

# A Comparative Study on Japanese and Chinese NMCs

## —A Semantic and Discourse Approach—

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### Abstract

Japanese and Chinese differ typologically in word order (Japanese is SOV; Chinese is SVO), yet Japanese and Chinese Noun Modifying Constructions (NMCs hereafter) share a number of characteristics. Many studies (Aoun and Li 1993, Del Gobbo 2007, etc.) have proposed that although Japanese and Chinese NMCs share the basic word order, they differ significantly in terms of syntax. We question the validity of these conclusions. In contrast to the syntactic observation of previous studies, the corpus data (Leeds Chinese internet Corpus) we examined indicate that Japanese and Chinese NMCs share similar pragmatic principles and acceptability evidencing a certain similarity.

**Keywords:** NMCs, Semantics, Discourse

### 1 Introduction

This is a comparative study of Japanese and Chinese Noun Modifying Constructions (NMCs). Japanese and Chinese are considered two typologically different languages: Japanese has the canonical word order as SOV, while Chinese is an SVO language. However, it has been widely agreed that Japanese and Chinese NMCs share a number of characteristics. Semantically, “the range of interpretations that may be assigned to NMCs is similar in the two languages.” (Wang, Horie, Pardeshi 2009) Syntactically, first, both languages have the modifying clause preceding the head NP without any overt or compulsory marker indicating the grammatical relation between the two<sup>1</sup>; second, neither of the languages has relative pronouns.

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Abbreviations: ACC accusative, CAUS causative, CLF classifier, DAT dative, DO direct object, IO indirect object, NEG negation, NMC noun modifying construction, NOM nominative, OO oblique object, PST past tense, PRF perfective, POSS possessor, PROG progressive, PTCL particle, S subject, 1SG first person singular

However, many studies have proposed that although Japanese and Chinese share the basic syntactic order, there are some significant differences in terms of syntax that make the two languages different from one another (Aoun and Li 1993, Del Gobbo 2007, etc.). Fukui and Takano (1998) propose, from the generative point of view, that Japanese clauses are licensed semantically, through an “aboutness” relationship.

Matsumoto (1997) points out that Japanese NMCs largely rely upon semantic and pragmatic factors, such as the semantics of the head noun, contexts and the knowledge of the world, which goes beyond conventionally defined relative clauses. By adopting the approach of frame semantics developed by Fillmore (1977, 1982), Matsumoto argues that the structural characteristics such as lacking explicit marking that indicate the grammatical relationship between the head noun and the modifying clause require the involvement of semantic information and pragmatic knowledge. She further suggests that this semantic and pragmatic approach also provides a theoretical basis for other Asian languages that share similarities with Japanese, such as Chinese and Korean. However, various generative linguists (Ning 1993, Li 1997, Del Gobbo 1999, Aoun and Li 2003, Del Gobbo 2007, Huang, Li and Li 2009, etc) maintain that, as opposed to Japanese, Chinese NMCs are syntactically-licensed, not licensed by a semantic mechanism.

This paper aims to comprehensively analyze the so called syntactic differences between Japanese and Chinese NMCs, arguing that Chinese and Japanese not only share the semantic-pragmatic construal (Matsumoto 1997), but they also share the same basic syntactic form in discourse. The structural differences between Japanese and Chinese NMCs can be significantly reduced in certain semantic-pragmatic contexts, and can be explained by the semantic-pragmatic and discourse properties. Section 2 outlines the basic structure of NMCs in Japanese and Chinese, offering examples to illustrate the most conspicuous structural differences between Japanese and Chinese NMCs. Section 3 gives detailed explanations in terms of semantic-pragmatic and discourse properties to account for the major structural differences between Japanese and Chinese NMCs that have been brought up in section 2. Section 4 is the conclusion.

## 2 Basic Structure of NMCs in Japanese and Chinese

Matsumoto (1997) argues Japanese NMCs present a wider range of semantic relationships between the two constituents than those in what are conventionally called relative clause and noun complement clause constructions. In Matsumoto (1997), according to the relationship between the head noun and the subordinate clause, Japanese NMCs are classified into three major categories: the Clause Host (CH) type, which is equivalent to the conventionally defined relative clause; the Noun Host (NH) type, which is equivalent to a noun complement clause in English; and the Clause and Noun Host (CNH) type, which is a special structure largely found in Asian languages that lacks an equivalent in English. They are exemplified in the following sentences:

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<sup>1</sup> In Chinese, *de* is usually considered a general linking marker used in different types of NMCs, however it is optional when the head NP includes a demonstrative and classifier.

- (1) a. CH type  
 [[tabeta] ringo]  
 eat. PST apple  
 'the apple (which) (X) ate'
- b. NH type  
 [[tabeta] hanasi]  
 eat. PST story  
 'the story (that) (X) ate'
- c. CNH type  
 [[tabeta] nokori]  
 eat. PST remainder  
 'the remainder (from) (X's eating)'<sup>2</sup> (Matsumoto (1997))

By showing the multi-structural NMCs in Japanese, Matsumoto argues that the relative clause, which is defined mainly based on syntactic features of western languages, is in fact only a subset of NMCs. The features such as having no explicit indication of the grammatical relationship between the head noun and the subordinate clause, represented by NH-type and CNH-type NMCs, are "Japanese style" and also shared by other Asian languages.

Chinese NMCs share similarities in structure to those of Japanese in that they have neither explicit elements such as relative pronouns, nor verb forms encoding person, number or gender. Further, the ellipsis of arguments of the subordinate clause predicate occurs in both languages. Moreover, Chinese NMCs also present all these three basic structures seen in Japanese, as illustrated in (2), where Chinese has exact counterparts of (1) in Japanese.

- (2) a. CH-type  
 [[chī de] píngguǒ]  
 eat DE apple  
 'the apple (which) (X) ate.'
- b. NH-type  
 [[chī de] gùshi]  
 eat DE story  
 'the story (that) (X) ate'
- c. CNH-type  
 [[chī de] shèngfàn]  
 eat DE remainder

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<sup>2</sup> For the purpose of this paper, all the examples of Japanese and Chinese NMCs include relatively simple modifying clause (a clause with a single verb, or serial verbs). In another paper, we argue that due to the typological constraints, Japanese NMCs with complex modifying clauses are hardly found in their equivalent counterparts in Chinese. The complexity of the modifying clause thus affects the distribution difference of NMCs between Japanese and Chinese. This paper, however, deals with the internal structural difference of NMCs; therefore the NMCs with complex modifying clauses are excluded.

‘the remainder (from) (X’s eating)’ (direct translation of (1) by the authors)

As shown in (2), Chinese has the equivalents of all these three basic types of NMCs found in Japanese. The examples in (1) and (2) show that Chinese and Japanese NMCs not only share syntactic structure but also the semantic-pragmatic relationships between the modifying clause and the head noun. Therefore we use Matsumoto (1997)’s semantic frame as the main framework to examine both Japanese and Chinese NMCs in this paper.

## 2.1 CH-type (Clause Host) NMCs

### 2.1.1 Relative clause construction

Many of the constructions that Matsumoto (1997) analyzes as CH-type are conventionally classified as relative clauses. The function of this type of NMC is to restrict the domain of reference of the head noun or to add information to the domain of the head noun rather than restricting it. According to the Accessibility Hierarchy (Keenan and Comrie 1977), typologically, it is easier to relativize on subjects (S) than on direct objects (DO), than in turn on indirect objects (IO), than in turn on oblique objects (OO), than in turn on possessors (POSS), as shown in (3):

(3) S>DO>IO>OO>POSS

Matsumoto (1997) argues that, in the case of Japanese NMCs, to decide which element is relativized should not only be based on syntactic relationship between the head noun and subordinate clause but should also take semantic and pragmatic information into consideration. Different context requires different priority to relativize these elements; especially, in some cases of Japanese NMCs, the same construction can be interpreted as indicating different relationships depending on the contextual information. Therefore, the accessibility of Japanese NMCs may not be subject to these syntactically defined constraints, as exemplified in (4):

(4) [[hon o katta] gakusei]  
book ACC buy.PST student  
a. ‘the student (who) bought a book’  
b. ‘the student (from whom) () bought a book’  
c. ‘the student (for whom) () bought a book’ (Matsumoto 1997)

As illustrated in (4), the preferred interpretation should be based on the actual context, rather than the Accessibility Hierarchy (Keenan and Comrie 1977), since in certain context the object of the oblique may be put on the higher priority to process than the subject or other elements higher than the object of the oblique in the Accessibility Hierarchy.

Compared to Japanese, Chinese is claimed to have more syntactic constraints in terms of accessibility of an NMC. In Chinese, it is usually quite difficult to interpret one

single construction with multiple relationships. The equivalent structure of (4) in Chinese is (5a), and it can usually only have one interpretation, which is equivalent to Japanese (4a).

- (5) a. [[mǎi shū de] xuéshēng ]  
 buy book DE student  
 ‘the student (who) bought a book’

It has been argued that Chinese is more subject to the Accessibility Hierarchy, comparing to Japanese in the sense that a resumptive pronoun must occur to be coreferential with the object of the oblique that is relativized. Therefore the Chinese equivalents of Japanese (4)b and (4)c are:

- b. [[cóng tā (nà’er) mǎi shū de] xuéshēng]  
 from 3SG there buy book DE student  
 ‘the student (from whom) () bought a book’
- c. [[gěi tā mǎi shū de] xuéshēng ]  
 for 3SG buy book DE student  
 ‘the student (for whom) () bought a book’  
 (direct translation of (4) by the authors)

The resumptive pronoun has been argued to be evidence showing that Chinese NMCs are syntactically-licensed and has been identified as one of the major differences between Japanese and Chinese NMCs. However, it is clear that resumptive pronoun NMCs in Chinese are very rarely found both in spoken language and written texts. We argue that in certain semantic-pragmatic contexts, the resumptive pronoun NMCs are significantly reduced, and therefore, although resumptive pronouns exist, they are marginal constructions, and they are not frequent enough to serve as major evidence to claim that the Chinese NMC is not semantically-licensed. In 3.1, we give a detailed account of how semantic-pragmatic factors help reduce occurrences of resumptive pronoun NMCs, and consequently we argue that similarly to Japanese, semantic and pragmatic information influences the relativization of Chinese NMCs.

### 2.1.2 Other possible relationships between Head Noun and Clause

Matsumoto (1997) suggests that there are a number of CH-type NMCs in Japanese that are usually excluded from syntactic or structural analyses of relative clauses. She classified these CH-type NMCs into 6 subtypes: (a) condition and consequence; (b) purpose and requisite; (c) simultaneous actions or events; (d) actions or events in simple temporal sequence; (e) topic and comment; and (f) part and whole. She further points out that relationship (a) is the most commonly observed, (b) and (f) are also commonly observed, whereas (c), (d) and (e) occur “only in limited contexts” because “they are problematic for construal” (Matsumoto 1997:124, 126). Therefore, for this study, we look at subgroup (a), (b) and (f) in both Japanese and Chinese.

The observation of the three CH-subtypes of NMCs in both Japanese and Chinese shows that it is easy to find the Chinese NMC counterparts for subtype (b) purpose-requisite and (f) part-whole. For example:

(b). purpose-requisite

- (6) a. Japanese  
 [[amerika ni iku] biza]  
 America LOC go visa (Matsumoto 1997)
- b. Chinese  
 [[qù měiguó de] qiānzhèng ]  
 go America DE visa (direct translation of (6a) by the authors)  
 ‘the visa (which is necessary for ()) to go to America’

(f). part-whole

- (7) a. Japanese  
 [[se ga takai] hito]  
 stature NOM high person (Matsumoto 1997)
- b. Chinese  
 [[gèzi gāo de] rén ]  
 stature high DE person  
 ‘a person (whose) stature is high’ (direct translation of (7a) by the authors)

However, as for the CH-type subgroup (a) condition and consequence, this type of Japanese NMC does not perfectly match with the Chinese counterpart.

(a). condition-consequence

- (8) a. Japanese  
 [[atama ga yoku naru] hon]  
 head NOM good become book  
 ‘the book (by reading) (which) head becomes better’ (Matsumoto 1997)
- b. Chinese  
 ??[[nǎozi biàn hǎo de] shū]  
 head become good DE book  
 ‘the book (by reading) (which) head becomes better’  
 (direct translation of (8a) by the authors)
- c. Chinese  
 [[ràng rén /wǒ nǎozi biàn hǎo de] shū]

CAUS            people/1SG   head   become            good   DE   book  
 ‘the book (by reading) (which) causes one’s head to become good’  
 (translation of (8a) by the authors)

Scholars largely agreed that the Mandarin example (8)c with the explicit cause and a general light noun *rén* ‘people’ or a pronoun *wǒ* ‘I’ is the equivalent of (8)a in Japanese. Therefore, the syntactic asymmetry that the Chinese [[consequence] condition] NMCs require the explicit cause plus a light noun or pronoun, whereas in Japanese the cause is implicit, shows that Chinese has more complex syntactic structure, and consequently, Japanese and Chinese NMCs do not share the same syntactic form. The direct translation of (8)a is (8)b, and traditionally (8)b is considered ungrammatical. However, we do see utterances like (8)b in Chinese texts, which have the exact same syntactic and semantic structure as (8)a, and the implicit cause in the [[consequence] condition] construal process is similar as well. Accordingly, we claim that (8)b in Mandarin is also the equivalent of (8)a in Japanese. Both the structures of (8)b and (8)c are found in Chinese texts, which means they are legitimate grammatical NMCs, therefore we argue that both (8)b and (8)c are [[consequence] condition] type NMCs in Mandarin, which are the equivalents of Japanese [[consequence] condition] type NMC. The data above show this particular type of Japanese NMC is equivalent to two alternatives in Mandarin in terms of form: 1) with a causative verb and a light general noun or a pronoun, as in (8)c; 2) with neither a causative verb nor a light general noun or a pronoun, as in (8)b. The second shares the same form with the Japanese [[consequence] condition] type NMC.

We argue that the non-occurrence of ‘CAUS + light Noun/Pronoun’ is subject to semantic and discourse properties, including topic continuity, pronoun reduction, and personal/general situation. Again, just like the resumptive pronoun NMCs, in certain semantic and discourse contexts, the Chinese [[consequence] condition] type NMCs with ‘CAUS + light Noun/Pronoun’ reduces significantly and accordingly reduces the syntactic asymmetry in Japanese and Chinese NMCs. We will give a detailed account in section 3.2.

## 2.2 NH-type (Noun Host) and CNH-type (Clause and Noun Host) NMCs

In Japanese, the NH-type of NMC always takes a content-taking noun as its head noun, and is usually realized as the complement clause in its English counterpart. According to the different types of head nouns, Matsumoto (1997) classifies it into three categories, namely, (a) content and nouns of communication as head; (b) content and nouns of thoughts and feeling as head; and (c) content and other content-taking nouns as head, as exemplified in the following examples.

### (a). Content and Nouns of Communication as Head

- (9) [[toonyoo        ga       akka-shite                            gan    ni        natta]  
       diabetes        NOM become.aggravated        cancer DAT        become.PST  
       hanasi]        nado    tuizo    kiita                            koto    ga        nai  
       story                such.as ever    heard.PST        NR        NOM    NEG.exist

‘(I) have never heard of a story (that/in which) diabetes became aggravated to become a cancer.’

(b). Content and Nouns of Thoughts and Feeling as Head

- (10)           [[zibunō       miru] omoi]       de  
                   self           ACC see    thought       with  
                   ‘...with the feeling of seeing herself...’

(c). Content and Other Content-Taking Nouns as Head

- (11)           [[atama       o       tataku]kuse] ga    aru...  
                   head ACC hit    habit NOM exist  
                   ‘...have the habit of hitting (my) head...’           (Matsumoto 1997)

It is clear that all the three categories of the Japanese NH type NMCs can easily have the same form in Chinese. Chinese equivalents of examples (9)- (11) are (12)-(14) respectively:

- (12)           wǒ       cóngwèi       tīngshuō       [[tángniàobìng       èhuà  
                   1SG   never       hear           diabetes       aggravate  
                   hòu   biàn   áizhèng       de]   shìqing]  
                   afterward become cancer   DE   story

‘I have never heard of a story (that/in which) diabetes became aggravated to become a cancer.’

- (13)           yòng   [[kàn   zìjǐ   de]   gǎnjué]  
                   with   see   self   DE   feeling  
                   ‘...with the feeling of seeing herself’

- (14)           yǒu   [[pāi   zìjǐ   tóu   de]   xíguàn]  
                   have   hit   self   head   DE   habit  
                   ‘...have the habit of hitting (my) head...’

(direct translation of (9)-(11) by the authors)

In Japanese CNH-type NMCs, the head noun and the modifying clause each provide a frame that can host the other constituent. Matsumoto (1997) classifies this type NMCs into three categories: (a) Relational noun as head; (b) Quasi-relational nouns as head; and (c) Nouns of perception as head, as exemplified in the following examples.

(a). Relational noun as head

- (15)           [[kinoo       tabesugita]   kekka],       kyoo   nanimō  
                   yesterday   overate       result today anything  
                   taberare-nai

eat.can-not  
 ‘(As) a result (of) having overeaten yesterday, () cannot eat anything today.’

(b). Quasi-relational nouns as head

- (16) [[tabako o katta] oturi]  
 cigarette ACC buy.PST change  
 ‘the change (from) buying cigarettes’

(c). Nouns of perception as head

- (17) [[sakana o yaku] nioi] ga suru  
 fish ACC grill smell NOM there.is  
 ‘there is the smell (of) grilling fish.’ (Matsumoto 1997)

Again, the above Japanese CNH-type NMCs have exact counterparts in Chinese. The Chinese equivalents of (15)-(17) are shown in (18)-(20):

- (18) [[ zuótiān chī le guò duō de] jiéguǒ], jintiān  
 yesterday eat.PRF too much DE result today  
 shénme dōu bùnéng chī  
 anything all cannot eat  
 ‘(As) a result (of) having overeaten yesterday, () cannot eat anything today.’

- (19) [[mǎi xiāngyān de] língqián ]  
 buy cigarette DE change  
 ‘the change (from) buying cigarettes’

- (20) yǒu [[kǎo yú de] wèidào ]  
 there.is grill fish DE smell (n.)  
 ‘there is the smell (of) grilling fish.’  
 (direct translation of (15)-(17) by the authors)

The above data show that the Japanese NH- type and CNH-type NMCs generally match with Chinese NH-type and CNH-type NMCs. Therefore, the semantic relation between the head noun and the modifying clause that Matsumoto (1997) uses to account for and categorize Japanese NH- type and CNH-type NMCs can perfectly be applied to Chinese. Consequently, we argue that Chinese NMCs, similar to Japanese are subject to semantic-pragmatic construal.

In sum, we argue that both Japanese and Chinese NMCs share the construal based on the semantic-pragmatic frame, and the basic and frequent NMCs in both languages share the same syntactic form. However, there are the so-called syntactic differences between Japanese and Chinese NMCs, namely the resumptive pronoun, and the explicit causative of [[consequence] condition] type NMC, and we argue that the differences are also subject to the semantic-pragmatic and discourse properties. In the

next section, we give a detailed account of how the semantic-pragmatic and discourse properties work to affect the so-called syntactic differences between Japanese and Chinese NMCs.

### 3 Further Analysis

#### 3.1 Resumptive pronouns

It is clear that Japanese does not require a resumptive pronoun when relativizing the objects of obliques, although it can occur infrequently. Japanese NMCs with resumptive pronouns are marginal occurrences. As for Chinese, Li and Thompson (1981) point out that in certain positions in “relative clause” constructions a resumptive pronoun must occur in order for the head noun to refer to it. These positions are indirect object position (example (21a)), following a coverb (or preposition) (example (21b)), and the pivotal noun phrase position (example (21c)).

- (21) a. [[gěi tā mǎi shū de] xuéshēng]  
 for 3SG buy book DE student  
 ‘the student (for whom) () bought a book’
- b. [[cóng tā (nà’er) mǎi shū de] xuéshēng]  
 from 3SG there buy book DE student  
 ‘the student (from whom) () bought a book’
- c. [[nǐ qǐng tā hē jiǔ de] rén]  
 2SG invite 3SG drink liquor DE person  
 ‘the person who you invited to drink’ (Li and Thompson 1981)

According to Li and Thompson (1981), these “relative clause” constructions with resumptive pronouns are marginal constructions (just like the Japanese ones) in that they are rarely found in either speech or writing. Although they are not unacceptable, they appear awkward to many speakers of Chinese (Li and Thompson 1981:585).

Regarding the oblique relationships, Ning (1993) argues that for Chinese NMCs, there are only four domains that can be relativized without syntactic constraints, namely, Place, Time, Manner/Instrument and Reason; if the head noun expresses meanings out of these four domains, a resumptive pronoun has to occur, otherwise the whole clause would be ungrammatical. The following not-well-formed and well-formed examples are from Ning (1993).

(a) Comitative oblique

- (22) a. \*[[wǒ tiàowǔ de] gūniáng ]  
 1SG dance DE girl
- b. [[wǒ gēn tā tiàowǔ de] gūniáng]  
 1SG with SG3 dance DE girl

‘the girl I danced with’

(b). Goal oblique

- (23) a. \* [[wǒ xiào le xiào de] nà ge rén ]  
1SG smile PRF smile DE that CLF man
- b. [[wǒ xiàng tā xiào le xiào de] nà ge rén ]  
1SG towards 3SG smile PRF smile DE that CLF man  
‘the man I smiled at’

(c). Dative oblique

- (24) a. \* [[tā sòng le yī běn shū gěi de] nà ge rén ]  
3SG send PFR one CLF book to DE that  
ge man  
CLF rén]
- b. [[tā sòng le yī běn shū gěi tā de] nà ge rén ]  
3SG send PFR one CL book to 3SG DE that  
CLF man  
ge rén]  
‘the man to whom he gave a book’

(d). Comparative oblique

- (25) a. \* [[wǒ gāo de] nà ge rén ]  
1SG taller DE that CLF man
- b. [[wǒ bǐ tā gāo de] nà ge rén ]  
1SG than 3SG tall DE that CLF man  
‘the man who I am taller than’ (Ning 1993)

The above data show that the resumptive pronoun is the key to grammaticality in relativizing oblique objects. However, Yiu et al. (1997) provide counterexamples against Ning’s (1993) argument.

(a). Comitative

- (26) [[wǒ tiàowú de] huǒbàn]  
1SG dance DE partner  
‘the partner I danced with.’

(b). Goal

- (27) [[wǒ cā píxié de] gùkè]  
 1SG shine shoes DE customer  
 ‘the customer I shone shoes for’

(c). Dative

- (28) [[nǐ sòng lǐ de] duìxiàng]  
 2SG send gift DE targeted.person  
 ‘the targeted person you send gift to’ (Yiu et al. 1997)

The above examples show that in Chinese the comitative, goal, and dative obliques can also be relativized without using resumptive pronouns with the assistance of semantics and pragmatics. In (26), the head noun is the object of the comitative oblique. According to Ning (1993), it should be unacceptable. However, since the head noun *huǒbàn* ‘partner’ refers to a person who participates in the comitative action, this semantic information makes it possible to be relativized in such a construction. In the same fashion, the head nouns *gùkè* ‘customer’ and *duìxiàng* ‘targeted person’ in (27) and (28) both imply the receivers of certain give-receive relational actions, and thus can be compatible with the corresponding subordinate clauses. Moreover, the occurrences of examples (26)-(28) are much more frequent than examples (22b)-(24b). Therefore, the role of semantics and pragmatics in construing an acceptable Chinese NMC can be observed through these examples above.

Comparing (26)-(28) with the Japanese example (4), we conclude that both Japanese and Chinese NMCs are subject to semantic and pragmatic properties, and therefore we argue that the frequent and basic interpretation of “relative clause” construction in Japanese and Chinese shares the same form.

### 3.2 Discourse Analysis

In section 2.1.2, we pointed out that [[consequence] condition] type NMC is a sub-type of Japanese CH-type NMCs, and we further pointed out that there are two alternative forms emerging in Chinese that are equivalent to Japanese condition and consequence NMCs, which are exemplified in (8), repeated below: 1) with a causative verb and a light general noun or a pronoun, as in (8)c; 2) without a causative verb and a light general noun or a pronoun, as in (8)b.

- (8) a. Japanese  
 [[atama ga yoku naru] hon]  
 head NOM good become book  
 ‘the book (by reading) (which) head becomes better’ (Matsumoto 1997)
- b. Chinese  
 ??[[nǎozi biàn hǎo de] shū]  
 head become good DE book  
 ‘the book (by reading) (which) head becomes better’  
 (direct translation of (8a) by the authors)

- c. Chinese  
 [[ràng rén /wǒ nǎozi biàn hǎo de] shū]  
 CAUS people/1SG head become good DE book  
 ‘the book (by reading) (which) causes one’s head to become good’  
 (translation of (8a) by the authors)

Since the [[consequence] condition] type NMC in Mandarin has two possible alternatives, we want to know how they are distributed in natural use of language. In other words, in what environments does the [[consequence] condition] type NMC in Mandarin behave more like its Japanese equivalent? More specifically, when does ‘CAUS + light Noun/Pronoun’ not occur in this type of NMC, and when is the syntactic asymmetry reduced?

### 3.2.1 Topic Continuity

We argue that the non-occurrence of ‘CAUS + light Noun/Pronoun’ is subject to topic continuity. Topic continuity refers to the fact that discourse tends to evoke the same referents over and over again (Payne 1997:344). Li and Thompson refer to topic continuity as topic chain and claim that the topic chain is one common situation where a referent is referred to in the first clause, and then several more clauses follow talking about the same referent but not overtly mentioning that referent (Li and Thompson 1981:659).

Anaphoric and cataphoric zeros are kinds of structures that are likely to function in the domain of topic continuity (Payne 1997:345). An anaphoric or cataphoric zero tends to occur when the referent of the anaphora or cataphora is coreferential with the topic that has been or will be activated in the discourse or in the shared knowledge between the speaker and the hearer.

- (29) jiǔ yě bà , sàimǎ yě bà , [[fánshì shǐ rén  
 wine also PTCL, horse.riding also PTCL, all CAUS people  
 yúlè de] dōngxì], dōu hányǒu wēiliàng dúsu  
 entertain DE stuff all include tiny.amount poison  
 ‘Wine, horse riding, things that cause people enjoyment contains some  
 poison.’

- (30) xiàn zhèng shèjìn [[jǐ shù shǐ rén bèizēng  
 now PROG shoot.in several CLF CAUS people multiply  
 jì mò de] guāng]  
 loneliness DE light  
 ‘Now some lights that make people multiply the loneliness are shooting in.’  
 (examples from Leeds Chinese Internet corpus<sup>3</sup>)

<sup>3</sup> <http://corpus.leeds.ac.uk/query-zh.html>

*Shǐ rén yúlè de dōngxi* ‘things that cause people enjoyment’ in (29) and *shǐ rén bèi zēng jìmò de guāng* ‘the lights that make people multiply the loneliness’ in (30) are the examples of [[consequence] condition] type NMC in Mandarin. The direct translation to Japanese will be *tanoshiku naru mono* [enjoyable become stuff] and *sabishiku naru hikari* [lonely become light]. However, since *shǐ rén* ‘CAUS + light Noun/Pronoun’ explicitly occurs in the NMCs of (29) and (30), they do not share the same form as the Japanese equivalents, and they belong to the first alternative of [[consequence] condition] type NMC in Mandarin.

According to topic continuity, a referent can be unspecified when it, as a topic, has been or will be evoked in the discourse. However, *rén*, the general light noun following the causative marker *shǐ* does not refer to any topic that has been or will be activated in the discourse. Therefore, ‘CAUS + light Noun/Pronoun’ is not subject to topic continuity in (29) and (30). Now let us look at the examples (31)-(33):

(31) nǐ zǎodiǎn xiūxi shuìjiào, wǒ zìjǐ zài kàn yìdiǎn  
 2SG early rest sleep 1SG myself again read some  
 [[qīngsōng de] shū]  
 relaxing DE book  
 ‘You rest and go to bed early, and **I myself** will read some books that make **me** relax.’

(32) nǐ yòng zìjǐ de xiānxiě wèi wǒ huàn  
 2SG use yourself DE blood for 1SG changelái le  
 [[chōngmǎn lìlàng de] shū]  
 come PRF fill with power DE book  
 ‘For **me**, you exchanged your own blood for the book that fills **me** with power.’

(33) xiànzài gēn dàjiā liáo dúshū, yě zhǐ néng  
 now with 2PL chat reading, also only can  
 liáoliáo [[jǐ běn yìnxiàng shēnkè de] shū]  
 chat several CLF impression deep DE book  
 ‘Now, (**I**) chat with you all about reading, and (**I**) can only chat with you several books that impressed (**me**) deeply.’

(examples from Leeds Chinese Internet corpus)

In examples (31)-(33), *qīngsōng de shū* ‘the books that make me relax’, *chōng mǎn lìlàng de shū* ‘the book that fills me with power’, and *yìnxiàng shēnkè de shū* ‘the books that impress me deeply’ are all [[consequence] condition] type NMCs. To find their equivalents in Japanese, they are *otituku hon* [relaxing book], *genki ni naru hon* [energy DAT become book], and *fukui yinsyoo ni naru hon* [deep impression DAT become book], respectively. Furthermore, it is clear that ‘CAUS + light Noun/Pronoun’ does not occur in the NMCs in (31)-(33), which means the NMCs in (31)-(33) belong to the second alternative of [[consequence] condition] type NMC in Mandarin, and they share the same form as the [[consequence] condition] type NMC in Japanese.

The NMCs in the above examples are subject to topic continuity. Example (31) consists of two complete clauses. In the second one, the topic of the main clause and the

unspecified topic of the NMC refer to the same referent. In other words, if we want to explicitly complicate the NMC, 'CAUS + light Noun/Pronoun' can be added, and it will be *shǐ wǒ qīngsōng de shū*. Since the topic of the NMC, *wǒ*, has its anaphora in the main clause *wǒ*, an anaphoric zero replaces the topic of the NMC and it is unspecified. Since the causative *shǐ* is bounded with the NP following it, when the NP becomes an anaphoric zero and unspecified, it simultaneously becomes unspecified.

Similarly, in example (32), the unspecified topic of the NMC is co-referential with the already evoked topic in the main sentence *wǒ*. Therefore, to avoid redundancy, 'CAUS + light Noun/Pronoun' does not occur in the NMC. Example (33) is also subject to topic continuity, although the topic is not specified at all, even not specified in the main clause. However, it is clear that the speaker wants to talk about his/her own reading experience with the audience, and wants to introduce to them some books that deeply impress him/her. Again, since the topic in the NMC is evoked in the shared knowledge between the speaker and the hearers, it is unspecified.

In sum, in Mandarin, when the topic of [[consequence] condition] type NMC refers to the same referent as some topic of the main clause that has been or will be evoked in the discourse or in the shared knowledge between the speaker and the hearer, 'CAUS + light Noun/Pronoun' tends not to occur to avoid lexical redundancy. In this case, the syntactic asymmetry between Chinese and Japanese [[consequence] condition] type NMCs is significantly reduced and Chinese has the same form as the [[consequence] condition] type NMC in Japanese.

### 3.2.2 Personal/specific situation

In the above discussion, it is clear that whether 'CAUS + light Noun/Pronoun' occurs is the key difference between Japanese and Mandarin [[consequence] condition] type NMC. We have also made it clear that topic continuity can account for the non-occurrence of 'CAUS + light Noun/Pronoun.'

We argue that 'CAUS + Pronoun' is more likely to be optional than 'CAUS + light Noun' in Mandarin [[consequence] condition] type NMC. In other words, if [[consequence] condition] type NMC is used to describe a personal or specific situation, 'CAUS + Pronoun' tends not to occur; whereas to give a more general description, 'CAUS + light Noun' tends to occur. All the NMCs in examples (31)-(33) have the pronoun *wǒ* 'I' as the unspecified topic, which links to the topic of the main clauses. All the NMCs in examples (31)-(33) are used to describe a personal or a specific situation. In (31), the books are those that make the speaker relax, not other people. In (32), the book is the one thing that makes the speaker fill with power, not all human beings. In (33), the speaker is introducing the books that deeply impress him/her, not the audience or others. Therefore, these situations are all very personal and specific. However, both examples (29) and (30), in which 'CAUS + light Noun/Pronoun' occurs, describe a general situation. In (29), things that cause people (every human being) enjoyment contains some poison, not some particular person. In (30), the lights that make people (everyone) multiply the loneliness are shooting in, not a specific situation.

In sum, 'CAUS + light Noun/Pronoun' tends not to occur in Mandarin [[consequence] condition] type NMC when the NMC is used to describe a personal or specific situation. In other words, Chinese [[consequence] condition] type NMC is more

likely to share the same form as Japanese [[consequence] condition] type NMC when it is used to describe a personal and specific situation.

### 3.2.3 “Even if/no matter”-type [[consequence] condition] NMC

The above discussion shows the syntactic asymmetry of the [[consequence] condition] type NMC between Chinese and Japanese is due to the discourse properties. In Leeds Chinese internet corpus, we also found examples such as (34):

- (34) [[yùnqī      bù      fā      pàng      de]      shíwù]  
 pregnancy    NEG    get    fat    DE    food  
 ‘the food that does not make one fat in pregnancy, (no matter how much one eats)’

(example from Leeds Chinese Internet corpus)

It is clear that there is a semantic relation of consequence and condition between the NMC and the head noun in (34). Therefore, it also belongs to [[consequence] condition] type NMC. The direct Japanese equivalent is *futoranai tabemono* [fat.can.NEG food]. According to our previous predictions, ‘CAUS + light Noun/Pronoun’ should occur because there is no topic in the previous or upcoming discourse which links to the anaphoric or cataphoric zero in the NMC; furthermore, it describes a general situation, that is to say, this food is not for a particular pregnant woman but for every pregnant woman. However, the non-occurrence of ‘CAUS + light Noun/Pronoun’ shows that examples such as (34) have additional semantic features from the [[consequence] condition] type NMCs we have discussed. The specific semantic property of this particular [[consequence] condition] type NMC entails the meaning of “even if/no matter,” and according to (34) the Chinese “Even if/no matter”-type [[consequence] condition] NMC shares the same form as Japanese [[consequence] condition] type NMCs.

The [consequence] condition-type NMCs that we have discussed previously all involve the conventional world-view of cause, whether it is explicitly or implicitly presented in the NMCs. The examples such as (34) do not only involve the cause, but also include the meaning of ‘even if/no matter,’ and we call this kind of NMCs “Even if/no matter”-type [[consequence] condition] NMC.

The underlying meaning of (34) is ‘as for this food, no matter how much one eats it, it will not cause one to get fat.’ The sense of “even if/no matter” outweighs the sense of cause in the meaning. Therefore, the meaning differs if we purposely add ‘CAUS + light Noun/Pronoun’ to (34), and it becomes (35) and (36) depending on its position before or after the negator *bù*:

- (35) [[yùnqī      bú      ràng      rén      fā      pàng      de]      shíwù ]  
 pregnancy    NEG    CAUS    people    get    fat    DE    food  
 ‘the food that does not make one fat in pregnancy’

- (36) [[yùnqī      ràng      rén      bù      fā      pàng      de]      shíwù ]  
 pregnancy    CAUS    people    NEG    get    fat    DE    food

‘the food that causes one not to get fat in pregnancy’

The meaning of (35) differs from that of (34) in that although (35) also involves the sense of ‘even if/no matter,’ the explicit ‘CAUS + light Noun/Pronoun’ makes the sense of cause significantly outweigh the sense of ‘even if/no matter.’ The meaning of (36) is also different as it means ‘this magic food, if one eats it, one will never get fat.’ More examples of Chinese “Even if/no matter”-type [[consequence] condition] NMCs are:

- (37) [[bú shàngyǐn de] yóuxì]  
NEG addict DE game  
‘the game that does not make people addicted, (no matter how one plays)’
- (38) [[bù jiěkě de] yǐnliào]  
NEG quench DE beverage  
‘the beverage that does not quench thirst, (no matter how much one drinks)’  
(examples from Leeds Chinese Internet corpus)

In sum, the Mandarin “Even if/no matter”-type [[consequence] condition] NMCs share the same form as Japanese [[consequence] condition] NMCs, and they usually occur in negative context.

In this sub-section, we discussed the major difference between Chinese and Japanese [[consequence] condition] NMCs and pointed out that Chinese and Japanese [[consequence] condition] NMCs share the same form when there is topic continuity between the NMC and the main clause, when the NMC describes a personal and specific situation, and when the NMC conveys the semantic sense of ‘even if/no matter.’

## 4 Conclusion

This paper concludes that the traditional view of Chinese NMCs being syntactically-licensed and Japanese NMCs being semantically-licensed is untenable, as we have discussed that Chinese and Japanese not only share the semantic-pragmatic construal, but they share the same basic syntactic form in discourse. All the Japanese NMC types described by Matsumoto (1997) have Chinese equivalents with the same syntactic form. The conspicuous structural differences between Japanese and Chinese NMCs are the resumptive pronouns which occur in Chinese CH-type NMCs to be co-referential with the oblique objects, and the explicit causative in Chinese [[consequence] condition]-type NMCs. However, as we have pointed out, these syntactically different constructions are either marginal, infrequent, or the occurrences can be significantly reduced in certain semantic-pragmatic and discourse contexts. We conclude that the so-called syntactic differences between Japanese and Chinese NMCs are actually due to the semantic-pragmatic, discourse properties.

However, as Wang, Horie, Pardeshi (2009) point out, other than the internal structural difference between Japanese and Chinese NMCs, there is a distributional difference. This paper focuses on the internal structure of NMCs in both Japanese and Chinese and we have chosen data with relatively simple modifying clauses. In another

paper, we argue that due to typological constraints, equivalent counterparts of Japanese NMCs with complex modifying clauses are rarely found in Chinese. The complexity of the modifying clause thus affects the distribution

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