

# Scope Encoding of Indefinite NPs in Japanese

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In this paper, I present novel data on the scope-freezing effect in the sequence of indefinite indirect object (IO) - direct object (DO) in Japanese. I argue that such effect is due to the specificity of the indefinite IO in IO-DO and that this specificity is obligatorily encoded as a variable over choice functions, similar to English *a certain* (Kratzer 1998) and also to St'át'imcets non-polarity indefinite determiners (Matthewson 1999).

In Japanese, IO-DO order has only the surface scope reading IO>DO, whereas DO-IO order is ambiguous between DO>IO and IO>DO readings (ex.1) (Hoji 1985).

- (1) a. IO-DO: Taro-ga [sannin-no onna]-ni [futari-no otoko]-o syookaisita.  
Taro-NOM [three-GEN woman]-DAT [two-GEN man]-ACC introduced  
'(lit.) Taro introduced to three women two men.'  
\_IO(>Distr.)>DO, \*DO(>D)>IO  
b. DO-IO: Taro-ga [futari-no otoko]-o [sannin-no onna]-ni syookaisita. \_IO>D>DO, \_DO>D>IO

Given that indefinites in Japanese can escape islands, in the examples where ditransitive constructions with the indefinite IO and DO are within *if*-clauses, both objects should be able to freely take logical scope outside of the *if*-clause. Indeed, DO-IO order is ambiguous between DO>IO and IO>DO in terms of choice functions (ex.2). In IO-DO order, however, only the IO>DO reading is available (ex.3).

- (2) *If* [ S DO IO V], ...  
[Nidai-no kuruma]-o [yonin-no kyaku]-ni miseta-ra, Taro-wa boonasu-o mora-eru.  
[two-GEN car]-ACC [four-GEN customer]-DAT show-if Taro-TOP bonus-ACC get-can.  
'If (Taro) shows two cars to four customers, Taro can get a bonus.'  
\_IO>*if*>DO:  $_f$  [CH(f) [[ $_y$  [CAR(y)  $__y_=2$  \_ SHOW(t, y, f (four customers))]]] \_ GET(t, b)]]  
\_DO>*if*>IO:  $_g$  [CH(g) [[ $_x$  [CUSTOMERS(x)  $__x_=4$  \_ SHOW(t, g(two cars), x)]]] \_ GET(t, b)]]  
\_IO, DO>*if*:  $_f$   $_g$  [CH(f) \_ CH(g) \_ [SHOW(t, g (two cars), f (four customers)) \_ GET(t, b)]]  
(3) *If* [ S IO DO V], ...  
[Yonin-no kyaku]-ni [nidai-no kuruma]-o miseta-ra, Taro-wa boonasu-o mora-eru.

[four-GEN customer]-DAT [two-GEN car]-ACC show-if Taro-TOP bonus-ACC get-can  
 \_IO>if>DO, \*/??DO>if>IO, \_IO, DO>if

I claim that this frozen scope effect is due to the specificity of the indefinite IO in IO-DO. This claim is motivated by similarities between the IO in IO-DO in Japanese and *a certain* in English, which has only a specific interpretation. Following Kratzer (1998) and Matthewson (1999), this specificity is encoded as variables over choice functions existentially-closed at the top: *a certain* and the indefinite IO in IO-DO have only a choice function interpretation. This is illustrated with the interpretation of indefinite NPs under ellipsis.

(4) Mary visited *a certain* store, and Susan did, too.

\_same store, ??different store

(5) IO-DO: Taro-ga [Penn-no gakusei]-ni Jun-o syookaisita-to kiita kedo, Jiro-mo Ø Jun-o  
 Taro-NOM [Penn-GEN student]-DAT Jun-ACC introduced-COMP heard while Jiro-too Jun-  
 ACC

syookaisita-rasii.

introduced-seem '(lit.)

While (I) have heard that Taro introduced to a Penn student Jun, it seems that Jiro introduced (to a Penn student) Jun, too.'

\_same, ??different

In (4), *a certain* NP and its deleted counterpart are interpreted as the same. In the same vein, the antecedent indefinite IO in IO-DO and the deleted IO in (5) tend to be interpreted as the same, whereas the IO in DO-IO and the DO in both orders do not show such tendency. These readings result if we interpret the specific indefinite IO as introducing a choice function variable existentially-closed at the top, as *a certain* in English, and if we allow for non-specific NPs to be interpreted as generalized quantifiers.

There have been proposed two linguistic forms to encode variables over choice functions: *a certain* in English (Kratzer 1998), which is a lexical encoding, and non-polarity indefinite determiners in St'át'imcets (Matthewson 1999), which is a morphological encoding. In this paper, I show that there exists a syntactic encoding, i.e., the IO in IO-DO in Japanese. Thus, I propose that there are crosslinguistically at least three encodings of variables over choice functions, i.e., lexical, morphological, and syntactic.

## References

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