

## Two Types of *By*-Phrase in Japanese Passive

**Introduction:** Japanese has two types of *by*-phrase, the ‘*ni*-phrase’ and the ‘*niyotte*-phrase’:

- (1)            Taro-ga     Hanako-**ni**/Hanako-**niyotte**     kisos   -are   -ta  
                  T-NOM     H-NI/H-NIYOTTE                   sue     -PASS   -PST  
                  ‘Taro was sued by Hanako.’

While many previous studies discussed different behavior exhibited by Japanese passive sentences when they have two different *by*-phrases, little attention has been paid to these *by*-phrases themselves. Two notable exceptions are Park and Whitman (2003) and Goro (2006), who independently hypothesized that *niyotte*-phrases are independent theta-role assigners of their complements whereas *ni*-phrases depend on passive sentences to thematically license their complements (*the dual licensing system hypothesis*). This study presents novel arguments for the dual licensing system hypothesis from the results of three grammaticality judgment experiments and discusses their implications for analysis of *by*-phrases.

**Experiment 1:** The dual licensing system hypothesis predicts that *ni*-phrases would be restricted in syntactic environments where there is an ‘extra’ theta-role. Experiment 1 examined acceptability of the two *by*-phrases with intransitive verbs, with a prediction that only *niyotte*-phrases would be licensed with intransitive verbs, assuming that intransitive verbs have no ‘extra’ theta-role. We used intransitive forms of causative verbs (*okor* ‘happen’ and *kawar* ‘change’) and agentive verbs (*kimar* ‘decide’ and *ure* ‘sell’). These four verbs were combined with the two *by*-phrases with either an animate or inanimate object. 36 native speakers judged sentences on a 5-point scale. Since verb types were not significant predictors of within-subjects variance, the results from all four verbs are presented together in Table 1. As predicted, the mean acceptability of *niyotte*-phrases was significantly higher than the mean acceptability of *ni*-phrases with intransitive verbs, regardless of the animacy of their complements:

<b>Table 1</b>	<i>niyotte</i> -phrase	<i>ni</i> -phrase	paired <i>t</i> -test(one-tailed)	Wilcoxon Test(one-tailed)
inanimate object	3.97	1.42	p = .000***	p = .000***
animate object	3.07	1.54	p = .000***	p = .000***

**Experiment 2:** The dual licensing system hypothesis also predicts that the thematic role of *ni*-phrase’s complement would vary with the type of verb, while the thematic role of *niyotte*-phrase’s complement would remain constant, which appears to be CAUSER from the results of Experiment 1. Experiment 2 examined the two *by*-phrases’ compatibility with verbs that select EXPERIENCER (EXPERIENCER verbs), with a prediction that *ni*-phrases would be more compatible with EXPERIENCER verbs than *niyotte*-phrases. Two EXPERIENCER verbs (*konom* ‘like’ and *kiraw* ‘dislike’) were presented in three syntactic forms: active, passive with *ni*-phrase, and passive with *niyotte*-phrase. 36 native speakers judged sentences on a 5-point scale. The results are shown in Table 2. As predicted, the mean acceptability of *ni*-phrases was significantly higher than the mean acceptability of *niyotte*-phrases with passivized EXPERIENCER verbs:

<b>Table 2</b>	<i>ni</i> -phrase	<i>niyotte</i> -phrase	paired <i>t</i> -test(one-tailed)	Wilcoxon Test(one-tailed)
<i>konom</i> ‘like’	3.61	3.14	p = .0404*	p = .047*
<i>kiraw</i> ‘dislike’	3.06	2.42	p = .0030**	p = .0042**

**Experiment 3:** Experiment 3 tested a prediction with verbs that select AGENT (AGENT verbs). According to the dual licensing system hypothesis, the complement of *ni*-phrases would be assigned AGENT with passivized AGENT verbs, while the complement of *niyotte*-phrases would still have CAUSER. This difference may affect the ability of a passive sentence with an AGENT verb to license adverbs such as *isshokenmei* ‘with all one’s might’, which are agent-oriented (2). Specifically, the dual licensing system hypothesis predicts that *niyotte*-phrases would not be as compatible with *isshokenmei* as *ni*-phrases.

(2)	Taro-ga	<b>isshokenmei</b>	Keiko-o	settokus/??komarase	-ta
	T-NOM	<b>with_all_one's_might</b>	K-ACC	persuade/trouble	-PST
	'Taro persuaded/??troubled Keiko very hard.'				

Six AGENT verbs (*persuade, advise, teach, entertain, ask* and *invite*) were presented with *isshokenmei* in the three syntactic forms as in Experiment 2. 36 native speakers judged sentences on a 5-point scale. Since verbs were not significant predictors of within-subject variance, the means with all six verbs are presented in Table 3. As predicted, the mean acceptability of *ni*-phrases was significantly higher than the mean acceptability of *niyotte*-phrases with passivized AGENT verbs and the adverb *isshokenmei*.

<b>Table 3</b>	<i>ni</i> -phrase	<i>niyotte</i> -phrase	paired <i>t</i> -test(one-tailed)	Wilcoxon Test (one-tailed)
means	2.917	2.5	p = .0227*	p = .0210*

**Discussion:** Our findings support the claim that *niyotte*-phrases independently license the theta-role of their complements, as our results suggest that they are licensed with intransitive verbs and always assign CAUSER to their complements. Our findings also support the claim that passive sentences provide thematic roles to the complement of *ni*-phrases, as the theta-role of the complements of *ni*-phrases varies with the type of verb. Thus, we have evidence that the two *by*-phrases involve two very different licensing mechanisms. The question now is what these two mechanisms exactly are.

There are three different types of analysis of *by*-phrases. According to *the semantically licensed adjunct analysis* (Hypothesis A), external arguments are not syntactically represented in passive sentences and *by*-phrases are licensed by passivized verbs' argument structure (Zubizarreta 1985, Grimshaw 1990). According to *the syntactically licensed adjunct analysis* (Hypothesis B), external arguments are syntactically represented in passive sentences and their theta-roles thematically license the complement of *by*-phrases (Jaeggli 1986, Baker et al. 1989). Finally, under *the syntactic subject analysis* (Hypothesis C), *by*-phrases are (non-canonical) subjects (Hasegawa 1988, Mahajan 1994, Goodall 1997, Collins 2005). We argue that *niyotte*-phrases can be accounted for only by Hypothesis A, while either Hypothesis B or C may account for *ni*-phrases. The crucial difference between Hypothesis A and the other two hypotheses is that the complement of *by*-phrases can be *not* licensed by the external argument of a passive sentence only under Hypothesis A, accounting for the observation that the complements of *niyotte*-phrases are always CAUSER. Hypothesis A may also account for the observation that *niyotte*-phrases are dispreferred with EXPERIENCER verbs and agent-oriented adverbs as mismatches between passivized verbs' argument structure and CAUSER introduced by *niyotte*-phrases. As for *ni*-phrases, since either Hypothesis B or C accounts for the observation that the thematic role of *ni*-phrase's complement depends on the external argument of a given passive sentence, the decision between the two depends on whether *ni*-phrases should be analyzed as adjunct or non-canonical subject. The fact that *ni*-phrases fail to pass diagnostic tests for subject-hood that *-ni* marked subjects have been shown to pass (i.e. Ura 1999) seems to suggest that they are adjuncts. However, while *-ni* marked subjects can be analyzed to occupy [Spec, TP], *ni*-phrases in passive would be analyzed to occupy [Spec, vP] with the passivized objects in [Spec, TP]. Thus, it seems that *ni*-phrase's failure to pass these diagnostic tests alone should not rule out Hypothesis C for *ni*-phrases.

**References:** Baker, M., K. Johnson & I. Roberts. 1989. Passive arguments raised. *Linguistics Inquiry* 20, 219-251. Collins, C. 2005. A smuggling approach to the passive in English. *Syntax* 8: 81-120. Goodall, G.  $\Theta$ -alignment and the *by*-phrase. *CLS* 33. 129-139. Goro, T. 2006. A minimalist analysis of Japanese passives. C. Boeckx (ed.), *Minimalist Essays*. 233-248. Amsterdam: John Benjamins. Grimshaw, J. 1990. *Argument Structure*. Cambridge: MIT Press. Hasegawa, N. 1988. Passives, verb raising, and the affectedness condition. *WCCFL* 7: 99-113. Jaeggli, O. 1986. Passive. *Linguistic Inquiry* 17: 587-622. Mahajan, A. 1994. ACTIVE passives. *WCCFL* 13: 386-301. Park, S. D. & J. Whitman. 2003. Direct movement passive in Korean and Japanese. *Japanese Korean Linguistics* 12. 307-321. Ura, H. 1999. Checking theory and dative subject constructions in Japanese and Korean. *Journal of East Asian Linguistics* 8: 223-254. Zubizarreta, M. L. 1985. The relation between Morphology and Morphosyntax: The case of Romance causatives. *Linguistic Inquiry* 16: 247-289.