

Island sensitivity in Chinese topicalization

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1. Introduction

Xu and Langendoen (1985) argue that topicalization in Chinese does not induce any island effect since a topic element can be generated without involving movement. As observed by Zhang (2002), however, Chinese topicalization is sensitive to the predicate distinction inside islands. Island effects arise in episodic eventuality contexts equivalent to specific eventualities, but they do not in stable state contexts. Grounded in Zhang's (2002) empirical claim, Pan (2014) argues that topicalization in Chinese cannot be analyzed as a single type phenomenon, and he goes on to extend *ex-situ* constructions into four types based on the two ingredients of extraction and base-generation.¹ The fact that we can infer from the paradigm of these data confirms that there is a distinction between episodic eventuality contexts and stable state contexts in terms of island sensitivity. In other words, the island effects are detected only in episodic eventualities in Chinese, but not elsewhere, as found in such constructions as topicalization in (1), *wh-ex-situ* in (2), and clefting in (3).

(1) a. ??Zhe ben shu, (wo xiang) du-guo de ren lai-le. (Topicalization)

this CL book I think read-EXP DE person come-PER

Intended: 'This book, I think the person who read came.'

b. Zhe ben shu, (wo xiang) du-guo de ren bu duo.

this CL book I think read-EXP DE person not many

'This book, (I think) the person who read are not many.'

(2) a. *Na ge xuesheng, Lao Wang zuotian zenyang piping-le? (*Wh-ex-situ*)

that CL student Lao Wang yesterday how criticize-PER

¹ Chinese *wh*-phrases in the left periphery can be used as a topic or a focus derived via movement or by base-generation. Pan (2014) shows four possible combinations as follows.

	<i>Wh</i> -topic	<i>Wh</i> -cleft focus
Extraction	Type I	Type II
Base-generation	Type III	Type IV

‘Intended: ‘How does Lao Wang criticize that student every day?’

b. Na-bu dianying, kan-guo de ren bu **shao**?

which-CL movie see-EXP DE person not few

‘Which movie, the people who saw (it) are many?’

(3) a. * Shi Meiguo, wo qunian **qu**-le. (Cleft construction)

be US I last-year go-PER

‘It was the US that I went (to) last year.’

b. Shi na-bu dianying, kanguo de ren hen **duo**.

be that-CL movie see-EXP DE person very many

‘It is that movie that the people who saw (it) are many.’

(Zhang 2002 and Pan 2014)

The run-of-the-mill topic in the sentence-initial position in (1a) is extracted from the complex NP structure. This sentence is not acceptable. On the other hand, (1b) is perfectly acceptable. The only difference between (1a) and (1b) lies in predicate type. (1a) contains a predicate denoting an episodic eventuality context, whereas (1b) contains the one denoting a stable state context. In the latter no island effect arises. The same contrast also holds between the (a)-sentences and (b)-sentences of (2) and (3).

In this paper, we will argue that the obviation of island effects in such sentences as (1b), (2b), and (3b) vis-à-vis (1a), (2a), and (3a) is to be understood on a par with the comparable obviation of the effects in relativization of Korean and Japanese as in (4) and (5), initially observed by Kuno (1973) for Japanese and Han and Kim (2004) for Korean.

(4) [RC1 [RC2 e_i e_j tha-ko tani-nun] cha-kaj mesci-n] sinsai (Korean)

e_i e_j ride drive-ADN car-NOM_j stylish-AND gentleman

‘the gentleman_i [RC1 who_i the car_j [RC2 which_j e_i is driving e_j] is stylish]’

(5) [[kite-iru] yoohuku-ga yogorete-iru] sinsi (Japanese)

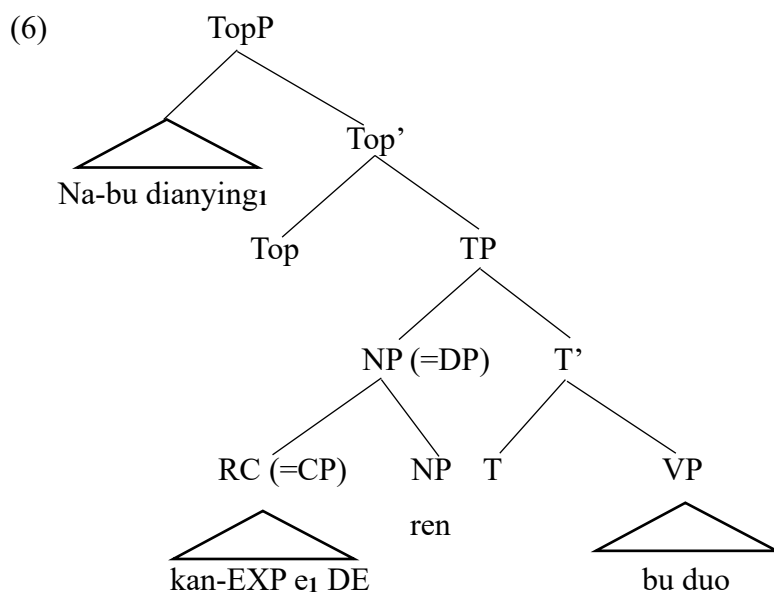
wearing-is suit-NOM dirty-is gentleman

‘gentleman who the suit [he] is wearing is dirty’

(Han and Kim 2004)

Following the lead by Han and Kim (2004), where apparently double relative clauses in Korean and Japanese stem from double subject clauses which are excellently formed with

stative verbs or adjectives, we argue that (1b), (2b), and (3b) have the structure quite comparable to that of double relatives in Korean and Japanese. More specifically, the apparently displaced topic element in (1b), (2b), and (3b) does not originate from inside the relative clause island, but from the outer specifier of TP or [Spec, TopP] (that a major subject occupies) outside the inner specifier of TP (that a grammatical subject occupies) in the higher clause, as represented below with (2b):



Along this line of analysis, we will investigate both the issue at hand and the coverage of Korean/Japanese-type double subjects in various constructions of Chinese. The consequence of this analysis will be that we can provide a uniform movement analysis of topicalization in Chinese, with its peculiar behavior in the context of stable state predicates falling out from the particular syntactic structure that the latter give rise to.

2. Obviation of Island effects in Korean relativization

The head noun in Korean relative clauses occurs to its right, which is head-final as in (7).

(7) a. Subject-extracted relative clause

[_{CP} [_{TP} e Yengi-lul cohaha]-nun] Cheli
 e Yengi-Acc like -ADN Cheli
 ‘Cheli who likes Yengi’

b. Object-extracted relative clause

[_{CP} [_{TP} Cheli-ka e cohaha]-nun] Yengi
 Cheli-Nom e like -ADN Yengi

‘Yengi who Cheli likes’

c. Adverbial relative clause

[_{CP} [_{TP} Cheli-ka e Yengi-lul cohaha-nun] iyu
 Cheli-Nom e Yengi-ACC like-ADN reason

‘The reason why Cheli likes Yengi’

It has been assumed that Korean relativization shows the properties of *wh*-movement in English even though it does not have any overt relative pronoun since an empty operator in the position of the specifier of CP ([Spec, CP]) is associated with a gap within the relative clause in (8).

- (8) a. [_{CP} OP_i [_{TP} e_i Yengi-lul cohaha]-nun] Cheli
 b. [_{CP} OP_i [_{TP} Cheli-ka e_i cohaha]-nun] Yengi
 c. [_{CP} OP_i [_{TP} Cheli-ka e_i Yengi-lul cohaha-nun] iyu

However, an immediate question that arises with respect to this analysis is how the empty operator movement analysis can explain double relative clauses in Korean.

- (9) a. [_{RC1} [_{RC2} e_i e_j cohaha-nun] kangaci-ka_j cwuk-un] ai_i
 e_i e_j like-ADN dog-Nom_j die-ADN kid_i
 ‘the kid [_{RC1} who_i the dog [_{RC2} which_j e_i liked e_j] died]’
 ‘the kid who the dog which [he] liked died’
- b. [_{RC1} [_{RC2} e_i e_j tha-ko tani-nun] cha-ka_j mesci-n] sinsa_i
 e_i e_j ride drive-ADN car-NOM_j stylish-ADN gentleman
 ‘the gentleman [_{RC1} who_i the car [_{RC2} which_j e_i is driving e_j] is stylish]’
 ‘the gentleman who the car that [he] is driving is stylish’
- c. [_{RC1} [_{RC2} e_i e_j kackoiss-nun] khemphwute-ka_j Mac-i-n] kyoswu_i
 e_i e_j have-ADN computer-NOM_j Mac-COP-ADN professor_i
 ‘the professor [_{RC1} who_i the computer [_{RC2} which_j e_i has e_j] is Mac]’
 ‘the professor who the computer which [he] has is [a] Mac’

(Han and Kim 2004)

The relative clauses in (9) are not the same as those in (7). The relativization in (9) occurs twice. First of all, the object ‘kangaci’ in the position of e_j in R2 in (9a) has relativized, which is associated with ‘kangaci-ka’ in the subject position of R1 and then the subject ‘ai’ in the position of e_i in R2 has relativized, which is associated with head noun ‘ai’. The examples of (9b) and (9c) go through the same process. These sentences in (9a), (9b), and (9c) all become acceptable. Thus, they seem to have no island constraint where extraction is not possible from the complex NP. However, island effects are present in relative clauses as in (10).

- (10) a. *[wuli pan haksayng-i [CNP [e_i kapcaki mikwuk-ey
 our class student-NOM e_i suddenly America-to
 ka-n] sasil-ul mola-ss-ten] sensayngnim;
 go-ADN fact-ACC not.know-PAST-A DN teacher;
 ‘the teacher who_i a student from our class didn’t know [CNP the fact that e_i suddenly
 went to America]’
- b. *[John-i [CNP [kangto-ka e_i hwumchy-ess-tanun]
 John-Nom thief-NOM e_i steal-PAST-AND
 sosik-ul tul-un] posek;
 news-ACC hear-AND jewel;
 ‘the jewel which_i John heard [CNP the news that the thief stole e_i]’
- c. *[[AC John-i ku namca-lul e_i manna-ss-ki
 John-NOM that man-ACC e_i meet-PAST-NOMINAL
 ttaymwuney] Sue-ka hwakana-n] sikan;
 because Sue-NOM be.angry-AND time;
 ‘the time when_i Sue was angry [AC because John met that man e_i]’

(Hand and Kim 2004)

The subject NP e_i in the complex NP (CNP) in (10a) is relativized to the head noun ‘sensayngnim’ in the relative clause and the object NP e_j in CNP in (10b) is relativized to the head noun ‘posek’ in the relative clause, respectively. The adjunct e_i in the adjunct clause (AC) in (10c) is relativized to the head noun ‘sikan’ in the relative clause as well. The ungrammaticality of (10a), (10b), and (10c) clearly shows that island effects exist in Korean relative clauses.

In order to solve these problems, Han and Kim (2004) propose double nominative

constructions for the analysis of double relative clauses in Korean.

(11) a. Ku ai-ka kangaci-ka cwuk-ess-ta.
that kid-NOM dog-NOM die-PAST-DECL
'As for that kid, the dog died.'

b. Ku sinsa-ka yangpok-i telep-ta.
that gentleman-NOM suit-NOM dirty-DECL
'As for that gentleman, the suit is dirty.'

(Han and Kim 2004)

There are two nominative case 'ka' in (11). The first nominal NP 'ai' and 'sinsa', respectively, bear 'aboutness' in the sentence or discourse context and the second nominal NPs 'kangaci' and 'yangpok', respectively, are the syntactic subject even though the first nominative NP is in a semantic relation with the second nominative NP. Thus, the first nominative NP and the verbal element can form a complete sentence in TP and the first nominative NP is adjoined to TP.

(12) a. Kangaci-ka cwuk-ess-ta.
dog-NOM die-PAST-DECL
'The dog died.'

b. Yangpok-i telep-ta.
suit-NOM dirty-DECL
'The suit is dirty.'

The verbal element in double nominative constructions can only be formed with stative verbs or adjectives (Kim 1990, Han and Kim 2004). The first nominative NPs in (11) can be relativized as well as in (13).

(13) a. [_{RC} e_i [kangaci-ka cwuk-un]] ai_i
e_i dog-NOM die-ADN kid_i
'the kid whose dog died'

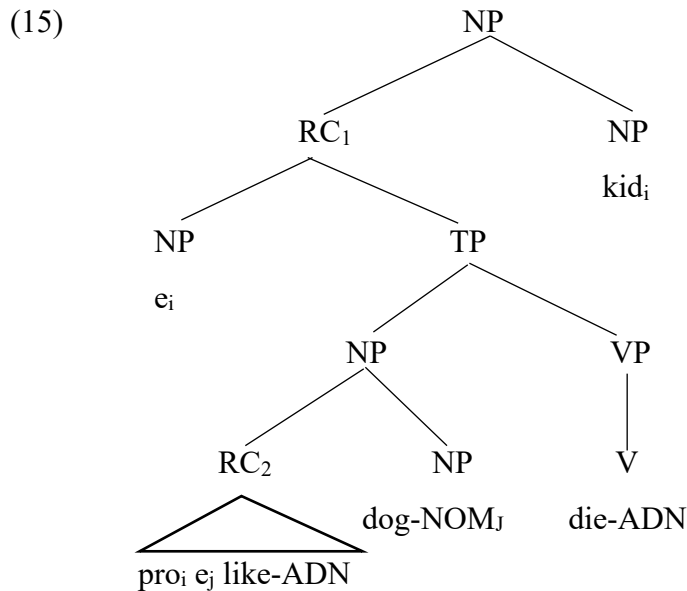
b. [_{RC} e_i [yangpok-i telep-un]] sinsa_i
e_i suit-NOM dirty-ADN gentleman_i

‘the gentleman whose suit is dirty’

They point out that the source sentences for double relative clauses in Korean are double nominative constructions. The second nominative NP ‘kangaci’ is relativized and the empty pro in the relative clause refers to the first nominative NP ‘ai’ in (14a).

- (14) a. Ai-ka_i [RC pro_i e_j cohaha-nun] kangaci-ka_j cwuk-ess-ta.
 kid-NOM pro_i e_j like-ADN dog-NOM_j die-PAST-DECL
 ‘As for the kid, the dog that he liked died.’
- b. [RC1 e_i [RC2 pro_i e_j cohaha-nun] kangaci-ka_j cwuk-un] ai_i
 e_i pro_i e_j like-ADN dog-NOM_j die-ADN kid_i
 ‘the kid whose dog which he liked died’

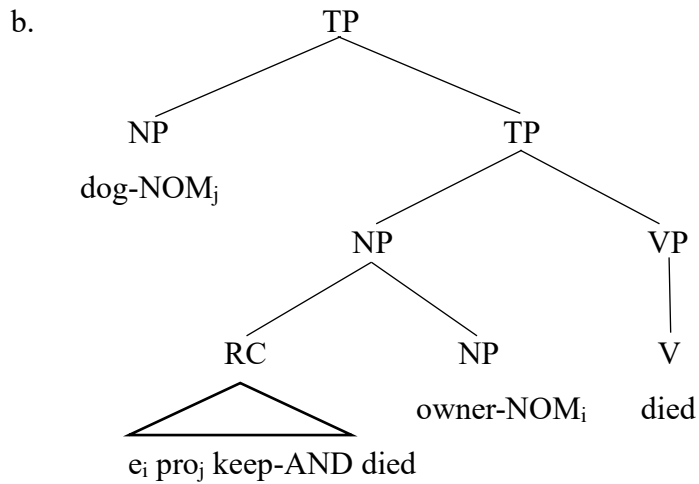
(14b) is derived by relativizing the first NP in (14a). The empty gap in R2 is coindexed with the first nominative NP adjoined to the specifier of TP [Spec, TP]. In other words, the gap has not relativized out of the complex NP. Therefore, there is no island violation in the double relative clause. The corresponding tree structure of (14b) is in (15).



(Han and Kim 2004)

The object NP in double relative clauses can be derived from a double nominative construction as in (16).

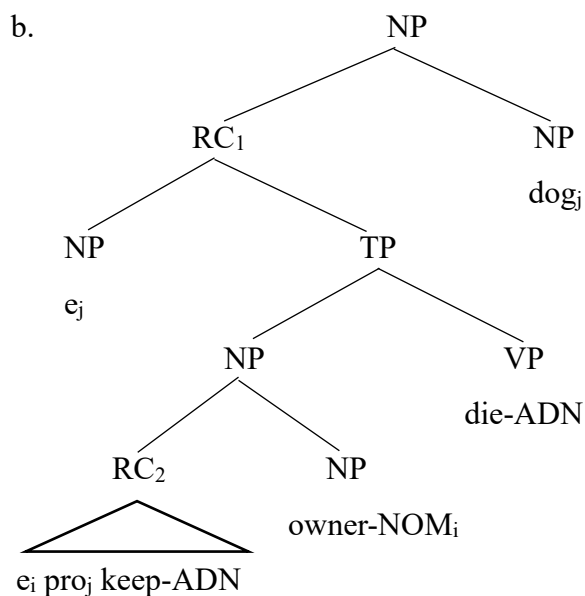
- (16) a. Ku kangaci-ka_j [_{RC} e_i proj khiwewu-n] cwuin-i_i cwuk-ess-ta.
 that dog-NOM_j e_i proj keep-ADN owner-NOM_i die-PAST-DECL
 ‘As for that dog, the owner who kept him died.’



(Han and Kim 2004)

The first nominative NP is the object in the relative clause. The second nominative NP has a relative clause where it is the subject and the pro object is associated with the first nominative NP. Then the double relative clause can be derived by relativizing the first nominative NP ‘kangaci’ as in (17a).

- (17) a. [_{RC1} e_j [_{RC2} e_i proj khiwecwu-n] cwuin-i_i cwuk-un] kangaci_j
 e_j e_i proj keep-ADN owner-NOM_i die-ADN dog_j
 ‘the dog who the owner who kept [him] died’



(Han and Kim 2004)

The object gap in the relative clause is adjoined to the specifier of TP and the object ‘kangaji’ is relativized to the head noun without island violation. The double nominative construction can be applied to Japanese which allows a double nominative construction and pro drop as in (18).

- (18) a. *sinsi-ga yoohuku-ga yogorete-iru.*
gentleman-NOM suit-NOM dirty-is
- b. *[[kite-iru] yoohuku-ga yogorete-iru] sinsi*
wearing-is suit-NOM dirty-is gentleman
‘gentleman who the suit [he] is wearing is dirty’
- c. $[_{RC1} e_i [_{RC2} pro_i e_j \textit{kite-iru}] \textit{yoohuku-ga}_j \textit{yogorete-iru}] \textit{sinsi}_i$
 $e_i \quad pro_i e_j \textit{wearing-is suit-NOM}_j \textit{dirty-is} \quad \textit{gentleman}_i$

As pointed out by Kuno (1973) and Kuroda (1978), the double nominative construction in Japanese is acceptable as in (18a). The first nominative NP ‘sinsi’ is relativized from (18a) and the second nominative NP ‘yoohuku’ has another relative clause that includes a pro subject adjoined to the specifier of TP with no island violation.

3. Topic structures in Chinese

There has been a heated debate over whether topic constructions are derived by movement or base-generated in Chinese. If Chinese topicalization is derived by movement, it should be sensitive to the locality constraints on movement. Zhang (2002) argues that there are many cases where island effects are observed even though Xu and Langendoen (1985) claim that Chinese topicalization does not show any island effect because Chinese topic structures are base-generated. Specifically, Zhang (2002) points out that island effects only occur in episodic eventualities but they do not in stable state contexts. In this paper, we will show that the obviation of island effects in Chinese topicalization can be understood on a par with the comparable obviation of the effects in double relative clauses of Korean and Japanese in the sense of Han and Kim (2004).

There exist double nominative constructions in Chinese even though there are no overt case markers such as ‘(n)un’ as a topic marker and ‘ka’ as a nominative case marker observed in

Korean when two nominal elements occur before the verb (Teng 1974, Shyu 1995).

- (19) a. Ta duzi e.
he stomach hungry
'He is hungry.'
- b. Ta tou teng.
he head painful
'He has a headache.'
- c. Ta kou ke.
he mouth thirsty
'He is thirsty.'

(Teng 1974)

The relationship between the first nominal elements 'ta', 'ta', 'ta' and the second nominal elements 'duzi', 'tou', 'kou' in (19) is possession and thus a genitive 'de' may be inserted between the first and the second nominal elements. Another characteristic is that the verbal element is stative intransitive.² However, the first nominal element and the second nominal element do not always form a constituent.

- (20) a. (Ouzhou a) xianjin guojia nanren bi nüren pingjun-shouming duan.
(Europe) civilized countries male compare with women average-life-span shorter
'In Europe, in civilized countries the average life-span of men is shorter than that of women.'
- b. (Ouzhou a) xianjin guojia de nanren bi nüren pingjun-shouming duan.
(Europe) civilized countries DE male compare with women average-life-span shorter
- c. Ouzhou a, xianjin guojia zuijin nanren bi nüren pingjun-shouming duan.
'In Europe, civilized countries recently the average life-span of men is shorter than that

² Syu (1995) claims that the verbal element can be a stative intransitive such as an adjective or copulative predicate, or an eventive verb.

- (i) Daxiang bizi shen-chu le langan.
elephant trunk stretch-out Asp fence
'(An) elephant's trunk stretched across the fence.'

of women.’

d. *Ouzhou a, xianjin guojia de zuijin nanren bi nüren pingjun-shouming duan.

‘In Europe, men of civilized countries recently have shorter average life-span than women.’

(Shyu 1995)

The first nominal element ‘xianjin guojia’ and the second nominal element ‘nanren’ in (20b) are connected by the genitive ‘de’ and thus seem to form a single constituent. However, this is not the true. The two nominal elements can be separated by an adverb as in (20c). This fact indicates that these two elements do not necessarily form a single constituent and thus the first nominal element does not need to adjoin to the second nominal element for double nominative construction, as pointed out by Han and Kim (2004).

(21) a. xiang bizi chang.

elephant nose long

‘Elephants’ noses are long.’

b. Zhangsan nü pengyou duo.

Zhangsan girl friend many

‘Zhangsan has lots of girlfriends.’

c. Zhei ge nühai yanjing hen da.

that CL girl eye very big

‘This girl’s eyes are very big.’

d. Zhei ban xuesheng ta zui congming.

This class student 3sg most intelligent

‘(In) that class of students, s/he is the most intelligent.’

(Li and Thompson 1981)

The double nominative clauses in Chinese seem to be better organized when the verb element is stative verbs rather than activity verbs in line with Teng (1974), Kim (1990), Han and Kim (2004), as in (21).

Chinese typically allows an empty pronoun (pro) in all argument positions (Huang, Li, and Li 2009).

(22) Zhangsan_i, [[_{RC} e_i xihuan de] ren] hen duo.
 Zhangsan e_i like DE person very many
 ‘Zhangsan_i, people who [he_i] likes are many.’

The subject *pro* in the relative clause is associated with the first nominal ‘Zhangsan’. Han and Kim (2004) argue that double relative clauses should exist if a language has a double nominative construction and the empty pronoun such as *pro* is available. As we have seen in the examples, Chinese is a *pro*-drop language and produces double nominative constructions. If so, let us see whether the obviation of island effects in double relative clauses in Chinese is on a par with that of Korean and Japanese.

(23) shows that double nominative constructions are acceptable in Chinese.

(23) a. na ge haizi xiaogou si le.
 That CL kid dog die PER
 ‘As for that kid, the dog died.’
 b. na ge shenshi yangzhuang zang le.
 that CL gentleman suit dirty PER
 ‘As for that gentleman, the suit is dirty.’

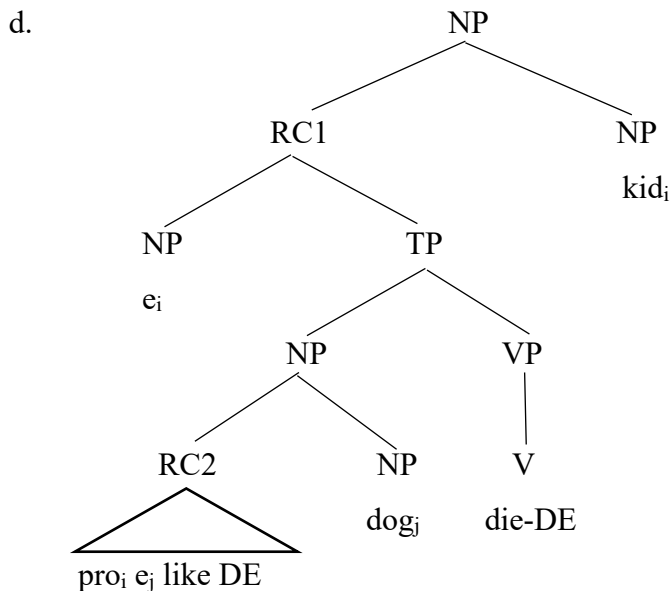
The first nominal elements of double nominative constructions in (24a) and (24b) can be relativized. (24c) is derived from the double nominative construction, where the second nominative NP is modified by a relative clause that has an empty *pro* that is coindexed with the first nominative NP.

(24) a. [_{RC} e_i [xiaogou sidiao de]] haizi_i.
 e_i dog die DE kid_i
 ‘the kid whose dog died’
 b. [_{RC} e_i [yangzhuang zang de] shenshi_i
 e_i suit dirty DE gentleman_i
 ‘the gentleman whose suit is dirty’
 c. haizi_i [_{RC} *pro*_i e_j xihuan de] xiaogou_j si le.
 kid_i *pro*_i e_j like DE dog_j die PER

‘As for the kid, the dog that he liked died.’

The second nominative NP ‘zhuren’ in (25a) contains a relative clause and this relative clause has an empty object which is coindexed with the first nominative NP. And then the first nominative NP in the double relative clause of (25b) is relativized without any island violation. (25c) is derived from relativizing the original first nominative NP ‘haizi’. The indexation of the head noun ‘haizi’ in the double relative clause originates from the TP-adjoined first nominative NP position, not from the subject pro position of a relative clause. So, there is no island violation here.

- (25) a. na zhi xiaogou_j [_{RC} e_i pro_j siyang de] zhuren_i si le.
 that dog_j e_i proj keep DE owner_i die PERF
 ‘As for that dog, the owner who kept him died.’
- b. [_{RC1} e_j [_{RC2} e_i pro_j siyang de] zhuren_i si de] xiaogou_j
 e_j e_i proj keep DE owner die DE dog_j
 ‘the dog who the owner who kept [him] died’
- c. [_{RC1} e_i [_{RC2} pro_i e_j xihuan de] xiaogou_j siqu de haizi_i
 e_i pro_i e_j like DE dog_j die DE kid_i
 ‘the kid whose dog which he liked died’



The examples from Zhang (2002) and Pan (2014) can be accounted for in terms of the double relative clause analysis we have seen.

- (26) a. ??Zhe ben shu, (wo xiang) du-guo de ren lai-le. (Topicalization)
 this CL book I think read-EXP DE person come-PER
 Intended: ‘This book, I think the person who read came.’
- b. Zhe ben shu, (wo xiang) du-guo de ren bu duo.
 this CL book I think read-EXP DE person not many
 ‘This book, (I think) the person who read are not many.’
- (27) a. *Na ge xuesheng, Lao Wang zuotian zenyang piping-le? (Wh-ex-situ)
 that CL student Lao Wang yesterday how criticize-PER
 ‘Intended: ‘How does Lao Wang criticize that student everyday?’
- b. Na-bu dianying, kan-guo de ren bu shao?
 which-CL movie see-EXP DE person not few
 ‘Which movie, the people who saw (it) are many?’
- (28) a. *Shi Meiguo, wo qunian qu-le. (Cleft construction)
 be US I last-year go-PER
 ‘It was the US that I went (to) last year.’
- b. Shi na-bu dianying, kanguo de ren hen duo.
 be that-CL movie see-EXP DE person very many
 ‘It is that movie that the people who saw (it) are many.’

(26a), (27a), and (28a) are not acceptable since the sentences appear in the structures that encode episodic eventualities. As pointed out by Zhang (2002), island effects usually exist in topicalization under specific eventualities. In other words, island effects in Chinese topicalization are asymmetrical between episodic eventualities and non-episodic eventualities such as stable states, habitual eventualities, and irrealis eventualities. (26b), (27b), and (28b) consist of a stative verb and do not show any island effect. They can further be accounted for in terms of Han and Kim’s (2004) analysis, as in (29).

- (29) a. Zhe ben shu_j, [NP [RC e_i du-guo e_j de] ren_i] bu duo.
 this CL book e_i read-EXP e_i DE person_j not many
- b. Na-bu dianying_i, [NP [RC e_i kan-guo e_j de] ren_i] bu shao?
 which-CL movie e_i see-EXP e_j DE person_i not few
- c. Shi na-bu dianying_j, [NP [RC e_i kanguo e_j de] ren_i] hen duo.
 be that-CL movie e_i see-EXP e_j DE person_i very many

4. Conclusion

We have argued that island effect asymmetry in Chinese topicalization exists such that island effects arise in episodic eventuality contexts equivalent to specific eventualities, but not in stable state contexts. In order to properly explain these phenomena, we adopt Han and Kim's (2004) double relative clause analysis from a double nominative construction where the first nominative NP is adjoined to the specifier of TP [Spec, TP]. It has generally been claimed that Chinese is a pro drop language and has a double nominative construction. Therefore, we can clearly explain why obviation of island effects in Chinese topicalization occurs under double relative clauses.

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