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Grammatical metaphor and transgrammatical semantic domains in the social contexts of language learning in Indonesia

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ABSTRACT

The 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 extend meaning by a range of grammatical units. Transgrammatical semantic coding implies that agnated meanings are realized by more than one grammatical unit. In this manner, grammatical metaphor representation inherently contains transgrammatical coding. This paper addresses grammatical metaphors commonly related to texts of academics, science, technology, bureaucracy, diplomacy, and politics which are very difficult for Indonesian students to understand and translate into good Bahasa Indonesia (BI). By applying knowledge or competence of grammatical metaphor and transgrammatical semantic domains, Indonesian students are expected to effectively learn the meaning of English text of academics, science, technology, bureaucracy, diplomacy, and politics and to translate the various kinds of texts into good BI.

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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 & Rose, 2007). Grammatical metaphor divides into ideational and interpersonal metaphor (Halliday, 2014; Thompson, 2014). This paper covers both ideational metaphors, which mainly involves texts of science, technology, and academics, and interpersonal metaphor, which involves texts of bureaucracy, diplomacy, and politics. Transgrammatical semantic domains extend meanings across different grammatical units (Halliday, 2014). 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 metaphors. However, by applying transgrammatical semantic domains, the English texts can be better understood by Indonesian students learning English as a foreign language.

This paper firstly addresses both grammatical metaphor representation and transgrammatical semantic domains. Secondly, both aspects of grammatical metaphor and transgrammatical

semantic domain are applied to English language learning by which Indonesian learners can better understand the various kinds of texts. Finally, the paper proposes steps in teaching grammatical metaphors by applying the transgrammatical semantic domain.

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). In other words, metaphor converts understanding from concrete or sensory to abstract or cognitive perception. Danesi (2013) 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 next 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 analog or analogy 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 your life is 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) observes that experience is potentially metaphorized. Prior to this, Halliday and Matthiessen (2006) 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 metaphors (Halliday & Matthiessen, 2006). The congruent coding is relocated or transformed to an incongruent or metaphorical one by associative thinking (Danesi 2013). In other words, 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 the 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 as 'an animal' or 'a reptile.' On the other hand, at the lexical level, the text does not trust Dianne; she is a snake is a metaphorical coding where Dianne is compared to a 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 a snake are possessed by Dianne. In other words, proportionally, about 50% of the semantic features 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 indicate 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, the sea of life...
(2) verb-noun: curb his passion, open his heart, warm up the political situation, an idea sparks, break the rules, sail in the life sea...
(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). In this text, a proper name is related and compared to someone a she. The proper name does not have a 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) 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 aspects or 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 the 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, Gus Dur is the father of antidiscrimination, the man is Mandella from Indonesia*, etc.

Grammatical metaphor can be well understood with reference to lexical metaphor. Analogous to congruent or literal coding of the meaning of lexical items is the congruent coding of grammatical items, that is, the congruent relation between meaning and wording or between semantics and grammar. Lexical metaphor is analogous to incongruent relation between meaning and wording or between semantics and grammar. Grammatical metaphor covers ideational and interpersonal metaphors.

IDEATIONAL METAPHOR

Ideational metaphor covers experiential and logical functions. With reference to Martin and Rose (2007) and Ravelli (2003) grammatical metaphor is elaborated as the following: they observe that there is a common, normal or unmarked way 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 meaning and wording or grammar, grammatical metaphor is resulted.

The congruent coding or representations of meaning in wording or of semantics in grammar are summarized in Table 1. As it is exemplified in Table 1, at the strata of the 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 Meanings in Wording

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). 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 applies when there are incongruent realizational relations between semantics and lexicogrammar (Halliday, 2014). Table 2 summarizes potential incongruent coding or metaphorical representation in English. As exemplified in Table 2, an adjective that is congruently coded in a certain context, such as an unstable land surface where quality is coded as an adjective is shifted or relocated (indicated by →) to incongruent or metaphorical representation such as instability of land surface.

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]

Similarly, a probable solution is relocated to the probability of solution or solution probability where probable as adjective or Quality is shifted or relocated to probability which is a noun or Thing.

It is inherent in grammatical metaphor that two kinds of relocation occur 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 rankshfited (Halliday, 2014); that is downgrading a grammatical unit to a lower-ranking unit below the grammatical unit (see Figure 1). In English, rankshifting of the grammatical unit occurs when a grammatical unit is downgraded to the lower ranking one, as shown in Figure 2.

Figure 1

Congruent and Incongruent Representation

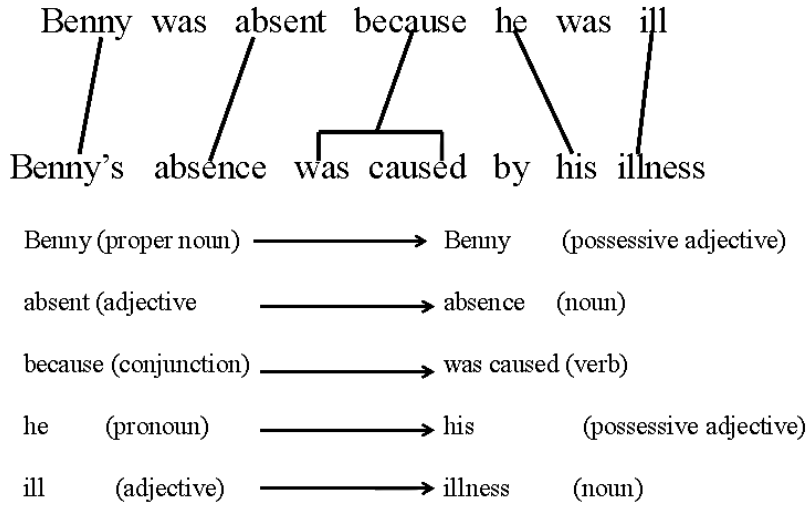
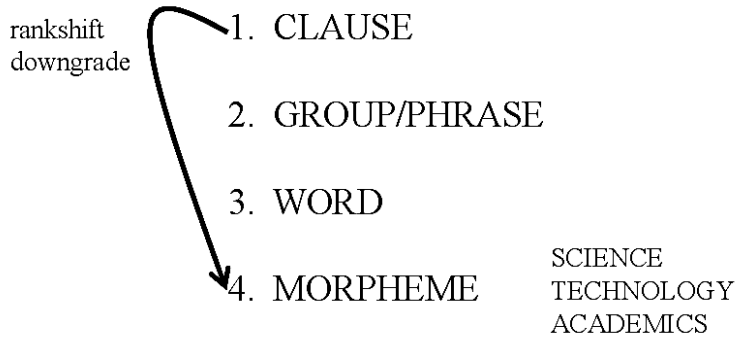


Figure 2

Rankshiftingof Grammatical Units in Ideational Metaphor



Systematically there are four ranking grammatical units: clause, group/phrase, word, and morpheme. Thus, 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 rankshifting of clausal grammatical units potentially reduces the number of clauses or clauses complex into a single clause. Simultaneously, rankshifting potentially condenses a number of clauses or clauses complex 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 the relocation of grammatical class or category. In other words, relocation of grammatical class

occurs as a consequence of the relocation of the ranking grammatical unit. In English, as summarized in Table 2, there are 13 potential kinds of relocation of grammatical class.

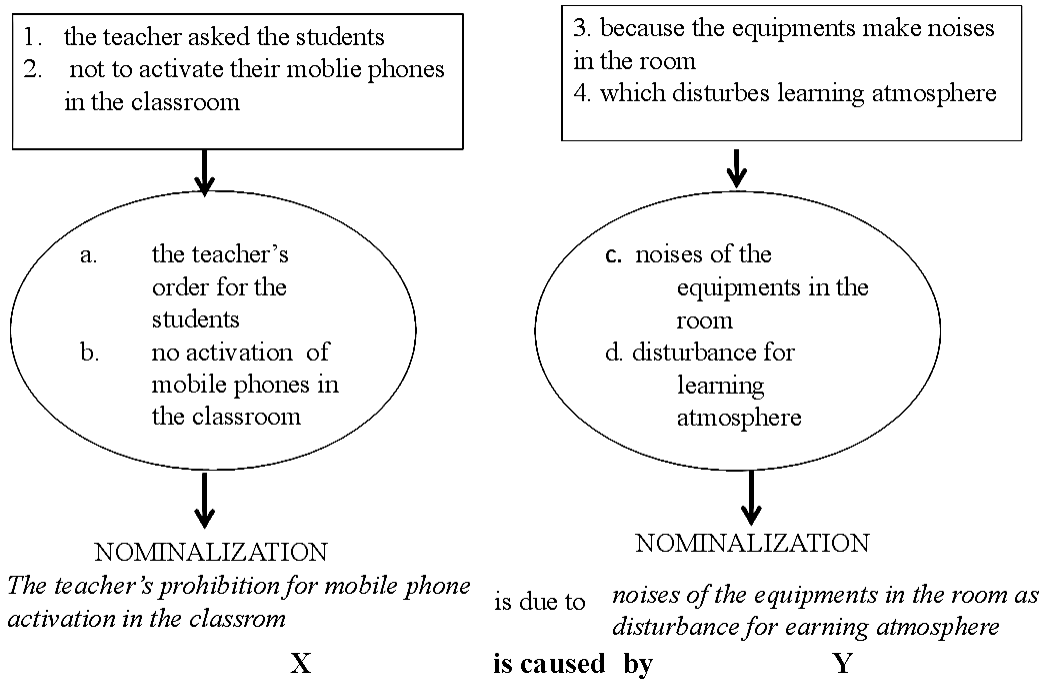
For example, the text Benny was absent because he was ill is a clause complex consisting of two clauses, namely Benny was absent and because he was ill. The text congruently codes the meaning as all words as the elements of the clause are congruently mapped on to the grammatical categories as summarized 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 the 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). The nominalization has buried all kinds of the process into a nominal group.

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. The group/phrase is transformed into nominalization, where the meaning of a clause or number of clauses is buried in nominalizations. 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 3

Burial of Processes in Nominalizations and Condensation of Meaning



As specified in Figure 3, the text the teacher asked the students not to activate their mobile phones in the classroom because the equipment make noises in the room, which disturbs learning

atmosphere is constituted by four clauses; they are (1) the teacher asked the students, (2) not to activate their mobile phones in the classroom, (3) because the equipment 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 fulfill the congruent coding specified in Table 1.

The metaphorical representation is the teacher's prohibition for mobile phone activation in the classroom is due to/is caused by noises of the equipment in the room as disturbance for the learning atmosphere. The processes or steps of metaphorization proceed as follows. Firstly, clauses 1 and 2 are rankshifted to group/phrase as a, and b respectively. Similarly, clauses 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 equipment in the room as disturbance for earning 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 the 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 with 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.

INTERPERSONAL METAPHOR

Interpersonal metaphor covers speech function (SF)/mood, modality, epithet, euphemism, and connotation (Thompson, 2014). In this paper, only metaphor of speech function/mood is treated. With reference to Martin and Rose (2007), interpersonal metaphor is potentially realized as the following descriptions.

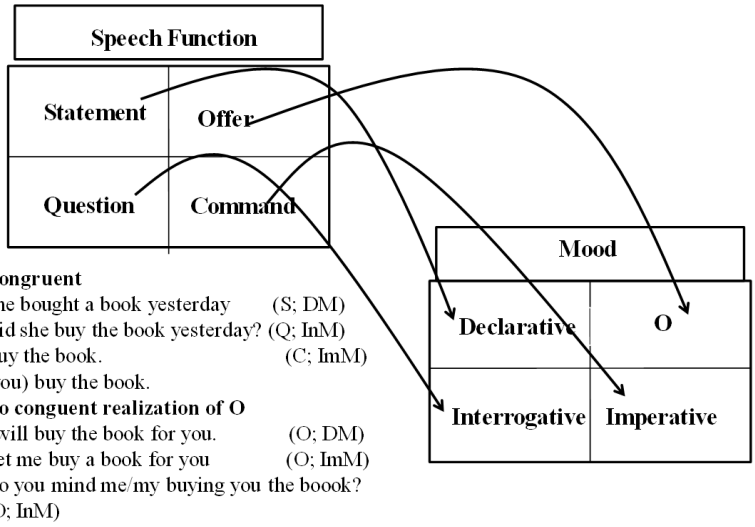
As indicated in Figure 4, congruently, the speech functions of statement (S), question (Q), and command (C) are respectively realized by declarative mood (DM), interrogative mood (InM), and imperative mood (ImM). The speech function of offer (O) does not have a congruent realization as it is potentially coded by either DM, InM, or ImM. It is exemplified that the SF of S she bought the book yesterday is coded in DM where the mood is structured as Subject ^ Finite (in which ^ means 'followed by'). The SF of Q did she buy the book yesterday? is coded by InM where the structure is reversed as Finite ^ Subject. The SF of C is congruently coded by the mood (Subject) ^ Finite, where the Subject 'you' is implied.

Metaphorical realization of interpersonal function occurs when the congruent coding is violated. As shown in Figure 5, the SF of S is metaphorically coded by InM or by ImD where the metaphorical coding is indicated by a dashed arrowed-line.

The SF of Q congruently coded by InM is metaphorically realized by DM or ImM, as shown in Figure 6.

Figure 4

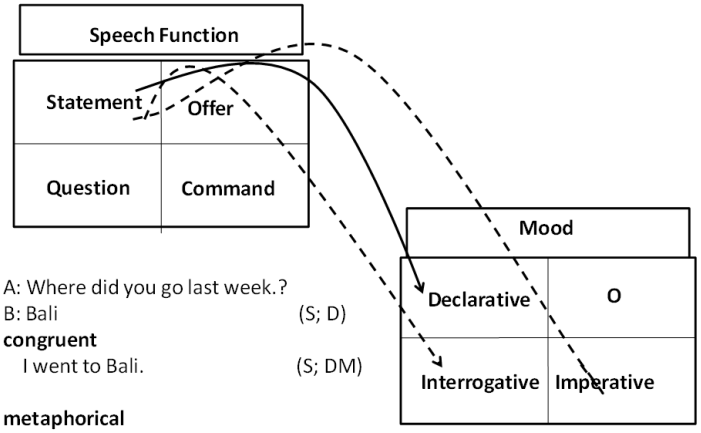
Congruent Realizations of Speech Functions in Moods



Congruent
She bought a book yesterday (S; DM)
Did she buy the book yesterday? (Q; InM)
Buy the book. (C; ImM)
(you) buy the book.
No conguent realization of O
I will buy the book for you. (O; DM)
Let me buy a book for you (O; ImM)
Do you mind me/my buying you the boook? (O; InM)

Figure 5

Congruent and Metaphorical Realizations of Sin Moods

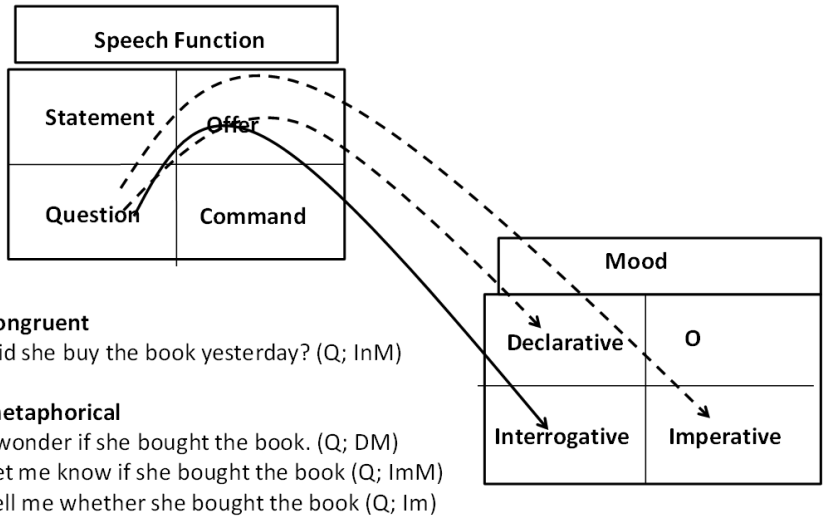


A: Where did you go last week.?
B: Bali (S; D)
congruent
I went to Bali. (S; DM)

metaphorical
Do you think I missed Bali? (S; InM)
Find in the map where Bali is. (S; ImM)

Figure 6

Congruent and Metaphorical Realizations of Q in Moods

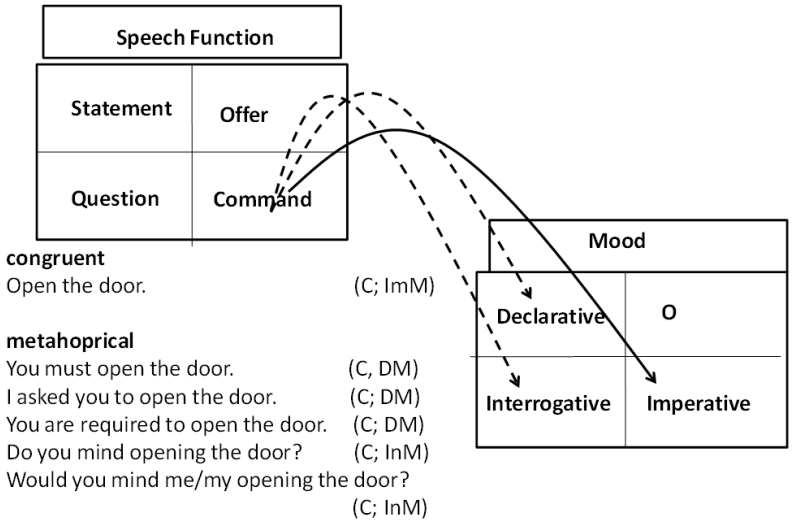


congruent
Did she buy the book yesterday? (Q; InM)

metaphorical
I wonder if she bought the book. (Q; DM)
Let me know if she bought the book (Q; ImM)
Tell me whether she bought the book (Q; Im)

The SF of C is potentially metaphorized in DM or InM as shown in Figure 7.

Figure 7
Congruent and Metaphorical Realizations of C in Moods

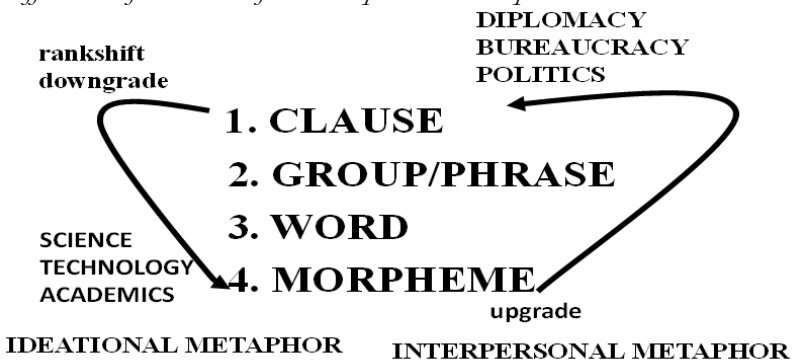


DIFFERENCES BETWEEN IDEATIONAL AND INTERPERSONAL GRAMMATICAL METAPHOR

Ideational metaphor differs from interpersonal metaphor in some respects. On the one hand, the text with an ideational metaphor is commonly used in academics, science, and technology, where objectivity is maintained with the expectation that the text has one meaning only. The text of ideational metaphor condenses and objectifies meanings of clauses into a single one in nominalization by the process of rankshifting.

On the other hand, interpersonal metaphor is commonly used in bureaucracy, diplomacy, and politics, where subjectivity is developed with the expectation the text has more than one meaning. The text of interpersonal metaphor extends agnated meaning of a clause into multiple-meaning by the process of upgrading and increases the number of clauses in text. The differences of ideational and interpersonal metaphor are summarized in Figure 8.

Figure 8
Differences of Ideational from Interpersonal Metaphor



TRANSGRAMMATICAL SEMANTIC DOMAIN

Transgrammatical semantic domain extends a meaning across different grammatical units (Halliday 2014). A meaning is potentially coded or realized by a range of grammatical units. The meanings coded by the various grammatical units are potentially synonymous but not identical as each coding

or realization has its own specific context or values. Two grammatical units are synonymous if one can be substituted or replaced by the other. For example, the clause *she went to Jakarta* is synonymous with *she left for Jakarta*. This is to say that specifically, the process *go to* is paradigmatically the same with *leave for* as one can be substituted or replaced by the other. However, syntagmatically the two lexical items are different as the fact shows that her leave for Jakarta is grammatically acceptable, whereas her go to Jakarta is not. Thus, two grammatical units are potentially the same paradigmatically but not syntagmatically or the other way round.

Transgrammatical semantic domains are semantically agnated or share a certain feature, but they differ in other respects. Following Halliday (2014), the meaning of 'addition' may be realized by a range of the 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 visited her brother who lives in Kisaran.
(3c) There is a probability she visited her brother, who lives in Kisaran
(3d) It is probable that she visited her brother who lives in Kisaran.
(3e) I think she visited her brother who lives in Kisaran.

The sense of projection in (4a) is potentially transgrammaticaled as in (4b), (4c), and (4d)

(4a) I will go to the party. Benny said that.
(4b) "I will go to the party," said Benny.
(4c) Benny said, "I will go to the party."
(4d) Benny said that he would go to the party.
(4e) According to Benny, he would go to the party.

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. They also find texts of politics, diplomacy, and bureaucracy difficult to interpret. The difficulties are caused by abstract meaning and multiple agnated meanings of the texts. Thus, the students require special skills to understand the texts. The abstract meaning in scientific, technological, and academic texts "buried" in nominalization of ideational metaphor and multiple agnated meaning in interpersonal metaphor is mainly related to grammar, although some problems related to terminology or lexical items are also faced. The difficulty in grammar is caused by the fact that texts of the various 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 government team on inhuman tortures, detentions, and interrogations of the refugees has resulted in 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 a lexical density of

Knowledge of grammatical metaphor and transgrammatical semantic domain is 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 units and class relocation can be identified. The relocation of ranking grammatical units and that of the grammatical class highlights the motif underlying the relocations.

In reading skill lectures, particularly in reading the texts of science, technology, and academics, the students are expected to understand the meaning of the texts in metaphorical representation. The following procedures are potentially applied by which the students are expected to know or understand abstract meaning derived from grammatical metaphor representation as summarized in Figure 9.

(1) Unpacking metaphorical representation. In order to obtain the concrete meaning of a grammatical metaphor, the metaphorical mode is turned back to its original or congruent mode. This is done by deriving the congruent representation of the metaphorical coding. As indicated in Figure 9, the congruent representation is constituted by five clauses, namely (1) the government team informed, (2) that the refugees had been tortured, (3) detained, and (4) interrogated inhumanly, (5) which shocked the government psychologically.

(2) Identifying relocation of ranking grammatical units. Once the congruent text is provided, it is clearly seen where relocation of the 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 9, the five clauses of congruent text have been rankshifted to phrases.

(3) Identifying relocation of grammatical class. The relocation of ranking grammatical units inherently involves the relocation of grammatical class. In other words, as the consequence of ranking grammatical unit relocation, grammatical class relocation occurs.

As indicated in Table 3, the relocation of grammatical class mostly shifts 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.

(4) Comparing potential metaphorical texts. Metaphorical representation derived from the congruent text potentially varies. The potential texts can be traced by applying the 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 in 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) has found that metaphor is associated with creative thinking. It is found that while doing activities related to metaphor, the students or learners are motivated to find similarities that coexists between or among various

phenomena. In this way, the students are exposed to both abstract and concrete meanings.

Figure 9

Unpacking Grammatical Metaphor Representation

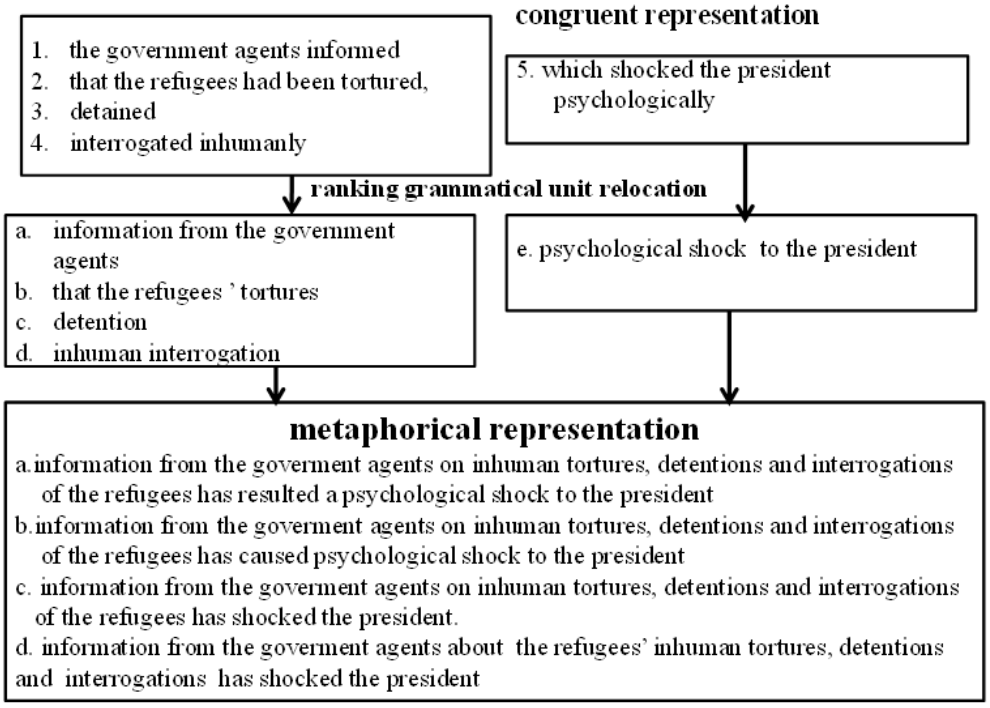


Table 3

Relocation of Grammatical Class

No.	Congruent Representation	Mataphorical 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

In the lecture on 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 clumsily to speakers of BI. In the same manner, *larangan guru untuk pengatifan 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 equipment in the room as disturbance for earning atmosphere' reads very clumsy in BI. The translation in BI reads unnaturally 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, the 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 the congruent text is much closer to reality than a 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 are 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) John came to my house and then we went to the beach (congruent)	*kunjungan Johan ke rumah saya diikuti oleh kepergian kami ke pantai*	*Johan datang ke rumah saya dan kemudian kami pergi ke pantai.*
2	his tiring appearance as a consequence of continuous work since early morning leads to my sincere thought or suggestion for a rest taking (metaphorical) he looks tired as he has been working since early in the morning and I really think he should have some rest (congruent)	*tampilannya yang letih sebagai akibat kerja terus menerus sejak pagi mengarah ke pemikiran ikhlas untuk saran pengambilan istrahat.*	*Dia nampak letih karena bekerja sejak dinihari tadi dan dengan prihatin saya berpendapat dia sudah harus istrahat*
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) 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)	*nasihat dokter untuk pengambilan istrahat satu minggu pasien untuk penurunan tekanan mentalnya dimaksudkan sebagai kemungkinan untuk penyembukan penyakit mentalnya.*	*doktor menasihatkan agar pasien pasien istrahat satu minggu untuk menurunkan tekanan mentalnya yang dengan cara itu penyakitnya dapat disembuhkan*

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 incongruet 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 potentially occur. Texts of science, technology, and academics are usually coded in grammatical metaphors, 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 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 the 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. To sum up, the student's knowledge and competence in grammatical metaphor and transgrammatical semantic domains are useful and helpful to overcome the problems.

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