

Research Article

An Investigation into the Motivating Factors Underlying Similarities and Differences in the Transitivity Systems, Configurations, and Realizations of English and Myanmar

Lai Yee Win* 

Department of English, Guarantee International College, Yangon, Myanmar

Abstract

Lai Yee Win (2021) examined the transitivity systems of English and Myanmar using Halliday's transitivity theory and He's (2022) model of the Chinese transitivity system. This study, grounded in the Systemic Functional perspective, aimed to aid English and Myanmar language learners by exploring the meaning potential of both languages to facilitate effective mutual communication. The research highlights how cognition, thinking, and cultural influences shape the unique features of English and Myanmar transitivity systems. For English, its distinctive characteristics stem from Roman culture, analytic thinking, and cognitive principles like subject salience and figure-to-background cognition. In contrast, Myanmar's unique features are rooted in Buddhist culture, holistic and spatial thinking, and cognitive patterns like background-to-figure cognition and the natural sequence principle. These cognitive, cultural, and thinking modes contribute to the differences in the configuration and realization of transitivity elements between the two languages. The study underscores the importance of understanding these influences to bridge linguistic and cultural gaps, enhance language learning, and promote smoother communication. By exploring the motivations behind the similarities and differences in English and Myanmar transitivity systems, this research provides valuable insights into the interplay of language, cognition, and culture. It also paves the way for further comparative studies of Myanmar and other languages, deepening the understanding of linguistic systems across cultural contexts.

Keywords

Motivations, Similarities, Differences, English, Myanmar, Transitivity Systems, Configurations, Realizations

1. Introduction

Humboldt [18] and Whorf [42] emphasize the intrinsic link between language, thought, and culture in comparative linguistics. Differences in thinking patterns lead to linguistic and cultural variations, as thinking bridges language and culture. Language reflects a nation's cognitive and cultural methods for understanding the world. Understanding linguistic expression requires examining its cognitive, cultural, and thinking dimensions. Using English and Myanmar as

examples, this study explores the cognitive, cultural, and thinking motivations behind the similarities and differences in their transitivity systems.

This study has conducted a comparative analysis of the transitivity systems in English and Myanmar, highlighting their similarities and differences within the framework of Systemic Functional Linguistics (SFL). SFL, as noted by Halliday and Matthiessen [10], is inherently compatible with

*Correspondence: Lai Yee Win (laiyeewin18@gmail.com), Lai Yee Win (laiyeewin18@yahoo.com)

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Cognitive Linguistics, as it allows for the explanation of cognitive processes through linguistic systems. Butler [2] reinforces this perspective, emphasizing that language serves as both a social semiotic system and a cognitively represented phenomenon, necessitating an integrated approach to understanding semantic choices at the cognitive level.

Linguistic expressions are reflective of the thinking patterns of their users, underscoring the connection between language and cognition. Humboldt [18] highlights the interplay between language and a nation's mental faculties, asserting its critical role in comparative linguistics. Similarly, Whorf [42] argues that the distinct grammatical, logical, and experiential frameworks of human languages stem from variations in thinking patterns. These thinking patterns serve as a bridge linking language and culture, with differences in cognition giving rise to both linguistic and cultural diversity.

This study synthesizes the findings from Chapters 4 and 5 by summarizing the similarities and differences between the English and Myanmar transitivity systems in terms of their configurations and realizations. Additionally, it explores the underlying motivations for these similarities and differences from the perspectives of cognition, thinking, and culture, drawing insights from Cognitive Linguistics (CL). By doing so, the study aims to provide a comprehensive and credible account of its findings.

2. Literature Review

Transitivity is a fundamental concept in linguistics that examines how languages encode relationships between participants, processes, and objects in a clause. Halliday [9] describes transitivity as a system central to experiential meaning within Systemic Functional Grammar (SFG). This framework categorizes clauses based on process types (material, mental, relational, etc.) and participant roles, providing a universal lens for comparing languages. The study of transitivity enables researchers to understand how different languages structure meaning through syntactic and semantic configurations.

English, as an inflectional language, features a well-defined transitivity system characterized by subject-verb-object configurations, verb valency, and auxiliary usage. Scholars such as Dixon [4] and Hopper and Thompson [38] have highlighted the importance of transitivity in English grammar, emphasizing its flexibility in encoding agency and affectedness. For example, active and passive voice constructions illustrate the dynamic realization of participant roles. Research also explores causative constructions, ergative alternations, and the influence of modality on transitivity (Huddleston and Pullum [17]). These studies establish English as a language with explicit markers of transitivity, relying heavily on word order and auxiliary verbs to denote grammatical relationships.

Myanmar (Burmese), a Sino-Tibetan language, employs a markedly different transitivity system. As an analytic

language, Myanmar relies on particles, verb serialization, and flexible word order to express grammatical roles. Studies by Okell [32] and Jenny [19] demonstrate that Myanmar lacks morphological inflection for case or tense. Instead, it uses postpositional markers like *kā* for agents and *nā* for patients. Myanmar's verb-final syntax and reliance on context to disambiguate meaning contrast sharply with the fixed SVO structure in English. Research also highlights the prominence of causative constructions and focus-marking particles in shaping transitivity (Jenny [19]).

2.1. Similarities Between English and Myanmar Transitivity Systems

Despite their typological differences, English and Myanmar share commonalities in their ability to encode processes, participant roles, and actions. Both languages distinguish between transitive and intransitive verbs and allow for similar semantic roles, such as agent, patient, and experiencer. Studies on linguistic universals (Comrie [3]) suggest that these similarities arise from shared cognitive and communicative functions across languages. For instance, both languages use context and syntactic cues to indicate affectedness and causation, aligning with universal principles of efficiency and clarity in communication.

2.2. Differences Between English and Myanmar Transitivity Systems

Key differences between the two languages stem from their typological and structural characteristics. English, with its inflectional morphology, explicitly marks tense, aspect, and agreement, while Myanmar relies on lexical and contextual cues. Word order in English is relatively rigid, whereas Myanmar's syntax is more flexible, allowing for topicalization and emphasis. Additionally, Myanmar's use of verb serialization to encode complex actions contrasts with English's reliance on subordinating conjunctions and auxiliary verbs. These distinctions reflect divergent linguistic traditions: English belongs to the Indo-European family, while Myanmar is rooted in the Sino-Tibetan family.

2.3. Motivations for Similarities and Differences

2.3.1. Typological Factors

The typological divergence between English and Myanmar explains many of their differences. English's inflectional nature contrasts with Myanmar's analytic structure, shaping how each language encodes transitivity. These distinctions align with cross-linguistic patterns identified in typological studies (Dryer and Haspelmath [5]).

2.3.2. Historical and Cultural Influences

Language contact and cultural exchange have played a role

in shaping transitivity systems. While Myanmar has experienced minimal direct influence from English, the globalization of English as a lingua franca has introduced some lexical and syntactic borrowings. Conversely, English's transitivity system has been shaped by historical interactions with other languages within the Indo-European family.

2.3.3. Cognitive and Functional Motivations

Functional linguists argue that similarities in transitivity systems stem from universal cognitive processes. Both languages prioritize efficiency and clarity in encoding relationships between participants and actions. For instance, Hopper and Thompson's [14] analysis of transitivity as a scalar phenomenon highlights how languages optimize for communicative needs, such as distinguishing high- and low-transitivity events.

2.4. Gaps in the Literature

Although comparative studies on English and Myanmar transitivity exist, they remain limited in scope. Corpus-based analyses focusing on real-world usage in diverse contexts could provide deeper insights. Additionally, experimental studies examining how native speakers of each language perceive and produce transitive constructions would enrich understanding of these systems.

The similarities and differences in the transitivity systems of English and Myanmar are motivated by typological, historical, and functional factors. While both languages adhere to universal principles of linguistic organization, their distinct structural features reflect their unique linguistic traditions. Future research should aim to bridge gaps in the literature, fostering a more comprehensive understanding of these transitivity systems in comparative linguistics.

3. Findings and Discussions

3.1. Similarities and Differences Between English and Myanmar Transitivity Systems, Configurations and Realizations

The findings of this study reveal five shared characteristics of English and Myanmar transitivity systems: richness, hierarchicalness, tension, metaphoricalness, and abstractness.

- 1) **Richness:** Both English and Myanmar transitivity systems exhibit a wide variety of process types and participant roles, enabling them to effectively represent experiences of the physical, social, mental, and abstract worlds.
- 2) **Hierarchicalness:** The processes in both languages can be categorized into three hierarchical levels: superordinate processes, basic level processes, and subordinate processes.
- 3) **Tension:** In both English and Myanmar, the process type

of a clause may shift depending on contextual factors such as background knowledge, life experience, and domain of experience. This demonstrates the flexibility of process identification within the transitivity systems of both languages.

- 4) **Metaphoricalness:** When a congruent form is reworded into a metaphorical form, the process, participant roles, and circumstantial elements may change in both English and Myanmar transitivity configurations.
- 5) **Abstractness:** Processes at different hierarchical levels are interconnected, showcasing a shared degree of abstraction within the transitivity systems of the two languages.

While the broader features of transitivity systems are similar, differences become more apparent in the more delicate subsystems, which often reflect variations in realizational patterns.

- 1) At the superordinate and basic levels, processes tend to exhibit commonalities between English and Myanmar. However, at the subordinate level, transitivity configurations representing each basic process type often differ significantly.
- 2) English and Myanmar transitivity configurations vary in the sequence, ellipsis, and salience of their configurational elements:

English Transitivity Configurations: a. Processes typically follow the first or second participant role, or both. If there is an empty subject (e.g., "It" or "There"), the process immediately follows it. Positional variations between processes and participant roles are more numerous. b. Circumstantial elements may be placed at the beginning of a clause, between the first participant role and the process, between the process and the second participant role, or at the end of a clause. c. Ellipsis of participant roles occurs occasionally.

Myanmar Transitivity Configurations: a. Participant roles generally precede the process, which usually appears at the end of the clause. Positional variations between processes and participant roles are fewer. b. Circumstantial elements are conventionally placed at the beginning of a clause, between participant roles, or before the process. c. The ellipsis of processes is rare, whereas the ellipsis of participant roles is more common.

The realization sources of transitivity elements differ between English and Myanmar:

English:

- 1) Processes are typically realized by verbal groups or copulas.
- 2) The first participant role is generally realized by a nominal group, while the second participant role may be realized by a nominal group, adverbial group, prepositional phrase, embedded clause, or adjective/adjective group.
- 3) Circumstantial elements are realized by nominal groups, adverbial groups, or prepositional phrases.

Myanmar:

- 1) Processes are commonly realized by verbal groups, compound verbs, reduplicated verbs, or attributive verbs.
- 2) The first participant role is realized by a nominal group, prepositional phrase, or embedded clause, while the second participant role may be realized by a nominal group, adverbial group, prepositional phrase, or embedded clause.
- 3) Circumstantial elements are realized by nominal groups, adverbial groups, or prepositional phrases.

In conclusion, while English and Myanmar transitivity systems share key features at a broader level, their specific configurations, hierarchical relationships, and realization patterns exhibit distinct language-specific characteristics.

3.2. Motivations for Similarities

This section primarily examines the cognitive factors underlying the motivations for five common features of the English and Myanmar transitivity systems: richness, hierarchicalness, tension, metaphoricalness, and abstractness. These features are rooted in shared cognitive operations among all human beings.

3.2.1. Richness of English and Myanmar Transitivity Systems

Talmy [37] argues that semantic structure reflects conceptual structure, which, in turn, is shaped by embodied experience. Evans and Green [6] assert that cognitive semantics views linguistic meaning as an expression of conceptual structure—encompassing the organization and diversity of mental representations. Since lexical concepts evoke various types of conceptual structures, the range of lexical concepts encoded in language reflects the complexity of conceptual structures in the human mind. Consequently, the meaning potential of these concepts is vast (Evans and Green [6]).

This richness motivates the transitivity systems of English and Myanmar, where abstract experiences—both external and internal—are conveyed through a diverse array of processes, participant roles, and circumstantial elements. This variety captures the complexity of human interactions with the world and within themselves.

3.2.2. Hierarchicalness of English and Myanmar Transitivity Systems

All human beings share the same cognitive apparatus. According to Evans and Green [6], “the nature of the interaction between human experiencers and their environment determines the nature of the categories we create; this finding is consonant with the thesis of embodied cognition”. This view of categorization entails the universal organization of conceptual categories into basic,

superordinate and subordinate levels, and this is what motivates the hierarchicalness of English and Myanmar transitivity systems.

The hierarchicalness of English and Myanmar transitivity systems is naturally explained by Ungerer and Schmid’s [39] levels of categorization, i.e., basic level categories, superordinate categories and subordinate categories. According to Ungerer and Schmid [39], there is a choice between these cognitive categories on different levels of generality. The generic or basic level is the level on which the largest bundles of naturally correlated attributes are available for categorization. Basic level categories are members of the superordinate category, and they strikingly differ from each other in attributes and categorization. Basic level categories are lower than superordinate level categories.

The process types in English and Myanmar transitivity systems are classified into three superordinate level categories, namely action process, mental process and relational process, which are distinguished into two modes: autonomous and influential. The superordinate category action process highlights the attribute of modeling the experience of the physical and social world; the superordinate category mental process highlights the attribute of modeling the experience of the mental world, and the superordinate category relational process highlights the attribute of modeling the experience of the abstract world. The basic level categories of the superordinate category action process are autonomous vs. influential happening, doing, creating and behaving action processes; those of the superordinate category mental process are autonomous vs. influential emotive, desiderative, perceptive, cognitive and communicative mental processes, and those of the superordinate category relational process are autonomous vs. influential attributive, identifying, locational, directional, possessive, correlational and existential relational processes. The attributes of the basic level category autonomous happening action process are as follows: (1) the representation of the direct experience of various happenings in the physical and social world, (2) having no PR or one PR Affected, (3) answering the question of “What happened (to X)?”, whilst the attributes of the basic level category influential happening action process are as follows: (1) the representation of experience of entities or events influencing happenings in the physical and social world, (2) involving two PRs: the Agent and the Affected which is conflated with another process: i.e., a happening action process, (3) answering the question of “What made something happen?”. These bundles of attributes available on the basic level contribute to the classification of category members. Subordinate level categories are lower than basic level categories. The subordinate level categories of English and Myanmar transitivity systems are configurations that represent each basic level category, and that may be specific to each language. Figure 1 shows the basic level categories of the superordinate category action process.

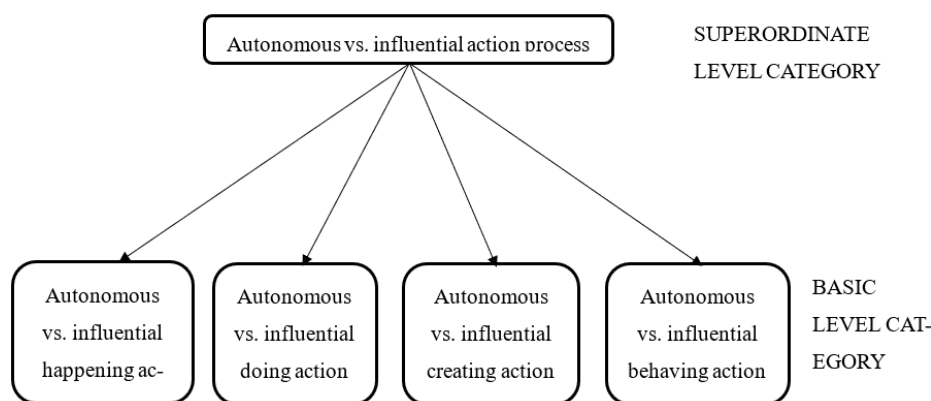


Figure 1. The basic level categories of the superordinate category action process.

3.2.3. Tension of English and Myanmar Transitivity Systems

According to Evans and Green [6], the fundamental cognitive ability of human beings is attention, i.e., the ability

of shifting attention from one aspect of a scene to another. This general ability which is also manifested in language is called profiling by Evans and Green [6]. Different aspects of the scene in which a boy kicks over a vase causing it to smash can be linguistically profiled in the range of grammatical constructions as follows:

Table 1. Different Aspects of the Scene in which a Boy Kicks over a Vase Causing it to Smash.

- | | |
|-----|---|
| (1) | a. The boy kicks over the vase. |
| | b. The vase is kicked over. |
| | c. The vase smashes into bits. |
| | d. The vase is in bits. |

Each of the constructions ACTIVE, PASSIVE, SUBJECT-VERB-COMPLEMENT and SUBJECT-COPULA-COMPLEMENT, respectively mentioned in (1a), (1b), (1c) and (1d), is specialized for profiling a particular aspect of an action chain. In this way, linguistic structure reflects humans' cognitive ability to attend to distinct aspects of a scene. This cognitive ability motivates the tension of English and Myanmar transitivity systems in which different process types are used to construe the same domain of experience of the world, depending on the context, background knowledge, life experience, etc.

3.2.4. Metaphoricalness of English and Myanmar Transitivity Systems

Cognitive linguists argue that metaphor is a central feature of human language (as quoted in Evans and Green [6]). Native

speakers of all languages use a large number of metaphors when they communicate about the world (Lakoff and Johnson [27]). Metaphor is the phenomenon where one conceptual domain is systematically structured in terms of another. Evans and Green [6] claim that since thought itself is metaphorical, metaphor reflects 'deep' correspondences in the way our conceptual system is organized. Many of our most elementary experiences are universal. These universal experiences give rise to image schemas of various kinds producing direct or indirect meaning in the form of conceptual metaphors (Johnson [20]; Lakoff [26]). English and Myanmar share the common conceptual metaphor ANIMALS ARE PEOPLE. In this conceptual metaphor, animals can be metaphorically viewed as humans. In English example (2a), animal "the birds" is metaphorically humanized by the use of the verb "sit", whilst in Myanmar example (2b), the same phenomenon takes place by the use of the verb "rest".

Table 2. *Conceptual Metaphor ANIMALS ARE PEOPLE.*

a.	The birds [Ag]	are sitting [Auto-action: doing]	in the tree.
b.	thitpin-portwin	hnget-kalaye:-myarr [Ag]	narr-nay-gya-the [Auto-action: doing].
(2)	tree-on. LOC	bird-DIM-PLMARK	rest-PROG-PLMARK-DECL. SENTSUF
	'On the tree the birds are resting.' (http://sealang.net/burmese/bitext.htm)		

Embodied cognition thesis, one of the central assumptions of cognitive semantics, holds that the nature of conceptual organization arises from bodily experience, so conceptual structure is associated with the ways in which we experience the world (Evans and Green [6]). The concept CONTAINER, which is grounded in the directly embodied experience of interacting with bounded landmarks, is an instance of an image schema that gives rise to more abstract kinds of meaning (Evans and Green [6]). The following English and Myanmar examples (3) and (4) are licensed by the

metaphorical projection of the CONTAINER image schema onto the abstract conceptual domain of STATES, to which concepts like LOVE, TROUBLE and HEALTH belong. This results in the conceptual metaphor STATES ARE CONTAINERS. The idea behind metaphorical projection is that meaningful structure from bodily experience gives rise to concrete concepts like the CONTAINER image schema, which in turn serves to structure more abstract conceptual domains like STATES.

(3) English examples (Evans and Green [6])

Table 3. *English Conceptual Metaphor STATES ARE CONTAINERS.*

a.	He's in love.
b.	We're out of trouble now.
c.	He's coming out of the coma.

(4) Myanmar examples

Table 4. *Myanmar Conceptual Metaphor STATES ARE CONTAINERS.*

	<i>myetsikann</i> [Em]	<i>tasay</i> [Ph]	<i>ma-kyauk=sothaketthot</i> [Auto-mental: emotive]	
	blindman	ghost	NEG-fear=just. as. CONJ	
a.	([Ag-Ca])	netshainnthaw	ahmaunhtu-atwinn [Dir: Des]	maikmezwar toewin-nay-gya-the [Auto-action: doing].
		deep	darkness-into. LOC	foolishly enter-PROG-PLMARK-DECL. SENTSUF
	'Just as a blindman does not fear ghost, we are entering into darkness foolishly.' (Lae Twin Thar Saw Chit [24])			
	<i>yinnmar-yaw</i>	<i>kyanor-bar</i> [Af]	<i>achit-non-ain-atwinnhmar</i>	<i>kyonnit-khet-gya-ya-bar-the</i> [Auto-action: happening].
b.	Yin. Mar-ADDCONN	1SG. M-ADDCONN	love-mud-lake-in. LOC	sink-PST-PLMARK-OBLG-POLMARK-DECL. SENTSUF
	'Both Yin Mar and I sank into the mud lake of love.' (Lae Twin Thar Saw Chit [24])			

In this way, conceptual structure is embodied. Conceptual metaphors like ANIMALS ARE PEOPLE and STATES ARE

CONTAINERS represent the commonality in the English and Myanmar speakers' experience of the world that shapes the

process of establishing and using metaphors, and that motivates the metaphoricalness of English and Myanmar transitivity systems which refers to the popularity of incongruent or metaphorical model of expression. There is a fruitful interpenetration of Hallidayan SFL and Cognitive Grammar in grammatical metaphor (Butler [2]). Holme [13] states that the two approaches differ considerably in that CL is concerned with the conceptualizations underlying metaphors, whilst SFL focuses on social semiotics. According to Holme [13], grammatical metaphors may be considered both as a way in which language responds to contextual pressure and as an instantiation of conceptualizations derived from image schemata. According to Halliday and Matthiessen [11],

grammatical metaphors refer to nominalization which is strongly functional-cognitive in nature. Example (5a) is considered an incongruent or metaphorical model of expression of an event in which nominalization functions to obscure the participant Communicator who is considered responsible for the mental process of communication. However, this example can be made congruent by using an appropriate verb “propose” which directly results from nominalization “proposal” to realize the process instead, as in (5b).

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

Table 5. English Nominalization.

- a. A proposal [Comd] has been put forward [Auto-mental: communicative] for reducing the time limit.
- b. The committee [Comr] proposed [Auto-mental: communicative] reducing the time limit [Comd].

Grammatical metaphors that appear as nominalizations also exist in Myanmar. Example (6a) is considered an incongruent or metaphorical model of expression of an event. However, this example can be made congruent by using an attributive

verb *hlapathe* “be beautiful” which directly results from nominalization *hlapathue* “beautiful person” to realize the process instead, as in (6b).

(6) Myanmar example (Lae Twin Thar Saw Chit [24])

Table 6. Myanmar Nominalization.

	yinnmar-the [Ca]		amye-laye:	htue: charr=thalo
	Yin. Mar-SBJMARK		name-DIM	distinct=just. as. CONJ
a.	yokesinn-hmar-le	htue: htue: charrcharr	hlapa-thue [At]	phyit-the [Auto-relational: attributive].
	appearance-SBJMARK-ADDCONN	distinctly	beautiful-person. NMLZ	COP. PRS-DECL. SENTSUF
	‘Yin Mar is a beautiful lady with a distinct name.’			
	yinnmar-the [Ca]	amye-laye:	htue: charr=thalo	
	Yin. Mar-SBJMARK	name-DIM	distinct=just. as. CONJ	
b.	yokesinn-hmar-le	htue: htue: charrcharr	hlapa-the [Auto-relational: attributive + At]	
	appearance-SBJMARK-ADDCONN	distinctly	beautiful- PRS. DECL. SENTSUF	
	‘Yin Mar is a beautiful lady with a distinct name.’			

3.2.5. Abstractness

Abstraction is viewed as a central construct in cognitive science, and proposes six senses of abstraction: (1) categorical knowledge, (2) the behavioral ability to generalize across category members, (3) summary representation, (4) schematic representation, (5) flexible representation, (6) abstract

concepts. The abstractness of English and Myanmar transitivity systems is naturally explained by Barsalou’s [1] six senses of abstraction. By virtue of categorical knowledge, a category has been abstracted from experience. Based on the behavioral ability to generalize across category members, people state the characteristics of a category’s members behaviourally. In doing so, people describe an underlying

summary representation. A schematic representation might abstract the critical characteristics of a category’s exemplars and discard the irrelevant properties in order to distinguish the category from others. Summary representations can be applied flexibly to many different tasks, including categorization. From this perspective, increasing abstractness allows a representation to become increasingly flexible. Abstraction can refer to the abstractness of concepts, ranging from concrete to abstract. When concepts become detached from physical entities and more associated with mental events, they become increasingly abstract. These six senses of abstraction motivate the abstractness of English and Myanmar transitivity systems in which each level of processes differs from one another in terms of the degree of abstractness. The leftmost superordinate level processes: action process, mental process and relational process can construe our experience of the physical and social world, the mental world and the abstract world respectively, so they have the highest degree of abstractness. The rightmost subordinate level categories, i.e., transitivity configurations that are the exact representations of each basic level process type have the

highest degree of concreteness.

3.3. Motivations for Differences

English and Myanmar transitivity configurations vary greatly in the sequence of configurational elements, their ellipsis and salience. The basic semantic structure of English is Participant 1 + Process + Participant 2 + (Participant 3), whereas that of Myanmar is Participant 1 + Participant 2 + (Participant 3) + Process. It is found that the process typically appears after the first participant role in English transitivity configurations, whilst the process always occurs in the final position of Myanmar clauses. Processes in English and Myanmar transitivity configurations are typically realized by verbal groups; participant roles by nominal groups, nominalization, adverbial groups, prepositional phrases or embedded clauses; circumstantial elements by nominal groups, adverbial groups or prepositional phrases. On the other hand, there are certain differences between English and Myanmar realizations of transitivity elements as shown in Table 1.

Table 7. Different realizations of transitivity elements between English and Myanmar.

Transitivity element	English	Myanmar
	Realized by	Realized by
Process	copula	compound verb, reduplicated verb
First participant role	-	prepositional phrase, embedded clause
Second participant role	adjective/adjective group	-

The following sections will present the motivations for these differences from the cognitive, mode-of-thinking and cultural dimension in order to make the research findings more concrete and trustworthy.

3.3.1. The Cognitive Dimension

Wang [41] describes that there is a relationship between reality, cognition and language. From the cognitive point of view, this section explains the motivations for differences between English and Myanmar transitivity configurations based on Langacker’s [29] billiard-ball model, Kouhestani and Golfam’s [23] salience principle of iconic cognition and Talmy’s [1975] Figure-Ground segregation. In terms of Langacker’s [29] simplest non-degenerate action chain, the prototypical sequence of semantic components in English transitivity configuration is Participant 1 (e.g. Agent) + Process (e.g. Auto-action: doing) + Participant 2 (e.g. Affected). It reflects the sequence of events in the cognition of

the English speakers. That is, A (the actor) sends out an action; this action has an impact on B (the object), and as a result, a change will occur in B. For instance, in the clause “Juana cleaned the baby”, the actor is Juana; the actor takes the action of cleaning, and it affects the baby which is the object. On the other hand, Myanmar transitivity configuration violates Langacker’s [29] billiard-ball model. Myanmar generally adopts the configuration of Participant 1 (e.g. Agent) + Participant 2 (e.g. Affected) + Process (e.g. Auto-action: doing). It reflects the sequence of events in the cognition of the Myanmar speakers. Contrary to English, Myanmar tends to highlight the roles of the participants rather than the interaction between the two. That is, A (the actor) affects B (the object) through the action, and as a result, a change will occur in B. As shown in example (7), the actor is Juana; the actor affects the baby which is the object through the action of cleaning. In the cognitive sequence of events in Myanmar, the roles of participants are emphasized, all of which are placed before the process.

Table 8. *Cognitive Sequence of Events in Myanmar.*

	hwarnar-the [Ag]	khalaye:-go [Af]	thantsinpaye:-the [Auto-action: doing].
	Juana-SBJMARK	baby-OBJMARK	clean. PRS-DECL. SENTSUF
(7)	'Juana cleans the baby.'		
	[Htin Lin 2017]		

In accordance with He [12], the English autonomous desiderative mental clauses are represented by a configuration of Desr + Pro + Ph; English autonomous perceptive mental clauses by Perc + Pro + Ph, and English autonomous cognitive mental clauses by Cog + Pro + Ph. In English transitivity configurations, the subject is salient in terms of Kouhestani and Golfam's [23] salience principle of iconic cognition. Kouhestani and Golfam [23] argue that in the prototypical transitive action scenario, the agent receives the most attention from the human viewer for its animacy and movement and is conceptualized more saliently than the other elements. But Lai

Yee Win [25] claims that Myanmar autonomous desiderative mental clauses are represented by the configurations of Desr + Ph + Pro and Ph + Desr + Pro; Myanmar autonomous perceptive mental clauses by Perc + Ph + Pro and Ph + Perc + Pro, and Myanmar autonomous cognitive mental clauses by Cog + Ph + Pro and Ph + Cog + Pro. Contrary to English, the subject is not salient in Myanmar transitivity configurations. The Phenomenon functioning as Complement can also be placed in Subject position as the salient element in the configurations of Myanmar mental clause. Consider the following pairs of examples (8)-(10).

Table 9. *The Phenomenon Functioning as Complement in Subject Position in Myanmar Mental Clause.*

	a.	Who [Desr]	likes [Auto-mental: desiderative]	to live only with a little furniture and one or two servants [Ph]?	
	b.	ethot	tayaukhthe	einathonnasaun-anenge-hmya	asaykhan-ta-yauk-hna-yauk-hmya-hnint
(8)		ANA	alone	furniture-a. little. DET-only. EXCL	servant-one-CLF-two-CLF-only. EXCL-COM
		nayhtain-yathe-go [Ph]		myethue [Desr]	hnitthet-par-antnee [Auto-mental: desiderative].
		live-OBLG-OBJMARK		who	like. PRS-POLMARK-INT. SENTSUF
		'Who likes to live only with a little furniture and one or two servants?'			
		(Science Mg Wa [34])			
	a.	Kino [Perc]	heard [Auto-mental: perceptive]	the little splash of morning waves on the beach [Ph].	
	b.	kannchay-dot-hma	nannetkhinn	hlainn-pokethan-galaye:-myarr-go [Ph]	keno kyarr-yathe [Auto-mental: perceptive].
(9)		beach-PLMARK-from. ABLMARK	morning	wave-splash-DIM-PLMARK-OBJMARK	Kino hear-PRS. DECL. SENTSUF
		'Kino heard the little splash of morning waves on the beach.'			
		(Htin Lin [16])			
	a.	Kino [Cog]		knew [Auto-mental: cognitive]	those songs [Ph].
	b.	hto-taye: thachinn-myarr-go [Ph]		keno [Cog]	thi-the [Auto-mental: cognitive].
(10)		DEM-song-PLMARK-OBJMARK		Kino	know-PRS. DECL. SENTSUF
		'Kino knew these songs.'			
		(Htin Lin [16])			

The difference between English and Myanmar transitivity configurations is naturally explained by Talmy's [37] figure/ground segregation which is regarded as the most probable cognitive basis for the notion of Topic-Comment distinction of information structuring in a sentence by Hopple [15]. According to Talmy [37], the Figure is a moving or conceptually movable entity whose path or site is conceived as a variable and whose particular value is regarded as the salient issue, whereas the Ground is a referenced entity that has a stationary setting relating to a reference frame, with respect to which the Figure's path or site receives characterization. Nisbett and Miyamoto [31] points out that the perceptual process of Westerners tends to be analytic and context-independent, focusing on a salient object independently of its context, whereas the perceptual process of Orientals tends to be holistic and context-dependent, emphasizing the relationship between the object and the context in which the object is located. Therefore, the way of perception of the English people is analytic and context-

independent, reflecting a type of figure-to-background cognition focusing on objects. On the other hand, the way of perception of the Myanmar people is holistic and context-dependent, reflecting a type of background-to-figure cognition focusing on the context in which the object is located. The difference in the perceptual processes of the English and Myanmar speakers gives rise to the different transitivity configurations of the two languages. As shown in examples (11) and (12), animate movable agents like "the birds" and "Mg Lu Aye" are conceptualized as figures and they are placed at the beginning of the English clauses. Thus, English transitivity configurations reflect a type of figure-to-background organization. In contrast, the context such as *thitpin-portwin* "on the tree" and *akhann-htethot* "into the room" is made the Subject Theme in Myanmar clauses, and thus, Myanmar transitivity configurations reflect a type of background-to-figure organization.

Table 10. Figure/Ground Segregation in English and Myanmar.

	The birds	are sitting	in the tree.
a.	Ag	Auto-action: doing	Cir: Pl
	Figure		Background
(11)	<i>thitpin-portwin</i>	<i>hnget-kalaye:-myarr</i>	<i>narr-nay-gya-the.</i>
	tree-on. LOC	bird-DIM-PLMARK	rest-PROG-PLMARK-DECL. SENTSUF
b.	Cir: Pl	Ag	Auto-action: doing
	Background	Figure	
	'On the tree the birds are resting.' (http://sealang.net/burmese/bitext.htm)		
	Mg Lu Aye	entered	the room.
a.	Ag-Ca	Auto-action: doing	Dir: Des
	Figure		Background
(12)	<i>akhann-htethot</i>	<i>maunlueaye:</i>	<i>winyaukthwarr-i.</i>
	room-into. ALL	Mg. Lu. Aye	enter. PFV-DECL. SENTSUF
b.	Dir: Des	Ag-Ca	Auto-action: doing
	Background	Figure	
	'Mg Lu Aye entered the room.' (Science Mg Wa [34])		

Overall, this section has presented the motivations for differences between English and Myanmar transitivity configurations of PRs and realizations of configurational elements from the cognitive dimension by virtue of Langacker's [29] billiard-ball model, Kouhestani and Golfam's [23] salience principle of iconic cognition and

Talmy's [37] figure/ground segregation. The following section will provide an explanation of the motivations for differences from the mode-of-thinking dimension.

3.3.2. The Mode-of-thinking Dimension

Humboldt [18] asserts that every language mirrors a

characteristic world-view, encompassing the whole conceptual fabric and mode of representation of a portion of mankind, and to learn a foreign language should thus be to acquire a new standpoint in the world-view hitherto possessed to a certain extent. Each language contains a unique view of the world. Language is the window of observation and thinking, and the core of the differences between languages is the difference in worldview. There is an inseparable relationship between language and thinking. From the perspective of national thinking, the English speakers, being Westerners, are more analytic, paying attention primarily to the object and the categories to which it belongs and using rules, including formal logic, to understand its behavior, whereas the Myanmar speakers, being Orientals, tend to be holistic, attending to the entire field and assigning causality to it, making relatively little use of categories and formal logic, and relying on dialectical reasoning with reference to Nisbett and Miyamoto [31]. The two societies differ markedly in their systems of thought because they belong to different parts of the world, i.e., West and East, which gives rise to the

difference between English and Myanmar transitivity configurations. As the English speakers are object-focused and personal control-oriented, they conceptualize the agent as the most salient element in consideration of its role as the causer of the action and place it in Subject position of the clause. As shown in example (13), English action clauses are represented by the configurations beginning with the Agent. This distinctive feature results directly from the analytic thinking of the English speakers. On the other hand, the Myanmar speakers are field dependent people, and they tend to emphasize the position of the frame and put it in the first place. In example (14), Myanmar relational clauses are represented by the configuration of Direction + Carrier + Process. This distinctive feature results directly from the holistic thinking and the spatial thinking of the Myanmar speakers.

(13) Behind him Juana's fire [Ag] leaped [Auto-action: doing] into flame [PrEx] and ([Ag]) threw [Auto-action: doing] spears of light [Af] through the chinks of the brush-house wall. [John Steinbeck 1945]

Table 11. Mode-of-thinking in Myanmar.

	<i>thu-naukkyaw-setwin</i>	<i>hwarnar-i</i>	<i>meepho-hma</i> [Dir: So]	<i>mee</i> [Ca]	<i>htatauklar=pyee</i> [Auto-relational: directional]
	3SG. GEN-back-LOC	Juana-GEN	fireplace-from. ABLMARK	fire	start=and. CONJ
(14)	<i>thitkhette-htayan-bauk-myarr-agyarrhma</i> [Dir: Pa]		<i>meeyaun-gyaunn-myarr</i> [Ca]		<i>porhtwetlar-the</i> [Auto-relational: directional].
	brush. house-wall-chink-PLMARK-through		light-spear-PLMARK		emerge-PRS. DECL. SENTSUF
	'Behind him Juana's fire leaped into flame and threw spears of light through the chinks of the brush-house wall.' (Htin Lin [16])				

The analytic thinking of the English speakers and the holistic thinking and the spatial thinking of the Myanmar speakers give rise to different realizations of participant roles in English and Myanmar transitivity configurations. In example (15a), the realization of the Agent of the autonomous happening action process "autumn" as a nominal group in English transitivity configuration is motivated by the analytic

thinking of the English people which tends to pay attention to the object. In contrast, in example (15b), the realization of the Agent of the autonomous happening action process *saunnue:-thot* "to autumn" as a prepositional phrase in Myanmar transitivity configuration is motivated by the holistic thinking and the spatial thinking of the Myanmar people which tend to pay attention to the context.

Table 12. Realization of the Agent in English and Myanmar Transitivity Configurations.

	Autumn	has come.
a.	Ag	Auto-action: happening
(15)	Nominal group	Verbal group
b.	<i>saunnue:-thot</i>	<i>yauk-larbye-phyiti.</i>
	autumn-ALL	arrive-PFV-DECL. SENTSUF

Ag	Auto-action: happening
Prepositional phrase	Verbal group
‘Autumn has come.’	
(Journal Kyaw Ma Ma Lay [21])	

Overall, different ways of thinking of the English and Myanmar speakers lead to different transitivity configurations of English and Myanmar and their realizations. Having explained the motivations for differences from the dimension of mode-of-thinking, the following section will provide a tentative explanation of the motivations for differences from the perspective of national culture.

3.3.3. The Cultural Dimension

Wang [41] states that since the 1980s, linguistic research has gained great importance because it has benefited from the rapid development of many disciplines. So far, there have been research and development from different perspectives such as cognition, thinking, society, culture, ecology, etc. in the existing literature. The interdisciplinarity of language has formed distinctive linguistic theories, and develops linguistic research. When observing, analyzing and interpreting a language from a cultural perspective, we can see that language has not only natural attributes and social attributes but also cultural attributes (as quoted in Wang [41]). Language is assumed by Gleason [8] not only as the product but also as the symbol of culture (as quoted in Mohammed [30]). Therefore, an in-depth study of the cultural attributes of language can help a more comprehensive and profound understanding of the nature of language. Langacker [28] describes that “meaning is equated with cognitive processing, i.e., construing of the objective reality by means of conventional imagery, and that

grammatical structure embodies conventional imagery” (as quoted in Tai [36]). Following Langacker [28], Tai ([36]: 190) claims that “different cultures have different linguistic semantics and consequently have different grammatical structures”. From this viewpoint, it can be seen that culture has an important influence on the production and evolution of language. In terms of Wang [41], national culture has the characteristics of inheritance and development. The following will discuss the influence of English and Myanmar cultures on their thinking and language, and explain the reasons for the differences between English and Myanmar transitivity systems and their realizations.

Myanmar is a Buddhist country. Most of the people are Buddhists. Accordingly, Myanmar language is influenced by Buddha’s philosophy which emphasizes causal occurrence. Kalupahana [22] states that “according to the Buddha’s philosophy, there are no accidental occurrences; everything in the world is causally conditioned or produced; the realization that every occurrence is a causal occurrence is said to clear the mind of all doubts, a characteristic of the state of perfect knowledge and enlightenment”. Under such a premise of the Buddha, there is a causal relationship between two occurrences: cause and effect, which influences the way of thinking of the Buddhists. Accordingly, the Myanmar speakers pay attention to the causal occurrence and place it before the effect occurrence in their cognitive order. Consider the following Myanmar example.

Table 13. Causal Relationship in Myanmar.

(16)	yaygan-gyee-da-gan-htehnaik [Loc]	kyarbannkyarbwint-myarr [Ext]	phonnokke-hlyetshi=gar [Auto-relational: existential]
	lake-AUG-one-CLF-in. LOC	lotus-PLMARK	cover-PROG=CONJ
	([Perc]) kan-htehmar	yay-bin	ma-myin-yachay.
	lake-in. LOC	water-EMPMARK [Ph]	NEG-see-PRS. DECL. SENTSUF [Auto-mental: perceptive]
‘Being covered by lotuses, the water is not seen in the lake.’			
(Journal Kyaw Ma Ma Lay [21])			

Example (16) involves two events which are construed by two processes: “Auto-relational: existential” and “Auto-mental: perceptive”. The first relational process (covering)

represents the cause of the second mental process (see). From this analysis, it can be seen that the Myanmar transitivity configurations are influenced by Buddhist culture, i.e., the

Buddha's philosophy of causation. Sapir [33] states that language is a symbolic guide to culture, and that vocabulary is a very sensitive index of the culture of the people (as quoted in Wierzbicka [43]). As the Myanmar language is strongly influenced by Buddhist culture, many words in Myanmar derive from Pali language (Vittrant and Watkins [40]). English words are influenced by Roman culture. The evidence of Romanization includes the use of Latin language. The Romans particularly enforced Latin on English; first as the language of the official and high class and later as the language of all the natives during the period when Roman culture was imposed on the Englishmen, and thus, most of the words in English derive from Latin, Greek and French (Stockwell and Minkova [35]).

4. Conclusion

This chapter has presented the motivations for similarities and differences of English and Myanmar transitivity systems and their realizations. Language, cognition, thinking and culture are inextricably intertwined. They are interdependent. The distinctive features of the two transitivity systems and their realizations result directly from different national cognition, thinking and cultures behind each language. The second section provides a tentative explanation of the motivations for the similarities of English and Myanmar transitivity systems, configurations and realizations of elements in English and Myanmar transitivity configurations in terms of Givón's [7] two principles of natural sequential order in syntax, i.e., semantic principle of linear order and pragmatic principle of linear order. The third section justifies the motivations for differences from three dimensions of cognition, thinking and culture.

For English, its distinctive features are rooted in Roman culture, and result directly from the analytic thinking of the English people from the perspective of modes of thinking, and subject salience and figure-to-background cognition from the perspective of cognition. For Myanmar, its distinctive features are rooted in Buddhist culture, and result directly from the holistic thinking and the spatial thinking of the Myanmar people from the perspective of modes of thinking, and natural sequence of iconic cognition and background-to-figure cognition from the perspective of cognition.

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

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
Loc	Location
Perc	Perceiver
Ph	Phenomenon
Posr	Possessor
Posd	Possessed
PR	Participant Role
Pro	Process
Ra	Range
So	Source
Tk	Token
VI	Value
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.	Declarative Sentence Suffix
SENTSUF	
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

Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] Barsalou, L. W. Abstraction as Dynamic Interpretation in Perceptual Symbol Systems. In L. Gershkoff-Stowe and D. H. Rakison (eds.), *Building Object Categories in Developmental Time*. 2005, Mahwah: Lawrence Erlbaum Associates, 389-431.
- [2] Butler, C. S. Systemic Functional Linguistics, Cognitive Linguistics and Psycholinguistics. *Functions of Language*. 2013, 20(2), 185-218. <https://doi.org/10.1075/fol.20.2.03>
- [3] Comrie, B. *Language universals and linguistic typology: Syntax and morphology* (2nd ed.). 1989, Chicago: University of Chicago Press.
- [4] Dixon, R. M. W. *Ergativity*. 1994, Cambridge: Cambridge University Press.
- [5] Dryer, M. S., & Haspelmath, M. (Eds.). *The world atlas of language structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. 2013, Retrieved from <https://wals.info>
- [6] Evans, V. and M. Green. *Cognitive Linguistics: An Introduction*. 2006, Edinburgh: Edinburgh University Press.
- [7] Givón, T. Isomorphism in the Grammatical Code: Cognitive and Biological Considerations. *Studies in Language*. 1991, 15(1), 85-114. <https://doi.org/10.1075/sl.15.1.04>
- [8] Gleason, H. A. *An Introduction to Descriptive Linguistics*. 1961, New York: Holt, Rinehart and Winston.
- [9] Halliday, M. A. K. *An Introduction to Functional Grammar* (1st edn.). 1985, London: Arnold.
- [10] Halliday, M. A. K. and C. M. I. M. Matthiessen. *Construing Experience Through Meaning: A Language-based Approach to Cognition*. 1999, London: Continuum.
- [11] Halliday, M. A. K. and C. M. I. M. Matthiessen. *An Introduction to Functional Grammar* (4th edn.). 2014, London: Routledge.
- [12] He, W. Categorization of Experience of the World and Construction of Transitivity System of Chinese. *Word*. 2022, 68(3), 317-347. <https://doi.org/10.1080/00437956.2021.2003540>
- [13] Holme, R. Grammatical Metaphor as a Cognitive Construct. In A. Simon-Vandenberg, M. Taverniers and L. J. Ravelli (eds.), *Grammatical Metaphor: Views from Systemic Functional Linguistics*. 2003, Amsterdam and Philadelphia: John Benjamins, 391-415.
- [14] Hopper, P. J. and S. A. Thompson. Transitivity in Grammar and Discourse. *Language Society of America*. 1980, 56(2), 251-299. <https://doi.org/10.2307/413757>
- [15] Hopple, P. Topicalisation in Burmese Expository Discourse. In J. Watkins (ed). *Studies in Burmese Linguistics*. 2005, Australia: Pacific Linguistics, 163-184.
- [16] Htin Lin. *Paletaye: than [The Pearl]*. 2017, Yangon: Pan Shwe Pyi Press.
- [17] Huddleston, R., & Pullum, G. K. *The Cambridge grammar of the English language*. 2002, Cambridge: Cambridge University Press.
- [18] Humboldt, W. V. *On Language: The Diversity of Human Language Structure and its Influence on the Mental Development of Mankind* (translated by P. Heath, with an introduction by H. Aarsleff). 1988, Cambridge: Cambridge University Press.
- [19] Jenny, M. Causative constructions in Burmese. In Malchukov, A., & Comrie, B. (Eds.), *Studies in causative constructions* (pp. 235-254). 2019, Amsterdam: John Benjamins.
- [20] Johnson, M. *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason*. 1987, Chicago and London: University of Chicago Press.

- [21] Journal Kyaw Ma Ma Lay. *Thuema [She]*. 1957, Yangon: Shwe Lin Yone.
- [22] Kalupahana, D. J. *Causality: The Central Philosophy of Buddhism*. 1986, Honolulu: The University Press of Hawaii.
- [23] Kouhestani, M. and A. Golfam. Subject Salience in SOV and SVO Word Orders as a Result of Agent Animacy. *XLinguae Journal*. 2016, 9(2), 37-46. <https://doi.org/10.18355/XL.2016.09.02>
- [24] Lae Twin Thar Saw Chit. *Kyanoramonnzonnkyanor [The person I hate most is me]*. 2004, <http://www.myanmarbookshop.com/MyanmarBooks/BookDetails/19951> (accessed 31 March 2022).
- [25] Lai Yee Win. Construction of the Transitivity System of Myanmar. *Journal of World Languages*. 2021, 7(1), 1-43. <https://doi.org/10.1515/jwl-2021-0008>
- [26] Lakoff, G. *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind*. 1987, Chicago: University of Chicago Press.
- [27] Lakoff, G. and M. Johnson. *Metaphors We Live By* (3rd edn.). 1980/2003, Chicago: University of Chicago Press.
- [28] Langacker, R. W. *Foundations of Cognitive Grammar Volume I: Theoretical Prerequisites*. 1987, Stanford, California: Stanford University Press.
- [29] Langacker, R. W. *Foundations of Cognitive Grammar Volume II: Descriptive Application*. 1991/2004, Stanford, California: Stanford University Press/Beijing: Peking University Press.
- [30] Mohammed, A. A. The Impact of Culture on English Language Learning. *International Journal on Studies in English Language and Literature*. 2020, 7(8), 21-27. <https://doi.org/10.20431/2347-3134.0801003>
- [31] Nisbett, R. E. and Miyamoto, Y. The Influence of Culture: Holistic Versus Analytic Perception. *Trends in Cognitive Sciences*. 2005, 9(10), 467-473. <https://doi.org/10.1016/j.tics.2005.08.004>
- [32] Okell, J. *A reference grammar of colloquial Burmese*. 1969, Oxford: Oxford University Press.
- [33] Sapir, E. *Culture, Language, and Personality*. 1949, Berkeley and Los Angeles: University of California Press.
- [34] Science Mg Wa. *Mitharrsuletywaye: sinwithtutomyarr [Family selected novellas]*. 1998, Yangon: Than Lwin Oo Press.
- [35] Stockwell, R. and D. Minkova. *English Words: History and Structure*. 2001, Cambridge: Cambridge University Press.
- [36] Tai, J. H. Y. Toward a Cognition-based Functional Grammar of Chinese. In J. H. Y. Tai and F. F. S. Hsueh (eds.), *Functionalism and Chinese Grammar*. 1989, South Orange, NJ: Chinese Language Teachers Association, 187-226.
- [37] Talmy, L. Figure and Ground in Complex Sentences. In C. C. H. Thompson and G. Thurgood (eds.), *Proceedings of the First Annual Meetings of the Berkeley Linguistics Society*. 1975, California: Berkeley Linguistics Society. 419-430.
- [38] Thompson, G. *Introducing Functional Grammar* (2nd edn.). 2004/2008, London: Hodder Arnold/Beijing: Foreign Language Teaching and Research Press.
- [39] Ungerer, F. and H. J. Schmid. *An Introduction to Cognitive Linguistics*. 1996, London: Longman.
- [40] Vittrant, A. and J. Watkins (ed.). *The Mainland Southeast Asia Linguistic Area*. 2019, Berlin and Boston: De Gruyter Mouton.
- [41] Wang, L. A Comparative Study of Transitivity Systems and their Realizations Across Languages: With Special Reference to Chinese, Hindi, Arabic and Greek. PhD Dissertation. 2021, Beijing: Beijing Foreign Studies University.
- [42] Whorf, B. L. Language and Logic. In J. B. Carroll (ed.) (1956). *Language, Thought and Reality: Selected Writings of Benjamin Lee Whorf*. 1941, Cambridge: The MIT Press.
- [43] Wierzbicka, A. *Understanding Cultures Through their Key Words*. 1997, Oxford: Oxford University Press.