An Interdisciplinary Study of the Scalar Verbs
in English and Thai

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Abstract

In general, one of the ways to express the concepts of scales or the so-called "scalarity" is to use adjectival expressions. Recently, the concepts about scalarity have been widely discussed, as they were also found to be embedded in the verb-phrase constructions (Heinrich-Heine-Universität Düsseldorf, 2011). In the previous literature such as Levin (2009, 2010) and Rappaport Hovav (2008, 2011), scalar verbs can be classified into three types: those of property scales, volume/ extent scales, and spatial scales. As previous studies exemplified scalar verbs in single sentences (or sentences in isolation), a question arose of how non-scalar versus scalar verbs can be analyzed in the English-Thai languages in natural contexts such as literary works (Rowling, 2012; Pinpinat, 2012). This paper aims at, qualitatively, studying English-Thai verb scalarity, extracted from selected literary works and analyzed through interdisciplinary views, which included the fields of English-Thai syntax, semantics, cognitive linguistics, and literature. The results revealed that verb scalarity was found in both English and Thai literary works. However, the ways to present verb scalarity in English and Thai, as found in the literary works, differed to the fact that Thai has the serial verb constructions (Muansuwan, 2000; Sookgont et al., 2015; Sudmuk, 2005; Takahashi, 2009; Thepkanjana, 1986) to convey the concept of scalarity, whilst English does not. It is hoped that this research will shed light on to other future English and Thai interdisciplinary studies.

Keywords: English, novels, scalarity, Thai, verbs

1. Introduction

Language embodies the cultural reality through the verbal and non-verbal aspects (Kramsch, 1998, p. 3). In general, we, as language users, have conducted many actions and activities throughout our days and have expressed them through our language with the structural components of Noun (noun phrases) and Predicate (a verb and the rest of the sentence) (Fillmore, 2003, p. 22). These components help specify who (a person) does a particular action. Such grammatical construction is embedded with the universal deep semantic relationship or the 'case' (Fillmore, 2003, p. 22-25). In addition, as our actions or states of the actions are not always monotonous, nor do they happen at one level or state, some actions or states gradually change and, at some point, reach the goal. These gradual changes can be comparable. Fillmore (2003, p. 23) stated that in a comparative construction, an adjective or a quantifier is added within

the construction. Later, it was realized that such comparison can be expressed through the so-called "scalarity" and "gradability" of verbs in the verb meanings and the verb-based constructions (Heinrich-Heine-Universität Düsseldorf, 2011; Levin, 2009, 2010; Rappaport Hovav, 2011; Tamm, 2012).

Verbs and verb-based constructions play an important role in a language, as they have framed each sentence and have indicated the elements of each sentence (The Framenet Project, 2013). Furthermore, verb phrases and their meanings have been construed in our minds and can be drawn in cognitive schemas through different points of time (Langacker, 1991). However, the verb constructions of different languages may vary. In Thai, it can be found that many verbs can occur in series, which can be called "serial verbs" (Muansuwan, 2000; Sookgont et al., 2015; Sudmuk, 2005; Takahashi, 2009; Thepkanjana, 1986), while English does not have the serial verb construction like Thai. Thus, it is crucial for learners to truly understand those of their first (L1), second (L2), and/ or foreign (FL) languages, as well as to see the similarities and differences of their L1, L2, and FL verb constructions, so as to advance their linguistic competence.

In naturally acquiring the L1, L2, and/ or FL, reading literary works would be one of the best ways, as learners can study their target languages in the real contexts and, intrinsically, learn the linguistic aspects, such as vocabularies, syntax and semantics. Previous literature has explored verb scalarity, appearing, mainly, in single sentences in different languages (Heinrich-Heine-Universität Düsseldorf, 2011), and has yet to reveal the verb scalarity found in the L1 and L2 connected writings or literary readings. A question arose of how verb scalarity would be analyzed when it appears in connected written works with additional contexts beyond just single sentences.

Thus, it is very interesting to investigate how verbs and verb-phrase constructions, based on the scalarity, are expressed in the selected English (FL/ L2) and Thai (L1) literary readings with extra contexts beyond just being single sentences. This is to be able to link amongst interdisciplinary fields: English-Thai syntax, semantics, cognitive linguistics, and literature to support and promote the true interdisciplinary and liberal arts research and education. In this research, some questions arose of (1) whether non-scalar versus scalar verbs would be found in the English and Thai literary works (Rowling, 2012; Pinpinat, 2012); (2) which type(s) of scalar verbs would be found, based on the theory of scalar verbs theories (Bochnak, 2011; Levin, 2009, 2010; Rappaport Hovav, 2011; Tamm, 2012); and (3) how scalar verbs, especially spatial scalar verbs, can be viewed in cognitive linguistics (Langacker, 1991). In this research, it is interesting to find out how English and Thai verbs drawn from the literary works can convey the concepts of the verb scalarity. A research was conducted.

In this paper, it presents the aim of the research in Section 2, background of the research in Section 3, procedures in Section 4, results in Section 5, and discussion and conclusion in Section 6.

2. Aim

This paper is aimed at studying the verb scalarity found in English and Thai literary works. The data were extracted from the English novel, titled "The Casual Vacancy" (Rowling, 2012) and a Thai novel, titled "Patamaasawan" (Pinpinat, 2012). The linguistic theories and frameworks included the English-Thai syntax (Fillmore, 2003; Muansuwan, 2000; Panthumetha, 2016; Prasithrathsint, 2010; Sookgont et al., 2015; Sudmuk, 2005; Takahashi, 2009; Thepkanjana,1986); the theory of the verb scalarity (Bochnak, 2011; Heinrich-Heine-Universität Düsseldorf, 2011; Levin, 2009, 2010; Rappaport Hovav, 2011; Tamm, 2012); and the cognitive theories (Langacker, 1991).

3. Background

This section summarizes the background and theories involved in this study. Section 3.1 reviews the concepts of the scalarity; Section 3.2 explains the cognitive theory of the verb scalarity; and Section 3.3 shows the synopsis of the English and Thai literary works, as seen below.

3.1 The Concepts of the Scalarity

This section discusses the scalarity and the scalar verbs in terms of the major concepts of Scalarity (Section 3.1.1); the classes of scalar verbs (Section 3.1.2); and the points of scales (Section 3.1.3).

3.1.1 The Major Concepts of Scalarity

The concepts of scalarity are based on the viewpoints about scales and the so-called "gradation," which have been studied in many languages and in several fields, including syntax such as syntactic structures; phonology as in the gradient phonology (Smolensky, Goldrick, and Mathis, 2014; Smolensky and Goldrick, 2016); cognitive theories (Bergen and Binsted, 2003); pragmatics; and language acquisition (Papafragou and Ozturk, 2007; Ozturk and Papafragou, 2014; Slabakova, 2009). In this research, the focus was on verb scalarity in English and Thai, in connected written texts (literary works), which can be construed in cognitive linguistics. In this section, it explains the major concepts of scalarity, based on the English and Thai syntactic structures, involved in this research.

Generally, the concepts of scalarity are expressed in the comparative and superlative adjectival forms in English. Examples are, as in (1)-(2).

(1) Mary is <u>more</u> beautiful <u>than</u> Sandy.
(2) Mary is <u>the most</u> beautiful woman in this room.

Examples (1) – (2) show the comparative and superlative forms of Mary's beauty, respectively. Example (1) indicates that the higher level of Mary's beauty, as compared to Sandy's; and Example (2) implies that the beauty of Mary is at the highest level of all women in the room.

Thai, however, has a set of "adjectival" verbs (Panthumetha, 2016, p. 15; Prasithrathsint, 2010, p. 93-94). It is controversial of whether this set would be considered as adjectives or verbs. In this paper, based on Panthumetha (2016, p. 15) and Prasithrathsint, (2010, p. 93-94), the verbs in this set are considered as verbs which express the states. These verbs cannot be found in imperative sentences, but, rather, in comparison-contrast sentences. Examples (3)-(5) present three examples in Thai.

(3) **IPA:** /Sida   sŭaj   kwàa   Suda/
    Gloss: Sida (name) V.beautiful   more than   Suda (name)
    Trans: Sida is more beautiful than Suda.

(4) **IPA:** / Sida   sŭaj   tʰîi sùt   naj hɔ̂ŋ/
    Gloss: Sida (name) V.beautiful   that most   in room
    Trans: Sida (is) the most beautiful (woman) in (this) room.

(5) **IPA:** / Sida   pen kʰon   tʰîi sŭaj   tʰîi sùt   naj hɔ̂ŋ/
    Gloss: Sida (name) is person Rel. V.beautiful that most   in   room
    Trans: Sida is the most beautiful (woman) in (this) room.
    (Rel* = relativizer)

As seen above, Example (3) shows a comparative form of the Thai adjectival verb /sŭaj/ in a simple sentence. Examples (4) and (5) illustrate a superlative form with the constructions of a simple sentence and of a relative clause, respectively. It can be seen that the adjectival verb /sŭaj/ in (4) is in the main verb position of the sentence, whilst the adjectival verb /sŭaj/ in (5) functions as the adjectival verb in a subordinate (relative) clause.

It can be primarily concluded that, generally, English expresses the concepts of scalarity through the comparative and superlative adjectival forms, but Thai uses adjectival verbs for the scalarity. However, recently, it was found that the gradation or scalarity can be found in verbs or verb-based constructions in English (Bochnak, 2011; Heinrich-Heine-Universität Düsseldorf, 2011; Levin, 2010; Rappaport Hovav, 2011; Tamm, 2012).

A question arose of how it can be judged of whether a verb is a scalar or a non-scalar verb. First of all, it can be defined that *scalar verbs* are the verbs which have the development of the acts, actions, and/ or activities. In other words, scalar verbs tell the "*accomplishments*, *achievements*, and *degree of achievements*" of the actions. In those verbs, the event *progresses* in *degrees* towards its *completion*, *result* or *endpoint*." (Tamm, 2012, p. 163) Furthermore,

in the same literature, (Tamm, 2012, p. 163), verbs that show accomplishments must be *durative* and *dynamic* (non-static), and must have an *endpoint*. Thus, non-scalar verbs are the verbs which do not tell the accomplishments, achievements, and degree of achievements. Another way to distinguish scalar from non-scalar verbs is to understand the main concepts that are involved with the scalar verbs (Bochnak, 2011; Rappaport Hovav, 2011). These concepts are: (a) telicity (Section 3.1.1a) and (b) the eventive and evaluative uses (Section 3.1.1b), as follows.

3.1.1a. <u>Telicity</u>. The term "***telicity***" means the property of verb or verb phrase that presents an action or event as *being completed* in some sense (Bochnak, 2011, p. 6). It is associated with *specified change* in the value of scalar attribute (Rappaport Hovav, 2011, p. 1). Examples of telic and atelic verbs are in (6a) and (6b).

    (6)   An example of a telic versus atelic sentence (adapted from (9) in Rappaport Hovav, 2008, p. 22).
    (6a)   Susan <u>ate</u> a mango <u>in</u> an hour. (telic, completed)
    (6b)   Susan <u>has eaten</u> pieces of mangoes <u>for</u> an hour. (atelic, incompleted)

Example (6a) shows a completed action of the verb "to eat" in the past simple tense form 'ate' with the use of the preposition "in," followed by the temporal duration "an hour." The verb of this example is considered a *telic* verb, as the action ended. Example (6b), however, has the same verb "to eat" but in a present-perfect-tense form "has eaten" with the use of the preposition "for," followed by the duration of time 'an hour'. The latter verb-based construction is considered as having 'an *atelic non-scalar* verb' in this sentence, as the action is not completed. It can be seen from Examples (6a) and (6b) that the judgement of whether a verb construction is telic or atelic is based on not only the verb itself, but also the attributes or what comes after a verb: a noun phrase and a prepositional phrase in both cases.

3.1.1b. <u>Eventive and evaluative interpretations</u>. Besides the concept of telicity, another main point related to the verb scalarity is whether a verb-based construction is eventive and/ or evaluative. Bochnak (2011, p. 3) explained the differences between the eventive and evaluative uses of the verbs with the word '*half*'. In the literature, the eventive use refers to "names the proportion of an event that is complete," and the focus is on the quantity of the theme argument (Bochnak, 2011, p. 3-4). The evaluative use, on the other hand, means "makes a comment about the degree to which the event described represents a prototypical event of that type," and that the subject (agent) does not conduct the action well. In other words, s/he does the action halfway of the total action (from (2a) and (2b) in Bochnak, 2011, p. 3). Examples are in (7) and (8) below.

(7) Sida <u>half</u> boiled the Thai "/bua-lɔI/ (lotus-floating)" desserts.
      (adapted from (3) in Bochnak, 2011, p. 4)

Example (7) can be interpreted that, in the eventive sense, Sida boiled half of the total quantity of the "/bua-lɔI/ (lotus-floating)" desserts (mini balls made of flour in sweetened coconut milk). However, in the evaluative sense, it can be interpreted that Sida did the half way of the (total) action of boiling the "/bua-lɔI/ (lotus-floating)" desserts.

(8) An example of eventive and evaluative interpretations (adapted from (5)-(7) in Bochnak, 2011, p. 5-6).

(8a) Sida <u>half drank</u> a cup of Thai iced tea <u>in</u> an hour. (telic; eventive or evaluative)
(8b) Sida <u>half drank</u> a cup of Thai iced tea <u>for</u> an hour. (atelic; evaluative only)
(8c) ?? Sida <u>half drank</u> cups of Thai iced tea <u>in</u> an hour. (atelic; evaluative only)
(8d) Sida <u>half drank</u> cups of Thai iced tea <u>for</u> an hour. (atelic; evaluative only)

Example (8a)-(8d) show the action of Sida who drank Thai iced tea. It is clearly seen that the number of the noun phrase "Thai iced tea" and a prepositional phrase play a role of whether each whole sentence is telic or atelic; and eventive or evaluative. In (8a), with a singular form and the "in" prepositional phrase, it yields the whole sentence to be read as telic and eventive or evaluative. In other words, it can be interpreted that Sida drank a quantity of a half cup of Thai iced tea; or that Sida drank half way of Thai iced tea. In (8b) and (8d), with a singular or plural form and the "for" prepositional phrase, it leads to an atelic and evaluative only reading. Example (8c), however, has the contradiction of the use of the plural form with the "in" prepositional phrase. In reality, this action may not be possible, as we do not have a definite number (cups) of the Thai iced tea and do not know the endpoint of the action "drink." Thus, it is considered as atelic and evaluative only.

It can be seen from examples above that the attributes or what comes after a verb play a major role in the judgement of whether a verb construction is scalar or not, based on whether a verb shows a completed action (telicity) or not. The next section will explain the classes of scalar verbs.

3.1.2 The Classes of Scalar Verbs
Scalar verbs can be classified into three main classes or types, based on conceptual categories: scalar verbs with property scales (Section 3.1.2a), volume/ extent scales (Section 3.1.2b), and spatial scales (Section 3.1.2c) (Levin,

2009, p. 1, 2010, p. 1; Levin, & Rappaport Hovav, 2011; Rappaport Hovav, 2008, p. 17; Rappaport Hovav, 2011, p. 1).

        3.1.2a. <u>Property scales</u> (Change of State (COS) Verbs). Scalar verbs which show property scales express the change of the states or property of the argument such as to widen, to lengthen, to cool, to warm, etc. (Levin, 2009, p. 1, 2010, p. 1; Rappaport Hovav, 2008, p. 17; Rappaport Hovav 2011, p. 1-2). An example is in (9).

    (9) Warm the milk to 80 degrees in 3 minutes.

        Example (9) presents the change in the property of the milk from the room temperature to the heating temperature at 80 degrees in a certain temporal period (in 3 minutes).

        3.1.2b. <u>Volume/extent scales</u> (Incremental Theme (IT) Verbs). Scalar verbs with volume or extent scales (incremental theme (IT) verbs) describe the change of the volume of the object associated with the actions. These verbs are such as to read, to write, to eat, to sing, to build, etc. (Levin, 2009, p. 1, 2010, p. 1; Rappaport Hovav 2011, p. 1-2). An example is in (10)

    (10) Sida ate 2 mini ice-creams in half an hour.

        Example (10) presents the change in the volume and amount of the ice-creams that Sida ate in a certain amount of time (in half an hour).

        3.1.2c. <u>Spatial scales</u> (paths) (Directed Motion DM verbs)**.** Scalar verbs which present spatial scales (paths) or the so-called directed motion DM verbs give the picture of how an action develops in terms of space in a particular time frame such as to come, to go, to arrive, to reach, and so on (Levin, 2009, p. 1, 2010, p. 1; Levin, & Rappaport Hovav, 2011; Rappaport Hovav, 2008, p. 17; Rappaport Hovav, 2011, p. 1-2). Example (11) shows the DM scalar verb 'to fly' of a bird.

    (11) That blue bird flew from the ground to the top of the building in a
           few minutes.

        Example (11) gives the change in the vertical path, based on the motion verb "fly," conducted by "that blue bird" in a vertical space: from the bottom of the ground (its origin) to the top of the building (its destination) in a certain amount of time (a few minutes).

        This section summarizes the classes of scalar verbs which include the property (COS) scales, the volume (IT) scales, and the spatial (DM) scales. The next section will cover the points of scales.

3.1.3 The Points of Scales

In terms of scales, scalar verbs can express two-point and multi-point scales (Rappaport Hovav, 2008, p. 26-28). In details, a two-point scale means that what occurs can be either in a state/ an action A or B. Both cannot occur together at the same point of time. A multi-point scale, however, construes the degrees of the advancement from an action/ state A to the one of B. The former is the onset, and the latter shows the endpoint. Examples are in (12) and (13), as follows.

(12) Sida died at the scene of a terrible car accident this morning.
(adapted from Example (27) in Rappaport Hovav, 2011, p. 28).

Example (12) shows the scalar verb "die" in the past simple tense form 'died' to mark the two-point scale. The verb "die" entails the end state of being alive, as naturally, a living thing can be either alive or die. Each person or animal cannot carry both states at the same time.

The next example (Example (13) is an example of a scalar verb with multi-point scales.

(13) Sida heated the milk that she got from the fridge until it reached the boiling temperature in ten minutes.

Example (13) is with the scalar verb "heat" which was used for the milk. In this case, the fact that the milk in the fridge entails that the milk was in a cooler temperature in the fridge. However, in the sentence, the milk got heated, so the temperature has been increasing at different points of temperature until it reached the boiling temperature. Thus, the verb "heat" is a scalar verb with multi-point scales.

To summarize, the verb scalarity involves the concepts of scalar versus non-scalar verbs; the classes of scalar verbs; and the points of scales. In this research, the criteria used to judge whether an English or a Thai verb would be a non-scalar or a scalar verb were, mainly, based on whether each verb has an endpoint or an accomplishment. The next section presents the cognitive theory.

3.2 The Cognitive Theory

The concepts of scalarity are closely connected to the scales in human thoughts and minds. In other words, the ideas of scales can be expressed in languages not only in the forms of sounds such as the French liaison (Smolensky and Goldrick, 2016), but also in syntactic units such as adjectives and verbs as discussed in Section 3.1 above or in puns, jokes, and humor (Bergen and Binsted, 2003, p.1). In the same literature, the authors named the latter type as "scalar humor" as its crucial point is "the manipulation of a conceptual scale" (Bergen and Binsted, 2003, p.1); and exemplified the scalar concepts in a phrasal

construction of "X IS SO Y THAT Z." In this construction, X is a noun phrase; Y is a scalar predicate in a form of "be adjectival" or "verbal." Thus, the concepts of scalarity is related to the cognitive theory.

In this research, the concepts of scalarity are focused on the verbs in English and Thai. To truly understand the concepts of scalarity is to clarify the concepts of verb scalarity in cognitive viewpoints, based on the cognitive schemas of Langacker (1991).

An example is a cognitive schema with a spatial (DM) scalarity. Example 14 and Figure 1 below show a conceptual schema of the sentence (14). In the schema in Figure 1, the trajectory (THING) which is "the penguin" did the action "walked" from the first landmark as its origin or source (LM1: "the rock") to the second landmark as its destination or endpoint (LM2 = "ocean").

In this figure (and thereafter), a circle means a trajectory; a square means a landmark; the connection line links one point to another; a dark solid type is what appears in the quote; a light solid type is what does not appear in a particular sentence but appears in the surrounding texts; the light dashed line is what is not in the quote, nor the surrounding texts but can be underlyingly interpreted; and the time line which links from Time 1 (the onset of an action) to Time 2 (the progress of an action) and Time 3 (the endpoint of the action).

(14) The penguin walked from the rock to the ocean in half an hour.
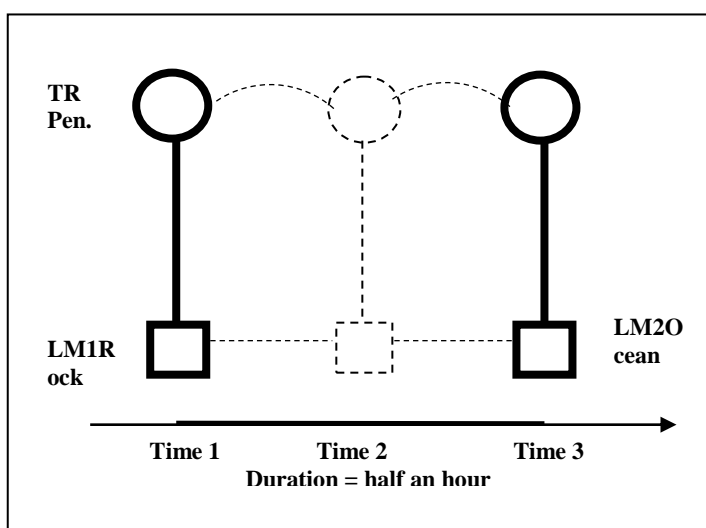
Figure 1 The cognitive schema of "The penguin walked from the rock to the ocean in half an hour." (adapted from Figure 12 in Langacker, 1991, p. 137)

Example (14) shows a scalar DM verb 'walked' in the past simple tense form. This verb presents a completed horizontal-directional action of its

half-an-hour duration of the walking action, conducted by the penguin. Figure 1 above gives the cognitive schema of Example (14). The penguin as the trajectory started its walk from the first landmark 1 (rock) in Time 1 (the onset of the action), continued its walk in Time 2 (the ongoing action) on the way to its destination, and finished its walk in Time 3 (the offset of the action) at the second landmark (ocean).

The previous sections give us the background of the theories of scalarity (Sections 3.1 and 3.2, respectively). The next section (Section 3.3) reviews the involved English and Thai literary works.

3.3 *The English and Thai Literary Works*

This research on verb scalarity in English and Thai was based on the analysis of two English-Thai literary works: "**The Casual Vacancy"** (Rowling, 2012) in English and **"Patamaasawan"** (Pinpinat, 2012) in Thai. Both novels were chosen, based on the fact that they were published in the same year (2012) and that the contents were about conflicts in a society, based on social classes, politics, and society. The differences were the types, the eras, and scenes (locations) of the stories in the two novels. The story of the former one (Rowling, 2012), classified as "blackly comic" (Rowling, n.d.), occurred within small towns in the Great Britain. The story reflected the contemporary class, political, and social issues, including the conflicts amongst members of the same society e.g., the rich versus the underprivileged; teenagers versus parents; wives versus husbands; and so on (Rowling, n.d.). The latter one (Pinpinat, 2012), classified as a historical and romantic novel, flashed back to the political unrests in Thailand in the decade of 1970 when there were conflicts between different social classes and political viewpoints. The scenes of the story included Thailand and the neighboring countries in South and Southeast Asia. Below are the synopses of the two literary works.

The selected novel in English is titled "**The Casual Vacancy"** by J.K. Rowling (2012). It tells the stories of the families whose members lived in a small town named Pagford and its neighbor town: Yarvil. The stories described what happened to members of this community where there were both privileged and underprivileged families. In this novel, the author presented that fact that, whether rich or poor, each has faced challenges or problems in one's life from birth to grave. The problems ranged from the common domestic issues e.g., the arguments between a husband and a wife or parents and children to the social matters such as drug addiction, child abuse, and so on.

The selected Thai novel is **"Patamaasawan"** by Pinpinat (2012). It was the second novel (No.2) in the triad series, titled "Women and Flowers" with the other two novels "Thaadaakusumaa" (Nara, 2012) (No.1) and "Soysabanngaa" (Umarika, 2012) (No.3). This series represents the love lives of the three female generations: Soysabanngaa's life (the mother of Patamaasawan and the grandmother

of Thaadaakusumaa); Patamaasawan's life (the daughter of Soysabanngaa and the mother of Thaadaakusumaa); and Thaadaakusumaa (the daughter of Patamaasawan and the granddaughter of Soysabanngaa). The names of these three female characters were from the names of flowers. In the book of "Patamaasawan," the story tells the life of the leading female character "Patamaasawan" who was a descendent of a royal father and a mother who was a commoner. "Patamaasawan" represented the life of a woman in 1970s who was supported to gain a higher education and who could have had a bachelor's degree from a state university in Thailand. However, the political situation with domestic protests and riots led her life to be in a communist commune in a neighboring country. At that commune, she, later, found out that it was not the same democracy as she had expected before. There, she has met her future husband, SiMha, who became King of his country "Praampura" located in South Asia. Both Patamaasawan and SiMha have spent their lives together in an unusual way but that proved their unconditioned bond of their shared love.

Both novels were used as the sources to find out whether there existed non-scalar and scalar verbs in the verb constructions in the English and Thai literary works. The examples were drawn from the two novels. The next sections consist of procedures (Section 4); results (Section 5); and discussion and conclusion (Section 6) of this research.

4. Procedures

This research is considered as a qualitative study. The procedures of this research include the sources for gaining data (Section 4.1), the data collection (Section 4.2), and the data analysis (Section 4.3).

4.1 The Sources for Gaining Data

As the aim of this research was to see how verb scalarity was in connected written texts, the sources for gaining the data were based on literary works, rather than just on single sentences. In this research, the sources for gaining data were from the English and Thai literary works: "**The Casual Vacancy**" (Rowling, 2012) in English and **"Patamaasawan"** (Pinpinat, 2012) in Thai. The details and synopses of both literary works were described in Section 3.3.

4.2 The Data Collection

The data of this research were collected, as follows.

4.2.1 The sources for the data, as in Section 4.1, were selected, amongst other English-Thai literary works, based on the facts that both carried connected written texts (rather than single sentences); that both were published in the same year 2012; that one work was in English and the other was in Thai,

so as to represent western and eastern languages, thoughts, and cultures; and that the authors were internationally and nationally well-known.

It can be noted that both literary works carried the characters and contents of the social and political conflicts. However, the story of the former one occurred in the western world (the Great Britain), but the latter one, in the eastern world (Thailand and Asian countries).

4.2.2 Both literary works (Rowling, 2012; Pinpinat, 2012) were read.

4.2.3 The data of non-scalar and scalar verbs were drawn from the two books.

4.2.4 The gained data were analyzed, based on the linguistic theories, as in Section 4.3.

4.2.5 The analyzed data were presented in Section 5.

4.3 The Data Analysis

The data, drawn from the English novel "The Casual Vacancy" (Rowling, 2012) and the Thai novel "Patamaasawan" (Pinpinat 2012), were analyzed, as follows.

4.3.1 The data were analyzed to see the verbs in contexts found in both literary works.

4.3.2 The verbs were analyzed based on the following theories: The English-Thai syntax (Fillmore, 2003; Panthumetha, 2016; Prasithrathsint, 2010); the theory of the verb scalarity (Bochnak, 2011; Heinrich-Heine-Universität Düsseldorf, 2011; Levin, 2010; Levin, & Rappaport Hovav, 2011; Rappaport Hovav, 2008, 2011; Tamm, 2012); and the cognitive schemas (Langacker, 1991).

4.3.3 In each case, the verb was analyzed, based on the contexts, to see whether it was a non-scalar or a scalar verb.

4.3.4 If it was a scalar verb, the type of verb scalarity would be specified.

4.3.5 If it was a scalar verb with spatial scales (DM), the verb would be analyzed and plotted with a cognitive schema, based on (Langacker, 1991).

The next section (Section 5) shows the results of non-scalar and scalar verbs found in the two literary works.

5. Results

This section (Section 5) presents the results of this study. The results of this research revealed that non-scalar, scalar adjectival forms, and scalar verbs were found in the two literary works: the English novel "The Casual Vacancy" (Rowling, 2012) and the Thai novel "Patamaasawan" (Pinpinat, 2012). The results are shown in Section 5.1 for non-scalar verbs; Section 5.2 for scalarity in adjectival forms; and Section 5.3 for scalarity in verb forms, as follows.

5.1 Non-Scalar Verbs in the Two Literary Works

Non-scalar verbs are verbs which do not express the accomplishments or completed action. In the two literary works (Rowling, 2012; Pinpinat, 2012), non-scalar verbs were found, as in Examples (15)-(16).

(15) "He <u>had endured</u> a thumping headache <u>for</u> most of the weekend."
     <Barry Fairbrother> (Rowling, 2012, p. 3)

In Example (15), if we only analyze the contents of this particular sentence, it can be seen that the main verb "to endure" in the form of the past perfect tense: "had endured" can be considered as a non-scalar verb, as it did not show an accomplishment, nor was it a telic verb. In other words, it was an atelic non-scalar verb. Another reason of why this verb was non-scalar was that there was the prepositional phrase "for most of the weekend." This prepositional phrase entailed only the temporal duration when Barry Fairbrother had endured a headache but did not indicate the endpoint of this action. Thus, overall, the verb "had endured" in this sentence can be considered a non-scalar verb.

(16) **IPA**:   /kʰaˇw <u>caˋʔ pʰaa</u>   tʰəə <u>paj</u> tʰîi naˇj   kɔ̂ɔ mâj rúu/
     Gloss: He   will take her go place where part.not know
     Trans: She (Patamaasawan) does not know where he (SiMha) would
             take her. (Pinpinat, 2012, p. 83)

In (16), the Thai serial verbs /caˋʔ pʰaa…paj/ 'will take…go (directional)' were the active verbs. However, in this sentence, there was no indication of the destination or the endpoint of the action 'take'. Furthermore, the tense was in a future tense. Thus, the verb phrase /caˋʔ pʰaa…paj/ 'will take…go (directional)' was considered as an atelic and non-scalar verb.

A Non-scalar verb /caˋʔ pʰaa…paj/ 'will take…go (directional),' as in (16), connects to the spatial path in the future, with an unknown destination. This can be construed in the schema, as in Figure 2.
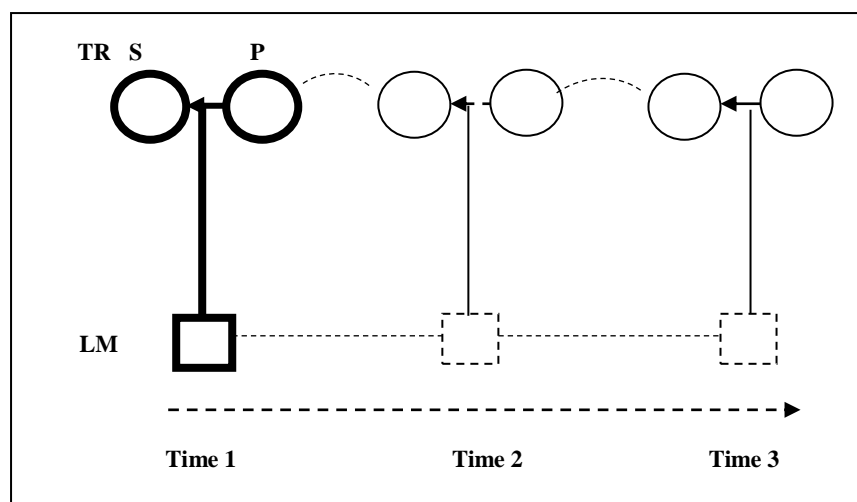
Figure 2 The cognitive schema of a non-scalar verb (adapted from Langacker, 1991, p. 23)

Figure 2 shows the cognitive schema of a non-scalar verb /caˋʔ pʰaa…paj/ 'will take…go (directional).' In this figure, in Time 1, there were two trajectories: one for SiMha and the other for Patamaasawan in dark solid circles with an arrow from the latter to the direction of the former to indicate the verb 'take.' There was a dark solid line linking from the trajectories to the first landmark in a dark solid square. However, as this would happen in the future (a dashed arrow) and the destination was unspecified, the landmarks in Time 2 and Time 3 were in a light dashed line. It can be seen that a non-scalar verb without a definite endpoint has an unknown landmark at Time 3.

Besides non-scalar verbs, scalar verbs were also found in the two literary works. The next sections (Sections 5.2 and 5.3) present the cases of scalarity in adjectival and verb forms.

5.2 Scalarity in Adjectival Forms

Previous section (Section 5.1) gives examples of non-scalar verbs. In this section, it starts with the scalarity which appears in adjectival forms. Examples are in (17)-(20).

(17) Howard to Miles: "He (Barry Fairbrother) just dropped down <u>dead</u> in the car park?" (Rowling, 2012, p. 8)

In (17), the English adjective "<u>dead</u>" can be a scalar adjective with the two-point scale, which entails the end state of being alive of Barry Fairbrother.

(18)"Parminder heard the receptionist's voice, barely <u>louder</u> than a whisper…" (Rowling, 2012, p. 259)

In general, one's voice can be graded in terms of loudness or intensity from silence to the level of whisper and to the highest volume scale. Thus, one's voice has a multi-graded scale. Example (18) shows the scale of the receptionist's voice with a slightly greater volume than a whisper.

(19)**IPA**: / lăŋ-càak ʔàap-náam cʰam-ráʔ láaŋ tua   con <u>klîaŋ-klaw</u> /
Gloss: after   take a bath clean   wash body till thoroughly clean

IPA: / 'pii-sàat' kʰɔɔŋ tʰəə kɔ̂ praa-kòt kaaj naj rûup-cʰŏom màj/
Gloss: Satan   of   her then appear body in   look   new

Trans: After (SiMha) took a bath until he was thoroughly clean, Satan (what Patamaasawan called SiMha), then, appeared in a new look (Pinpinat, 2012, p. 84).

In (19), the word /<u>klîaŋ-klaw</u>/ or 'thoroughly clean' can be viewed as a scalar adjective with the two-point scale, indicating the (clean) state of SiMha after taking a bath. It can be implied that, prior to the action of taking a bath, SiMha had a dirty state (body).

(20) **IPA**: /sĭi-săn hæ̀ŋ rɯ́ʔ-duu baj-máaj rûaŋ kʰrɔ̂ɔp-kʰlum paj   tʰûa sŭan/
Gloss: colors of season   leaves fall   cover   go (over) all over garden
IPA: / tʰáŋ <u>lŭaŋ</u> <u>dææŋ</u> <u>náam-taan</u> lâj cʰèet   paj taam cʰa-nít pʰan-máaj/
Gloss: with yellow red brown   range spectrum go follow types trees

Trans: The colors of the autumn (fall) season covered all over the garden (in French 'jardin'). Its (colorful) shades of the foliage ranged from yellow, red, and brown, based on the types of the trees (Pinpinat, 2012, p. 25).

Example (20) shows that the trees in the garden had different colors: yellow, red, and brown (with deciduous trees) during the autumn (fall) season. The gradation of the tree colors was in the adjectival forms. Thus, the gradation, found in this example, was a multi-pointed scale, as marked by the word /cʰèet/ 'spectrum,' in the sense that the chrome of the tree leaves alters, based on the age of the leaves, ranging from light green to be green, yellow, red, and brown.

In sum, the results revealed that both English and Thai literary works had the scalarity concepts in adjectival forms. The next section (Section 5.3) illustrates the scalarity in verb forms.

5.3 Scalarity in Verb Forms

The results from the two English-Thai literary works (Rowling, 2012; Pinpinat, 2012) revealed that scalar verbs existed in both novels. It can be noted here that scalar verbs, analyzed and drawn from the literary works, were enriched by the background and contexts of the stories which preceded and/ or followed targeted scalar verbs. Once again, the background and contexts help readers to imply and construe what happened, as well as to see whether the particular action reached the endpoint. Additional background and contexts, then, made scalar verbs in literary works different from the ones in citation forms or in single sentences. The backgrounds and contexts may come before or after the targeted verb constructions. A good example is in Example (21) below. In that example, the contexts around helped describe the gradation of the pain of Barry Fairbrother (Rowling, 2012, p. 4). Generally, the background and contexts were in the forms of noun and prepositional phrases in English and Thai. However, for Thai, the contexts included the whole series of verbs, the well-known serial verb constructions in Thai (Muansuwan, 2000; Sookgont et al., 2015; Sudmuk, 2005; Takahashi, 2009; Thepkanjana, 1986). In this research, it was found that the scalarity in verb forms appeared in all three classes of the verb scalarity, as seen in examples below. Section 5.3.1 is for scalar verbs with property scales; Section 5.3.2 for the ones with volume scales, and Section 5.3.3 for the ones with spatial scales.

5.3.1 Scalar Verbs with Property Scales

Scalar verbs with property scales tell the gradation of the change of the state or property of the particular item or person. Scalar verbs with property scales can be exemplified with the data from the two literary works both in English and Thai languages, as in (21)-(25).

(21) "The pain that he (Barry Fairbrother) <u>had never experienced</u> <u>sliced through</u> his brain <u>like a demolition ball</u>…his skull <u>was awash with fire and blood</u>…the agony <u>was excruciating beyond endurance</u> …" (Rowling, 2012, p. 4)

In (21), the main point of this example was to discuss the property scale or the state of Barry Fairbrother, in terms of his headache. Though Example (21) did not clearly indicate the beginning of the pain, within the same paragraph, the verb phrase "had never experienced," along with the second verb phrase with a simile "sliced though his brain <u>like a demolition ball</u>"; the sentence "his skull was awash <u>with fire and blood</u>"; and the sentence "the agony was excruciating <u>beyond endurance</u>," implied the low-to-high scales of the headache from the state without a headache; to the level of the headache with "*a sharp pain*" indicated by the phrase "*sliced through*"; and to a more serious pain *"with*

fire," and to the extreme level of pain which was *"beyond endurance."* Thus, the verb phrases in Excerpt (21) can be construed as a series of the scalar verbs with the property scales of the headache: the state of Barry Fairbrother.

(22) "He (Michael) <u>blacked</u> Nana Cath's eye" (Rowling 2012, p. 267)

Example (22) shows the verb "blacked" (= blackened) which can be a scalar verb, derived from the adjective: 'black' color. This scalar verb "blacked" reflected the physical state and color of the eye of Nana Cath which was resulted by the hit of Michael. This scalar verb can be classified as a two-point scalar verb.

(23) **IPA:** /cʰaaj nùm…jìp pʰâa cʰúp náam <u>bìt-màat</u>/
    Gloss: man young… take cloth dip   water squeeze-half dried
    Trans: The young man took the cloth, dipped it in water, and half-dried squeezed it.

In (23), it presents an example of a scalar verb. In this sentence, the young man (SiMha) took the cloth, dipped the cloth in water, and squeezed it to be in a state of being half-dried. The verb /<u>bìt-màat</u>/ can be a scalar verb, telling the state of the object (cloth) that it was squeezed to be not too dry and not too wet.

(24) **IPA:** /ʔaa-kaan năaw-sàn càak pʰít-kʰâj   sòŋ-pʰŏn haj/
    Gloss: symptom shivering from poison-fever give result dir.

    IPA: /baj-nâa nuan-nian ʔɔ̀ɔn-jaw dûaj <u>lûat-fàat</u> klàp <u>sîit-caaŋ</u>/
    Gloss: face   delicate   young   with rosy   turn pale

    Trans: The shivering symptom (of Patamaasawan) from a fever has turned her delicate, young, and rosy face to be pale. (Pinpinat 2012, p. 129)

In (24), it illustrates the state of Patamaasawan's face through the adjectival verb /<u>sîit-caaŋ</u>/ 'became pale,' resulted from the fever that she had. The same example indicated her previous state of a healthy person with a rosy face: /baj-nâa…<u>lûat-fàat</u>/, prior to the sick state with a pale /<u>sîit-caaŋ</u>/ face. This can be viewed as a two-point scale of a rosy (healthy) or a pale (with a fever) face.

(25) **IPA:** /Patamaasawan tʰùuk   sàŋ hâj   sŭam sûa-pʰâa mɔm-mæm/
Gloss: Patamaasawan touch (passive) order give(caus.) put on clothes dirty

IPA: /tʰaa sǐi   tua lǽʔ baj-nâa hâj   ʔɔ̀ɔk   kʰlám-kʰlám /
Gloss: paint color   body and   face   give (bene.) out (=look) darker (redupl.)

IPA: /sŭam wík nǎa-tə̀ʔ pen sǎŋ-káʔ-taŋ/
Gloss: wear wig thick   be tousled

IPA: /lǽʔ tæ̀ŋ-tua duu kʰláaj pʰûu-cʰaaj/
Gloss: and dress look like boy

Trans: Patamaasawan was ordered (asked) to put on dirty clothes; to have her body and face painted in a darker color; to wear a thick and tousled wig; and to dress to look like a boy. (Pinpinat, 2012, p. 64-65)

In (25), the appearance of Patamaasawan has changed from the look of a girl to the one of a boy, as stated in in the series of verbs: (a) wearing dirty clothes /sŭam sûa-pʰâa mɔm-mæm/; (b) painting body and face /tʰaa sǐi tua lǽʔ baj-nâa/; (c) wearing a wig /sŭam wík/; and (d) dressing up like a boy /lǽʔ tæ̀ŋ-tua duu kʰláaj pʰûu-cʰaaj/. Though there were many verbs involved, this series of verbs can be counted as a two-point scale: the look as a girl versus the one as a boy.

In sum, scalar verbs with property scales were found in both English and Thai literary works. Besides, scalar verbs in this Thai example were in series, based on the syntactic characteristics of Thai with a serial verb construction. The next section will cover the verb scalarity with a volume scale.

5.3.2 Scalar Verbs with Volume Scales
Scalar verbs with volume scales indicate the amount or the volume of the object, usually a noun. In the two literary works, it was found that some verbs were scalar verbs with volume scales. Examples are in (26)-(29) below.

(26)"He (Howard) ate for a while, <u>big mouthfuls washed down</u> with wine…Finally, <u>having cleared half of his plate</u>, he dabbed at his mouth with his napkin and spoke." (Rowling 2012, p. 95)

In Example (26), within the same paragraph, there were two actions involved with the scalar verbs with the volume scales. The first phrase *"ate…big mouthfuls washed down"* was the scalar verb *"ate (to eat)"* with the indicated amount of food *"mouthfuls"* that Howard's mouth can contain each time before swallowing. This entailed the volume of the food, with the positive correlation to the volume of Howard's mouth. The second phrase *"having cleared half of his plate"* means the volume of the food on the plate that Howard consumed: half of Howard's plate, per se. The verb 'having cleared' suggested that the action of

having half of the plate was completed. Thus, this verb phrase was a scalar verb with volume scales.

> (27) "He (Gavin) <u>cleared</u> his plate when he realized that Kay <u>had not eaten</u> a single <u>mouthful</u>." (Rowling, 2012, p. 400)

In Example (27), the scalar verb "cleared," followed by a noun phrase "his plate," indicated the full-to-empty volume of the plate, while the scalar verb "had not eaten" with the noun phrase "a single mouthful" entailed the volume of the food in Kay's mouth. Both verbs can be counted as scalar verbs with volume scales.

> (28) **IPA:** /(kʰaˇw) <u>tʰee</u> náam tʰîi   kʰaˇŋ/
> **Gloss:** He   pour water which was caught
>
> **IPA:**/naj plɔ̂ŋ   tʰaˇw-wan nán--ráat rót   mɯɯ tʰəə /
> **Gloss:** in internode vine   that   soak water (v.) hand her
>
> **Trans:** He (SiMha) poured the water that got caught in the internode of that vine, and watered her hand. (Pinpinat, 2012, p. 156)

In Example (28), the action of 'pouring (water)' /<u>tʰee</u>/ that SiMha did to wash Patamasawan's hand showed the amount of water, gained from the water that got collected from the internodes of the vines. Thus, the amount of water used in washing the hand correlated with the amount of water collected from the internode of the vine. The verb 'pouring (water) /<u>tʰee</u>- náam/ can be counted as a scalar verb.

> (29) **IPA:** /dii   tʰìi kʰǎo ʔaw kràʔ-bɔ̀ɔk máaj-pʰàj <u>tàk</u> náam maa   dûaj   <u>con tem</u>/
> **Gloss:** good that he bring container bamboo get water come together till full
> **Trans:** It was good that he filled the container made from bamboo with water (till it reached its maximum capacity). (Pinpinat, 2012, p. 74)

In Example (29), the action of 'taking (water)' /<u>tàk</u> /that SiMha did to fill the bamboo container until it was full /<u>con tem</u>/ indicated the scalar verb with volume scales.

To summarize, it appeared that scalar verbs with volume scales existed in both English and Thai literary works. It can be noted that the scalar verbs alone did not mark the volume. Rather, the noun phrases, which followed the scalar verb, were the ones which pointed out that the preceding verbs were scalar. The next section presents scalar verbs with spatial scales.

5.3.3 Scalar Verbs with Spatial Scales

Scalar verbs with the spatial or directed-motion (DM) scales, generally, tell the gradation of the path of a particular moving item chronologically through time. The path can be in the vertical and/ or horizontal directions. Thus, the person or an item which conducts the action of the verb should be movable or should be forced to move. Moreover, the scalar verbs with spatial or directional scales can be analyzed, based on the following criteria: (a) the source or the origin where the action begins; (b) the particular moving item or the agent; (c) the item which is moved by a force or the patient; (d) the goal or the destination where the action ends (Tamm, 2012, p. 163); (e) the rate (degree) of change or the speed of the action (Tamm, 2012, p. 143); (f) the temporal duration of the action from the beginning of the action to the end of the action (Tamm, 2012, p. 143, p. 163) ; and (g) the vertical and/ or horizontal direction of the movement.

The results, extracted from the English and Thai literary works (Rowling, 2012; Pinpinat, 2012), showed scalar verbs with the spatial or directional scales. However, in the literary contexts, only a single verb may not entail the gradation of the path of the action. In addition to the verbs, it was found, in this research, that the contexts such as other verbs, noun phrases, prepositional phrases, adverbs, and so on help explain the gradation of the verbs. Examples are in (30)-(41) below.

(30) "Barry's eyes still <u>half open</u> above the muzzle-like mask…"
(Rowling, 2012, p. 8)

In (30), this excerpt with the verb phrase "half open" can be interpreted in two ways: (a) as the scalar verb with a property scale (open-close) of states of Barry's eyes; or (b) as the scalar verb with a spatial/ directional scale with a vertical direction of the open-close movement of Barry's eye lids. In the latter sense (b), it can be implied that, generally, the eyes have a two-point scale: completely closed and completely open. This excerpt gave an additional scale which was the "half" opening of the Barry's eyes that they were half open and half close (not fully open). Thus, the word "half" with the verb "open" yielded this verb to have a multi-point scale.

(31) a. "You <u>went all the way to the hospital</u> with her?"
(Shirley asked Miles and Samantha.) (Rowling, 2012, p. 9)

b. "Sam and I [Miles] went in the ambulance…With Mary and the body."
(Miles said to Howard on the phone.) (Rowling, 2012, p. 8)
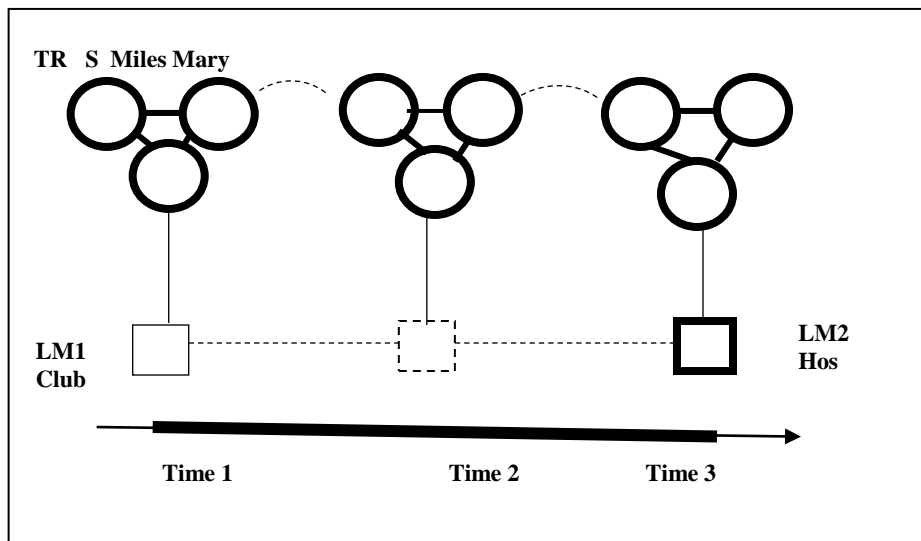
Figure 3 The cognitive schema of the verb phrase "went all the way
to the hospital" (adapted from Figure 12 in Langacker, 1991, p. 137)

The verb phrase in (31a) "went all the way to the hospital" construed
the scalar concept of the trip of Miles and Samantha that they went from the
original place (the golf club where Barry Fairbrother collapsed) to the destination
(the hospital).   The adverbial phrase "all the way" helped indicate the
(horizontal) directional path and the completed action of the verb 'go' with the
endpoint at the hospital.   Figure 3 illustrated the scalar action of Samantha,
Miles, and Mary who went from the club in Time 1 to the hospital in Time 3.

(32) "He (Simon) <u>reached the bypass</u> ten minutes later (from the place he
dropped the boy off)."(Rowling, 2012, p. 131)
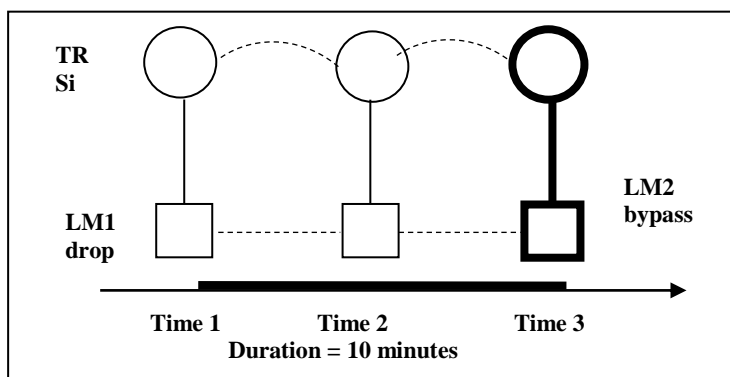
Figure 4 The cognitive schema of the verb phrase "reach the bypass"
(adapted from Figure 12 in Langacker, 1991, p. 137)

In (32) and Figure 4, the scalar verb phrase "reached the bypass" indicated only the destination of the action "the bypass" but can be implied from the previous texts in the story that the origin was from the place where Simon dropped the boy off. Also, the temporal duration of the action from the origin to the destination "bypass" which was "ten minutes" was provided.   The verb "reached," then, can be counted as a scalar verb with spatial scales.

(33) a. "They [Krystal, Leanne, and Nikki] had time to share a cigarette before the number twenty-seven [bus] arrived…But then the bus <u>pulled away from the curb</u> [at the shopping center]…" (Rowling, 2012, p. 198)

b. "The bus <u>rolled up</u> the road that led to the main entrance of South West General, and <u>stopped twenty yards from an enormous long rectangular gray and glass building</u>…Krystal followed two old ladies out of the bus…" (Rowling, 2012, p. 201)
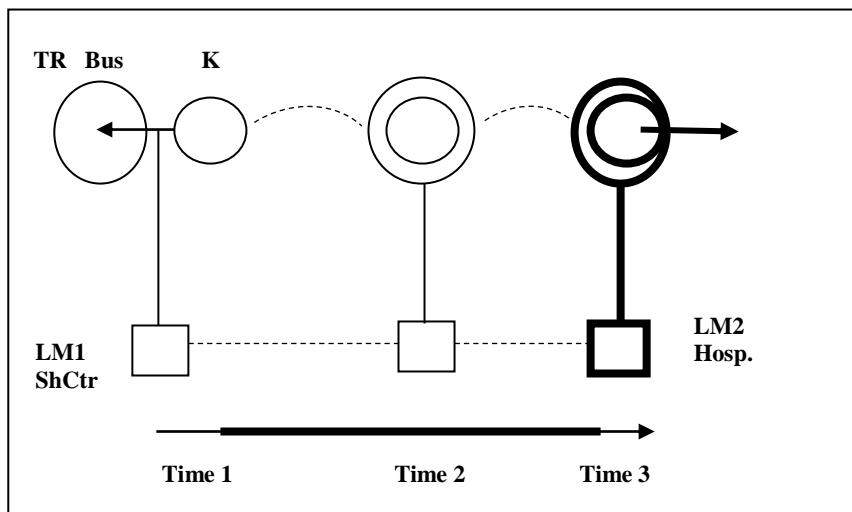

Figure 5 The cognitive schema of Krystal, taking a bus ride from the shopping center to the hospital (adapted from Figure 12 in Langacker, 1991, p. 137)

Example (33a-b) and Figure 5 presented the schema of Krystal, who took a bus ride from the curb of the road (at the shopping center)" in (33a) as in Time 1. In Time 2 (33b), the bus with Krystal inside "rolled up the road." In Time 3 (33b), Krystal got off when the bus made a stop "twenty yards from an enormous long rectangular gray and glass building." The verb "stopped" in (33b)

can be classified as a scalar verb with spatial scales, if we consider the stop as the destination and the endpoint of Krystal in Time 3.

(34) a. "I (Gavin) will <u>walk you up the road</u>, Mary. It'll <u>take five minutes</u>." (Rowling, 2012, p. 228)

b. "yep, you see Mary home, Gav." (Rowling, 2012, p. 229)
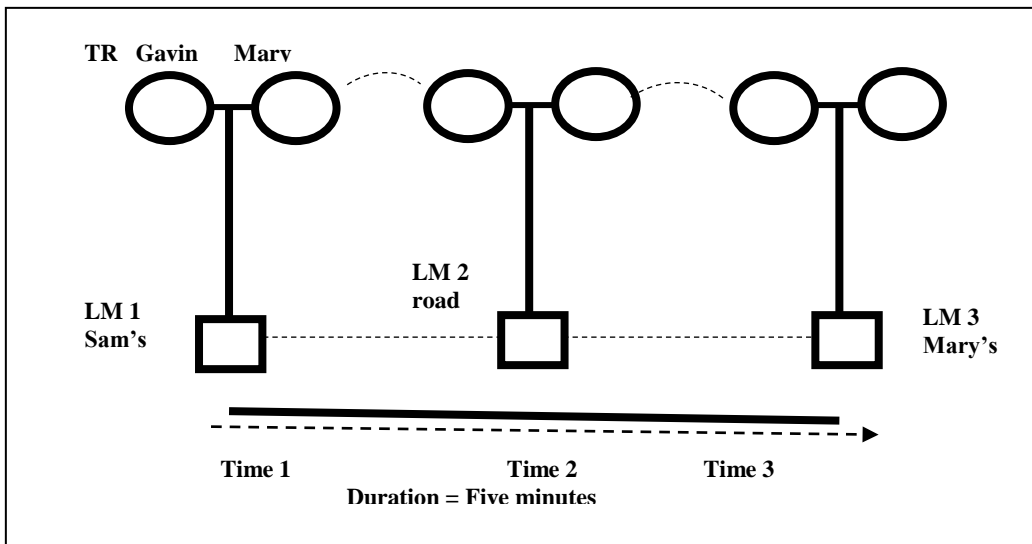
Figure 6 The cognitive schema of the path of Gavin and Mary's walk from Samantha's house to Mary's. (adapted from Figure 12 in Langacker, 1991, p. 137)

In (34a-b) and Figure 6, Gavin accompanied Mary, who was at that time at Samantha's house, to walk back from Samantha's house to Mary's house. This shows the scalar verb phrase "walk up the road" with the temporal duration of "five minutes." Though the action has yet to be completed at the time when Gavin said, the verb phrase "walk up the road," underlyingly, had an origin and a destination with the exact temporal duration of completing such action. Thus, this verb phrase is a scalar verb with a spatial scale. In Figure 6, it can be noted that the temporal arrow is in dash, as it indicates that the action will definitely occur in the near future and will be completed.

(35) "He (Gavin) <u>parked outside the house</u>, slammed the door and <u>hurried up the footpath</u>. She (Mary) opened the front door before he had even knocked." (Rowling, 2012, p. 335)
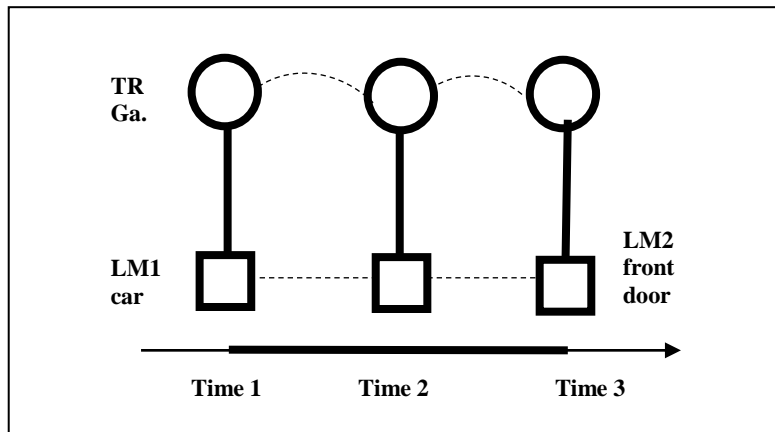
Figure 7 The cognitive schema of the path of Gavin
(adapted from Figure 12 in Langacker, 1991, p. 137)

Example (35) and Figure 7 present the path of Gavin's action, through verb phrases with horizontal spatial scales from where he parked his car outside Mary's house in Time 1; to the footpath where he walked fast in Time 2; with an underlying destination at the front door of Mary's house. The verb "hurried up" can be a scalar verb with a spatial scale.

(36) "Shirley <u>showered and pulled clothes out of the wardrobe</u> [inside her bedroom]…<u>walked along the hall</u>, <u>turned into Patricia's old bedroom</u>, and <u>sat down at the computer</u>." (Rowling, 2012, p. 439)
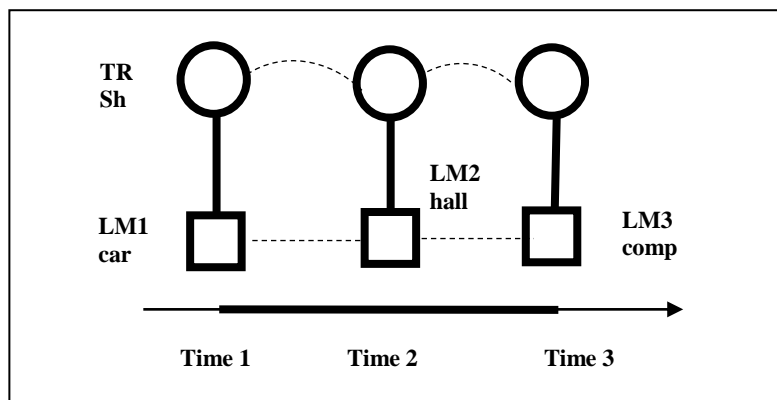
Figure 8 The cognitive schema of the path of Shirley's moving from bedroom to Patricia's (adapted from Figure 12 in Langacker, 1991, p. 137)

    In (36) and Figure 8, it shows the scalar path of Shirley's moving from one room to another. In Time 1, Shirley was in her bedroom; "walked along the hall" in Time 2; and entered Patricia's old bedroom in Time 3. This excerpt presents the fact of studying scalar verbs from the literary texts that only one verb cannot yield the view of the gradation or scalarity with spatial scales. Instead, a series of verb phrases along with other modifications such as prepositional phrases of time and place lead to the scalar sense of the characters' motions and movements.

(37) "The ambulance had to <u>come from the neighboring city of Yarvil</u>, and it <u>took twenty-five minutes to reach them</u>…" (Rowling, 2012, p. 5)
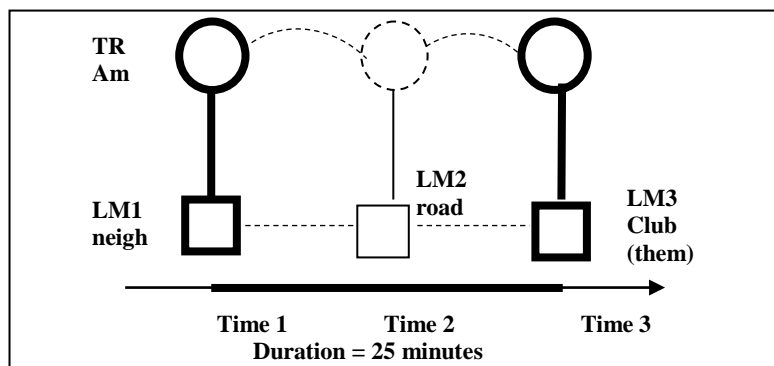
Figure 9 The cognitive schema of the path of the Ambulance
(adapted from Figure 12 in Langacker, 1991, p. 137)

    Example (37) and Figure 9 present the horizontal scalar path of the ambulance which ran from the neighboring city of Yarvil (Time 1 Place 1) and reached its destination (the club) in Time 3 in 25 minutes. The verb 'reach' can be counted as a spatial scalar verb.

(38) "The two boys both in school uniform, <u>looked from one parent to the other</u>, mildly interested." (Rowling, 2012, p. 11)
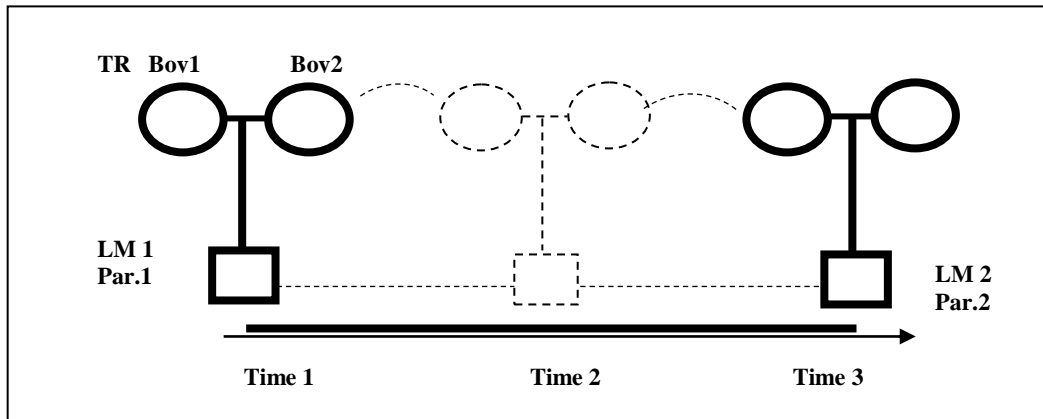
Figure 10 The cognitive schema of the path of the two boys' look
(adapted from Figure 12 in Langacker, 1991, p. 137)

Example (38) and Figure 10 show the scalar action of the boys who, at Time 1, looked at the first parent; and who finished the action, at Time 3, by looking the other parent. This presented the horizontal scalarity of the visual movement of the boys with the origination of the first parent and the destination of the other parent. The verb 'look' is a scalar verb with a spatial scale: the visual path from one parent to the other.

(39) "Ruth turned from her husband to her son…"
      (Rowling, 2012, p.13)
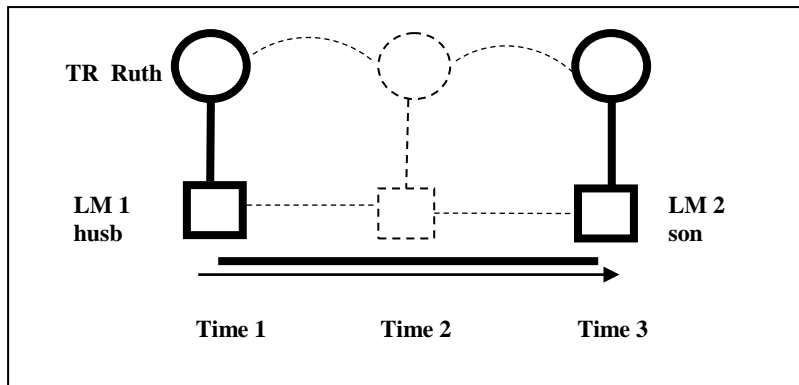
Figure 11 The cognitive schema of the path of Ruth's look
(adapted from Figure 12 in Langacker, 1991, p. 137)

Example (39) and Figure 11 present the scalar action of Ruth who, in Time 1, looked at her husband and who finished the action of looking (at her son) in Time 3. This is the horizontal spatial scalarity of the visual movement of Ruth with the origination (her husband) and the destination (her son).

       The above examples were extracted from the English novel. Besides, the results of this research revealed further that the Thai novel also showed the verb scalarity with the spatial scales. However, unlike English, Thai has a special verb-phrase construction called "the serial verb construction". This type of construction refers to a set of verbs that occur in concatenation "V1V2V3…" (Muansuwan, 2000; Sookgont et al., 2015; Sudmuk, 2005; Takahashi, 2009; Thepkanjana,1986). It is found in this research that the series of verbs can be scalar verbs with spatial or directional scales. Examples are in (40)-(41).

(40) **IPA**: /lom naˇaw pʰát kwaj ki`ŋ máaj hâj waˇj ʔeen /
     Gloss: wind cool blow swing branch tree give move

     IPA: /baj máaj siˇi lɯˇaŋ sôm tʰîi pli`t pliw ca`ak kʰûa/
     Gloss: leaf tree color yellow orange that rip blown from stem

     IPA: <u>/lɔɔj láʔ lîw rûaŋ lo`n bon pʰɯ́ɯn din/</u>
     Gloss: float swiftly fall drop on   land   soil

     Trans: Cool wind blows the tree branch and makes it move. The orange-yellow leaf that gets ripped off from its stem falls swiftly on the ground. (Pinpinat, 2012, p. 156)
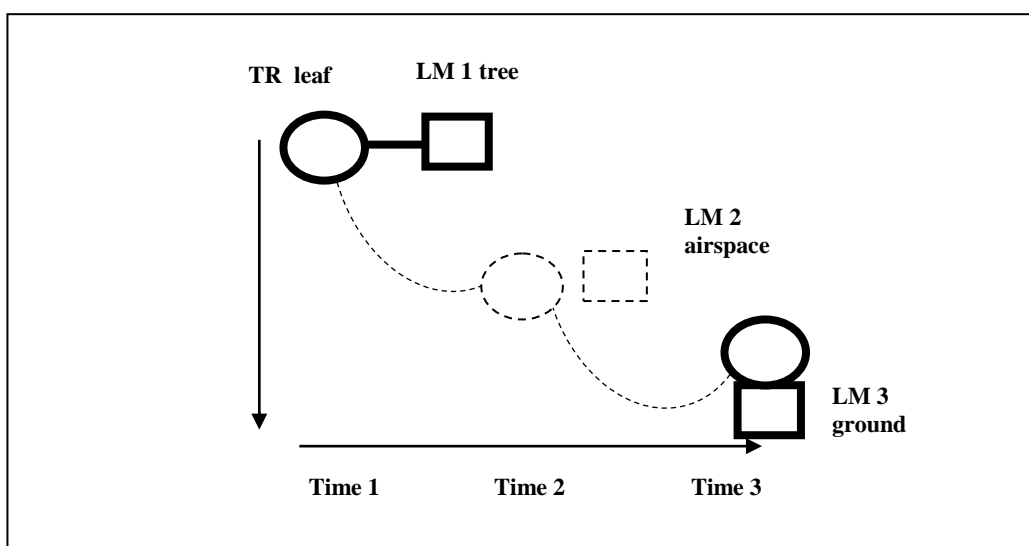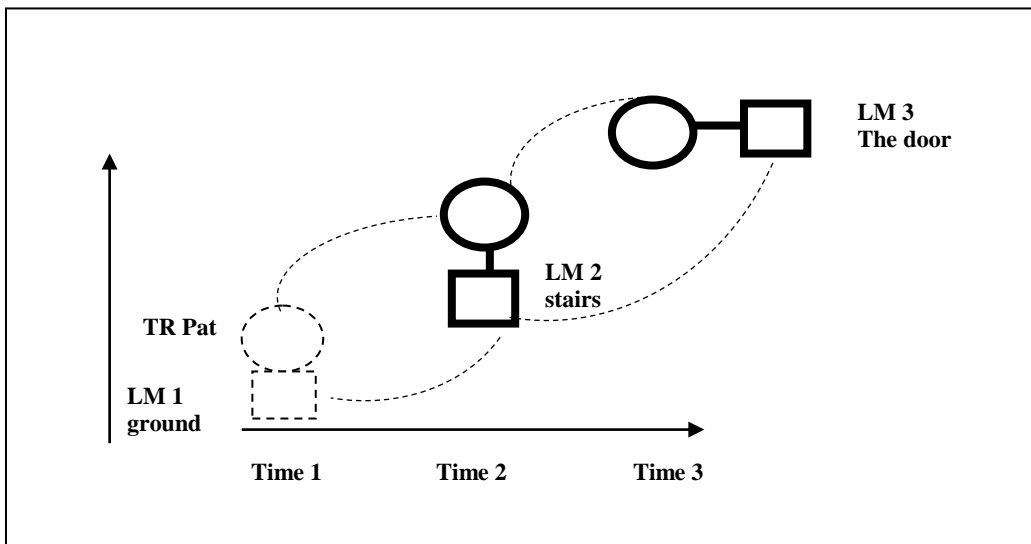

Figure 12 The cognitive schema of the path of the leaf
(adapted from Figure 12 in Langacker, 1991, p. 137; Figure 2, p.162)

Example (40) and Figure 12 presented the view of a leaf on the original tree stem (Time 1) falling to the ground (Time 3), affected by the force of the wind. This verb phrase /lɔɔj láʔ lîw rûaŋ loˋn bon pʰɯ́ɯɯn din/ has the scalar serial verbs with the four-verb construction of V1 /lɔɔj/ 'float'; V2 /láʔ-lîw/ 'move quickly'; V3 /rûaŋ/ 'fall'; and V4 /loˋn/ 'drop'. This verb phrase also carries the locative prepositional phrase /bon pʰɯ́ɯɯn-din/ 'on (the) ground' to indicate the destination of the 'falling' action. This example also expresses the benefits of having the serial verb construction, as the verb phrase can convey the vertical direction of the action 'fall' /rûaŋ/ and 'drop' /loˋn/, along with the speed of the action /láʔ-lîw/ 'fall quickly.' Thus, the verbs 'fall' /rûaŋ/ and 'drop' /loˋn/ can counted as scalar verbs with spatial path.

(41) **IPA**: /Patamaasawan <u>dəən kʰûn ban-daj máaj   taˋj   suˇuŋ kʰûn paj</u> /
    Gloss: Patamaasawan walk go up stairs wooden climb high go up go

    IPA: /kʰaˇj kun-caee pəˋət praˋʔ-tuu/
    Gloss: unlock key   open   door

    Trans: Patamaasawan walks up the wooden stairs (and climbed up), and used the key to unlock the door. (Pinpinat, 2012, p.532)

Figure 13 The cognitive schema of the path of the leaf
(adapted from Figure 12 in Langacker, 1991, p. 137; Figure 2, p. 162)

Excerpt (41) and Figure 13 presented the view of the main female character 'Patamaasawan' who originally was on the ground (Time 1) but climbed up to the house on the top of a tree (Time 3). This verb phrase /dəən

kʰɯ̂n ban-daj máaj taˋj suˇuŋ kʰɯ̂n paj/ had scalar serial verbs with the five-verb construction of V1 /dəən/ 'walk'; V2 /kʰɯ̂n/ 'go up (a directional verb)'; V3 /taˋj/ 'climb'; V4 /kʰɯ̂n/ 'go up (a directional verb)'; and V5 /paj/ 'go (a directional verb)'. The other sentence /kʰaˇj kun-caee pəˋət praˋʔ-tuu/ 'to use the key to unlock the door' tells the readers that she reached the top of the tree house, which was the destination of the action 'climb.'

It can be interpreted that the scalar serial-verb phrase has made the readers truly understand (a) the slow movement of the character indicated by the verb '<u>walk</u>' /dəən/ not 'run', (b) the vertical (from the bottom to the top) action indicated by the directional verb /kʰɯ̂n/ 'go up' which appeared twice, and (c) the destination of the vertical scalar actions 'walk/ climb up'. Thus, the two verbs 'walk' /dəən/ and 'climb' /taˋj/ are scalar verbs, in this case.

In sum, the results of this research revealed that there were cases of non-scalar; scalar-adjectival, and scalar-verb constructions found in both English and Thai literary works. As for scalar verbs, all three types: scalar verbs with property, volume, and spatial scales were found both in English and Thai in the two literary works. Scalar verbs, especially, can be schematized in horizontal and vertical paths of actions.

The next section is the discussion and conclusion section (Section 6).

6. Discussion and Conclusion

As this research was focused on the verb scalarity with the aims to see whether there existed non-scalar verbs, scalarity in adjectival forms, and scalar verbs in the two literary works (Rowling, 2012; Pinpinat, 2012). In addition, if scalarity exists, amongst the three types of verb scalarity: with property scales; volume scales; and spatial scales, which types of scalar verbs would be found and how can these scalar verbs, especially with spatial scales, be construed in cognitive schemas (Langacker, 2002)?

The results presented in Section 5 revealed that non-scalar verbs, scalar adjectives, and scalar verbs of all three types: with property, volume, and spatial scales existed in both English and Thai literary works (Rowling, 2012; Pinpinat 2012).

In this research, the results further suggest that, unlike examples in single sentences, the data gained from the literary works allow readers to have extra backgrounds and contexts, preceding or following the targeted verb phrase. These backgrounds and contexts help readers construe the accomplishment, destinations, or the telicity of scalar adjectives and verbs. Thus, extra background and contexts play a major role in marking the endpoint, as well as indicating whether the targeted verb construction is non-scalar or scalar.

As this research is an interdisciplinary one, targeted scalar verbs with spatial scales analyzed in cognitive schemas assist interested individuals to have clearer views of the movements and actions of the trajectories. In other words,

these schemas, based on Langacker (2002), let readers able to analyze spatial/ directional scalar verbs with clearer views of the origin of the movement of the item, the item moved by the force, the destination of the movement (Tamm, 2012, p.163), the rate of the movement (Tamm, 2012, p. 143), the temporal duration of the action (Tamm, 2012, p. 143, p. 163), and the vertical and/ or horizontal direction of the action.

As for the issue of the English and Thai, it can be summarized that all non-scalar verbs, scalar adjectives, and scalar verbs of all three types occurred in both English and Thai literary works. The differences were that, in English, verb phrases were used to indicate the components of the spatial or directional scalar verbs, along with prepositional phrases or adverbial phrases. Thai, on the other hand, had an additional type of the verb construction: serial verbs. It was found that verb scalarity appeared in the Thai serial verb constructions. Different syntactic verb constructions yielded different ways of expressing the language with different worldviews and culture. This follows the Sapir-Whorf Hypothesis in that language influences our thoughts and worldview, and vice versa (Hinton, 1994, p. 61).

Thus, it can be implied from this research that when learners absorb both of their first and second languages through reading or listening literary works, learners would have a great opportunity to naturally acquire the targeted language and culture with embedded thoughts and worldview, which, in learners' minds, can be compared to their L1 set.

Additionally, this research pointed out the fact that verb scalarity, intrinsically, existed, beyond just single sentences, in the two literary works. This result may help explain that the notions and understandings of scales are common in human minds and brains, and that verb scalarity is pervasive. In other words, verb scalarity, like metaphors in Lakoff and Johnson (2003, p.3), has been used in our languages in everyday life, and we have not noticed it.

In sum, the results, gained from this study, become a pioneer research on the L1-L2 syntactic studies of verb scalarity, which combined different fields of study: syntax (linguistics), semantics, cognitive linguistics, and literature. The major contribution to the field of syntax is that one can study syntax, in this case: scalarity, not only through single sentences, but also in connected written texts. The one of semantics is that, in connected written texts, the meaning of the targeted verb can go beyond the targeted sentence, based on the preceding and following contexts. Cognitive linguistics can help readers construe abstract scalar verbs to become more concrete, as scalar verbs are pervasive. Last but not least, literature or literary works are the great sources for the linguistic studies, as the languages in the texts are natural; are well written and structured; and, underlyinglym yield the truth of life, thoughts, and cultures.

This research, then, can be considered as an interdisciplinary and liberal arts study. This type of research can give a holistic view of selected research topics.

Finally, it is hoped that this research will shed light on to other future educational research in the interdisciplinary and liberal arts, and to help advance the pedagogy or the teaching and learning of the contents of the courses in linguistics such as the course "English Morphology and Syntax" for EFL learners.

Works Cited

Bergen, B., & Binsted, K. (2003). The cognitive linguistics of scalar humor. In
    M. Achard, & S. Kemmer (Eds.), *Language, culture and mind*. Retrieved
    from citeseerx.ist.psu.edu/viewdoc/download? Doi 10.1.1.492.3291&rep
    =rep1&type=pdf

Bochnak, M.R. (2011). Two sources of scalarity within the verb phrase. In B.
    Arsenijevic, B.Gehrke, & R. Marin (Eds.), *Subatomic semantics of event
    predicates*. USA: University of Chicago. Retrieved from
    http://semanticsarchive.net/Archive/zA2ZDY0Z/Bochnak.sourcesofscala
    rity.pdf

Fillmore, C. J. (2003). The case for case. In *Form and meaning in language*.
    Stanford: CSLI Publications, 1-311. Retrieved from
    http://linguistics.berkeley.edu/~syntax-circle/syntax-group/

Framenet Project, The. (2013). Retrieved from
    https://framenet.icsi.berkeley.edu/fndrupal/

Heinrich-Heine-Universitat Dusseldorf. (2011). Workshop on "Scalarity in
    Verb-Based Constructions." April 7-8, 2011.

Hinton, L. (1994). *Flutes of fire. Essays on California Indian languages*. USA:
    Heyday Books.

Kramsch, C. (1998). *Language and Culture*. In H.G. Widdowson (Ed.), Oxford
    Introductions to Language Study. China: Oxford University Press.

Lakoff, G., & Johnson, M. (2003). *Metaphors we live by*. USA: The University
    of Chicago Press.

Langacker, R. (1991). *Concept, image, symbol*. *The cognitive basis of grammar*.
    Germany: Ratzlow-Druck.

Levin, B. (2009). Lexical semantics of verbs V: Scales, scalar change, and
    manner/ result complementarily. A handout of the course LSA 116.
    University of California at Berkeley. Retrieved from
    web.stanford.edu/~bclevin/lsa09 scmrcomp.pdf

Levin, B. (2010). Lexical scales and verbs of scalar change. A handout of CLS
    46. Retrieved from web.stanford.edu/~bclevin/cls10change.pdf

Levin, B., & Rappaport Hovav, M. (2011). Conceptual categories and linguistic
    categories III: More on scalar change, lexicalization and argument
    realization. A handout for the course LING 78000-000 CU Boulder.
    Retrieved from https://web.stanford.edu/~bclevin/las11mr2.pdf

Muansuwan, N. (2000). Directional serival verb constructions in Thai. Dan
    Flickinger and Andreas Kathol (eds.), *Proceedings of the 7th
    International HPSG Conference*. University of California at Berkeley.
    Retrieved from https://web.stanford.edu/group/cslipublications/
    cslipublications/HPSG00/hps00muansuwan.pdf

Nara (pseudonym). (2012). *Thaadaakusumaa*. Bangkok: Pimkham Publishers.

Panthumetha, N. (2016). *The Thai grammar*. Bangkok: Chulalongkorn
        University Press. [in Thai].
Ozturk, O., & Papafragou, A. (2014). The acquisition of epistemic modality:
        From semantic meaning to pragmatic interpretation. In *Language
        Learning and Development*, 00: 1-24.DOI:
        10.1080/15475441.2014.905169.
Papafragou, A., & Ozturk, O. (2007). Children's acquisition of epistemic
        modality. In A. Belikova, et al. (Eds.), *Proceedings of the 2nd
        Conference on Generative Approaches to Language Acquisition North
        America (GALANA)*, p.320-327. Somerville, MA: Cascadilla
        Proceedings Project. Retrieved from
        www.lingref.com/cpp/galana/2/paper1572.pdf
Pinpinat (pseudonym). (2012). *Patamaasawan*. Bangkok: Pimkham Publishers.
Prasithrathsint, A. (2010). *Parts of speech in Thai: A syntactic analysis*.
        Bangkok: A.S.P Publishers. [in Thai].
Rappaport Hovav, M. (2008). Lexicalized meaning and the internal temporal
        structure of events. p.13-38. Retrieved from
        semantics.uchicago.edu/kennedy/classes/s07/events/mrh06roth.pdf
Rappaport Hovav, M. (2011). Lexicalized Scales and Scalar Change in Two
        Domains. Paper presented at the Scalarity in Verb-Based Constructions
        Workshop. Heinrich Heine University. Germany.
Rowling, J.K. (2012). *The casual vacancy*. USA: Little, Brown and Company.
Rowling, J.K. (n.d.). *The casual vacancy*. Retrieved from
        https://jkrowling.com/book/the-casual-vacancy/
Slabakova, R. (2009). Scalar implicatures in second language acquisition.
        Lingua. DOI: 10.1016/j.lingua.2009.06.005
Smolensky, P., Goldrick, M., & Mathis, D. (2014). Optimization and
        quantization in gradient symbol systems: A framework for integrating
        the continuous and the discrete in cognition. In *Cognitve Science*, 38,
        p.1102-1138. DOI: 10.1111/cogs.120472013. Online publication: June
        26, 2013, DOI: 10:1111/cogs.12047.
Smolensky, P., & Goldrick, M. (2016). Gradient symbolic representations in
        grammar: The case of French liaison. Retrieved from
        http://roa.rutgers.edu/content/article/files/1552_smolensky_1,pdf
Sookgont, S., Supnithi, T., & Kongkachandra, R. (2015). Classification of serial
        verb constructions in Thai. *International Journal of Artificial
        Intelligence & Applications (IJALA)*, 6 (4), 79-86. Retrieved from
        https://www.academia.edu/14847218/Classification_of_Serial_Verb_Co
        nstructions_in_THAI
Sudmuk, C. (2005). *The syntax and semantics of serial verb constructions in
        Thai*. Ph.D. Dissertation. USA: The University of Texas at Austin.

Retrieved from https://www.lib.utexas.edu/etd/d/2005/sudmud95920/
    sudmuk95920.pdf
Takahashi, K. (2009). Basic serial verb construction in Thai. *Journal of the
    Southeast Asian Linguistics Society*, 1, 215-229. Retrieved from
    labo.kuis.ac.jp/private/kiyoko/SEALS18.pdf
Tamm, A. (2012). *Scalar verb classes*. Italy: Firenze University Press. Retrieved
    from http://cognitivescience.ceu.hu/sites/default/files/publications/
    53261.pdf
Thepkanjana, K. (1986). *Serial verbs constructions in Thai*. Ph.D. Dissertation.
    USA: The University of Michigan.
Umarika (pseudonym). (2012). *Soysabanngaa*. Bangkok: Pimkham Publishers.