A Note on Inverse Scope in Japanese [*]

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This paper shows that 'genuine' inverse scope is possible in at least two types of clause in Japanese, description clauses and clauses with a topic phrase marked by *wa*, after excluding two cases of 'non-genuine' inverse scope. I then discuss a semantic restriction on QPs in description clauses and suggest a way for a QP to circumvent this restriction.

0. Introduction

This paper points out two types of clause which allows 'genuine' inverse scope of a quantified NP (henceforth, QP) in the object position over the subject, contrary to the widely-held view that Japanese is a 'rigid scope' language with respect to the scope relation between the subject and the object QP. Section 1 briefly illustrates the 'rigidity of scope' in Japanese. In Section 2 I discuss the cases of inverse scope between a subject and an object QP that are shown to be ascribed to the configurational relation of the subject and the object in which the object is underlyingly in a higher position than the subject. Section 3 points out cases of 'genuine' inverse scope in Japanese, a case in which inverse scope between two QPs is made possible not by the underlying configurational order Object-Subject, but by a syntactic/semantic property of the clause in which the two QPs appear. Section 4 discusses a semantic restriction on QPs in description clauses and suggest a way in which a QP can circumvent the restriction in order to be able to take wide scope.

1. Scope Rigidity in Japanese

It has been widely observed (Kuroda (1969/70) and Hoji (1985), among others) that Japanese is a 'rigid scope' language. That is, when a subject and an object QP appear in the order Subject-Object, the subject QP may take wide scope over the object, but the inverse scope order,

one where the object takes wide scope over the subject, is impossible, unlike the English counterpart in (2) where both readings are possible:

(1)   *Dareka-ga   daremo-o*   mi-ta
      someone-Nom everyone-Acc see-Past
      'Someone saw everyone.'
      [unambiguous: Subject > Object, *Object > Subject]

(2)   *Someone* saw *everyone*.
      [ambiguous: Subject > Object, Object > Subject]

In (1), the subject QP *dareka-o* 'someone' may take scope over the object QP *daremo-o* 'everyone', but the object cannot take wide scope over the subject. Thus sentence (1) may be taken to describe the situation illustrated in (3a), but not the one in (3b), while the English example in (2) may describe either of them:

(3)   a.   *dareka-ga*   *daremo-o*
          'someone'   'everyone'

      b.   *dareka-ga*   *daremo-o*
          'someone'   'everyone'

(3a) is intended to illustrate the situation that involves one particular person who saw all the members, whereas in (3b) each member denoted by the object had a different person who saw him/her.

Japanese exhibits inverse scope when the object QP is scrambled to the front of the subject QP (Kuroda (1969/70) and Hoji (1985)). That is, in the order Object-Subject, the subject QP may take

scope over the preceding object, as well as the other scope order in which the fronted object QP takes scope over the subject:

(4)　*Daremo-o*$_i$　　*dareka-ga t*$_i$　mita
　　　everyone-Acc someone-Nom see-Past
　　　Lit. 'Everyone, someone saw.'
　　　[ambiguous: Subject > Object, Object > Subject]

Thus we may draw the following generalization:

(5)　a.　QPs in the order Subject-Object only allow wide scope of the subject.
　　　b.　QPs in the reversed surface order Object-Subject allow either scope relation.

The difference between Japanese and English, then, is whether the second QP (QP$_B$) can take scope over the first QP (QP$_A$) where QP$_B$ is both superficially and underlyingly lower than QP$_A$ in their configurational relation as in (6a).

(6)　a.　... QP$_A$ ... QP$_B$ ...
　　　b.　... QP$_A$ ... QP$_B$ ... t_{QPA} ...

In what follows I call the type of inverse scope of QP$_B$ in the case of (6a) *genuine inverse scope*. Japanese does not allow genuine inverse scope whereas English does, as we have seen in (1) and (2). On the other hand, I call the type of inverse scope of QP$_B$ in the case of (6b) *non-genuine inverse scope*.

　　　The generalization that Japanese does not allow genuine inverse scope, however, has been put into question by several linguists (Kuno and Takami (2002), Hayashishita (2013), among others), who claim that QPs in the order Subject-Object do yield genuine inverse scope. Hayashishita (2013), for example, points out that the (im)possibility of inverse scope is affected by the choice of the type of the object QP, observing that the object QP that denotes a specific group tends to be able to take inverse scope over the subject.

　　　Below I show that the type of the clause that QPs appear in is also an influential factor that (dis)allows genuine inverse scope. Specifically, I point out that at least two types of clause, namely description clauses in the sense of Ueyama (2007) and clauses with a topic phrase marked by *wa*, allow genuine inverse scope of the object QP over the subject. In order to show this, however, it is

necessary to exclude those cases where the order Subject-Object is in fact the result of the overt movement of the subject over the object, since in such a case the subject and the object QP will be in the configuration in (6b). I turn to such cases in the next section before discussing cases of genuine inverse scope in Section 3.

2. Predicates that Allow Non-genuine Inverse Scope in Japanese

In this section I discuss two types of predicate whose subject is in fact underlyingly lower than the object. The subject and the object QP of this type of predicate yields inverse scope in the order Subject-Object, but the possibility of inverse scope with this type of predicate is ascribed to the underlying configurational order Object-Subject. Thus the inverse scope observed with QPs of these predicates is not a case of genuine inverse scope.

2.1 Object-Experiencer Psychological Verbs

The first type of predicate that involves the underlying order Object-Subject is object-experiencer psychological verbs such as *yorokobaseru* 'please' and *kurusimeru* 'annoy'. The subject and the object QP of this type of verb allow inverse scope in the order Subject-Object (Matsuoka (2001), Homma (2004)).

(7)   a.   *Huta-tu-no beru-no   oto-ga   san-nin-no   kodomo-o* yorokob-ase-ta
           two-Cl-Gen bell-Gen sound-Nom three-Cl-Gen child-Acc please-Past
           'Two sounds of a bell pleased three children.'   (Matsuoka (2001))
           [ambiguous: Subject > Object, Object > Subject]

     b.   *Dareka-ga   subete-no hito-o*   kurusimete iru
           someone-Nom every-Gen person-Acc annoy   is
           'Someone annoys every person.'
           [ambiguous: Subject > Object, Object > Subject]

In both these examples, it is possible to understand the object QP as taking wide scope over the subject. (7a), for example, may be taken to describe the situation where each of the three children was pleased by a different set of two bell sounds, as well as the situation in which two sounds are such that they pleased three children (, whereas other bell sounds are such that they pleased only one or two children).

We may account for the ambiguity of these examples in the following way. Firstly, the nominative subject of an object-experiencer verb is construed either as the Causer or the Target of

Emotion, in the sense of Pesetsky (1995). Thus the sentence (7a) may either describe the situation where the two bell sounds simply signaled the end of a tiresome class, in which case the subject is taken to be the Causer argument, or the situation where the bell sounds were indeed liked by the children, in which the subject plays the role of the Target of Emotion.

Secondly, let us assume that the thematic roles are hierarchically aligned as in (8), and that each argument is mapped onto the syntactic structure in (9), following Endo and Zushi (1993), Pesetsky (1995) and Matsuoka (2001):

(8) Causer > Experiencer > Target of Emotion
(9) [$_{VP1}$ [$_{DP}$ Causer] [[$_{DP}$ Experiencer] [[$_{DP}$ Target of Emotion] ...

When the subject QP *hutatu-no beru-no oto-ga* is interpreted as the Target of Emotion in (7a), the sentence has the following structure:

(10) [$_{TP}$ [hutatu-no beru-no oto-ga] $_i$ [$_{VP1}$ [san-nin-no kodomo-o] [t_i yorokob-ase-ta]]]

The subject QP under its Target of Emotion interpretation is generated in the position marked by t_i in (10), while the object, the Experiencer argument, is generated in the higher position than the subject. The subject, then, is moved to its surface subject position, crossing over the object. Therefore, the configurational relation of the subject and the object QP in (7) corresponds to that in (6b). Thus the scope ambiguity of the examples in (7) can be ascribed to the configurational relation between the two QPs depicted in (6b). If this is so, the inverse scope with the QP arguments of object-experiencer psychological verbs is not a case of genuine inverse scope.

2.2 Verbs with a Path Object

The second case of the Subject-Object order obtained via the movement of the subject over the object is sentences involving a motion verb accompanied by a path-denoting object NP, as exemplified in (11):

(11) a. *San-nin-no heitai-ga subete-no hasi-o* watat-ta
three-Cl-Gen soldier-Nom every-Gen bridge-Acc cross-Past
'Three soldiers crossed every bridge.'
[ambiguous: Subject > Object, Object > Subject]

b. *Hyaku-nin-izyoo-no zyookyaku-ga   subete-no sekyuritiichekku-o* tuukasi-ta
  hundred-Cl-Gen   passenger-Nom every-Gen security.check-Acc pass-Past
  'More than a hundred passengers passed every security check.'
  [ambiguous: Subject > Object, Object > Subject]

Unlike (1), these examples are understood to be interpreted in either scope order. (11a), for example, may be taken to refer to three soldiers who crossed every bridge (Subject > Object), or to mean that for each of the set of bridges in question, it was crossed by a different set of three soldiers (Object > Subject).

Miyagawa (1989) shows that such motion verbs with a path-denoting object are indeed unaccusative verbs whose subject is the 'true' object, as illustrated in (12):

(12) [$_{TP}$ Subj$_i$-ga [$_{VP}$ Obj-o [t_i wataru]]]

Miyagawa defends this analysis by pointing out the fact that a floating quantifier to the right of the path object can be associated with the subject:

(13) Heitai-ga   sono hasi-o   san-nin watat-ta
    soldiers-Nom that   bridge-Acc three-Cl cross-Past
    'Three soldiers crossed that bridge.'

If so, then we can ascribe the ambiguity of the examples in (11) with respect to scope to the two QPs' underlying configurational relation: the subject QP is underlyingly lower than the object QP, as depicted in (14):

(14) [$_{TP}$ san-nin-no heitai$_i$-ga [$_{VP}$ subete-no hasi-o [t_i watar-]] ta]

3. Cases of Genuine Inverse Scope in Japanese

Having excluded two cases of the Subject-Object order that is yielded by the movement of the subject across the object, we are now in the position to discuss the types of clause that exhibit genuine inverse scope. The type of verb to be involved in relevant examples must be ones whose subject and object are generated in their underlying positions identical to their surface order. This is the case of agentive transitive verbs such as *kumihuseru* 'hold down' and *sidoosuru* 'supervise'. Agentive verbs are known to block the association of a floating quantifier to the right of the object

to the subject. Therefore, we can say that agentive verbs have their subject and object underlyingly aligned in the manner shown in (16):

(15) a.　*Gakusei-ga　doroboo-o san-nin kumihuse-ta
　　　　　student-Nom burglar-Acc 3-Cl　hold.down-Past
　　　　　'Three students held down the burglar.'

　　b.　*Sensei-ga　　Taroo-o　　hutari sidoosi-ta
　　　　　teacher-Nom Taro-Acc 2.Cl　　supervise-Past
　　　　　'Two professors supervised Taro.'

(16) [TP　　　　[vP Subject [VP Object V]]]

Thus agentive verbs are suitable detective tools to identify cases of genuine inverse scope.
　　　Now let us observe the following examples:

(17) a.　*At the venue of the summit conference,*
　　　　　Hutari-no keikan-ga　　　subete-no　yoozin-o goeisure-ba mondai-wa
　　　　　2.Cl-Gen police.officer-Nom every-Gen VIP-Acc guard-if　　problem-Top
　　　　　oki-nai-hazuda
　　　　　arise-Neg-should
　　　　　'If two police officers guard every VIP, no problem should arise.'
　　　　　[ambiguous: 2 > every, every > 2]

　　b.　*The group of burglars were chased by the police, and finally*
　　　　　Hutari-no keikan-ga　　　hanbun-izyoo-no otoko-o　kumihuseteiru-no-ga
　　　　　2.Cl-Gen police.officer-Nom half-or.more-Gen man-Acc hold.down-Gen-Nom
　　　　　mieta
　　　　　could.see
　　　　　'I could see two police officers holding down more than half of the men.'
　　　　　[ambiguous: 2 > half or more, half or more > 2]

　　c.　*San-nin-no sensei-ga　　subete-no gakusei-o*　sidoosuru-no-wa
　　　　　3-Cl-Gen　teacher-Nom every-Gen student-Acc supervise-Gen-Top
　　　　　hukanoo-da/muzukasii
　　　　　impossible-is/difficult
　　　　　'It is impossible/difficult for three professors to supervise every student.'
　　　　　[ambiguous: 3 > every, every > 3]　　　　　　　　　(Homma (2015))

These examples all involve agentive verbs (*goei-suru* 'guard', *kumihuseru* 'hold down' and *sidoosuru* 'supervise') and are all felt to have the inverse scope reading of the object QP over the subject, as well as the wide scope reading of the subject. In (17a), for example, the referents of the subject QP *hutari-no keikan-ga* 'two police officers' can vary with respect to each referent of *subete-no yoozin-o* 'every VIP'. This is a situation described by the inverse scope order Object > Subject. In contrast, the inverse scope reading of the object disappears if we put the subordinate clause containing the QPs in a matrix clause. The examples in (18), where two QPs appear in a matrix clause, can only be interpreted to have the scope order Subject > Object:

(18) a. *At the venue of the summit conference,*
          Hutari-no keikan-ga   *subete-no yoozin-o* goeisi-ta
          2.Cl-Gen police.officer-Nom every-Gen VIP-Acc guard-Past
          'Two police officers guarded every VIP.'
          [unambiguous: 2 > every, *every > 2]
     b. *The group of burglars were chased by the police, and finally*
          Hutari-no keikan-ga   *hanbun-izyoo-no otoko-o*   kumihuse-ta
          2.Cl-Gen police.officer-Nom half-or.more-Gen man-Acc hold.down-Past
          'Two police officers held down half or more of the men.'
          [unambiguous: 2 > half or more, *half or more > 2]
     c. *San-nin-no sensei-ga*   *subete-no gakusei-o*   sidoosi-ta
          3-Cl-Gen   teacher-Nom every-Gen student-Acc supervise-Past
          'Three professors supervised every student.'
          [unambiguous: 3 > every, every > 3]

The type of embedded clause involved in (17) is characterized in Ueyama (1998, 2007) as expressing *description* only, as opposed to clauses that express *Predication*. The former type of clause, which we henceforth call *description clauses*, include subordinate clauses embedded in such constructions exemplified in (17). The latter type of clause, which we call *Predication clauses*, is exemplified as such subordinate clauses as the complement clause of *syoomeisuru* 'to prove' and a conditional clause involving *-nara* 'if'. Ueyama's dichotomy of the two types of clause is based on Kuroda's (1972-73) two types of judgment. One type of judgment, which Kuroda calls *categorical judgment* or *Predication*, is expressed by a clause in which the phrase at the left edge expresses what the clause is about and constitutes the "topic" of the clause, leaving the rest of the

clause as the "comment". The other type of judgment expressed by a clause, which Kuroda calls *thetic judgment* or *description*, does not have the topic-comment structure, but expresses a neutral description of the situation described by the clause.

Thus we find that the description clause is one type of environment that allows genuine inverse scope.

Another type of clause where genuine inverse scope is allowed is the sentence involving a topic NP, an NP with the particle *wa*. Consider the following examples:[1]

(19) a. Nihon-de-wa *hutari-no keikan-ga   subete-no yoozin-o* goeisu-ru
          Japan-in-Top 2.Cl-Gen police.officer-Nom every-Gen VIP-Acc guard-Pres
          'In Japan, two police officers guard every VIP.'
          [ambiguous: 2 > every, every > 2]

    b.   Kono-daigaku-wa *san-nin-no sensei-ga   subete-no gakusei-o*   sidoosu-ru
          this-college-Top 3-Cl-Gen teacher-Nom every-Gen student-Acc supervise-Pres
          'At this college, three professors supervise every student.'
          [ambiguous: 3 > every, every > 3]

These examples are felt to be ambiguous between the indicated readings, as opposed to the following sentences without a *wa*-marked phrase, which can only have the wide scope reading of the subject QP, as we have observed:

(20) a. *Hutari-no keikan-ga   subete-no   yoozin-o* goeisi-ta
          2.Cl-Gen police.officer-Nom every-Gen VIP-Acc guard-Past
          'Two police officers guarded every VIP.'
          [unambiguous: 2 > every, every > > 2]

    b.   *San-nin-no sensei-ga   subete-no gakusei-o*   sidoosi-ta
          3-Cl-Gen   teacher-Nom every-Gen student-Acc supervise-Past
          'Three professors supervised every student.'
          [unambiguous: 3 > every, every > 3]

Thus we have identified at least two environments with respect to the clause type where inverse scope of the object is possible.

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[1] I appreciate Yoshihito Dobashi (personal communication) for bringing this effect of the topic *wa* to my attention.

4. A Semantic Restriction on QPs in Descriptive Clauses

Contrary to our observation, however, Ueyama (1998) makes a quite different observation from the ones made in the preceding section. She observes that the scope order of the subject and the object QP is invariably Subject > Object in description clauses irrespective of their surface word order. Thus the following examples, as Ueyama (1998) observes, are both unambiguous with the scope order Subject > Object (Dative) the only reading:[2]

(21) a. Kono-gakusei-ni-wa *hutari-izyoo-no hito-ga*   *kanarino-kazu-no seizika-ni*
        this-student-Dat-Top 2-Cl-over-Gen person-Nom large-number-Gen politician-Dat
        tirasi-o   watasiteiru-tokoro-ga   mieta   rasii
        flyer-Acc handing.out-place-Nom could.see seem
        'It seems that this student could see more than two people handing out flyers to quite many politicians.'
        [unambiguous: two or more > many, *many > two or more]

    b. Kono-gakusei-ni-wa *kanarino-kazu-no seizika-ni*   *hutari-izyoo-no hito-ga*
        this-student-Dat-Top large-number-Gen politician-Dat 2.Cl-over-Gen   person-Nom
        tirasi-o   watasiteiru-tokoro-ga mieta   rasii
        flyer-Acc handing.out-place-Nom could.see seem
        'It seems that this student could see more than two people handing out flyers to quite many politicians.'
        [unambiguous: two or more > many, *many > two or more]   (Ueyama (1998))

I agree with Ueyama's observation that these sentences are both unambiguous with respect to the scope relation of the subject and the dative object. If the embedded clause of (21a) and (21b) occur

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[2] The unambiguity of scope in description clauses is also observed in Hayashishita (1999), who notes the following example:

(i)   #John to Bill sorezore-ni ippon-no ya-ga   itutu-no mato-ni   sasatteiru-no-ga   mie-ta
      John and Bill each-Dat 1.Cl-Gen arrow-Nom 5.Cl-Gen target-Dat pierce-Gen-Nom seen-Past
      'John and Bill each saw one arrow piercing five targets.'   (Hayashishita (1999))
      [unambiguous: 1 > 5, *5 > 1]

This particular example, Hayashishita notes, is pragmatically anomalous in that it can only describe the situation where a single set consisting of one arrow is stuck into five different targets, a situation physically inconsistent with the real world. A situation where the five targets each has a different set of one arrow stuck into them would be described by the intended inverse scope reading, which is unavailable for (i).

as a main clause, as in (22), the QPs exhibit the usual pattern of scope: the subject obligatorily takes wide scope in the order Subject > Dative Object while the subject and the object can each take wide scope over the other in the order Dative Object > Subject:

(22) a. *Hutari-izyoo-no hito-ga   kanarino-kazu-no seizika-ni*   tirasi-o   watasi-ta

        2.Cl-over-Gen person-Nom large-number-Gen politician-Dat flyer-Acc hand-Past

        'More than two people handed out flyers to quite many politicians.'

        [unambiguous: two or more > many, *many > two or more]

    b. *Kanarino-kazu-no seizika-ni   hutari-izyoo-no hito-ga*   tirasi-o   watasi-ta

        large-number-Gen politician-Dat 2.Cl-over-Gen   person-Nom flyer-Acc hand-Past

        'Lit. To quite many politicians more than two people handed out flyers.'

        [ambiguous: two or more > many, many > two or more]

The unavailability of inverse scope in (21a) is problematic to our generalization in the previous section that the object may take inverse scope in description clauses. What is more, it is somewhat surprising that (21b) disallows the wide scope of the fronted dative object, unlike (22b), which does allow wide scope of the fronted dative object. What is it then that disallows wide scope of the dative object in (21)?

    The answer to this question seems to lie in the semantic property of QPs in description clauses and in the relevance of that semantic property to scope taking. Firstly, Ueyama (2007) points out that description clauses do not accommodate a quantifier that involves presupposition:[3]

(23) a. **Kahansuu-no kaisya-ga*   soko-no torihikisaki-ni syazaisite-iru-no-ga

        majority-Gen company-Nom it-Gen   client-Dat   apologize-be-Gen-Nom

        kikoe-ta

        be.heard-Past

        'I could hear a majority of the companies apologizing to their clients.'

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[3] Ueyama (2007) also notes that description clauses do not allow focus particles such as *dake* 'only' and *sae* 'even':

(i) a. **Zitensya-de-dake* iku-no-wa   hukanoo-da

      bicycle-by-only   go-Gen-Top impossible-be

      'It is impossible to go only by bicycle.'

    b. **Huzisan-no tyoozyoo-ni-sae* denpatoo-o   tateru-no-wa hukanoo-da

      Mt..Fuji-Gen top-Dat-even   radio.tower.Acc build-Gen-Top impossible-be

      'It is impossible to build a radio tower even on the top of Mt. Fuji.'

b. *Kahansuu-no   kaisya-ga   soko-no torihikisaki-ni syazaisite-iru-no-o
    a.majority-Gen company-Nom it-Gen   client-Dat   apologize-be-Gen-Acc
    mikake-ta
    see-Past
    'I could see a majority of the companies apologizing to their clients.'

The QP *kahansuu-no kaisya-ga* 'a majority of the companies' is presuppositional in the sense that it presupposes the existence of a set of companies out of which it picks more than half of the members.

Secondly, as shown by Diesing (1992), Homma et al. (1992), wide scope cannot be taken by a nonpresuppositional QP. Consider:

(24) a. *Huta-tu-no booru-o* daremo-ga   ket-ta.
         2-Cl-Gen   ball-Acc everyone-Nom kick-Past
         'Everyone kicked two balls.'
         [ambiguous: every > 2, 2 > every]

b. *Booru-o huta-tu* daremo-ga   ket-ta.
    ball-Acc 2-Cl   everyone-Nom kick-Past
    'Everyone kicked two balls.'
    [unambiguous: every > 2, *2 > every]

Homma et al. (1992) observe that a QP with a floated quantifier such as *booru-o huta-tu* in (24b) may only have a nonpresuppositional reading, while a QP with a prenominal quantifier (*huta-tu-no booru-o* in (24a)) may have either a presuppositional or a nonpresuppositional reading. The QP in (24b) may only refer to two balls newly-introduced in the discourse, but not to two of the set of balls that is presupposed to exist prior to utterance. Furthermore, Homma et al. (1992) argue that the lack of presuppositionality in the fronted object QP *booru-o huta-tu* in (24b) is the reason for the unavailability of its wide scope.

Now observe (21) again, repeated here as (25):

(25) a. Kono-gakusei-ni-wa *hutari-izyoo-no hito-ga   kanarino-kazu-no seizika-ni*
         this-student-Dat-Top 2-Cl-over-Gen person-Nom large-number-Gen politician-Dat
         tirasi-o   watasiteiru-tokoro-ga mieta   rasii
         flyer-Acc handing.out-place-Nom could.see seem

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'It seems that this student could see more than two people handing out flyers to quite many politicians.'

[unambiguous: two or more > many, *many > two or more]

b. Kono-gakusei-ni-wa *kanarino-kazu-no seizika-ni   hutari-izyoo-no hito-ga*

this-student-Dat-Top large-number-Gen politician-Dat 2.Cl-over-Gen   person-Nom

tirasi-o   watasiteiru-tokoro-ga   mieta   rasii

flyer-Acc handing.out-place-Nom could.see seem

'It seems that this student could see more than two people handing out flyers to quite many politicians.'

[unambiguous: two or more > many, *many > two or more]   (Ueyama (1998))

The semantic restriction that Ueyama (2007) notes for QPs in description clauses disallows the presuppositional reading of the QP *kanarino-kazu-no seizika-ni*. Indeed, I find that this QP strongly favors the nonpresuppositional reading, in contrast to the same QP in a main clause in (22b), which does seem to have a presuppositional reading. If so, then we may ascribe the unavailability of wide scope for this QP in (21) (= (25)) to the unavailability of a presuppositional interpretation for QPs in description clauses: the dative object QP in (21) cannot take wide scope because it does not have a presuppositional reading.

   Now if presuppositional QPs are disallowed in description clauses, as Ueyama (2007) notes, then why is it that the examples in (17), repeated here as (26), are acceptable in the first place, as they all involve a presuppositional QP in the object position?

(26) a. *At the venue of the summit conference,*

      Hutari-no keikan-ga   subete-no   yoozin-o goeisure-ba mondai-wa

      2.Cl-Gen police.officer-Nom every-Gen VIP-Acc guard-if   problem-Top

      oki-nai-hazuda

      arise-Neg-should

      'If two police officers guard every VIP, no problem should arise.'

      [ambiguous: 2 > every, every > 2]

   b. *The group of burglars were chased by the police, and finally*

      Hutari-no keikan-ga   hanbun-izyoo-no otoko-o   kumihuseteiru-no-ga

      2.Cl-Gen police.officer-Nom half-or.more-Gen man-Acc hold.down-Gen-Nom

      mieta

      could.see

'I could see two police officers holding down more than half of the men.'

[ambiguous: 2 > half or more, half or more > 2]

c. *San-nin-no sensei-ga   subete-no gakusei-o* sidoosuru-no-wa

3-Cl-Gen   teacher-Nom every-Gen student-Acc supervise-Gen-Top

hukanoo-da/muzukasii

impossible-is/difficult

'It is impossible/difficult for three professors to supervise every student.'

[ambiguous: 3 > every, every > 3]   (Homma (2015))

I conjecture that the possibility of a presuppositional QP in these instances has to do with the informational property of the superset implied by the QP. Recall that the QP *kahansuu-no kaisya* cannot occur in a description clause.

(27) * *Kahansuu-no   kaisya-ga*   soko-no torihikisaki-ni syazaisite-iru-no-ga

a.majority-Gen company-Nom it-Gen   client-Dat   apologize-be-Gen-Nom

kikoe-ta

be.heard-Past

'I could hear a majority of the companies apologizing to their clients.'   (= (23a))

A description clause denotes a single event and lacks the topic-comment structure (Ueyama (2007)). A presuppositional QP is one which presupposes the existence of a superset prior to the utterance. In other words, a presuppositional QP involves a piece of old information. If so, then we can say that this is the source of unavailability of a presuppositional QP in a description clause since a piece of old information comes from a preceding discourse and does not constitute part of the single event that a description clause is intended to denote.[4]

     If this account of the ban on presuppositional QPs in description clauses is correct, then what if the superset implied by a presuppositional QP is not a genuine piece of old information but a part of the single event denoted by a description clause? Then we can circumvent the semantic restriction on presuppositional QPs in description clauses. Consider (26b) again:

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[4] Ueyama (2007) does not explicitly provide a detailed account of the ban on presuppositional QPs in description clauses, but only states that "in the case of quantified expressions that involve presupposition, a clause containing them is not simply a description of a single event (Translation by S. H.) (Ueyama (2007: 124))." The account developed in the present paragraph is based on my understanding of Ueyama's statement.

(26) b. *The group of burglars were chased by the police, and finally*

　　　　Hutari-no keikan-ga　　　*hanbun-izyoo-no otoko-o*　kumihuseteiru-no-ga

　　　　2.Cl-Gen police.officer-Nom half-or.more-Gen man-Acc hold.down-Gen-Nom

　　　　mieta

　　　　could.see

　　　　'I could see two police officers holding down more than half of the men.'

　　　　[ambiguous: 2 > half or more, half or more > 2]

This particular example sounds acceptable although it involves the presuppositional QP *hanbun-izyoo-no otoko-o*. On a closer inspection, I find it to be acceptable if the scene that the speaker witnessed involves the superset of men. In other words, this sentence sounds natural if the speaker saw a set of ten men in the scene and also saw seven of them each held down by two police officers, in which case the superset of ten men implied by the QP constitutes part of the single event denoted by the description clause (the embedded clause of the perception verb *mieru*).

　　　At this point, I do not see how the superset implied by the QPs in (26a) and (26c) could constitute part of the single event denoted by the description clauses containing them. Nonetheless, if the strategy discussed in the preceding paragraph to circumvent the semantic restriction noted by Ueyama (2007) is at work in (26b), the same strategy should work for the presuppositional QPs in (26a) and (26c) as well.

5. Conclusion

　　　This paper has shown that cases of genuine inverse scope exist in Japanese, cases of inverse scope where the object QP takes wide scope over the subject QP where the object QP is both underlyingly and superficially in a position lower than the subject QP in their configurational relation. In order to do this, I firstly discussed cases of non-genuine inverse scope, cases of inverse scope where the object's inverse scope over the subject is ascribed to the underlying configurational order Object-Subject. I then point out that genuine inverse scope is possible in what Ueyama (2007) calls description clauses and in clauses with a topic phrase marked by *wa*. I have also suggested the way in which the semantic restriction imposed on presuppositional QPs in description clauses can be circumvented.

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