (5) (Huang 1982:529–530).

\begin{equation}
\text{(5) } [\text{NP } [S \text{Ta } \{zai nali/ (zai) shenmeshihou} \text{ pai} \text{ de} \\
\quad \text{he at where at when film de} \\
\quad \text{dianying} \text{ zui hao?} \\
\quad \text{movie most good}]
\end{equation}

‘[Movies that he filmed {where/when}] are the best?’

\textit{Zai nali} consists of the preposition \textit{zai} ‘at’ and the noun \textit{nali} ‘where’, and \textit{shenme shihou} contains the nominal expression \textit{shihou} ‘time’ and may be preceded by the preposition \textit{zai}. The status of the examples in (5) is expected under the NAG.

It is interesting to note that some data may seem to be at odds with what has been observed about the island-sensitivity of \textit{weishenme}. Tsai (1994b) observes that examples like (6), where \textit{weih-le} \textit{shenme} occurs within an island, are grammatical.

\begin{equation}
\text{(6) } \text{Ni bijiao xihuan } [[\text{wei(-le)} \text{ shenme gongzuo} \text{ de ren}]? \\
\quad \text{you more like for-PERF what work de people} \\
\quad \text{‘You like better [the people who work for what (purpose)]?’}
\end{equation}
Comparative Remarks on Wh-adverbials in Situ in Japanese and Chinese

However, as Tsai shows, this fact provides a further argument for the NAG. He points out two facts: first, *wei(-le) shenme* receives purpose construal, whereas *weishenme* receives reason construal; and second, island-insensitive *wei(-le) shenme* has morphophonological properties that its island-sensitive counterpart does not have. Tsai (1994b:128, fn. 4) remarks, “when we find that the adverbial *weishenme* has a PP counterpart *wei(-le) shenme* ‘for what’, the former concerns reasons, while the latter concerns purposes. . . . The preposition *wei* ‘for’ is emphatically stressed when *-le* is absent.” Thus, when *-le* is absent and *wei* is not stressed, an island effect shows up, as Tsai argues. Compare (6) with (7).

(7) *Ni bijiao xihuan [[weishenme gongzuo] de ren]?
  you more like why work de people
‘You like better [the people who work why]?’

This fact is not surprising at all under the NAG because the category “adverb” does not have a rich internal structure that various morphological processes may manipulate. As for the issue of how to distinguish between reason and purpose, on the meaning side, it is somewhat involved. We will elaborate on this issue in section 7.2, capitalizing on more recent studies such as those by Reinhart (2002), Tsai (2008), and Stepanov and Tsai (2008); see, in particular, the discussion of example (13).

It should be stressed that Huang’s original proposal was intended to cover data from other languages than Chinese as well. Huang (1982:535) observes that English also displays effects of the noun-adverb distinction, arguing that *where* and *when* are headed by null prepositions. For instance, *when* and *where* can stay in situ, but *why* cannot (cf. *who bought a book [where, when]?* with *who bought a book why?*). Furthermore, the patterns found in Chinese hold for Japanese, another wh-in-situ language, in exactly the same way. Although the adverb *naze* ‘why’ is island-sensitive, a wh-PP like *donna riyuu-de* ‘for what reason’ does not obey an island, as Nishigauchi (1990) notes by looking at the Japanese counterpart of Huang’s Chinese examples. Observe the contrast between the options in (8).

(8) [NP [S Kare-ga [donna riyuu-de/ *naze] kaita] hon]-ga
       he-NOM what reason-with why wrote book-NOM
       itiban omosiroi-no?
       most interesting-Q
‘Books that he wrote [for what reason/*why] are most interesting?’

Huang’s observation on locative and temporal wh also carries over to Japanese.

(9) [NP [S Kare-ga [doko-de/ itu] totta] eiga]-ga
       he-NOM where-at whenfilmed movie-NOM
       itiban omosiroi-no?
       most interesting-Q
‘[Movies that he filmed [where/when]] are the most interesting?’
In (9), doko ‘where’ and itu ‘when’ are exempt from island effects. These items can be followed by a postposition as in doko-de ‘in where’ and itu-kara ‘from when’, which indicates that they are nominal, not adverbs (cf. *naze-de ‘why-with’). The behavior of all these wh-adverbials conforms to the NAG.

The limited goal of this chapter is to test some new predictions we can make under the NAG. In particular, we consider a less-often-discussed Japanese wh-adverbial—namely, nande—and show that the wh-phrase has the dual nature that we expect to find under the NAG. It is first pointed out that the wh-adverbial allows a reason and an instrumental interpretation and that the reason interpretation, unlike the instrumental one, is barred when nande occurs inside an island. We then show that the island-sensitive use of nande—the reason use—is of the category AdvP whereas its island-insensitive use—the instrumental use—is of the category PP. As we will show, the state of affairs observed with the two uses of nande is significantly similar to the one observed with the wh-adverb weishenme and the wh-PP wei(-le) shenme in Chinese. Based on this parallelism, we will conclude that Chinese and Japanese have in common a mechanism for wh-in-situ licensing.

The chapter is organized as follows: in section 7.2, we review Chinese data to look more closely at the distinction of adverb versus PP mentioned just above. Section 7.3 introduces Japanese data concerning nande to show that a certain correlation is found between its island-sensitivity and its interpretation. Section 7.4 attempts to present empirical evidence that the behavior of nande falls under the NAG. Section 7.5 addresses a question about a generalization that the NAG cannot (or should not) handle, which concerns the relationship that appears to hold between syntactic categories of wh-adverbials and their meanings. Additionally, a slightly different kind of parallel between Chinese and Japanese is discussed there. The parallelism concerns the relative height of wh-adverbials. The chapter is concluded in section 7.6.

### 7.2 Weishenme ‘Why’ and Wei(-le) Shenme ‘For What’ in Chinese

Before we can discuss the wh-adverbial nande in Japanese, we would like to summarize how weishenme and wei-le shenme in Chinese differ. This task is important because a proper understanding of these Chinese wh-adverbials facilitates our study of the properties of nande in Japanese.

As we saw in (6), Chinese reason wh-phrase and its purpose counterpart exhibit a difference with regard to island-sensitivity. Another pair of examples is cited from Tsai (1994b:128). 4

(10) [Women {a. wei(-le) shenme, b. *weishenme} nianshu]cai you yiyi?
    we for-PERF what why study just have meaning
a. ‘What is the purpose x such that it is meaningful [for us to study for x]?’
b. ‘*What is the reason x such that it is meaningful [for us to study for x]?’

Besides the fact that they differ in island-sensitivity, there are reasons to believe that these two adverbials are distinct items, confirming Tsai’s observation cited
above. First, let us note that the PP wei(-le) shenme cannot be construed as reason wh. Consider (11) (from Tsai 2008:94).

(11) Akiu {a. weishen, b. *wei(-le) shenme} xihuan hua?
    Akiu why for-PERF what like flower
    a. ‘Why does Akiu like flowers?’
    b. ‘For what purpose does Akiu like flowers?’

Tsai (2008) observes that wei(-le) shenme may not co-occur with predicates lacking agentivity, such as like and smart. If, as argued by Reinhart (2002) and Tsai (2008), the semantic category “purpose” is licensed by an agent role, then the contrast in (11) can be taken to mean that the PP wei(-le) shenme lacks a reason interpretation. The reason wh-phrase does not require agentivity. If this wh-PP had a reason interpretation, (11b) would be grammatical, just like (11a).

Second, as the following question-answer pairs clearly show, emphatic stress on wei sufficiently disambiguates the two types of wh-adverbial, preventing the wh-adverbial from functioning as reason wh.

(12) Q. Akiu WEI shenme likai?
    Akiu for what leave
    ‘For what did Akiu leave?’
    A1. #Yinwei ta shengbing le.  
        because he sick PERF
        ‘Because he was sick.’
    A2. Wei le zhu bei kaoshi.  
        for PERF prepare exam
        ‘In order to prepare for the exam.’

The question in (12) can be answered felicitously with the ‘in order to’ clause but not with the ‘because’ clause. If WEI shenme lacks a reason interpretation, this is expected. Notice that when WEI shenme is replaced by weishenme as in (13), the question starts to allow the same ‘because’ answer.

(13) Q. Akiu weishenme likai?
    Akiu why leave
    ‘Why did Akiu leave?’
    A1. Yinwei ta shengbing le.  
        because he sick PERF
        ‘Because he was sick.’
    A2. Wei le zhu bei kaoshi.  
        for PERF prepare exam
        ‘In order to prepare for the exam.’

The observed contrast of WEI shenme with weishenme in the ability to support a ‘because’ answer confirms Tsai’s claim (1994b), cited in section 7.1, that the PP WEI shenme is always a purpose wh-phrase.
One comment is in order about (13). As seen in (13A2), an ‘in order to’ answer is compatible with a weishenme question. One may wonder if this suggests that weishenme supports a purpose interpretation. However, it is not obvious that this is correct. Reinhart (2002) suggests, though in slightly different terminology, that the relation “purpose” is a special case of the relation “reason.” More specifically, “purpose” can be characterized as the “reason” involving agentivity. To put it another way, purpose implies reason, but not vice versa. As Stepanov and Tsai (2008) observe, this relationship between reason and purpose is reflected in the fact that ‘in order to’ answers can be restated as ‘because’ answers, but the converse is not true. That is, we can use in order to fix the light bulbs to answer the question why did John bring the ladder? This ‘in order to’ answer is equivalent to the ‘because’ answer because he wanted/needed to fix the light bulbs. In contrast, “nonpurposive” reason questions like why is the sky blue? allow ‘because’ answers but not ‘in order to’ answers. Thus the fact that reason questions like (13Q) can be responded to with purpose answers like (13A2) does not argue that weishenme lexically has a purpose use. Notice that if this characterization of the alleged purpose construal of the adverb weishenme in (13) is correct, we expect that when a weishenme question is uttered in a context allowing a purpose answer, it is still island-sensitive. This expectation seems to be fulfilled, as is implied by the fact documented in (10) that, even in a context that is compatible with purpose wh-phrase, weishenme exhibits an island effect.

There is independent evidence that the adverb weishenme does not have a purpose use. Evidence comes from an observation concerning the relative height of wh-adverbials in Chinese (Tsai 2008; Lin 1992; see also Cinque 1999). Consider (14) and (15).

(14) Akiu hui WEI shenme likai?
   Akiu will for what leave
   ‘For what purpose will Akiu leave?’

(15) a. *Akiu hui weishenme likai?
    Akiu will why leave
   ‘Why will Akiu leave?’

Example (14) shows that purpose wh-phrase may follow the future modal hui ‘will’ in linear order. In contrast, the pair of examples given in (15) shows that weishenme cannot follow but must precede the modal. If weishenme had a “purpose” use as well as a “reason” use, it would be unclear why (15a) is ungrammatical. This leads us to conclude that the AdvP weishenme does not have a purpose use. Although it remains unclear from these data exactly which syntactic position these two adverbials occur in, we will suggest in section 7.5.2 that weishenme hangs from T’ or higher while WEI shenme hangs below vP.

In sum, these observations taken together, we confirm that the following picture about reason and purpose wh-phrases in Chinese (Huang 1982; Tsai 1994b) is correct.
(16) Chinese

<table>
<thead>
<tr>
<th>Wh-adverbial</th>
<th>Interpretation</th>
<th>Island-Sensitivity</th>
<th>Syntactic Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>weishenme</td>
<td>Reason</td>
<td>Obeys islands</td>
<td>AdvP</td>
</tr>
<tr>
<td>wei(-le) shenme</td>
<td>Purpose</td>
<td>Does not obey islands</td>
<td>PP</td>
</tr>
</tbody>
</table>

7.3 Properties of Japanese nande

This section introduces some data concerning the Japanese wh-adverbial nande. We will see that this adverbial’s interpretive possibilities and island-(in)sensitivity are related to each other in a certain way: nande may be interpreted as a reason or an instrumental adverbial when no island is involved, and the reason interpretation disappears when the adverbial occurs within an island.

The wh-adverbial nande may morphologically consist of the wh-nominal nan(i) ‘what’ and the postposition -de ‘with’, and can mean ‘why’ or ‘with what’. Before discussing the relevance of this wh-adverbial to the NAG, let us see how nande is construed when it occurs inside islands and outside islands. When no island is involved, there are two possible interpretations: reason and instrumental. This interpretive property of nande is exemplified by (17) and (18).

(17) Q. Mari-wa nande konpyuutaa-o kowasita-no?
Mari-TOP nande computer-ACC broke -Q
a. ‘Why did Mari break a computer?’ (reason)
       well function-NEG computer-DAT got.mad-because COP.POLITE
       ‘Because she lost her temper with the computer which didn't function well.’

(18) Q. Mari-wa nande kaetta-no?
Mari-TOP nande left-Q
a. ‘Why did Mari leave?’ (reason)
       sick was-because COP.POLITE
       ‘Because she was sick.’

Examples (17) and (18) both show that nande questions can be answered either with a ‘because’ clause or with an instrumental PP. Thus nande apparently has ambiguity in meaning, unlike naze (see fn. 7). We use nande\textsuperscript{r} and nande\textsuperscript{i} to refer to the reason and instrumental construal in question, respectively.
Now let us consider how islands impose a restriction on the range of interpretations of the wh-phrase. When nande appears within an island, the option of nande^{ih} is barred and only the option of nande^{i} survives. Examples (19), (20), and (21) illustrate cases involving a relative-clause, an adjunct, and a negative island, respectively.

(19) Ken-wa [[ Mari-ga {a. nande, b. donna doogu-de, Ken-TOP Mari-NOM nande what instrument-with
c. donna riyuu-de} kaita] ronbun]-o hihansita-no?
what reason-with wrote paper-ACC criticized-Q
a. ‘What is the thing x such that Ken criticized the paper that Mari wrote with x?’
b. ‘What is the instrument x such that Ken criticized the paper that Mari wrote with x?’
c. ‘What is the reason x such that Ken criticized the paper that Mari wrote for x?’
(19a) = (19b); ≠(19c)

(20) Ken-wa [Mari-ga {a. nande, b. donna kyoozai-de Ken-TOP Mari-NOM nande what study material-with
c. donna riyuu-de} eigo-o benkyoosita-kara okotta-no?
what reason-with English-ACC studied-because got.angry-Q
a. ‘What is the thing x such that Ken got angry because Mari studied English with x?’
b. ‘What is the study material x such that Ken got angry because Mari studied English with x?’
c. ‘What is the reason x such that Ken got angry because Mari studied English for x?’
(20a)= (20b); ≠(20c)

(21) Ken-wa [Mari-ga {a. nande, b. donna syudan-de, c. donna riyuu-de} Ken-TOP Mari-NOM nande what means-with what reason-with
kaetta-to] iitaku nakatta-no?
left-c want.to.say not.PST-Q
a. ‘What is the thing x such that Ken didn’t want to say Mari left by x?’
b. ‘What is the means x such that Ken didn’t want to say Mari left by x?’
c. ‘What is the reason x such that Ken didn’t want to say Mari left for x?’
(21a)= (21b); ≠(21c)

The examples in (19) all involve a relative clause. Example (19a) shows that nande, when embedded in a relative clause, is not ambiguous: the sentence can be paraphrased as the straightforward instrumental question in (19b), whereas it cannot be paraphrased as the straightforward reason question in (19c). The same pattern is found with the case involving an adjunct island, as shown in (20). The instrumental question in (20b) can serve as a paraphrase of the nande question in (20a), whereas the reason question in (20c) cannot. Likewise, a negative island makes only the instrumental interpretation surface, suppressing the otherwise available, reason interpretation, as demonstrated by the pattern of paraphrasability found in (21). Combining these data and the behavior of the well-studied adverbial naze ‘why’ (see fn. 7), the observations for the Japanese data so far can be recapped as in (22).
Comparative Remarks on Wh-adverbials in Situ in Japanese and Chinese

(22) Japanese

<table>
<thead>
<tr>
<th>Wh-adverbial</th>
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<th>Island-Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>naze</td>
<td>Reason</td>
<td>Obeys islands</td>
</tr>
<tr>
<td>nande</td>
<td>Reason</td>
<td>Obeys islands</td>
</tr>
<tr>
<td></td>
<td>Instrumental</td>
<td>Does not obey islands</td>
</tr>
</tbody>
</table>

Having established the correlation between the meanings of nande and its island-(in)sensitivity, in the next section we can attempt to use this correlation to show the validity of the NAG.

7.4 Nande and the Noun vs. Adverb Distinction

7.4.1 THE LOGIC OF THE ARGUMENT

We are now in a position to discuss the NAG. The strategy we use to support the NAG is to see whether the category of an instance of nande can be used to correctly predict its interpretation or vice versa. To be more concrete, we are trying to determine, by using diagnostics motivated independently of island-sensitivity, whether nande has instrumental construal only when its form is analyzed as a PP and whether nande resists such a PP analysis where reason construal is forced. The NAG will gain empirical support if we successfully show that nande as a PP is always interpreted as island-insensitive nande and that island-sensitive nande lacks characteristics of a PP. This expected relationship among the interpretation, syntax, and island-sensitivity of nande can be presented as in (23). Also, nande and nande will be argued to have the internal structures as in (24).

(23) Expected outcome for Japanese data

<table>
<thead>
<tr>
<th>Wh-adverbial</th>
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<th>Island-Sensitivity</th>
<th>Syntactic Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>naze</td>
<td>Reason</td>
<td>Obeys islands</td>
<td>AdvP</td>
</tr>
<tr>
<td>nande (^k)</td>
<td>Reason</td>
<td>Obeys islands</td>
<td>AdvP</td>
</tr>
<tr>
<td>nande (^l)</td>
<td>Instrumental</td>
<td>Does not obey islands</td>
<td>PP</td>
</tr>
</tbody>
</table>

(24) a. nande \(^k\)  
AdvP  
|  
| Adv'  
|  
| Adv  
NP  P 

b. nande \(^l\)  
‘why’  
‘what’  
‘with’
Once this view of \textit{nande} is shown to be empirically correct, the differences between Japanese \textit{nande} and Chinese \textit{weishenme/wei(-le) shenme} will turn out to be minimal. \textit{Nande} and \textit{nande} are morphosyntactically distinct items in the same manner as \textit{weishenme} and \textit{wei(-le) shenme} are (see (16)). The sole difference lies in the fact that the only possible interpretation of the island-insensitive adverbial use of the Japanese adverbial is “instrumental” but that of the Chinese one is “purpose,” which is reduced to the difference in lexical meaning between -\textit{de} ‘with’ and \textit{wei} ‘for’.

7.4.2 DISAMBIGUATING NANDE\textsuperscript{2} AND NANDE\textsuperscript{1}

This section introduces ways of distinguishing the two analyses of \textit{nande}. We first discuss the data involving two processes that force the category of \textit{nande} to be PP: uncontraction and prenominal modification (sections 7.4.2.1 and 7.4.2.2). It will be shown that in those environments, the adverbial behaves as if it were inside islands in terms of interpretation; that is, it only allows an instrumental interpretation. Second, we look into the categorial status of the adverbial in an environment where the reason interpretation is obligatory (section 7.4.2.3). It will be shown that in this environment, \textit{nande} loses the characteristics of a PP that it would have otherwise.

7.4.2.1 \textit{When the PP Analysis Is Forced: The Case of Uncontraction}

Let us consider a way of forcing a PP analysis of \textit{nande}. \textit{Nande} may appear in the uncontracted form \textit{nani-de}, which consists of the \textit{wh}-pronoun \textit{nani} ‘what’ and the postposition -\textit{de} ‘with’. In fact, the vowel /i/ of \textit{nani} drops in many environments without changing its syntax. \textit{Nani-ni} ‘what-DAT’ can become \textit{nani-ka}, \textit{nani-ka} ‘something’ can become \textit{nani-ka}, and so on. Let us assume naturally that the uncontracted form \textit{nani} is only allowed if it projects to an NP, although it does not necessarily mean that the contracted form \textit{nan} is not an NP. On this assumption, the uncontracted form \textit{nani-de} ‘with what’ is unambiguously assigned the PP-structure given in (24b). If this is the case, the NAG leads us to expect that \textit{nani-de} behaves in the same way as the island-insensitive use of \textit{nande} (i.e., \textit{nande}\textsuperscript{2}). The former, like the latter, should lack a reason interpretation, and it should be island-insensitive because it contains the \textit{wh}-nominal \textit{nani} ‘what’.

First, we use question-answer compatibility to show that uncontracted \textit{nani-de}, unlike contracted \textit{nande}, lacks a reason interpretation (see (17) and (18) for the behavior of \textit{nande} in this regard). Let us consider (25), which shows that when the question contains uncontracted \textit{nani-de}, the reason answer is not possible.

(25) Q. Mari-wa nani-de kaetta-no?  
Mari-\text{TOP} what-with left-Q  
‘With what did Mari leave?’

A1. #Byooki datta-kara desu.  
sick was-because COP.POLITE  
‘Because she was sick.’

A2. Basu-de desu.  
bus-with COP.POLITE  
‘By bus.’
Comparative Remarks on Wh-adverbials in Situ in Japanese and Chinese

The data indicate that uncontracted *nani-de* disallows a reason interpretation. Under the NAG, the PP *nani-de* and the island-insensitive use of *nande* should behave alike. Given that *nande* lacks the ability to function as a reason adverbial, the unavailability of the reason answer in (25) is something we expect to find under the NAG.

The second test we use to determine the meaning of the PP *nani-de* has to do with an agentivity restriction. (This test is modeled on the one used in the discussion of Chinese; see (11).) The claim that uncontracted *nani-de* cannot be interpreted as a reason adverbial can also be confirmed by looking at the incompatibility of nonagentive predicates with instrumental adverbials. Instrumental adverbials require agentivity, whereas reason adverbials do not, as evidenced by (26).

(26) Ken-wa {a. naze, b. donna riyuu-de, c. *donna syudan-de, d. *donna doogu-de} Mari-ga kowai/sukina-no?
Ken-TOP why what reason-with what means-with Mari-NOM fear/like-Q
a. ‘Why does Ken like/fear Mari?’
b. ‘For what reason does Ken like/fear Mari?’
c. ‘By what means does Ken like/fear Mari?’
d. ‘With what instrument does Ken like/fear Mari?’

Now consider (27). Uncontracted *nani-de*, in contrast to contracted *nande*, cannot co-occur with nonagentive predicates.

(27) Ken-wa {a. *nani-de, b. nande} Mari-ga kowai/sukina-no?
Ken-TOP what-with nande Mari-NOM fear/like-Q
‘Why does Ken like/fear Mari?’

This means that the PP *nani-de* lacks a reason interpretation.

The results of the tests making use of question-answer pairs and nonagentive predicates are summarized in (28).

(28) a. Uncontracted *nani-de* (PP): instrumental (island-insensitive) only.
b. Contracted *nande*: reason (island-sensitive) or instrumental (island-insensitive).

We have not yet confirmed the other prediction from the NAG about *nani-de*: the wh-adverbial should be insensitive to islands because it contains the wh-nominal *nani* ‘what’. The following data show that the prediction is correct:

(29) Ken-wa [[Mari-ga *nani-de* kaita] ronbun]-o hihansita-no?
Ken-TOP Mari-NOM what-with wrote paper-ACC criticized-Q
‘Ken criticized the paper [that Mari wrote with what]?’
(30) Ken-wa [Mari-ga *nani-de* eigo-o benkyoosita-kara] okotta-no?
Ken-TOP Mari-NOM what-with English-ACC studied-because got.angry-Q
‘Ken got angry [because Mari studied English with what]?’
The status of these sentences is all expected under the NAG.

Uncontracted nani-de exhibits the same behavior as nande with regard to interpretation and island-sensitivity. This means that nande preserves its PP-structure even under contraction, as can be depicted in (32).

(32) [PP [NP nan] [P de]]

In section 7.4.2.2, we offer a further argument for this conclusion.

7.4.2.2 When the PP Analysis Is Forced: The Case of Modification

In Japanese, pure adverbs do not allow prenominal modifiers to precede them, whereas PPs do. The contrast between the two types of adverbials is illustrated in (33). Unlike the reason adverb naze, the full-fledged PP 'for what reason' can host a prenominal modifier.

(33) [Daremo-ga yosoosinakatta] [a. naze, b. donna riyuu-de] Ken-wa everyone-NOM didn’t expect why what reason-with Ken-TOP kaetta-no? left-Q
   a. ‘Why, which nobody expected, did Ken leave?’
   b. ‘For what reason, which nobody expected, did Ken leave?’

This is not surprising if prenominal modifiers require nouns as their modifiees, and nouns are absent in the internal structure of the adverbs. If these are correct, we can use prenominal modification to pick out the PP option of nande.

One way to test the prediction is see how nande is interpreted in the presence of a prenominal modifier. If the NAG is correct, co-occurring with a prenominal modifier and being inside an island give the same effect: it is expected that modification makes it impossible for nande to receive a reason interpretation. In each of the examples in (34), a relative clause precedes a wh-adverbial. As indicated, (34a) can be paraphrased as the instrumental question (34b) but not as the reason question (34c).

(34) Zikken-tyuuni Ken-wa [daremo-ga odorokuyoona] experiment-during Ken-TOP everyone-NOM would.get.surprised
   (a. nande b. donna doogu-de, c. donna riyuu-de) nande what instrument-with what reason-with
   nyuuuzi-no ki-o hiita-no? infant-GEN attention-ACC drew-Q
   a. ‘Ken drew the infants’ attention with what, which would surprise everyone, during the experiment?’
   b. ‘Ken drew the infants’ attention with what instrument which would surprise everyone, during the experiment?’
Comparative Remarks on Wh-adverbials in Situ in Japanese and Chinese

193

c. ‘Ken drew the infants’ attention for what reason, which would surprise everyone, during the experiment?’

(34a) = (34b); ≠ (34c)

Thus, when a modifier is added, nande is disambiguated toward nande$^1$ (i.e., the island-insensitive version of nande).$^{11}$

The same point can be confirmed in one other way. Because modifier attachment renders nande an instrumental PP, the modified adverbial should not be co-occur with nonagentive predicates (see (26) and (27)). The following pair of examples shows that this is indeed the case.

(35) [Daremo-ga odorokuyoona] {a. *nande, b. donna riyuu-de}

everyone-NOM would.get.surprised nande what reason-with

Ken-wa Mari-ga sukina/kowai-no?

Ken-TOP Mari-NOM like/fear-Q

a. ‘Why, which would surprise everyone, does Ken like/fear Mari?’

b. ‘For what reason, which would surprise everyone, does Ken like/fear Mari?’

The lack of agentivity conflicts with the nature of instrumental adverbials, as mentioned earlier. Here again, instances of nande preceded by prenominal modifiers display a property of the island-insensitive version of nande.

7.4.2.3 When Reason Construal Is Forced: The Case of Emphatic Mata Attachment

In 7.4.2.1 and 7.4.2.2, we observed that when the PP analysis is forced on nande, the adverbial loses its ability to support a reason interpretation. The present subsection tests the validity of the other implication relation that follows from the NAG: if reason construal is forced on nande, the adverbial should resist modification. Island-sensitive adverbials must be AdvPs, which should lack nouns in their internal structures. The item we use is mata ‘again’ or ‘or’, which functions as an emphatic or exclamatory expression of sorts at least when it occurs with a reason wh-adverbial. Here are some examples.$^{12}$

(36) Ken-wa {a. naze mata, b. nande mata} kaetta-no?

Ken-TOP why again nande again left-Q

‘Why on earth did Ken leave?’

The generalization that adding mata to nande makes its instrumental interpretation disappear is evidenced by the following question-answer pairs:

(37) Q. Mari-wa nande mata kaetta-no?

Mari-TOP nande again left-Q

a. ‘Why on earth did Mari leave?’ (reason)

b. ‘By what (means of transportation) on earth did Mari leave?’ (instrumental)


sick was-because COP.POLITE

‘Because she was sick.’
Native-speaker intuition is quite clear. It is very hard to interpret the question as an instrumental question especially when nande mata has a compoundlike accentuation pattern: nande mata. For our current purposes, it suffices to note that attachment of the emphatic marker removes the instrumental interpretation of nande, even though it remains unclear to us why that is the case.

Having seen that mata enables us to single out nande, let us turn to the main issue: we expect that PP characteristics of nande fail to obtain with nande mata. This expectation is correct. Whereas (38) shows that nande mata resists prenominal modification, (39) shows that it is not allowed to occur inside an island.

(38) "Ziken-tyuuni Ken-wa [daremo-ga odorokuyoona] nande mata experiment-during Ken-top everyone-nom would.get.surprised nande again nyuuzi-no ki-o hiita-no? infant-gen attention-acc drew-Q 'Why on earth, which would surprise everyone, did Ken draw the infants’ attention during the experiment?'

(39) *[NP [he-nom nande mata totta] eiga]-ga itiban omosiroi-no? he-nom nande again filmed movie-nom most interesting-Q 'Movies that he filmed why on earth] is most interesting?'

Thus the data suggest that island-sensitive instances of nande (i.e., nande) lack a property of PPs, as the NAG claims.

7.4.3 EXPLAINING THE NOUN VS. ADVERB GENERALIZATION

The results obtained so far for Japanese are summarized in (40).

<table>
<thead>
<tr>
<th>Wh-adverbial</th>
<th>Interpretation</th>
<th>Island-Sensitivity</th>
<th>Syntactic Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>naze</td>
<td>Reason</td>
<td>Obeys islands</td>
<td>AdvP</td>
</tr>
<tr>
<td>nande</td>
<td>Reason</td>
<td>Obeys islands</td>
<td>AdvP</td>
</tr>
<tr>
<td>nante</td>
<td>Instrumental</td>
<td>Does not obey islands</td>
<td>PP</td>
</tr>
<tr>
<td>nani-de</td>
<td>Instrumental</td>
<td>Does not obey islands</td>
<td>PP</td>
</tr>
</tbody>
</table>

This section has shown that, whereas the adverb nature of the wh-adverbial nande is tied to reason construal, its nominal or PP nature is tied to instrumental construal, which the island-insensitive use of the adverbial has. It should be noted that the patterns found in Japanese are virtually parallel to the ones obtained in Chinese. Compare (40) with (41).
Comprehensive Remarks on Wh-adverbials in Situ in Japanese and Chinese

(41) Chinese

<table>
<thead>
<tr>
<th>Wh-adverbial</th>
<th>Interpretation</th>
<th>Island-Sensitivity</th>
<th>Syntactic Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>weishenme</td>
<td>Reason</td>
<td>Obeys islands</td>
<td>AdvP</td>
</tr>
<tr>
<td>wei(-le) shenme</td>
<td>Purpose</td>
<td>Does not obey islands</td>
<td>PP</td>
</tr>
</tbody>
</table>

In both languages, three kinds of grammatical property—syntactic category, interpretation, and island-sensitivity—go hand in hand in the same manner. As stated at the outset of this section, island-sensitive nande\(^8\) and island-insensitive nande\(^1\) look no different in terms of morphophonology. This finding apparently contrasts with the case of Chinese, where there is overt evidence that island-sensitive weishenme ‘why’ and island-insensitive wei-le shenme or WEI shenme ‘for what purpose’ are categorically different. However, we now know that nande\(^8\) and nande\(^1\) are morphosyntactically distinct items, just as weishenme and wei(-le) shenme are. This hidden character of nande emerges when the data are looked at from the perspective of the NAG.

This result strongly suggests that Chinese and Japanese must share the same mechanism of licensing wh-phrases occurring inside islands, although the system for one language may not be completely identical with the one for the other.

As alluded to in section 7.1, quite a few data points that have been discussed in the literature show that Chinese and Japanese differ with regard to wh-licensing. Although we cannot afford to provide a comprehensive literature review here, such data points include those involving the wh-island effect, wh/QP interactions, certain types of multiple questions, and so on.\(^15\) A proposal developed in Tsai (1994a, 1999) is intended to capture some of those cross-linguistic differences as well as similarities of the sort discussed in this chapter. According to Tsai’s proposal, there are two ways of establishing operator-variable association in wh-constructions: one is by using unselective binding, and the other by using movement (or, more generally, feature checking).\(^16\) In a proposal of this sort, the island-sensitivity of wh-adverbs such as weishenme or nande\(^8\) follows from the assumption that only wh-nominals are subject to unselective binding. In order for wh-adverbs to participate in long-distance operator-variable association, they need to move and thereby end up obeying locality constraints. Example (42) depicts how wh-nominals escape from islands in Chinese, where a question operator is introduced by external merge into the operator position in CP.

(42) Chinese

\[
[CP \, OP_x \, C+Q \ldots \, [DP \, D \, N \, [\text{relative clause} \ldots \, \text{wh} \, (x) \ldots ]] \ldots ]
\]

\text{Unselective binding}

Japanese uses a slightly different strategy in this regard, Tsai proposes. Building in part on Watanabe (1992a, 1992b), he proposes that Japanese is no different from Chinese in that operators may be merged outside an island and unselectively bind wh-in-situ, but they are not merged high enough to get licensed without movement. As schematized in (43), the claim is that in Japanese, a question operator is merged
at the edge of a complex DP (or the edge of an adjunct PP in the case of adjunct island) and unselectively binds a wh-nominal inside the island, and then the operator undergoes short movement from there to the interrogative CP. Under this hybrid analysis of wh-in-situ in Japanese, the wh-nominal occurring within a relative clause in (43) escapes from an island violation by making the required movement not take place across the relative clause.

(43) **Japanese**  

\[
\text{Movement} \\
[\text{CP} \ C \ Q \ ... \ [\text{DP} \ \text{Op} \ x \ D \ [\text{NP} \ N \ [\text{relative clause} ... \ \text{wh} (x) \ ... ]]] ... ] \\
\text{Unselective binding}
\]

Thus we accept an unselective binding approach of the Tsai type as an explanation of the NAG. Needless to say, more work is needed to determine whether the movement versus nonmovement dichotomy mentioned here successfully accounts for all the differences between Chinese and Japanese mentioned above.

### 7.5 Notes on the Form-Meaning Relationship in *Wh*-adverbials

This section examines two questions that we have not yet touched on. Section 7.5.1 asks if there is any regular relationship between syntactic category and interpretation. Section 7.5.2 examines the question of how the syntactic position of a *wh*-adverbial is related to the meaning, island-insensitivity, and category of the *wh*-adverbial. Although we leave these questions open, we show that Chinese and Japanese *wh*-adverbials behave alike in the relevant data points.

#### 7.5.1 *WH*-ADVERBIALS PAIRED

Let us look again at the results we have got so far.

(44) **Chinese and Japanese**

<table>
<thead>
<tr>
<th>Language</th>
<th>Wh-adverbial</th>
<th>Interpretation</th>
<th>Island-Sensitivity</th>
<th>Syntactic Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese</td>
<td>weishenme</td>
<td>Reason</td>
<td>Obeys islands</td>
<td>AdvP</td>
</tr>
<tr>
<td></td>
<td>wei(-le) shenme</td>
<td>Purpose</td>
<td>Does not obey islands</td>
<td>PP</td>
</tr>
<tr>
<td>Japanese</td>
<td>naze</td>
<td>Reason</td>
<td>Obeys islands</td>
<td>AdvP</td>
</tr>
<tr>
<td></td>
<td>nande²</td>
<td>Reason</td>
<td>Obeys islands</td>
<td>AdvP</td>
</tr>
<tr>
<td></td>
<td>nande¹</td>
<td>Instrumental</td>
<td>Does not obey islands</td>
<td>PP</td>
</tr>
<tr>
<td></td>
<td>nani-de</td>
<td>Instrumental</td>
<td>Does not obey islands</td>
<td>PP</td>
</tr>
</tbody>
</table>
Recall that we started our discussion of these Chinese and Japanese wh-adverbials by looking at the relationship between their island-(in)sensitivity and interpretation. Viewing the facts in terms of adverb/PP pairs—wei-shenme and wei(-le) shenme are paired on the one hand, and nande and nande'/nani-de are paired on the other—the generalization holds that reason wh-phrases are realized as adverbs and their purpose and instrumental counterparts are realized as PPs. It should be noted that the NAG does not tell a story about these correlations between meaning and syntactic category.

The generalization about the syntax-semantics connection in question can be made a little bit more general. This can be done by recognizing a property that both purpose and instrumental wh-phrases have in common.\(^{17}\)

\[(45)\]
\begin{enumerate}
\item The adverb member of each pair has a reason interpretation under eventual causation; and
\item The PP member of each pair has an instrument or purpose interpretation that requires agentivity.
\end{enumerate}

A comment on (45b) is in order. It is true that the PP members of the pairs in Japanese and Chinese have different meanings, simply owing to the fact that wei ‘for’ and de ‘with’ have different lexical meanings. However, the two kinds of construal both require agentivity (see Tsai 2008; Stepanov and Tsai 2008, and the discussion of (13) in section 7.2). This agentivity requirement can be illustrated by examples like those seen in (11), repeated as (46), and their Japanese counterparts, given in (47).

\[(46)\]
Akiu [a. weishenme, b. *wei(-le) shenme] xihuan hua?
\begin{enumerate}
\item 'Why does Akiu like flowers?'
\item '*For what purpose does Akiu like flowers?'
\end{enumerate}

\[(47)\]
Ken-wa [a. naze, b. nande mata, c. *nani-de] hana-ga sukina-no?
\begin{enumerate}
\item 'Why does Akiu like flowers?'
\item '*Why on earth does Akiu like flowers?'
\item '*With what does Akiu like flowers?'
\end{enumerate}

Both Chinese wei(-le) shenme and Japanese nani-de cannot occur with nonagentive predicates. Also noteworthy is that (46) and (47) show that reason adverbials are free from the agentivity requirement in question. Therefore, we can say that Chinese and Japanese are subject to the generalization in (45). Providing a definitive answer to the question of why (45) holds is way beyond the scope of the present work. Rather we would like to spend the reminder of this section investigating a different but somewhat related issue of syntax-semantics connection.

### 7.5.2 CARTOGRAPHIC EFFECTS

As we just have seen in (46) and (47), wei(-le) shenme ‘for what’ in Chinese and nande'/nani-de ‘with what’ in Japanese both receive an interpretation involving
agentivity, which, in structural terms, suggests that they must be scoped over by an agentive subject. It is plausible then to assume that these PPs must be licensed somehow as adjuncts associated with agentive subjects or agentive verb phrases, along the lines of Tsai (2008). Note also that (46) and (47) suggest there is no reason to believe that those reason wh-phrases have to occur close to agentive subjects or agentive verbs. In fact, since Rizzi (1990), the proposal has been advanced to explain the peculiarities of why-type adverbs that they are generated very high in clause structure (Rizzi 1999; Ko 2005; Stepanov and Tsai 2008; Tsai 2008; see also Cinque 1999; Rizzi 1997). One way to understand this state of affairs concerning reason wh-phrase is, as is often argued, to propose that why-type wh-adverbs take as their argument a TP/IP or a higher functional projection in the CP layer (see Stepanov and Tsai 2008:sect. 7 for prominent references for proposals of this variety). The gist of the proposal can roughly be schematized as in (48).

(48) \[
\text{CP} \ldots \text{reason why} \left[ \text{CP/IP} \ldots \right] \text{purpose/instrumental wh} \ldots
\]

Looking closely at data concerning the relative order of Chinese why-adverbials, Tsai (2008) shows, among other things, that reason why-adverbials are located higher than purpose and instrumental why-adverbials in Chinese. We already saw in (14) and (15) (repeated here) that whereas purpose why can occur below a modal, reason why cannot ([49]). However, once the reason why is placed above the modal, the sentence becomes good ([50]).

(49) a. Akiu hui wei(-le) shenme likai?
    Akiu will for-perf what leave
    ‘For what purpose will Akiu leave?’

b. *Akiu hui weishenme likai?
    Akiu will why leave
    ‘Why will Akiu leave?’

(50) Akiu weishenme hui likai?
    Akiu why will leave
    ‘Why will Akiu leave?’

Thus the future modal hui helps to detect the relative order of weishenme and wei(-le) shenme.

Likewise, adverbs of quantification such as bixu ‘necessarily’ and youshihou ‘sometimes’ give rise to a similar effect.

(51) Akiu bixu/youshihou \{a. *weishenme, b. WEI shenme\} chi Zhou?
    Akiu necessarily/sometimes why for what eat rice.congee

a. *Why does Akiu necessarily/sometimes eat congee?’

b. For what purpose does Akiu necessarily/sometimes eat congee?’

When weishenme or wei(-le) shenme occurs below an adverb of quantification, only the latter wh-adverbial survives. A grammatical reason question obtains when weishenme precedes an adverb of quantification, as shown by (52).
(52) Akiu weishenme bixu/youshihou chi zhou?
    Akiu why necessarily/sometimes eat rice.congee
    ‘Why does Akiu necessarily/sometimes eat congee?’

These data involving 'necessarily/sometimes', like those involving the modal hui, show that weishenme is attached higher than wei(-le) shenme is.\(^{18}\) If wei(-le) shenme adjoins or is dominated by (agentive) \(vP\), then those adverbs of quantification must be located outside such \(vP\).

Now we would like to point out that a parallel argument can be constructed with the pair of \textit{nande} \('why'sh and \textit{nande} \('with what'sh in Japanese. Japanese, being a strict head-final language, is not a very good place to determine the relative order of an adverbial and a clausal head like tense or modal. Also, the relative height of one adverbial and another might not be easy to detect, owing to the fact that the language has massive scrambling of arguments and adjuncts. Nevertheless, certain adverbs seem to be free from this complication raised by scrambling. The same type of adverb of quantification as those we saw in Chinese (see (51) and (52)) gives rise to effects. Observe the contrast between (53a) and (53b). (To force the reason interpretation of \textit{nande}, the emphatic \textit{mata} is attached to it.)

(53) Hiroshi-wa kanarazu/tokidoki \[\begin{array}{ll}
| a. & *nande mata, b. nani-de, \\
| Hiroshi-TOP necessarily/sometimes & nande again what-with \\
| c. & *naze okayu-o taberu-no? \\
| & why rice.congee-ACC eat-Q \\
| a. & \*Why_\textit{nande} on earth does Hiroshi necessarily/sometimes eat rice congee?’ \\
| b. & With what does Hiroshi necessarily/sometimes eat rice congee?’ \\
| c. & \*Why_\textit{naze} does Hiroshi necessarily/sometimes eat rice congee?’
\end{array}\]

Whereas the instrumental \textit{wh}-phrase may occur below 'necessarily/sometimes', the reason \textit{wh}-phrase cannot. Furthermore, observe the grammaticality of the examples in (54a,b). This time, reason \textit{wh} precedes the adverbs of quantification.

(54) Hiroshi-wa \[\begin{array}{ll}
| a. nande mata, b. naze & kanarazu/tokidoki \\
| Hiroshi-TOP & nande again why necessarily/sometimes \\
| okayu-o & taberu-no? \\
| rice.congee-ACC & eat-Q \\
| a. & \*Why_\textit{nande} on earth does Hiroshi necessarily/sometimes eat rice congee?’ \\
| b. & \*Why_\textit{naze} does Hiroshi necessarily/sometimes eat rice congee?’
\end{array}\]

This confirms that the ungrammaticality of (53a,c) is due to the relative order of the reason \textit{wh}-phrase with respect to the adverb of quantification.

Thus exactly the same state of affairs as what we saw in the Chinese data given in (51) and (52) obtains in Japanese. Although we recognize that there is a need to collecting more Japanese data, we take the available evidence to suggest that reason \textit{wh}-adverbs, unlike \textit{wh}-adverbials requiring agentivity, occur in a higher functional field in Japanese as well as in Chinese.\(^{19}\)
Recall that we asked why (45) holds at the end of section 7.5.1—why it is the case that when adverb/PP pairs of wh-adverbials are found, the adverb members are associated with reason/causal construal and the PP members with agent-related construal. The discussion above may suggest that the adverb-PP distinction may be related to how high a wh-adverbial is attached in clause structure (see Tsai 2008; Stepanov and Tsai 2008, and references cited therein for relevant discussion). Notice, though, that the correlation between category and structural position of adverbials seems to hold only for cases in which adverb/PP pairs of wh-adverbials are found. That is, when such pairing does not apply, it is possible for a PP to be associated with a high position. Consider reason PPs containing lexical nouns such as ‘for what reason’. The Chinese pair of examples in (55) and its Japanese counterpart in (56) show that PPs of this type are required to hang higher with respect to adverbs of quantification both in Chinese and Japanese.

(55) a. Akiu wei-le shenme yuanyin bixu chi zhou?
    Akiu for-PERF what reason necessarily eat rice.congee
    ‘For what reason does Akiu necessarily eat rice congee?’
b. ??Akiu bixu wei-le shenme yuanyin chi zhou?
    Akiu necessarily for-PERF what reason eat rice.congee

(56) a. Hiroshi-wa donna riyuu/wake-de kanarazu okayu-o
    Hiroshi-TOP what reason/reason-with necessarily rice.congee-ACC
    taberu-no?
    eat-Q
    ‘For what reason does Hiroshi necessarily eat rice congee?’
b. ??Hiroshi-wa kanarazu donna riyuu/wake-de okayu-o
    Hiroshi-TOP necessarily what reason/reason-with rice.congee-ACC
    taberu-no?
    eat-Q

Therefore reason PPs containing lexical nouns, unlike PP adverbials requiring agentivity, must be located external to vP at least.

Finally, it is important to note that these data concerning cartographic effects are perfectly consistent with the NAG. Recall that, as we saw at the outset of the chapter (see (4) and (8)), Chinese wei-le shenme yuanyin and Japanese donna riyuu-de are uniformly island-insensitive. This may suggest, at the same time, that the island-sensitivity of a wh-adverbial might not be predictable solely from the height of the attachment site of the adverbial. For instance, the hypothesis that wh-adverbials hanging above vP obey island constraints does not account for the island-insensitivity of these full-fledged PPs.

7.6 Conclusion

In summary, this chapter has examined pairs of wh-adverbials in Chinese and Japanese, arguing that the ‘Noun versus Adverb’ Generalization makes hitherto unnoticed predictions and that those predictions are empirically correct. Our detailed
Comparative Remarks on Wh-adverbials in Situ in Japanese and Chinese

A comparison of Chinese and Japanese has focused on the pair of the Chinese wh-phrases, weishen ‘why’ and weil(-le) shenme ‘for what’, and the pair of the Japanese wh-phrases, nande ‘why’ and nande/nani-de ‘with what’. It has been shown that, among those wh-adverbials, island-sensitive ones are associated with morphosyntactic properties of adverbs, whereas island-insensitive ones are associated with morphosyntactic properties of PPs (or NPs). Furthermore, we have addressed a question regarding the systematic mapping relation between the meaning of a wh-adverbial and its syntactic category: the PP member of an adverb/PP pair receives an instrument or purpose interpretation requiring agentivity, and the adverb member of the pair receives a reason interpretation under eventual causation. Although the question of why it is so has to be left unanswered here, we have suggested that the adverb-PP distinction in question is related at a deeper level to where these wh-adverbials sit in clause structure by showing that exactly the same cartographic effect can be detected in Japanese and Chinese. Given that the NAG regarding island-sensitivity can be accounted for by an unselective binding approach to wh-in-situ licensing, the next task is to advance our understanding of the connections among category distinction, meaning, and cartographic effects.

Notes

1. A terminological note is in order. Following Ernst (2002), we use “adverbial” to refer to phrases modifying predicates or sentences and use “adverb” to refer to elements of the syntactic category Adv. Under this terminology, in an appropriate way and appropriately are both adverbials, but only appropriately is an adverb.

2. The Noun versus Adverb Generalization (NAG) may be hard to differentiate from other alternative generalizations proposed for this type of contrast: a referential versus nonreferential distinction proposed by Cinque (1990) and Rizzi (1990) or an argument versus adjunct distinction developed in Lasnik and Saito (1984; cf. Huang 1982); see Murasugi and Saito (1992) for an attempt to tease apart the NAG and the latter generalizations.

3. The relevant effects can be captured without assuming null Ps for when and where; see Larson (1985), where it is proposed that these adverbials are case-marked.

4. Let us hasten to add that weishenme and weil(-le) shenme display the same contrast for so-called weak islands as well. The pair shown here illustrates their difference with respect to a negative island. Weishenme cannot occur inside the scope of negation, as in (ia), whereas weil(-le) shenme can, as in (ib).

\[(i)\]
\[a. \text{Ta bu renwei [Akiu weishenme hui cizhi] ne?} \]
\[\text{he not think Akiu why will quit Q} \]
\[\text{‘What is the reason x such that he doesn’t think Akiu will quit for x?’} \]
\[b. \text{Ta bu renwei [Akiu hui weil(-le) shenme cizhi] ne?} \]
\[\text{he not think Akiu will for-PERF what quit Q} \]
\[\text{‘What is the purpose x such that he doesn’t think Akiu will quit for x?’} \]

For negative island effects in Japanese, see (21).

5. Likewise, naze can be answered with ‘in order to’ answers in Japanese, and it obeys an island in a context where the wh-phrase ‘for what purpose’ can occur (Fujii and Takita 2007). See Stepanov and Tsai (2008) for relevant data from other languages. They conclude that English lacks purpose why, despite the fact that English why-questions allow purpose answers.
6. The internal structure of *nande* will be investigated in more detail in section 7.4.2.

7. The reliability of this question-answer pair test can be confirmed by looking at data involving the well-studied *wh*-adverbial *naze* ‘why’ and an instrumental PP adverbial containing a lexical noun. The following data show that a question using *naze* can be answered felicitously with a ‘because’ clause but not with an instrumental PP and that the question with ‘what means’ can be answered felicitously with an instrumental PP but not with a ‘because’ clause.

(i) Q. Mari-wa *naze* kaetta-no?
   Mari-TOP why left-Q
   ‘Why did Mari leave?’
       sick was-because COP.POLITE
       ‘Because she was sick.’
   A2. #Basu-de desu.
       bus-with COP.POLITE
       ‘By bus.’

(ii) Q. Mari-wa *donna syudan-de* kaetta-no?
     Mari-what means-with left-Q
     ‘By what means (of transportation) did Mari leave?’
     A1. #Byooki datta-kara desu.
         sick was-because COP.POLITE
         ‘Because she was sick.’
     A2. Basu-de desu.
         bus-with COP.POLITE
         ‘By bus.’

8. There are other places where reason *nande* behaves in the same way as *naze* ‘why’. For instance, an antisuperiority effect (Saito 1982, 1994; Watanabe 1992b) shows up with reason *nande* but not with instrumental *nande*.

(i) Hiroshi-wa \{a. ‘naze, b. *nande*, c. *nande*\} nani-o kowasita-no?
    Hiroshi-what means-ACC broke-what
    a. ‘Why did Hiroshi break what?’
    b. ‘Why did Hiroshi break what?’
    c. ‘With what did Hiroshi break what?’

    Hiroshi-what-ACC why nande nande broke-what
    a. ‘Why did Hiroshi break what?’
    b. ‘Why did Hiroshi break what?’
    c. ‘With what did Hiroshi break what?’

In (i), *nande* does not allow a reason interpretation, whereas in (ii) it does. See Stepanov and Tsai (2008) and Takita and Yang, Chapter 8 of this volume, for recent relevant discussion of multiple questions in Japanese and Chinese.

9. How easily a modifier can precede *donna riyuu-de* ‘for what reason’ seems to be affected by the heaviness of the modifier, at least for some speakers. When the modifier is light, it occurs more easily after ‘what’ than before it. Example (ia) is slightly more degraded than (ib). Whatever the nature of the contrast between (ia) and (ib) turns out to be, the complete ungrammaticality of the counterpart with *naze* ‘why’ suggests that the effect arising from the word-order difference in question does not affect the argument made in the text.

(i) \{a. ‘Okasina *donna, b. Donna okasina* riyuu-de Ken-wa kaetta-no? strange what means-ACC broke-what ken-what left-Q
   ‘For what strange reason did Ken leave?’

In (i), *nande* does not allow a reason interpretation, whereas in (ii) it does. See Stepanov and Tsai (2008) and Takita and Yang, Chapter 8 of this volume, for recent relevant discussion of multiple questions in Japanese and Chinese.
Comparative Remarks on Wh-adverbials in Situ in Japanese and Chinese

(ii) *Okasina naze Ken-wa kaetta-no?
    strange why Ken-TOP left-Q

10. The same holds for English. Larson (1985) observes that when and where can appear with a modifying relative clause.
11. It should be noted that the present diagnostic for nominality of adverbials cannot be used in Chinese, owing to an independent factor. Let us first note that shenme ‘what’ of the purpose PP wei(-le) shenme, unlike nani ‘what’ in Japanese, does not host a modifier, as illustrated in (i).

(i) *Akiu wei-le [qiguai de] shenme likai?
    Akiu for-PERF strange de what leave
    ‘For what strange purpose did Akiu leave?’

The ungrammaticality of (i), however, does not tell us much about the category or internal structure of the purpose wh-adverbial, just because wh-pronouns in general do not host modifiers in Chinese. Observe the ungrammaticality of (iia) and the grammaticality of (iib).

(The latter sentence indicates that a modifier is allowed when an NP restrictor such as dongxi ‘thing’ is added.)

(ii) a. *Akiu mai-le [qiguai de] shenme?
    Akiu buy-PERF strange de what
    ‘What, which is strange, did Akiu buy?’
b. Akiu mai-le na-ge [qiguai de] dongxi?
    Akiu buy-PERF which-CL [strange de] thing?
    ‘Which strange thing did Akiu buy?’

We leave for future research the question of why Chinese and Japanese differ in this way with regard to the distribution of modifiers.
12. This property of mata was pointed out to us by Hideki Kishimoto (personal communication).
13. As opposed to the regular accentuation pattern, ‘na nde ma ta’. In this pattern, mata seems to only mean ‘again’.
14. It is appropriate to ask whether nande mata can show up inside CP complements.

(i) (Kimi-wa) [kare-ga a. ?(?) nande mata b. nande]
    you-TOP he-NOM nande again nande
    eiga-o totta-to omotteiru-no?
    movie-ACC filmed-ACC think-Q
    ‘You think [he had filmed a movie {a. why on earth, b. why}]?’

For reasons that we do not understand very well, (ia) does not sound as good as its counterpart without mata (ib). The fact seems to be that, although the judgment may vary among speakers, nande mata occurs most naturally in the main clause of direct questions. Nevertheless, the contrast in acceptability between (ia) and (39) seems to be clear enough to conclude nande mata is island-sensitive. We will leave untouched the issue concerning the subtle difference in acceptability between (ia) and (ib).
15. See Watanabe (2001) for review of the differences in the wh-island effect and wh–QP interaction and for prominent relevant references from the research done in the 1980s through 1990s. As for the Chinese and Japanese data pertaining to differences in multiple questions, see Huang (1982); Tsai (1994a, 1999); Saito (1988, 2004); Nishigauchi (1990); and Watanabe (1992b). See also Takita and Yang, Chapter 8 of this volume, and references cited therein for recent proposals for the analysis of multiple questions involving why-type wh-phrases; see note 8 of this chapter as well.
16. See also Pesetsky (1987); Aoun and Li (1993a, 1993b); Cole and Hermon (1998); Reinhart (1998); Hagstrom (1998); and Bruening (2007).
17. Tsai (2008) reports that basically the same picture holds for the causal versus instrumental distinction that Chinese how exhibits. This makes it less likely that (45) is an idiosyncratic property of certain lexical items. For the behavior of Japanese how, see Nishigauchi (1999:99ff.); Ura (1993); Fujii and Takita (2007); and Tsai (2008).

18. The version of (52) with youshihou ‘sometimes’ is compatible with a purpose answer, presumably owing to the property of reason readings alluded to in the discussion of (13) and (14). If so, the availability of the purpose reading does not affect our argument much.

19. Thus the Japanese data presented above can be taken to constitute another argument for Ko’s conclusion (2005) that Japanese why-type adverbs are high sentential modifiers.

References


Comparative Remarks on Wh-adverbials in Situ in Japanese and Chinese

Rizzi, Luigi. 1999. On the position of "Int(errogative)" in the left periphery of the clause. Ms., Università di Siena, Italy.
Saito, Mamoru. 1988. Crossing and WH-Q binding. Talk presented at the Ohio State University, Columbus.