### The Syntactic Interpretation of Thai Middle Voice and Target Sentences in Japanese

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#### Abstract

This paper examines the syntactic structure of Thai middle voice sentences such as  $n \check{a}\eta s \check{t} i k^h \check{a} a j dii$  'Books sell well.' and the equivalent sentences in Japanese. It is impossible to say *\*hon ga yoku uru* 'Books sell well' which is the literal translation of the Thai sentence. This may cause a problem to learners who study Japanese or Thai as a foreign language. A middle voice construction has a THEME as a subject (such as *books*) of an agentive verb (such as *sell*) and a manner adverbial (such as *well*) while the verb in the equivalent sentence in Japanese must co-occur with the suffix -(ra)ere which is derived from an active verb -e.g. *taber-u* 'eat' and *tabe-raeru* 'can eat'. Thus, the distinction between Thai and Japanese sentence structure must be made. In addition, according to Inhongsa (2016), the middle voice in Thai is generated without movement because there is no trace of movement in the deep structure. In contrast, the Japanese counterpart is syntactically derived, i.e. there is a movement in the deep structure. This paper will show the syntactic and morphosyntactic processes of middle voice interpretations in Thai and Japanese.

Keywords: Thai, Japanese, Middle voice, Syntactic structure, Movement, Generative grammar



#### Introduction

This paper focuses on Thai and Japanese which are of different type of language. Thai is an analytic language while Japanese is an agglutinative language. This means that Japanese has morphological operations that apply to a word to change its meaning, word-class or function (Haspelmath & Sims, 2010). On the other hand, Thai does not have such processes.

In Thai, an inanimate noun can occur in the subject position of an active verb in two cases. One is the subject of a passive voice (1b) and the other is the subject of a middle voice sentence (1c). Example (1a) shows that an active verb usually occurs with an animate subject.

(1) a. $c^{h}$ ăn	k <sup>h</sup> ăaj	năŋs <del>ii</del>	(active)
Ι	sell	book	
"I sell b	ooks."		
b. năŋs <del>ii</del>	t <sup>h</sup> ùuk	kàmooj	(passive)
book	PASS	steal	
"Books	are stolen"		
c. năŋs <del>ii</del>	k <sup>h</sup> ăaj	dii	(middle)
book	sell	good	
"Books	sell well."		

In Thai, passive voice usually occurs with negative events as in something got stolen as shown in (1b), and its construction will be marked by a passive marker  $t^h$ uuk or dooj. While, middle voice's meaning is more generic and its construction must contain an adverb. The meaning is the same as 'The books are well sold'. In Inhongsa (2016), it was proposed that the middle sentence like (1c) does not involve a movement but it is base-generated.

For a Thai learner of Japanese, it may be tempting to translate it the same way, i.e. having the inanimate subject in front of an active verb. However, this cannot be done. When we translate the Thai middle voice sentence (1c) into Japanese, we can only have the potential verb form as in (3a). We cannot translate it into an active form (3b) because it is ungrammatical or into a passive form (3c) because it is strange.

(3) a. hoN	ga	yoku	ur-eru	(potential)
book	NOM	good	sell.POT	
"Books	can sell well."			
b. *hoN	ga	yoku	ur-u	(active)
book	NOM	good	sell	
"Book	s sell well."			
c. ?hoN	ga	yoku	ur-rare-ru	(passive)
book	NOM	good	sell.PASS	
"Book	s are sold well.	"		

This paper will discuss why inanimate nouns cannot be the subject of an active verb or a passive verb in Japanese. In contrast, Thai allows this to happen and it is analyzed as the 'middle voice'.

Toyata (2011) studies Japanese voices diachronically. He suggests that the middle voice in Japanese is linked to the passive voice. The sentence (3c) is strange because an agent is absent causing incomplete meaning. However, he further suggests that middle voice in Japanese involves a potential form.

(4) a. PRO	0	hoN book	o ACC	ur-u sell	(active)
"Someo	one sells	books.	"		
b. hoN	ga	yoku		ur-eru	(potential)
book	NOM	good		sell.POT	
"Books	can sell	well."			

In this paper, I propose that Thai middle sentences such as (1c) is base-generated while the Japanese potential construction like (4b) is derived via a morphological operation. The potential passive morpheme -(rar)eru is attached to the verb stem ur-. This evidence shows that even a middle voice is categorized as a type of passive construction. Thai middle construction is a more appropriate translation for a Japanese potential sentence.

Moreover, if we consider the examples (1) - (4) further, it implies that Thai learners of Japanese will translate the source sentence directly while Japanese learners of Thai will sort to a morphological operation. I suggest that the morphological operation is not the only tool to produce the target sentence in Japanese, but we can also use a syntactic operation.

In this paper, Thai middle sentences and the target sentences in Japanese are examined. In addition, the derivation of a target sentence and some options of the interpretation will also be presented.

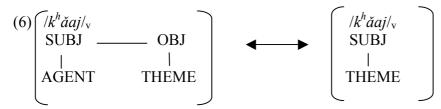
# Data analysis

Thai middle and active verbs have a similar character while Japanese verbs do not. I will start with Thai verbs that could be a middle verb as illustrated in (5).

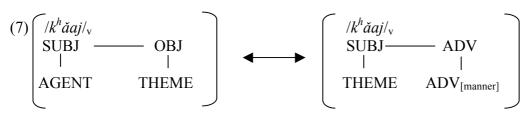
(5) kin	"eat"	dìim	"drink"
k <sup>h</sup> ăaj	"sell"	c <sup>h</sup> ái	"use"
?àan	"read"	k <sup>h</sup> ĭan	"write"
t <sup>h</sup> am	"do"	k <sup>h</sup> ùt	"dig"
k <sup>h</sup> àp	"drive"	p <sup>h</sup> áp	"flip"
* .		 	.*

The verbs in (5) are transitive verbs that require an animate actor or an agent and a direct object or a theme.

According to Keyser and Roeper (1984), a middle verb is a type of transitive verbs. Voice changing from active to middle affects the verb's arguments although they don't change form. Haspelmath and Sims (2010) propose that voice-changing is associated to valence-changing operation. In other words, changing an active voice to a middle voice or other voices involves changing the valence of a verb. Valence is the number of arguments that containing semantic roles and syntactic function. An example of voice-changing operation in Thai is illustrated in (6).



The schema (6) shows that the active verb  $k^h \check{a}aj$  'sell' on the left side requires two arguments: the doer (AGENT) and the done (THEME). But when it appears in a middle construction on the right side, only the theme is required. This suggests that Thai middle voice involves valence-decreasing operation. However, Inhongsa (2016) proposes that voice-changing operation between active and middle voice does not affect the valence or the number of their arguments but the word-class of an argument as shown in (7).



(Inhongsa. 2016: 91)

The schema (7) shows that the theme which is a direct object of an active verb, changes a syntactic function to be a subject of a middle verb, and the agent is removed. In addition, the new argument that is an adverbial of manner which is necessary for a middle verb. According to the schema (7), a manner is required for Thai middle as illustrated in (8). The manner adverbial cannot be optional.

(8) \*năŋs<del>ii</del> k<sup>h</sup>ăaj book sell "Book sells."

According to Toyata (2011), Japanese middle voice is a type of passive voice. However, a passive construction is not appropriate for Thai middle as shown in (9a). In contrast, a potential passive is more appropriate as shown in (9b).

(9) a. ?hoN	ga		yoku	ur-are-ru	(passive)
book	NOM		good	sell.PASS	
"Book	s are sold	l well."			
b. hoN	ga	yoku		ur-eru	(potential)
book	NOM	good		sell.POT	
"Book c	an sell w	ell."			

I adopt the analysis of Thai middle that a manner adverbial is required, and also adopt Toyata's analysis that a potential is associated to the middle voice in Japanese. I assume that a manner adverbial of Japanese potential cannot be optional. But that is not the case. The example (10b) shows that it is perfectly acceptable.

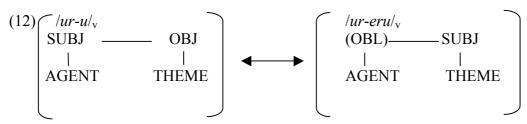
(10) a. hoN	ga	yoku	ur-eru
book	NOM	good	sell.POT
"Books c	an sell well."		
b. hoN	ga	ur-eru	
book	NOM	sell.POT	
"Books ca	an sell."		

The evidence (10) shows that both of (10a) and (10b) are grammatical unlike Thai middle in (8). This means that a manner adverbial is required in Thai middle while it is not in Japanese potential. Another distinction is that the agent of a Thai middle sentence must have a generic interpretation. It cannot be someone known, as shown in (11a). On the other hand, a Japanese

potential can have an overt agent, as shown in (11b). Moreover, the agent can be oblique in Japanese potential as shown in the above example (10b).

(11) a. *năŋs <del>ii</del>	k <sup>h</sup> ăaj	dii	dooj		satoo	(Thai)
book	sell	good	by		Sato	
"Books se	ll well by S	Sato."				
b. hoN	ga	sato.saN	ni	yoku	ur-eru	(Japanese)
book	NOM	Sato	DAT	good	sell.POT	
"Books can	sell well by	v Sato."				

The sentence (11b) shows that a morphological operation derives the potential verb *ur-eru* 'sell.POT' from the active verb *ur-u* 'sell'. This operation affects the structure of the sentence -i.e. the potential morpheme -(ra)eru affect the number of verb's arguments and also their syntactic function as illustrated in (12).



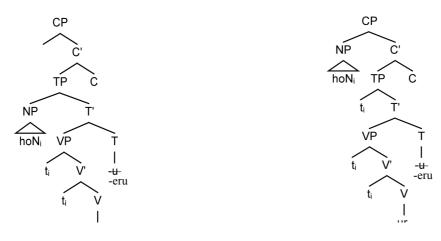
The schema (12) shows that an agent of Japanese potential is oblique –i.e. it can appear in the sentence by being as an adjunct as illustrated in (1 1b) or disappear as illustrated in (10b). While an agent of Thai middle is not allowed.

We have seen that the target Thai middle sentence can be translated into Japanese with a potential construction. However, there is another construction similar to a Japanese potential as shown in (13).

(13) hoN	wa	yoku	ur-eru
book	TOP	good	sell.POT
"Book ca	in sell well."		

If we consider the meaning of sentence (13), there is not much difference between the sentence (10a) and (13). However, Hasegawa (2015) and Tsujimura (2013) explain that the distinction between ga and wa particle is that ga particle is the subject particle while wa particle is the topic particle. The topic like hoN 'book' in (13) is an "aboutness" topic. Rizzi (2005) explains that what the sentence is about is an "aboutness" topic. In the sentence (13), hoN 'book' is the sentence topic because it is marked by a topic particle wa. Miyagawa (2017) suggests that a projection of an aboutness topic in Japanese is not a TopP projection like other languages, but a CP. I adopt Miyagawa (2017) as follows: (14) a. Potential

b. Topicalization



The diagrams in (14) show the deep structures of Japanese potential (14a) and topicalization (14b).

In the deep structure, a Japanese active sentence is produced. Then the morphological operation applies for voice-changing. Hatakeya, Honda and Tanaka (2008) mention that there is no obvious evidence of T-affix lowering<sup>1</sup> because Japanese is head-finial language that having word order as SVO where head element is always attached together at the end of sentence. However, the unobvious morphological operation will affects the valence and sentence structure –i.e. an active subject is demoted to be an adjunct and the subject position at Spec VP is empty. In the surface structure, the sentence cannot survive without a subject and therefore the theme *hoN* raises to Spec VP to fill in the subject position is. VP does not give a nominative case and so the theme raises further to get a nominative case or subject case at the Spec TP (Kishimo, 2013). For the topicalization in (14b), the theme subject *hoN* will raise to Spec CP to be the topic of the sentence.

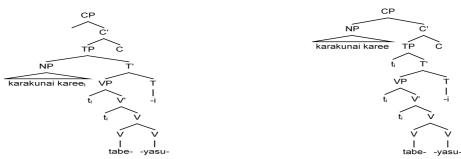
The potential morpheme -(ra)eru like in (10b) and (13) can be changed into -(r)are-te-iru to show the stage of the event as illustrated in (15).

(15) kono	tabako	ga/wa	yoku	ur-e-te-iru
this	cigarette	NOM/TOP	good	sell.POT.te-iru
"This c				

Until now, there are two alternative constructions that Thai middle voice can select for; potential and topic constructions. However, a manner adverb in Thai like *dii* 'well' can be interpreted as a modifier like *yoku-ni* 'well'. But for the manner adverb like *yâaj* 'easily' and *jâak* 'difficultly/ hardly' in Thai, there is particular construction in Japanese that an adjective *yasui* 'easy' and *nikui* 'difficulty/ hardly' can be bound with a verb stem like V-*yasui* or V-*nikui* and containing a syntactic function as [+ADJ] (Ikeya. 1996). Examples of a bound form are illustrated in (16).

(16) a. karakunai	karee	ga/wa	tabe-yasui
Spicy-NEG	curry	NOM/TOP	eat-easy
"Curry that is	s not spic	y one eats easily."	
b. karai	karee	ga/wa	tabe-niyui
spicy	curry	NOM/TOP	eat-difficult
"Spicy curry	eats diffi	cultly."	

The -yasui/-nikui construction has two different structures; the sentence having *karee* 'curry' as a subject marking by *ga* particle and the sentence having *karee* as a topic marking by *wa* particle. The distinction between two structures is presented in the below diagrams. (17) a. b.



Affix-lowering is an operation that an affix from T is lowered onto V (Radford, 2009).

In the same way of potential construction and topic construction in (14a) and (14b), the sentence initial NP *karakunai karee* 'the curry that is not spicy' can be either a subject or topicalized topic of *-yasui/ -nikui* construction.

Beside potential construction, topic construction and *-yasui/-nikui* construction, there is another interesting issue between Thai middle like (18a) and a Japanese equivalent sentence like (18b). The sentence (18b) is fine without a conjunction. But it is problematic when a conjunction *and* is inserted as shown in (19b) and (19c).

conjunction and is i	inserteu	ub bilo m	n m (1)				
(18) a. k <sup>h</sup> âaw.cìi		kin	ŋâaj	k <sup>h</sup> ǎaj		ŋâaj	(Thai)
grilled rice		eat	easy	sell		easy	
"Grilled rice e	ats easil	ly, sells o	easily"				
b. yaki.mochi.	gome	ga/wa	l	tabe-yasui	uri-ya	asui	(Japanese)
grilled rice	-	NOM/T	OP	eat-easy	sell-e	asy	
"Grilled rice	is easy	to eat, is	s easy to	sell." (lit.)		-	
	-		-				
(19) a. k <sup>h</sup> âaw.cìi	kin	ŋâaj	lέ	k <sup>h</sup> ăaj	ŋâaj		(Thai)
grilled rice	eat	easy	and	sell	easy		
"Grilled rice	eats eas	ily, and	sells eas	sily"			
b. ?yaki.mochi.	gome	ga/wa	l	tabe-yasu-ku	te	uri-yasui	(Japanese)
grilled rice	-	NOM/	ГОР	eat-easy-CO	NJ	sell-easy	
"Grilled rice is easy to eat and easy to sell."							
c. *yaki.chi.goi	ne	ga/wa	l	abe-yasui	to	uri-yasui	(Japanese)
grilled rice		NOM/	ГОР	sell-easy	and	eat-easy	
"Grilled rice	is easy t	to eat an	d easy t	o sell." (lit.)		2	
	2		2	× /			

The evidence (19a) shows middle verbs can be conjoined in Thai. In contrast, the Japanese morpheme -te 'and' is odd as presented in (19b) which learns select for a target sentence of (19a). The problem is because the conjunction -te does not only have meaning 'and' but also implies to the order of an action for example *gohaN o tabe-te, mizu o nomu* 'eat rice and (then) drink water'. The event *gohaN o tabe-ru* 'eat rice' has to occur first and then the event *mizu o nomu* 'drink water' will follow. Now, consider sentence (19b), the event *ur-u* 'sell' should occur before *tabe-ru* 'eat'. This is due to the fact that the seller will sell the grilled rice before the customer can eat it. Thus, the order of sentence (19b) is strange. However, the morpheme -te has another meaning which is 'because'. In this case, the sentence (19b) will be fine as presented in (20).

(20) yaki.mochi.gome	ga/wa	tabe-yasu-kute	uri-yasui
grilled rice	NOM/TOP	eat-easy-CONJ	sell-easy
"D (1 '11 '	1 • • •		

"Because the grilled rice is easy to eat, so it is easy to sell."

The other option in (19c) is also ungrammatical because the morpheme *to* 'and' normally occurs between nouns such as *watashi wa riNgo to ichigo o tabe-ta* 'I eat apple and strawberry". The morpheme *to* cannot be a conjunction of the bound forms containing a syntactic function [+ADJ] like *tabe-yasui* and *uri-yasui*.

The problem in (19b) is solved with a topicalization of the potential passive, as shown in (21a). In contrast, it seems odd with a potential passive as presented in (21b).

(21) a. yaki.mochi.gome wa kaNtaN-ni tabe-rare-te kaNtaN-ni ur-eru grilled riced TOP easily eat.POT.CONJ easily sell.POT "As for grill rice, it can eat easily and sell easily."

b. ?yaki.mochi.gome	ga	kaNtaN-ni	tabe-rare-te	kaNtaN-ni	ur-eru
grilled riced	NOM	easily	eat.POT.CONJ	easily	sell.POT
"Grilled rice can eat	easily ar				

The sentence (21a), the topic *yaki.mochi.gome* 'grilled rice' is marked by *wa* particle where *wa* marks two types of topic: aboutness and contrastive. The distinction between aboutness topic and contrastive topic is that aboutness topic will be marked with an unstressed *wa* but a contrastive topic will mark with an emphasized *WA*. Miyagawa summarizes a contrastive function from Kuno (1976) and Büring (2003)'s contrastive topic that "it is a topic that has no impact the focus value and creates opposition pair with respect to other topics, and it is also indicated by intonation" (Miyagawa, 2017,19-20). Moreover, Arregi (2003) also suggests that a contrastive topic is used to answer multiple questions. I test the sentence (21) with a multiple question as illustrated in (22), and the initial NP *yaki.mochi.gome* in the sentence (21a) can be categorized as a contrastive topic. The speaker picks up the topic *yaki.mochi.gome* among other choices –e.g. ice cream, meatball and etc. as illustrated in (22).

(22) Q: saikin	nani	ga	uri-yasui	desu	ka		
recently	what	NOM	sell.easy	COP	Q		
"What is a th	ning that	easy to	sell recently?"				
A: yaki.mochi.	gome	wa	kaNtaN-ni	tabe-ra	are-te	kaNtaN-ni	ur-eru
grilled riced		TOP	easily	eat.PC	T.CONJ	easily	sell.POT
"Grilled rice, because (it is) easy to eat, so (it is) easy to sell." (lit.)							

The contrastive topic *yaki.mochi.gome* 'grilled rice' conveys pragmatic information from the previous context. In contrast, it is odd to be the subject of a potential construction as illustrated in (21b) because the sentence does not have a topic.

In this study, I have examined Thai middle which is the source sentence and the equivalent sentence in Japanese. The result shows that a Thai middle sentence can be translated into four types of sentences: (i) potential construction (ii) topicalization of potential construction (iii) – *yasui/ -nikui* construction and (iv) topicalization of –*yasu/ -nikui* construction. The structure of Thai middle structure is represented in (23) and the Japanese target structures are represent in (24a-d) respectively.

(23) [vp[NP <sub>theme V</sub> [V ADV <sub>mammer</sub> ]]]	(Thai middle)
(24) a. $[_{TP}[NP_{theme VP}[_{V}[(NP_{agent})(ADV)V_{POT}]]]]$	(Potential)
b. [CP[NPtheme TP[VP[V[(NPagent) (ADV) VPOT]]]]]]	(Topicalization of potential)
c. [ <sub>TP</sub> [NP <sub>theme VP</sub> [ <sub>V</sub> [V-yasui/-nikui]]]]	(-yasui/ -nikui construction)
d. [ <sub>CP</sub> [NP <sub>theme TP</sub> [ <sub>VP</sub> [ <sub>V</sub> [V-yasui/-nikui]]]]]	(Topicalization of -yasui/ nikui
	construction)

Crucially, for the topic construction, there are two types of the topicalization in (24b) and (24d) which are aboutness topic and contrastive topic. An aboutness topic is allowed to be in both of potential single and complex sentences while a contrastive topic is appropriate only for a potential single sentence but odd in a complex sentence. However, a topic which is derived from the subject of -yasui/ *-nikui* construction can be either an aboutness topic or a contrastive topic of a single and complex sentence. The distinction between an aboutness topic and contrastive topic is the intonation of the *wa* particle –i.e. the unstressed *wa* will mark an aboutness topic while, the emphasized *WA* will mark a contrastive topic. In addition, an aboutness topic is what a sentence is about, while a contrastive topic can be used as an answer a multiple question to identify the choice.

# Conclusion

In sum, this paper explores a simple Thai middle sentence that is base-generated. When we translate Thai middle into Japanese, we have to derive the sentence via morphological and syntactic operations. In other words, Thai middle is at the pre-syntactic level while a Japanese equivalent sentence is derived at the syntactic level. First, we will produce a Thai middle sentence and interpret into Japanese active. Then, the potential morpheme will apply and derive an active verb to be a potential one. After that, movement will apply to demote an agent to be an adjunct that can be oblique, and then the theme is raised to the subject position at Spec VP. However, the theme still lacks a nominative case which is the case of a subject. Thus, the theme will raise to Spec TP and get the case from T. For topicalization, the theme will raise further to Spec CP to be a topic of the sentence. All of these processes apply naturally when we switch from Thai middle to the target sentence in Japanese. In addition, various constructions of the target sentence are allowed: potential construction, topic construction and -vasui/ -nikui construction. According to Toyata (2011)'s analyses, the middle voice in Japanese associate to a potential construction. This suggests that even Japanese middle does not have a middle structure like a theme occurring with a middle verb and a manner adverbial is not required.

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