Constraints on multiple negative polarity item constructions in Japanese and Korean

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1 Introduction

This paper aims to look into constraints on Japanese and Korean multiple negative polarity item constructions (MNCs hereafter) which include *shika* (*bakk-e*¹) 'only' (MNCs with *shika* (*bakk-e*) hereafter). One is a word order restriction on *shika* (*bakk-e*) and *Indeterminate-mo* (*do*) '*any*-type'. The other is a co-occurrence constraint on *shika* (*bakk-e*) and *1-Classifier-mo* (*do*) '*even*-type'. This paper suggests the reason why Japanese and Korean MNCs with *shika* (*bakk-e*) have the constraints.

Japanese and Korean Negative Polarity Items (NPIs hereafter) are only licensed by negation. Some of the Japanese and Korean NPIs are given in (1).

	Japanese	Korean				
(1) a.	NP+shika	$NP+bakk-e^2$ 'only NP^2	,			
b.	Indeterminate-mo (any-type):	Indeterminate-do (any-type):	Indeterminate-do (any-type):			
	dare-mo, nani-mo, dokoni-mo	amu-do, amugeos-do, amude-d	lo			
	'anyone', 'anything', 'anywhere' ; -mo (do) means 'even'					
c.	1-Classifier-mo (even-type):	1-Classifier-do (even-type):				
	hitori-mo, hitotsu-mo, etc.	han salam-do, hana-do, etc.				
		'even a person', 'even a	thing'			

¹ The Korean Romanization system is based on one declared (2000-8) by the Korean Ministry of Culture and Tourism in July 7th, 2000.

² Park (2007a, to appear d) argues that *shika* and *bakk-e* are not exactly the same in terms of some different syntactic properties, unlike arguments presented in past studies. However, the difference is not relevant for the present discussion.

Some simple examples are shown in (2).

- (2) a.(J) Taro-wa Star Wars-**shika** mi-**na**-katta (*mi-ta). -Top -*shika* watch-Neg-Past watch-Past 'Taro watched only Star Wars³.'
 - (K) Taro-neun Star Wars bakk-e bo-ji anh-ass-da⁴ (*bo-ass-da).
 -Top bakk-e watch-Comp Neg-Past-Decl watch-Past-Decl
 - b.(J) Gakusei-ga **dare-mo/hitori-mo** ko-na-katta (*ki-ta). student-Nom *anyone even a person* come-Neg-Past come-Past 'No student came./ Even one student didn't come.'
 - (K) Hagsaeng-i **amu-do/han salam-do** o-ji anh-ass-da (*wass-da). student-Nom *anyone even a person* come-Comp Neg-Past-Decl come-Past

Park (2007a, 2007b, to appear b) argues that Japanese and Korean NPIs co-occur within one single negative sentence as illustrated in the following examples.

- (3) (J) Taro-wa keijiban-de tokumei-de-shika nani-mo ie-nai⁵.
 Top board-on anonymity-in-shika anything say-can-Neg
 'Taro can't [express] anything except anonymously on the board.'
 - (K) Taro-neun gesipan-eseo igmyeong-eulo bakk-e amugeos-do malhal su eobs-da.
 -Top board-on anonymity-in bakk-e anything say-can-Neg-Decl

Shika (bakk-e) 'only' and Indeterminate-mo (do) (nani-mo (amugeos-do) 'anything')

³ English translation in all examples is all mine.

⁴ Korean Negation can be expressed in three different ways, as in (i).

⁽i) a. Long-Form Negation, e.g., meog-da 'eat' → meog-ji anh-da 'do not eat'

b. Short-Form Negation, e.g., *meog-da* 'eat' \rightarrow an meog-da 'do not eat' c. Lexically negative verbs e.g., *eobs-da* 'not exist', *molu-da* 'not know'

c. Lexically negative verbs e.g., *eobs-da* not exist, *molu-da* not know I mainly represent (i a) (Long-Form Negation) and (i c) (Lexically negative verbs) in this paper.

⁵ The Japanese and Korean data that I report here are based primarily on judgments I received from up to 50 Japanese and Korean native speakers majoring in linguistics.

co-occur within one single neg in (3).

There are, however, sentences which show the licensing of MNCs is not always unconstrained in these languages. See (4) and (5) below.

(4)(J) *Taro-wa keijiban-de nani-mo tokumei-de-shika ie-nai.
Top board-on *anything* anonymity-in-*shika* say-can-Neg (Intended meaning) Taro can't [express] anything except anonymously on the board.'
(K) *Taro-neun gesipan-eseo amugeos-do igmyeong-eulo bakk-e malhal su eobs-da.
Top board-on *anything* anonymity-in *bakk-e* say-can-Neg-Decl
(5)(J)?*Taro-wa keijiban-de tokumei-de-shika hitokoto-mo ie-nai.
Top board-on anonymity-in-*shika even a word* say-can-Neg
'(Intended meaning) Taro can't [express] even one word except anonymously on the board '

(K)?*Taro-neun gesipan-eseo igmyeong-eulo bakk-e han madi-do hal su eobs-da.

-Top board-on anonymity-in bakk-e even a word do-can-Neg-Decl

In this paper, I argue that there are problems with past attempts to account for word order with *Indeterminate-mo* (*do*) and co-occurrence with *1-Classifier-do* in Japanese and Korean MNCs with *shika* (*bakk-e*) and I present alternative analyses: (i) *shika* (*bakk-e*) must precede *Indeterminate-mo* (*do*) in MNCs because of universal semantic properties of exceptive phrases in natural languages when exceptive phrases occur with universal quantifiers; (ii) *1-Classifier-mo* (*do*) needs an overt host NP in MNCs with *shika* (*bakk-e*) unlike *Indeterminate-mo* (*do*) because of its semantic function.

The paper is organized as follows: in section 2, I present a brief review of the previous analyses and indicate their problems. In section 3, I present constraints on Japanese and Korean MNCs with *shika* (*bakk-e*), one on word order of *shika* (*bakk-e*) and *Indeterminate-mo* (*do*) and the other on co-occurrence of *shika* (*bakk-e*) and *I-Classifier-mo* (*do*). In section 4, I propose analyses of the constraints. Section 5 concludes this paper.

2 Previous analyses

Kataoka (2006:221-224) observes that *Indeterminate-mo* must precede *shika* in Japanese MNCs as follows.

(6) Indeterminate-mo > shika

In other words, she argues that *Indeterminate-mo* should be syntactically positioned higher than *shika* for the structural relationship between *shika* and *Indeterminate-mo*. Check this observation with the examples shown in (7).

(7) a.	yasai-o	nani-mo	Hanako -shika	tabe- nai .		
	vegetable-Acc	anything	-shika	eat-Neg-Pres		
'Hanako eats every vegetable, but other people don't eat it.'						
b.	*Hanako -shika	yasai-o	nani-mo	tabe-nai.		
-shika vegetable-Acc anything				eat-Neg-Pres		
'(Intended meaning)Hanako eats every vegetable, but other people don't eat it.'						

The examples in (7) are MNCs with *nani-mo* 'anything' and *shika*. It is acceptable if *nani-mo* 'anything' precedes *shika* as in (7a), whereas it is not acceptable if *shika* precedes *nani-mo* as in (7b).

Kuno and Whitman (2004:222) observe that the linear order of *bakk-e*, *1-Classifier-do* and *Indeterminate-do* in Korean MNCs must be as follows.

(8) *bakk-e* > 1-Classifier-do > Indeterminate-do

Their observation (8) can be confirmed with the examples below.

- (9) a. Insu bakk-e han madi-do-deul malha-ji anh-ass-da.
 bakk-e even a single word-Plural say-Comp Neg-Past-Decl
 'Only Insu said even a single word.'
 - b. Insu **bakk-e amugeos-do** malha-ji **anh**-ass-da.

bakk-e anything say-Comp Neg-Past-Decl 'Only Insu said anything to anyone.⁶'

- c. **Han salam-do amugeos-do** malha-ji **anh**-ass-da. *even a person anything* say-Comp Neg-Past-Decl 'Not even a single person said even a single word.'
- (10) a. ***Han salam-do** insu-wa **bakk-e** manna-ji **anh**-ass-da. *even a person* with-*bakk-e* meeting-Comp Neg-Past-Decl '(Intended meaning) Not a single person met anyone other than Insu.'
 - b. *Joheun il-i **amugeos-do** buja-ege **bakk-e** il-eona-ji **ani**-han-da. good thing-Nom *anything* rich people-to *bakk-e* happen-Comp Neg-Pres-Decl '(Intended meaning) No good things happen except to rich people.'
 - c. *Joheun il-i amugeos-do han-salam-ege-do il-eona-ji anh-ass-da.
 good thing-Nom *anything* one person-to happen-Comp Neg-Past-Decl
 '(Intended meaning) No good things happened to even a single person.'

In (9a) and (10a), *bakk-e* and *1-Classifier-do* co-occur, whereas (9b) and (10b) are examples in which *bakk-e* and *Indeterminate-do* co-occur. (9c) and (10c) are examples in which *1-Classifier-do* and *Indeterminate-do* co-occur. (9a) and (9b) are acceptable because *bakk-e* precedes *han madi-do* 'even a word' in (9a) and *amugeos-do* 'anything' in (9b), whereas (10a) and (10b) are unacceptable because *bakk-e* is preceded by *han madi-do* 'even a word' in (10a) and is preceded by *amugeos-do* 'anything' in (10b). (9c) is acceptable because *han salam-do* 'even a person' precedes *amugeos-do* 'anything', whereas (10c) is unacceptable because *han salam-do* 'even a person' is preceded by *amugeos-do* 'anything'.

Nevertheless, the following Japanese and Korean examples cannot be explained in terms of the observations made by Kataoka (2006) and Kuno and Whitman (2004).

⁶ Park (to appear a) argues that *bakk-e* has two different interpretations when it is in the argument position. (9b) should have another interpretation as in (i).

⁽i) Another expected interpretation of (9b): 'Only Insu did't say anything to anyone.'

However, Kuno and Whitman (2004) do not mention it. See Sells (2001) and Park (to appear a) for the ambiguous interpretations of Korean MNCs.

Consider Japanese, first.

- (11) a. Taro-wa hito-no tameni-**shika nani-mo** deki-**nai**. -Top other people-Gen for-*shika anything* can-Neg-Pres 'Taro can't do anything except for other people.'
 - b. Manyuaru-de-s**hika nani-mo** deki-**na**kunatta nihon. manual-with-*shika anything* possible-Neg become Japan 'Japan, where people can't do anything except with a manual.'

My Japanese consultants judged (11) acceptable. According to Kataoka (2006)'s observation, (11) should be unacceptable because *shika* is positioned higher than *Indeterminate-mo*. Furthermore, we can see that *nani-mo* 'anything' cannot be scrambled over *shika* as illustrated in (12).

(12) a. *Taro-wa nani-mo hito-no tameni-shika deki-nai.
-Top anything other people-Gen for-shika can-Neg-Pres
'(Intended meaning) Taro can't do anything except for other people.'
b. *Nani-mo manyuaru-de-shika deki-nakunatta nihon.
anything manual-with-shika possible-Neg become Japan
'(Intended meaning) Japan, where people can't do anything except with a manual..'

The examples in (12) are counterexamples to Kataoka's (2006) observation, (6). Next, consider Korean MNCs.

(13) a. *I bang-e-neun Taro bakk-e han salam-do eobs-da.
this room-Loc-Top bakk-e even a person Neg-exist-Decl
'(Intended meaning) There isn't even a single person except Taro in this room. '
b. *Taro-neun sagwa bakk-e han gae-do meog-ji anh-ass-da.
Top apple bakk-e even one eat-Comp Neg-Past-Decl
'(Intended meaning) Taro didn't eat even a single thing except an apple.'

If Kuno and Whitman's (2004) observation (8) were correct, (13) should be acceptable because *bakk-e* precedes *1-Classifier-do*; however, (13) is unacceptable. Moreover, consider the examples below.

- (14) a. **Amu-do** i keompyuteo-leul **han beon-do** sseu-ji anh-assd-a. *anyone* this computer-Acc *even one time* use-Comp Neg-Past-Decl 'No one used this computer even one time.'
 - b. **Amu-do** sagwa-leul **han gae-do** meog-ji anh-ass-da. *anyone* apple-Acc *even one thing* eat-Comp Neg-Past-Decl 'No one ate even one apple.'

According to Kuno and Whitman (2004), (14) should be unacceptable because *Indeterminate-do* (*amu-do* 'anyone') precedes *1-Classifier-do* (*han beon-do* 'even one time', *han gae-do* 'even one thing'). Nonetheless, (14) is acceptable. This shows that there exists a word order constraint which only restricts the order of *bakk-e* and other NPIs such as *Indeterminate-do* and *1-Classifier-do*⁷. This is the same in Japanese MNCs.

In this section, I have examined past studies on word order with *Indeterminate-mo* (*do*) and co-occurrence with *1-Classifier-do* in Japanese and Korean MNCs with *shika* (*bakk-e*) and I have presented some counterexamples to their observations. In the next section, I present constraints on the word order of *shika* (*bakk-e*) and *Indeterminate-mo* (*do*) and on a co-occurrence of *shika* (*bakk-e*) and *I-Classifier-mo* (*do*) in Japanese and Korean MNCs.

3 Constraints on Japanese and Korean MNCs with shika (bakk-e)

I propose that there is a word order constraint on *Indeterminate-mo* (*do*) and *shika* (*bakk-e*) and a co-occurrence restriction on *shika* (*bakk-e*) and *1-Classifier-mo* (*do*) in Japanese and Korean MNCs as follows.

⁷ I have not presented a word order constraint on MNCs *bakk-e* and *1-Classifier-do* in this section, but I will present it in section 4.

- (15) Constraints on Japanese and Korean MNCs with *shika* (*bakk-e*)
 - (i) Word order constraint on *shika* (*bakk-e*) and *Indeterminate-mo* (*do*) : *shika* (*bakk-e*) must precede *Indeterminate-mo* (*do*) \rightarrow *shika* (*bakk-e*) > *Indeterminate-mo* (*do*)
 - (ii) Co-occurrence restriction on *shika* (*bakk-e*) and *1-Classifier-mo* (*do*):
 1-Classifier-mo (do) must have an overt host NP unlike *Indeterminate-mo* (*do*) when it occurs with *shika* (*bakk-e*)

I now present evidence in support of the proposal. First, consider a word order constraint on *shika* (*bakk-e*) and *Indeterminate-mo* (*do*) in Japanese and Korean MNCs.

- (16) a.(J)(?)Senso-o ajiwatta hito-ni-**shika dare-mo** wakara-**nai.** war-Acc experienced people-for-*shika anyone* understand-Neg-Pres 'No one but people who have experienced the war understands.'
 - (K) Jeonjaeng-eul gyeongheomhan salamdeul bakk-e amu-do ihaehal su eobs-da. war-Acc experienced people bakk-e anyone understand Neg-Pres-Decl
 - b.(J) Watashitachi-wa uta-de-shika nani-mo kaese-nai-kara
 we -Top song-with -shika anything pay back-can-Neg-because
 saiko-no-mono-o mise-yo-ze.
 best-Gen-thing-Acc show-let us-Modal
 'Let's show our best because we can't pay [them] back with anything but a song.'
 - (K) Ulideul-eun nolae-lo bakk-e amugeos-do gap-eul su eobs-eunikka we -Top song-with bakk-e anything pay back-can Neg-because choego-ui geos-eul bo-yeojudolog haja.
 best-Gen thing-Acc show let us-Modal

In (16), *shika* (*bakk-e*) occurs with *Indeterminate-mo* (*do*). These sentences are acceptable (though the Japanese MNC in (16a) is marginally acceptable). In contrast, the following examples are all unacceptable even though the same NPIs co-occur.

- (17) a.(J) ***Dare-mo** senso-o ajiwatta hito-ni-**shika** wakara-**nai**. *anyone* war-Acc experienced people-for-*shika* understand-Neg-Pres '(Intended meaning) No one but people who have experienced the war understands.'
 - (K) *Amu-do jeonjaeng-eul gyeongheomhan salamdeul bakk-e ihaehal su eobs-da. anyone war-Acc experienced people bakk-e understand Neg-Pres-Decl
 - b.(J) *Watashitachi-wa nani-mo uta-de -shika kaese-nai- kara

we -Top *anything* song-with *-shika* pay back-Neg-because saiko-no-mono-o mise-yo-ze.

best-Gen thing-Acc show-let us-Modal

'(Intended meaning) Let's show our best because we can't pay [them] back with anything but a song.'

 (K) *Ulideul-eun amugeos-do nolae-lo bakk-e gap-eul su eobs-eunikka we -Top anything song-with bakk-e pay back Neg-because choego-ui geos-eul bo-yeojudolog haja.
 best-Gen thing-Acc show let us-Modal

The sentences in (16) and (17) are different only in the linear order of the NPIs. In other words, *dare-mo* (*amu-do*) 'anyone' and *nani-mo* (*amugeos-do*) 'anything' cannot be fronted by scrambling as in (17). This fact shows that *shika* (*bakk-e*) must be positioned higher than *Indeterminate-mo* (*do*) in Japanese and Korean MNCs.

Next, consider a restriction on the co-occurrence of *1-Classifier-mo* (*do*) with *shika* (*bakk-e*) in Japanese and Korean MNCs. (5) is repeated as (18) below for ease of reference.

(18)(J)?*Taro-wa keijiban-de tokumei-de-**shika hitokoto-mo** ie-**nai**. -Top board-on anonymity-in-*shika even a word* say-can-Neg

- '(Intended meaning) Taro can't [express] even one word except anonymously on the board.'
- (K)?*Taro-neun gesipan-eseo igmyeong-eulo **bakk-e han madi-do** hal su **eobs**-da. -Top board-on anonymity-in *bakk-e even a word* do-can-Neg

(19)(J) *Watashitachi-wa uta-de -shika hitotsu-mo kaese-nai-kara we -Top song-with -shika even a thing pay back-can-Neg-because saiko-no-mono-o mise-yo-ze. best-Gen-thing-Acc show-let us-Modal '(Intended meaning) Let's show our best because we can't pay [them] back with even one thing but a song.'
(K) *Ulideul-eun nolae-lo bakk-e hana-do gap-eul su eobs-eunikka

(K)*Ulideul-eun nolae-lo bakk-e hana-do gap-eul su eobs-eunikka we -Top song-with bakk-e even a thing pay back-can Neg-because choego-ui geos-eul bo-yeojudolog haja. best-Gen thing-Acc show let us-Modal

The sentences in (18) and (19) are unacceptable even though *shika* (*bakk-e*) precedes *1-Classifier-mo* (*do*). In contrast, (20) and (21) are acceptable with the *Indeterminate-mo* (*do*) replaced with the *1-Classifier-mo* (*do*). (3) and (16b) are repeated as (20, 21) below for ease of reference.

- (20)(J) Taro-wa keijiban-de tokumei-de-**shika nani-mo** ie-**nai**. -Top board-on anonymity-in-*shika anything* say-can-Neg 'Taro can't [express] anything except anonymously on the board.'
 - (K) Taro-neun gesipan-eseo igmyeong-eulo bakk-e amugeos-do malhal su eobs-da.
 -Top board-on anonymity-in bakk-e anything say-can-Neg-Decl
- (21)(J) Watashitachi-wa uta-de -shika nani-mo kaese-nai-kara
 we -Top song-with -shika anything pay back-can-Neg-because
 saiko-no-mono-o mise-yo-ze.
 best-Gen- thing-Acc show-let us-Modal
 'Let's show our best because we can't pay [them] back with anything but a song.'
 - (K) Ulideul-eun nolae-lo bakk-e amugeos-do gap-eul su eobs-eunikka we -Top song-with bakk-e anything pay back-can Neg-because choego-ui geos-eul bo-yeojudolog haja. best-Gen thing-Acc show let us-Modal

Hitokoto-mo (*han madi-do*) 'even a word' and *hitotsu-mo* (*hana-do*) 'even a thing' in (18) and (19) are replaced with *nani-mo* (*amugeos-do*) 'anything' in (20) and (21). These sentences are acceptable unlike (18) and (19). Why is *1-Classifier-mo* (*do*) unable to occur with *shika* (*bakk-e*) unlike *Indeterminate-mo* (*do*)? To see this, observe the following sentences.

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(22)(J)(?)Taro-wa keijiban-de tokumei-de-shika hitokoto-mo monku-o ie-nai.
            -Top board-on anonymity-in-shika even a word complaint-Acc say-can-Neg
        'Taro can't [express] even one word of complaint except anonymously on the board.'
   (K)(?)Taro-neun gesipan-eseo igmyeong-eulo bakk-e han madi-do
             -Top board-on
                                anonymity-in bakk-e even a word
bulpyeong-eul hal su eobs-da.
complaint-Acc do-can-Neg
(23)(J)(?)Watashitachi-wa uta-de-shika
                                           hitotsu-mo on-o
                    -Top song-with-shika
                                            even a thing kindness-Acc
         we
         kaese-nai-kara saiko-no-mono-o mise-yo-ze.
         pay back-can-Neg-because best-Gen-thing-Acc show-let us-Modal
         'Let's show our best because we can't pay [their kindness] back with even
         one thing but a song.'
   (K)(?)Ulideul-eun nolae-lo bakk-e hana-do eunhye-leul
         we -Top song-with
                                        even a thing kindness-Acc
                              bakk-e
         gap-eul su eobs-eunikka choego-ui geos-eul bo-yeojudolog haja.
         pay back-can Neg-because best-Gen
                                              thing-Acc show let us-Modal
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In (22) and (23), *shika* (bakk-e) occurs with *1-Classifier-mo* (*do*) and the sentences are acceptable (though they are marginally acceptable), in contrast with (18) and (19). What is the difference between (18, 19) and (22, 23)? *1-Classifier-mo* (*do*) in (22, 23) have an overt host NP such as *monku-o* (*bulpyeong-eul*) 'complaint', which is underlined in (22) or *on-o* (*eunhye-leul*) 'kindness' in (23).

This fact shows that *1-Classifier-mo* (*do*) without an overt host NP has a restriction on the co-occurrence with *shika* (*bakk-e*). In other words, *1-Classifier-mo* (*do*) needs to have an overt host NP when it occurs with *shika* (*bakk-e*).

In sum, contrary to both Kataoka's (2006) and Kuno and Whitman's (2004) observations, there are constraints on Japanese and Korean MNCs with *shika* (*bakk-e*): (i) a word order constraint on *shika* (*bakk-e*) and *Indeterminate-mo* (*do*); and (ii) a co-occurrence restriction on *shika* (*bakk-e*) and *I-Classifier-mo* (*do*).

In the next section, I argue that what factors bring about the constraints.

4 Proposed analysis

In this section, I propose hypotheses for constraints on the word order of *shika* (*bakk-e*) and *Indeterminate-mo* (*do*) and on the co-occurrence of *shika* (*bakk-e*) and *1-Classfier-mo* (*do*) in Japanese and Korean MNCs. I then look at two independent arguments in favor of my hypotheses (sections 4.1 and 4.2).

4.1 A word order constraint on *shika* (*bakk-e*) and *Indeterminate-mo* (*do*)

I propose a hypothesis regarding a restriction on word order of *shika* (*bakk-e*) and *Indeterminate-mo* (*do*) in Japanese and Korean MNCs as follows.

(24) *Shika* (*bakk-e*) must appear in the left-most position in MNCs because it has the meaning of 'except'. Exceptive phrases in natural languages universally have a word order constraint on universal quantifiers.

Previous studies (Eguchi (2000), Mogi (2005), Miyachi (2007) etc.) argue that *shika* is semantically and syntactically quite similar to *igai-nai* (*igai* hereafter) 'except' and *hoka-nai* (*hoka* hereafter) 'except'. See (25) below.

(25) Taro-shika/ igai (dare-mo)/hoka (dare-mo) ko-na-kkta (*ki-ta).
 -shika igai anyone *hoka* anyone come-Neg-Past come-Past
 'No one came here except Taro.'

Shika, igai and hoka in (25) syntactically have the same property, namely, they occur

only with a sentential negation as an NPI⁸. They also have the same meaning, 'except'. Kataoka (2006 : 141) illustrates their common semantic properties as in (26).

(26) Taro-shika/igai/(no)hoka ko-na-katta.

-shika igai hoka come-Neg-Past 'No one came here except Taro.'

- a. Presupposition : Taro came.
- b. Assertion : No one came except Taro.
- c. NOT $\exists x (x \neq Taro) (x came) (= \forall x (x \neq Taro) NOT (x came))$

Park (to appear d) argues that *bakk-e* has the above-mentioned syntactic and semantic properties like *shika*, *igai* and, *hoka*. There also exists an expression in English which is similar to *shika*, *igai and hoka* in Japanese and *bakk-e* in Korean. See (30) below.

- (27) a. No student but John attended the meeting.
 - b. No student but John came.

The English exceptive phrase 'but' is quite similar to the Japanese and Korean counterparts⁹. Let us summarize von Fintel's (1993) definition of 'but': 'But' subtracts a singleton set containing 'John' out of the restriction (i.e. student) of the quantifier 'no' and what is left is applied to the predicate 'attend' or 'come'. This part of the semantics of 'but'-phrases is called 'Domain Subtraction'. von Fintel (1993 :

⁸ However, Park (to appear c) argues that there are some syntactic differences between *shika* and *igai/hoka*, contrary to arguments made in previous studies. In fact, Park mentions that the licensing condition of *shika* is different from one of *igai/hoka*. See Park (to appear c) for more details.

⁹ However, *shika*, unlike *igai*, *hoka* and *bakk-e*, cannot occur with *Indeterminate-mo* (*do*) when they appear in argument position as in (i) because the licensing condition for *shika* is different from that for *igai*, *hoka* and *bakk-e*. See Park (to appear c,d).

⁽i) Taro-***shika/igai**/no **hoka dare-mo** ko-**na**-katta. (ii) Taro **bakk-e amu-do** o-ji **anh**-ass-da. *shika igai* Gen *hoka anyone* come-Neg-Past *bakk-e anyone* come-Comp Neg-Past-Decl 'No one came except Taro.'

126) also mentions that 'but' could be treated as creating a noun modifier with semantics as in $(28)^{10}$.

(28) [students but John]=[students]- {[John]}

Interestingly enough, it has been mentioned (Terazu-Imanishi (1994) etc.) that exceptive phrase constructions like (27) have a word order constraint on universal quantifiers as in (29).

(29) a. *But John, no student attended the meeting.

b. *But John, no student came.

Previous studies argue that the exceptive phrase 'but' cannot be moved when it occurs with universal quantifiers. In other words, the linear order of exceptive phrase constructions with universal quantifiers in English should be like (30).

(30) Universal quantifiers (no/every/all) \geq exceptive phrases (but/except)¹¹

Moreover, Eguchi (2000 : 39) and Mogi (2005 : 21-22) point out that Japanese exceptive phrases such as *igai* and *hoka* have a constraint on word order when they precede *Indeterminate-mo* as in (31).

(31) a. Taro-igai/no hoka dare-mo ko-na-katta. *igai* Gen *hoka anyone* come-Neg-Past 'No one came here except Taro.'
b. *Dare-mo Taro-igai/no hoka ko-na-katta.

anyone igai Gen hoka come-Neg-Past

¹⁰ He also suggests 'the uniqueness condition' to strengthen the conditions even further. See von Fintel (1993 : 129-131) for more details.

¹¹ In fact, 'except for', another type of exceptive phrase in English behaves differently from 'but/except' (von Fintel (1993 : 136-140)), however, this is not relevant for the present discussion.

This fact helps explaining why *shika* (*bakk-e*) has a word order constraint on *Indeterminate-mo* (*do*) as in (17). This is to say, *shika* (*bakk-e*) has the same property as the English exceptive phrase 'but' or the Japanese exceptive phrases *igai* or *hoka*. Therefore, it has a constraint on word order when it occurs with the universal quantifier '*Indeterminate-mo* (*do*)'¹².

In this section, based on a word order constraint of the exceptive phrase 'but' and universal quantifiers, I have explained why *shika* (*bakk-e*) has a word order constraint when it occurs with *Indeterminate-mo* (*do*). We can say that this phenomenon can be universal in natural languages.

4.2 A co-occurrence restriction on *shika* (*bakk-e*) and *1-Classfier-mo* (*do*)

I propose a hypothesis regarding a constraint on the co-occurrence of *1-Classfier-mo* (*do*) in Japanese and Korean MNCs with *shika* (*bakk-e*) as follows.

(32) 1-Classifier-mo (do) needs an overt host NP because of its semantic

¹² Here, two questions remain; (i) What factors cause a word order constraint on exceptive phrases and universal quantifiers? My view is that exceptive phrases are syntactically adjoined to *Indeterminate-mo* (*do*) and they are composed of one constituent. Therefore, *Indeterminate-mo* (*do*) cannot be moved from the exceptive phrases. (ii) Why do MNCs with *shika* (*bakk-e*) also have a constraint on word order with *1-Classifier-mo* (*do*) even though *1-Classifier-mo* (*do*) is not universal quantifier? See the examples below.

 ⁽i) (J)?*Taro-wa keijiban-de monku-o hitokoto-mo tokumei-de-shika ie-nai.
 Top board-on complaint-Acc even a word anonymity-in-shika say-can-Neg
 '(Intended meaning) Taro can't [express] even one word of complaint except anonymously on the board.'

⁽K)?*Taro-neun gesipan-eseo bulpyeong-eul han madi-do igmyeong-eulo bakk-e hal su eobs-da.

⁻Top board-on complaint-Acc *even a word* anonymity-in *bakk-e* do-can-Neg I cannot give the answer to it now but I think minimizers like *1-Classifier-mo* (*do*) also have a similar restriction like universal quantifiers in exceptive phrase constructions. Consider the English examples below.

⁽ii) a. *But John, even a student didn't attend the meeting.

b. *But John, even a student didn't come.

Further investigation of these questions is necessary.

function. In other words, it has a function which limits a specified person or thing. In contrast, *Indeterminate-mo* (do) does not need an overt host NP because it functions by itself as a universal quantifier.

It has been well known that *Indeterminate-mo* in Japanese functions as a universal quantifier (Aoyagi and Ishii (1994), Nishioka (2000), Watanabe (2004), Kataoka (2006) etc.). To illustrate this, consider the examples in (33).

(33) (J) **Dare-m**o ika-**nai**. (K) **Amu-do** ga-ji **anh**-neun-da. anyone go-Neg-Pres anyone go-Comp Neg-Pres-Decl 'Nobody goes.'

It is intuitively clear that *Indeterminate-mo* (*do*) refers to general people or things, for example *dare-mo* (*amu-do*) 'anyone' in (33) refers to general people. Therefore, *Indeterminate-mo* (*do*) does not need an overt host NP in (33). In contrast, *1-Classifier-mo* (*do*) refers to specified people or things, for instance *hitori-mo* (*han salam-do*) 'even a person' refers to *sono kurasu-no-gakuseitachi* (*geu ban hagsaengdeul*) 'students in the class' as in (34).

- (34) (J) (Sono kurasu-no-gakuseitachi-ga) **hitori-mo** ika-**na**i. the class-Gen-students-Nom even one person go-Neg-Pres
 - (K) (Geu ban hagsaengdeul-i) han salam-do ga-ji anh-neun-da. the class-students-Nom even one person go-Comp Neg-Pres-Decl 'Even one person amongst students in the class doesn't go.'

Therefore, *1-Classifier-mo* (*do*) needs an overt host NP in (34). If we represent their semantic properties, it will be as follows.

- (35) Semantic properties of Indeterminate-mo (do) and 1-Classifier-mo (do)
 - a. Indeterminate-mo (do) $\rightarrow \quad \lceil \forall x \neg go(x) \rfloor$
 - b. 1-Classifier-mo (do) $\rightarrow \quad \lceil \neg \exists x go(x) \rfloor$

Based on (35), *1-Classifier-mo* (*do*) needs to have an overt host NP in MNCs with *shika* (*bakk-e*) as in (22, 23) unlike *Indeterminate-mo* (*do*) as in (20, 21).

5 Conclusion

In this paper, I have argued that there are problems with past attempts to account for word order with *Indeterminate-mo* (*do*) and co-occurrence with *1-Classifier-do* in Japanese and Korean MNCs with *shika* (*bakk-e*). I have presented two arguments. (i) Firstly, there exists a word order constraint on *shika* (*bakk-e*) and *Indeterminate-mo* (*do*), in other words, *shika* (*bakk-e*) must precede *Indeterminate-mo* (*do*). The reason is that exceptive phrases in natural languages have a word order constraint on universal quantifiers. (ii) Secondly, there exists a co-occurrence restriction on *shika* (*bakk-e*) and *1-Classifier-mo* (*do*), that is, unlike *Indeterminate-mo* (*do*), *1-Classifier-mo* (*do*) must have an overt host NP when it occurs with *shika* (*bakk-e*). It can be explained by a functional difference between *1-Classifier-mo* (*do*) and *Indeterminate-mo* (*do*). *1-Classifier-mo* (*do*) needs to have an overt host NP because *1-Classifier-mo* (*do*) refers to specified people or things, whereas *Indeterminate-mo* (*do*) can function by itself as a universal quantifier.

Further researches are needed in MNCs with *shika* and *dare-mo* 'anyone', like those in (36).

- (36) a. Kono biru-wa chika 10 kai-made aru-ga chika 5 kaithis building-Top basement 10th floor-up to exist-but basement 5th floor made- shika dare-mo itta-koto-ga nai. down to-shika anyone go experience-Nom Neg-Pres
 'This building has 10 floors underground but everybody has been down only down to 5th floor underground.'
 - b.(?)Kono biru-wa chika 10 kai-made aru-ga dare-mo chika 5 kaithis building-Top basement 10th floor-up to exist-but *anyone* basement 5th made -shika itta-koto-ga nai. floor-down to -*shika* go experience-Nom Neg-Pres

MNCs with *shika* and *dare-mo* 'anyone' like (36a) are somewhat different from the ones I have proposed in this paper such as (16a). Notice the semantic relationship between shika phrase and dare-mo 'anyone'. As I have indicated in section 4, shika phrase and *dare-mo* 'anyone' in (16a) belong to one singleton set. However, those in (36a) belong to a different domain. In fact, MNCs between (36a) and (16a) behave differently in that *dare-mo* 'anyone' in (16a) cannot be fronted by *shika* as in (17a), whereas dare-mo 'anyone' in (36a) can precede shika as in (36b) (though (36b) is marginally acceptable). Park (2007b) argues that the reason why dare-mo 'anyone' in (36b) can precede *shika* is that it has a meaning as a Free Choice Item (See Giannakidou (2001)). Namely, it is functioned as not an NPI but a Free Choice Item and has a meaning of 'everyone'. This makes it reasonable to speculate that there possibly exist different principles between MNCs in (16a) and MNCs in (36a) (Korean MNCs with bakk-e are also the same). I propose that we need to divide Japanese with *shika* and *dare-mo* 'anyone' into two types: Type 1, which are MNCs like those in (16a) and Type 2, which are MNCs like those in (36). They can be roughly represented as below.

(37) a. Type 1 MNCs: NP-*shika* and *dare-mo* 'anyone' belong to one singleton setb. Type 2 MNCs: NP-*shika* and *dare-mo* 'anyone' belong to a different set

It seems reasonable to conjecture that syntactic structures between Type 1 MNCs and Tpye 2 MNCs are different. But further research is required on this point.

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日韓両言語における多重否定極性項目構文 における制約をめぐって

朴 江訓

本稿の目的は日韓両言語におけるいわゆる多重否定極性項目構文におい て現れる2つの制約、つまり「しか (bakk-e)」と「不定語モ」の語順制約及 び「しか (bakk-e)」と「1-助数詞モ (do)」の共起制約を記述し、それぞれの 制約が生じる理由を明らかにすることである。

「しか (bakk-e)」が単一否定文内で他の NPI「不定語モ (do)」「1-助数詞モ (do)」と共起する時には、2 つの制約が生じる。一つ目は「しか (bakk-e)」が「不定語モ (do)」と共起する際に必ず「しか (bakk-e) - 不定語モ (do)」という線形語順を守らなければならないこと、二つ目は「しか (bakk-e)」が「1-助数詞モ (do)」と共起する際には、「不定語モ (do)」と共起する場合と異なって、「1-助数詞モ (do)」のホスト名詞句が必ず顕在化しなければならないことである。

本稿は上記のような2つの制約が生じる理由について次のように主張する。 (i) 語順制約:「しか (bakk-e)」の例外表現としての意味的特徴に起因すると 考えられる。例外表現が全称量化表現 (universal quantifier)と共起する際には この2つの表現が同一の構成素を成し、全称量化表現のみ移動させるのは不 可能であると考えられる。このような例外表現と全称量化表現との語順制約 は自然言語において普遍的であるといえよう。ただし、「しか (bakk-e)」と「誰 も (amu-do)」が用いられた多重否定極性項目構文は2種類があり、それぞれ の統語構造が異なる可能性がある。(ii) 共起制約:「1-助数詞モ (do)」はある 特定の人または物を制限するような意味的機能を担っているためその意味的 対象であるホスト名詞句が顕在化しないと生起できないと考えられる。