



Scan to know paper details and author's profile

A Contrastive Study of the Realizations of Elements in English and Myanmar Transitivity Configurations

Dr. Lai Yee Win

ABSTRACT

The main purpose of this paper is to contrast the realizations of elements – processes, participant roles and circumstances in the English and Myanmar transitivity configurations following the network developed within the framework of Systemic Functional Linguistics. It is found that: English and Myanmar show similarity in the realizations of processes as verbal groups, participant roles as nominal groups, nominalization, adverbial groups, prepositional phrases, embedded clauses, and circumstances as nominal groups, adverbial groups, or prepositional phrases. However, they differ in that processes are also realized by copulas and participant roles by adjective/adjective groups in English, while processes are also realized by compound verbs, reduplicated verbs, or attributive verbs and circumstances by qualifying reduplicated adverbs or embedded clauses in Myanmar. The findings are rooted in the functional and typological prominences of the two languages, which may further shed light on a new perspective on the research of transitivity system for Systemic Functional Linguistics. This study also makes an important contribution to further studies of contrasting the realizations of elements in the transitivity configurations of Myanmar and other languages.

Keywords: systemic functional linguistics, contrastive study, realizations, transitivity configurations, english, myanmar.

Classification: LCC Code: P299

Language: English



**Great Britain
Journals Press**

LJP Copyright ID: 573358
Print ISSN: 2515-5786
Online ISSN: 2515-5792

London Journal of Research in Humanities and Social Sciences

Volume 23 | Issue 25 | Compilation 1.0



© 2023. Dr. Lai Yee Win. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License <http://creativecommons.org/licenses/by-nc/4.0/>, permitting all noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

A Contrastive Study of the Realizations of Elements in English and Myanmar Transitivity Configurations

Dr. Lai Yee Win

ABSTRACT

The main purpose of this paper is to contrast the realizations of elements – processes, participant roles and circumstances in the English and Myanmar transitivity configurations following the network developed within the framework of Systemic Functional Linguistics. It is found that: English and Myanmar show similarity in the realizations of processes as verbal groups, participant roles as nominal groups, nominalization, adverbial groups, prepositional phrases, embedded clauses, and circumstances as nominal groups, adverbial groups, or prepositional phrases. However, they differ in that processes are also realized by copulas and participant roles by adjective/adjective groups in English, while processes are also realized by compound verbs, reduplicated verbs, or attributive verbs and circumstances by qualifying reduplicated adverbs or embedded clauses in Myanmar. The findings are rooted in the functional and typological prominences of the two languages, which may further shed light on a new perspective on the research of transitivity system for Systemic Functional Linguistics. This study also makes an important contribution to further studies of contrasting the realizations of elements in the transitivity configurations of Myanmar and other languages.

Keywords: systemic functional linguistics, contrastive study, realizations, transitivity configurations, english, myanmar.

Author: Lecturer, English for Academic Purposes Program, British University College, Yangon, Myanmar.

I. INTRODUCTION

Many linguists and scholars are especially interested in the way how to treat meaning in grammar. According to Halliday's (1985, 1994/2000) functional grammar, there are three types of meaning conveyed by the clause, namely experiential meaning, interpersonal meaning and textual meaning. Among them, experiential meaning has to do with the ways how language represents our experience of the external world and the inner world of our thoughts and feelings through clauses. In other words, our experience of happening, doing, sensing, meaning, being and becoming are turned into meaning and into wording. This experiential meaning is realized through transitivity system comprising three main components: by process, participant(s) in the process and circumstance(s) associated with the process. In other words, transitivity system is the representation of the experience of the world as different types of processes.

In recent years, the contrastive studies of transitivity systems between/across languages have grown significantly as macro linguistics. The previous studies cover the comparison of transitivity systems in English and other languages – Spanish, Chinese and Vietnamese (Lavid and Arus, 2002; Yuli and Yushan, 2012; Phan and Nguyen, 2015; and the like). In the literature, there are a scant number of contrastive studies of English and Myanmar from the Systemic Functional perspective. This study aims to contrast the realizations of elements in English and Myanmar transitivity configurations focusing on He et al.'s (2017) version of the transitivity system of English and Lai Yee Win's (2021) transitivity system of Myanmar. Contrary to previous studies, this study adopts He et al.'s

(2017) modification of the English transitivity system rather than Halliday's because He et al. (2017) makes a much more detailed description of the transitivity system of English in the realization of participant roles and the classification of participants from circumstances than Halliday (1985, 1994/2000, 2004, 2014).

This study uses two main qualitative research methods: descriptive method and explanation of the findings from the transitivity analysis of different genres of English and Myanmar texts, especially novels and news reports. The transitivity analysis of Myanmar clauses is provided with a systematic description of Myanmar script, IPA phonetic transcription, glosses and a word for word English translation. Being an empirical study, this study predominantly deploys the qualitative method of contrastive analysis. The data used in the study are taken from authentic texts.

II. PREVIOUS STUDIES OF CONTRASTING TRANSITIVITY SYSTEMS BETWEEN/ACROSS LANGUAGES

So far there have been a growing number of studies on the descriptions of transitivity systems in world languages. However, the studies on typological studies on transitivity systems and their realizations across languages are scant (e.g. Caffarel et al., 2004). The transitivity systems of French, German, Japanese, Tagalog, Chinese, Vietnamese, Telugu and Pitjantjatjara are proposed by Caffarel (2004), Steiner and Teich (2004), Teruya (2004), Martin (2004),

Halliday and McDonald (2004), Thai (2004), Prakasam (2004) and Rose (2004) respectively in Caffarel, Martin, and Matthiessen (2004). It is suggested in Halliday (1985, 1994/2000) and Matthiessen (1995) that transitivity systems across languages simultaneously realize different domains of experience and different modes of participating in the process (Caffarel et al., 2004: 135).

Based on Halliday's six major processes, Yuli and Yushan (2012) conduct a comparative study of English and Chinese transitivity systems in order

to deepen the understanding towards the two languages from a new aspect and give insight on E-C translation. The findings of their research indicate that the six processes of the English and Chinese transitivity systems are semantically the same in E-C translation although there is process transfer in certain circumstances. It is obvious that the components and sentence structures of the verbal process, behavioral process and existential process of the two languages are typically the same, whereas the distinctions of the passive voice and habitual usages exist in the material process, mental process and relational process due to their complexities. Therefore, the former three processes can remain unchanged in E-C translation, while the latter ones can experience process transfer in E-C translation.

Lavid and Arus (2002) undertake a contrastive functional study of nuclear transitivity in English and Spanish by means of the application of the transitive/ergative distinction developed by Davidse (1992) to material processes, mental processes and relational processes in both English and Spanish. A model of nuclear transitivity consists of three simultaneous systems: (1) a system of agency which is concerned with the presence or absence of the feature Agent, (2) a system of process type which is concerned with the semantic type of process involved, and (3) a system of causation which is concerned with the variable of instigation. The transitive and ergative systems in English and Spanish possess different grammatical properties which are realized by different lexical verbs. There is the transitive/ergative distinction between the semantically related verbs of English and Spanish. In such cases, the same process is expressed transitively in one language and ergatively in the other.

Al-Janabi (2013) carries out a contrastive study of transitivity analysis in English and Arabic short narrative texts. He analyzes the processes of transitivity used in two narrative short texts of English and Arabic based on Halliday's theory of transitivity. He highlights the role of these processes in portraying the features of the characters in such literary texts. The findings and results of the analysis indicate that the processes

of transitivity are semantically the same in English and Arabic in spite of appearing in different frequency.

Kaffashi et al. (2015) conducts a contrastive study of English and Persian narrative texts in terms of manner of expressing of relational attributive clauses based on Halliday and Matthiessen (2004). Accordingly, it investigates the possible similarities and differences regarding three components of Halliday's "transitivity process", namely: the process, participants and circumstances based on a corpus of 400 clauses: 200 from English and 200 from Persian. There are some differences in manner of expressing, the position and number of participants, and the kind of processes.

Phan and Nguyen (2015) make a comparison between English and Vietnamese Behavioral Clauses from the perspective of Halliday's transitivity system. Based on a corpus of English and Vietnamese literary work of the late 20th century and the early 21st century, Phan and Nguyen (2015) explore the relations between human behavior and language and identify English and Vietnamese verbs that realize behavioral process in terms of descriptive method and functional analysis. Phan and Nguyen (2015) characterize four subtypes of behavioral processes: material-behavioral processes, verbal-behavioral processes, mental-behavioral processes and behavioral processes in English and Vietnamese literary genre within the systemic functional framework of Martin, Matthiessen and Painter (1997), Bloor and Bloor (1995) and Eggins (1994).

ĐẶNG THỊ CÂM NGỌC (2015) investigates the similarities and differences between the linguistic features of material processes in English and Vietnamese based on the total number of 1640 samples related to material processes from "Perfect Spy" by Larry Berman and its Vietnamese translational equivalent Địệp Viên Hoàn Hảo translated by Đỗ Hùng. Findings indicate that in some cases the obligatory Actor in English clauses is omitted in Vietnamese translated clauses and it is similar to Goal. Sometimes the absence of Actor or Goal will be

found out when being translated into Vietnamese. It is also investigated that the verbs in Material processes of English are translated into the Verbs of Relational processes of Vietnamese.

NGUYỄN PHAN CÂM TÚ (2011) carries out the comparative study of the semantic and syntactic features of participants in the processes in English and Vietnamese from the perspective of Halliday's transitivity system. Descriptive and comparative methods are used in her study. The results of her study show that English and Vietnamese have the same kinds of process with the same numbers of participant in each. They are realized by the same configuration: *Participant + Process + (Participant) + (Participant)*.

Most of these contrastive studies between languages mentioned above are conducted in terms of Halliday's (1985, 1994/2000, 2004, 2014), Matthiessen's (1995) and Davidse's (1992) theories of transitivity. These theories of transitivity adopted in previous contrastive studies cannot make a specification of process types and participant roles. To fill this gap, the present study will adopt He et al.'s (2017) modified version of the transitivity system of English based on Halliday's (1985, 1994/2000, 2004, 2014) and Fawcett's (1980, 1987, forthcoming) hypotheses about transitivity. Based on He et al.'s (2017) transitivity system of English and Lai Yee Win's (2021) transitivity system of Myanmar, this study contrasts the realizations of processes, participant roles and circumstances in English and Myanmar transitivity configurations.

III. COMPARISON OF REALIZATIONS OF PROCESSES, PARTICIPANT ROLES AND CIRCUMSTANCES IN ENGLISH AND MYANMAR TRANSITIVITY CONFIGURATIONS

Transitivity system construes our experience of the world around us and inside us. It shows the experiential meanings of the language at the semantics level. According to Halliday and Matthiessen (2004: 175), there are three main components in transitivity structures. They are a process unfolding through time, the participants

involved in the process and circumstances associated with the process. In the semantic configuration, the process is the pivotal element and participants are inherent in the process. However, circumstantial elements are optional in the clause; they are not directly involved in the process (Halliday and Matthiessen 2004: 176). In the MOOD grammar processes function as Predicator realized by a verbal group; participants function as Subject or Complement, and they are structurally realized by nominal groups; circumstances map onto Adjuncts realized by adverbial groups or prepositional phrases. Halliday and Matthiessen (2004: 177) express the typical experiential functions of group and phrase classes as in Table 3-1.

*Table 3-1: Typical experiential functions of group and phrase classes
(Halliday and Matthiessen 2004: 177)*

Type of Element	Typically Realized By
process	verbal group
participant	nominal group
circumstance	adverbial group or prepositional phrase

3.1 Comparison of realizations of processes in English and Myanmar transitivity configurations

As the transitivity system has been defined as the reflection of human experience, there is something in common in all languages. In the two languages studied in this study, it has been discovered that the main classifications of processes are similar. See Figure 3-2.

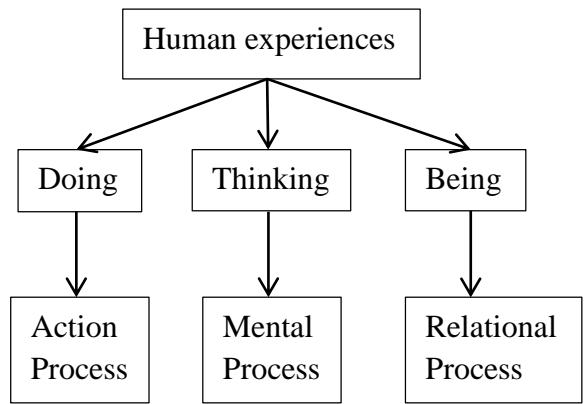


Figure 3-2: The transitivity processes represent universal human experiences

From Figure 3-2, it can be seen that human experiences can be divided into doing, thinking and being, which can be described by material, mental and relational processes respectively on the basis of Halliday's model. However, in this study, the processes of doing are labeled as action processes rather than material processes following Fawcett (1980) and He (2022). Thus, it is observed that languages, though with large typological distinction, at a very general level, present relatively similar structures of types of processes, principally the three main processes with the aim of reflecting human activities universally. The action, mental and relational processes can be said to be universal due to the common feature of human beings: they do something; they think, feel and perceive, and they have relations with others. However, referring to the subdivision of each process, there occur clear differences. In this study, we can see the differences of realizations of processes in two languages. As it will be described in detail, in English, the mental processes are divided into three subtypes: perception, affection and cognition; the relational processes include three subtypes as attributive, identifying and symbolizing, while in Myanmar, the behavioral process is subsumed under the category of action process; the communicative process which is analogous to Halliday's verbal process under the category of mental process, and the existential process under the category of relational process. Lai Yee Win (2021) claims that in Myanmar transitivity system, the action processes are categorized into four types: happening, doing,

creating and behaving; the mental processes into five categories: emotive, desiderative, perceptive, cognitive and communicative processes, and the relational processes into seven types: attributive, identifying, locational, directional, possessive, correlational and existential processes. The following will investigate similarities and differences in the English-Myanmar translation of processes. First of all, we will see the similarities and differences in realizations of action processes in English and Myanmar translated clauses.

3.1.1 Realizations of action processes in English and Myanmar transitivity configurations

English and Myanmar show the same potential realization of autonomous happening action

(1) a. autonomous: happening action

Mg Pyone has died.

Affected	Process
----------	---------

b. autonomous: happening action

မောင်ပြီး ဆုံးရှုံးပြီ။

maunpyonn sonn-shar-bye.

Mg.Pyone die-COMP-PFV.DECL.SENTSUF

Affected	Process
----------	---------

‘Mg Pyone has died.’

‘Mg Pyone has died.’ However, there are some differences in realizations of influential happening action processes in English and Myanmar transitivity structures. The Myanmar autonomous happening action process clause (1b) is transformed into influential process (2b) by suffixing the causative marker -သေ /zay/ to the happening process realized by the verb *die* which is influenced by an external instigator, the Agent. The Myanmar clause (2b) is translated into English with a change of lexical verb *kill* which realizes autonomous doing action process by

(2) a. autonomous: doing action

Sunlight can kill germs.

Agent	Process	Affected
-------	---------	----------

process as verbs concerning the change of a state or weather condition such as သေဆုံး /thaysonn/ ‘die’, ဖြစ်ပွား /phyitpwarr/ ‘happen/take place’, ဖြင့်တက် /myinttet/ ‘rise’, စတင် /satin/ ‘begin’, ပြုဆုံး /pyeesonn/ ‘finish/end’, ကျ /kya/, ရှာ /ywar/ ‘fall’, ပွဲ /pwint/ ‘open’, ကျိုး /kyoe/ ‘be broken’, တိုက် /taik/ ‘blow’, ဖြည့် /mye/ ‘ring’, and so on. For example, the English verb *die* realizes autonomous happening action process in English transitivity structure (1a). As shown by Example (1b), the Myanmar lexical verb ဆုံး /sonn/ which has the same semantic meaning as *die* in English realizes the same process of autonomous happening action in Myanmar transitivity structure.

changing the semantic process as in (2a) because an English autonomous happening action process like *Mg Pyone has died* does not alternate with an influential one such as *Someone has made Mg Pyone die*. Instead, we normally say *Someone has killed Mg Pyone* by changing the process in English although the Myanmar verb ဆေး /thay/ ‘die’ can be employed in both autonomous and influential happening action processes.

b. influential: happening action

နေရောင်ခြည်သည်	ရောဂါပီးများကို	သေစောနိုင်သည်။
nayyaunche-the	yawgarpoe-myarr-go	thay-zay-nain-the.
sunlight-SBJMARK	germ-PLMARK-OBJMARK	die-CAUS-CAPAMOD.PRS-DECL.SENTSUF

Agent	Af[[Affected	Process]]
-------	--------------	-----------

‘Sunlight can make germs die.’

Autonomous doing action process realizes an action initiated by the Agent (He et al. 2017: 33). In some cases, that action can extend to the second participant, the Affected or the Range or the Manner. In an autonomous doing action process clause, there is a process of doing and a participant inherent in that process, the Agent realized by nom.gp-the/ga/hmar. When the second participant is involved in this process, it may be the Affected realized by nom.gp-go or the Range realized by nom.gp or the Manner realized by adv.gp. both English and Myanmar show the same potential of realization of autonomous doing action process as doing action verbs such as ထိုင် /htain/ ‘sit’, ပွဲတ် /phat/ ‘read’, ရှိက် /yaik/ ‘beat’, စား /sarr/ ‘eat’, သောက် /thauk/ ‘drink’, ငွေတ် /that/ ‘kill’, ပြုက်ဆီး /phyetsee/ ‘destroy’, ကစား /gazarr/ ‘play’, and so on. Autonomous doing action process can be conflated with another process such as autonomous directional

relational process, and become a compound process, i.e. the autonomous doing action and directional relational process. This compound process is realized by lexical verbs such as လှုံးသလ္ားက် /lannshauk/ ‘walk’, ငွေား /thwarr/ ‘go’, ဝေါး /lar/ ‘come’, လှည့် /hlet/ ‘turn’, etc. in the same way in English and

Myanmar transitivity structures. Nevertheless, in English, there are some lexical verbs which have the same spellings but different semantic meanings to realize different processes. For example, the English verb *open* can realize both autonomous happening action process and autonomous doing action process as in (3a) and (3b). Contrary to English, in Myanmar transitivity structures, autonomous happening and doing action processes are realized by different lexical verbs: ပွင့် /pwint/ and ပွဲင့် /phwint/ respectively as in (4a) and (4b).

(3) a. autonomous: happening action

Juana's were open too. eyes

Affected	Process
----------	---------

b. autonomous: doing action

Kino opened his eyes in the darkness.

Agent	Process	Affected	Circumstance
-------	---------	----------	--------------

(4) a. autonomous: happening action

ဟွာနာ၏ မျက်လုံးများလည်း ပွင့်နေပြီ။

hwarnar-i myetlonn-myarr-le pwint-naybye.

Juana-GEN eye-PLMARK- open-PFV.DECL.SENTSUF
ADDCONN

Affected	Process
----------	---------

‘Juana's eyes were open too.’

b. autonomous: doing action

ကိုနိသည်	အမှောင်ထဲတွင်	သူ၏	မျက်လုံးများကို	ဖွင့်ကြည့်လိုက်၏။
keno-the	Ahmaun-htetwin	thue-i	myetlonn-myarr-	phwint-kyi-laiki.
			go	
Kino-	dark-LOC	3SG- GEN	eye-PLMARK- OBJMARK	open-look- PFV.DECL.SENTSUF
SBJMARK				

Agent	Circumstance	Affected	Process
-------	--------------	----------	---------

‘Kino opened his eyes in the darkness.’

Similarly, the English verb *break* can realize both autonomous happening action process and autonomous doing action process as in (5a) and (5b). However, different lexical verbs realize these two processes in Myanmar translation from (5a) and (5b). As shown in examples (6a) and (6b), the lexical verbs ခွဲ /kwe/ and ခွဲ့ /khwe/ realize autonomous happening action process and autonomous doing action process respectively.

(5) a. autonomous: happening action

The glass broke

Affected	Process
----------	---------

b. autonomous: doing action

He broke the glass in anger.

Agent	Process	Affected	Circumstance
-------	---------	----------	--------------

(6) a. autonomous: happening action

ဖန်ခွက် ကွဲသွားပြီ။

phankhwet kwe-thwarrbye.

glass break-PFV.DECL.SENTSUF

Affected	Process
----------	---------

‘The glass broke.’

b. autonomous: doing action

သူ ဖန်ခွက်ကို အော်နှင့် ရှိက်ခဲ့လိုက်၏။

thue phankhwet-go dawtha-hnint yaik-khwe-laiki

3SG.NOM glass-OBJMARK anger-COM hit-break-PFV.DECL.SENTSUF

Agent	Affected	Circumstance	Process
-------	----------	--------------	---------

‘Kino opened his eyes in the darkness.’

The following examples (7) and (8) illustrate similarities and differences in realizations of influential doing action processes in English and Myanmar transitivity structures. As shown in examples (7a) and (7b), English and Myanmar show the same potential of realizations of the influential process and the doing action process influenced by an external instigator in spite of their different transitivity structures.

(7) a. influential: doing action

I encouraged her to do this job for the Minister.

Agent	Process	Af[[Agent	Process	Affected	Circumstance]]
-------	---------	-----------	---------	----------	----------------

b. influential: doing action

ကျွန်မ သူကို ဒီအလုပ် လုပ်ဖို့ ဝန်ကြီးအတွက် တိုက်တွန်းရတယ်။

kyama thu-go de-aloke loke-phot wingyee-atwet taiktunn-yade.

1SG.F.NOM 3SG-OBJMARK DEM-job do-INF Minister-PURP encourage-DECL.SENTSUF

Agent	Af[[Agent	Affected	Process	Circumstance]]	Process
-------	-----------	----------	---------	----------------	---------

‘I encouraged her to do this job for the Minister.’ (Journal Kyaw Ma Ma Lay 1957: 55)

On the other hand, we can find out different realizations of influential process in examples (8a) and (8b). Contrary to English, influential process is realized by postverbs such as အေး /zay/ and ခိုင်း /khainn/ in Myanmar transitivity structures.

(8) a. influential: doing action

I asked her to clean the floor.

Agent	Process: influential	Af[[Agent	Process: doing action	Affected]]
-------	-------------------------	-----------	--------------------------	------------

b. influential: doing action

ကျွန်မ သူကို ကြန်း တိုက်ခိုင်းခဲ့တယ်။

kyama thu-go kyann taik-khainn-khet-de.

1SG.F.NOM 3SG-OBJMARK floor clean-ask-PST-DECL.SENTSUF

Agent	Af[[Agent	Affected	Process]]
-------	-----------	----------	-----------

‘I asked her to clean the floor.’

Autonomous creating action processes realize the experience of bringing objects into being (He et al. 2017: 39). These processes are realized by creative action verbs such as သုတေသန /mwaye:/ ‘give birth to’, သရေးစပ် /yaye:sat/ ‘compose’, ပွဲတ် /phoke/ ‘bake’, သဆာက် /sauk/ ‘build’, တိစွဲင် /tehtwin/ ‘invent’, and so on in English and Myanmar transitivity structures. Consider the following examples.

(9) a autonomous: creating action

Ma gave birth to the at the time when I passed the first year at
 Aye first university.
 Phyu baby
 son

Agent	Process	Process Extension	Process Extension	Created	Circumstance

b autonomous: creating action

ကျော်	တက္ကသိုလ်	ပဝါမန္ဒ	အောင်	အချို့	မအေားဖြူ။	သားမြို့က	ဖွားမြင်သည်။
တော်		နဲ့	သည့်	နဲ့		လေးကို	
kyan	takatho	pahta	aun=t	ach	maaye:p	tharr-	phwarrmyi
or		ma-	hi	ein	hyue	ue:-	n-the.
		hni				galaye:-	
						go	
1SG	university	first-year	pass=REL	tim.e	Ma.Aye.	son-first-	give.birth.t
					Phyu	DIM-O(PST)-	
						OBJMARK	DECL.SENTS
							UF

Circumstance	Agent	Created	Process
‘Ma Aye Phyu gave birth to her first baby son at the time when I passed the first year at university.’ (Lae Twin Thar Saw Chit 2004: 68)			

As Examples (9a) and (9b) describe, the Myanmar process of creating action is realized by the verb ပြေားဖြူ /phwarrmyin/ which has the same semantic meaning as the English creating action verb phrase *give birth to*. The English creating action process clause (9a) can be transformed

into passive structure where the creating action process is realized by the verb *be* with the Process Extension *born*. See the example (9c). However, we cannot make any changes in realization of Myanmar creating action process as the verb ပြေားဖြူ /phwarrmyin/ and its transitivity structure in (9b).

(9) c. The first was born by Ma Aye at the time when I passed the
 baby son Phyu first year at university.

Created	Process	Process Extension	Agent	Circumstance

The different realizations of influential creating action processes in English and Myanmar transitivity structures can be seen in examples (10a) and (10b). In English transitivity structure of influential creating action process clause (10a), the influential process through which the outside participant, the Agent (the teacher) instigates a

creating action process is realized as a separate verb *ask to*, whereas in Myanmar transitivity structure (10b), the influential process performed by the Agent is realized as a postverb ခိုင်း /khainn/ 'ask to' which is suffixed to the creating action verb သာရေး /yaye:/ 'write'.

(10) a. influential: creating action

The teacher	asked	the students	to write	an essay.
Agent	Process: influential	Af[[Agent	Process: creating action	Created]]

b. influential: creating action

ဆရာက	ကျောင်းသားများကို	အက်ဆေးတစ်ပုဒ်	ရေးခိုင်းခဲ့တယ်။
sayar-ga	kyaunntharr-myarr-	atsaye:-da-	yaye:-khainn-khet-de.
	go	boke	
teacher-	student-PLMARK-	essay-one-CLF	write-ask.to-PST-
SBJMARK	OBJMARK		DECL.SENTSUF
Agent	Af[[Agent	Created	Process]]

'The teacher asked the students to write an essay.'

Autonomous behaving action processes construe human behavior, including mental and verbal behavior out of processes of consciousness and physiological states (He et al. 2017: 127). He et al. (2017) classifies behavioral process as a separate one, not as a subtype of the action process. But in terms of He's (forthcoming) new model of Chinese transitivity system and Lai Yee Win's (2021) description of the transitivity system of Myanmar, behavioral process is subsumed under the category of action process. Behaving action processes are realized by lexical verbs with the grammatical features of action processes such as ခွဲ့ခြုံး /chaunnsoe/ 'cough', အခေါ်ခြေး /athetshue/ 'breathe', နှာသစ်း /hnarsaye:/ 'sneeze', ခေါ်ခြုံး /thann/ 'yawn', ခေါ်ဖပ်ခြုံး /thetpyinncha/ 'sigh', ပုံး /pyonn/ 'smile', ရယ် /ye/ 'laugh' and ခြုံး /ngo/ 'cry', mental processes such as ကကည်း /kyi/ 'look', စိုက်ကကည်း /saikkyi/ 'stare', ခွဲ့ခြုံးကကည်း /chaunnkyi/ 'peep' and တော်သာင်း /narrhtaun/ 'listen', and verbal processes such as စကားသာဖော် /zagarrpyaw/

'chatter', အတင်းသဖတ် /atinnpyaw/ 'gossip', ဥည်းညား /nyeenye/ 'moan' and တိုးတိုးသာဖော် /toetoeipyaw/ 'murmur' in English and Myanmar transitivity structures. These two languages show the same potential of realization of autonomous behaving action process despite different realizations of influential processes as in examples (11) and (12). As (11a) and (11b) illustrate, the behaving action process is realized by a single verb *screamed* in English transitivity structure, while it is realized by a compound verb သအော်လစ် ငို့သာ ဗုံး /orhit ngokywaye:/ 'scream, cry' in Myanmar transitivity structure. As shown in examples (12a) and (12b), despite the realization of English influential process as a separate verb *make*, the Myanmar influential process is realized as a postpositional causative affix သစ် /zay/ to the behaving action process တူဝေးရှိ /tonye/ 'shiver' influenced by an external instigator, the Agent သကာ်ကြိုက်ယ်ရာ အောက်ကိုးက /kyaukmetphweyar athan-gyee-ga/ 'frightening sound'.

(11) a. autonomous: behaving action

Coyotito screamed with pain in his box.

Behaver	Process	Circumstance	Circumstance
---------	---------	--------------	--------------

b. autonomous: behaving action

ကိုယိုတီးတိုးကား နာကျင်လွန်းသဖြင့် ပုခက်သေတွာထဲမှာပင် အော်ဟစ် ငိုက္ခွေးလျက်ရှိလေသည်။
 coyoteetoe- narkyin- pakhetthittar- orhit ngokywaye:-
 garr lunn=thaphyint htehmar-bin hlyetshilaythe.
 Coyotito- painful- box-LOC-EMPMARK scream cry-
 SBJMARK AUG=CAUS.CONJ PROG.DECL.SENTSUF

Behaver	Circumstance	Circumstance	Process
---------	--------------	--------------	---------

‘Coyotito screamed with pain in his box.’ (John Steinbeck 1945: 7, Htin Lin 1999: 21)

(12) a. influential: behaving action

Frightening sound made Mary shiver.

Agent	Process: influential	Af[[Behaver	Process: behaving
			action]]

b. influential: behaving action

ကြောက်မက်ဖယ်ရာ အသံကြီးက မေရီတို့ တုန်ရှိစေခဲ့သည်။
 kyaukmetphweyar athan-gyee-ga mayre-go tonye-zay-khet-the.
 frightening sound-big.MOD- Mary- shiver-CAUS-PST-
 SBJMARK OBJMARK DECL.SENTSUF

Agent	Af[[Behaver	Process]]
-------	-------------	-----------

‘Frightening sound made Mary shiver.’ (Journal Kyaw Ma Ma Lay 1957: 189)

3.1.2 Realizations of mental processes in English and Myanmar transitivity configurations

Mental processes are the processes of sensing. They construe the experience of the world of our own consciousness (He et al. 2017: 65). He et al. (2017) describe four subtypes of mental processes, namely emotive, desiderative, perceptive and cognitive mental processes in their description of transitivity system of English. However, in He’s (2022) new version of transitivity system of Chinese and Lai Yee Win’s (2021) description of transitivity system of Myanmar, there are five subcategories of mental processes, namely emotive, desiderative, perceptive, cognitive and communicative mental processes. Each process can be either autonomous

or influential. Although He et al. (2017) describe communicative process as a separate one, it is taken as a subtype of mental process in He’s (2022) Chinese transitivity system and Lai Yee Win’s (2021) Myanmar transitivity system.

Autonomous emotive mental processes realize our feelings or emotions. This subtype of mental process is realized by the *like* type of verbs such as ကိုယ် /kyaih/ ‘like’, နှစ်ခိုး /hnitthet/ ‘like’, ခြော့ခြင် /chit/ ‘love’, မြောင်း /monn/ ‘hate’, သပုံးရွင် /pyorshwin/ ‘rejoice’, ဂုဏ်ယူ /gonyue/ ‘exult’, သကေတာက်ရှုံး /kyaukywunt/ ‘dread’, ငြိုးဝေည်း /wannne/ ‘grieve’, အံ့သု /antaw/ ‘marvel’, သလေးတား /laye:zarr/ ‘admire’, သောင်တာရ /naundaya/ ‘regret’, and the *please* type of verbs

such as ဆွဲသဆာင် /swesaun/ 'attract', သာ့ဖြာက်လျှော့ /chaukhlant/ 'startle', တိုက်တွေ့းအားသပေး /taiktunnarrpaye:/ 'encourage', နှစ်ဗြိုင် /hnittheik/ 'comfort', စိတ်ဝင်စားသစ် /seikwinzarrzay/ 'interest', တိတ်လျှော့သစ် /hteiklantzay/ 'shock', စိုးရို့ပြုပော်သစ် /soeyeinpuebanzay/ 'worry', သာပေးနှစ်ဗြိုင်းဝေယ်သစ် /mawpannnwannnezay/ 'weary' and စိတ်ဓာတ်ကျေသစ် /seikdatkyazay/ 'depress' in English and Myanmar transitivity structures. In some English clauses, the emotive meaning is represented by multi-word verbs. For example, He [Em] is [Pro] satisfied [PrEx1] with [PrEx2] the result of his hard work [Ph] where the

emotive process is realized by the verb *be*. However, in its Myanmar translated clause, the emotive process is realized by the *like* type of emotive verb သာကျေပ် /kyaynat/ 'be satisfied' as in (13a). Example (13b) is an influential emotive mental process in Myanmar, where there is the causative postverb သာ /say/ through which the Agent influences an emotive process to come into view. The influential emotive mental process သာကျေပ်သစ် /kyaynatsay/ in Myanmar transitivity structure is translated into English as the please type of emotive verb *satisfy* which realizes an autonomous emotive mental process in English

(13) a. autonomous: emotive mental

သူသည်	သူကြိုးစားမှုရလဒ်နှင့်ပတ်သက်ပြီး	ကျေနပ်တယ်။
thue-the	thu-kyoezarrhmu-yalat-	kyaynat-te.
3SG-SBJMARK	hnintpatthetpyee	be.satisfied.PRS- DECL.SENTSUF

Emoter	Phenomenon	Process
--------	------------	---------

'He is satisfied with the result of his hard work.'

b. influential: emotive mental

သူကြိုးစားမှုရလဒ်က	သူကို	ကျေနပ်စေတယ်။
thu-kyoezarrhmu-	thue-go	kyaynat-say-de.
yalat-ka		

Agent	Af[[Emoter	Process]]
-------	------------	-----------

'The result of his hard work satisfies him.'

Autonomous desiderative mental processes realize our desires. This subtype of mental process is realized by lexical verbs that indicate our desire for something such as လိုက်ချင် /lochin/ 'want', သိရော်လင် /hmyorlint/ 'hope', လိုအပ် /loat/ 'require', တွေ်းဝါ /tannta/ 'long for' and so on in English and Myanmar transitivity structures.

Autonomous perceptive mental processes realize our senses: sight, feeling, hearing, smell and taste. These processes are realized by lexical verbs such as မြင် /myin/ 'see', ပိုစားပြီ /khanzarrmi/ 'feel' or 'perceive', ကာား /kyarr/ 'hear', အန္တရ /anantya/ 'smell', ဖြော်းကကည့် /myeekyi/ 'taste', ပြုကြော်ကကည့် /phyatkhaneekyi/ 'glimpse', and so on in English and Myanmar transitivity structures.

Autonomous cognitive mental processes realize mental abilities and processes concerning knowledge such as memory, judgment, evaluation, attention, reasoning, comprehension, etc. (He et al. 2017: 83). These cognitive mental processes are realized by verbs expressing cognitive meanings such as သိ /thi/ 'know', ထင် /htin/ 'think', ယုံကဗ္ဗာ /yonkye/ 'believe', တော်လည် /narrle/ 'understand', တိမ္မာမိမိ /thichinmi/ 'wonder', တိဝေယဖြစ် /thanthayaphyit/ 'doubt', တော်လည်သောပါက် /narrlethabawpauk/ 'realize', စတ်ကူး /seikkue:/ 'imagine', အိပ်ကြက် /eikmetmet/ 'dream', ခိုင်ခိုင်း /khanthmann/ 'guess', ဝေတိရ /thadiya/ 'remember', and so on in English and Myanmar transitivity structures.

Autonomous communicative mental processes realize the experience of exchanging information through language. This communicative mental process is realized by lexical verbs such as သာဖော် /pyaw/ 'tell', သာဆွဲသန္တး /swaye:nwaye:/ 'discuss', သာဖပေ /phorpya/ 'state', အစိရင်တင်ဖပေ /aseyinkhantinpya/ 'report', ဝေတိသပေ /thadipaye:/ 'warn', အကောင်သပေး /akyanpaye:/ 'advise', သိုး /maye:/ 'ask', ရှင်းဖပေ /shinnpya/ 'explain', ချော်းကျူး /cheekyue:/ 'praise', and so on in English and Myanmar transitivity structures.

(13) a. autonomous: perceptive mental

Kino heard the little splash of morning waves on the beach. (John Steinbeck 1945: 2)

Perceiver	Process	Phenomenon
-----------	---------	------------

b. autonomous: perceptive mental

ကမ်းခြေတိမှု	နံနက်ခင်း	လှိုင်းပုတ်သံကလေးများကို	ကိုနို	ကြားရာသည်။
kannchay-	nannetkhinn	hlainn-pokethan-	keno	kyarr-yathe.
dot-hma		galaye:-myarr-go		
beach-	morning	wave-sound-DIM-	Kino	hear-
PLMARK-		PLMARK-OBJMARK		PRS.DECL.SENTSUF
ABLMARK				

Phenomenon	Perceiver	Process
------------	-----------	---------

'Kino heard the little splash of morning waves on the beach.' (Htin Lin 1999: 13)

English and Myanmar show the same potential of realization of autonomous mental processes as the lexical verbs which have the same semantic meanings in both languages. Examples (13a) and (13b) illustrate autonomous perceptive mental process type structures in which the Myanmar and English realizations closely resemble each other, where the perceptive mental processes in English and Myanmar transitivity structures are realized by English verb 'hear' and Myanmar verb ကြား /kyarr/ which are the same in meaning. However, in the examples (14a) and (14b), different lexical verbs with different semantic meanings realize cognitive mental process in English and Myanmar transitivity structures. In English cognitive mental process clause (14a), the process is realized by the verb *remember*. But this clause is translated into Myanmar by changing the lexical verb with different meaning ထင်ည် /htinthe/ 'think' which realizes the same process as English clause as in (14b). Moreover, the realizations of processes as different lexical verbs realizing different processes can also be seen in English-Myanmar translation (15a) and (15b).

(14). a autonomous: cognitive mental

Kino could never seeing when he awakened. (John Steinbeck 1945: 2)
 remember Juana's
 eyes closed

Cognizant	Process	Phenomenon	Circumstance
-----------	---------	------------	--------------

b autonomous: cognitive mental

သူ နိုးနေ့ခိုက် ဟွာနာမျက်လု မိတ်ထားသ ကိန္ဒ မမြင်ဘူးခဲ့ဟု ထင်သည်။
 ဝေးများ ည်ကို
 thue noe=naykhaik hwarnar- hmeikhtarr ken ma-myin- htin-the.
 myetlonn- -the-go o bue:-khet=hu
 myarr
 3SG awaken=when. Juana-eye- close- Kin NEG-see- think-
 CONJ PLMARK DECL.SENT o NEGDECL.SENT DECL.SENT
 SUF- SUF- SUF-
 OBJMARK PST=COMPL

Ph				Pro: auto cog men
Ph				Per Pro: auto
			c	perc men
Cir	Af	Pro: auto do act		

'Kino thinks that he has not seen Juana's eyes closed when he awakened.' (Htin Lin 1999: 13)

(15). a. autonomous: behaving action

She was looking at him as she was always looking at him when he awakened.

Behaver	Process	Process Extension	Range	Circumstance
---------	---------	-------------------	-------	--------------

b autonomous: perceptive mental

ကို	နိုးလာတိုင်း	ဟွာနာသည်	ကိုနိုအား	ကြည့်လျက်သဲ	တွေ့ရသည်။၁၁
keno	noelar=dainn	hwarnar-	keno-arr	kyi-hlyet-	twayt-yathe.
		the		thar	
Kino	awaken=whenever.CONJ	Juana-	Kino-	look-PROG-	find-
		SBJMARK	OBJMARK	EXCL	DECL.SENTSUF

Circumstance	Phenomenon	Process
--------------	------------	---------

Compared to English transitivity, influential processes are rarely used in Myanmar. English influential processes are typically transformed into Myanmar autonomous processes by changing the causer Agent into a circumstance in English-Myanmar translation. Compare the examples (16a) and (16b).

(16). a influential: cognitive mental

For Nan	when	it	made	her	miss	her	very
Aung,	these					father	much.
		flowers					
			bloomed,				

Circumstance	Circumstance	Agent	Process: influential	Af[[Cognizant	Process: cognitive mental	Phenomenon	Circumstance]]
--------------	--------------	-------	----------------------	---------------	---------------------------	------------	----------------

b autonomous: cognitive mental .

နန်းအောင်	ဝါဆိုပန်း	ပွင့်ရင်	အဖော်ကို	အရမဲးသတိရတယ်။
ကတော့	ထွေး			
nannaun-	warzo-	pwint=yin	aphayt-	ayann-thadiya-de.
gadort	pann-		go	
	dway			
Nan.Aun	waso-	bloom=CON	father-	AUG-remember-PRS.DECL.SENTSUF
g-	flower-	D.CONJ	OBJMAR	
SBJMARK	PLMARK		K	

Cognizant	Circumstance	Phenomenon	Process: cognitive mental
-----------	--------------	------------	---------------------------

‘When Waso flowers blooms, Nan Aung remembers her father very much.’

(<http://sealang.net/burmese/bitext.htm>)

3.1.3 Realizations of relational processes in English and Myanmar transitivity configurations

The significant difference in realizations of autonomous attributive relational processes in English and Myanmar transitivity structures lies in that in English transitivity structures, the English attributive verb 'be' is employed to realize the attributive process for representing both the quality and the status of the Carrier as in (17a) and

(17b), whereas in Myanmar transitivity structures, the attributive process for representing the quality of the Carrier is realized by attributive verbs such as ကျော်းကြင်းပြောင်းလဲ့ /kyannmar-thanswann-the/ 'be healthy and strong', while the process for representing the status of the Carrier is realized by the Myanmar copula verb ဖြစ်လို /phyit-the/ 'be' as in (18a) and (18b).

(17) a. autonomous: attributive relational

Kino is healthy and strong.

Carrier	Process	Attribute
---------	---------	-----------

b. autonomous: attributive relational

Kino is a young man.

Carrier	Process	Attribute
---------	---------	-----------

(18) a. autonomous: attributive relational

ကိန္ဒိယည် ကျွန်းမာသနစွမ်းသည်။

keno-the kyannmar-thanswann-the

Kino-SBJMARK healthy-strong-PRS.DECL.SENTSUF

Carrier	Process
---------	---------

'Kino is healthy and strong.' (Htin Lin 1999: 17)

b. autonomous: attributive relational

ကိန္ဒိယည် ငယ်ရှယ်သူ ဖြစ်သည်။

keno-the ngeywe-thue phyit-the.

Kino-SBJMARK young-person COP.PRS-DECL.SENTSUF

Carrier	Attribute	Process
---------	-----------	---------

'Kino is a young man.' (Htin Lin 1999: 17)

Autonomous identifying relational processes construe the symbolization or identity of an entity. This identifying relational process is typically realized by the copula verb ဖြစ်လို /phyitthe/ 'be' in Myanmar transitivity configurations. In English, there are definite and indefinite articles: *the* and *a/an* which can be used in nominal groups to distinguish the attributive processes from the

identifying processes. However, as there is no definite article *the* in Myanmar, we can distinguish attributive processes from identifying processes by means of the reversibility of the positions of two participants. The positions of the Token and the Value can be reversible in identifying processes, whereas the positions of the Carrier and the Attribute in attributive processes

cannot be reversible. In an identifying clause, the two participants, named Token and Value, stand in a symbolic relation, in which the Token is identified as the Value. The typical Myanmar identifying verb is ဖြစ်လျှော် /phyitthe/ 'be' which is analogous to English copula verb *be*.

Other Myanmar verbs such as အမှုပေး /amyepaye:/ 'name', ဆိုလို /solo/ 'mean' and

အဓိပ္ပာယ်င့်ဆို /adeikbephwintso/ 'define' realize identifying process in Myanmar transitivity structures. Since the two participants are equated with each other, the order of the participants may be either Token[^] Value[^] Process as in (19a) or Value[^] Token[^] Process as in (19b).

(19) a.	ရန်ကုန်မြို့သည်	မြန်မာပြည်၏	စီးပွားရေးမြို့တော်	ဖြစ်သည်။
	yangon-myot-the	myanmarpye-i	seebwarryaye:-	phyit-the.
	Yangon-town-	Myanmar-GEN	myotdor	
	SBJMARK		commercial-city	COP.PRS-
				DECL.SENTSUF
	Token	Value		Pro: auto iden rel
		'Yangon is the commercial city of Myanmar.'		
b.	မြန်မာပြည်၏	စီးပွားရေးမြို့တော်မှာ	ရန်ကုန်မြို့	ဖြစ်သည်။
	myanmarpye-i	seebwarryaye:-	yangon-myot	phyit-the.
		myotdor-hmar		
	Myanmar-GEN	commercial-city-	Yangon-town	COP.PRS-
	SBJMARK			DECL.SENTSUF
	Value		Token	Pro: auto iden rel
		'The commercial city of Myanmar is Yangon.'		

Autonomous locational relational processes realize the relationship between one entity and its location (He et al. 2017: 111). Autonomous directional relational processes realize the static direction of an entity (He et al. 2017: 111). Directional relational processes are realized by processes of movement such as သရုံလျား /ywaytsharr/ 'move', ဘာ /lar/ 'come', ဥုံတည် /ue:te/ 'lead', ပျော် /pyanthnant/ 'spread', and so on. Autonomous possessive relational processes realize the relationship between two entities in terms of possessing. These possessive relational processes are realized by lexical verbs such as ရ /ya/ 'get', ရှိ /shi/ 'have', ပိုင်ဆိုင် /painsain/

'possess' or 'own', ပါဝင် /parwin/ 'contain', and so on. Among them, the most general and representative verb which realizes the 'possessive' process in Myanmar is ရှိ /shi/ 'have'. Autonomous correlational relational processes realize the relationship between two entities. Correlational processes are realized by lexical verbs representing the connection between two people or two things or two entities such as လက်ထပ် /lethtat/ 'marry', သစ္စစ်ပုံ /saytzat/ 'be engaged with', နှီးယှဉ် /hnainnshin/ 'compare', လိုက်က် /laikphet/ 'match (with)', and so on. Autonomous existential relational processes realize the existence of an entity in a certain location. They

relate an entity to the fact of its existence. Existential process in Myanmar transitivity structures is typically realized by lexical verbs ရှိ /shi/, တည်ထား /tehtarr/, တည်ရှိ /teshi/ 'exist', while existential process in English transitivity structures can be realized by the verb *be* and many other verbs that construe static meanings such as *exist, lie, remain, arrive, enter, spring up, rise, stand, emerge, and so on* (He et al. 2017: 146). In Myanmar, the verb ရှိ /shi/ may also realize a possessive process where it has the semantic meaning 'have'. In Myanmar the existential verb ရှိ /shi/ can be interpreted either as existential when

the Existents and the Location appear as participants or as possessive when it has two participants: Possessor and Possessed, like the verb 'have' in English. In Myanmar existential construction, there exist two participants named Existents and Location, and the typical realization of this kind of process by verbs such as ရှိ /shi/, တည်ထား /tehtarr/ and တည်ရှိ /teshi/ which has the semantic meaning *exist*. The common optional semantic configurations of existential processes are Existents^Location^Process and Location^Existents^Process. See Examples (20) and (21).

(20)	မြို့သည်	မြစ်ဝကျယ်၏	ကမ်းပေါ်တွင်	တည်ထားသည်။
	myot-the	myitwa-kye-i	kann-portwin	tehtarr-the.
	town-SBJMARK	estuary-broad.MOD-GEN	beach-on.LOC	lie.PFV-DECL.SENTSUF

Existents	Location	Pro: auto existential rel
-----------	----------	---------------------------

'The town lay on a broad estuary.' (Htin Lin 1999: 33)

(21)	အိမ်၏	မျက်နှာစာတွင်	မြက်ခင်းပြင်	ရှိသည်။
	ein-i	myethnazar-twin	myetkhinnpyin	shi-the.
	house-GEN	front-LOC	lawn	exist.PRS-DECL.SENTSUF

Location	Existents	Pro: auto existential rel
----------	-----------	---------------------------

'There is lawn in front of the house.'

The Myanmar lexical verb ရှိ /shi/ convey two semantic meanings: *exist* and *have*.

Therefore, it can realize two processes: existential relational process and possessive relational process in Myanmar transitivity structures. The realization of possessive process by the Myanmar verb ရှိ /shi/ which has the same semantic meaning as *has* in English can be seen in the example (22).

(22)	စက်ဘီးတွင်	ဘီးနှစ်ဘီး	ရှိသည်။
	setbeinn-twin	beinn-hna-beinn	shi-the.
	bicycle-LOC	wheel-two-CLF	have.PRS-DECL.SENTSUF

Possessor	Possessed	Pro: auto possessive rel
-----------	-----------	--------------------------

'A bicycle has two wheels.'

3.2 Comparison of realizations of participant roles in English and Myanmar transitivity structures

Following He's (2022) new model of Chinese transitivity system, the Myanmar transitivity system is described as distinguishing between three major process types. These are the 'action', 'mental' and 'relational' process types. Each process type has its own subtypes. Action process is divided into four subtypes: autonomous and influential happening, doing, creating and behaving action processes. Mental process is classified into five subtypes: autonomous and influential emotive, desiderative, perceptive, cognitive and communicative mental processes. Relational process is categorized into seven subtypes: autonomous and influential attributive, identifying, locational, directional, possessive, correlational and existential relational processes.

They are structurally realized as configurations of a Process and the participants. Syntactically, a participant role can be conflated with the Subject or the Complement which is typically realized by a nominal group.

3.2.1 Realizations of participant roles in English and Myanmar action processes

Autonomous happening action process contains only one participant, the Agent only and the Affected only. It is structurally realized as configurations of a Process and a participant of Agent + Process and Affected + Process in English and Myanmar. There is no such configuration of It/There + Pro + Af in Myanmar but in English. We can study the similarities and differences in realizations of participants in English and Myanmar autonomous happening action processes in the following examples.

(22) စက်ဘီးတွင် ဘီးနှစ်ဘီး ရှိသည်။

setbeinn-twin beinn-hna-beinn shi-the.

bicycle-LOC wheel-two-CLF have.PRS-DECL.SENTSUF

Possessor	Possessed	Pro: auto possessive rel
-----------	-----------	--------------------------

'A bicycle has two wheels.'

Subject	Finite/Predicate
---------	------------------

(Journal Kyaw Ma Ma Lay 1957: 45)

(2) a. Autumn has come.

Affected	Pro: auto happening action	
Subject	Finite	Predicator

b. ဆောင်းဦးသို့ ရောက်လာပြီဖြစ်၏။

saunnue:-thot yauk-larbye-phyiti.

autumn-OBJMARK come-PFV-DECL.SENTSUF

Affected	Pro: auto happening action	
Subject	Finite	Predicator

(Journal Kyaw Ma Ma Lay 1957: 45)

The process types in (1a) and (1b) are both autonomous happening action, so the structural configuration is Agent + Process in both English and Myanmar. In English happening action clause (1a), the Agent (a cool breeze) is conflated with Subject and is realized by a nominal group. In Myanmar happening action clause (1b), the Agent သအေးဖြေသာ သလေစွဲည်

/aye:myathaw laythit-the/ ‘cool breeze’ is conflated with Subject and is realized by a nominal group in nominative case marked by a postpositional nominative case marker -ခေါ် /the/. In (1a)

and (1b), there is generally a strong tendency towards a one-to-one relation between participant roles and syntactic functions, where the realization of participants as a nominal group is similar in English and Myanmar.

The process types in (2a) and (2b) are both autonomous happening action, so the structural configuration is Affected + Process. In English happening action clause (2a), the Affected (autumn) is conflated with Subject and is realized by a common noun. In Myanmar happening

action clause (2b), contrary to English, the Affected သအောင်းဦးစွဲ /saunnue:-thot/ ‘autumn’ is conflated with Subject and is realized by a common noun with objective marker -ခေါ် /thot/.

The simple participant roles involved in autonomous doing action process are Agent, Affected, Range and Manner. The simple PR Agent is the doer of the action described by the Process. The Affected is the PR affected by the Process. Contrary to the Agent and the Affected, the Range is a special PR that describes the range or scope of the process. It stands as a second participant of the process. Typically, Agent, Affected and Range are realized by a nominal group. The Manner is the PR which is expected by the Process realized by verbs such as *behave* and *act*, without which the meaning of the clause is not complete. The PR of Manner expresses how the Agent behaved. In contrast to Agent, Affected and Range, the Manner is structurally realized by an adverbial group. We can compare the realizations of participants in autonomous doing action processes in English and Myanmar in the following examples.

(3) a. At the gate the servant opened the door a trifle.

Circumstance	Agent	Pro: auto doing action	Affected	Circumstance
Adjunct	Subject	Finite/Predicator	Complement	Adjunct

(John Steinbeck 1945: 15)

b. ဝင်းတံ့ခါးဝွေင် အစေခံသည် တံ့ခါးကို အနည်းငယ်မျှသာ ဟလိုက်၏။
 winndagarrwa- asaykhan-the dagarr-go anengehmya- ha-laiki.
 twin
 gate-LOC servant- door- a.little-only open-
 SBJMARK OBJMARK PFV.DECL.SENTSUF

Circumstance	Agent	Affected	Circumstance	Pro: auto doing action
Adjunct	Subject	Complement	Adjunct	Finite/Predicator

(Htin Lin 1999: 31)

The process types in (3a) and (3b) are both autonomous doing action, so the structural configuration is Agent + Process + Affected in English, and Agent + Affected + Process in Myanmar. In English doing action process clause (3a), the Agent (the servant) is conflated with Subject, while the Affected (the door) is conflated with Complement. Structurally, they are realized by nominal groups. On the other hand, in Myanmar doing action process clause (3b), the

Agent အသစ္စခေါ် /asaykhan-the/ 'the servant' is conflated with Subject and is realized by a common noun အသစ္စ /asaykhan/ 'servant' in nominative case marked by a nominative case marker -ခေါ် /the/, while the Affected တံ့ခုံကို /dagarr-go/ 'the door' is conflated with Complement and is realized by a common noun တံ့ခုံး /dagarr/ 'door' in accusative case marked by an objective suffix -ကို /go/. Therefore, we can see that case realizes the syntactic functions of participants in Myanmar transitivity structures.

(4) a. My son will read the books.

Agent	Pro: auto doing action		Range
Subject	Finite	Predicator	Complement

(John Steinbeck 1945: 33)

b. ငါသားက စာအုပ်တွေကို ဖတ်မှာ။
 nga-tharr-ga sroke-dway-go phat-hmar.
 1SG.GEN-SON-SBJMARK book-PLMARK-OBJMARK read-IRR.ASS

Agent	Range	Pro: auto doing action
Subject	Complement	Finite/Predicator

(Htin Lin 1999: 56)

In English doing action process clause (4a), the Agent (My son) is conflated with the Subject and is realized by a nominal group; the Range (the books) is conflated with the Complement and is also realized by a nominal group. In Myanmar doing action process clause (4b), the Agent ငါသားက /nga-tharr-ga/ 'my son' is conflated with Subject and is realized by a nominal group in nominative case marked by a nominative suffix

-ကို /ga/; the Range စာအုပ်သတွက် /sroke-dway-go/ 'the books' is conflated with Complement and is realized by a nominal group in accusative case marked by an objective suffix -ကို /go/. Besides the realization of the PR Range in doing action process as a nominal group, it can also be realized as a prepositional phrase in English and Myanmar as in (5a) and (5b).

(5) a. The children climbed to the top of the hill.

Agent	Pro: auto doing action	Range
Subject	Finite/Predicator	Complement

b. ကလေးများသည် တောင်ကုန်းထိပ်သို့ တက်ခဲ့ကြသည်။
 khalaye:-myarr-the taunkonn-hteik-thot tet-khet-gya-the.
 child-PLMARK-SBJMARK hill-top-ALL climb-PST-PLMARK-DECL.SENTSUF

Agent	Range	Pro: auto doing action
Subject	Complement	Finite/Predicator

(6) a. Her stepmother treated her cruelly.

Agent	Pro: auto doing action	Affected	Manner
Subject	Finite/Predicator	Complement	Complement

b. သူမိတ္ထေးက သူကို ရက်စက်ကြမ်းကြတ်စွာ ပြမှုဆက်ဆံ့တယ်။
 thu-midwaye:-ga thu-go yetsetkyannkyokeswar pyumuesetsan-khet-de.

3SG.GEN- stepmother- 3SG-
 SBJMARK OBJMARK

Agent	Affected	Manner	Pro: auto doing action
Subject	Complement	Complement	Finite/Predicator

The construction in (6a) and (6b) is accounted for as a kind of autonomous doing action process with three participants: Agent, Affected and Manner. In English autonomous doing action process clause (6a), the Agent (her stepmother) is conflated with Subject and is realized as a nominal group; the Affected (her) is conflated with Complement and is realized as a pronoun; the Manner is another Complement which is realized as an adverb. In Myanmar autonomous doing action process clause (6b), the Agent သူမိတ္ထေးက /thu-midwaye:-ga/ 'her stepmother' syntactically functions as Subject and is realized as a nominal group in nominative case marked by a nominative suffix -က /ga/; the Affected သူကို /thu-go/ 'her' syntactically functions as Complement and is realized as a pronoun in dative case marked by an objective suffix -ကို /go/; the Manner also functions as Complement and is realized as an adverb.

The Agent, Affected and Range in processes of doing action show the same potential of realization as a noun or nominal group, and the

Manner as an adverb or adverbial group in English and Myanmar. The significant difference in realization of participants in processes in English and Myanmar is that case (nominative, dative and accusative) marks the syntactic functions of Subject and Complement elements in Myanmar construction by means of suffixes: -ခေါ် /the/, -မ /ga/, -ဗုံး /hmar/ for nominative, -ကို /go/, -ခို့ /thot/, -အေး /arr/ for objective case, whereas there is no case marker to realize the syntactic functions of participants in English construction.

Autonomous creating action process may include one or two participants. If there is one participant involved in this process, it is the Created. If there are two participants involved in it, there are the Agent and the Created. The PR Agent is typically animate, whereas the Created can be either animate or inanimate. The Agent and the Created in processes of creating in English and Myanmar show the same potential of realization as a noun or nominal group as in (7a) and (7b).

(7) a. Juana usually makes corncakes for breakfast.

Agent	Circumstance	Pro: auto creating action	Created	Circumstance
Subject	Adjunct	Finite/Predicator	Complement	Adjunct

b. ဟွာနာသည် နံနက်စာအတွက် ပြောင်းဆန်မှန် ဖုတ်လေ့ရှိသည်။
 hwarnar-the nannetsar-atwet pyaunnsanmont phoke-laytshithe.
 Juana-SBJMARK breakfast-PURP corncake
 bake-PRS.DECL.SENTSUF

Agent	Circumstance	Created	Pro: auto creating action
Subject	Adjunct	Complement	Finite/Predicator

The process type in (7a) and (7b) is autonomous creating action process, so the structural configuration is Agent + Process + Created in English and Agent + Created + Process in Myanmar. In English creating action process (7a), the Agent (Juana) is conflated with Subject and is realized as a proper noun; the Created (corncakes) is conflated with Complement and is realized as a common noun. In Myanmar creating action process (7b), the Agent ဟွာနာသည် /hwarnar-the/ 'Juana' is conflated with Subject and is realized as a proper noun in nominative case marked by nominative suffix -ခေါ် /the/; the

Created သေဟင်းဆောင်း /pyaunnsanmont/ 'corncake' is conflated with Complement and is realized as a common noun.

Autonomous behaving action process may contain one or two participants. If there is one participant involved in this process, it is the Behaver. If there are two participants involved in it, there are the Behaver and the Range. The PR Behaver is typically animate, whereas the Range can be either animate or inanimate. The Behaver and the Range in processes of behaving in English and Myanmar show the same potential of realization as in (8a) and (8b).

(8) a. Kino dreamed that Coyotito could read.

Behaver	Pro: auto behaving action	Range
Subject	Finite/Predicator	Complement

(John Steinbeck 1945: 48)

b. ကိုနိုသည် အိပ်မက်ထဲ့ ကိုယ့်တိုးတိုး စာဖတ်တတ်သည်ဟု မြင်မက်၏။
 keno-the eikmet- koyoteetoe sarphat-tat-the=hu myinmet-i
 htehnaik
 Kino- dream-LOC Coyotito read-CAPAMOD- dream-DECL.SENTSUF
 SBJMARK DECL.SENTSUF=COMP

Behaver	Circumstance	Range	Pro: auto behaving action
Subject	Complement		Finite/Predicator

(Htin Lin 1999: 76)

The process type in (8a) and (8b) is autonomous behaving action process, so the structural configuration is Behaver + Process + Range in English and Behaver + Range + Process in Myanmar. In English behaving action process (8a), the Behaver (Kino) is conflated with Subject and is realized as a proper noun; the Range (that Coyotito could read) is conflated with Complement and is realized as a finite clause. In Myanmar behaving action process (8b), the Behaver ကိန်းခေါ် /keno-the/ 'Kino' is conflated with Subject and is realized as a proper noun in

nominative case marked by nominative suffix -ခေါ် /the/; the Range ကိုယိုတီးတိုးစာရွတ်တတ်ည်ဟု /koyoteetoe sarphat-tat-the=hu/ 'that Coyotito could read' is conflated with Complement and is realized as a finite clause. The Behaver in processes of behaving indicates the same potential of realization as a nominal group in English and Myanmar, while the Range shows the same potential of realization as a nominal group or a finite clause in both languages. Table 3-3 illustrates a comparison of realizations of participants in action processes in English and Myanmar.

Table 3-3: A comparison of realizations of participants in action processes in English and Myanmar configurations

Process type	Subtype of action process	Participant	Realization of participant in English configurations	Realization of participant in Myanmar configurations
happening	Agent	Agent	pronoun, proper noun, common noun, nominal group	pronoun, proper noun, common noun, nominal group with nominative case marker: -ခေါ် /the/, -ခါ /ga/ or -မာ /hmar/
		Affected	pronoun, proper noun, common noun, nominal group	pronoun, proper noun, common noun, nominal group with objective case marker: -ခု /go/, -ခု /thot/ or -အေး /arr/
		Agent	pronoun, proper noun, common noun, nominal group	pronoun, proper noun, common noun, nominal group with nominative case

action	doing			marker: - <u>သဲ</u> /the/, - <u>ဗဲ</u> /ga/ or - <u>မဲ</u> /hmar/
		Affected	pronoun, proper noun, common noun, nominal group	pronoun, proper noun, common noun, nominal group with objective case marker: - <u>ဂဲ</u> /go/, - <u>ထဲ</u> /thot/ or - <u>အေား</u> /arr/
		Range	pronoun, proper noun, common noun, nominal group	pronoun, proper noun, common noun, nominal group with objective case marker: - <u>ဂဲ</u> /go/, prepositional phrase
		Manner	adverb or adverbial group	adverb or adverbial group
creating	Agent		pronoun, proper noun, common noun, nominal group	pronoun, proper noun, common noun, nominal group with nominative case marker: - <u>သဲ</u> /the/, - <u>ဗဲ</u> /ga/ or - <u>မဲ</u> /hmar/
		Created	pronoun, proper noun, common noun, nominal group	pronoun, proper noun, common noun, nominal group with objective case marker
	Behaver		pronoun, proper noun, common noun, nominal group	pronoun, proper noun, common noun, nominal group with nominative case marker: - <u>သဲ</u> /the/, - <u>ဗဲ</u> /ga/ or - <u>မဲ</u> /hmar/
		Range	nominal group, finite clause	nominal group, finite clause

3.3.2 Realizations of participant roles in English and Myanmar mental processes

According to He's (2022) new model of Chinese transitivity system, mental processes are divided into five subtypes: autonomous and influential emotive, desiderative, perceptive, cognitive and communicative mental processes. The two major participants involved in autonomous emotive

mental process are Emoter and Phenomenon. The Emoter is the PR which represents the one who feels, so it can be a human or an animate being. The Phenomenon is a thing or an act or an event or a fact targeted by the feeling process (He et al. 2017: 67). There are some differences in realizations of participants in emotive mental processes of English and Myanmar as in the following examples.

(9) a. He was afraid of strangers.

Emoter	Pro	PrEx1	PrEx2	Phenomenon
Subject	Finite/Predicator		Complement	

(John Steinbeck 1945: 69)

b. သူသည် မျက်နှာစိမ်းများကို ကြောက်သည်။
 thue-the myethnaseinn-myarr-go kyauk-the.
 3SG-SBJMARK stranger-PLMARK-OBJMARK fear-PRS.DECL.SENTSUF

Emoter	Phenomenon	Pro: auto emotive mental
Subject	Complement	Finite/Predicator

(Htin Lin 1999: 105)

The Emoter and the Phenomenon in processes of emotion in English and Myanmar indicate the same potential of realization as in (9a) and (9b). In English emotive mental process clause (9a), the Agent (he) is conflated with Subject and is realized as a pronoun; the Affected (strangers) is conflated with Complement and is realized as a nominal group. In Myanmar emotive mental process clause (9b), the Agent သူ /thue-the/

'he' is conflated with Subject and is realized as a pronoun in nominative case marked by nominative suffix -ခေါ် /the/; the Affected မျက်နှာစိမ်း /myethnaseinn-myarr-go/ 'strangers' is conflated with Complement and is realized as a nominal group in dative case marked by objective suffix -ကို /go/. However, we can see the difference of the realization of the Phenomenon in processes of emotion in English and Myanmar as in (10a) and (10b).

(10) a. He was afraid of failing the exam.

Emoter	Pro	PrEx1	PrEx2	Phenomenon
Subject	Finite/Predicator		Complement	

b. သူ စာမေးပဲ ကျွန်းမှာကို စိုးရိမ်ခဲ့သည်။
 thue sarmaye:pwe kyashonn-hmar-go soeyein-khet-the.
 3SG.NOM exam fail-IRR-OBJMARK worry-PST-DECL.SENTSUF

Emoter	Phenomenon	Pro: auto emotive mental
Subject	Complement	Finite/Predicator

In English and Myanmar emotive mental process clauses (10a) and (10b), the Emoter ϵ_{II} /thue/ 'he' is conflated with Subject, representing the same potential of realization as a pronoun in both languages. However, the Phenomenon in process of emotion in English is realized as a non-finite clause as in (10a), whereas the Phenomenon in process of emotion in Myanmar is realized as a

finite clause with an objective suffix -ခဲ့ /go/ as in (10b). The elements of structure (10b) can easily change position without information about syntactic function being lost, as in example (10c). Different from elements in process of emotion in Myanmar, those in English cannot change position without changing the meaning of the process. See Example (10d).

(10) c. စာမေးပဲ ကျွန်းမှာကို သူ စိုးရိမ်ခဲ့သည်။
 sarmaye:pwe kyashonn-hmar-go thue soeyein-khet-the.
 exam fail-IRR-OBJMARK 3SG.NOM worry-PST-DECL.SENTSUF

Phenomenon	Emoter	Pro: auto emotive mental
Complement	Subject	Finite/Predicator

(10) d. Failing in the exam upset him.

Phenomenon	Pro: auto emotive mental	Emoter
Subject	Finite/Predicator	Complement

The two main PRs involved in autonomous desiderative mental process are Desiderator and Phenomenon. The Desiderator is the PR which represents the one who wants something, so it can be a human or an animate being. The Phenomenon is a thing or an event targeted by the desiderative process. These participants show the same potential of realization in English and Myanmar as in (11a) and (11b).

(11) a. Mg Lu Aye decided to be a bachelor.

Desiderator	Pro: auto desiderative mental	Phenomenon
Subject	Finite/Predicator	Complement

b. မောင်လူအေးသည် လူပျို့ကြီး လုပ်နေမည်ဟု ဆုံးဖြတ်ထားခဲ့၏။
 maunlueaye:-the luebyoggee loke-naymye=hu sonnphyat-htarrkhet-i.
 Mg.Lu.Aye-SBJMARK bachelor do-IRR.ASS=COMP decide-PST-DECL.SENTSUF

Desiderator	Phenomenon	Pro: auto desiderative mental
Subject	Complement	Finite/Predicator

The process type in (11a) and (11b) is autonomous desiderative mental process. In English desiderative mental process clause (11a), the Desiderator (Mg Lu Aye) is conflated with Subject and is realized as a proper noun, while the Phenomenon (to be a bachelor) is conflated with Complement and is realized as an infinitival clause. In Myanmar desiderative mental process clause (11b), the Desiderator မားလှုသအေး။ /maunlueaye:-the/ 'Mg Lu Aye' is conflated with Subject and is realized as a proper noun in nominative case marked by nominative affix -။ /the/, while the Phenomenon လူပျိုကြီးလုပ်သော်မှုံးဟု /luebyogye loke-naymye=hu/ 'will do as a bachelor' is conflated with Complement and is realized as a finite clause. Therefore, although the Desiderator in processes

of desideration in English and Myanmar describes the same potential of realization as a pronoun or nominal group, the Phenomenon shows different realizations as in (11a) and (11b).

Autonomous perceptive mental process consists of two main participants: Perceiver and Phenomenon. The Perceiver is the PR which represents the one who perceives something, so it is a human or an animate being. The Phenomenon is a thing or an event targeted by the perceptive process. Typically, the Perceiver and the Phenomenon in processes of perception in English and in Myanmar indicate the same potential of realization as a nominal group. Moreover, they can also be realized as finite or non-finite clause. Consider the following example:

(12) a. He saw them moving along.

Perceiver	Pro: auto perceptive mental	Phenomenon
Subject	Finite/Predicator	Complement

(John Steinbeck 1945: 95)

b. သူတိ လာနေကြသည်ကို
thuedot lar-nay-gya-the-go
3PL come-PROG-PLMARK-DECL.SENTSUF-
OBJMARK

Phenomenon	Perceiver	Pro: auto perceptive mental
Complement	Subject	Finite/Predicator

(Htin Lin 1999: 140)

The process type in (12a) and (12b) is autonomous perceptive mental process, so the structural configuration is Perceiver + Process + Phenomenon in English and Phenomenon + Perceiver + Process in Myanmar. In English perceptive mental process clause (12a), the Perceiver (he) is conflated with Subject and is realized as a pronoun, while the Phenomenon (them moving along) is conflated with Complement and is realized as a nominal group. In Myanmar perceptive mental process clause (12b), the Perceiver သူ /thue/ 'he' is conflated

with Subject and is realized as a pronoun, while the Phenomenon ခေတ္တု လာသေကောင်းကို /thuedot lar nay-gya-the-go/ 'that they are coming' is conflated with Complement and is realized as a finite clause in accusative case marked by objective affix -ကို /go/. Therefore, although the Perceiver in processes of perception in English and Myanmar describes the same potential of realization as a pronoun, the Phenomenon in perceptive processes shows different realizations as a nominal group in English and as a finite clause in Myanmar as in (12a) and (12b).

The two principal participants involved in autonomous cognitive mental process are Cognizant and Phenomenon. The Cognizant is the PR which represents the one who thinks, knows and understands something, so this PR is a human or an animate being. The Phenomenon is a thing

or an event targeted by the cognitive process. Structurally, the Cognizant is typically realized as a nominal group in both languages: English and Myanmar. The Phenomenon can be realized as a nominal group or a finite or non-finite clause. Consider the following examples.

(13) a. They knew the doctor.

Cognizant	Pro: auto cognitive mental	Phenomenon
Subject	Finite/Predicator	Complement

(John Steinbeck 1945: 11)

b. သူတို့သည် ဆရာဝန်ကိုလည်း သိုံးကြသည်။
 thuedot-the sayarwin-go-le thi-gya-the.
 3PL-SBJMARK doctor-OBJMARK-ADDCCONN know-PLMARK-PRS.DECL.SENTSUF

Cognizant	Phenomenon	Pro: auto cognitive mental
Subject	Complement	Finite/Predicator

(Htin Lin 1999: 26)

Example (13a) is an English cognitive mental process clause in which the Cognizant (they) is realized as a pronoun and the Phenomenon (the doctor) is realized as a nominal group. Example (13b) is a Myanmar cognitive mental process clause in which the Cognizant သူတို့ /thuedot the/ 'they' is realized as a pronoun in nominative case marked by nominative affix -ေး /the/ and

c. ဆရာဝန်ကိုလည်း သူတို့ သိုံးကြသည်။
 sayarwin-go-le thuedot thi-gya-the.
 doctor-OBJMARK-ADDCCONN 3PL know-PLMARK-PRS.DECL.SENTSUF

Phenomenon	Cognizant	Pro: auto cognitive mental
Subject	Complement	Finite/Predicator

(14) a. He knew what they were.

Cognizant	Pro: auto cog mental	Phenomenon
Subject	Finite/Predicator	Complement

(John Steinbeck 1945: 95)

the Phenomenon ဆရာဝန်ကို /sayarwin-go/ 'the doctor' is realized as a nominal group in dative case marked by objective affix -ကို /go/. Like German, since syntactic functions are overtly marked by case in Myanmar, elements of structure can easily change position without information about syntactic function being lost as in (13c).

b. သူတိ ဘာတွေဖြစ်နေသည်ကို	သူ	သိသည်။
thuedot bardway-phyit-nay-the-go	thue	thi-the.
3PL what-happen-PROG-DECL.SENTSUF-OBJMARK	3SG	know-PRS.DECL.SENTSUF

Phenomenon	Cognizant	Pro: auto cog mental
Complement	Subject	Finite/Predicator

(Htin Lin 1999: 140)

The Cognizant in process of cognition in (14a) and (14b) shows the same potential of realization as a pronoun, while the Phenomenon represents different realizations as a wh-clause in English and as a finite clause in Myanmar cognitive mental process clause.

Autonomous communicative mental process contains three participants: Communicator, Communicatee and Communicated. This

communicative process is analogous to Halliday's verbal process including three participants: Sayer, Receiver and Verbaige. The Communicator is the PR which represents the one who delivers the message; the Communicatee is the one who receives the message; the Communicated is the content of the message. The realizations of these three participants in communicative process can be studied in the following example.

(15) Mg Lu Aye replied his parents that he wants to stay peacefully alone.

Communicator	Pro: auto communicative mental	Communicatee	Communicated
Subject	Predicator	Complement	Complement

b. မောင်လူအေးလည်း အေးအေးနေပါရစေဟူ၍သာလျှင် မိခင်ဖခင်တို့ထံသို့ စာပြန်လိုက်လေ၏။
 maunlueaye:-le aye:aye:-nay- mikhin-phakhin- sar-pyan-laiklayi.
 bayazay=hueywayttharhlyin dot-htanthot
 Mg.Lu.Aye- peacefully-stay-POLREQ=COMP mother-father- letter-reply-
 ADDCONN PLMARK-ALL PFV.DECL.SENTSUF

Communicator	Communicated	Communicatee	Pro: auto communicative mental
Subject	Complement	Complement	Predicator

(Science Mg Wa 1998:16)

The Communicator and the Communicatee in communicative processes of English and Myanmar show the same potential of realization by a proper noun or a nominal group as in (15a) and (15b). Contrary to the Communicator and the Communicatee, the Communicated can be realized not only by a pronoun or a proper noun or a nominal group but also by a finite or non finite clause. For instance, in English and Myanmar communicative mental process clauses (15a) and (15b), the Communicated is conflated with the Complement and is realized by a relative clause. Table 3-4 illustrates a comparison of realizations of participants in mental processes in English and Myanmar.

Table 3-4: A comparison of realizations of participants in mental processes in English and Myanmar configurations

Process type	Subtype of mental process	Participant	Realization of participant in English	Realization of participant in Myanmar
mental	emotive	Emoter	pronoun, proper noun, nominal group with nominative case marker: - <i>သေ</i> /the/, - <i>ဘ</i> /ga/ or - <i>မှာ</i> /hmar/	pronoun, proper noun, nominal group with nominative case marker: - <i>သေ</i> /the/, - <i>ဘ</i> /ga/ or - <i>မှာ</i> /hmar/
		Phenomenon	pronoun, proper noun, nominalization, nominal group, finite or non-finite clause	pronoun, proper noun, nominalization, nominal group, finite or non-finite clause with objective case marker: - <i>ခဲ့</i> /go/
	desiderative	Desiderator	pronoun, proper noun, nominal group	pronoun, proper noun, nominal group with nominative case marker: - <i>သေ</i> /the/, - <i>ဘ</i> /ga/ or - <i>မှာ</i> /hmar/
		Phenomenon	pronoun, proper noun, nominalization, nominal group, finite or non-finite clause	pronoun, proper noun, nominalization, nominal group, finite or non-finite clause with objective case marker: - <i>ခဲ့</i> /go/
	perceptive	Perceiver	pronoun, proper noun, nominal group	pronoun, proper noun, nominal group with or without nominative case marker
		Phenomenon	pronoun, proper noun, nominalization,	pronoun, proper noun, nominalization, nominal

		nominal group, finite or non-finite clause	group, finite or non-finite clause with objective case marker: - ၁။ /go/
cognitive	Cognizant	pronoun, proper noun, nominal group	pronoun, proper noun, nominal group with or without nominative case marker
	Phenomenon	nominal group, finite or non-finite clause	nominal group, finite or non-finite clause with objective case marker: - ၁။ /go/
communicative	Communicator	pronoun, proper noun, nominal group	pronoun, proper noun, nominal group with nominative case marker: - ၁။ /the/ or - ၁။ /ga/
	Communicatee	pronoun, proper noun, nominal group	pronoun, proper noun, nominal group with objective case marker: - ၁။ /go/, - ၁။ /thot/ or - ၁။ /arr/
	Communicated	pronoun, nominal group, finite or non-finite clause	pronoun, nominal group, finite or non-finite clause

3.3.3 Realizations of participant roles in English and Myanmar relational processes

According to He's (2022) new model of Chinese transitivity system, relational processes are divided into seven subtypes: autonomous and influential attributive, identifying, locational, directional, possessive, correlational and existential relational processes. The two major participants involved in autonomous attributive relational process are Carrier and Attribute. The Carrier is typically realized by a noun or a nominal group. The PR Attribute is the PR which expresses the class type of an entity, so it is realized by a nominal group. In some attributive processes, the Attribute is covert when the verb described by the process realizes the quality of an entity. The following examples provide a comparison of realizations of participants in autonomous attributive relational processes of English and Myanmar.

(16) a. Kino is a brave man.

Carrier	Pro: auto attri rel	Attribute
Subject	Finite/Predicator	Complement

(John Steinbeck 1945: 69)

b. ကိုနိသည် ရရင်သူ ဖြစ်သည်။
 keno-the yeint-thue phyit-the.
 Kino-SBJMARK brave-man COP-PRS.DECL.SENTSUF

Carrier	Attribute	Pro: auto attri rel
Subject	Complement	Finite/Predicator

(Htin Lin 1999: 140)

(17) a. U Pho Thaung's daughter, Ma Hla Tin is lovely.

Carrier	Pro: auto attri rel	Attribute
Subject	Finite/Predicator	Complement

b. ဦးဘိုးသောင်း၏သမီး မလှတ်သည် ချစ်စဖွယ်ကောင်း၏။
 ue:phoethaunn-i-thamee mahlatin-the chitsaphwekaunn-i.
 U.Pho.Thaung-GEN-daughter Ma.Hla.Tin-SBJMARK be.lovely-PRS.DECL.SENTSUF

Carrier	Pro: auto attri rel
Subject	Finite/Predicator

(Science Mg Wa 1998: 20)

The process type in (16a) and (16b) is both attributive relational in which the Carrier and the Attribute show the same potential of realization by a proper noun or a nominal group in English and Myanmar. In English attributive relational process clause (17a), the Carrier (U Pho Thaung's daughter, Ma Hla Tin) is conflated with the Subject and is realized by a nominal group, and the Attribute (lovely) is conflated with the Complement and is realized by an adjective which represents the quality of the Carrier. On the other hand, in Myanmar attributive relational process clause (17b), there is no PR Attribute, and the attributive process is realized by a verb 'be lovely'; the Carrier ဦးဘိုးသောင်း၏သမီး မလှတ် /ue:phoethaunn-i-thamee mahlatin-the/ 'U Pho Thaung's daughter, Ma Hla Tin' is conflated with the Subject realized by a nominal group in

nominative case with a nominative affix -ခေါ် /the/.

The two main PRs involved in autonomous identifying relational process are the Token and the Value in terms of He's (forthcoming) new model of Chinese transitivity system. The structural configuration of this subtype of relational process in English is Token + Process + Value (or) Value + Process + Token, while that of relational process in Myanmar is Token + Value + Process (or) Value + Token + Process. The position of the Token and the Value is reversible. The realizations of the Token and the Value by a nominalization, a nominal group or a finite or non-finite clause in autonomous identifying relational processes of English and Myanmar can be seen as in (18a) and (18b).

(18) One of the most important is being able to make Human
 a. necessities for the development of a Capital develop more and country more.

Token	Pro: auto idenrel	Value
Subject	Finite/Predicator	Complement
b နိုင်ငံ ဖွံ့ဖြိုးတိုးတက် အရေးပါဆုံး လိုအပ်ချ လူသားအရ အားကောင်းသည်ထ ပြုလုပ် ဖြစ်သည်။		
· တစ်နှစ် ရေးအတွက် သော ကိတစ်ရှင် ငါးအနှစ်းကို ကိုအားကောင်းအော နိုင်ရေး င်ငံ မှာ ၂၈ ၂၈		
nain phwintphyo ayaye:pa loetchet luetharra arrkaunnthehteta pyulo phyit-		
ngan etoetetyaye: rzonntha -ta-yet- yinnahne rrkaunn-aun ke- the.		
-ta- -atwet w hmar e-go		nain-
nain yaye:-		ngan bin
coun developmen most.imp necessit Human.C develop.more.an make- COP-		
try- t-for.PURP ortant y-one- apital- d.more-INF.PURP CAPAM PRS.DEC		L.SENTS
one- CLF- OBJMARK		OD-
CLF SBJMARK		NMLZ-
		EMPM
		ARK

Token	Value	Pro: auto iden rel
Subject	Complement	Finite/

(https://www.burmalibrary.org/sites/burmalibrary.org/files/obl/mal_14.3.19.pdf)

The same potential of realization of the Token by a nominal group in identifying relational process can be observed in English and Myanmar. For instance, in English identifying relational process clause (18a), the Token (one of the most important necessities for the development of a country) is conflated with Subject and is realized as a nominal group, while the Value (being able to make Human Capital develop more and more) is conflated with Complement and is realized as a non-finite clause. On the other hand, in Myanmar identifying relational process clause (18b), the Token နိုင်ငံတစ်နှစ်ငံ ဖွံ့ဖြိုးတိုးတက်သရေးအတွက် အသရေးပါဆုံးသော လိုအပ်ချက်တစ်ရှုံး /nainnganta-nainnganphwintphyoetoetetyaye:-atwet ayaye: parzonnthaw loetchet-ta-yet-hmar/ 'one of the

most important necessities for the development of a country' is conflated with Subject and is realized by a nominal group in nominative case marked by a nominative suffix -ခု /hmar/, while the Value လူတေားအရင်းအနှစ်းကိုအားကောင်းစေည့်ထိုးသားသကာင်းသအောင်ဖုလုပ်နိုင်သရေး/luetharrayinnahnee-e-go arrkaunnth- htetarrkaunn aun pyuloke-nain-yaye:/ 'being able to make Human Capital develop more and more' is conflated with Complement and is realized by a nominalization. In (18a) and (18b), although the Token in English and Myanmar identifying relational processes shows the same potential of realization by a nominal group, the Value is realized differently as a non-finite clause in English and as a nominalization in Myanmar.

The two main participants involved in autonomous locational relational process are Carrier and Location. Structurally, the Carrier is typically realized by a noun or nominal group

which is either animate or inanimate; the Location is typically realized by a prepositional phrase. Consider the following example.

(19) a. The town lay on a broad estuary.

Carrier	Pro: auto loc rel	Location
Subject	Predicator	Complement

(John Steinbeck 1945: 17)

b. မြို့သည် မြစ်ဝကျယ်၏ ကမ်းပေါ်တွင် တည်ထားသည်။
 myot-the myitwakye-i kann-portwin tehtarr-the.
 town-SBJMARK estuary-GEN bank-on.LOC lie.PFV-DECL.SENTSUF

Carrier	Location	Pro: auto loc rel
Subject	Complement	Finite/Predicator

(Htin Lin 1999: 33)

The two main participants involved in autonomous directional relational process are Carrier and Direction: Source/Path/Destination. Structurally, the Carrier is typically realized by a noun or nominal group which is either animate or inanimate; the Direction: Source/Path/Destination is typically realized by a prepositional phrase. Consider the following example.

(20) a. The smoke came from those brush houses.

Carrier	Pro: auto dir rel	Direction: Source
Subject	Predicator	Complement

b. ထိုတဲ့များမှလည်း မိုးနိုးများ တက်လာသည်။
 hto-te-myarr-hma-le meekhoe-myarr tet-lar-the.
 DEM-brush.house-PLMARK-ABLMARK- smoke-PLMARK rise-come-
 ADDCONN PRS.DECL.SENTSUF

Direction: Source	Carrier	Pro: auto dir rel
Complement	Subject	Finite/Predicator

The two main participants involved in autonomous possessive relational process are Possessor and Possessed. Structurally, the Possessor and the Possessed are typically realized by a noun or nominal group which can be either animate or inanimate. Consider the following example.

(21) a. Kino has got the Pearl of the World.

Possessor	Pro: auto possessive rel	Possessed
Subject	Predicator	Complement

b. ကိန္ဒိသည် ဧရာမပုလဲကြီးကို ရထားသည်။
 keno-the ayyarma-pale-gyee-go yahtarr-the.
 Kino-SBJMARK great.MOD-pearl-AUG-OBJMARK get.PFV-DECL.SENTSUF

Possessor	Possessed	Pro: auto possessive rel
Subject	Complement	Finite/Predicator

(Htin Lin 1999: 50-51)

The two main participants involved in autonomous correlational relational process are Correlator1 and Correlator2. Structurally, the Correlator1 and the Correlator2 are typically realized by a noun or nominal group which can be either animate or inanimate. Consider the following example.

(22) a. The greenish yellow matches with her golden skin.

Correlator1	Pro: auto cor rel	PrEx	Correlator2
Subject	Finite/Predicator		Complement

b. စိမ်းဝါရောင် ပါတိတ်ဝမ်းဆက် သူ၏ ရွှေရောင်ဝင်းဆက်သာ အသားအရေ့ လိုက်ဖက်လှသည်။
 . မှာ ငါး
 seinnwaryaun parteikwannse thue shweyaunwinnseth atharrayay- laikphet-hlathe.
 t-hmar -i aw hnint
 greenish.yello batik-SBJMARK 3SG- golden skin-COM match-
 w GEN PRS.DECL.SENTS UF

Correlator1	Correlator2	Pro: auto correl
Subject	Complement	Finite/Predicator

(Journal Kyaw Ma Ma Lay 1957: 125)

The two main participants involved in autonomous existential relational process are Existents and Locations. Structurally, the Existents are typically realized by a noun or nominal group, while the Locations are typically realized by a prepositional phrase. These participants show the same potential of realization as in (23a) and (23b).

(23) a. Across the brush fence were other brush houses,

Location	Pro: auto existential relational	Existents
Subject	Predicator	Complement

b.	ချုံတန်းဝင်းတား၏တစ်ဖက်တွင်	အခြားသစ်ခက်တဲ့များ	ရှိသည်။
	chontannwinntarr-i-ta-phet- twin	acharr-thitkhette-myarr	shi-the.
	brush.fence-GEN-one-side-LOC	other-brush.house- PLMARK	exist-PRS.DECL.SENTSUF
	Location	Existent	Pro: auto existential relational
	Subject	Complement	Finite/Predicator

Table 3-5 illustrates a comparison of realizations of participants in relational processes in English and Myanmar configurations.

Table 3-5 A comparison of realizations of participants in relational processes in English and Myanmar configurations

Process type	Subtype of relational process	Participant	Realization of participant in English	Realization of participant in Myanmar
relational	attributive	Carrier	pronoun, proper noun, nominal group	pronoun, proper noun, nominal group with nominative case marker: -သည် /the/, -၏ /ga/ or -မှု /hmar/
		Attribute	nominal group, adjective	nominal group
	identifying	Token	a nominalization, a nominal group or a finite or non-finite clause	a nominalization, a nominal group or a finite or non-finite clause
		Value	a nominalization, a nominal group or a finite or non-finite clause	a nominalization, a nominal group or a finite or non-finite clause

locational	Carrier	a noun or nominal group	a noun or nominal group with nominative case marker: - သူ၏ /the/, -ၢ /ga/ or -ခု /hmar/
	Location	prepositional phrase	prepositional phrase
directional	Carrier	pronoun, proper noun, nominal group	pronoun, proper noun, nominal group with or without nominative case marker: -သူ၏ /the/, -ၢ /ga/ or -ခု /hmar/
	Direction: Source/Path/Destination	prepositional phrase	prepositional phrase
possessive	Possessor	pronoun, proper noun, nominal group	pronoun, proper noun, nominal group with nominative case marker: -သူ၏ /the/, -ခု၏ /twin/ or -ခု /hmar/
	Possessed	a noun or nominal group	a noun or nominal group

	correlational	Correlator1	pronoun, proper noun, nominal group	pronoun, proper noun, nominal group in nominative case marked by nominative affix
		Correlator2	pronoun, proper noun, nominal group	pronoun, proper noun, nominal group
existential	Existent		a noun or nominal group	a noun or nominal group
	Location		prepositional phrase	prepositional phrase

3.4 Comparison of realizations of circumstances in English and Myanmar transitivity structures

Circumstance or circumstantial element is the third component of the transitivity system that expresses an experiential meaning and closely associated with the processes. Different from processes and participants, circumstances are always optional elements rather than obligatory components of the clause, normally providing necessary information to make the meaning expressed by the clause more complete.

Structurally, circumstances are realized by circumstantial Adjuncts which contribute to the experiential meaning of the clause. They tell us when, where, how, or why a process takes place. Experiential Adjuncts realize Circumstantial Roles of time, which can be further classified into time position, duration, repetition, periodic frequency and usuality, and other Circumstantial Roles expressing place, accompaniment, instrument, comparison, concurrent state, subsequent state, manner, method, body part, degree and process manner (He et al. 2015: 48). In accordance with Fawcett (2008: 168), these circumstantial Adjuncts are filled by units such as

nominal groups (e.g. the day after tomorrow and here), prepositional groups (e.g. in the park), quality groups (e.g. very slowly) and quantity groups (e.g. very much).

Adjuncts expressing quasi-experiential logical relationships express cause, ground, purpose, concession and condition. In addition, Adjuncts may also express validity, affective, interpersonal, inferential or discoursal meaning. Both English and Myanmar circumstantial elements can be similarly realized by Halliday's (1994:151) nine main types of circumstantial elements: (1) Extent (distance or duration), (2) Location (spatial or temporal), (3) Manner, (4) Cause, (5) Contingency, (6) Accompaniment, (7) Role, (8) Matter, (9) Angle.

The spatial and temporal circumstantials of Extent and Location form a four-term set as shown in Table 3-6.

Table 3-6: Circumstantial of Extent and Location

	Spatial	Temporal
Extent (including interval)	Distance ဆယ်စိုင်လောက် /semainlauk/ 'for ten miles'	Duration အတန်ကြာပြီ /atankyarbye/ 'for a long time' ခဏတာ /khanatar/ 'for a short time' Frequency နှစ်ကိုမဲ /hnakyein/ 'two times' usuality အမြဲတမ်း /amyedann/ 'always'
Location	Place ကျွန်ုပ်တို့နေထိုင်သောတို့က်ရှေ့လူသွားလမ်းဘေး၌ /kyanokedot nayhtain=thaw taik-shayt luethwarlann-baye:hnaik/ 'by the walk in front of our apartment'	Time ညနေတိုင်း /nyanay-dainn/ 'every evening'
	building' တောင်း /taw-htehnaik/ 'in the forest'	

Extent construes the extent of the unfolding of the process in space-time: the distance in space over which the process unfolds or the duration in time during which the process unfolds. The interrogative forms for Extent are how far?, how long?, how many times? The typical structure of the Circumstantial expression of Extent is a nominal group with quantifier, either definite, e.g. ten miles, five days, or indefinite, e.g. many miles, a long time; this occurs either with or without preposition *for* (Halliday and Matthiessen 2014: 315).

There may be no Adjuncts, or one or more Adjuncts in a clause. The position of Adjuncts in English and Myanmar clauses is flexible. In English clauses, Adjuncts may come after Complements, before the Subject, between the Operator and the Main Verb, or between the Main Verb and the Complement. However, in Myanmar clauses, Adjuncts may come before and after the Subject and the Complement. As shown in (24a) and (24b), the circumstantial element expressing time duration which is realized by a prepositional phrase အခေါင်ကကာပြီ /atankyarbye/ 'for some

time' appears in the same position, after the Main Verb, at the end of English and Myanmar clauses. In English clause (24a), the circumstantial element expressing time duration which is realized by a prepositional phrase *for some time*

comes after the Main Verb. Similarly, in Myanmar clause (24b), the circumstantial element expressing time duration which is realized by an adverbial group အတင်ကကာပိ /atankyarbye/ 'quite long' also comes after the Main Verb.

(24) a. The roosters had been crowing for some time.

Agent	Pro: auto doing action	Circumstance
Subject	Predicator	Adjunct
Nominal group	Verbal group	Prepositional phrase

b. ကွက်ဖတိ တွန်နေသည်မှာ အတန်ကြာပြီ။
kyetpha-dot tun-naythehmar atankyarbye.
rooster-PLMARK crow-PROG.DECL.SENTSUF quite.long

Agent	Pro: auto doing action	Circumstance
Subject	Finite/Predicator	Adjunct
Nominal group	Verbal group	Adverbial group

However, the positions of Circumstantial Roles of Extent and Location expressing Distance and Place respectively in (25a) and (25b) are different. In English clause (25a), Circumstantial Roles of Extent and Location which are conflated with Adjuncts and are realized by prepositional phrases come after the Main Verb, while in Myanmar clause (25b), they come between the Subject and the Main Verb.

(25) a. Geologists had to walk about ten miles in the forest.

Agent	Pro: auto doing action	Circumstance	Circumstance
Subject	Predicator	Adjunct	Adjunct
Nominal group	Verbal group	Prepositional phrase	Prepositional phrase

b. ဘူမိမောပညာရှင်တို့သည် တောထဲ့ ဆယ်မြိုင်လောက် လမ်းလျောက်ခဲ့ကြသည်။
buemibaydapyinnyarshin-dot-the taw-htehnaik se-main-lauk lannshauk-khet-gya-the.
geologist-PLMARK-SBJMARK forest-in.LOC ten-mile-about.ABLMARK walk-PST-PLMARK-DECL.SENTSUF

Agent	Circumstance	Circumstance	Pro: auto doing action
Subject	Adjunct	Adjunct	Finite/Predicator
Nominal group	Prepositional phrase	Prepositional phrase	Verbal group

There are three Circumstantial Roles of usuality, place and time involved in English clause (26a), where they are conflated with Adjuncts and the Circumstantial Roles of usuality are realized by adverbial groups (e.g. always); the CRs of time are realized by nominal groups (e.g. ညာသေတိင်း /nyanaydainn/ 'every evening'), prepositional phrase (e.g. လင်းပြင်းအတွင်းတွင် /linnkharneeahmaun-twin/ 'in the near dark'), adverbial groups (e.g. အချုပ်လားတွင် /akhulaye:din/ 'just now') or adverbial clauses

(e.g. ခေါ်နိုးသေ့ပြိုက် /thue noe-naykhaik/ 'when he awakened'), and the CRs of place are realized by a prepositional phrase (e.g. along the river bank). There are two Circumstantial Roles of place and time involved in Myanmar clause (26b), where they are conflated with Adjuncts and the Circumstantial Role of time ညာသေတိင်း /nyanay-dainn/ 'every evening' is realized by a nominal group and the Circumstantial Role of place ဖြစ်ကြိုးဝေါ့ပွဲတွင် /myit-kannhnaphue:-twin/ 'along the river bank' is realized by a prepositional phrase

(26) I always walk along the river every evening.
a. bank

Agent	Circumstance	Pro: auto doing action	Circumstance	Circumstance
Subject	Adjunct	Predicator	Adjunct	Adjunct
Pronoun	Adverbial group	Verbal group	Prepositional phrase	Nominal group

b. ကျွန်တော်သည် ညနေတိင်း မြစ်ကမ်းနဖူးတွင် လမ်းလျောက်လေ့ရှိသည်။
kyanor-the nyanay-dainn myit-kannhnaphue:-twin lannshauk-laytshithe.
1SG.M-SBJMARK evening-every river-bank-LOC walk-PRS.DECL.SENTSUF

Agent	Circumstance	Circumstance	Pro: auto doing action
Subject	Adjunct	Adjunct	Finite/Predicator
Pronoun	Nominal group	Prepositional phrase	Verbal group

The circumstantial element of Manner expresses Means, Quality, and Comparison. Halliday (2000: 154) states that means represents the means whereby a process takes place. Means basically answers the question 'What with?' and 'How?' It is typically realized by a prepositional phrase with the preposition *by* or *with* in English and ဖြင့် /phyint/ 'by' or နှင့် /hnint/ 'with' in Myanmar, for instance, မီးရထားဖြင့် /meeyahtarr-phyint/ 'by train' and ဖြင့်လှည့်နှင့် /myinnhle-hnint/ 'with horse-cart'. This subtype of circumstance is also realized by an adverbial clause in both languages. The circumstantial element of quality whose interrogative is 'How?' in English transitivity

structures is expressed by an adverbial group *in a calmer tone* in *He said in a calmer tone, too much* in *He ate too much*, or by *-ly* adverb *heavily* in *It is raining heavily*. The circumstantial element of quality in Myanmar transitivity structures is also expressed by an adverbial group ရှင်းတော်အားရနှင့် /wannthararryahnint/ 'joyfully', or by an adverb သပုပုသပုပါးပါး /pyorpyorparparr/ 'happily'. This subtype of circumstance is also realized by a prepositional phrase or an adverbial clause in both languages. Therefore, the circumstantial element of quality shows the same potential of realization in English and Myanmar transitivity structures. The

interrogative of a circumstantial expression of Comparison is 'What...like?' Comparison is expressed by a prepositional phrase with the preposition *like* or *unlike* in English, for example, *like a cat's lips* in *Her lips drew back from her teeth like a cat's lips*, and ကဲ့တ္ထိ /ketthot/, ခေါ်ယှဉ်

/thaphwe/, ပုံ /pamar/ 'like' in Myanmar as in the following example (27). This subtype of circumstance is also realized by an adverbial clause with *as if* in English and Myanmar transitivity structures.

(27)	ဟွာနာ၏	နက်မှာင်သာ	မျက်လုံးများ	ရွှေ့နံ့လက်သာ	ကြယ်ရိပ်များသွေ့	အရောင်ထွက်သည်။
		မှ			၍	
hwarnar	nethmauntha	myetlonn-	shonnlletha	kye-yeik-	ayaunhtwet-the.	
-i	w	myarr-	w	myarr-thaphwe		
		hma				
Juana-	dark.MOD	eye-	shiny.MOD	star-reflection-	glitter-	
GEN		PLMARK-		PLMARK-CMPR	PRS.DECL.SENTSU	
		ABLMARK			F	

Carrier	Circumstance	Pro: auto attri rel
Subject	Adjunct	Finite/Predicator
Nominal group	Prepositional phrase	Verbal group

'Juana's dark eyes glitter like little reflected stars.' (Htin Lin 1999: 13)

The circumstantial element of Cause contains three subcategories: Reason ('Why?/As a result of what?'), Purpose ('What for?') and Behalf ('Who for?'). A circumstance of reason provides the reason for which a process takes place (Halliday 2000: 155). It is typically realized by a prepositional phrase with *through*, *of*, *because of*, *as a result of*, *thanks to*, etc. A circumstance of reason can also be realized as an adverbial clause with *because* or *as* in *We have to be there early*

as it is Friday. Similarly, in Myanmar transitivity structures, a circumstance of reason is realized by a prepositional phrase with the preposition ဘက်ဘင့် /gyaunt/ 'because of' or by an adverbial clause with သောဘက်ဘင့် /gyaunt/ 'because'. As in (28a) and (28b), a circumstance of reason, the sub-category of cause in English and Myanmar transitivity structures is conflated with Adjunct and is realized by an adverbial clause with *because*.

(28) a. Because the story has been it has taken root in every man's mind.
told so often,

Circumstance	Existential	Pro: auto existential rel	PrEx	Location
Adjunct	Subject	Predicator		Complement
Adverbial clause	Pronoun	Verbal group		Prepositional phrase

b	ဤအကြောင်း	မကြောခကာ	ဖြောကြသဖြ	လူတိုင်း	စိတ်အာရုံထဲဝ	အမြစ်တွယ်လျက်
.	ကို		ငါ	၏	ယု	ခွဲမြှေနေသည်။
e-akyaunn-	makyarkhan	pyaw-gya-	lue-	seikaryon-	amyittwehlyetswemye	
go	a	thaphyint	dainn-i	htewe	-naythe.	
DEM-story-	often	tell-	person-	mind-in.LOC	root-PRS.DECL.SENTSUF	
OBJMARK		PLMARK-	every-			
		CAUS	GEN			

Circumstance	Location	Pro: auto existential rel
Adjunct	Complement	Finite/Predicator
Adverbial clause	Prepositional phrase	Verbal group

A circumstance of purpose whose interrogative is 'What for?' represents the intention for which a process takes place. It is typically realized by a prepositional phrase with *for*, *for the purpose of*, *for the sake of*, *in the hope of*, etc. For example, *for* in *Let's eat out for dinner*. It is also realized by an infinitival clause; for example, *in order to* in *Study hard in order to pass the exam*. A circumstance of purpose indicates the same potential of realization as a preposition phrase or an infinitival clause in both English and Myanmar. As (29a) and (29b) show, a circumstance of purpose shows the same potential realization as an adverbial clause, i.e. an infinitival clause in English and Myanmar transitivity structures.

(29) a. The early were already their ceaseless turning of to see whether anything to pigs beginning twigs and bits of wood eat had been overlooked.

Agent	Pro: auto doing action	Affected	Circumstance
Subject	Predicator	Complement	Adjunct
Nominal group	Verbal group	Nominal group	Infinitival clause

b ရောစေ ဝက်များ သစ်ကိုင်း ထင်းချောင်းများ စားစရာ ရလိုဂ မရပ်မနား ထိုးလှန်ရှာဖွေလျ
 . ၁၀ သည် များ၊ အောက်၌ အကျိန်အကြွင်း ဌား ကိုရှိကြပြီ။
 ၁၁။နောက်များ

၁၁။

sawsa wet- thitgai htinnchaunn- sarrzayar- yalo mayatma htoehlan-
 w- myarr- nn- myarr- akyanakywi ya- narr sharphway-
 noe- the myarr, aukhnaik nn-laye:- nyarr hlyetshi-gya-
 nay=t myarr bye.

haw

early- pig- twig- wood- food- get- ceaseless turn-search-
 awake PLMAR PLMAR PLMARK- remaining- PURP ly PROG-PLMARK-
 - K- K under.LOC DIM-PLMARK DECL.SENTSUF
 PROG= SBJMAR K
 REL

Agent	Circumstance	Circumstance	Pro: auto doing action
Subject	Adjunct	Adjunct	Finite/Predicate
Nominal group	Adverbial clause	Adverbial group	Verbal group

A circumstance of behalf whose interrogative is 'Who for?' represents a person on whose behalf or for whose sake the action is undertaken. It shows the same potential of realization by a prepositional phrase with the preposition *for*, *for the sake of*, *in favor of*, *on behalf of* in English and အတွက် /atwet/ 'for' in Myanmar. In addition, in Myanmar transitivity structures, a circumstance of behalf is realized by a nominal group, for example, လူလာကိုယ်တဲ့ /hlahla-kozarr/ 'on behalf of Hla Hla'.

Circumstantials of Contingency whose interrogative is 'If what?' include three subcategories: Condition, Concession, Default. Circumstantials of condition are realized by a prepositional phrase with *in case of*, *in the event of* or by an adverbial clause with *if*, *in case* in English transitivity structures, whereas they are realized by an adverbial clause with ဆေး /hlyin/, ရဲ /yin/ 'if' in Myanmar transitivity structures. Concession circumstantials are realized by a prepositional phrase with the preposition *in spite of*, *despite* or by an adverbial clause with *although*, *unless* in English transitivity structures. However, they are realized by an adverbial clause with သော်လည်း /thorle/ သပြယ့် /paymet/ 'although' in Myanmar transitivity structures.

Circumstantial expressions of default are typically realized by a prepositional phrase with a complex preposition such as *in the absence of* and *in default of* in English transitivity structures. On the other hand, circumstantial expressions of default in Myanmar are realized by an adverbial clause.

A circumstantial expression of accompaniment whose interrogative is 'Who/ What else?' and 'Who/What with?' is distinguished into two subcategories: comitative and additive. A comitative circumstantial is expressed by a prepositional phrase with the preposition *with* for positive aspect and *without* for negative; for example, *with* in *She is coming to the theatre with her sister*. An additive circumstantial is typically realized by a prepositional phrase with the preposition *besides*, *as well as* for positive aspect

and *instead of* for negative; for example, *instead of* in *You probably picked up my keys instead of yours*. Similarly, in Myanmar transitivity structures, comitative circumstantials are realized by a prepositional phrase with the prepositions နဲ့ /hnint/ 'with' or နဲ့အတွေ့ /hnintatue/ 'together with', and additive circumstantials are also realized by a prepositional phrase with the preposition အပေါင်း /apyin/ 'besides'.

A circumstance of Role has two subcategories: Guise and Product. The interrogative of a circumstance of Role is 'What as?' and conveys the meaning of 'be' (attribute or identity) in the form of a circumstance (Halliday 2000: 157). A circumstantial expression of Role is typically realized by a prepositional phrase with the preposition *as* or other complex prepositions such as *by way of*, *in the role of*, *in the form of*, *in the shape of* and *in the guise of*; for example, *in the role of* in *He is coming back here again in the role of detective*. Another small sub-category of Role, product circumstantial answers the question 'What into?', construing the meaning of 'become'. This circumstance of Product is realized by a prepositional phrase with the preposition *into* as in *They've turned the house into an office*. Circumstantials of Role are realized by a prepositional phrase with the preposition အကြံ /aphyit/ 'as', 'into' in Myanmar transitivity structures in the same way as English.

According to (Halliday 2000: 157), a circumstance of Matter is closely associated with verbal processes; it is the circumstantial equivalent of the Verbiage, the content of the message. The interrogative of this category is 'What about?', and the circumstantial element of matter indicates the same potential of realization as a prepositional phrase in English and Myanmar transitivity structures. The common prepositions expressing matter in English are *about*, *concerning*, *of* and *with reference to*, while those in Myanmar are အသကာင်း /akyann/ 'about' and နှင့်ပတ်ကြုံ /hnintpathetywayt/ 'concerning'.

A circumstance of Angle which corresponds to the interrogative 'From what point of view?' is realized by a prepositional phrase with the preposition *according to*, *in accordance with*, *in terms of*, *in the view/opinion of*, *from the standpoint of*. Similarly, the circumstance of Angle also shows the same potential of realization as a prepositional phrase with the preposition အရ /aya/ 'according to' in Myanmar transitivity structures. Typically, most circumstances in English and Myanmar transitivity structures are

realized by prepositional phrases. But prepositional phrases do not always function as circumstances. In Myanmar, as in English, the correspondence established between the semantic category of circumstance and its realization as a prepositional phrase is misleading. There are some universally recognized exceptions. See Example (30) where a prepositional phrase takes the participant role of Range in behavioral process because it is an integral element without which the meaning is odd in the clause.

(30) ထိနောက်	အမို့မှ	တွဲလောင်းဆဲချထားသေ	ကိုယ့်တိုး	ပုခက်သေ့တွာ	လုမ်းကြည့်လိုက်
တွင်		၁၁	တိုး၏	ဆီသို့	သည်။
htotnaukt	amoe-	twelaunnswechahta	koyoteet	pakhethitt	hlannkyi-
win	hma	rrthaw	oe-i	ar-sethot	laikthe.
then	roof-	hanging	Coyotito	box-ALL	look-
	ABLMA		-GEN		PFV.DECL.SEN
	RK				TSUF

	(Behr)	Range	Pro: auto behaving action
	(Subje ct)	Complement	Finite/Predic ator
		Prepositional phrase	Verbal group

'And then he looked at the hanging box where Coyotito slept.' (Htin Linn 1999: 12)

The structure of prepositional phrase in English is preposition + nominal group, while the structure of prepositional phrase in Myanmar is nominal group + preposition. The traditional mapping from prepositional phrases to Adjunct to circumstance is rather unsatisfactory for analyzing the transitivity status of prepositional phrase in Myanmar. Prepositional phrase of place for example, are often obligatory from both a syntactic and semantic viewpoint and relegating them to the outer ring as circumstances 'merely attendant on the process' does not reflect this

integral role. It would also seem essential to draw clear distinctions between the various levels of analysis (semantic, syntactic and pragmatic). Some prepositional phrases, whilst optional from a syntactic viewpoint, are nevertheless strongly bound to the process because they carry an important information load. For example, the prepositional phrase *onto the table* plays a participant function as a Direction: Destination in action process clause *She put her bag onto the table*. Most prepositional phrases expressing place and direction takes the participant roles of

locational and directional processes, but not the circumstantial roles in English and Myanmar transitivity structures.

Circumstances in English and Myanmar transitivity structures are also realized by nominal

groups (e.g. တစ်ခုံလုံး /tanaytlonn/ 'all day'), adverbial groups (မရတော်း /mayatmanarr/ 'ceaselessly'), adverbial clauses with because, if, although, when and infinitival clauses. Table 3-7 summarizes the realizations of circumstances in English and Myanmar transitivity configurations

Table 3-7: Realizations of circumstances in English and Myanmar transitivity configurations

Type of Circumstance		English				Myanmar			
		Nominal group	Prepositional phrase	Adverbial group	Adverbial clause	Nominal group	Prepositional phrase	Adverbial group	Adverbial clause
Extent	Distance		+	+			+	+	+
	Duration	+	+	+	+	+		+	+
Location	Place		+				+		+
	Time	+	+	+	+	+	+	+	+
Manner	Means		+				+		
	Quality			+	+			+	+
	Comparison		+		+		+		+
	Degree			+				+	
Cause	Reason		+		+		+		+
	Purpose		+		+		+		+
	Behalf		+			+	+		
Contingency	Condition				+				+
	Concession		+		+				+
	Default		+		+				+

Accompaniment	Comitative		+					+		
	Additive		+					+		+
Role	Guise		+					+		
	Product		+				+			+
Angle			+					+		

Extent construes the distance in space and the duration in time of the unfolding of the process (Halliday and Matthiessen 2014: 264). As Table 5-6 indicates, circumstantial of distance in English transitivity structures are realized by a prepositional phrase or an adverbial group; for example, the prepositional phrase *for miles* in *You can see for miles from here* and the adverbial group *about four miles* in *That night they went about four miles*. On the other hand, circumstantial of distance in Myanmar transitivity structures are realized by a prepositional phrase, an adverbial group or an adverbial clause. The realization of the circumstantial of distance as an adverbial clause can be seen in Myanmar transitivity structures but not in English. Consider the following example.

(31)	ပတ်ဝ န်းကျွေ ငို့ ည်	အရာအ ဝါးလုံး တို့သ ည်	ကွယ်ပျော် ကိုသွားကြ ကုန်လျက်	လ ရှေ့ သော	လျော့ ကိန်	မြန်းလ မြေ	လှ သာ လျော့	ဤ၏ ၈၀။၈၅	ရှိက ၁၀	တစ် သက် ပတ် လုံး	မဆုံး နိုင် အော် ၂၅။၂၅	လျောက်၏ ဝေလိုက်ခ ျော်မိသ ည်။
	patw innk yin- shi	ayar- arrlon ndot- the	kwepyau kthwarr- gyagon= hlyet	h l a a	shau k- nay =tha w	myayn elann= hnint	hla - tha rhl yin	e- lawk agyee- hnaik	shi =gar	tathe tpatl onn	ma- sonn- nain- aun	shauk- naylaik chinmi- the.
	surr oun ding -LOC	thing- all- SBJMA RK	disappea r.PFV- PLMARK= CONJ	H l a a	walk - PRO G=RE L	path=a nd.CO NJ	Hl a- EX CL	DEM- worl d- LOC	exi st= CO NJ	whol e.life	NEG- end- CAP AMO D-INF	walk- OPT.PRS- DECL.SE NTSUF
	(Ag)	Cir: Concurrent State			Cir: Concurrent State					Cir: Dura- tion	Cir: Dist- ance	Pro: action
	(Subj- ect)	Adjunct			Adjunct					Adjunc- t	Adjunc- t	Finite/P redicator
		Adverbial clause			Adverbial clause					Nom inal	Adv erbi	Verbal group
										group	alclau- se	

'All the things in the surroundings had disappeared and Hla wanted an endless walk for the whole life, thinking as if there were only Hla and the path where she was walking in the world.' (Htin Lin 1999: 16) Circumstantial of duration in English transitivity structures are realized by a nominal group with definite or indefinite quantifier (e.g. *all day* in *They sat silently all day in the darkness of the house*), a prepositional phrase with preposition *for* (e.g. *for some time* in *The roosters had been crowing for some time*), an adverb of time (e.g. *usually* in *They usually go for a walk*; *immediately* in *Sam immediately offered to help*) or an adverbial clause (e.g. *until she had finished speaking* in *He waited until she had finished speaking*). However, circumstantial of duration in Myanmar transitivity structures are realized by a nominal group with definite or indefinite quantifier, an adverb of time or an adverbial clause. Unlike English, the realization of the circumstantial of duration as a prepositional phrase cannot be found out in Myanmar transitivity structures. Consider the following examples.

(32)	သူတို့သည်	တစ်နေ့လုံး	အိမ်၏	အမှာင်ပိုင်းတွင်	ထိုင်နေကြသည်။
	thuedot-the	tanaytlonn	ein-i	ahmaunbainn-	htain-nay-gya-the.
				twin	
	3PL-	all.day	house-	darkness-LOC	sit-PROG-PLMARK-
	SBJMARK		GEN		DECL.SENTSUF

Agent	Cir: duration	Cir: place	Pro: action
Subject	Adjunct	Adjunct	Finite/Predicator
Pronoun	Nominal group	Prepositional phrase	Verbal group

'They sat silently all day in the darkness of the house.' (Htin Lin 1999: 127)

(33)	ကင်းမြို့ငဲ	အဆိပ်ဆူးပါ	အမြို့	နောက်ဘ	တဖြောင့်တည်းရှိငဲ	ချက်ချင်းဆို	ကော့ထောင်ပစ်
	ဆောက်၏	သော	သည်	က်တွင်	ဝေါ်လည်း	သလို	လိုက်သည်။
	kinnmee	aseiksue:	ahm	naukph	taphyaunthtesh	chetchinn	korthtaun-
	kauk-i	parthaw	ee-	et-twin	i=thawle	sothalo	pyitlaikthe.
				the			
	scorpion	stinging	tail-	behind	be.straight=alt	in.a.flash.	whip.up-
	-GEN		SBJM		hough.CONJ	of.time	PFV.DECL.SEN
			ARK				TSUF

(Ag)	Cir: Concession	Cir: duration	Pro: action
(Subj ect)	Adjunct	Adjunct	Finite/Predic ator
	Adverbial clause	Adverbial group	Verbal group

'His stinging tail was straight out behind him, but he could whip it up in a flash of time.'

(Htin Lin 1999: 19)

(33) မပြန်ဖြစ်သည်မှ တစ်လကျော်သွားပြီ။
 ma-pyanphyit-thehmar ta-la-kyor-thwarrbye.
 NEG-return-DECL.SENTSUF one-month-over-PFV.DECL.SENTSUF

(Ag)	Pro: action	Cir: duration
(Subj)	Finite/Predicator	Adjunct
	Verbal group	Adverbial clause

'I have not returned home for over one month.' (Lae Twin Thar Saw Chit 161)

Location construes the place and time of the unfolding of the process (Halliday and Matthiessen 2014: 265). Circumstantials of place shows the same potential of realization by a prepositional phrase in English and Myanmar transitivity structures as in (34a) and (34b).

(34) a. Outside the door he squatted down.

Cir: place	Agent	Pro: action	PrEx
Adjunct	Subject	Finite/Predicator	
Prepositional phrase	Pronoun	Verbal group	

(John Steinbeck 1945: 3)

b. တံခါးအပြင်ဘက်ဝတွင် သူသည် ဆောင့်ကြောင့်ထိုင်လိုက်၏။

dagarr-apyinbetwatwin	thue-the	sauntgyaunthtain-laiki.
door-outside	3SG-SBJMARK	squat.down-PFV.DECL.SENTSUF
Cir: place	Agent	Pro: action
Adjunct	Subject	Finite/Predicator
Prepositional phrase	Pronoun	Verbal group

(Htin Lin 1999:14)

However, the significant difference in the realization of the circumstance of place between English and Myanmar is that the circumstance of place is realized by an adverbial clause in Myanmar transitivity structures, but not in English.

(35) သရက်ပင်အနီး ရောက်လျှင် သက်သက်သည် ထိုင်ချလိုက်သည်။
 thayet-pin-anee yauk=hlyin thetthet-the htaincha-laikthe.
 mango-tree-near.LOC arrive-if.CONJ Thet.Thet-SBJMARK squat.down-PFV.DECL.SENTSUF

Cir: place	Agent	Pro: action
Adjunct	Subject	Finite/Predicator
adverbial clause	Proper noun	Verbal group

'Thet Thet squatted down near the mango tree.'

Manner has four subcategories: Means, Quality, Comparison and Degree. Circumstance of Means shows the same potential of realization by a prepositional phrase with prepositions such as *by*, *through*, *with*, *by means of*, *out of* and *from* in English and Myanmar transitivity structures. The realization of the circumstance of means as a prepositional phrase with prepositions such as ဖြင့် /phyint/ and ပဲ /hnint/ 'by', 'with' in Myanmar transitivity structure is illustrated by Examples (36) and (37).

(36) သက်သက်သည် ချည့်နဲ့အသံကလေးဖြင့် ပြောနေသည်။
 thetthet-the chinetnet-athan-galaye:-phyint pyaw-nay-the.
 Thet.Thet-SBJMARK weak-voice-DIM-INS speak-PROG-DECL.SENTSUF

Communicator	Cir: means	Pro: auto communicative mental
Subject	Adjunct	Finite/Predicator
Proper noun	Prepositional phrase	Verbal group

'Thet Thet is speaking in a weak voice.'

(37) လှသည် မျက်ဇူည်များကို လက်နှင့် ဖတ်သူတ်လိုက်သည်။
 hla-the myetyay-myarr-go let-hnint putthoke-laikthe.
 Hla-SBJMARK tear-PLMARK-OBJMARK hand-INS wipe-PFV.DECL.SENTSUF

Agent	Affected	Cir: means	Pro: action
Subject	Complement	Adjunct	Finite/Predicator
Proper noun	Nominal group	Prepositional phrase	Verbal group

'Hla wiped tears with hand.'

(38) ဤအွှေသံသည်လည်း ဆိုးဆိုးဝါးဝါး အတောမသတ် အူနေဆဲပင်။
 okeawthan-the-le soesoewarrwarr atawmathat ue-nayze-bin.
 alert.sound- badly continuously ring-PROG-DECL.SENTSUF
 SBJMARK-ADDCCONN

Affected	Cir: quality	Cir: quality	Pro: auto happening action
Subject	Adjunct	Adjunct	Finite/Predicator
Nominal group	Adverbial group	Adverbial group	Verbal group

'The alert sound is ringing badly and continuously.'

(38) ဤအွှေသံမှာ နားဝါးမှ ရင်ထပေါက်အောင်ပင် စူးရှာသည်။
 okeawthan-hmar narr-htehma yinhte-pauk-aun- sue:sha-the.
 alert.sound-SBJMARK ear-ABLMARK bin
 chest-burst-INF- EMPMARK be.loud-PRS.DECL.SENTSUF

Carrier	Cir: quality	Pro: auto attri rel
Subject	Adjunct	Finite/Predicator

Circumstance of Quality shows the same potential of realization by an adverbial group or an adverbial clause in English and Myanmar transitivity structures. Consider the following examples.

(39) သူမျက်လုံးများမှာ	ခြေသံမ၏	မျက်လုံးများပမာ	အေးစက်မာကျေလှ၏။
thu-myetlonn-myarr-hmar	chinthaytma-	myetlonn-myarr-	aye:setmarkyawhla-i.
	i	pamar	
3SG.GEN-eye-PLMARK-	lioness-GEN	eye-PLMARK-CMPR	cold-
SBJMARK			PRS.DECL.SENTSUF

Carrier	Cir: comparison	Pro: auto attri rel
Subject	Adjunct	Finite/Predicator
Nominal group	Prepositional phrase	Verbal group

‘Her eyes are cold just like the eyes of a lioness.’ (Htin Lin 1999: 24)

(4 0)	ဟွာနာ သည်	ကြောက် လန့်ခြင်း	မရှိသော ဥ္ဓားများဖြင့်	မျက်လုံးပြုးပဲ ပြီးများဖြင့်	သိုးc ယ်က	သားသတ်သ မားကို	ကြည့် သလို	ကိုနိုအား ကြည့်နေလေ	သည်။
	hwar nar- the	kyaukla nt-chinn	ma- shi=t haw	myetlonn- pyue:- gyee- myarr- phyint	thoe- nge- ga	tharrthatth amarr-go	kyi- thalo	keno- arr	kyi- naylaythe.
	Juana - SBJMA RK	fear- NMLZ	NEG- have =REL	eye- wide.MOD- AUG- PLMARK-INS	shee p- DIM- SBJM ARK	butcher- OBJMARK	look- CMPR	Kino- OBJMAR K	look- PROG.DECL.S ENTSUF
	Behr	Cir: means			Cir: comparison		Ph	Pro: auto	
									behaving action
	Subje ct	Adjunct			Adjunct		Comple ment	Finite/Predi cator	
	Proper noun	Prepositional phrase			Adverbial clause		Proper noun	Verbal group	

‘Juana stared at Kino with wide unfrightened eyes as if a sheep looked at the butcher.’ (Htin Lin 1999: 115)

Circumstance of Comparison shows the same potential of realization by a prepositional phrase with prepositions such as ပမာ /pamar/, ကဲခေါ် /ketthot/, ဓာတ်ယ် /thaphwe/, စောၢ /thalo/ 'just like' or an adverbial clause with စောၢ /thalo/ 'as if' in English and Myanmar transitivity structures. Consider the following examples.

(41) ဖုလဲကြီးက	တော်တော်	ကြီးတယ်။
pale-gyee-ga	tortor	kyee-de.
pearl-AUG-SBJMARK	considerably	big-PRS.DECL.SENTSUF

Carrier	Cir: degree	Pro: auto attri rel
Subject	Adjunct	Finite/Predicator
Nominal group	Adverbial group	Verbal group

'The pearl is considerably big.'

Cause has three subcategories: Reason, Purpose and Behalf. Circumstance of Reason shows the same potential of realization by a prepositional phrase with prepositions such as *because of*, *as a result of*, *thanks to*, *due to*, *for want of*, *for*, *of*, *out of* and *through* or an adverbial clause with *because* in English and Myanmar transitivity structures. Consider the following examples.

(42) အေဒီငွေကြား	အားလုံး	ဗုဏ္ဏရောက်နေတာပေါ့။
ede-ngway-gyaunt	arrlonn	dokekhayauk-naydarport.
DEM-money-because.of	all	be.in.trouble-PRS.DECL.SENTSUF

Cir: reason	Affected	Pro: auto happening action
Adjunct	Subject	Finite/Predicator
Prepositional phrase	Nominal group	Verbal group

'Everyone is in trouble because of money.' (<http://sealang.net/burmese/bitext.htm>)

(43) သူ	နေမကောင်းသောကြား	ဆေးခန်းသို့	သွားခဲ့သည်။
thue	nay<ma>kaunn=thawgyaunt	saye:khann-thot	thwarr-khet-the.
3SG	well<NEG>=because.CONJ	clinic-ALL	go-PST-DECL.SENTSUF

Ag	Cir: reason	Dir: Des	Pro: auto doing action and dir rel
Subject	Adjunct	Complement	Finite/Predicator
Pronoun	Adverbial clause	Prepositional phrase	Verbal group

'He went to the clinic because he was sick.' (<http://sealang.net/burmese/bitext.htm>)

Circumstance of Purpose shows the same potential of realization by a prepositional phrase with prepositions such as *or*, *for the purpose of*, *for the sake of* and *in the hope of* or an adverbial clause with infinitive in English and Myanmar transitivity structures.

Circumstance of Behalf in English transitivity structures is realized by a prepositional phrase (e.g. *on behalf of all students* in *He gave a speech at the ceremony on behalf of all students*). On the other hand, circumstance of Behalf in Myanmar transitivity structures is realized by a nominal group or a prepositional phrase.

Contingency has three subcategories: Condition, Concession and Default. Circumstance of Condition shows the same potential of realization by an adverbial clause with ခေါ်သံ /hlyin/, ငါး/yin/ ‘if’ in English and Myanmar transitivity structures; for example, *if it rains* in *We'll stay at home if it rains*.

Circumstance of Concession in English transitivity structures is realized by a prepositional phrase with complex prepositions such as *in spite of* and *despite* (e.g. *in spite of his efforts* in *He failed the exam in spite of his efforts*). On the other hand, there is no realization of the circumstance of Concession as a prepositional phrase in Myanmar transitivity structures. We can see the same potential of realization of this circumstance as an adverbial clause with သော်လည်း /thorle/ ‘although’ in both languages.

Circumstance of Default in English transitivity structures is realized by a prepositional phrase with the preposition *without* or complex prepositions such as *in the lack of*, *in the absence of* and *in default of*. On the other hand, the circumstance of Default in Myanmar transitivity structures is realized as an adverbial clause with ကဲ...ခဲ့ /ma...be/ ‘without’ as in (44a) and (44b).

(44) a. Kino could see these things without looking at them.

Perc	Pro: auto perc men	Ph	Cir: Default
Subject	Predicator	Complement	Adjunct
Proper noun	Verbal group	Nominal group	Prepositional phrase

(John Steinbeck 1945: 4)

b. ထိုအခြင်းအရာအားလုံးကို ကိန္ဒိယည် မကြည့်ဘဲနဲ့ မင်နေရသည်။
 hto-achinnayar-arrlonn-go keno-the ma<kyi>behnint myin-nayyathe.
 DEM-thing-all-OBJMARK Kino-SBJMARK without<look> see-PRS.DECL.SENTSUF

Ph	Perc	Cir: Default	Pro: auto perc men
Complement	Subject	Adjunct	Finite/Predicator
Nominal group	Proper noun	Adverbial clause	Verbal group

‘Kino could see these things without looking at them.’ (Htin Lin 1999: 16)

Accompaniment has two subcategories: Comitative and Additive. Circumstance of Comitative shows the same potential of realization by a prepositional phrase with prepositions such as ပဲနဲ့ /hnint/ or ခဲ့/net/ ‘with’ and နှင့်အတူ /hnintatue/ ‘together with’ in English and Myanmar transitivity structures; for example, *with you* in *I will go with you*.

Circumstance of Additive shows the same potential of realization by a prepositional phrase with prepositions such as အပါယ် /apyin/ 'besides' and အစား /asarr/ 'instead of' in English and Myanmar transitivity structures, for example, *besides Nyi Nyi* in *Many boys besides Nyi Nyi were late* and *instead of ham* in *Could I have tuna instead of ham?* Moreover, the circumstantial of additive is also realized by an adverbial clause with အစား /asarr/ 'instead of' in Myanmar transitivity structures as in (45).

(45)	သူသည်	ဤနေရာတွင်	ထိုင်ရမည့်အစား	ထိုနေရာ၌	ထိုင်သည်။
	thue-the	e-nayyar-	htain-ya-myi-asarr	hto-nayyar-	htain-the.
		twin		hnaik	
	3SG-SBJMARK	DEM-place-LOC	sit-OBLG-DECL.SENTSUF-instead.of	DEM-place-LOC	sit-PRS-DECL.SENTSUF

Agent	Cir: additive	Cir: place	Pro: action
Subject	Adjunct	Adjunct	Finite/Predicator
Pronoun	Adverbial clause	Prepositional phrase	Verbal group

‘He sat there, instead of here.’ (<http://sealang.net/burmese/bitext.htm>)

Role has two subcategories: Guise and Product. Circumstance of Guise shows the same potential of realization by a prepositional phrase with prepositions such as *as*, *by way of* and *in the role/shape/guise/form of* in English and Myanmar transitivity structures; for example, *in the form of TV advertising* in *People are bombarded with information in the form of TV advertising.* The realization of the circumstance of guise as a prepositional phrase with the preposition အဖြစ် /aphyit/ 'as' in Myanmar transitivity structure can be seen as in (46).

(46)	သူတိုကိုလည်း	မြန်မာ့သမိုင်းတွင်	သူရဲကောင်းများအဖြစ်	ကမ္မည်းတင်ထားခဲ့ကြပါသည်။
	thuedot-go-le	myanma-thamainn-twin	thueyegaunn-myarr-aphyit	gabyeetinharr-khet-gya-bar-the.
	3PL-OBJMARK-ADDCCONN	Myanmar-history-LOC	hero-PLMARK-ESS	inscribe-PST-PLMARK-POLMARK-DECL.SENTSUF

Affected	Cir: place	Cir: guise	Pro: action
Complement	Adjunct	Adjunct	Finite/Predicator
Pronoun	Prepositional phrase	Prepositional phrase	Verbal group

Circumstance of Product shows the same potential of realization by a prepositional phrase with the preposition *into* in English transitivity structures; for example, *into logs* in *Father uses a saw to cut the tree trunk into logs*, whereas this circumstance is realized by a nominal group or an adverbial clause with infinitive in Myanmar transitivity structures as in (47) and (48).

(47) သူသည် ကိတ်မုန့်ကို လေးစိုး စိပ်ခဲ့သည်။
 thue-the keikmont-go laye:-zeik seik-khet-the.
 3SG-SBJMARK cake-OBJMARK four-piece divide-PST-DECL.SENTSUF

Agent	Affected	Cir: product	Pro: action
Subject	Complement	Adjunct	Finite/Predicator
Pronoun	Nominal group	Nominal group	Verbal group

‘She divided the cake into four pieces.’

(48) ချည်ခင်ကို အလုံး ဖြစ်အောင် ကျွန်ုင် လုံးမည်။
 chekhin-go alonn phyit-aun kyanoke lonn-mye.
 yarn-OBJMARK ball become-INF 1SG.NOM wind-IRR.ASS

Affected	Cir: product	Agent	Pro: action
Complement	Adjunct	Subject	Finite/Predicator
Nominal group	Adverbial clause: infinitival		Verbal group

‘I’ll wind the yarn into a ball.’ (<http://sealang.net/burmese/bitext.htm>)

According to He (forthcoming), circumstance of matter is classified into a participant role of Communicated in autonomous communicative mental process. For example, in the communicative process clause *We generally talk of Africa*, *We* is taken as the Communicator Communicatee and *Africa* is taken as the Communicated. This study follows He’s (forthcoming) new model of the transitivity system of Chinese, we will not discuss the

circumstance of matter in this thesis because it plays a participant function, not a circumstantial role in our discussion.

Circumstance of Angle shows the same potential of realization as a prepositional phrase with the preposition အရ /aya/ or အလိုက် /alaik/ ‘according to’ in English and Myanmar transitivity structures. See the following example.

(49) အရည်အချင်းအလိုက် ထောက်ပံ့ကြေးတွေ ပေးတယ်။
 ayeachinn-alaik htaukpantkyaye:- paye:-de.
 qualification- dway stipend-PLMARK give-
 according.to.ABLMARK PRS.DECL.SENTSUF

(Ag)	Cir: Angle	Af-Posd	Pro: action
	Adjunct	Complement	Finite/Predicator
	Prepositional phrase	Nominal group	Verbal group

‘They give stipend according to qualification.’ (<http://sealang.net/burmese/bitext.htm>)

*Abbreviations**Special abbreviations*

Af Affected	3SG third person singular
Af-Ca Affected-Carrier	ABLMARK ablative marker
Af-Posd Affected-Possessed	ACC accusative
Af-Posr Affected-Possessor	ADDCONN additive connective
Ag Agent	AFFMARK affectionate marker
Ag-Ca Agent-Carrier	ALL allative
Ag-Cog Agent-Cognizant	ANA anaphoric
At Attribute	APPEL appellative
Behr Behaver	ASSOC associative
Ca Carrier	CAPAMOD capability modality
Cir Circumstance	CAUS causative
Cir: Pl Circumstance: Place	CLF classifier
Cir: TP Circumstance: Time position	CMPR comparative
Cog Cognizant	COM comitative
Comd Communicated	COMP complementizer
Comee Communicatee	COMPA compassion
Comr Communicator	CONJ conjunction
Cor1 Correlator1	CONN connective
Cor2 Correlator2	COP copula
Cre Created	DAT dative
Des Destination	DECL.SENTSUF declarative sentence suffix DET
Desr Desiderator	determiner
Dir Direction	DIM diminutive
Em Emoter	DU dual
Ext Existent	EMPMARK emphatic marker
Loc Location	EXCL exclusive
Perc Perceiver	EXPER experiential
Ph Phenomenon	F female
Posr Possessor	FUT future
Posd Possessed	GEN genitive
PR Participant Role	INCL inclusive
Pro Process	INF infinitive
Ra Range	INS instrumental
So Source	INT.SENTSUF interrogative sentence suffix
Tk Token	LOC locative
Vi Value	M male
<i>Abbreviations also found in the Leipzig Glossing Rules</i>	
3PL third person plural	MOD modifier
1SG first person singular	NEG negative
2SG second person singular	NEGDECL.SENTSUF negative declarative
	sentence suffix
	NOM nominative
	OBJMARK object marker
	OBLG obligation
	OPT optative

PFV perfective		
PLMARK plural marker		
POLMARK polite marker		
POSTDECL.SENTSUF	positive	declarative
sentence suffix		
PROG progressive		
PRS present		

PST past	
PURP purposive	
REFL reflexive	
REL relative	
SBJMARK subject marker	
SUP superlative	

IV. CONCLUSION

The study contrasts the realizations of elements in English and Myanmar transitivity configurations under the light of Systemic Functional Grammar introduced by Halliday (1985). This study investigates the similarities and differences in the English and Myanmar realizations of participants as SFPCA elements that represent the functions and positions of Subject (S), Finite (F), Predicator (P), Complement (C), and Adjunct (A). Typically, in the English and Myanmar transitivity configurations, the participant is realized by a nominal group; the process by a verbal group, and the circumstance by a prepositional phrase or an adverbial group. English and Myanmar exhibit similarities in how they express processes through verbal groups, participant roles through nominal groups, nominalization, adverbial groups, prepositional phrases, embedded clauses, and circumstances through nominal groups, adverbial groups, or prepositional phrases. However, they differ in that English uses copulas for expressing processes and adjective/adjective groups for participant roles, whereas Myanmar employs compound verbs, reduplicated verbs, or attributive verbs for processes and qualifying reduplicated adverbs or embedded clauses for circumstances. The results of this research add valuable insights to future investigations that compare how elements are expressed in the transitivity configurations of Myanmar with those in other languages.

REFERENCES

1. Al-Janabi, M. K. H. (2013). Transitivity analysis in English and Arabic short narrative texts: A contrastive study. <https://www.researchgate.net/publication/337544166>.
2. Bloor, T., & Bloor, M. (1995). *The Functional Analysis of English: A Hallidayan Approach*. London: Arnold.
3. Bridges, J. E. (1915). *Burmese Grammar*. Rangoon: British Burma Press.
4. Caffarel, A., Martin, J. R. & Matthiessen, C. M. I. M. (Eds.). (2004). *Language Typology: A Functional Perspective*. Amsterdam & Philadelphia: John Benjamins.
5. Caffarel, A. (2004). Metafunctional profile of the grammar of French. In A. Caffarel, J. R. Martin & C. M. I. M. Matthiessen (Eds.), *Language Typology: A Functional Perspective* (pp. 77–138). Amsterdam & Philadelphia: John Benjamins.
6. Carroll, J. B. (Eds.). (1956). *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf*. Cambridge: the Massachusetts Institute of Technology.
7. ĐĂNG THỊ CẨM NGỌC (2015). *An Investigation into Linguistic Features of Material Processes in “Perfect Spy” by Larry Berman Versus its Vietnamese Translational Version by Do Hung*. Da Nang, MA: The University of Danang.
8. Davidse, K. (1992). Transitivity/ergativity: the Janus-headed grammar of actions and events. In M. Davies & L. Ravelli (Eds.), *Advances in Systemic Linguistics: recent theory and practice* (pp. 105–135). London/New York: Pinter.
9. Eggins, S. (1994). An Introduction into Systemic Functional Linguistics. London and New York: Continuum.
10. Evans, V. & Green, M. (2006). *Cognitive Linguistics: An Introduction*. Edinburgh: Edinburgh University Press.
11. Fawcett, R. P. (1980). *Cognitive Linguistics and Social Interaction: Towards an Integrated Model of a Systemic Functional Grammar and the Other Components of a Communicating Mind*. Heidelberg: Groos.

12. Fawcett, R. P. (1987). The semantics of clause and verb for relational processes in English. In M.
13. A. K. Halliday & R. P. Fawcett (Eds.), *New Developments in Systemic Linguistics: Theory and Description* (pp. 130–183). London: Printer.
14. Fawcett, R. P. (2000). *A Theory of Syntax for Systemic Functional Linguistics*. Amsterdam & Philadelphia: John Benjamins.
15. Fawcett, R. P. (2010). How to analyze participant roles and so processes in English. USTB Handbook.
16. Fawcett, R. P. (forthcoming). The functional semantics handbook: Analyzing English at the level of meaning. London: Equinox.
17. Gleason, H. A. (1961). *An Introduction to Descriptive Linguistics*. New York: Holt, Rinehart and Winston.
18. Halliday, M. A. K. (1967). Notes on transitivity and theme in English: Part 2. *Journal of Linguistics*, (3), 199–244.
19. Halliday, M. A. K. (1968). Notes on transitivity and theme in English: Part 3. *Journal of Linguistics*, (4), 179–215.
20. Halliday, M. A. K. (1985). *An Introduction to Functional Grammar* (1st edn). London: Arnold.
21. Halliday, M. A. K. (1994/2000). *An Introduction to Functional Grammar* (2nd edn). London: Arnold.
22. Halliday, M. A. K., and Matthiessen, C. M. I. M. (2004). *An Introduction to Functional Grammar* (3rd edn). London: Arnold.
23. Halliday, M. A. K., and Matthiessen, C. M. I. M. (2014). *An Introduction to Functional Grammar* (4th edn). London: Routledge.
24. Halliday, M. A. K. & McDonald, E. (2004). *Metafunctional Profile of the Grammar of Chinese*.
25. In A. Caffarel, J. R. Martin & C. M. I. M. Matthiessen (Eds.), *Language Typology: A Functional Perspective* (pp. 305–396). Amsterdam & Philadelphia: John Benjamins.
26. He, W., Zhang, R., Dan, X., Zhang, F. & Wei, R. (2017). *Yingyu gongneng yuji fenxi* [Functional semantic analysis of English]. Beijing: Foreign Language Teaching and Research Press.
29. *Journal of University of Science and Technology Beijing (Social Sciences Edition)* (1), 98- 105+119. In He, W. & Gao, S. W. (Eds.) (2011). *Studies of Functional Syntax*. Beijing: Foreign Language Teaching and Research Press. 72-88
30. Hnin Lae Yee. (2020). Reflection on Myanmar culture through transitivity analysis of the character “Mai Sein” in the short story The Shinlaung’s Father by Khin Myo Chit. The 1st International Conference on Languages and Humanities, 74-88.
31. Htin Lin. (1999). *Paletaye:than* [The Pearl]. Yangon: Pan Shwe Pyi Press.
32. Hu, Z. L., Zhu, Y. S., Zhang, D. L. & Li, Z. Z. (2005). *A Survey of Systemic Functional Linguistics*. Beijing: Peking University Press.
33. Huang, G. W. (2000). Systemic functional linguistics: Forty years on. *Foreign Language Teaching and Research*, (1), 15-21.
34. Hussein, B. A. (2012). The Sapir-Whorf Hypothesis Today. *Theory and Practice in Language Studies*, 2(3), 642-646.
35. Jenny, M., and San San Hnin Tun. (2016). *Burmese: A Comprehensive Grammar*. London and New York: Routledge.
36. Journal Kyaw Ma Ma Lay. (1957). *Thuema [She]*. Yangon: Shwe Lin Yone.
37. Kaffashi, M., Gowhary, H., Jamalinesari, A. & Azizifar, A. (2015). A contrastive study of relational attributive clauses in narrative texts in English and Persian based on Halliday (2004). *Social and Behavioral Sciences*, (192), 156-165.
38. Lae Twin Thar Saw Chit. (2004). *Kyanoramonnzonkyanor* [The person I hate most is me]. <http://www.myanmarbookshop.com/MyanmarBooks/BookDetails/19951> (accessed 17 April 2020).
39. Lai Yee Win (2021). Construction of the transitivity system of Myanmar. *Journal of World Languages*, 7(1), 1-43.
40. Lavid, J. & Arus, J. (2002). Nuclear transitivity in English and Spanish: A contrastive functional study. <https://www.researchgate.net/publication/233675496>.
41. Li, F. G. (2004a). Experiential function and translation of clauses. *Foreign Languages and Their Teaching*, (7), 46-50.

42. Li, F. G. (2004b). Equivalent translation between process of transitivity and semantic functions. *Journal of Xi'an International Studies University*, (2), 26-30.

43. Li, J. & Song, C. (2005). *Gongneng yufa daolun disanban shuping* [Review of An introduction to functional grammar, 3rd edn.]. *Waiyu Jiaoxue yu Yanjiu* [Foreign Language Teaching and Research] (4). 315–318.

44. Lonsdale, A. W. (1899). *Burmese Grammar and Grammatical Analysis*. Rangoon: British Burma Press.

45. Lund, N. (2003). *Language and Thought*. New York and London: Routledge.

46. A Contrastive Study of the Realizations of Elements in English and Myanmar TransitivityConfigurations.

47. Martin, J. R. (2004). Metafunctional profile of the grammar of Tagalog. In A. Caffarel, J. R. Martin & C. M. I. M. Matthiessen (Eds.), *Language Typology: A Functional Perspective* (pp. 255–304). Amsterdam: Benjamins.

48. Martin, J. R., Matthiessen, C. M. I. M. & Painter, C. (1997). *Working with Functional Grammar*. London: Edward Arnold.

49. Martin, J. R., Matthiessen, C. M. I. M. & Painter, C. (2010). *Deploying Functional Grammar*. Beijing: The Commercial Press.

50. Matthiessen, C. M. I. M. (1995). *Lexicogrammatical Cartography: English systems*. Tokyo: International Language Sciences Publishers.

51. Maung Htin Aung. 1962. *Burmese law tales*. London: Oxford University Press.

52. Min Thit & Thant Zin Win. 2019. bagandaytha yuenetsakogabaamwayahnitsayinn winkhwin-tyabarga nainngantgonmyintmarrlarpyee kha eehwarrlokengannle myinttetlarnainmyephit [Experts rally for Bagan's inclusion in World Heritage List]. *Myanmaalinn* [Myanma Alinn Daily].

53. https://www.burmalibrary.org/sites/burmalibrary.org/files/obl/mal_27.5.19.pdf.

54. Mohammed. A. A. (2020). The impact of culture on English Language Learning. *International Journal on Studies in English Language and Literature*, 7(8), 21-27.

55. Myint Soe. (1999). *A Grammar of Burmese*. PhD thesis. Oregon: University of Oregon.

56. NGUYỄN PHAN CẨM TÚ (2011). An Investigation into Linguistic Features of Participants in the Processes in English and Vietnamese from the Functional Grammar Aspect. Da Nang, MA: The University of Danang.

57. Phan, H. V. & Nguyen, T. T. T. (2015). A study of typology of behavioral clauses in English and Vietnamese in the light of functional grammar. *International Journal of Language and Linguistics*, 3(6), 347-352.

58. Prakasam, V. (2004). Metafunctional Profile of the Grammar of Telugu. In A. Caffarel, J. R. Martin & C. M. I. M. Matthiessen (Eds.), *Language Typology: A Functional Perspective* (pp.433–478). Amsterdam & Philadelphia: John Benjamins.

59. Rose, D. (2004). Metafunctional Profile of the Grammar of Pitjantjatjara. In A. Caffarel, J. R. Martin & C. M. I. M. Matthiessen (Eds.), *Language Typology: A Functional Perspective* (pp. 479–536). Amsterdam & Philadelphia: John Benjamins.

60. Science Mg Wa. 1998. *Mitharrsuletywaye: sinwithtutomyarr* [Family selected novellas]. Yangon:Than Lwin Oo Press.

61. Steinbeck, J. (1945). *The Pearl*. New York: The Viking Press. Steiner, E. & Teich, E. (2004). Metafunctional Profile of the Grammar of German. In A. Caffarel, J. R. Martin & C. M. I. M. Matthiessen (Eds.), *Language Typology: A Functional Perspective* (pp. 139–184). Amsterdam & Philadelphia: John Benjamins.

62. Soe Soe Nain. 2019. *pyethuepyetharrmyarri ayayachinnthe adika* [The qualification of thePeople is main]. *Myanmaalinn* [Myanma Alinn Daily]. al_14.3.19.pdf .

63. Teruya, K. (2004). Metafunctional Profile of the Grammar of Japanese. In A. Caffarel, J. R. Martin & C. M. I. M. Matthiessen (Eds.), *Language Typology: A Functional Perspective* (pp. 185–254). Amsterdam & Philadelphia: John Benjamins.

64. Thadinnsin. 2019. *nainngandori atainbin-khanpokego doraunsannsukye hnht (khunhnase) pyayt paotamyoetharrnayt (akyo) akhannanarrthot tetyaukmeintkhunnpypyawky-arr* [State Counsellor attends event to mark

Myanmaalinn [Myanma Alinn Daily]. https://www.burmalibrary.org/sites/burmalibrary.org/files/obl/mal_14.3.19.pdf

67. Thadinnsin. 2019. Nainngandoriatainbinkhanpokego doraunsannsukye minnbue:

68. nayyauncheswanninthonndatarrpaye:seyonse mangeinnphwintpwe akhannanarr tetyauk [State Counsellor launches first phase of solar power project in Minbu]. Myanmaalinn [Myanma Alinn Daily]. https://www.burmalibrary.org/sites/burmalibrary.org/files/obl/mal_28.6.19.pdf.

69. Thadinnsin. 2021. khayeethwarrlokengann pyanlephwintphyoetoetetlarbarga pyethue-myarri luehmuseebwarrbawa phwintphyoetoetetlarnain [If tourism develops again, the socio-economic life of the People can develop]. Myanmaalinn [Myanma Alinn Daily].https://www.burmalibrary.org/sites/burmalibrary.org/files/obl/mal_15.5.21.pdf

70. Thai, M. D. (2004). Metafunctional Profile of the Grammar of Vietnamese. In A. Caffarel, J. R.

71. Martin & C. M. I. M. Matthiessen (Eds.), Language Typology: A Functional Perspective (pp. 397–432). Amsterdam & Philadelphia: John Benjamins.

72. Thompson, G. (2004/2008). Introducing Functional Grammar (2nd edn.). London: Hodder Arnold/Beijing: Foreign Language Teaching and Research Press.

73. Vittrant, A. (2005). Burmese as a modality-prominent language. In J. Watkins (Eds.), Studies in Burmese Linguistics (pp. 143-162). Australia: Pacific Linguistics.

74. Wahyudin, A. Y. (2016). A study of transitivity system: An analysis of process type used in news item. <https://www.researchgate.net/publication/332230397>.

75. Watkins, J. (2005). Studies in Burmese Linguistics. Australia: Pacific Linguistics.

76. Wierzbicka, A. (1997). Understanding Cultures through their Key Words. Oxford: Oxford University Press.

77. Yuli, S. & Yushan, Z. (2012). A comparison of transitivity system in English and Chinese. *Cross-Cultural Communication*, 8(4), 75-80.

78. Zhao, Jin. 2011. khitthitmyanmarphatsar [Modern Myanmar textbook]. Beijing: Foreign Language Teaching and Research Press.