Grammatical metaphor at tertiary level: Rise, development, and implications revisited

Eka Fadilah[*] - Universitas Widya Kartika Surabaya, Indonesia
Mirjam Anugerahwati - Universitas Negeri Malang, Indonesia

ABSTRACT

This article argues for the need to maintain grammatical metaphor as a powerful tool for meaning construal that is applicable in both written and spoken languages, notably at the tertiary level. The features in grammatical metaphor enable the writer and speaker to use language based on its use, form, and function. Given the uniqueness of grammatical metaphor constructions compared to traditional grammar approach, it is necessary to revisit its concept, application, and implication to illuminate some pedagogical and empirical impacts on language teaching and learning. Furthermore, some recommendations to incorporate grammatical metaphor into language curriculum are proposed by taking the proliferation of ubiquitous information, communication and technology as a source to create a new genre.
Keywords: grammatical metaphor; rise; development; implication; tertiary level

RESUMEN

Este artículo argumenta por la necesidad de mantener a la metáfora gramatical como una herramienta para la construcción de significado aplicable en lenguas escritas y orales, notablemente en el nivel terciario. Las características de la metáfora gramatical permiten a escritores y lectores emplear la lengua basada en su uso, forma, y función. Dada la originalidad de las construcciones metafóricas gramaticales en comparación con el enfoque gramatical tradicional, es necesario revisitar este concepto, su aplicación, y sus implicancias para iluminar algunos impactos pedagógicos y empíricos en la enseñanza y aprendizaje de la lengua. Además, recomendaciones para la incorporación de la metáfora gramatical son propuestas tomando la proliferación de las tecnologías de la información como fuente creacional de un nuevo género.
Palabras clave: metáfora gramatical, elevación, desarrollo, implicancias, nivel terciario

* Corresponding author, e-mail: mref3k4@gmail.com

THERE HAS BEEN a great deal of discussion in reference to grammatical metaphor, henceforth GM, since Halliday (1985) introduced the idea in *An Introduction to Functional Grammar*. Such discussions encompass, but are not limited to, definition, classification, function, realization, forms, and working mechanism of GM (e.g., Christie & Derewianka, 2008; Halliday, 1985; Halliday & Matthiessen, 2004, 2014; Halliday & Webster, 2009). Additionally, GM is reported as a part of English teaching and learning ([Table 1](#)).

GM is rooted in Halliday's (1985) Systemic Functional Linguistics (SFL) in which language is conceived as a semiotic system that is mapped on strata encompassing expression and content. Such strata are interrelated, for example content layer embodies lexicogrammar (wordings) and semantic discourse (meanings), while expression layer constitutes phonology (sounds) (Halliday & Matthiessen, 2014; Martin & Rose, 2008). The stratified system constitutes essential hierarchy of abstraction by recoding the language across the strata (Devrim, 2015), for instance, semantic discourse is realized by lexicogrammar by shift-ranked some elements from lexicogrammar (e.g., noun, verb, adjective, conjunction) to semantic discourse (participant, process, quality, relator). Additionally, as a semiotic system – system of meaning in which "it has the further property that it is a *semogenic system* – a system that creates meaning," but not all semiotic systems constitute semogenesis, such as a system of traffic signals as a system of meaning but they cannot create meanings built into it (Halliday, 2009, p.60). SFL embodies a general inseparable concept of grammar and lexis rather than a triad of syntax, morphology, and lexicon. The rationales of such a concept are explained as (1) the distinction of i.e., syntax and morphology "has always been ill-defined" rather than term "grammar" and (2) the unclear boundary between grammar and lexicon entails a continuum pool of grammar and lexis on a single stratum "lexicogrammar" (Halliday, 2009, p. 73).

Grammatical metaphor

GM is defined as a "tension between lexicogrammar and discourse semantic by people mean language into more than one thing at once, effectively expanding the language's meaning potential" (Martin, 2008, p. 829). According to Halliday, grammar is a resource of meaning-making which enables the work of grammar to unconsciously construe experience (Webster, 2009). Such a construction enables us to either re-theorize or re-make the meaning variation at a different level (Halliday, 2004). As Halliday provides the following example:

1. *(a)* Glass cracks more quickly the harder you press on it.
   (b) The rate of glass crack growth depends on the magnitude of stress.

<div align="right">(Cited in Webster 2009, p.4)</div>

Sentence (1a) illustrates congruent sentence with elements: glass (participant), crack (process), more quickly (circumstances), the harder (circumstances), you (participant), press (process), on (circumstances), and it (participant). While, Sentence (1b) demonstrates the re-

wording or re-making of approximate meaning by projecting a more scientific text, in which words cracks and press (process) are turned into Things (Noun). For Halliday, nominalization that realizes a certain clause in lexicogrammar stratum and semantic discourse stratum is the congruent realization, while the nominalization that has two or more realizations in lexicogrammar stratum and semantic discourse stratum is the incongruent realization. As Halliday (1994, p.343) defined a congruent realization as "the typical ways of saying things," and an incongruent one as "not expressed through the most typical (and highly coded) form of representation" (Halliday, 1978 cited in He & Wen, p.3). Which one is better, congruent or incongruent dimension? Likewise, Christie and Derewianka (2008) argue that GM "serves to organize text and compact information creating high level of lexical density" (p.116). As nominalization, GM enables academic text to be construed not only in technicality but also in rationality by constructing logical semantic relations in the text. Thus, such a nominalization is inevitably needed in a scientific argument as a strand position of a scientist as Halliday proposed:

> The core of scientific text was the development of a chain of reasoning (ultimately based on experiments) in which each step led on to the next. But in order to lead on to the next step, you have to be able to repeat what has gone before and now is being used as a springboard for the next move (cited in Webster, 2009, p.4)

Types of Grammatical Metaphor

Initially, Halliday (1985) comprised GM into two models: *ideational* and *interpersonal metaphors*. Eventually, Martin (1992) proposed *textual* metaphor to be useful term "when discourse systems are used to construe text as 'material' social reality" (p.416). Among the other two types of metaphor, textual metaphor remains an unelaborated and controversial issue in SFL (Halliday & Matthiessen, 2014; Yang, 2018b).

Ideational metaphor is comprised of into two types; *experiential* and *logical* metaphors (Halliday, 1985; Martin, 1992). The former demonstrates the construal meaning of tension between lexicogrammar and discourse semantic where *process* is realized by verb, *quality* is realized by adjective, entity is realized by noun, and adverb or preposition is realized by circumstances. While logical metaphor constitutes construal meaning in the consequential and temporal relations inside clauses (Martin, 1992). These two types of ideational metaphor interact with conjugative relations, which are realized metaphorically and such interaction enables "a high level of abstraction in text, making it inaccessible to large sections of the community" (Martin 1992a, p. 407). This is demonstrated in the following sentences:

2. (a) Because internet **gets better**, Indonesian people are able to communicate with other people around the world **more easily**.
    (b) Internet gets better, so Indonesian people are able to communicate with other people around the world **more easily**.

(c) The **advances** of internet **enable** Indonesian people to global communication **more easily**

(d) The advances of internet **facility** lead Indonesian people to global communication.

Sentences 2 (a) and 2 (b) are congruent forms in which sentence 2 (a) consists of two clauses as *hypotaxis* (unequal status), similarly, sentence 2 (b) comprises two clauses as *parataxis* (equal status) in which both sentences construct some equal elements of language stratifications: lexicogrammar and discourse semantic: Conjunction is equal to relator (because), noun is equal to participant (internet, Indonesian people, other people, the world), verb is equal to process (gets, are able to, communicate), adjective is equal to quality (better), preposition is equal to circumstances (with, around), adverb is equal to circumstance (more easily). These are what is called *congruent* forms.

By contrast, sentences 2(b) and 2(c) denote some realization from one element to another, for instances, *because* (conjunction) is replaced by *enable, lead* (process), *gets better* (adverbial group) is replaced by *advances* (participant), *more easily* (adverbial group) is replaced by *facility* (participant), *are able to* is realized by *enable*, *to communicate* (process) is replaced by *communication* (entity), and *with other people around the world* (prepositional group) is reaized by *global* (quality), these substitutions and transcategorization are called as *incongruent forms*.
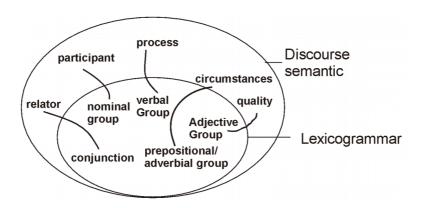

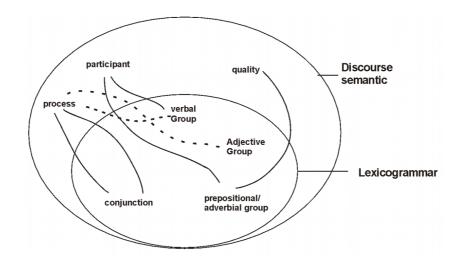Figure 1. Classification of congruent forms.

Figure 2. Substitutions and transcategorization of incongruent form.

Interpersonal Metaphor constitutes linguistic resources to adjust the negotiability and level of controversy of an utterance that is used to "enact social relationships through interactions between speakers/writers and listeners/readers" (Yang, 2018a, p.2). *Interpersonal metaphor* is comprised by metaphor of *mood* and *modality* as a tension between lexicogrammar and discourse semantic. The former construes a discourse semantic as an incongruent mood form in grammar. Metaphor of mood is typically found in spoken language (see e.g., Devrim, 2015; Halliday & Matthiessen, 2014). Halliday and Matthiessen (2014) variables as message exchanges as *give* and *demand* that substitutes *goods-&-services* and *information*. Those variables invoke four primary speech functions that are "offer, command, statement, and question" (p.137). These speech functions "are realized by linguistic forms *declarative, interrogative, and imperative*" (Yang, 2018a, p.4). Thus, when pairing speech functions *statement-declarative, question-interrogative, command imperative, and offer-interrogative or declarative* occurs, it is called a congruent form. By contrast, when inconsistent pairings are found between *command–declarative (3b-3b), statement - interrogative (4a - 4b), command – declarative (5a - 5b), interrogative – declarative (6a - 6b),* it is called as *mood of metaphor*.

3. *(a)* Look at the way they cheated before
   (b) The evidence is (the fact) that they cheated before
4. *(a)* You shouldn't say such a thing
   (b) How could you say such a thing?
5. *(a)* Don't move or I'll shoot
   (b) If you move I'll shoot
6. *(a)* Tentatively is the position still available?
   (b) I was wondering if the position is still available

(Cited in Halliday, 1994, p.366-367)

On the other hand, in metaphor of modality, Halliday (1994) encompasses modality in SFL as probability, use, obligation, and inclination. These types of modality are categorized into four semantic domains: subjective, objective, implicit, and explicit. Example (2) is from Halliday (1994, p. 354) as modality metaphor:

7. *(a)* **probably** that pudding never will be cooked.

   (b) **I don't think** that pudding ever will be cooked.

Direct implicit subjective in Sentence (7a) is reworded as indirect explicit subjective in sentence (7b). It is claimed that *the direct form is congruent, while indirect form is incongruent.*

On the other hand, textual metaphor is conceived to be included in the study of GM. Martin (1992) asserts that "certain discourse elements organize text rather than field, which include meta-message relation, text reference, negotiating text and internal conjunction, all of which are text-organizing pro-forms" (p. 416–417). Some conjugative links and their categories belong to textual metaphor, that is *reason, example, point, factor, pointing out* as meta-message relation, *this* as *text reference, let me begin by* as negotiating texture, and *a number of reasons, for example, another example, as a final point, as a result of these factors* as internal conjunction.

8. I think Governments are necessary at different levels for ***a number of reasons. Let me begin by*** pointing out that the Federal Government fixes up problems that occur in the community. ***Another example*** is that the State Government looks after schools; ***this*** prevents vandalism and fighting. ***As a final point*** the Local Government is important to look after rubbish: otherwise everyone would have diseases. ***As a result of these*** factors, Governments at several administrative levels are necessary. (Martin,1992, p. 416–417).

Example (8) explicates the subsequent use of textual metaphor categories among internal conjunction: *a number of reasons, another example, as a final point and as a result of these factors,* negotiating texture: *let me begin by pointing out that,* and text reference: *this* in a text.

Grammatical Metaphor as Nominalization and Verbalization

Nominalization constitutes the core construct underlying GM rooted in SFL functions in constructing knowledge, enabling evaluation, and facilitating information flow which affects the relationship between discourse semantics and lexicogrammar (see e.g., Byrnes, 2009; Halliday & Matthiessen, 2014; Martin, 2008; Yongsheng, 2008). As Martin (2008) said, the distinctions between lexicogrammar and discourse semantics as "the grammar and semantics match because we have a semantic entity realized by a noun" (p.802). Additionally, Nominalization entails transformation in terms of *derivation and agnation* (Ryshina-

Pankova, 2010) from one element of grammar (e.g., verb, adjective, adverb) to another element discourse semantics (e.g., participant, process, quality; Christie & Martin, 2007). When one element matches the other it is *congruent*, whereas when one element is transformed into one or more elements it is incongruent or (grammatical) metaphor (Halliday, 1985; Halliday & Matthiessen, 2004; 2014).

In a nutshell, as a semiotic system, first, Halliday comprises language meaning-making as – organizing language into stratal models that is phonology, lexicogrammar, and semantic discourse) - called as *stratification* (see figure 1). Second, the interaction between one language stratum with the other(s) signifies *realization* – meaning expression in upper stratum (semantic discourse) is realized by lower stratum (lexicogrammar) (see Figure 2). Third, the realization invokes language metafunctions – various language functions explicating ideational, interpersonal, and textual functions or metaphors – which construe some variations of grammatical and lexical forms as grammatical/lexical metaphor through *transcategorization* – changing one word class by using *derivational* (e.g., *inform* as verb – *information* as noun) or *non-derivational* (e.g., *work* as verb – *work* as noun) morphology as the fourth system. Additionally, transcategorization also involves *agnation* – the relation between congruent and incongruent (metaphorical) construct of clauses, for instance, the incongruent forms *allocation of the entire avenue, alcohol impairment,* and *access to the computer* come from *they allocate the entire avenue, it is impaired alcohol,* and *they were able to reach the computer* (see e.g., Halliday & Matthiessen, 2004, 2014).

Yongsheng (2008) criticizes the overwhelmingly emphasis of GM as nominalization by putting less attention to GM as verbalization form. Verbalization is defined as "the language phenomenon that something that is not a process by itself is taken as a process or a non-action is realized by a verb" (p.301). GM as verbalization encompasses some classifications as a process of *temporal relation, cause-effect relation, condition, and concession.*

Some connective verbs are expressed as *temporal relation* e.g., *while, meanwhile, concurrently, simultaneously, and at the same time* used to express two or more than two events happening at the same times, while *conjunctive expression* e.g., *before, after, afterwards* are used to express two or more than two events happening at the different time.

9. *(a)* There was a strong earthquake in *Central Java*, and **at the mean time** the buildings were devastated. *(congruent)*
    (b) A strong earthquake **was accompanied** by building devastation in Central Java. *(Incongruent)*

10. *(a)* There was a strong earthquake in *Central Java*, **afterwards** the buildings were devastated. *(congruent)*
    (b) A strong earthquake **followed** building devastation in Central Java. *(Incongruent)*

As cause-effect relation, verbalization may use some linking markers to express the reasons such as because, for, since, therefore, so, etc. While as a process of condition, verbalization can use connective links: and, unless, if, etc., eventually, as concession process, verbalization may use some conjugative expressions: although, even though, nevertheless, etc.,

11. *(a)* Because the oil price increases, the government warns to use oil efficiently. *(congruent)*

(b) The increase of oil price leads to warning of efficient oil use. *(incongruent)*

12. *(a)* If the oil price increases, laborers will strike to against it. *(congruent)*

(b) The strike of laborers is determined by the increase of oil price. *(incongruent)*

13. *(a)* Although the oil price increases, the laborers are silent. *(congruent)*

(b) The silence of laborers doesn't mean their agreement of the oil price increase. *(incongruent)*

There are some similarities and differences with reference to GM as nominalization and verbalization. The similarities refer to the constructions that (1) both have the tension between lexicogrammar and semantic discourses, (2) both can make re-construction of meanings in different ways, and (3) both may interface one to another that is "the use of nominalizations lead to the occurrence of verbalization and *vice versa*" (Yongsheng, 2008, p.305).

Pedagogical and Empirical Implication of GM

Theoretical and empirical groundwork of GM aforementioned have explicated and reported how GM constructs text, clause, and discourse embodying foregrounded links between lexicogrammar and semantic discourse. It is necessarily to say that analysis of learners' written and spoken language are not merely skewed on the analysis of genre types (e.g., recount vs. argumentative), grammatical errors (e.g., s-v agreement, article use, etc.,), but also the broader types subject matter (field) and audience type (tenor). GM enables to encode data derived from those broader types to be discussed and specified thoroughly (Rishyna-Pankova, 2015).

Academic writing, for instance, necessitates expert writers i.e., lecturers to be appraised for their professionalism to publish or perish as well as the novice writers i.e., learners to write their final projects e.g., research projects, theses, dissertation, requires those writers to provide a condensed text elucidating the major issues raised in the research report. One of the systemic strategies deals with such academic writing is applying GM and any genre e.g., recount, description, argumentation, exposition that could be used in writing research subchapters e.g., Introduction, method, discussion. Such strategies are conceived as powerful tools in writing various scientific and technical texts (Devrim, 2015; Halliday & Matthiessen, 2014; Webster, 2009).

GM is conceived to not only equip learners with the experience of understanding meaning metaphorically, but also guiding them to evaluate, refine, and redefine the quality of the construal meaning (Liardet, 2016). Such construal can be used as text cohesion, language condensation, lexical density, and logical reasoning (Byrnes, 2009; Liardet, 2013; Ryshina-Pankova, 2010). The use of nominalization construed in GM leads to the way to express objectification and abstraction that are mostly used in scientific texts and academic registers (Ryshina-Pankova, 2010). Furthermore, Liardet (2013) highlights the efficacy of GM as (1) anaphoric reconstrual (building an argument by summarizing and restating what was previously stated), (2) elaborated nominal group (infusing multiple meanings into a single clause element), (3) networking cause and effect (interaction of logical and experiential meanings), and (4) meaning accumulation through (repetition or restatement). Similarly, GM contributes to the higher level of writing abstraction such as the use of GM to paraphrase or summarize an academic text (Yasuda, 2017). For example, Yasuda reports that GM promotes learners to write more rhetorically effective and coherently structured in writing summary. It also leads the learners to think the authors' stance in the original texts as implied statement rather than direct statement by using nominalization (GM).

Ryshina-Pankova and Byrnes (2013, p.195) coined "thinking of writing" which includes activities that teacher-learners do in discussing GM in the subsequent steps such as: (1) asking the learners to highlight GM as nominalization and its roles in the texts, (2) demanding the learners to highlight GM types: ideational, functional, and textual functions and how they construe that way either in academic texts or spoken registers, and (3) asking the learners to unfold and unpack GM by providing the congruent forms to be shifted into incongruent one by paraphrasing, summarizing, synthesizing, etc., Indeed, such processes cannot be conducted at once time in one occasion, but rather the GM configuration and reconfiguration need to consider learners' level of proficiency. For instance, the first step might fit a beginning level by discussing the process of word formation (e.g., derivation, agnation) to enhance learners' vocabulary and grammar. The second step might be better suited for intermediate level by encouraging learners to shift from personal experience to more thematic areas such as particular foreign culture. The third step could be implemented at the advanced level after having experienced with the foregoing two steps. Yasuda's (2015) finding supports such idea in which GM is influenced by learners' level of English proficiency. The higher level of proficiency, the more metaphorical clauses use compared to the lower proficiency learners.

Furthermore, the considerable research findings on GM enable researchers to define and re-define the GM implementation. Devrim (2015) put forward that researchers have three options to investigate the GM constructs that is "following the *stratal model,* adopting the *semantic model,* or theorizing their own" (p.13). The two former options can be conducted by replicating the previous research findings by investigating the use of GM in learners' written or spoken language (e.g., Liardet, 2013, 2016; Yasuda, 2015, 2017),

analyzing academic texts or article abstracts (Ryshina-Pankova, 2010). While the latter option, researchers might start by analyzing language registers through Corpus study (e.g., He & Yang, 2018; He& Wen, 2017; Hu, 2015; Liardet, 2018). Some corpora studies e.g., Corpus of Historical American English (COHA), Corpus of Contemporary American English (COCA), British National Corpus (BNC) are the largest corpus containing larger sizes with 400, 520, and 100 million words respectively (He & Wen, 2017). Besides, the researchers might also create their own corpora study by compiling either learners' written or spoken language. A contrastive or comparative study of English use between outer and expanding countries could provide a clear picture with regard to lexicogrammatical variations used in variety of genres (Hu, 2015). However, it should not merely analyze the concurrent frequency of GM appearing in the texts across genre, but rather the analysis that accounts for the nuances "greater variation, quality and effect of its deployment," and it might be achieved by providing instructional support and understanding of such nuances (Liardet, 2016, p.117).

Recommendation and Conclusion

GM constitutes a powerful tool for language and content integration in language pedagogy as a part of *genre* analysis, especially at tertiary level. Indeed, grammar based-syllabus is still widely practiced in Teaching English as a Foreign Language (EFL), however, such a practice is by no means of regressing to the traditional method (e.g., Audio-Lingual Method) but rather to adapt to fit the context (Fadilah, 2018). Likewise, the ubiquity of internet and proliferation of digital tools provide multimodality as semiotic mediation that are relevant in 21st century education. The notion multiliteracy entails the skill required to encode and decode language to read and write a language as a traditional point of view, while the notion digital multiliteracy invokes internet and technology-mediated literacy (see Elola & Oskoz, 2017 as the main review). Through digital multiliteracy, the interface among mode, modality, and media is inseparable in which mode as semiotic representation e.g., textual, aural, visual, is used to present information, while modality constitutes semiotic realization of one mode. Additionally, mode and modality might use asynchronous or synchronous computer mediated communication (CMC). The former might be conducted by writing in a *blog* which is read later by the reader for the discussion, while the latter could be carried out by using e.g., *Google Docs, Facebook* which entails a simultaneous chat between the writer and reader. Later, media constitutes technological means which combine visual (images), aural (sound), and textual (subtitle) modes (Guichon & Cohen, 2016).

Such digital tools provide new insight in English teaching and learning in the 21st century which creates new kinds of *genre* instead of classical ones e.g., description, argumentation, narration, exposition. The new genre is explicated by the use of texts via e.g., *wiki, blog, Facebook, Twitter* that enable language learners to use text, sound, and video simultaneously. Additionally, the use of video blogging (vlogging) enables learners to create

personal journals that later is shared via public websites such as YouTube, Facebook, or Twitter. This kind of new genre should be called for the additional elements of the curricular development at tertiary level. The emergence of this genre enables more elaborative and comprehensive discussion with reference to language making-meaning explicated in grammatical metaphor to make in depth-analysis on any kinds of semiotic mediation elucidated through digital multiliteracy.

In summary, GMs provide not only genre awareness (e.g., nominalization, verbalization, preposition) in terms of their stratal tensions between lexicogrammar and semantic discourse, but also genre disciplines (e.g., scientific texts, magazine, fictions) explicated as language register. Analyses on written and spoken languages across genre awareness and disciplines provide a comprehensive understanding of the language structure, use, and function. Likewise, the interface between task- and genre-based approaches might become powerful language pedagogy to implement at tertiary level. Eventually, incorporating ubiquitous information, communication, and technology create a new genre that needs to be discussed and elaborated for the future language research and teaching pedagogy in conjunction with GM use.

References

Byrnes, H. (2014). Task-based language learning: Insights from and for L2 writing: An introduction. In H. Byrnes & R. Manchon (Eds.), *Task based language learning: Insights from and for L2 writing* (pp. 1–26). Amsterdam, the Netherlands: John Benjamins.

Byrnes, H. (2009). Emergent L2 German writing ability in a curricular context: A longitudinal study of grammatical metaphor. *Linguistics and Education*, *20*, 50 – 66.

Byrnes, H., Crane, C., Maxim, H. H., & Sprang, K. A. (2006). Taking text to task: Issues and choices in curriculum construction. *ITL-International Journal of Applied Linguistics*, *15 (2)*, 85 –109.

Christie, F. & Derewianka, B. (2008). *School discourse: Learning to write across the year of schooling*. London: Continuum.

Christie, F. and Martin, J.R. (2007). *Knowledge Structure: Functional Linguistic and Sociological Perspectives*. London: Continuum.

Devrim, D.Y. (2015). *Teaching grammatical metaphor: Designing pedagogical interventions*. Newcastle upon Tyne: Cambridge Scholars Publishing

Elola, I. & Oskoz, A. (2017). Writing with 21st century social tools in the L2 classroom: New literacies, genres, and writing practices. *Journal of Second Language Writing, 36,* 52-60.

Fadilah, E. (2018). Rethinking the maintenance of CLT in Indonesia: A response to: Ariatna's (Vol. 7, No. 2, 2016) "The Need for Maintaining CLT in Indonesia". *TESOL Journal, 9 (1),* 224-236.

Guichon, N. & Cohen, C. (2016). Multimodality and CALL. In F. Farr, & L. Murray (Eds.). *The Routledge handbook of language learning and technology (*pp. 509-521). New York, NY: Routledge.

Halliday, M.A.K. (1985). *An introduction to functional grammar (1st ed.)*. London & New York: Edward Arnold.

Halliday M.A.K. (1994) *An introduction to functional grammar (2nd ed.)*. London & New York: Edward Arnold.

Halliday, M. A. K. (2004). *The language of science*: *Volume 5 (Collected works of M.A.K. Halliday)*. London, England: Continuum.

Halliday, M. A. K., & C. M. Matthiessen (2004). *An introduction to functional grammar* (3rd edn.). London: Arnold.

Halliday, M.A.K. (2009). Preface to Continuum Companion to Systemic Functional Linguistics. In M.A.K. Halliday & J.J. Webster (ed.), *Continuum companion for Systemic Functional Linguistics (pp.vii-viii)*. London: Continuum.

Halliday, M. A. K. & C. M. Matthiessen (2014). *An introduction to functional grammar* (4th edn.). London: Arnold.

Halliday, M.A.K. (1994). *Introduction to Functional Grammar* (2nd edition). London: Arnold.

He, Q., & Yang, B. (2018). A corpus-based study of the correlation between text technicality and ideational metaphor in English. *Lingua, 203, 51-65*

He, Q. & Wen, B. (2017) A Corpus-based Study of Textual Metaphor in English. *Australian Journal of Linguistics*, *37*(3), 265-285.

Hu, J. (2015). A comparative study of China English and Singapore English: the case of grammatical metaphor in academic discourse. *Journal of World Languages*, *2*(1), 50-61.

Liardét, C., L. (2013). An exploration of Chinese EFL learner's deployment of grammatical metaphor: learning to make academically valued meanings. *Journal of Second Language Writing*, *22*(2), 161–178.

Liardét, C. L. (2016). Grammatical metaphor: Distinguishing success. *Journal of English for Academic Purposes, 22*, 109–118.

Liardét, C. L. (2018). 'As we all know': Examining Chinese EFL learners' use of interpersonal grammatical metaphor in academic writing. *English for Specific Purpose, 50, 64-80.*

Martin, J.R. (2008). Incongruent and proud: de-vilifying 'nominalization'. *Discourse Society, 19,* 801-810.

Martin, J.R. (1992). *English text: System and structure.* Amsterdam: John Benjamins.

Ryshina-Pankova, M. (2015). A meaning-based approach to the study of complexity in L2 writing: The case of grammatical metaphor. *Journal of Second Language Writing*, 29, 51 –63

Ryshina-Pankova, M. & Byrnes, H. (2013). Writing as learning to know: Tracing knowledge construction in L2 German compositions. *Journal of Second Language Writing, 22 (2),* 179-197.

Ryshina-Pankova, M. (2010). Toward mastering the discourses of reasoning: Use of grammatical metaphor at advanced levels of foreign language acquisition. *Modern Language Journal*, 94, 181–197.

Taverniers, M. (2006). Grammatical metaphor and lexical metaphor: Different perspectives on semantic variation. *Neophilologus, 90,* 321-332.

Webster, J.J. (2009). An Introduction to Continuum Companion to Systemic Functional Linguistics. In M.A.K. Halliday & J.J. Webster (ed.), *Continuum companion for Systemic Functional Linguistics (pp.1-11)*. London: Continuum.

Yang, B. (2018a). Interpersonal metaphor revisited: Identification, categorization, and syndrome. *Social Semiotics*. doi: 10.1080/10350330.2018.1425322

Yang, B. (2018b). Textual Metaphor Revisited. *Australian Journal of Linguistics, 38*(2), 205-222.

Yasuda, S, (2017). Toward a framework for linking linguistic knowledge and writing expertise: Interplay between SFL-based genre pedagogy and task-based language teaching. *TESOL Quarterly, 51* (3), 576-606.

Yasuda, S. (2015). Exploring changes in FL writers' meaning-making choices in summary writing: A systemic functional approach. *Journal of Second Language Writing*, *27*, 105-121.

Yongsheng, Z. (2008). Nominalisation, verbalisation and grammatical metaphor. In J.J. Webster (Ed.), *Meaning in context: Strategies for implementing intelligent applications of language studies* (pp. 297–308). London: Continuum.