
The Common Features of Transitivity Systems in English and Myanmar

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Abstract: In transitivity studies, the current existing problem of adopting different upward approaches to the description of the experiential metafunction has resulted in the abortive discourse analysis of texts. This study, therefore, attempts to observe the common features of English and Myanmar transitivity systems from the perspective of Systemic Functional Linguistics (SFL). It is found that: English and Myanmar transitivity systems share five common features: richness, hierarchicalness, flexibleness, metaphoricalness, and abstractness. With respect to the feature of richness, the two transitivity systems can construe the experience of the physical, social, mental and abstract world by a variety of different process types and participant roles. In terms of the feature of hierarchicalness, all the different processes of the two languages are categorized into superordinate, basic and subordinate level processes. With respect to the feature of flexibleness, in English and Myanmar transitivity configurations, process types can change from one type to another depending on context, background knowledge, life experience, etc. even though they construe the same domain of world experience. With respect to the feature of metaphoricalness, when the congruent form is reworded into metaphorical form, the process, participant roles and circumstances may change in English and Myanmar transitivity configurations. Regarding the feature of abstractness, each level of process differs from one another in terms of the degree of abstractness, that is, English and Myanmar transitivity systems are relatively similar in the identification of superordinate and basic level processes, whereas their transitivity configurations which are subordinate to basic level processes vary greatly between the two languages. This study helps to deepen the understanding of the nature of the two languages. It also makes an important contribution to the further study of comparing the transitivity configurations of transitivity systems in English and Myanmar and their realizations.

Keywords: Systemic Functional Linguistics, Common Features, Transitivity Systems, English, Myanmar

1. Introduction

In the world, human beings exist as different social groups with different languages and cultures. Since the world has become a global village nowadays, the study of foreign languages is an indispensable part of building a bridge of communication in a multi-cultural and multilingual world. In the 1960s and 1970s, contrastive linguistics has attracted the attention of researchers who want to make foreign language teaching more efficient because it is an effective investigation of the linguistic difficulties for second language learners. A language learner may encounter difficulties in acquiring a second language due to the differences between the target language and his or her native language. To overcome these language barriers, a language learner needs

to understand the motivations behind the differences between languages, that is, the national cognition, thinking and culture behind each language. In this time of globalization, English has obviously become the medium of communication around the world and the global language. Realizing the importance of English, linguists have taken an interest in doing research on contrastive linguistics between English and other world languages in order to support not only English language teachers in their teaching process but also learners of English in their learning process.

In the literature, there are some comparative linguistic studies of English and Myanmar. The bulk of these studies are based on lexis. San San Hnin Tun [94] compares and contrasts discourse marking systems in English and Myanmar, focusing on a set of lexical items in a particular

word class called “particles” in Myanmar, which lack one-to-one equivalents in English, and are characterized by highly context dependent semantic values, and using a corpus-based approach to discourse analysis. Bhita [6] compares and contrasts the English verb and Myanmar verb at the phonological level. However, the number of comparative studies of transitivity between Myanmar and foreign languages is very scant. Although Ei Ei Soe Min and Matsumura [16] carries out the comparative analysis of transitivity parameters proposed by Hopper and Thompson [51] among the three languages: English, Japanese and Myanmar, their study is limited to three transitivity parameters, i.e., aspect, mood and agency, and it neglects the social semiotic concern. To date, there has been no comparative study of English and Myanmar from the perspective of social semiotics in the existing literature.

The study of language should not be restricted to the study of an abstract set of generalized rules detached from any particular context of use. We should take into account both form and meaning in language learning (Thompson [115]: 2). Halliday [38] proposed the description of the transitivity system of English that represents human experience of the physical, social, mental and abstract world through six major process types: material, mental, relational, behavioral, verbal and existential processes. Fawcett [18, 19, 23] and He et al. [47] have modified Halliday’s [38] transitivity system of English. However, one universal transitivity system cannot mirror the characteristics of an individual language since the structures of human languages are sophisticated. Consequently, many linguists have constructed the transitivity systems of certain languages, including Myanmar, following the hypotheses about transitivity proposed by different scholars.

Based on Halliday [38] and Matthiessen [79], Caffarel [11], Steiner and Teich [101], Teruya [107], Martin [77], Halliday and McDonald [43], Thai [113], Prakasam [90] and Rose [93] have modeled the transitivity systems of French, German, Japanese, Tagalog, Chinese, Vietnamese, Telugu and Pitjantjatjara respectively in Caffarel et al. [12]. He [44] presents the new model of the transitivity system of Chinese, adopting Fawcett’s hypothesis about transitivity and taking into consideration the social-cultural and the cognitive approaches. This new model is related to He et al.’s [47] description of the transitivity system of English, especially in the categorization of process types including the causative process and participant roles, including simple PRs and compound PRs. Following the new model of transitivity system proposed by He [44], Lai Yee Win [67] introduces the transitivity system of Myanmar, the representation of Myanmar speakers’ world experience within the framework of Systemic Functional Linguistics (SFL). In order to provide the readers a better understanding of how Myanmar speakers’ way of representation pertaining to world experience differs from that of English speakers, this research chooses English and my native language, Myanmar as the object of the comparative study of transitivity systems.

In order to fill the gap in the previous studies of Myanmar

transitivity parameters, which are compared to Japanese and English regardless of the social semiotic concern, this study adopts Halliday’s SFL theory to the comparative analysis of English and Myanmar transitivity systems and propose their common features: richness, hierarchicalness, flexibleness, metaphoricalness and abstractness from a macro perspective based on He et al.’s (forthcoming) and Wang’s (2021) hypothesis. By showing how the way of representation of the world experience of the Myanmar people differs from that of the English, this study contributes to a better understanding of the innermost nature of the two languages. The findings of this study make a significant contribution to the upcoming papers on the comparative study of the transitivity configurations of transitivity systems in English and Myanmar and their realizations.

2. Previous Comparisons of Transitivity Systems Between Languages

In the 19th century, language typology was approached “from below”, focusing on morphology (Caffarel et al. [12]: 2). For the past two decades, the comparative studies of transitivity systems between/across languages have increasingly garnered much interest in Systemic Functional Linguistics. The bulk of previous studies are based on Halliday’s [37] theory of transitivity.

Some of these studies are limited to only one type of process such as the material process in English and Vietnamese (Dang [13]), the behavioral process in English and Vietnamese (Phan and Nguyen [89]) and the relational attributive process in English and Persian (Kaffashi et al. [60]). Dang [13] investigates the similarities and differences between the linguistic features of material processes in English and Vietnamese, based on the transitivity analysis of 1640 material clauses from “Perfect Spy”, written by Larry Berman and its Vietnamese translational version. Focusing on a corpus of English and Vietnamese literary work of the late 20th century and the early 21st century, Phan and Nguyen [89] explore the relations between human behavior and language within the framework of Martin, Matthiessen and Painter [78], Bloor and Bloor [7], and Eggins [15]. In terms of descriptive method and functional analysis, Phan and Nguyen [89] identify English and Vietnamese verbs that realize four subtypes of behavioral processes: material-behavioral, verbal-behavioral, mental-behavioral and behavioral processes. Kaffashi et al. [60] compare and contrast the relational attributive clauses in narrative English and Persian texts, based on a corpus of 400 clauses: 200 from English and 200 in Persian. The data collected in these studies are restricted to literary texts. In order to meet the needs of these studies, larger research comparing whole transitivity systems between languages resulting from the data analysis of different genres of texts is further needed.

In the literature, there are a limited number of comparative studies pertaining to transitivity systems that cover

configurations and realizations of three experiential components: process, participants and circumstances. TÚ [116] investigates the semantic and syntactic features of participants in English and Vietnamese processes from the Hallidayan perspective, regardless of semantic configurations and realizations of processes and circumstances in configurations of English and Vietnamese. Sun and Zhao [103] compare and contrast English and Chinese transitivity configurations and semantic components in terms of Halliday's [38] six process types. Al-Janabi [2] analyzes the processes of transitivity in two narrative short English and Arabic texts in terms of Halliday's theory of translation, and shows that the two languages share the same semantic realizations of processes. Lavid and Arus [75] undertake a comparative study of nuclear transitivity consisting of three simultaneous systems: a system of agency, a system of process type, and a system of causation between English and Spanish. Lavid and Arus [75] discuss the transitive/ergative distinction, as developed by Davidse [14], in the material process, the mental process, and the relational process of English and Spanish, leaving the verbal process out of discussion because the transitive/ergative distinction does not apply to the verbal process of both languages. Lavid and Arus [75] show that the transitive and ergative systems in English and Spanish possess different grammatical properties which are realized by different lexical verbs, whilst there is the transitive/ergative distinction between the semantically related verbs of English and Spanish, in which the same process is expressed transitively in one language and ergatively in the other.

Despite the emergence of comparative studies of transitivity systems between English and other languages (including oriental languages such as Arabic, Persian, Chinese, Japanese, Vietnamese, and occidental languages such as Spanish), no systemic functionalist has yet explored how the Myanmar speakers represent their experience of the world around them and inside them from a comparative angle, which can be of great help to both learners who are interested in the Myanmar language and scholars who are interested in doing research into Myanmar linguistics. This study, therefore, chooses the transitivity systems of English and Myanmar as comparative objects.

Previous comparative studies mentioned above present the similarities and differences of transitivity systems between English and other world languages, regardless of justification for the differences of ethnic cognition, thinking and culture behind each language. They do not take the social-cultural and cognitive approach into consideration. Moreover, Halliday's [37] description of the transitivity system of English, which is mainly adopted as a theoretical framework of previous comparative studies of transitivity systems, is based on an upward approach which is not effective enough to be applied for discourse analysis. In order to fill this literature gap, this study adopts He's [44] new model of the transitivity system of Chinese as a theoretical framework for analyzing English and Myanmar clauses, for its adoption of a downward approach, which is effective for discourse

analysis. From the social-cultural and cognitive approach, this study explains the motivations for similarities and differences between the two transitivity systems, contrary to previous comparative studies.

3. The Common Features of Transitivity Systems in English and Myanmar

Jespersen ([57]: 346-347) introduces a new method for comparative grammar, i.e. starting from C (notion or inner meaning) and examining how each of the fundamental ideas common to all mankind is expressed in various languages, thus proceeding through B (function) to A (form). This new method helps us gain a deep insight into the innermost nature of human language and human thought. It is also applicable for the comparison of transitivity systems. The present study employs this method of turning meaning (macro perspective) into form (micro perspective) via function in the comparative analysis of English and Myanmar transitivity systems. The transitivity system is a system of choices for meaning potential which are organized in terms of the scale of delicacy, i.e., the ordering of systems from general to specific. In terms of He's [44] transitivity system, the meaning potential is expressed by three types of superordinate level processes, 16 basic level processes and several subordinate level processes which are transitivity configurations mainly composed of process, participants and circumstances. From a macro perspective, this study presents the common features of English and Myanmar transitivity systems based on the analysis of different genres of texts in both languages by adopting He's [44] new model of transitivity system.

Following He et al. [46], Wang [120] describes five common features of transitivity systems in Chinese, Hindi, Arabic and Greek: richness, hierarchicalness, flexibleness, metaphoricalness and abstractness from a macro perspective. He states that as for richness, transitivity systems can construe the experience of the physical, social, mental and abstract world through a rich variety of process types and participant roles involved in them. In terms of hierarchicalness of transitivity systems, all different processes are categorized into three levels: superordinate, basic and subordinate levels. Flexibleness of transitivity systems refers to the changing process of a clause from one type to another depending on context, background knowledge, life experience, etc. Metaphoricalness of transitivity systems refers to the metaphorical modes of expression reverted from congruent forms. Abstractness of transitivity systems refers to the relationship of abstractness and concreteness among the processes of different levels. These five common features of transitivity systems are the most important and prominent for the comparative analysis of meaning potentials of languages through transitivity processes from a macro perspective, and grasping the innermost nature of human language and human thought. The present study conducts a comparative analysis of English and

Myanmar transitivity systems by employing Wang's [120] five common features: richness, hierarchicalness, flexibleness, metaphoricalness and abstractness. Findings suggest that the two transitivity systems also comply with all these common features. The following will present these five common features of transitivity systems in English and Myanmar with authentic examples.

3.1. Richness of English and Myanmar Transitivity Systems

According to Wang ([120]: 96), the diversity of world experience impacts the richness of the transitivity system. People describe their experience of the world through different types of processes and their associative participant roles. In order to better understand the use of different types of processes with their associative PRs in English and Myanmar texts, this study carries out the transitivity analysis of English and Myanmar news, literary genres and the statistical analysis of the frequency of process types in them. Findings from this analysis show that the two transitivity systems of English and Myanmar are rich in process types and participant roles. Accordingly, they can construe the rich and colorful experience of the physical, social, mental and abstract world. See Examples (1) and (2).

English news report¹ (BBC News)

- a) Fierce winds from Storm Eunice [Ag] toppled [Auto-action: doing] trees [Af] and ([Ag]) sent [Auto-action: doing] debris [Af] flying [PrEx], ([Ag]) causing [Auto-action: doing] the deaths of a woman in her 30s in London, a man in his 20s in Hampshire, and a man in his 50s in Merseyside [Af].
- b) A 122mph gust on the Isle of Wight [Ag] set [Auto-action: doing] a provisional record [Af] in England, while the storm [Ag] closed [Auto-action: doing] schools [Af], ([Ag]) disrupted [Auto-action: doing] travel [Af] and ([Ag]) tore [Auto-action: doing] off [PrEx] roofs [Af].
- c) About 400,000 homes [Af] were [Auto-action: happening] without power as of Friday night.
- d) Five people [Af] died [Auto-action: happening] elsewhere in Europe.
- e) Coastal areas of south-west England and south Wales, along with south-east England, [Af] had been [Auto-action: happening] on alert after rare red weather warnings [Af] were issued [Auto-action: doing] by the Met Office [Ag] early on Friday, ([Tk]) indicating [Auto-relational: identifying] a danger to life [VI].
- f) There are [Auto-relational: existential] several less-serious yellow warnings [Ext] in place across Scotland, Northern Ireland and parts of northern England [Loc] - because of concerns about wind, snow and ice.
- g) Police in Highgate, north London [Comr], said [Auto-mental: communicative] [[they [Comee] were called [Auto-mental: communicative] to reports of a tree falling on a car at 16: 00 GMT [Comd].
- h) The woman, a passenger, [Comd] was pronounced

[Auto-mental: communicative] dead at the scene, while the driver, a man in his 30s [Af-Ca], was taken [Auto-action: doing] to hospital [Dir: Des]] [Comd].

- i) [[The man killed in Merseyside was a passenger in a car heading towards Aintree at about 14: 10 when debris reportedly hit the windscreen]] [Comd], police [Comr] said [Auto-mental: communicative].
- j) Paramedics [Ag] treated [Auto-action: doing] him [Af] at the scene, but he [Comd] was pronounced [Auto-mental: communicative] dead.
- k) The driver [Af] was not [Auto-action: happening] injured.
- l) In Alton, Hampshire, two men [Ca] were [Auto-relational: locational] in a pickup truck [Loc] when it [Af] was crushed [Auto-action: happening] by a falling tree.
- m) The passenger [Comd] was pronounced [Auto-mental: communicative] dead at the scene while the driver [Af-Ca] was taken [Auto-action: doing] to hospital [Dir: Des] with serious injuries.
- n) Police forces and local authorities across the country [Comr] reported [Auto-mental: communicative] being inundated with phone calls related to the storm, with some having to ask the public only to dial 999 if there was a risk to life [Comd].
- o) London Fire Brigade [Comr] declared [Auto-mental: communicative] a major incident in response to the volume of calls [Comd], and the Ambulance service in South Central England [Comr] declared [Auto-mental: communicative] a critical incident due to demand on its emergency services [Comd].
- p) Among those injured [Tk] were [Auto-relational: identifying] a woman with her baby, who was hit by a tree in Bedford - hurting her but leaving the baby unharmed [VI].
- q) A driver in Wiltshire [Af] was [Auto-action: happening] in a serious condition and two passengers [Af-Ca] were taken [Auto-action: doing] to hospital [Dir: Des] after a car [Ag] collided [Auto-action: doing] with [PrEx] a fallen tree [Af], while others [Af] were [Auto-action: happening] injured in south London and Henley-on-Thames by falling trees and debris.
- r) One minute Holly Price and her five-year-old daughter Olivia [Posr] were having [Auto-relational: possessive] a normal day [Posd], the next they [Af] were forced [Infl-action: doing] [[to flee [Auto-action: doing] the house after the roof [Af] caved [Auto-action: happening] in [PrEx]]].

Through the transitivity analysis of English news reports based on He's [44] new model of the transitivity system of Chinese, it can be seen that this news report involves three types of processes: action, mental and relational processes. Specifically, in the news report composed of 18 sentences and 36 clauses, action processes appear 22 times accounting for 61.1% of the total number of processes. Among them, autonomous happening action processes appear 8 times, autonomous doing action processes appear 13 times and

¹ <https://www.bbc.com/news/uk-60439651>

influential doing action processes appear once. Mental processes appear 9 times, accounting for 25% of the total number of processes, that is, autonomous communicative mental processes. Relational processes appear 5 times, accounting for 13.9 % of the total number of processes. Among them, autonomous identifying relational processes appear twice, autonomous locational relational process appears once, autonomous possessive relational process appears once and autonomous existential relational process appears once. From the statistical analysis of the frequency of process types in the English news report, it can be seen that this news report mainly involves action processes, followed by mental processes less frequently, and then relational processes most infrequently.

Myanmar Business news²

[[*bagan daytha* [Posr] *UNESCO gabhaamwayahnit sayinn winkhwint* [Posd]

[[*Bagan region UNESCO world-heritage list entrance ya=barga* [Auto-relational: possessive] *nainngantgon* [Af] get=if.COND national.integrity *myintmarrlar=pyee* [Auto-action: happening] *khayeethwarrlokengann=le* [Af] develop=and.CONJ tourism=ADDCONN *myinttetlar-nain-mye=pyitkyauunn* [Auto-action: happening]]] [Comd] develop-CAPAMOD-FUT.SENTSUF=CONJ *shaye:haunnthutaythana=hnint amyotharrpyadaik ue:zeehtarna dutiya* archaeology=and. CONJ national.museum department deputy

hnyunkarryaye:hmue:gyoke ue:theinnlwin-ga [Comr]

Director.General U.Thein.Lwin-SBJMARK

pyaw-the [Auto-mental: communicative].

tell-PST.DECL.SENTSUF

"If Bagan gets included in UNESCO's World Heritage List, it will increase our national integrity and promote tourism," said U Thein Lwin, the Deputy Director-General of the Department of Archaeology and National Museum.'

yangon myot botahtaun myotne-shi atwinlwin-myarr yonn-hnaik

Yangon town Botahtaung township-LOC minister-PLMARK office-LOC

yanayt nyanay thonnarye-twin myanmarnainngan etlannhnyun

today evening 3p.m-ABLMARK Myanmar tourism.directory

athinn-hma [Ag] *kyeehmue:kyinnpa=thi* [Auto-action: doing] *bagan*

association-SBJMARK campaign=REL Bagan

daytha-go myanmaamwayahnit-hma UNESCO gabhaamwayahnit

region-OBJMARK Myanmar.heritage-from.ABLMARK UNESCO world.heritage

sayinn hnahtauntsetkoe winyaukyaye: kyozonepwe=hnint

list 2019 inclusion welcoming.ceremony=and.CONJ *bagan daythasainyar thihmatphweyar-myarr swaye:nwaye:pwe-twin*

Bagan regional noteworthy.thing-PLMARK discussion.event-LOC

thadinnmedeyar-myarr-hnint [Af] *twaytson=zin* [Auto-action: doing]

journalist-PLMARK-COM meet=while.CONJ

shaye:haunnthutaythana=hnint amyotharrpyadaik ue:zeehtarna dutiya

archaeology=and.CONJ national.museum department deputy

hnyunkarryaye:hmue:gyoke ue:theinnlwin-ga [Comr] *htothot*

Director.General U.Thein.Lwin-SBJMARK like.that.ANA

pyawkyarr-chinnphyithe [Auto-mental: communicative].

tell-PST.POSTDECL.SENTSUF

'U Thein Lwin, the Deputy Director-General of the Department of Archaeology and National Museum made the remark during a meeting with journalists in an event, arranged by Myanmar Tourism Directory Association, on campaigning for the inclusion of Bagan on UNESCO's 2019 World Heritage List and a general discussion on noteworthy things in Bagan, held at 3 p.m. at the Minister's Building in Botahtaung Township, Yangon, yesterday evening.'

bagan-har [Ca] *myanmaamwayahnit-ganay* [Dir: So] *kabhaamwayahnit-go* [Dir: Des]

Bagan-SBJMARK Myanmar.heritage-from.ABLMARK world.heritage-DEST

tethlannthwarr-nainpye=soyin [Auto-relational: directional] *nainngan-yet*

step.up-CAPAMOD=if.COND country-GEN

yinkyaye:hmue myetnazar [Af] *myinttet-thwarrme* [Auto-action: happening].

culture façade develop-FUT.DECL.SENTSUF

'If Bagan can step up from a national heritage to a world heritage ranking, the facade of the culture of the country will develop.'

pyepa khayeethwarretthe-dway-ga [Ag-Ca] *adika bagan-go* [Dir: Des]

foreign tourist-PLMARK-SBJMARK mainly Bagan-DEST

lar-gya-de [Auto-action: doing].

come-PLMARK-PRS.DECL.SENTSUF

'Foreign tourists mainly come to Bagan.'

adika khayeethwarrlokengann [Af] *myinttet-larme* [Auto-action: happening].

mainly tourism develop-FUT.DECL.SENTSUF

'Tourism will mainly develop.'

khayeethwarrlokengann [Af] *myinttet=lardarnetahmya* [Auto-action: happening]

tourism develop=as.long.as.CONJ

daythakhanpyethue-dway [Posr] *alokeakain akhwintalann-dway* [Posd]

local.resident-PLMARK job opportunity-PLMARK

ya-larme [Auto-relational: possessive].

get-FUT.DECL.SENTSUF

² <https://www.moi.gov.mm/npe/mal/sites/default/files/newspaper-pdf/2019/05/27/mal%2027.5.19.pdf>

'As long as tourism develops, the local residents will get job opportunities.'

[[*khayeethwarrlokengann-netpatthettet* *lokengann-dway=le* [Af]

tourism-concerning.ABLMARK business-PLMARK=ADDCONN

toetet-larme^u=hu [Auto-action: happening]]] [Comd] *ue:theinnlwin-ga* [Comr]

develop-FUT="that.COMP U.Thein.Lwin-SBJMARK *pyawkyarr-the* [Auto-mental: communicative].

say-PST.DECL.SENTSUF

'U Thein Lwin said that businesses related to tourism will also develop.'

bagan daytha-go [Ca] *UNESCO gabhaamwayahnit sayinn* [Dir: Des]

Bagan region-OBJMARK UNESCO world.heritage list *win-yan* [Auto-relational: directional]

tahtauntkoeyarkoesetchauk khuhnit-gadega

include-INF 1996 year-since.ABLMARK

tinhwinn-khet=thawle [Auto-action: doing]

thathmatharr=thi achetalet-myarr

submit-PST=although.CONC regard=REL fact-PLMARK *pyaytzonhmu* [Ext] *ma-shi=thiatwet* [Auto-relational: existential]

completion NEG-have=CAUS

tinhwinnkhwint [Posd] *ma-yashi-khet=gyaunn* [Auto-relational: possessive],

permit.for.submission NEG-get-PST=CONJ

hnahtauntsetlaye: khuhnit-twin gabhaamwayahnit tinhwinn-yan

2014 year-ABLMARK world.heritage submit-INF *shaye:haunnthutaythana=hnint* *amyoetharrpyadaik*

ue:zeehtarna-ga [Ag] archaeology=and.CONJ national.museum department-SBJMARK

lokesaun-khet=gyaunn [Auto-action: doing], *hnahtauntsetshit khuhnit-twin*

carry.out-PST=CONJ 2018 year-ABLMARK *thathmatharr=thi achetalet apyaytason-phyint pyanle*

regard=REL fact complete.MOD-INS again

tinhwinn-nain-khet=gyaunn [Auto-action: doing] *shaye:haunnthutaythana=hnint*

submit-CAPAMOD-PST=CONJ archaeology=and.CONJ *amyoetharrpyadaik ue:zeehtarna-hma thi-ya-the* [Auto-mental: cognitive].

national.museum department-from.ABLMARK know-PRS-DECL.SENTSUF

'It is known from the Department of Archaeology and National Museum that authorities have been applying for Bagan's inclusion on the World Heritage List since 1996 but have been dismissed for not meeting certain standards or requirements; and they could apply again in 2018 with all the requirements having been met.'

Through the transitivity analysis of the Myanmar news report based on He's [44] new model of the transitivity system of Chinese, it can be seen that three types of processes are involved: action, mental and relational. Specifically, in the news report composed of 8 sentences and 21 clauses, action processes appear 11 times accounting for 52.38% of the total number of processes. Among them, autonomous happening action processes appear 6 times and autonomous doing action processes appear 5 times. Mental processes appear 4 times, accounting for 19.05% of the total number of processes. Among them, autonomous cognitive mental processes appear once and autonomous communicative mental processes appear 3 times. Relational processes appear 6 times, accounting for 28.57 % of the total number of processes. Among them, autonomous directional relational processes appear twice, autonomous possessive relational processes appear 3 times and autonomous existential relational processes appear once. From the statistical analysis of the frequency of process types in the Myanmar news report, it can be seen that the news discourse mainly involves action processes, but involves a small number of mental processes and relational processes. Table 1 summarizes the number of processes involved in English and Myanmar news reports mentioned above and shows the richness of the two transitivity systems.

Through the transitivity analysis of the Myanmar news report based on He's [44] new model of the transitivity system of Chinese, it can be seen that three types of processes are involved: action, mental and relational. Specifically, in the news report composed of 8 sentences and 21 clauses, action processes appear 11 times accounting for 52.38% of the total number of processes. Among them, autonomous happening action processes appear 6 times and autonomous doing action processes appear 5 times. Mental processes appear 4 times, accounting for 19.05% of the total number of processes. Among them, autonomous cognitive mental processes appear once and autonomous communicative mental processes appear 3 times. Relational processes appear 6 times, accounting for 28.57 % of the total number of processes. Among them, autonomous directional relational processes appear twice, autonomous possessive relational processes appear 3 times and autonomous existential relational processes appear once. From the statistical analysis of the frequency of process types in the Myanmar news report, it can be seen that the news discourse mainly involves action processes, but involves a small number of mental processes and relational processes. Table 1 summarizes the number of processes involved in English and Myanmar news reports mentioned above and shows the richness of the two transitivity systems.

Table 1. The frequency of transitivity processes in English and Myanmar news discourses.

No.	Superordinate level process	Basic level process	English news	Myanmar news
			The number of process	The number of process
1.	Auto- action process	Auto- happening process	8	6
2.		Auto- doing process	13	5
3.		Auto- creating process		
4.		Auto- behaving process		
5.		Auto- emotive process		
6.		Auto- desiderative process		
7.	Auto- mental process	Auto- perceptive process		
8.		Auto- cognitive process		1
9.		Auto- communicative process	9	3
10.	Auto- process	Auto- attributive process		
11.		Auto- identifying process	2	
12.		Auto- locational process	1	
13.		Auto- directional process		2
14.	Auto- relational process	Auto- possessive process	1	3
15.		Auto- correlational process		
16.		Auto- existential process	1	1

No.	Superordinate level process	Basic level process	English news	Myanmar news
			The number of process	The number of process
17.	Infl-action process	Infl- happening process	1	
18.		Infl- doing process		
19.		Infl- creating process		
20.		Infl- behaving process		
21.		Infl- emotive process		
22.	Infl-mental process	Infl- desiderative process		
23.		Infl- perceptive process		
24.		Infl- cognitive process		
25.		Infl- communicative process		
26.		Infl- attributive process		
27.	Infl-relational process	Infl- identifying process		
28.		Infl- locational process		
29.		Infl- directional process		
30.		Infl- possessive process		
31.		Infl- correlational process		
32.		Infl- existential process		
Total			36 (100%)	21 (100%)

3.2. Hierarchicalness of English and Myanmar Transitivity Systems

Based on the basic level category theory, different process types in English and Myanmar transitivity systems, representing different domains of experience in the world, are hierarchically categorized into three levels: superordinate, basic and subordinate. As He [44] asserts, our experience of the world is differentiated into three domains: the physical and social world, the mental world, and the abstract world, by virtue of humans' basic experiential abilities. This includes the ability to experience the world of physical realities and social activities, the ability to experience the world of mental activities and the ability to experience the world of abstract relations.

The three categories form the superordinate level of the hierarchical structure of our experience. These three domains of our experience of the world are represented respectively by action, mental and relational processes, and simultaneously they are distinguished into two modes: autonomous and influential at this general level. Therefore, when performing a transitivity process analysis in English and Myanmar, we can first choose one of the three superordinate level process types, that is, action processes (autonomous vs. influential), mental processes (autonomous vs. influential) and relational processes (autonomous vs. influential) based on the relationship between participants and their participation in the text such as what they think, what they do, etc.

The basic level transitivity process analysis is more delicate than the superordinate one. Each superordinate level process type is further divided into subcategories in such a way that action process is organized into happening, doing, creating and behaving; mental process into emotion, desideration,

perception, cognition and communication; and relational process into attribution, identification, location, direction, possession, correlation and existence, based on the semantic features of the process and its associative participant roles (PRs). Thus, there are 16 subtypes of processes at the basic level. These basic level subcategories are the most salient at the hierarchy of categorization of process. Each of the basic level process types is represented by a few distinctive configurations which result from the number of PRs, the sequence of PRs, the more delicate differentiation of PRs or various expressions of Process, and require much more knowledge to be distinguished. These specific representations are subordinate to the basic level categories.

The superordinate and basic level process types can simultaneously be labeled as “Auto-action: doing”, “Auto-action: happening”, “Auto-mental: emotive”, “Auto-mental: cognitive”, “Auto-relational: attributive”, “Auto-relational: identifying”, “Auto-relational: possessive”, etc. The hierarchical categorization of process in English and Myanmar transitivity systems can be studied in Examples (3) and (4) below.

(3) Kino [Perc] heard [Auto-mental: perceptive] the creak of the rope [Ph] when Juana [Ag] took [Auto-action: doing] Coyotito [Af-Ca] out of his hanging box [Dir: So].

When analyzing the English sentence in Example (3) mentioned above, the processes can be marked as “Auto-mental: perceptive” and “Auto-action: doing”, indicating that the two clauses are perceptive and doing processes at the basic level, while at the superordinate level, they are mental and action processes, autonomous in mode. Autonomous perceptive mental processes are represented by the configuration of Perceiver + Process + Phenomenon, while autonomous doing action processes by the configuration of Agent + Process + Affected-Carrier + Direction: Source at subordinate level.

Table 2. Transitivity analysis of an action clause in Myanmar.

4)	<i>keno-the</i> [Behr] Kino-SBJMARK	<i>hlainni-galaye:-myarr-i</i> wave-DIM-PLMARK-GEN	<i>getathan-go</i> [Ra] music-OBJMARK	<i>narrhtaun-yan</i> [Auto-action: behaving] listen-INF
	([Ag])	<i>thue-i-myetlonm-myarr-go</i> [Af]	<i>atharayar</i>	<i>pyan-hmeik-htarrlaik-i</i> [Auto-action: doing].
		3SG-GEN-eye-PLMARK-OBJMARK	<i>gently</i>	<i>again-close-PFV-DECL.SENTSUF</i>

‘Kino gently closed his eyes again to listen to the music of waves.’
(Htin Lin 1999: 13)

When analyzing the Myanmar sentence in Example (4) mentioned above, the processes can be marked as “Auto-action: behaving” and “Auto-action: doing”, indicating that the two clauses are behaving and doing processes at the basic level, and both of them are autonomous action processes at the superordinate level (see Table 2). Autonomous behaving action processes are represented by the configuration of Behavior + Range + Process, while autonomous doing action processes by the configuration of (Agent) + Affected + Process at subordinate level.

Overall, English and Myanmar transitivity systems share the hierarchical nature of categorization of process. In terms of hierarchicalness, all the different processes of the two languages of English and Myanmar can be categorized into superordinate level type, basic level type and subordinate level type along the delicate dimension.

3.3. Flexibleness of English and Myanmar Transitivity Systems

Wang ([120]: vi) claims that flexibleness refers to the fuzziness of process types. A domain of world experience can be construed by an impressively rich range of alternative process types based on context, background knowledge, life experience, etc. English and Myanmar transitivity systems share the common feature of flexibleness. For instance, the typical process type of English for the construal of the mental world experience, such as “pain” is “Auto-mental: perceptive”. A typical expression is shown in Example (5).

(5) English example (Halliday and Matthiessen [41]: 173)

I [Perc] feel [Auto-mental: perceptive] a pain [Ph] in my head.

Moreover, this experience can also be construed as “Auto-relational: attributive + At” as in Example (6a), “Auto-relational: attributive” as in Example (6b), “Auto-relational: possessive” as in Example (6c), “Auto-action: happening” as in Example (6d) and “Auto-action: doing” as in Example (6e) in English.

(6) English example (Halliday and Matthiessen 2004: 173)

a) My head [Ca] hurts [Auto-relational: attributive + At].

b) My head [Ca] is [Auto-relational: attributive] painful [At].

c) I [Posr] have [Auto-relational: possessive] a headache [Posd].

d) My head [Af] is hurting [Auto-action: happening].

e) My head [Ag] hurts [Auto-action: doing] me [Af].

The phenomenon where the process type may change from one type to another to construe a domain of experience pertaining to the world exists not only in English but also in Myanmar. The typical process type of Myanmar for the construal of experience pertaining to the mental world, such as “sadness” is “Auto-mental: emotive”. A typical expression is shown in Example (7) (see Table 3).

(7) Myanmar example (SEALang Library Burmese Corpus)

Table 3. Transitivity analysis of a mental clause in Myanmar.

<i>thue</i> [Em]	<i>seikmakaunnphyit-nay-de</i> [Auto-mental: emotive].
3SG.NOM	sad-PRS-DECL.SENTSUF
‘He is sad.’	

Moreover, this experience can also be construed as “Auto-relational: possessive” (8a), “Auto-relational: attributive” (8b), “Auto-action: behaving” (8c) and “Auto-relational: locational” (8d) in Myanmar (see Table 4).

(8) Myanmar example (SEALang Library Burmese Corpus)

Table 4. Transitivity analyses of relational clauses in Myanmar.

a	<i>thu-hmar</i> [Posr] 3SG-SBJMARK ‘He has something sad.’	<i>seikmakaunn-zayar-ta-khu-khu</i> [Posd] sad-NMLZ-one-CLF-REDUP	<i>shi-nay-de</i> [Auto-relational: possessive]. have-PRS-DECL.SENTSUF
b	<i>thu-myetnar-amueayar</i> [Ca] 3SG.GEN-face-expression ‘His facial expression is obviously abnormal.’	<i>thithitharthar</i> obviously	<i>pyet-nay-de</i> [Auto-relational: attributive]. abnormal-PRS-DECL.SENTSUF
c	<i>thue</i> [Ag] 3SG.NOM ‘He is moping.’	<i>hmain-nay-de</i> [Auto-action: behaving]. mope-PROG-DECL.SENTSUF	
d	<i>seikmakaunn-zayar-ta-khu-khu</i> [Ca] sad-NMLZ-one-CLF-REDUP ‘Something sad appears on his face.’	<i>thu-myetnar-hmar</i> [Loc] 3SG.GEN-face-LOC	<i>por-nay-de</i> [Auto-relational: locational] appear-PRS-DECL.SENTSUF

Similarly, in English, the experience of the abstract world such as “luckiness” can be construed by different process types such as “Auto-relational: attributive” as in Example (9a), “Auto-relational: possessive” as in Example (9b), “Auto-relational: directional” as in Example (9c), “Auto-relational: locational” as in Example (9d) and so on. In Myanmar, this experience can be construed by different process types such as

“Auto-relational: attributive + At” as in Example (10a), “Auto-action: doing” as in Example (10b), “Auto-relational: attributive” as in Example (10c), “Auto-action: happening” as in Example (10d) and so on (see Table 5).

(9) English example (Longman Dictionary of Contemporary English)

a) He [Ca] is [Auto-relational: attributive] lucky [At].

- b) He [Posr] is having [Auto-relational: possessive] much luck [Posd] today.
- c) Great good luck [Ca] touches [Auto-relational: directional] him [Dir: Des].
- d) He [Ca] is [Auto-relational: locational] in luck [Loc].
- (10) Myanmar example (SEAlang Library Burmese Corpus)

Table 5. Transitivity analyses of different process types in Myanmar.

a	<i>thue</i> [Ca] 3SG.NOM 'He is lucky.'	<i>kankaunn-nay-de</i> [Auto-relational: attributive + At]. lucky-PRS-DECL.SENTSUF	
b	<i>kankyamar-ga</i> [Ag] fate-SBJMARK 'Fate is favouring him.'	<i>thu-go</i> [Af] 3SG-OBJMARK	<i>myetnatharpaye:-nay-de</i> [Auto-action: doing]. favour-PROG-DECL.SENTSUF
c	<i>thu-kanzartar</i> [Ca] 3SG.GEN-fortune 'His fortune is good.'	<i>kaunn-nay-de</i> [Auto-relational: attributive]. good-PRS-DECL.SENTSUF	
d	<i>kan</i> [Ag] luck 'Luck is coming.'	<i>laik-nay-de</i> [Auto-action: happening]. come-PROG-DECL.SENTSUF	

From the above analysis, it can be seen that the same domain of experience is given a multifaceted interpretation of process types by English and Myanmar grammar of transitivity. Each experience can be construed through different types of processes in English and Myanmar.

The identification of processes is highly dependent on context, pragmatics, background knowledge and life experience without which interpretations of process types can become erratic. English and Myanmar clauses belong to different types of processes representing different domains of experiences. There is a process and participant combination in English and Myanmar. In Example (11), the process "came" in English clause expresses the coexistence of action and state of relationship but it is more inclined to express the action in terms

of the context. It construes the experience of doing things and the experience of direction at the same time. Therefore, this process is determined to be a compound process where the autonomous doing action process is conflated with the autonomous directional relational process.

(11) English example

Kino and Juana [Ag-Ca] came [Auto-action: doing/Auto-relational: directional] slowly down to the beach [Dir: Des].

The same phenomenon exists in Myanmar. In Example (12), the process */hletle-kyishu/* "go around-observe" construes the experience of action and the experience of perception at the same time (see Table 6). However, according to the contextual information, it mainly expresses the experience of perception.

(12) Myanmar example¹ (Myanma Alinn Daily)

Table 6. Transitivity analysis of a compound process in Myanmar.

<i>yinnnauk</i>	<i>pyedaunzuwingyee-myarr=hnint</i>	<i>tarwinshithue-myarr-the</i>	<i>pyakhann-myarr-go</i> [Ph]	<i>hletle-kyishu-gya-the</i> [Auto-action: doing/Auto-mental: perceptive].
then	Union.Minister-PLMARK=and.CONJ	responsible.authority-PLMARK-SBJMARK	display.booth- PLMARK-OBJMARK	go.around-observe- PLMARK-DECL.SENTSUF
'The Union Ministers and attendees then observed the display booths at the forum.'				

From the above analysis, it can be seen that when judging the process type, one has to take into account not only the experience represented in the clause but also the specific meaning expressed in a specific context. English and Myanmar transitivity systems have versatility. Many types of transitivity processes can be used to characterize one basically similar world experience. One type of transitivity process can play double or even multiple roles, expressing two or even up to a variety of empirical meanings. This reflects the flexibleness of English and Myanmar process identification to construe the same domain of world experience.

3.4. Metaphoricalness of English and Myanmar Transitivity Systems

The metaphorical nature of language stems from people's metaphorical thinking when they recognize the world. When

the metaphorical nature of thinking is projected onto the language system, language expression will be presented as metaphorical characteristics because language is the carrier of thinking (see Figure 1).

As something must be metaphorical by reference to something else, the metaphorical meaning of a word corresponds to a less metaphorical variant that is said to be 'congruent' (Halliday [38]: 343). Halliday ([38]: 343) states that for any given semantic configuration there will be some realization in the lexicogrammar – some wording that can be considered congruent; there may also be various metaphorical forms in some respect. The congruent form is frequently used as a norm. It may be represented by a set of metaphorical variants which are synonymous. In a natural process of linguistic change, a metaphorical representation has become the norm. Metaphorical modes of expression are found in

different genres of all adult discourse but there are no grammatical metaphors involved in young children's speech, and in traditional children's rhymes and songs. There are two main types of grammatical metaphor in the clause: i. e. metaphors of mood (including modality) and metaphors of transitivity. Semantically, they are labeled as interpersonal metaphors and ideational metaphors respectively. Interpersonal metaphors are mainly expressed in tone. Conceptual metaphors are mainly expressed as metaphors of transitivity.

Metaphoricalness is defined by Wang [120] as the popularity of incongruent or metaphorical models of expression. Halliday ([38]: 344) states that when people express their experience of the world, they may choose to say things differently instead of using the typical pattern that is called "congruent form". When rewording the congruent form into metaphorical mode of expression, the process itself, the participant roles and the circumstantial elements may change accordingly. For instance, instead of saying *Mary saw something wonderful*, English speakers may

choose to say *Mary came upon a wonderful sight*, where the process has been represented as an action process *came upon* and a mental process of perception in the congruent form has been turned into a participant *a sight* in its metaphorical variant. Another metaphorical variant of *Mary saw something wonderful* that may be chosen by English speakers is *a wonderful sight met Mary's eyes*, where a mental process of perception in the congruent form splits up into Agent *a sight*, action process *meet* and Affected *eyes*; and Mary represented simply as the possessor of the eyes. These metaphorical variants are all plausible representations of a non-linguistic state of affairs. In these metaphorical variants, process is construed as if it were an entity by virtue of nominalization – the use of a nominal form which is derived from a verbal form to express a process's meaning. Examples (13a) and (13b) demonstrate the transitivity analyses of congruent and metaphorical forms of English and their modes of realization (see Table 7).

(13) English example (Thompson [115]: 225)

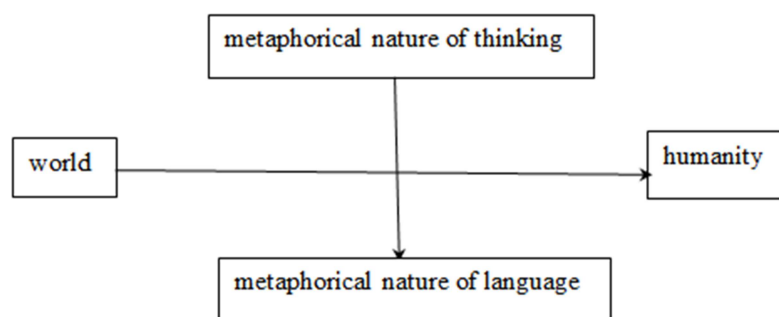


Figure 1. Mechanism of Linguistic Implication (Wang [120]: 123).

Table 7. Transitivity analyses of congruent mode and metaphorical mode in English.

	Congruent mode					
a)	People	have proposed	that	people	should adopt	critical perspectives on the teaching of literature.
Function	Comr	Auto-mental: communicative		Ag	Auto-action: doing	Af
Class	Clause: mental			Clause: projected		
	Nominal group	Verbal group		Nominal group	Verbal group	Nominal group
	Metaphorical mode					
b)	Proposals	have been made	for the adoption of critical perspectives on the teaching of literature.			
Function	Cre	Auto-action: creating	Cir			
Class	Clause: action					
	Nominal group	Verbal group	Prepositional phrase			

In Example (13b), there is a verbal nominalization (propose > proposal). This verbal nominalization is interpreted as a metaphorical variant of a 'communicative mental' clause (13a), corresponding to the Process of the clause. The process of proposing has been realized metaphorically as an entity serving as Created in a 'creating action' clause. In congruent mode of realization, a projection sequence of figures in the semantics is realized congruently by a projection clause nexus in the grammar, and the two figures forming the sequence are realized by clauses. But in metaphorical mode, a projection sequence has been realized not by a clause nexus but by a simple clause, and the projected figure has been realized not by a clause but by a

prepositional phrase (for the adoption of ...) serving as a circumstantial element.

As another example, the congruent form *they arrived at the summit on the fifth day* is metaphorically reworded into the expression such as *the fifth day saw them at the summit*. In this metaphorical mode of expression, the time 'the fifth day' has been dressed up to look as if it was a participant, a spectator 'seeing' the climbers when they arrived at the summit (Halliday [38]: 344). The two versions of congruent and metaphorical wordings are analyzed in Examples (14a) and (14b) (see Table 8).

(14) English example (Halliday [38]: 344)

Table 8. Transitivity analyses of congruent mode and metaphorical mode in English.

a)	Congruent mode			
Function	They	arrived	at the summit	on the fifth day.
Class	Ag	Auto-action: doing	Cir: Place	Cir: Time
	Nominal group	Verbal group	Prepositional phrase	Prepositional phrase
b)	Metaphorical mode			
Function	The fifth day	saw	them	at the summit.
Class	Perc	Auto-mental: perceptive	Ph	Cir: Place
	Nominal group	Verbal group	Nominal group	Prepositional phrase

Like English, metaphoric variation is also inherent in Myanmar. The incongruent or metaphorical model of expression through the use of nominalization to express a process's meaning can be found in Myanmar. For instance, instead of saying *Yangon and Bago are distant for 55 miles*, Myanmar speakers may choose to say *the distance between Yangon and Bago is 55 miles*, where the process has been

represented as a relational process of identification and a relational process of attribution in the congruent form has been turned into a participant *the distance* in its metaphorical variant. The two versions are analyzed in Examples (15a) and (15b) (see Table 9).

(15) Myanmar example (SEAlang Library Burmese Corpus)

Table 9. Transitivity analyses of congruent mode and metaphorical mode in Myanmar.

a)	Congruent mode				
	<i>yangon-myot=hnint</i>	<i>bagoe-myot-dot-the</i>	<i>ngarrzetngarr-main</i>	<i>kwarwaye:-the.</i>	
	Yangon-town=and. CONJ	Bago-town- PLMARK- SBJMARK	55-mile	distant-PRS. DECL. SENTSUF	
Function Class	Ca		At	Auto-relational: attributive	
	Nominal group		Nominal group	Verbal group	
	‘It is 55 miles from Yangon to Bago.’				
b)	Metaphorical mode				
	<i>yangon-myot=hnint</i>	<i>bagoe-myot-dot-i</i>	<i>akwarawaye:-hmar</i>	<i>ngarrzetngarr-main</i>	<i>phyit=the.</i>
	Yangon-town=and. CONJ	Bago-town- PLMARK-GEN	distance-SBJMARK	55-mile	COP-PRS. DECL. SENTSUF
Function Class	Tk			Vl	Auto-relational: identifying
	Nominal group			Nominal group	Verbal group
	‘The distance between Yangon and Bago is 55 miles.’				

In Example (15b), the nominal group 'the distance between Yangon and Bago' can be interpreted as a metaphorical variant of an 'attributive relational' clause (15a). This nominal group has a verbal nominalization 'distance' since the process of being distant has been realized metaphorically as an entity serving as the Thing in a nominal group. The metaphorical entity 'the distance between Yangon and Bago' serves as Token in an 'identifying relational' clause. When the congruent form is reworded into metaphorical form, the process itself and the participant roles involved in it have changed accordingly. In the metaphorical mode of expression, the relational process of attribution splits up into Token *the*

distance, identifying Process *copula verb* and Value *55 miles*.

As another example, the congruent form /myot-htetwin pale-gyee-akyaunn-go pyawpya-the/ 'In the town they tell the story of the great pearl' is metaphorically reworded into the expression such as /myotthuemyottharr-myarr pyaw-nay-gya-the-hmar pale-gyee-akyaunn-bin phyit-the/ 'What the local residents are talking about is the story of the great pearl'. In this metaphorical variant, the place 'the town' has been dressed up to look as if it was a participant, a sayer 'talking' about the story of the great pearl. The two versions are analyzed in Examples (16a) and (16b) (see Table 10).

(16) Myanmar example (Htin Lin [53]: 11)

Table 10. Transitivity analyses of congruent mode and metaphorical mode in Myanmar.

a)	Congruent mode			
	<i>myot-htetwin</i>	<i>pale-gyee-akyaunn-go</i>	<i>pyawpya-the.</i>	
Function	town-in. LOC	pearl-AUG-story-OBJMARK	tell-PRS. DECL. SENTSUF	
Class	Cir: Place	Comd	Auto-mental: communicative	
	Prepositional phrase	Nominal group	Verbal group	
	'In the town they tell the story of the great pearl.'			
b)	Metaphorical mode			
	<i>myotthuemyottharr-myarr</i>	<i>pyaw-nay-gya-the-hmar</i>	<i>pale-gyee-akyaunn-bin</i>	<i>phyit-the.</i>
	local. resident-PLMARK	talk-PROG-PLMARK-DECL. SENTSUF-SBJMARK	pearl-AUG-story-EMPMARK	COP-PRS. DECL. SENTSUF
Function	Vl		Tk	Auto-relational: identifying
Class	Nominalization		Nominal group	Verbal group
	'What the local residents are talking about is the story of the great pearl.'			

3.5. Abstractness of English and Myanmar Transitivity Systems

Halliday and Matthiessen ([41]: 24) assert that a language is a complicated semiotic system consisting of the sound system (phonology), the writing system (orthography or graphology) and the wording system (lexicogrammar); it is also a stratified system composed of two strata: a stratum of content and a stratum of expression. The former stratum is extended into two: the stratum of semantics and the stratum of lexicogrammar, while the latter one is further defined into phonetics and phonology. The relationship among the strata is

called realization (Halliday and Matthiessen [41]: 25-26). Fawcett [20]: 36) mentions two pairs of concepts: “meaning” and “form”, and “potential” and “instance” for modeling any semiotic system. According to Fawcett [20]: 34), the set of meanings and the set of forms are related in terms of realization that the meanings of a language are realized by linguistic forms. Wang [120] states that the level of meaning (transitivity system) has a higher degree of abstractness than the level of form (lexicogrammatical system). With reference to Wang [120], the semantic and syntactic analyses of English and Myanmar clauses are illustrated in Figures 2 and 3.

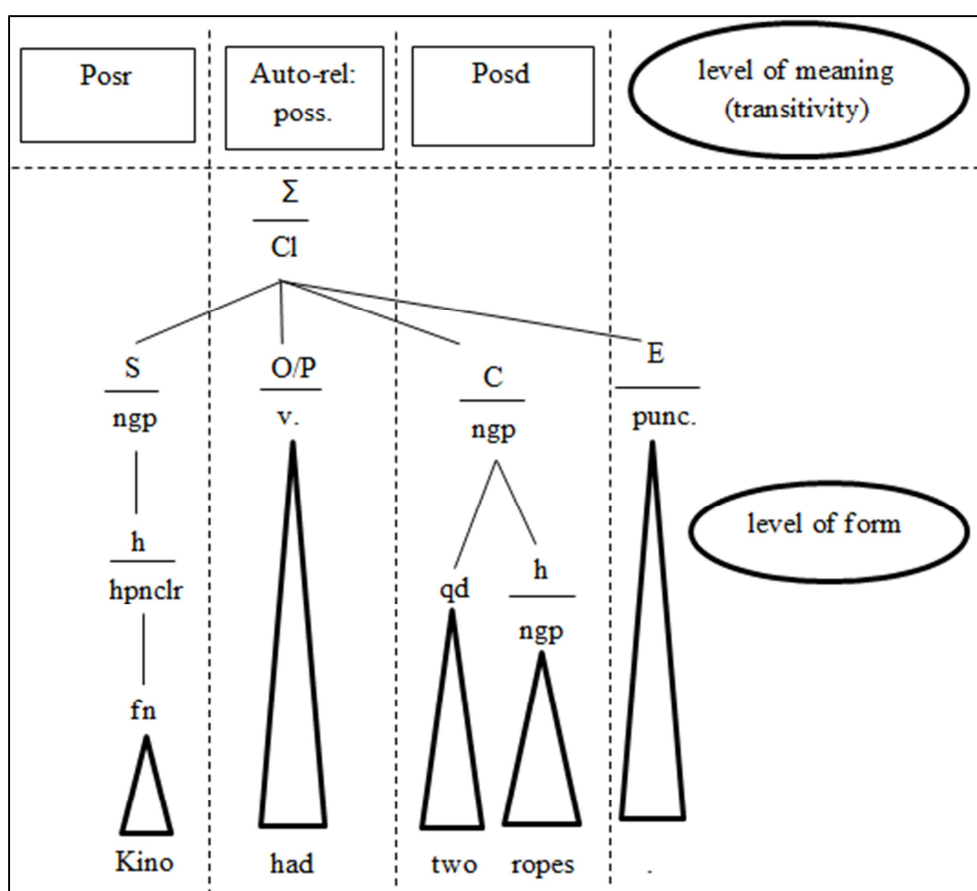


Figure 2. Semantic and syntactic functional analysis of English.

As shown by Figure 2, in terms of the transitivity analysis, the English clause “Kino had two ropes” mainly involves two participants: Possessor and Possessed, and one process (Autonomous-relational: possessive). Syntactically, the clause is composed of Subject + Predicator + Complement. The Subject and Complement slots are filled by nominal groups such as “Kino” and “two ropes”. The nominal group “two ropes” is further divided into the quantifying determiner

“two” and the head noun “ropes”. The Predicator conflated with the Operator is filled by a main verb “had”. From this analysis, it can be seen that because of the high degree of abstraction, the analysis of the semantic layer is clearer and simpler compared to the complex analysis of the layer of form as in Example (18) below (see Table 11).

(18) Myanmar Example (Lae Twin Thar Saw Chit [66]: 130).

Table 11. Transitivity analysis of a Myanmar clause.

laybwaylayyue:-taik-yarthot whirlwind-blow-ALL Dir: Des 'Yellow leaves are moving in the whirlwind.'	ywet-war-laye:-myarr-ga leave-yellow-DIM-PLMARK-SBJMARK Ca	kywaylwint-nay-gya-the. move-PROG-PLMARK-DECL. SENTSUF Auto-rel: dir
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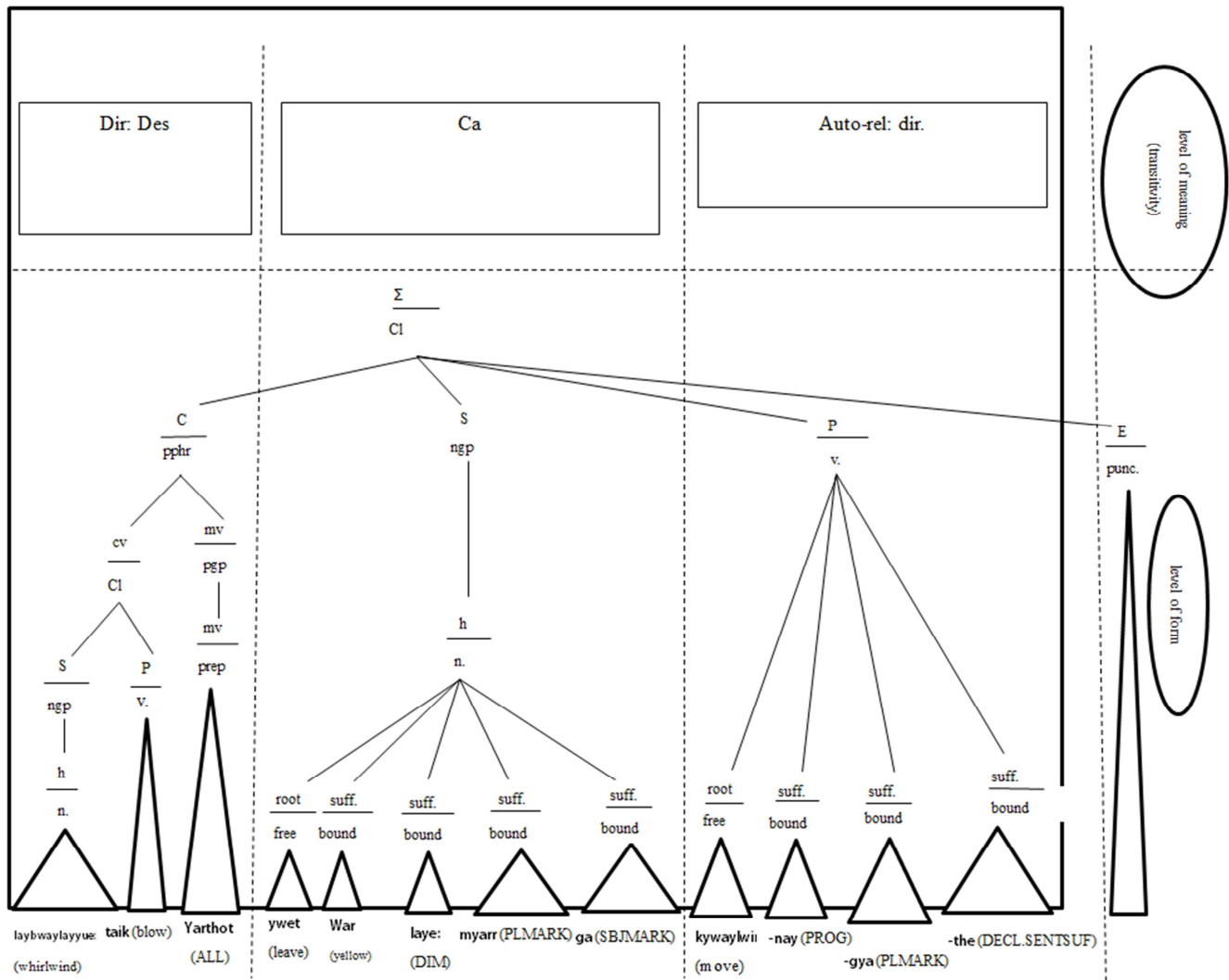


Figure 3. Semantic and syntactic functional analysis of Myanmar.

As shown in Figure 3, in terms of the transitivity analysis, the Myanmar clause mainly includes two participants: Carrier and Direction, and one process (Auto-relational: directional). Syntactically, the clause consists of Complement /laybwaylayyue:-taik-yarhot/ “in the direction of whirlwind”), Subject /ywet-war-laye:-myarr-ga/ “yellow leaves”) and the Predicate /kywaylwint-nay-gya-the/ “move-PROG-PLMARK-DECL. SENTSUF”). The relationships between these syntactic categories are componentence, filling, exponence and conflation. According to He et al. [45], “componentence is the part-whole relationship between a unit and the elements of which it is composed”. Thus, the componentence of the Myanmar clause in Figure 3 is Complement + Subject + Predicate. According to He et al. [45], “filling is the relationship between an element and the unit that operates at it by means of coordination and embedding”. In the given Myanmar example clause, the Subject is filled by a nominal group /ywet-war-laye:-myarr-

ga/ “yellow leaves”. This nominal group is further divided into root /ywet/ “leave” (free morpheme) and suffixes, such as /war/ “yellow”, /laye:/ “DIM”, /myarr/ “PLMARK” and /ga/ “SBJMARK” (bound morphemes). The Complement is filled by a prepositional phrase /laybwaylayyue:-taik-yarhot/ “in the direction of whirlwind”. This prepositional phrase is further divided into completive and minor verb (see Figure 3 for detailed grammatical analysis). The Predicate is filled by a verbal group /kywaylwint-nay-gya-the/ “move-PROG-PLMARK-DECL. SENTSUF”. From the above analysis, it can be seen that both English and Myanmar transitivity systems have the characteristics of simplicity and abstraction. Compared to the complex syntactic functional analysis from a micro perspective, the transitivity analysis of English and Myanmar clauses is greatly simplified, thereby helping to grasp the semantic configurations of the two languages from a macro perspective, and understanding the meaning of clauses.

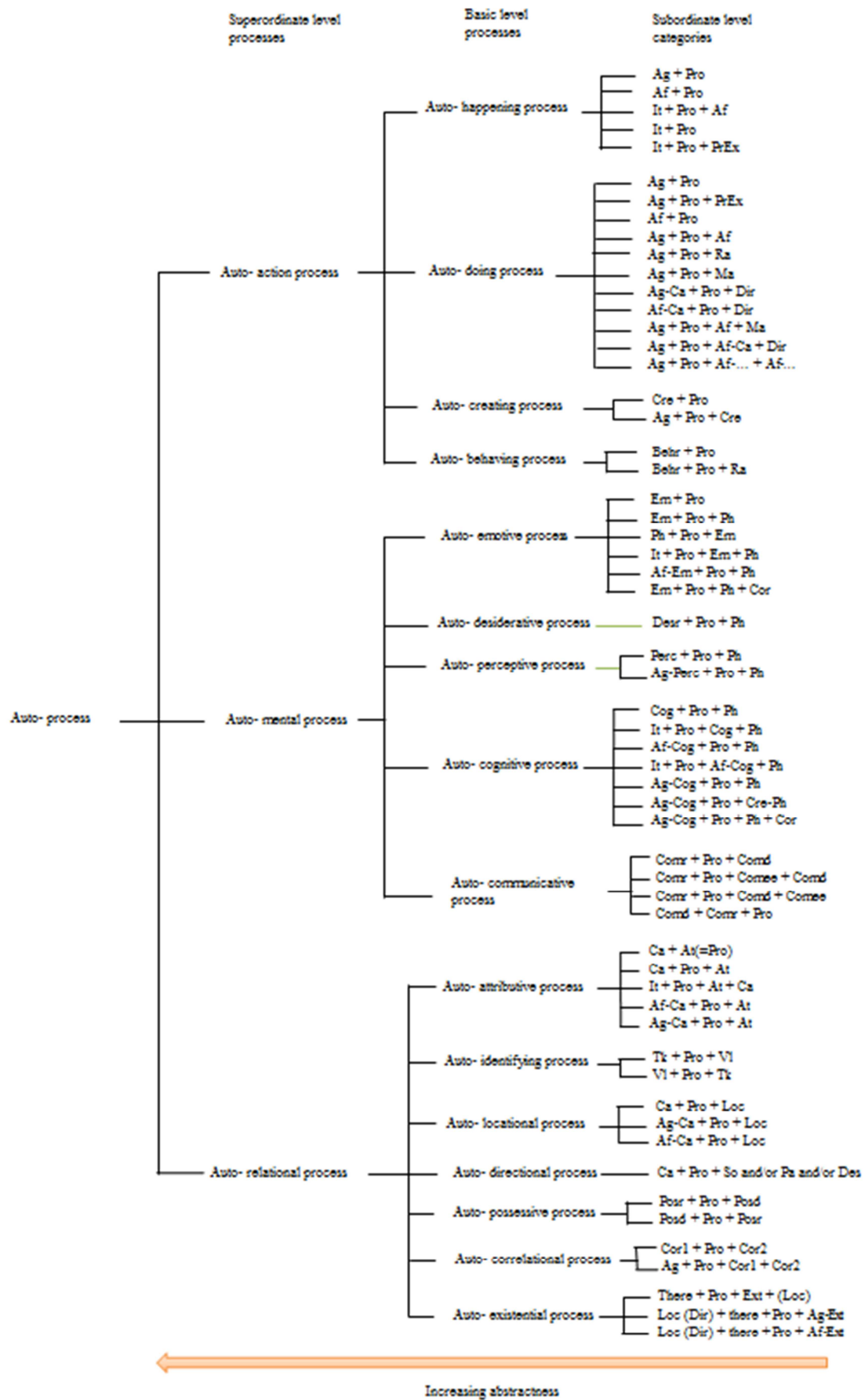


Figure 4. English transitivity system (quoted after He [44]).

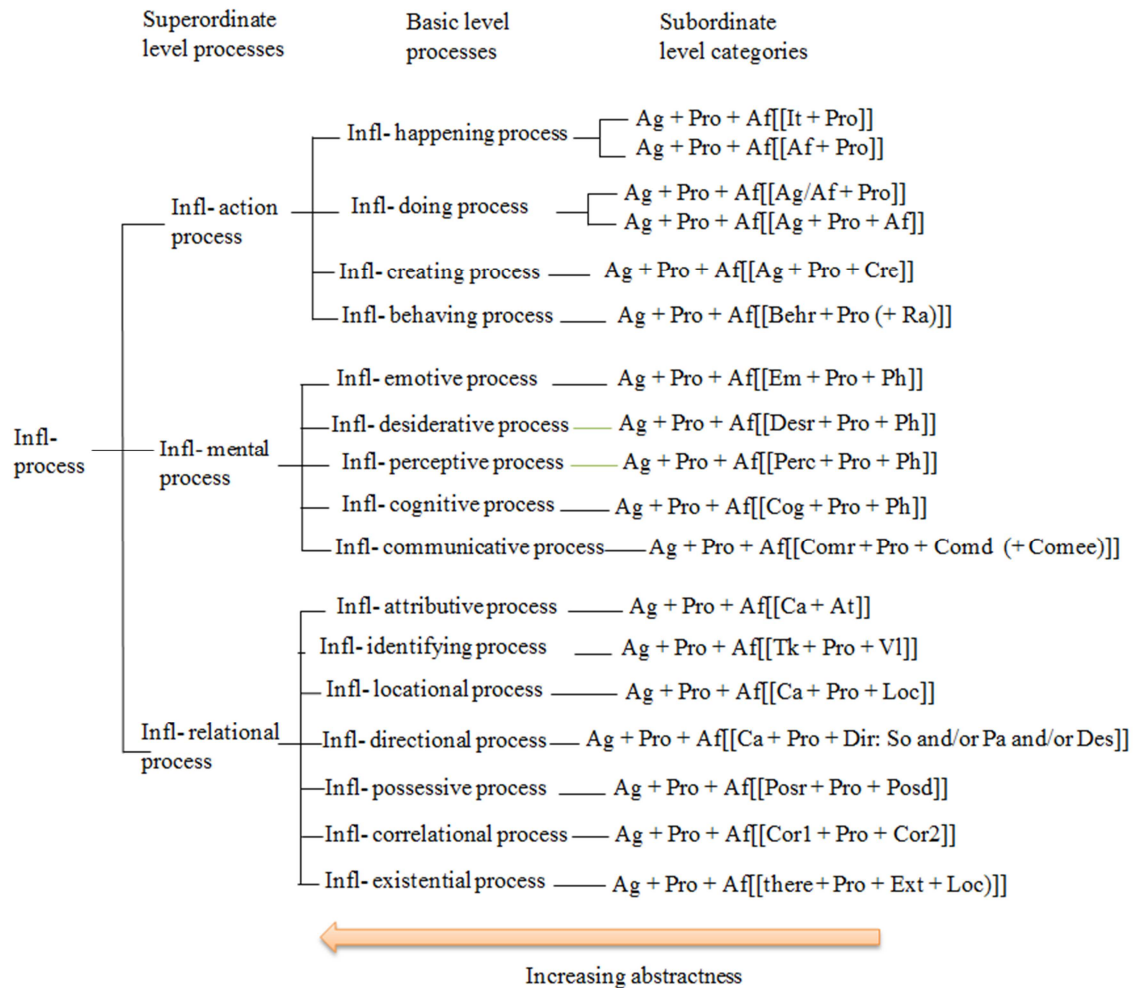


Figure 4. Continued.

This study then proceeds to explain the relationship between abstractness and concreteness among the processes of different levels in English and Myanmar transitivity systems. Language is a complex symbolic system with hierarchical nature, and different levels are not unique. Based on the hierarchical categorization of transitivity processes, people can choose superordinate, basic or subordinate level processes in carrying out the transitivity analysis of texts. The superordinate level transitivity process analysis is clear and simple because of the high degree of abstraction. Compared to the basic level, the superordinate level process is more abstract, and the number is even smaller. From a macro perspective, there are three types of superordinate level processes: action, mental and relational in English and Myanmar transitivity systems. These three main processes construe our experience of the physical, social, mental and abstract world at the superordinate level. At the same time, these three superordinate level process types are distinguished into two modes – autonomous and influential. Autonomous processes construe our experience of the world being just there, not brought about by other objects or events. Influential processes construe our experience of the world that is influenced by other objects or events.

Compared to superordinate level processes, basic level

processes are more concrete and quantitative. There are 16 basic level process types in English and Myanmar transitivity systems. Autonomous vs. influential action process is sorted into four subcategories: doing, happening, creating and behaving; autonomous vs. influential mental process is distinguished into five subcategories: emotive, desiderative, perceptive, cognitive and communicative processes; and autonomous vs. influential relational process is differentiated into seven subcategories: attributive, identifying, locational, directional, possessive, correlational and existential processes. Basic level processes are the most salient at the hierarchy of categorization of process.

Compared to basic level categories, subordinate ones are more concrete and the quantity is larger. They are semantic configurations of PRs that represent each basic level process type. An abstract domain of experience of the world is represented through certain concrete configurations of PRs (see Figures 4 and 5 for details). There can be a distinction between abstractness and concreteness, the root of which lies in the generalization, logic, and interconnectedness of human thinking and the complexity of the structure of the human brain, thereby enabling people to carry out both abstract and concrete thinking at the hierarchical categorization of process in English and Myanmar transitivity systems.

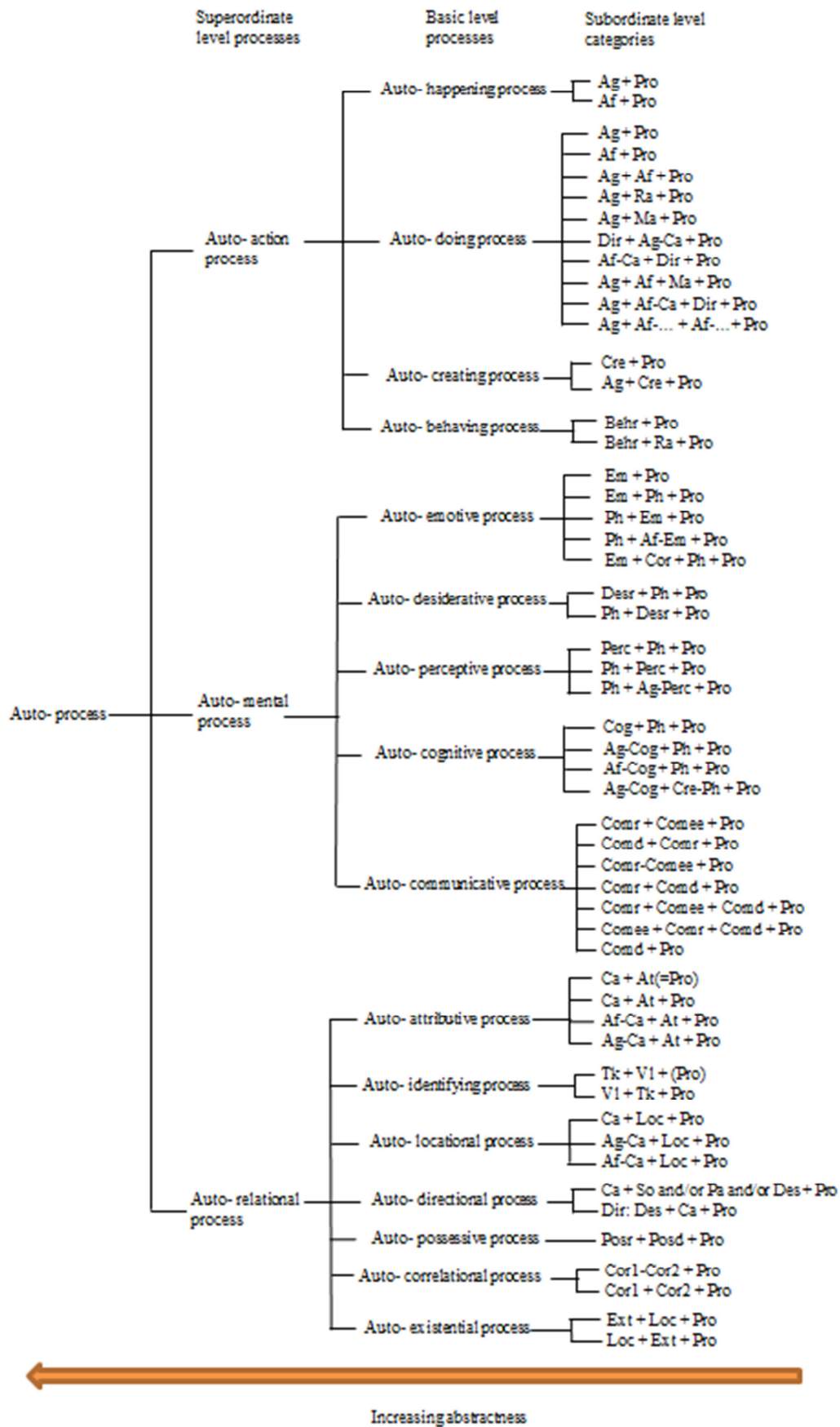


Figure 5. Myanmar transitivity system (quoted after He [44]).

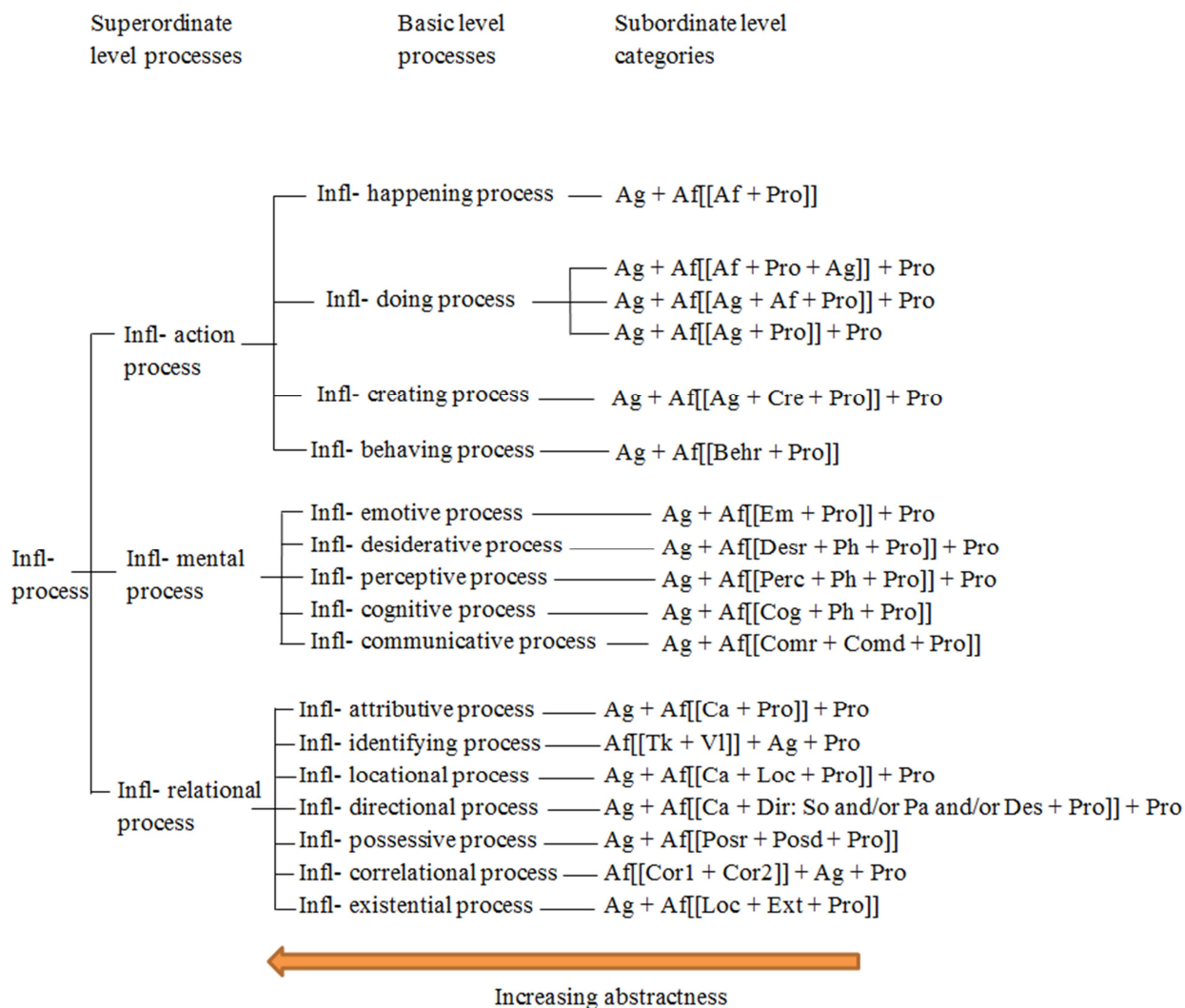


Figure 5. Continued.

As shown in Figures 4 and 5, the left hand side represents a higher degree of abstraction, and thus system features on the leftmost have the highest degree of abstraction in the transitivity system networks of English and Myanmar. Superordinate level processes are more abstract than basic level processes which are more abstract than subordinate level categories.

Although the two transitivity systems in English and Myanmar share five universal features: richness, hierarchicalness, flexibleness, metaphoricalness and abstractness, the configurations that realize different domains of experience and realizations of elements in English and Myanmar transitivity configurations tend to vary between the two languages.

4. Conclusion

This study presents the common features of transitivity systems in English and Myanmar. The transitivity systems in English and Myanmar share five universal features: richness, hierarchicalness, flexibleness, metaphoricalness and abstractness. Regarding richness, the two transitivity systems

are rich in process types and participant roles, and consequently, they can construe the experience of physical, social, mental and abstract world. With regard to hierarchicalness, all the different processes of the two languages can be hierarchically divided into three groups: superordinate, basic and subordinate level processes. As for flexibleness, the same experience of the world can be construed through different process types. Concerning metaphoricalness, the two languages use incongruent or metaphorical modes of expression to reword congruent forms. At that time, the process itself, the participant roles involved in the process and the circumstances associated with the process may change. Regarding abstractness, there is a relationship of abstractness and concreteness among the processes of different levels of the two transitivity systems. These findings contribute to a better understanding of the innermost nature of the two languages. They make a significant contribution to the upcoming papers on the comparative study of the transitivity configurations of transitivity systems in English and Myanmar and their realizations of elements.

Abbreviations

Special abbreviations

Af	Affected
Af-Ca	Affected-Carrier
Af-Posd	Affected-Possessed
Af-Posr	Affected-Possessor
Ag	Agent
Ag-Ca	Agent-Carrier
Ag-Cog	Agent-Cognizant
At	Attribute
Auto	Autonomous
Behr	Behaver
Ca	Carrier
Cir	Circumstance
Cir: Pl	Circumstance: Place
Cir: TP	Circumstance: Time position
Cog	Cognizant
Comd	Communicated
Comee	Communicatee
Comr	Communicator
Cor1	Correlator1
Cor2	Correlator2
Cre	Created
Des	Destination
Desr	Desiderator
Dir	Direction
Em	Emoter
Ext	Existent
Infl	Influential
Loc	Location
Perc	Perceiver
Ph	Phenomenon
Posr	Possessor
Posd	Possessed
PR	Participant Role
Pro	Process
Ra	Range
So	Source
Tk	Token
VI	Value

Abbreviations also Found in the Leipzig Glossing Rules

3PL	third person plural
1SG	first person singular
2SG	second person singular
3SG	third person singular
ABLMARK	ablative marker
ACC	accusative
ADDCONN	additive connective
AFFMARK	affectionate marker

ALL	allative
ANA	anaphoric
APPEL	appellative
ASSOC	associative
CAPAMOD	capability modality
CAUS	causative
CLF	classifier
CMPR	comparative
COM	comitative
COMP	complementizer
COMPA	compassion
CONJ	conjunction
CONN	connective
COP	copula
DAT	dative
DECL.SENTSUF	declarative sentence suffix
DET	determiner
DIM	diminutive
DU	dual
EMPMARK	emphatic marker
EXCL	exclusive
EXPER	experiential
F	female
FUT	future
GEN	genitive
INCL	inclusive
INF	infinitive
INS	instrumental
INT.SENTSUF	interrogative sentence suffix
LOC	locative
M	male
MOD	modifier
NEG	negative
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

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