

Exploring the use of grammatical metaphor in Indonesian EFL learners' academic writing

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ABSTRACT

Grammatical metaphor is considered to be the key linguistic resource in the creation of academic discourse. In a pedagogical context, identification of grammatical metaphor in students' writing can be used as a measurement of students' academic literacy level to determine actions to improve the existing situation. In Indonesian EFL context, students' grammatical metaphor deployment and development has not been much studied, despite its strategic role in improving students' academic literacy. This paper presents a first step towards understanding Indonesian tertiary students' linguistic strengths and weaknesses in academic literacy through the identification of ideational grammatical metaphor deployment and development. Using cross-sectional data from first year and third year students in a State Islamic College in a rural area of Indonesia, the students' academic writing were analyzed for the deployment of experiential grammatical metaphor. The findings show that the two groups of different levels of participants deployed similar types of reconstrual of experiential grammatical metaphor. Process to Thing transcategorisation was the most frequent type of experiential grammatical metaphor reconstrual across the two groups, while Relator to Process was the most frequent logical grammatical metaphor reconstrual in both groups. Third-year students surpassed the first-year group in the frequency and proportion of instances of grammatical metaphor deployment. This study has shown that the development of learners' academic writing was limited. Thus, it was suggested that a more explicit pedagogy to expose students to grammatical metaphor and more basic lexicogrammar teaching to enable the students to write academic texts is warranted.

Keywords: Grammatical metaphor; stratal tension; transcategorisation

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INTRODUCTION

University students, as members of an academic community, are required to write academic texts featuring formality, high lexical density, cause and effect networks, and nominalisation (Hyland, 2009; Martin, 1992; Schleppegrell, 2004). This can be a daunting task especially for EFL learners since they have to conform to not only the content of the texts but also the conventions of English academic writing. One of the most prevalent features of academic writing is *grammatical metaphor* (Byrnes et. al., 2012; Hyland, 2009; Schleppegrell, 2001,

2004), a powerful linguistic resource for creating clear text cohesion, highlighting technicality, enabling reasoning within the clause, and reorganizing grammatically intricate structures into lexically dense, static entities (Halliday, 1998; Martin, 1992; Schleppegrell, 2004). Therefore, to investigate the academic literacy of EFL learners, scrutinising the deployment and development of grammatical metaphor in their academic writing is an appropriate tool.

Grammatical metaphor

Grammatical metaphor is one of the crucial concepts

in Systemic Functional Linguistics (SFL) that views language as system of choice of meaning-making (Halliday & Matthiessen, 2004). In SFL, every occurrence of language embodies three metafunctions: ideational (the representation), interpersonal (the exchange) and textual (the message) (Halliday & Matthiessen, 2014, p. 83). Metaphor which is typically used to mean lexical metaphor, is the variation in the use of a word to show different meanings, i.e. variation in *meaning*: 'a word is said to be used with a transferred meaning' (Halliday, 1985, p. 321). Halliday argues that the term 'literal', which is normally used in contrast to metaphorical lexis, is 'not very appropriate' to label the common wording of an expression, instead proposing the term 'congruent' to refer to the less metaphorical expression (Halliday, 1994, p. 342). Grammatical metaphor, which refers to the realisation of a meaning in non-congruent grammar, does not deal with literal meanings, it deals with markedness: i.e. whether an expression is one of the 'typical ways of saying things', thus unmarked, non-metaphorical and congruent; or it is a marked expression, thus metaphorical and incongruent (Halliday, 1985, pp. 320-321). In a more operational terms, Schleppegrell (2002) explains,

congruently, in a clause, *things* are expressed as nouns, *happenings* are expressed as verbs, *circumstances* are expressed as adverbs or prepositional phrases, and relations between elements are expressed as conjunctions. With grammatical metaphor, the choice of elements for these grammatical categories is *incongruent*, as other categories are used. (p. 125)

Halliday (1998, p. 191) uses 'brake' and 'fail' to illustrate the transformation from congruent into incongruent expression: *the brake failed* [congruent] → *brake failure* [incongruent]. The changes between the two expressions are in the grammatical categories: *thing* + *happening* → *thing*. Grammatical metaphor is important since it enables writers to pack information into nominal groups and to present causal logical relations within a clause (e.g. *heat causes brake failure*; or *a cause of brake failure is heat*) rather than between clauses (e.g. *brakes fail because they get too hot*). This results in lexically dense writing, a distinctive characteristic of academic writing. However, grammatical metaphor

is not always about nominalization, as can be seen in the above example is it also about causal relation presentation. In the metafunctions, nominalization which is the shift from Process to Thing can be categorized as experiential grammatical metaphor (one of ideational grammatical metaphor, along with logical grammatical metaphor). Other types of grammatical metaphor are discussed in the following section.

Types of grammatical metaphor

Ideational grammatical metaphor reconstrues action-oriented experiences of reality as abstract entities, as if they have institutional relations (Martin & Rose, 2003), and can be sub-divided into experiential and logical metaphor. Experiential metaphor deals with the reconstrual of experience by elements (Martin & Rose, 2003, p. 110). While logical metaphor is concerned with reconstruing logical relations between figures as being within a figure (Martin & Rose, 2003, p. 148). Examples of ideational metaphors can be seen in Figure 1.

As can be seen from Figure 1, version A provides congruent realization, i.e., typical realization of discourse semantics onto the lexical grammar, e.g., *processes* are realized in *verbs*, *participants* in *nominal groups* and *relator* in *conjunction*. The other two versions (B & C) show grammatical metaphor realizations of the discourse semantic onto the lexical grammar (illustrated by the dot lines), e.g., *processes* are realized in *nominal groups*, *relator* in *prepositional phrase* or in *verbal group*. This example shows both experiential (e.g., *Increased immigration* and *Sydney's immigration growth*) and logical (e.g., *Due to* and *has led*) grammatical metaphor.

Interpersonal grammatical metaphors are characterized in terms of metaphors of mood and of modality. Halliday defines interpersonal metaphor as expressing modal and mood meaning outside the clause (Taverniers, 2003, pp. 10-11), thus, upgrading modality from group rank to clause rank. Metaphors of modality deal with degree of certainty, while metaphors of mood deal with speech function expression (exchange system, i.e. giving or demanding information, goods & services) (Halliday, 1994, p. 363). Examples of interpersonal metaphors are as follows:

Metaphor of modality:

Congruent : *Probably* that pudding never will be cooked
Metaphor : *I don't believe* that pudding ever will be cooked (Halliday & Matthiessen, 2014, p. 687)

Metaphor of mood (typical examples are 'speech-functional formulae'):

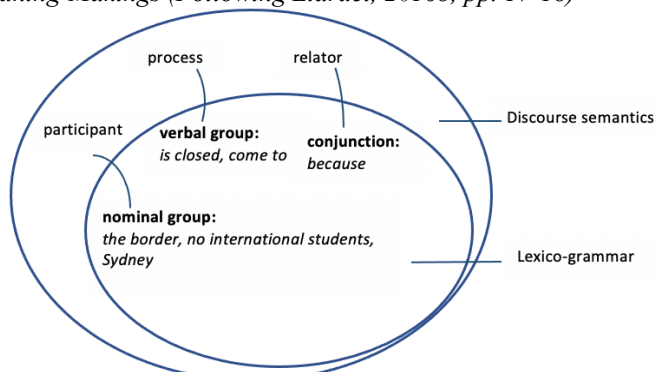
Congruent : *don't ...!*
Metaphor : *I wouldn't ... if I were you* (command functioning of warning)
Congruent : *maybe I'll...*
Metaphor : *I've a good mid to ...* (offer functioning as threat)
Congruent : *she should ...*
Metaphor : *she'd better...* (command functioning as advice) (Taverniers, 2003, p. 11)

As the nature of ideational grammatical metaphor is the reconstrual of knowledge, this kind of metaphor can be expected to dominate academic

writing. As an initial exploration of grammatical metaphor in Indonesian EFL contexts, this paper will only scrutinize experiential grammatical metaphor.

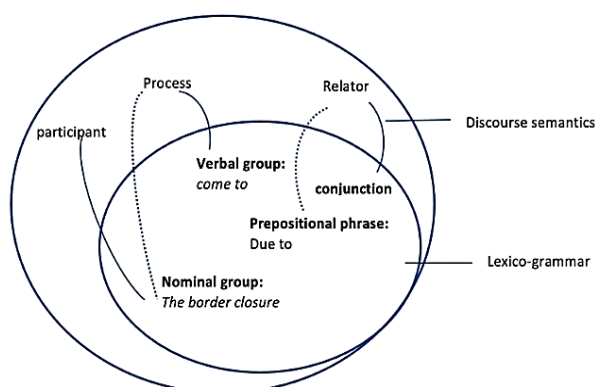
Figure 1.

Possible Realizations of Meaning-Makings (Following Liardét, 2016b, pp. 17-18)



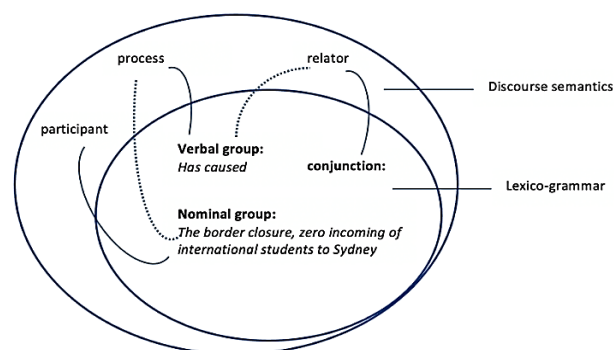
Congruent realization (version A)

Because the border is closed, no international students come to Sydney



Metaphorical realization (version B)

Due to THE BORDER CLOSURE, no international students come to Sydney



Metaphorical realization (version C)

THE BORDER CLOSURE has caused ZERO INCOMING of international students to Sydney

Ideational grammatical metaphor as stratal tension

Halliday (1998, pp. 190 & 192) acknowledges the nature of grammatical metaphor as involving tension between the lexicogrammar and discourse semantics strata (also, Halliday & Martin, 1993; Martin, 2008).

In their approach to describing grammatical metaphor as stratal tension, Halliday and Matthiessen (2014, pp. 712-713) identify the congruent mode of realization of:

- a sequence as a clause nexus
- a figure as a clause

In metaphorical mode, the realization is remapped ‘downwards’ (2014, pp. 712-713):

- a sequence is realized by a clause
- a figure is realized by a group
- an element is realized by a word

Martin (2008) also emphasizes that the ‘realignment’ and ‘remapping’ of the realization relationship between the discourse semantics and

lexicogrammar strata is the fundamental basis of meaning potential extension. In the stratal tension model, the meaning-making powerhouse is both strata, since their relationship results in the congruent or incongruent realization (Hao, 2015, p. 71). Martin (2011), however, conceives of stratal tension differently from Halliday and Matthiessen, and represents stratal tension as shown in Table 1.

Hao (2015, p. 72) considers that this model is misleading for its simplification of the grammatical representation, which involves only a sequence of classes. Martin and Matruglio (2013) build on this model of grammatical metaphor using discourse semantic labelling (sequence, figure, entity, event, setting) rather than only classes of words. With these labels, the congruent realization of:

- a sequence is a clause complex;
- a figure is a clause;
- an entity is a participant;
- an event is a process;
- a setting is a circumstance.

Thus, in Table 2 we can see that entities construed as participants (*powerful organizations,*

some organization) are congruent, whereas figures construed as a participant or circumstance are grammatical metaphor (respectively: *the distribution*

of information on world wide web, through the distribution of information on world wide web).

Table 1

Modelling of Congruence and Grammatical Metaphor (adapted from Martin 2011)

Semantics	Process	Quality	Relator
Congruent Grammar	verbal <i>She <u>ran</u>...</i>	adjectival <i>He was <u>able</u> to run...</i>	Conjunctive <i>He failed <u>because</u> he neglected the lesson.</i>
Grammatical Metaphor	nominal <i>The <u>run</u>...</i>	nominal <i>His running <u>ability</u>...</i>	adjectival <i>His failure was <u>due to</u> his negligence.</i>
			nominal <i>The <u>cause</u> of his failure was his negligence.</i>
			verbal <i>His negligence <u>resulted in</u> failure.</i>

Table 2

Analysis of Grammatical Metaphor (Following Martin & Matrlugio, 2013)

Discourse semantics	entity	event	[figure]	setting
	<i>Powerful organisations</i>	<i>controlled</i>	<i>the distribution of information on world wide web</i>	<i>in the early 21st century.</i>
Lexicogrammar	Participant	Process	Participant	Circumstance
Discourse semantics	Entity	Event	Quality	[figure]
	<i>Some organisations</i>	<i>became</i>	<i>powerful</i>	<i>through the distribution of information on world wide web</i>
lexicogrammar	Participant	Process	Participant	Circumstance

Derewianka (1995) developed a taxonomy of grammatical metaphor where shifts such as event to participant, figure to participant, and many others are classified and exemplified (using different terminology). A combination of Derewianka's (1995) comprehensive taxonomy of types of grammatical metaphor and Hao's (2015) description of grammatical metaphor and related phenomena in language is used in this study, because Derewianka's approach allows for a systematic classification of types of grammatical metaphor, while Hao's approach allows us to account for these types in terms of the most recent developments in the stratal tension model of grammatical metaphor.

Previous studies

Grammatical metaphors have been explored from various aspects. One of initial explorations, identification of grammatical metaphors in scientific, business and political texts has revealed the dominant use of nominalization as one realization of grammatical metaphors in the respective texts confirming Halliday and Matthiessen's (2004) emphasis on nominalisation in scientific texts (Kazemian et al., 2013; Hadidi & Raghmi 2012). The findings also show different characteristics of nominalisations in different fields with the use in political texts were coloured and fuelled by relation of power and ideology which was

not the case in business texts (Hadidi & Raghmi, 2012).

A more popular source of grammatical metaphor analysis has been students' texts (Ezeifeke, 2011; Liardét, 2013, 2016a, 2016b; Ryshina-Pankova 2010, 2015). In the students' undergraduate thesis abstract, the deployment of ideational grammatical metaphor was used to build the value of academic texts, in this case the lexical economy and information density (Ezeifeke, 2011). In a more elaborated analysis on students' book reviews, the use of grammatical metaphors was found to help the coherence and cohesion of texts and to the construction of rhetorically effective evaluation and argument (Ryshina-Pankova, 2010). Grammatical metaphors also evidence in helping university students in meeting the demand of complex communication in advance literacy contexts through the conceptual reconfiguration of experience and configuration or development of concepts in texts (Ryshina-Pankova, 2015).

In her analysis on the students' onto-genic development on the use of grammatical metaphor, Liardét (2013) formulated a framework of analysis to reveal the functions of grammatical metaphors in texts through: anaphoric reconstrual, elaborated nominal groups, cause and effect networks, and meaning accumulation. The framework was also used to investigate the distinction on the use of grammatical metaphors between low scoring

students' texts and the high ones (Liardét, 2016a). In another investigation, the framework along with two other measurements: metaphorical intermediacy and metaphorical enrichment were deployed to reveal Chinese EFL learners' nominalization development (Liardét, 2016b), with the findings showed no significant development across the four semesters of study.

The current study may resemble the previous studies in the use of students' texts as the data, nevertheless, the contexts of this study are different from the above contexts, in terms of the target language status (EFL compared to ESL and native speakers). As an initial exploration into the use of grammatical metaphor, this paper investigates the deployment and development of grammatical metaphor of Indonesian EFL learners at the tertiary education level to answer the following questions:

1. How do Indonesian tertiary EFL learners deploy grammatical metaphor in their argumentative writing ?
2. What developmental patterns on the use of grammatical metaphor are shown across the different years of study?

METHOD

To obtain multi-level data in a limited time, a cross-sectional approach to data collection was employed (Cook 1993, p. 34). This study obtained an elicited

[a] congruent: *Zaphod was delighted so Trillian celebrated.*

[b] metaphorical: grammatical metaphor involving transcategorisation: *Zaphod's delight resulted in Trillian's celebration*

(adapted from Martin, 1992, p. 17).

In this example, the following transcategorisations takes place:

1. from [a] the figure *Zaphod was delighted* into [b] the participant *Zaphod's delight*, transforming [a] the Process *delighted* into [b] Thing *delight*
2. from [a] the figure *Trillian celebrated* into [b] the participant *Trillian's celebration*, transforming [a] the Process *celebrated* into [b] Thing *celebration*
3. from [a] the relator *so* into [b] the Process *resulted in* - this is logical grammatical metaphor and will not be further discussed here.

[a] congruent: *Zaphod was delighted so Trillian celebrated.*

[c] metaphorical: grammatical metaphor involving rankshift: *Zaphod's delight resulted in [[Trillian celebrating the day]]*

(adapted from Martin, 1992, p. 17).

In this adapted example, the clause in [a] *Trillian celebrated* is rankshifted in [c]. While both semantic figures are realized by clauses, the rankshifting has made the embedded clause *[[Trillian celebrating the day]]* a Participant in the

production writing sample from two groups of undergraduate Indonesian EFL learners in the same university. There were 25 first-year and 22 third-year students. The students had learnt English from their junior high school through the university. The students were asked to write a 300-word argumentative essay in response to the same prompt. The prompt focused on an issue of current interest in Indonesia: deforestation, providing a field familiar to the students. The data was analyzed following the framework below, resulting in the deployment of experiential grammatical metaphor. The deployment of grammatical metaphor was then compared between the two groups to reveal the development patterns. To this end, the total number of texts analysed was 47, comprising 25 and 22 texts of first- and third-year students, respectively. The data consists of 10214 words (1st year group = 5001 words or 49% of the total; 3rd year group = 5213 words or 51%).

Framework of data analysis: Identifying Experiential Grammatical Metaphor

To identify instances of experiential grammatical metaphor, Derewianka's (1995) taxonomy was slightly adapted and applied together with aspects of Hao's (2015) criteria for identification of grammatical metaphor. Two devices of the identification, transcategorisation and rankshifting, are illustrated below:

Both *delight* and *celebration* represent real-life experience transcategorised into abstraction. grammatical metaphor by transcategorisation occurs when a shift in semantic meaning is reflected at the lexicogrammar level by a shift in word class. However, not all instances of transcategorisation or rankshifting are grammatical metaphor. This issue is beyond the scope of the current paper – see Martin 2008 for discussion.

The second identifier for instances of grammatical metaphor is rankshifting, particularly the shift of meaning from clause rank to nominal group rank. This can be exemplified by slightly adapting the example above:

ranking clause. In other words, it has been remapped from being a clause figure into a Participant at group rank (Hao, 2015, p. 77).

FINDINGS AND DISCUSSION

Deployment of Experiential Grammatical Metaphor

The result of the analysis shows emerging use of experiential grammatical metaphor in the students' texts. The result is recapitulated in Table 3.

The table shows that the third-year students deployed more instances of experiential Grammatical Metaphor compared to their first-year counterparts. From a total of 296 total instances of Grammatical Metaphor, 187 or 63% were deployed by the third-year students, and 109 instances or 37%

by the first-year students. The total shows the higher frequency in use of experiential metaphor by the third-year group, considering the fact that the total words written by the two groups was almost equal. The following sections elaborate the experiential Grammatical Metaphor deployment in the first- and third-year groups, and compares the frequency and variation between the groups. The result of all kinds of reconstrual are presented, but detailed discussion is limited to the type of reconstrual most commonly used by the participants.

Table 3
Total Experiential Grammatical Metaphor

Year	Grammatical Metaphor	Total frequency	Percentage
1	Experiential Metaphor	109	37%
3	Experiential Metaphor	187	63%
	Total	296	100%

First-year student experiential Grammatical Metaphor deployment

The findings show the domination of transcategorisation to Thing (nominalisation) (Halliday, 1994; Martin 2008). First year students mostly used the Grammatical Metaphor category of Transcategorisation (TC) Process to Thing, followed by TC from Quality to Thing, Process to Quality, Thing to Quality, Preposition to Process and Thing to Process, as shown in Table 4.

Table 4
Kinds of Reconstrual of Experiential Grammatical Metaphor in the First-Year Students' Texts

No.	GM Instances	F	%
1.	Transcategorisation from Process to Thing	82	75.2%
2.	Transcategorisation from Quality to Thing	12	11.0%
3.	Transcategorisation from Process to Quality	6	5.5%
4.	Transcategorisation from Thing to Quality	6	5.5%
5.	Transcategorisation from Preposition to Process	2	1.8%
6.	Transcategorisation from Thing to Process	1	0.9%
	Total	109	100.0%

Transcategorisation: Process to Thing

This kind of transcategorisation opens up possibility of meaning potential by expanding the meaning through expansion and projection (Halliday, 2014, pp. 713-714). The explanations of the expansion of meaning potential as the result of the transcategorisation are discussed in each example. In Transcategorising Process to Thing, the first year students used five patterns of reconstrual:

1. Morphological reconstrual by typical suffix addition -ion, for instance: *Infiltrate > infiltration*;

2. Phenomenon reconstrual, for instance: *modernization*;
3. Present participle reconstrual, for instance: *think > thinking*;
4. Homonym reconstrual, for instance: *decrease > decrease*;
5. Irregular reconstrual for instance: *choose > choice*.

The first pattern is the 'typical' pattern in nominalization reconstrual, i.e. by adding the nominal suffix -ion to the process. The following are examples:

So it is not water *infritation*.
So, our *respiration* wouldn't get fresh air.

In the first clause, the discourse-semantic Process *infiltrate* was construed lexicogrammatically as the Thing *infritation* (sic), opening possibilities for the nominal form to be expanded, evaluated or commented on. In this case, *infritation* as a noun has been classified by *water*, making it denser in meaning. While *water infiltration* can be understood as an abstraction of a process, the congruent form *water infiltrates* needs more elements to make a complete figure. The student's ability to pack and characterize the abstraction (*water infiltration*) shows his/her developing ability to use the meaning potential of the nominal group in an English clause.

In the second example, the Process *respire* has turned into the Thing *respiration*. *Respiration* was then pre-modified by the determiner *our* to form a nominal group showing a genitive relation and functioning as a clause Participant. As a Participant, *our respiration* was enabled to function as an Actor, entering into a set of relations with other elements in the clause which would not have been possible if it had been construed congruently.

The second pattern in the category Process to Thing is nominalization of phenomena. Examples include:

because all of thing became *modernitation* of technology and other.

In this example, the word *modernitation* (sic) has re-packed a phenomenon (e.g. *the process of things becoming modern*) into a nominal group *modernitation*, allowing it to be classified and characterized, making it even more lexically dense. The preposition group *of technology and other functions* is used as a post-modifier. The misspelled *modernitation* might be traced back to the lack of knowledge of the relationship between sound and graphology of the word.

The third pattern in the Process to Thing category is reconstrual to present participle. Examples include:

They are can't had clear *thinking*
How important *keeping* forest

In the first clause, *thinking* is pre-modified with the Epithet *clear*, showing the expanding meaning potential from its congruent form *think*. In the second example, it is assumed that the writer omitted the relational process in the clause by error. This is common in the writing of Indonesian EFL learners, since in their first language, relational Processes are not a compulsory element for inclusion in a clause. The reconstrual from *keep* to *keeping* (in this text, the writer meant the word *keep* as 'preserve') opens the potential of packing complex meaning into a dense nominal group, and to become the Carrier of the Attribute *how important*.

The fourth pattern in the Process to Thing category is homonym reconstrual, such as:

The bad impact is like *increase* of air pollution,
decrease of animal and plant species.
The *advantages* from forest in Indonesia not only
for plant, animal and insect but also for us.

The use of grammatical metaphors in the first example means that what would have congruently been a clause complex can be expressed in a clause. In the second example, the discourse-semantic event *advantage* was construed lexicogrammatically as the Thing *advantages*, allowing it to be pluralized and characterized by pre- and post-modifiers, i.e. determiner *the* and prepositional group *from forest in Indonesia*. Thus, a teacher could work with this learner to further develop this nominal group and even consider using it to structure (a part of) the text: for example, *the economic advantages from forests in Indonesia ...*, *the social advantages from forests in Indonesia ...*, *the environmental advantages from forests in Indonesia ...*; a possibility opened up by the learner's developing the ability to use experiential grammatical metaphor.

The last pattern in the Process to Thing category is irregular reconstrual, shown as:

but there is another *choise*.
we must give an *advise*.

The use of grammatical metaphor to construe *choose* and *advise* lexicogrammatically as *choise(sic)* and *advise* has turned these discourse-semantic events into abstractions. However, in these clauses, the writers did not modify the grammatical metaphors.

All experiential grammatical metaphor instances in the first-year group's texts that fall into the Process to Thing category represent one of these five patterns. However, the patterns differ in terms of their frequency. The typical nominalization with suffix *-ion* occurs more frequently than the other patterns, followed by homonym, phenomenon, present participle, and the least frequently used, irregular reconstrual.

In general, students' use of experiential grammatical metaphor in this category involves many errors in grammatical formation and spelling, or metaphor intermediacy (Liardét, 2016b). As first-year students, they appear to be in a phase of developing control over various aspects of English lexicogrammar. It is extremely common for language teachers to focus on such errors. While corrective feedback is one important aspect of language pedagogy, recognising learners' development of grammatical metaphor deployment, and providing constructive feedback around this is also important to improve learners' ability to write academic discourse (Liardét, 2016).

Third-year experiential Grammatical Metaphor deployment, and comparison with first-year

Similar to the findings in the first year, transcategorisation to Thing also dominate the third year's texts (Halliday, 1994). The explanation of the expansion of the meaning potential is discussed in each example. Table 5 shows the distribution of each category of experiential grammatical metaphor with their frequency.

There are seven categories of reconstrual: six of transcategorisation, and one of rankshifting. The table also shows that the most frequent transcategorisation used by students in their writing is the shift from Process to Thing, representing almost three quarters of the total experiential grammatical metaphors at 74.9% or 140 out of 187 instances. This ratio of 74.9% is very similar to that of the first-year students' writing (75.2% - see Table 8).

The third-year and the first-year groups have similar categories. Both have four identical transcategorisation categories, i.e. Process to Thing, Quality to Thing, Process to Quality, and Thing to Quality. However, they differ in two transcategorisation reconstruals: Preposition to Process, and Thing to Process, in the first-year data; compared to Thing to Possessor, and Quality to Process, in the third-year texts. Rankshifting was the other reconstrual present in the third-year

group's but not in the first-year group's texts. The comparison of experiential grammatical metaphor

reconstruction is illustrated in Table 6.

Table 5

Kinds of reconstruction of experiential grammatical metaphor in the third-year students' writing

No.	GM Instances	F	%
1.	Transcategorisation from Process to Thing	140	74.9%
2.	Transcategorisation from Quality to Thing	16	8.6%
3.	Transcategorisation from Process to Quality	14	7.5%
4.	Transcategorisation from Thing to Quality	12	6.4%
5.	Transcategorisation from Quality to Process	3	1.6%
6.	Transcategorisation from Thing to Genitive	1	0.5%
7.	Rankshifting	1	0.5%
Total		187	100.0%

Table 6

Comparison of Experiential grammatical metaphor reconstruction in the first and third year

No.	GM Instances	First Year		Third year	
		F	%	F	%
1.	Transcategorisation from Process to Thing	82	75.2%	140	74.9%
2.	Transcategorisation from Quality to Thing	12	11.0%	16	8.6%
3.	Transcategorisation from Process to Quality	6	5.5%	14	7.5%
4.	Transcategorisation from Thing to Quality	6	5.5%	12	6.4%
5.	Transcategorisation from Quality to Process	6	1.8%	3	1.6%
6.	Transcategorisation from Thing to Genitive	-	-	1	0.5%
7.	Transcategorisation from Thing to Process	1	0.9%	-	-
8.	Rankshifting	-	-	1	0.5%
Total		109	100.0%	187	100.0%

Transcategorisation: Process to Thing

In the Process to Thing category, there are six patterns of reconstruction; whereas in the corresponding category in the first-year group's data there are five patterns. The only difference is Conation reconstruction, which only occurred in the third year data.

The first set of examples shows typical cases of nominalisation where discourse-semantic events are construed lexicogrammatically as Things through Morphological reconstruction:

This is the most bad *improvement* for the environment.

because it's needed for our *contribution* in global society/community.

The students were able to construe the events *improve* and *contribute* in nominal groups, *the most bad improvement for the environment* and *our contribution in global society/community*: mapping

the events incongruently onto a Participant in a relational clause in the first example, and a Circumstance in a receptive clause in the second. By turning events into Things, students were then able to evaluate or modify the meaning of the words. For example, in the first clause, *improvement* was evaluated by the superlative *most bad*, which shows the writer's view on the phenomenon under discussion. The use of *improvement* as a participant has opened the potential of packing meanings densely describing a phenomenon with the writer's evaluation.

In comparison with the first-year group's data, the third year students' typical morphological reconstruction is greater in terms of frequency and variation. For variation, the third year students' texts have more variation in the suffixes used: *-ion*, as in *contribution*; *-ment* as in *improvement*; *-y* as in *activities*; and *-ance* as in *performance*. On the other hand, the first-year students only employed one

suffix, i.e. *-ion* as in *population*, *pollution* and *respiration*.

The second pattern in this category is Phenomenon reconstrual, as shown below:

but also we can feel impact from it as *global warming* and soon.

to able defending from this *globalization*.

The unpacking in this pattern cannot be represented only by turning the grammatical metaphor into its Process word class. The grammatical metaphor has turned a phenomenon with participants and a process into a single nominal group. In each case, the grammatical metaphor embodies a number of reconstruals of a base concept: warm (adj) > warm (v) > warming (gerund), and globe (n) > global (adj) > globalize (v) > globalization (n). The grammatical metaphors *global warming* and *globalization* open up possibilities to expand the clause-level meanings by evaluation or modification through the use of pre-modifiers in the nominal group, e.g. *increasing global warming*, *continuous globalization*. In these instances, the students do not attach any modifiers to the grammatical metaphor, but the writers were able to pack a complex meaning into a nominal group, with the potential to be evaluated and expanded in a more detailed manner, giving both learner and teacher something to work with in developing the sophistication of the writing, beyond the correction of errors.

The third pattern in the Process to Thing category, homonym reconstrual, does not involve any change in the word form, but the lexicogrammatical function, and therefore the meaning, is different:

because without rainforest, our country will get a lot of *damage* such as flood, etc.

Whether they explain about the *increase* or the good impact about this deforestation.

The reconstrual of the Process into Thing enables the writers to comment, evaluate or expand the potential meaning, as discussed above. In the first example, the writer comments on the nominalized word *damage* by quantifying the amount of damage, using *a lot of* and exemplifying the event of damage with *flood*, thus construing *flood* as a sub-type of the category *damage*, both grammatically and conceptually. Without grammatical metaphor, the creation of such taxonomies is much more difficult to do, and perhaps impossible to do concisely.

The first-year data in this pattern shows less variation than the third-year data, with only four words used: *advantage*, *decrease*, *increase*, and *inflict*. The third-year students deployed more variation in this pattern, such as, *slide*, *decrease*, *greet*, *damage*, *act*, *ravage*, *advantage*, *disadvantage*, *benefit*, *attempt*, and *increase*. In

terms of grammatical control, both groups showed a relatively high degree of control, with few errors in this pattern of reconstrual.

The fourth pattern found in the data is grammatical metaphor resulting from present participle construction:

to build the *balancing* of our natural resources.
which is bad for their lung, their *seeing* even,

In these instances, the discourse-semantic events *balance* and *see* were construed lexicogrammatically as Things by attaching suffix *-ing*. The determiners *the* and *their* preceded *balancing* and *seeing* in the clauses, showing the 'Thing-ness' of the words. The use of *balancing* and *seeing* in the clauses has enabled the writers to premodify these words with determiners, and to postmodify one of them with a prepositional phrase. This allows, for instance, the notion of 'balance' to be construed as a concept rather than a process. This particular data also suggests the existence of a learning process of making nominalization using *-ing* (at least for this particular group of learners), whereby they made a 'good mistake' by construing *balancing* (developing towards the use of the nominal form *balance*), and *seeing* (developing towards the use of the nominal form *sight*). Teachers can exploit such knowledge to provide constructive feedback to learners and further their development of grammatical metaphor and academic writing more generally.

The fifth pattern found in the data in category Process to Thing is irregular reconstrual from Process to Thing. Examples are:

... deforestations are good *choice*

For the farming sector, it makes huge *loses*

These clauses show the example of a shift into Thing with irregular change from the discourse-semantic event: *choose* to *choice* and *lose* to *loss*. The grammatical metaphor of Process *choose* into *choice* allows the writer to qualify the Thing *choice* with the Epithet *good*. The nominal group functions as an Attribute in a relational clause. This attribution has packed information that allows other possible options, again allowing for a taxonomy of choice in terms of how deforestation is conceptualised and related to other possibilities. Furthermore, it does not specify who did the choosing, or who else might do it in future. In this way, using grammatical metaphor provides possibilities for meaning that a congruent construal cannot do in the same way.

The second example has turned the discourse-semantic event *lose* into *lose* (a mis-spelling of *loss*), allowing the writer to quantify the event (incorrectly pluralized as 'loses' by the writer). The writer also qualifies the noun with *huge*. Thus, the use of *huge loses* [sic] in the causal clause allows the writer to quantify and qualify the event of 'losing' by construing it as a Thing, in a way that

would not be possible if it were construed congruently as a verb. The incorrect word formation from Process *lose* to Thing *lose* with pluralization –s shows that this student does not yet have control of this word formation. But focusing on this error without providing positive feedback about the grammatical metaphor would overlook the learner’s development.

The last pattern shows an instance of Process to Thing that does not immediately look like grammatical metaphor. There is only one instance of this pattern in the third-year learners’ data, whereas in the first-year data this pattern did not exist:

In some people’s opinion, this kind of *efforts* [[to develop economic and social development]] are worst

The use of “effort” can be unfolded to a congruent form, ‘to try’ (Conation to Thing):

People *try* to increase economic and social development, but it is the worst.

The construal of the conative meaning *to try* as the noun *effort* has transformed an aspect of a discourse-semantic event into a Participant with the potential to be expanded (*to develop economic and social development*), commented on (*In some people’s opinion*) and evaluated (*worst*). In the example, *effort* has been pre-modified by determiner *this kind of* to imply that there are many efforts in deforestation, again allowing for the construction of a taxonomy of kinds of effort. This would not be possible if it were construed congruently as ‘try’.

The discussion above represents all the patterns of reconstrual by third-year students from

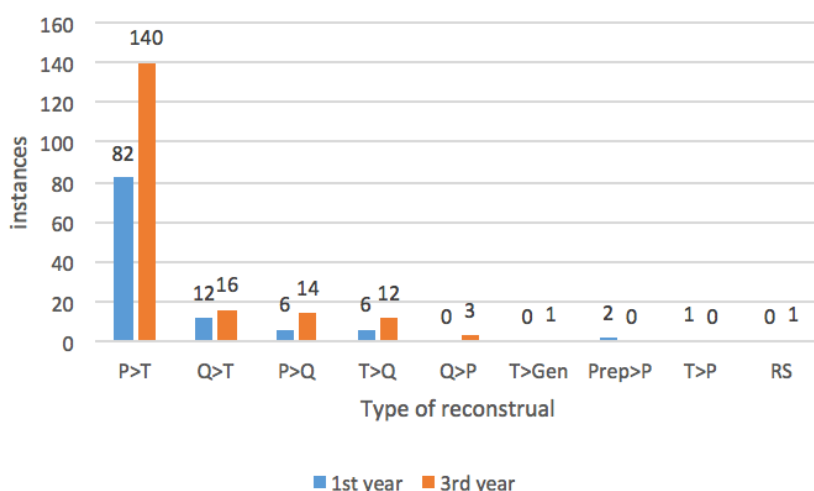
the first category of Process > Thing. As is the case in the first-year texts, the first pattern has more instances than the other patterns.

Comparing the third-year to the first year patterns in the Process to Thing category, both groups have the same patterns: morphological reconstrual, phenomenon reconstrual, present participle reconstrual, homonym reconstrual and irregular reconstrual. The difference is that the third-year group has one more pattern, conation reconstrual. However, variations within each pattern demonstrate different levels of attainment between the two groups. In the first pattern, for example, while both groups employ the same strategy of nominalization by suffix, the third-year group used a number of nominal suffixes but the first-year group only used one. In other patterns, third-year students also presented more variation and more frequency in the use of grammatical metaphor. The exception is in the use of phenomenon reconstrual, in which the first-year student texts show slightly more variation and more frequency. The significance of these findings are discussed below. These kinds of patterns of reconstrual have not been discussed in other studies about grammatical metaphors (Ezeifeka, 2011; Liardét, 2013, 2016a, 2016b; Ryshina-Pankova 2010, 2015).

Experiential grammatical metaphor development

The development of learners’ use of experiential grammatical metaphor, based on the findings of this cross-sectional study, are summarized in Figure 1 (P: Process, T: Thing, Q: Quality, Gen: Genitive, Prep: Preposition, RS: Rankshifting).

Figure 1
Development of experiential grammatical metaphor deployment



Recalling that both groups responded to the same prompt, and that the number of words written by both groups was similar, Figure 1 shows that the largest increase in use of experiential grammatical metaphor was in Process to Thing reconstrual. There

were also small increases in Process to Quality and Thing to Quality reconstruals, although the overall number of instances in these categories was too small to make any firm conclusions. The other categories, also small in number, showed little

difference between the two groups. The large number of Process to Thing reconstruals, and the overall increase in number of total instances of experiential grammatical metaphor, between the two groups suggest that there is a real difference between these groups, and that the third-year group used more experiential grammatical metaphor in their writing.

However, in terms of the categories of grammatical metaphor, there was very little difference between the two groups, with the four categories shared between the two groups capturing almost all instances (288 of the total of 296), and the

proportion of instances in each category staying remarkably similar between the two groups (see Table 6).

The categories had different patterns of reconstrual; however, the differences number of patterns in categories other than Process to Thing was small. The large number of instances in the Process to Thing category may be responsible for the larger number of patterns within this category. These patterns are shown in Figure 2 (MR: Morphological reconstrual, HR: Hyponym, PR: Phenomenon, PPR: Present Participle, IR: Irregular, CR: Conation).

Figure 2

Patterns of reconstrual in the Process to Thing category

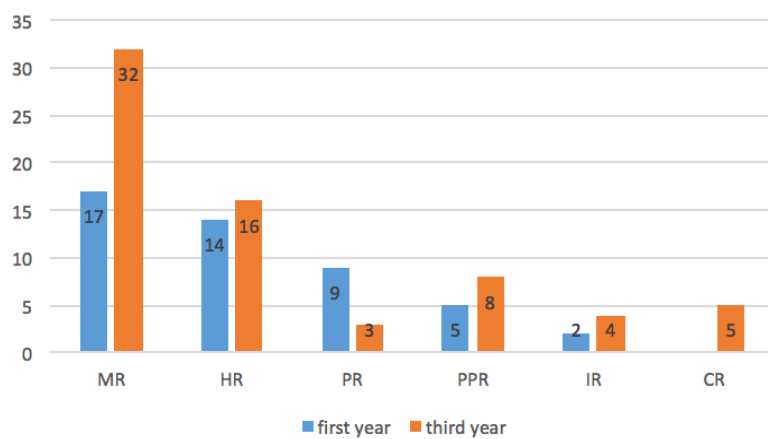


Figure 2 shows that the pattern with the most instances in each year, and with the greatest difference between the first and third years, is Morphological Reconstrual. Third-year students also had more variation in morphological reconstrual, by deploying several suffixes in the formation of grammatical metaphor; whereas the first-year students used only one suffix. Third-year students had more patterns and more instances in every kind of pattern except for Phenomenon Reconstrual: for this, the first-year students had three times more instances than did third-year students, a finding worthy of investigation in future studies, even though the total number of instances in this pattern is relatively small.

The data show that the first-year and third-year students' deployment of experiential grammatical metaphor were similar in a number of ways. The distribution of categories and the proportion of instances in categories, and also in patterns within categories, remain similar. However, there was some indication that the third-year group used a greater variety of patterns (e.g. more suffix endings in the Morphological Reconstrual pattern).

Overall, however, while the learners as individuals are developing the ability to use grammatical metaphor, there appears to be no clear 'pattern of development' between the two groups

(similar to Liardét 2013, 2016b). The main positive finding appears to be the much greater number of instances in the third-year data, and the main negative finding perhaps being the large number of errors in both data sets, which limits the effectiveness of many instances of grammatical metaphor.

In general, the first- and third-year students' deployment of grammatical metaphor includes many errors in grammatical formation and spelling, as noted above. They are in the process of developing their control of grammatical metaphor as well as of other aspects of English grammar, and a range of strategies is used by the students to realise discourse-semantic meanings with incongruent grammatical structures, as summarized in table 7.

At the same time, the errors already discussed lead to a general lack of sophistication in the construction of nominal groups and in the word choices of the students. To overcome such errors and enable the students to write academically valued texts, explicit instruction in the deployment of grammatical metaphor is required (Liardét, 2016b).

The students should also be made explicitly aware of their weaknesses. While these learners have problems in their writing, as discussed above, the data also show that they are beginning to develop their ability to use grammatical metaphor.

This is something that teachers can build on with these students, if the teachers themselves are aware

of grammatical metaphor and its importance in academic writing.

Table 7
Learners' strategies in Process to Thing transcategorisation

Experiential grammatical metaphor Transcategorisation						
Types	Process to Thing					
Strategies	Morphological reconstrual	Phenomenon reconstrual	Homonym reconstrual	Present participle reconstrual	Irregular reconstrual	Conative reconstrual

CONCLUSION

This study is an initial investigation on the deployment and development of grammatical metaphor of Indonesian EFL tertiary students. The findings showed the transcategorisation from Process to Thing as the most common reconstrual across the two groups of participants, with the third-year group's deployment surpassed their first-year counterpart in terms of frequency and variation. The findings also showed similar patterns of reconstrual of Process to Thing transcategorisation across both groups, i.e., morphological reconstrual, phenomenon reconstrual, present participle reconstrual, homonym reconstrual and irregular reconstrual. However, the overall findings showed no significant pattern of development between the two groups.

The findings of this study may contribute to the identification of one of Indonesian EFL learners' difficulties in writing academic texts, thus opening up a way of remediation. Furthermore, the identification of the patterns of students' grammatical metaphors reconstruals that has not been appeared in the previous studies on grammatical metaphors may provide a departing point for the teachers to scaffold in the teaching of academic writing in general.

This study has shown that, in this particular Indonesian EFL context, the development of the learners' academic writing was limited. The participants in this study can be considered as being disadvantaged English learners, since, apart from the fact that the language is foreign, demographically they are also primarily from a social class that has difficulties in accessing English due to their remote living areas and their socio-economic backgrounds. Therefore, one important response to this situation is to equip the teachers with linguistic knowledge and understanding of pedagogical practices that can provide the learners with explicit Knowledge About Language, as a baseline for more advanced English literacy development, including systematic and explicit teaching of grammatical metaphor and its important role in effective academic writing, which can be further studied on this topic.

On the other hand, teachers should also be aware of the importance of grammatical metaphor for the students. Thus, it is not only learners that need instruction, but teacher education programs should also include instruction about language that goes beyond grammar structures and errors, to an understanding of how important discursive aspects of language such as grammatical metaphor function in valued written texts. The findings presented here suggest that such programs are of importance in Indonesia and in other countries where English is taught and learned as a foreign language under similar conditions.

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