## Otagai

It is widely, and in fact almost universally, assumed in the recent generative grammatical works, that otagai in Japanese is a reciprocal anaphor corresponding to English  $each\ other$ ; cf. Ishii (1989), Nishigauchi (1992), Saito (1992), just to mention a few. The distribution of otagai and "its antecedent," as analyzed under this assumption, has been used in various works as a probe into the nature of Scrambling, the applicability of Binding Theory to Japanese, the nature of reciprocity in natural language, the status of the subject(s) in Japanese, etc. In this paper, contrary to this widely-held view, I demonstrate that otagai should not be treated as a reciprocal anaphor, and argue (i) that the internal structure of otagai is  $[N_P pro\ Notagai]$ , (ii) that the anaphoric relation between otagai and "its antecedent" must be understood as that between the  $pro\ in\ [N_P pro\ otagai]$  and its antecedent. Data such as (1), (2) and (6) indicate that the semantics of otagai, which I do not spell out in this paper, has the effect that the  $[pro\ losagai]$  in (I), for example, can be interpreted, in principle, as in any of (II).

- (I) [John and Bill]<sub>1</sub> V ... [pro<sub>1</sub> otagai] ...
- (II) a. [John and Bill] V ... [John and Bill] ... ("group reading")
  - b. John V ... Bill ... and ... Bill V ... John ... ("crossing reading")
  - c. John V ... John ... and ...Bill V ... Bill ... ("parallel reading") Given this proposal, we predict the following:
- The antecedent of pro in [pro otagai] need not be in the local domain of the latter; cf. (2).
- The antecedent of *pro* in [*pro otagai*] need not c-command *pro* as long as the relevant referential association is that of coreference; cf. (3). (Cf. Kuno and Kim (1994).)
- It shows familiar WCO effects when bound variable anaphora is at stake; cf. (4).
- It shows WCO effects in the sloppy identity context; cf. (5).
- Split antecedence for *pro* is possible; cf. (6a) for split coreference and (6b) for split binding.

These predictions are all borne out, as illustrated in (2)-(6). Note that *otagai* in many of (1)-(6) appears in an "argument position" where, according to Pollard and Sag (1992), "exempt anaphors" are NOT allowed.

Given that *otagai* is NOT an anaphor and given that what was considered in the literature to be the relation of anaphor binding can in fact be a coreferential relation between pro in [pro otagai] and its antecedent, we may expect that the availability of the relevant coreferential relation is affected by various lexico-semantic, pragmatic (as well as structural) factors, such as they relate to notions like salience. In fact, the coreference between pro in [pro otagai] and its antecedent seems restricted, just as pro in [pro titioya] '[pro father]' (and other kinship terms) and its antecedent is. Thus (7a) and (7b) are equally degraded with the long-distance association. (8a) and (8b), which have exactly the same structural properties as in (7), allow the long-distance association. (The long-distance association in (8) becomes even more readily available if the embedded plural NP subject is replaced by a singular term.) The degradation in (9a), as compared to (3), can also be duplicated in the examples with a kinship term in place of *otagai*. (The examples not supplied here). The kinship term analogues of (9b, c) also have the same status as (9b, c). Given that the degraded status of (9) is due to non-syntactic factors, we expect that we can construct examples of the same structures as (9) that are more or less acceptable, by choosing appropriate lexical items. This is precisely what happens. (The examples not supplied here.) It thus turns out that the examples cited in the literature as evidence that *otagai* is a local anaphor is a small subset of those in which the referential association between pro in [pro otagai] and its antecedent cannot be easily established, such as in (7a). Word order change does affect the coreference possibility between pro and its antecedent not only in the case of [pro otagai] but also in the case of [pro titioya]; the "preposing" of the object NP makes not only (10a) but (10b) more or less acceptable. This, taken together with the other observations above, leads us to conclude that one of the two empirical motivations, i.e. the one based on the "binding of otagai," for treating (short) Scrambling as an instance of A-movement is unsound.

The proposal in this paper and the empirical materials that motivate it thus cast serious doubt over any argument that has been advanced in the literature based on the "standard" assumption that *otagai* in Japanese is a local reciprocal anaphor, corresponding to English *each other*.

Ishii, Yasuo. 1989. Reciprocal Predicates in Japanese. In *Proceedings of the Sixth Eastern States Conference on Linguistics*, ed. Ken deJong and Yongkyoon No, 150-161. The Ohio State University.

Kuno, Susumu and Soo-Yeon Kim. 1994. The Weak Crossover Phenomena in Japanese and Korean. In *Japanese Korean Linguistics V. 4*, ed. N. Akatsuka, 1-38. Stanford: CSLI.

Nishigauchi, Taisuke. 1992. Syntax of Reciprocals in Japanese. *Journal of East Asian Linguistics* 1: 157-96. Saito, Mamoru. 1992. Long Distance Scrambling in Japanese. *Journal of East Asian Linguistics* 1: 69-118.

## **DATA**

(1) Otagai need not have a reciprocal interpretation

[John to Bill]<sub>1</sub>-ga hissi ni natte [pro<sub>1</sub> otagai<sub>1</sub>-o urikonde ita (koto)

'[each of John and Bill], was promoting himself, with utmost enthusiasm (as in a competition)'

- (2) It need not have its antecedent in its local domain.
- a. [John to Bill]<sub>1</sub>-wa [<sub>IP</sub> Mary-ga [pro<sub>1</sub> otagai]-ni horeteiru to] omoikonde ita

'[each of John and Bill] believed that Mary was in love with the other.'

'[each of John and Bill]<sub>1</sub> believed that Mary was in love with him<sub>1</sub>.'

b. [John to Bill]<sub>1</sub>-wa [Chomsky-ga naze [pro<sub>1</sub> otagai]-o suisensita no ka] wakaranakatta

'[each of John and Bill] did not understand why Chomsky had recommended the other.'

'[each of John and Bill], had no idea why Chomsky had recommended him,.'

- (3) It need not be c-commanded by its antecedent.
- a. [pro<sub>1</sub> otagai]-no koibito-ga [John to Bill]<sub>1</sub>-o yuuwaku sita (to yuu uwasa-ga matizyuu-no wadai-ni natte ita) '(The rumor that) each other<sub>1</sub>'s lovers seduced [John and Bill]<sub>1</sub> (had become a hot topic of the town.'
- b. [pro<sub>1</sub> otagai]-no koibito-ga [John to Bill]<sub>1</sub>-ni iiyotta (koto)

'John's lover tried to seduce Bill, and Bill's lover tried to seduce John.'

- (4) It shows familiar WCO effects. (their = their respective or each other's)
- a. [kanari-no kazu-no huuhu],-ga [pro1 otagai]-no gakusei-o {hihansita/suisensita} (koto)

'[a good number of couples], {criticized/recommended} their, students'

- b. \*[pro<sub>1</sub> otagai]-no gakusei-ga [kanari-no kazu-no huuhu]<sub>1</sub>-o {hihansita/suisensita} (koto) 'their students' {criticized/recommended} [a good number of couples]<sub>1</sub>.'
- (5) It shows WCO effects in the sloppy identity context.
- a. [pro otagai]-no koibito-ga [John to Bill]-ni yori mo saki ni [Mike to Sam]-ni iiyotta (koto)

'their lovers tried to seduce [Mike and Sam] earlier than [John and Bill]' (\*sloppy reading)

b. sensei-ga [John to Bill]-ni yori mo saki ni [Mike to Sam]-ni otagai-no atarasii roommate-o syookaisita (koto)

'the teacher introduced to [Mike and Sam] their new roommate earlier than to [John and Bill]' (Oksloppy reading)

- (6) Split antecedence is possible.
- a. Ieyasu<sub>1</sub>-wa Nobunaga<sub>2</sub>-ni [Singen-ga sineba [pro<sub>1+2</sub> otagai]-no ryoodo-ga sibaraku-wa antai-da to] tuge ta 'Ieyasu<sub>1</sub> told Nobunaga<sub>2</sub>, that, if Shingen dies, their<sub>1+2</sub> territories will be safe for a while'
- b. [subete-no Kyuusyuu-no daimyoo]<sub>1</sub>-ga [Sikoku-no dokoka-no daimyoo]<sub>2</sub>-ni [Singen-ga sineba [pro<sub>1+2</sub> otagai]-no ryoodo-ga sibaraku-wa antai-da to] tuge ta (koto)

'[every feudal king in Kyuusyuu]<sub>1</sub> told [a feudal king of some place in Shikoku]<sub>2</sub> that, if Shingen dies, their<sub>1+2</sub> (respective) territories will be safe for a while'

(7) a. [John to Bill]<sub>2</sub>-ga [[Mary to Sue]<sub>1</sub>-ga [pro<sub>1/\*2</sub> otagai]-o aisiteiru to] it-ta (koto)

'[John and Bill]<sub>2</sub> said that [Mary and Sue]<sub>1</sub> loves them<sub>1/\*2</sub>'

b. Jane<sub>2</sub>-ga [Mary<sub>1</sub>-ga [pro<sub>1/\*2</sub> titioya]-o aisiteiru to] it-ta (koto)

'Jane<sub>2</sub> said that Mary<sub>1</sub> loves her<sub>1/\*2</sub> father'

(8) a. [John to Bill]<sub>2</sub>-ga [[Mary to Sue]<sub>1</sub>-ga [pro<sub>1/2</sub> otagai]-o yuuwaku siteiru to] omoikondeita (koto)

'[John and Bill]<sub>2</sub> believed that [Mary and Sue]<sub>1</sub> was seducing them<sub>1/2</sub>'

b. Jane<sub>2</sub>-ga [Mary<sub>1</sub>-ga [pro<sub>1/2</sub> titioya]-o yuuwaku siteiru to] omoikondeita (koto)

'Jane<sub>2</sub> believed that Mary<sub>1</sub> was seducing her<sub>1/2</sub> father'

(9) a. \*?<br/>[pro $_{\rm l}$ otagai]-no koibito-ga [John to  ${\rm Bill}]_{\rm l}$ -no kooti-o yuuwakusita (koto)

'their<sub>1</sub> lovers seduced [John and Bill]<sub>1</sub>'s coach(es)'

b. \*?[John to Bill]<sub>1</sub>-no koibito-ga [pro<sub>1</sub> otagai]-o yuuwaku sita (koto)

'[John and Bill], 's lovers seduced them,'

c. \*[John to Bill]<sub>1</sub>-no koibito-ga [[pro<sub>1</sub> otagai]-no kooti-o yuuwakusita (koto)

'[John and Bill], 's lovers seduced their, coach(es)'

(10) a. \*?[pro, otagai]-no atarasii sensei-ga [John to Bill],-o syookaisita (koto)

'their<sub>1</sub> new teachers introduced [John and Bill]<sub>1</sub> (to someone)'

b. \*?[pro<sub>1</sub> titioya]-no atarasii sensei-ga John<sub>1</sub>-o syookaisita (koto)

'[his<sub>1</sub> father]'s new teacher introduced John<sub>1</sub> (to someone)'