

GRAMMATICAL METAPHOR REPRESENTATIONS AND TRANSGRAMMATICAL SEMANTIC DOMAINS IN THE SOCIAL CONTEXTS OF ENGLISH LANGUAGE LEARNING IN INDONESIA

Amrin Saragih

English Applied Linguistics Study Program, Postgraduate Studies

The State University of Medan, Indonesia

Corresponding author: amrin_saragih@yahoo.com

Abstract

Grammatical metaphor refers to the coding of meaning or experience in the manner as if the meaning or experience were coded by another lexicogrammatical coding. Metaphorical representation implies that there are two manners of coding, namely the congruent or literal and incongruent or metaphorical coding. Transgrammatical semantic domains extends meaning by a range of grammatical units. Transgrammatical semantic coding implies that agnated meanings are realized by more than one semantic unit. Grammtical metaphor representation inherently contains transgrammatical coding. This paper addresses grammatical metaphor commonly used in texts of science, technology and academics, which are very difficult for Indonesian students to understand and translate into good bahasa Indonesia (BI). By applying knowledge or competence of gramatical metaphor and transgrammatical semantic domain Indonesian students are expected to effectively learn the meaning of English text of science, technology and academics and to translate the texts into good BI.

Keywords: grammatical metaphor, transgrammatical semantic domain

Introduction

Grammatical metaphor representation indicates as if a text were expressed in another grammatical coding. This is to say that an experience or meaning which is commonly coded in a normal or common wording is now expressed in another mode of wording. This implies that grammatical metaphor involves two layers of coding, namely the congruent and incongruent or metaphorical one. The congruent or literal coding indicates that there is a natural relation between meaning (semantics) and wording (grammar) in the coding. The incongruent representation shows that the natural coding is violated. In other words, in grammatical metaphor there is a tension between meaning and wording or between semantics and grammar (Martin and Rose, 2007: 229). Gramatical metaphor divides into ideational and interpersonal metaphor (Halliday, 2014: 707; Thompson, 2014: 253). This paper is focussed on ideational metaphor which mainly involves texts of science, technology and academics.

Transgrammatical semantic domains extend meanings across different grammatical units (Halliday, 2014: 665). In other words, agnated meanings are potentially coded by more than one grammatical aspect. This implies that grammatical metaphor inherently involves transgrammatical semantic domain.

English texts of science, technology, and academics are very difficult for Indonesian students to understand as the texts are coded in grammatical metaphor. However, by applying transgrammatical semantic domains the English texts can be better understood by Indonesian students leaning English as a foreign language.

This paper firstly addresses both grammatical metaphor representtation and transgrammatical semantic domains. Secondly, both aspects of grammatical metaphor and transgrammatical semantic domian are applied to English language learning by which Indonesians learners can better understand the various kinds of texts. Finally, the paper proposes steps in teaching the grammatical metaphor by applying transgrammatical semantic domain.

Literature Review

Grammatical Metaphor

The term *metaphor* was coined by Aristotle, deriving from Greek *meta* 'beyond' and *pherein* 'to carry' (Ross 1952). Thus, metaphor conveys meaning beyond that carried by words. Metaphor explains how people conceptualize abstractions in concrete ways (Danesi 2013: 189). In other words, metaphor converts understanding from concrete or sensory to abstract or cognitive perception. Danesi (2013: 189) exemplifies that the meanings of the words *cat*, *table* and *tree* are visible and concrete whereas that of *life* is abstract and cannot be perceived. However, by comparing *life* to something concrete such as *stage* in the text *life is a stage*, one gains a clear and concrete understanding of what this concept entails (at least in an imaginary way). With its characters, settings, and plots, the *stage* is felt to be an appropriate analogue for life. The theatre remains, to this day, an overarching metaphor for *life*. The theatre is even commonly used as a term to talk about life. For instance, if someone is asked *what is your life like?* one might get a response such as *my life is a comedy* or *my life is a farce*, from which one can draw real inferences about that person's life.

Halliday (2014: 29) observes that experience is potentially metaphorized. Prior to this, Halliday and Matthiessen (2006: 227) have elaborated that there are two ways of coding meaning or experience, namely coding experience literally or congruently and incongruently or metaphorically. Both congruent and metaphorical coding potentially occur at the lexical and grammatical level, which correspondingly results in lexical and grammatical metaphor (Halliday and Matthiessen, 2006: 221-222). The congruent coding is relocated or transformed to incongruent or metaphorical one by associative thinking (Danesi, 2013: 191). In other words, a metaphorical coding inherently contains a comparison where similarities are found between two things or objects.

Lexical metaphor involves (an implicit) comparison between lexical items or words. For example, on one hand the text *the snake is crawling on the grass* is in congruent or

literal coding with the word *snake* is normally or commonly meant 'an animal' or 'a reptile'. On the other hand, at the lexical level the text *do not trust Dianne; she is a snake* is a metaphorical coding where Dianne is compared to snake. In other words, there is a comparison between *snake* and *Dianne*. With reference to lexical semantics, the features of the word *snake* are generatively described as [+scale, +coil, +crawl, +poisonous], where the sign + means 'apply'. The four features of snake are mapped on to and compared with those of Dianne as a human being with the semantic features as [-scale, +coil, -crawl, +poisonous], where – means 'not apply'. The comparison indicates that two out of four features of snake are possessed by Dianne. In other words, proportionally about 50% of the semantic fetures of are shared by Dianne. As there are similarities between a *snake* and *Dianne* or there coexist features of snake and Dianne, there is a strong basis or ground to metaphorize Dianne as a snake as realized in the text *Dianne is a snake*. In lexical metaphor a comparison occurs between two words. The following examples of lexical metaphor indicates comparisons between

- (1) noun-noun: the *door* of his *heart*, the *root* of the *matter*, the *island* of *hope*, the *eye* of her *heart*, the *foot* of the *hill*...
- (2) verb-noun: *curbe* his *passion*, *open* his *heart*, *warm up* the *political situation*, an *idea sparks* , *break* the *rules*...
- (3) adjective-noun: *dark age*, *bright future*, *golden age*, *happy hours*, *cloudy life*...

Proper names are potentially metaphorized such as in the clause *she's a Mary Robinson* (Griffiths, 2006: 88). In this text a proper name is related and compared to someone a *she*. The proper name does not have conventional meaning that language users know from knowing the language, but useful ideas can be evoked by getting people to think of what they believe about the bearer of a name. Out of context, as elaborated by Griffiths (2006: 89) the text *she's a Mary Robinson* could be intended either literally 'she is a person who has the name Mary Robinson' or metaphorically 'she is a person who is similar in some contextually relevant ways to the law professor Mary Robinson who was president of Ireland and, later, UN High Commissioner for Human Rights'. In the same manner in Indonesian social context of Indonesia *dia sudah jadi si Malikundang* 'he has been a Malinkundang' is a metaphorical coding sharing characteristics or personalities of a cursed son known in the mythology of the betrayed son si Malinkundang. There are potentially made up metaphorical expressions such as *Prabowo is a Suharto of Indonesia*, *A.M Fatwa is a Hatta of Indonesia*, , *Gusdur is the father of antidiscrimination*, *the man is Mandella from Indonesia*, etc.

Grammatical metaphor can be well understood by referring to lexical metaphor. Analogous to congruent or literal meaning of lexical metaphor, the congruent coding of grammatical metaphor is seen in the relation between meaning and wording or between semantics and grammar Grammatical metaphor covers ideational and inpersonal metaphor; however, in this paper only ideational metaphor is elaborated.

Ideational metaphor covers experiential and logical functions. Martin and Rose (2007: 74) observes that there is a common, normal or typical ways of coding meaning in wording. In other words, there is a typical realization of meaning in wording. This typical coding is also known as congruent coding. If the typical coding is violated then

grammatical metaphor is involved. In other words, if there is a tension between meaning or semantics or between wording and grammar, grammatical metaphor is resulted.

The congruent coding or representations of meaning or in wording or of semantics in grammar are summarized in Table 1. As it is exemplified in Table 1, at the strata of semantics a thing is congruently realized as Participant (in terms of function) or noun (in terms of class or category) at the strata of grammar.

Table 1: Congruent Representation of Semantics in Grammar

Meaning (Semantics)	Function and Grammar	Examples
thing	Participant/noun	The lady is reading a book.
activity	Process/verb	The cat ran .
quality	Attribute/adjective	Ben is handsome .
relation	Parataxis— hypotaxis/conjunction	He did not come because it rained heavily.
location, manner	Circumstance/adverb	She slept soundly in the room .
comment, judgment	modality	He may come soon.
position	preposition	He is in the room.
quality	Attribute/adjective	Ben is handsome .

Grammatical metaphor forms when there is a tension or discrepancy between semantics and its coding or realization in grammar (Taverniers, 2003: 22). This is to say that if the congruent coding as summarized in Table 1 is violated or breached grammatical metaphor forms. In other words, grammatical metaphor occurs when there is incongruent realizational relations between semantics and lexicogrammar (Halliday, 20014: 664). Table 2 summarizes potential incongruent coding or metaphorical representation in English. As exemplified in Table 2 an adjective which is congruently coded in a certain context such as *an unstable land surface* where quality is coded as adjective is shifted or relocated (indicated by →) to incongruent or metaphorical representation such as *instability of land surface*. Similarly a *probable solution* is relocated to *probability of solution* or *solution probability* where *probable* as adjective or Quality is relocated to *probability* which is a noun or Thing.

Table 2: Metaphorical Representation

No.	Class Metaphor	Function Metaphor	Examples
1	adjective → noun	Quality → Thing	unstable → instability probable → probability
2a	verb → noun	Process → Thing	transform → transformation succeed → success
2b	tense/phase verb (adverb) → noun	aspect of Process → Thing	going to/try → prospect/attempt have completed → solution
2c	modality verb (adverb) → noun	modality of Process → Thing	can, could → possibility, potential is required to → duty
2d	verb + adverb/prep. phr → noun	Process + Circumstance → Thing	move in circle → revolution behave badly → misconduct
3	preposition → noun	minor Process → Thing	with → accompaniment so → effect
4	conjunction → noun	Relator → Thing	so → cause, if → condition

5a	noun head → noun premodifier	Thing → class (of Thing)	engine [fails] → engine [failure]
5b	noun head → prep. phrase post modifier	Thing → Possessor	glass [fracture] → [the fracture] of glass, village [develop] → [the development] of village
5c	noun head → possessive determiner	Thing → Possessor (of thing)	government [decided] → government's [decision]
6a	verb → adjective	Process → Quality	[poverty] is increasing → increasing [poverty]
6b	tense/phase verb (adverb) → adjective	aspect of process → quality	was absent → being absent begin → initial
6c	modality verb (adverb) → (adjective	Modality of process → Quality	always → constant will → probable
7a	adverb → adjective	manner Circumstance → Quality	[acted] brilliantly → brilliant [acting]
7b	prepositional phrase → adjective	Circumstance → Quality	[argued] for a long time → lengthy [argument], describe] in details → detailed [description]
7c	prepositional phrase → noun modifier	Circumstance → class (of Thing)	[cracks] on the surface → surface [cracks] [tea] in the morning → morning [tea]
8	conjunction → adjective	Relator → Quality	before → previous, and → additional
9	be/go + preposition → verb	Circumstance → Process	be about → concern be instead of → replace
10	conjunction → verb	Relator → Process	and → complement, then → follow so → lead to
11	conjunction → prepositional phrase	Relator → Circumstance	so → as a result therefore → as a consequence
12a	Φ → verb [in env. 1–4]	Φ → Process	[impact] → have [an impact] [press] → apply [pressure]
12b	causative verb → verb [in env1–4]	Agency → Process	make [conform] → impose [conformity on] let [release] → allow [departure]
13	Φ → noun [in env. projection]	Φ → Thing	[her success] → the fact of [her success, [my apology] → the act of [my apology]

In grammatical metaphor inherently two kinds of relocation occurs simultaneously, namely relocation of ranking grammatical units and that of grammatical class or category. Relocation of ranking grammatical units in ideational metaphor is also termed **rankshited** (Halliday, 2014: 303); that is downgrading a grammatical unit to a lower ranking unit below the grammatical unit. In English rankshifting of grammatical unit occurs when a grammatical unit is downgraded to the the lower ranking grammatical unit as shown in Figure 2. Systematically there are four ranking grammatical units: clause, group/phrase, word and morpheme. Thus, in ideational metaphor a clause is potentially rankshifted to group/phrase as the lower ranking grammatical unit below

it, a group/phrase is potentially rankshifted to word, and a word is potentially rankshifted to morpheme. The rankshiting of clausal grammatical units potentially reduces a number of clauses or clause complex into a single clause. Simultaneously, rankshifting potentially condenses a number of clauses or clause comlex into a single clause.

Relocation of grammatical class or category refers to the shift of a grammatical class or category to another one as summarized in Table 2. Relocation of ranking grammatical unit entails relocation of grammatical class or category. In other words, relocation of grammatical class occurs is a consequence of relocation of ranking grammatical unit. In English as summarized in Table 2 there are 13 potentail kinds of relocation of grammatical class.

For example, the text *Benny was absent because he was ill* is a clause complex consisting of two clauses, namely *Benny was absent* and *because he was ill*. The text congruently codes the meaning as all words as the elements of the clause are congruently mapped on to the grammatical categories as summarized in Table 1. However, the text *Benny's absence was caused by his illness* is metaphorical where the two kinds of relocation (ranking and class) have occurred. Relocation of ranking grammatical unit has rankshifted the clause *Benny was absent* to group/phrase *Benny's absence* and *he was ill* to *his illness*. The rankshifting has reduced the two clauses or clause complex *Benny was absent because he was ill* into a single clause *Benny's absence was caused by his illness*. Relocation of grammatical class as specified in Figure 1 also has occurred covering the following: the conjunction *because* has been relocated to verb *was caused by* and adjectives *absent* and *ill* are relocated to nouns *absence* and *illness*. In addition, the congruent and incongruent representations of the two texts as presented in Figure 1 indicates that proper noun and pronoun (*Benny*, *he*) have been relocated to be possessive adjectives (*Benny's*, *his*).

Ideational metaphor potentially reduces and condenses meaning of a number of clauses or clause complexes into a group/phrase functioning as a nominal group; which is known as **nominalization** (Halliday, 2014: 94). The nominalization has buried all kinds of process into a nominal group.

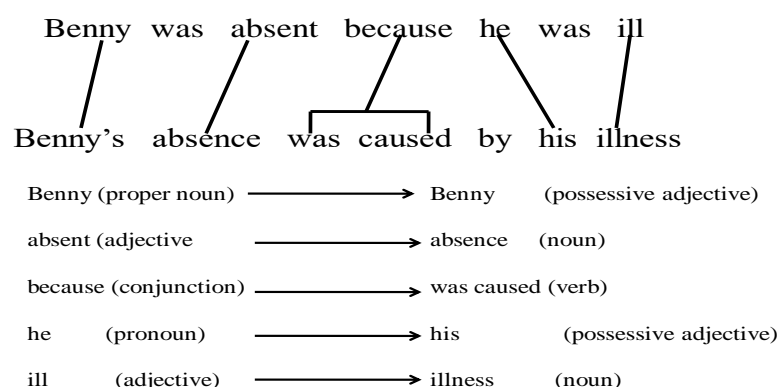


Figure 1: Congruent and Incongruent Representation

Ideational metaphor potentially reduces or condenses a number of clauses or clause complexes into a single clause. The condensation of meaning is firstly done through ranking relocation where clauses are rankshifted into group/phrases. Normally the group/phrase is transformed into nominalization. Secondly, the nominalizations are joined by applying class relocation. To exemplify, as indicated in Figure 3 there is a text consisting of four clauses.

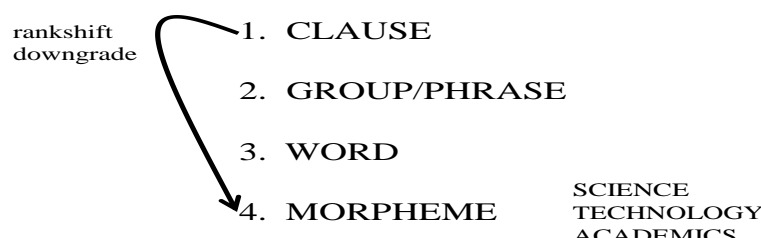


Figure 2: Rankshifting of Grammatical Units in Ideational Metaphor

As specified in Figure 3 the text *the teacher asked the students not to activate their mobile phones in the classroom because the equipments make noises in the room and which disturbs learning atmosphere* is constituted by 4 clauses; they are (1) *the teacher asked the students*, (2) *not to activate their mobile phones in the classroom*, (3) *because the equipments make noises in the room* and (4) *which disturbs learning atmosphere*. The text is congruent in the sense that words as the constituents of the text fulfil the congruent coding specified in Table 1. The metaphorical representation is *the teacher's prohibition for mobile phone activation in the classrom is due to/is caused by noises of the equipments in the room as disturbance for learning atmosphere*. The processes or steps of metaphorization proceed as follows. Firstly, clause 1 and 2 are rankshifted to group/phrase as a, and b respectively. Similarly, clause 3 and 4 are rankshifted to group/phrase c and d respectively. Secondly, group/phrase a and b are combined and simplified into Nominalization X and group/phrase c and d are combined and simplified into Nominalization Y. Thus, there are two nominalizations, namely *the teacher's prohibition for mobile phone activation in the classroom* and *noises of the equipments in the room as disturbance for learning atmosphere*. Finally, the two nominalizations are joined by using Relational Process *is due to* or *is caused by*. By comparing the congruent and incongruent wordings or by unpacking the incongruent wording, it is found that ideational metaphor representation

- (1) buries all kinds of process into nominalization; it is found that the process *asked* (verbal), *not to activate* (material), *make* (material) and *disturb* (material) are all buried in Nominalization X and Y
- (2) results in Nominalizations, which are linked by relational process (*is due to, is caused by*)
- (3) implies that the congruent wordings are associated to common sense experience and incongruent or metaphorical wording are related to texts of science, technology and academics; thus, grammatical metaphor functions to transform common sense to scientific experience,

- (4) implies that the congruent wordings are closely related to spoken texts whereas metaphorical wordings are related to written texts, and
 (5) implies that the congruent text has high grammatical intricacy (GI) but low lexical density (LD) whereas metaphorical text has low GI but high LD where the congruent text has GI=4 and LD =4 and the metaphorical or incongruent text has GI = 1 and LD = 13.

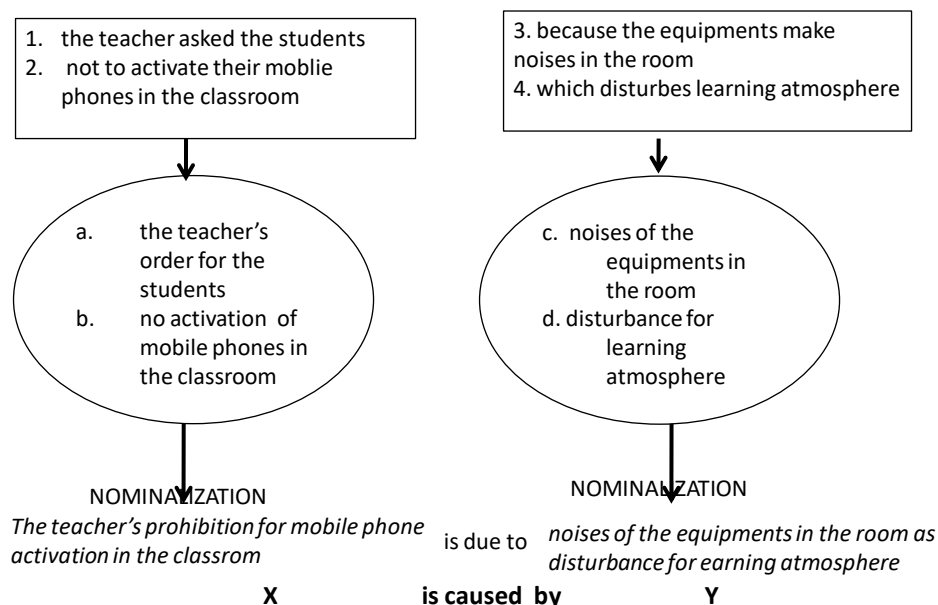


Figure 3: Burial of Processes in Nominalizations and Condensation of Meaning

Transgrammatical Semantic Domain

Transgrammatical semantic domain extends a meaning across different grammatical units (Halliday, 2014: 665-666). This is to say that a meaning is potentially realized or coded by a range of grammatical units. The meanings coded by the various grammatical units are not synonymous as each coding has its own specific context or values. Transgrammatical semantic domains are semantically agnated or share a certain feature but they differ in other respects. Following Halliday (2014: 666) the meaning of 'addition' may be realized by a range of grammatical unit, where (1) cohesively join the two clauses by *also* or (2) structurally by (a) an additive paratactic clause nexus marked by the structural conjunction *and*, (b) a circumstance of accompaniment marked by the preposition *with* or (c) an additive paratactic group nexus marked by *and*:

(1) She went to the market. Her son **also** went to the market.

(2a) She went to the market **and** so did her son.

(2b) She went to the market **with** her son.

(2c) She **and** her son went to the market.

All realizational variants of meaning are dispersed in the grammar, since they constitute different grammatical environments; but they are semantically agnated in that they all have the feature of 'addition'. Another example is 'medium-value probability modality' is realized by (3a) modal verb *will*, (3b) modal adjunct *probably*, (3c) nominal group

probability, (3d) epithet *probable* with *it is...* construction or (3e) grammatical metaphor of modality *I think*.

(3a) She **will** visit her brother who lives in Kisaran

(3b) **Probably** she visits her brother who lives in Kisaran.

(3c) There is a **probability** she visits her brother who lives in Kisaran

(3d) It is **probable** that she visits her brother who lives in Kisaran.

(3e) **I think** she visit her brother who lives in Kisaran.

Research Method

This research is a form of a detailed examination of one setting a single subject, a single depository of documents or one particular even which is stated by Bogdan & Biklen (1992: 62) as a case study. However, the descriptive qualitative research as stated by Miles, Huberman & Saldana (2014) is applied in analysing the data.

Discussion

Implications for Indonesian Students Learning English

Indonesian undergraduate students who learn English as a foreign language in the social contexts of Indonesia have difficulties in learning texts of science, technology and academics. The difficulty is caused by abstract meaning of the texts which requires special skills. The abstract meaning is mainly related to grammar although some problems related to terminology or lexical item are also faced. The difficulty in grammar is caused by the fact that texts of the three fields are coded in grammatical metaphor representations which turn the meaning to be abstract. That implies that the texts of the three fields richly involve nominalizations. Nominalization is a way of turning process, quality, manner and others into things. Once they have become things, they can be objectified, observed and measured where features or characteristics of science, technology and academic are maintained.

Indonesian undergraduate students' difficulties are specifically related to understanding the meaning of scientific, technological and academic English texts and translating the English texts into bahasa Indonesia (BI). For example, the text of grammatical metaphor in social science such as *information from the goverment team on inhuman tortures, detentions and interrogations of the refugees has resulted a psychological shock to the government* is a single clause. However, the simple clause is packed with complexities of lexical items. The single clause has lexical density of

Knowledge of grammatical metaphor and transgrammatical semantic domain are very useful and helpful for Indonesian students to understand grammatical metaphor representation (in reading skill lecture) and to translate the text into BI (in translation lecture). The solution to the problems is by exposing the students to the congruent and incongruent representation of the text, compare the two kinds of representation in order to get the meaning. This is to say that the metaphorical text is unpacked by deriving its congruent representation. Then, by comparing the congruent and incongruent texts, ranking grammatical unit and class relocation can be identified. The relocation of ranking grammatical units and that of grammatical class highlights the motif underlying the relocations.

In reading skill lecture, particularly in reading the texts of sciencee, technology and academics, the students are expected to understand the meaning of the texts in metaphorical representation. The following procedures are applied by which the sudents are expected to know or understand abstract meaning derived from grammatical metaphor representation as summarized in Figure 4.

- (1) Unpacking metaphorical representation. This is done by deriving the congruent representation of the metaphorical coding. As indicated in Figure 4, the congruent representation is constituted by 5 clauses namely (1) *the government team informed*, (2) *that the refugees had been tortured*, (3) *detained* and (4) *interrogated inhumanly*, (5) *which shocked the goverment psychologically*.
- (2) Identifying relocation of ranking grammatical units. Once the congruent text is provided it is clearly seen where relocation of ranking grammatical unit occurs. In providing the congruent codings obviously transgrammatical semantic domains occur. By comparing the congruent and incongruent representations, ranking grammatical unit relocation can be identified. As exemplified in Figure 4 the five clauses of congruent text have been rankshifted to phrases.
- (3) Identifying relocation of grammatical class. The relocation of ranking grammatical unit inhrently involves relocation of grammatical class. In other words, as the consequence of ranking grammatical unit relocation, grammatical class relocation occurs.

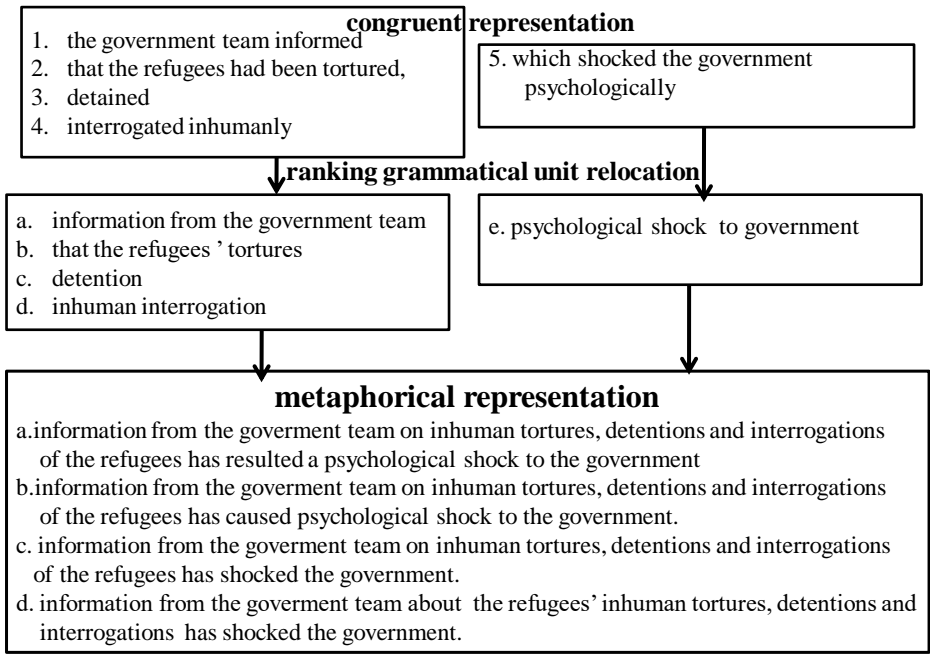


Figure 4 Unpacking Grammatical Metaphor Representation

As indicated in Table 3 the relocation of grammatical class mostly shift Process/verb to Thing/noun. The motif underlying the relocation is turning Process/verb into Thing/noun. Relocation also involves shift of Quality/adverb to Epithet/adjective and of (relative pro)noun to Process/verb.

Table 3: Relocation of Grammatical Class

No.	Congruent Representation	Metaphorical Representation	Relocation
1	informed	information	Process/verb → Thing/noun
2	tortured	torture	Process/verb → Thing/noun
3	detained	detention	Process/verb → Thing/noun
4	interrogated	interrogation	Process/verb → Thing/noun
5	shocked	shock	Process/verb → Thing/noun
6	inhumanly	inhuman	Quality/adverb → Epithet/adjective
7	psychologically	psychological	Quality/adverb → Epithet/adjective
8	which	has resulted/ caused/shocked	relative pronoun → Process/verb

(4) Comparing potential metaphorical texts. Metaphorical representation derived from the congruent text potentially varies. The potential texts can be traced by applying transgrammatical semantic domain. As shown in Figure 4 there are four agnated meaning of the metaphorical texts (a, b, c and d). All the metaphorical texts have an agnated meaning of 'X has resulted Y'. This implies that grammatical metaphor induces creativity, where from a single congruent text a number of metaphorical texts are potentially derived. In other words, from a congruent text a number of abstract meanings are potentially made. Harris (2014: 97) has found that metaphor is associated to creative thinking. It is found that while doing activities related to metaphor the students or learners are motivated to find similarities that co-exists between or among various phenomena. In this ways, the students are exposed to both abstract and concrete meanings.

In the lecture of translation, Indonesian students find it hard to translate English texts of grammatical metaphor into good and acceptable BI. Very often their translations in BI read clumsy, absurd and unnatural. The BI text *keabsenannya disebabkan penyakitnya* 'his absence was caused by his illness' reads clumsy to speakers of BI. In the same manner, *larangan guru untuk pengatipan HP di ruang kelas disebabkan keributan dari peralatan itu di ruang kelas sebagai gangguan terhadap suasana belajar* 'the teacher's prohibition for mobile phone activation in the classroom is caused by noises of the equipments in the room as disturbance for learning atmosphere' reads very clumsy in BI. The translation in BI reads unnatural because the metaphorical text is directly translated.

Knowledge and competence of grammatical metaphor and transgrammatical semantic domains are helpful and useful for Indonesian students to translate metaphorical texts into BI. To avoid unnaturalness of text in BI as the target text the strategy used is to consider the congruent coding of the metaphorical text. In other words, a metaphorical text in English is naturally translated into BI if in the process of translating the metaphorical text, the congruent text as its counterpart is also taken into account. To be precise, in translating a metaphorical text, meaning of the congruent text is taken into account. Only by comparing and considering the congruent representation and metaphorical texts can natural translation in BI be achieved.

Translation involves meaning-based transference from the source text into the target text. As congruent text is much closer to reality than metaphorical one, translating or considering the congruent text in the translation produces natural texts in the target text. In the following Table 4 three texts both in their metaphorical and congruent representations are translated from English into BI. It is shown that translated texts in BI based on congruent coding is much more natural than that based on metaphorical coding.

Table 4: Metaphorical and Congruent Based Translation

No	Metaphorical and Congruent Text	Translation Based on Metaphorical text	Translation Based on Metaphorical and Congruent texts
1	John 's visit to my house is followed by our departure to the beach (metaphorical)	kunjungan Johan ke rumah saya diikuti oleh kepergian kami ke pantai	Johan datang ke rumah saya dan kemudian kami pergi ke pantai.
	John came to my house and then we went to the beach (congruent)		
2	his tiring appearance as a consequence of continuous work since early morning leads to my sincere thought of suggestion for a rest taking (metaphorical)	tampilannya yang letih sebagai akibat kerja terus menerus sejak pagi mengarah ke pemikiran ikhlas untuk saran pengambilan istirahat.	Dia nampak letih karena bekerja sejak dinihari tadi dan dengan prihatin saya berpendapat dia sudah harus istirahat
	he looks tired as he has been working since early in the morning and I really think he should have some rest (congruent)		
3	the doctor's advice for the patient's one-week rest taking for her mental stress alleviation was meant for a probability of her mental ailment cure (metaphorical)	nasihat dokter untuk pengambilan istirahat satu minggu pasien untuk penurunan tekanan mentalnya dimaksudkan sebagai kemungkinan untuk penyembuhan penyakit mentalnya.	dokter menasihatkan agar pasien istirahat satu minggu untuk menurunkan tekanan mentalnya yang dengan cara itu penyakitnya dapat disembuhkan
	the doctor advised the patient to take a rest for one week in order to alleviate her mental stress, by which her mental ailments could be cured. (congruent)		

Conclusion

Grammatical metaphor representation indicates that an experience or meaning is coded as if it were coded in another grammatical unit. The text of grammatical metaphor implies two ways of coding: congruent and incongruent or metaphorical one.

In congruent coding there is a natural relation between the meaning and the wording or between semantics and grammar whereas in metaphorical coding there is a tension between semantics and grammar. In other words, if the congruent coding is violated, metaphorical representations occurs. Texts of science, technology and academics are usually coded in grammatical metaphor, which are very difficult for Indonesian undergraduate students to learn. Transgrammatical semantic domain extends a meaning across different grammatical units. This is to say that a meaning is potentially realized by a number of grammatical units. By its nature grammatical metaphor involves transgrammatical semantic domains. Indonesian undergraduate students have difficulty in understanding the meaning of metaphorical representation and in translating English texts of science, technology and academics into good BI. This paper has elaborated that the meaning of metaphorical text is well understood by referring to its congruent coding. In addition, translation of English metaphorical text into good and natural BI is potentially made by referring to and considering the congruent coding of the text in the translation process. In conclusion, the students' knowledge and competence in grammatical metaphor and transgrammatical semantic domains are useful and helpful to overcome the problems.

References

- Bogdan, R., & Biklen, S. K. (1992). *Qualitative research for education: An introduction to theory and methods*. Boston: Allyn and Bacon.
- Danesi, M. (2013). *Encyclopedia of Media and Communication*. Toronto: University of Toronto Press.
- Griffiths, P. (2006). *An Introduction to English Semantics and Pragmatics*. Edinburgh: Edinburgh University Press.
- Halliday, M. A. K. (2014) *An Introduction to Functional Grammar*. fourth edition. London: Routledge.
- Halliday, M. A. K. and C. M. I. M. Matthiessen. (2006). *Construing Experience through Meaning: a Language Based Approach to Cognition*. London: Continuum
- Harris, La Verne A. (2014). *Idea Engineering: Creative Thinking and Innovation*. New York: Momentum Press.
- Martin, J. R and D. Rose. (2007). *Working with Discourse: Meaning Beyond the Clause*.
- Miles, Matthew B., A. Michael Huberman, Johnny Saldana. (2014). *Qualitative Data Analysis: A Methods Sourcebook*. Thousand Oaks, CA: Sage
- Robinson, S. K. (2011). *Out of our Minds: Learning to be Creative: Learning to be Creative*. Chicester: Capstone
- Ross, W. D. (1952). *Rhetoric: the Works of Aristotle*. Oxford: Clarendon Press
- Taverniers, M. (2003). "Grammatical Metaphor in SFL: A historiography of the introduction and initial study of the concept". In Vandenberg, A.M, M. Taverniers and L. Ravelli (eds) *Grammatical Metaphors: Views from Systemic Functional Linguistics*. Amsterdam: John Benjamins.
- Thompson, G. (2014). *Introducing Functional Grammar*. London: Routledge.