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A Study on the Encoding of Motion Events in Reading Comprehension Sections of EFL Textbooks

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ABSTRACT: *The goal of this study was to investigate patterns of encoding motion events in the sentences of 'Reading Comprehension' sections of English textbooks that are taught in Iranian guidance schools and high schools. To achieve this objective, all sentences that described motion events were collected from textbooks. These sentences were examined on the basis of two factors: 1) The encoding of Figure, Manner, Path, Source, Goal, Cause, and Ground; 2) Metaphorical description of non-motion events in terms of motion events. Based on the obtained results, it was concluded that sentences of these books are the simplified versions of typical English sentences that are sued to describe motion events. In other words, these sentences minimize the details of motion events and do not offer a complete picture of such events. Regarding the use of metaphors to describe non-motion events in terms of motion events, the obtained results showed that metaphors are underused in English textbooks that are taught in Iranian schools. Therefore, it is recommended that some modifications be made in these textbooks to improve the quality of teaching these aspects of language to L2 learners in Iranian high schools and guidance schools.*

Keywords: Motion event, figure, manner, path, source, goal

Introduction

The ways that concepts are represented in the structure of various languages has always been a hot topic of discussion among linguists. A given concept can be represented in different ways in different languages. In fact, a single concept might be described rather differently in two different languages. The concept is the same; however, it is described in two codes in two different manners.

This does not mean that we describe two different concepts; rather, the same thing or the same concept is described in two ways. The manner of description by the two languages might be different in a number of ways. For example, while one language might provide a lot of details, another one might describe it by providing much less details. Or, while one language might pay a lot of attention to the location of an event, another language

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might pay much attention to the manner of occurrence of that event. When we want to describe a phenomenon or a concept, we might focus on some of its specific aspects. We use our language as a vehicle to describe concepts and events. Therefore, various languages might have different capabilities in providing details about a given concept.

Human languages offer the means to parse the movement of an object into a number of distinct encodable parts. The words of language make it possible to refer to the man separately from the ground he moves on (the street), to trace his path (crossing), to comment on the details of his movement (running, walking, hopping, etc.), to note whether the motion was externally caused or spontaneous (transitivity), and so forth. The recurrence of certain meaning features in the linguistic description of motion has led to the supposition that the cognitive partitioning of motion events along certain dimensions is "natural", indeed universal (Landau & Jackendoff, 1993; Miller & Johnson-Laird, 1976; Talmy, 1985). On this view, widely accepted within cognitive science, linguistic representations of motion pick out a subset of the spatial–mechanical conceptual distinctions for which humans are cognitively prepared.

Providing details about the motion events has been specifically a subject of discussion among cognitive linguists in recent decades. Since the time that Talmy (1985, 1991, 2000) presented his typology of motion events, a lot of research has been conducted on various languages across the world to find how languages can be included in such a classification. The base of Talmy's view was that languages differ from each other in terms of the way that they describe a motion event. He said that information about a motion event is not distributed within the sentences in the same way in different languages; that is, while some languages compress information in the main verb, others distribute information across a number of elements that are related to the main verb. In the following section, this theory will be described in detail.

Literature Review

The origin of Talmy's (1972, 1985) typology goes back to his view that languages differ in how they represent an event of motion within a sentence. According to Talmy (2000), every motion event includes Figure (object), Ground (the reference of object), Path, and Motion. Talmy (ibid) assumed that the main verb of a motion event always lexicalizes the Motion component. He also said that languages of the world can be classified according to the ways that motion events are lexicalized. He added that Motion component and other components can be represented in one of the following ways (Talmy 2000, p. 60):

Motion + Figure

Motion + Path

Motion + Co-event

Following this assumption, he divided the languages of the world into two types: verb-framed (V-language) and satellite-framed (S-language). This was based on lexicalization patterns in various languages. English is known as an example of satellite-framed language that expresses the core component of motion, i.e., the path or trajectory of motion, in satellites (e.g., up, down) or in prepositional phrases (e.g., into/out of the house), leaving the verb slot free to encode Manner-of-motion (Cifuentes-Ferez, 2010). Satellite is the grammatical category of any constituent other than a noun-phrase or prepositional phrase complement that is in a sister relation to the verb root. English verb particles, Latin, Russian and German verb prefixes, Chinese verb complements, and Caddo incorporated nouns are examples of satellites (Talmy 1985, P. 113). In Talmy's framework, constructions that describe motion events are classified according to whether they lexicalize path in a verb or in a satellite (or possibly in both)."Path appears in the verb root in "verb-framed" languages such as Spanish, and it appears in the satellite in "satellite-framed" languages such as English and Atsugewi." (Talmy 1985, p. 117-118).

According to Slobin (2005), Romance, Semitic, Turkic, Basque, and Japanese are classified as verb-framed languages; on the other hand, Germanic, Slavic, and Finno-Urgic are classified as satellite-framed languages. He adds that in verb-framed languages, PATH tends to be encoded in the main verb (such as enter, exit); on the other hand, in satellite-framed languages, it tends to be encoded in elements associated with the main verb such as verb particles and affixes (such as go in/out/up/down).

In fact, it is the motion as the main feature of event which determines the type of language in terms of expressing path information. The languages belonging to verb-framed category express the path of motion in the main verb while the satellite-framed languages encode the path of motion in particles and prefixes (satellites) following the main verb (Ozcalıskan, 2004). Different lexicalization of path information in each category of languages leads to different conflation patterns. Satellite-framed languages provide linguistic options to indicate motion through conflating it with manner, and thus the speakers of S-languages have a rich lexicon of manner verbs. However, in verb-framed languages the motion is conflated with path and there is no linguistic option for the speakers to express manner of the motion (Ozcalıskan, 2004). Thus, according to Slobin (2005), speakers of V-languages have to resort to other subordinated construction. This forces

them to avoid expressing manner information due to the added load. Simply put, every language has its own way of "distributing features of the same spatial information into linguistic units" (Allen, 2007, p.17).

The way that manner is encoded in various languages has been the subject of a number of studies (Slobin, 1996, 1997, 2000, 2003, 2004; Slobin & Hoiting, 1994) throughout the past two decades. Results of these studies have indicated that satellite-framed languages tend to encode more information about the MANNER of information in narratives and conversations, as compared with verb-framed languages. According to Slobin (2005), this is probably due to the fact that the encoding of MANNER in the main verb is not as demanding as the encoding of MANNER in adjunct (satellites) expressions. That is, it is cognitively easier for the speakers to encode information in the main verb of the clause rather than to encode the information in the adjuncts or satellites of the verb.

The aim of this study was to investigate the ways that manner and path component of motion events are encoded in reading comprehension passages of English textbooks in Iran. Also, it intended to find whether lexicalization of path and manner follow the typical lexicalization patterns of English. To answer these questions, reading comprehension passages of English textbooks used in Iranian schools were analyzed to answer the following questions:

1. Do lexical patterns and satellite elements of sentences of general English textbooks in Iran oversimplify and minimize motion events?
2. How and to what extent are metaphorical statements employed to describe motion events in general English textbooks taught in Iran?

Research Methodology

In this study, general English textbooks taught in Iranian high schools and guidance schools were used as the sources for data collection. Each unit of these textbooks includes a main text and 'Reading Comprehension' part. These materials consisted of the following textbooks:

1. Prospect 1 (Student Book and Workbook)
2. Prospect 2 (Student Book and Workbook)
3. Prospect 3 (Student Book and Workbook)
4. Vision 1 (Student Book and Workbook)
5. English Book 3

6. English for Pre-University Students (1 & 2)

Totally, 52 texts were used for data collection. These texts were closely examined to find those sentences that describe motion events. All of these sentences were listed in a data base. Totally, 154 sentences that described motion events were selected for data analysis. Some of these sentences were complex and included more than one motion event. These sentences were analyzed one by one to find how Figure, Manner, Path, Source, and Goal are represented in them. Some of these sentences described a real motion event; some other sentences described a non-motion event in terms of a motion event. While the first group of sentences described a real motion event, the second group metaphorically described a non-motion event in term of a motion event.

Data analysis

To achieve the objectives of the study, the number and percentage of sentences in which the semantic elements of Figure, Manner, Path, Source, and Goal had been represented by satellites were obtained. For example, in the case of the semantic element of Manner, the number and percentage of sentences in which this element had been mentioned by a satellite were obtained. The same was done for the semantic elements of Figure, Path, Source, and Goal.

Sometimes a non-motion event or situation is understood in terms of a motion event. These are metaphorical description of that event or situation. In the data analysis of this study, the number of non-motion events that had been described in terms of a motion event was obtained. In such cases, the components of the metaphorical motion events were also examined. For example, in the expression "Social movement *against* child labor", social demonstrations are considered as a moving object whose direction (Path) is against another object (child labor). Therefore, a distinction was made between real motion events and metaphorical motion events.

Results

Results of five main components

As was mentioned, 154 sentences were collected from general English textbooks taught in Iranian guidance schools and high schools. The majority of these sentences described a single motion event. However, several of them described more than one motion event. Table 1 shows the parentages of cases that the five main components of a motion event (Figure, Manner, Path, Source, and Goal) have been mentioned in the sentences of textbooks. Among these components, Figure is highly outstanding. On the other hand, Source and Goal have very low percentages (%9 and %13,

respectively). Even it can be said that Path and Manner do not have a high presence in the sentences describing motion events (%48 and %27, respectively). However, it must be noted that in the case of Manner, %27 of sentences described the Manner by adverbs. A distinction must be made between such cases and those that Manner is included within the verb itself. In fact, it is a distinction between conflation and satellite. This point will be elaborated on in detail in the discussions. In other words, among the five main components of a motion event, only Figure has a high presence in the sentences of textbooks.

Table 1
Percentages of the five main components in the sentences that described a motion event

Components of motion event	Figure	Manner	Path	Source	Goal
Percentage	%88	%27	%48	%9	%13

Cause and ground

As was mentioned, Cause is the force behind a motion event. Ground is the point with respect to which the Figure moves. In many studies, these two components have not been included as the main features of motion event. Perhaps the reason is that in many cases these two features overlap with the five main features. That is, in many cases, Figure and Cause are the same entity, and Ground and Source are the also the same. However, there are some cases in which such overlaps do not occur. Table 2 shows the percentages of sentences in which Cause and Ground had been mentioned.

Table 2
Percentages of Cause and Ground

Components of motion event	Cause	Ground
Percentage	%38	%8

Real/metaphorical and active/passive sentences

The distinction between real and metaphorical sentences is very important issue when we are talking about language comprehension. The meaning of metaphorical sentences has nothing to do with the surface features of the words of the sentence. In other words, the principle of compositionality, according to which the meaning of the sentence is derived from the meaning of its components, does not hold. Therefore, a distinction was made metaphorical and non-metaphorical sentences in order to examine

the complexity of sentences that describe a motion event. In metaphorical sentences, something is described in terms of a motion event; in real or non-metaphorical sentences, a real motion event is described. In order to obtain a clearer picture of the complexity of sentences, the percentages of active and passive sentences were also obtained. Table 3 shows the percentages of these sentences collected from textbooks.

Table 3
Percentages of real/metaphorical and active/passive sentences

Type of the sentence	**Real**	**Metaphorical**	**Active**	**Passive**
Percentage	%93	%7	%96	%4

Discussion

Figure

As was mentioned in Table 1, among the five main components of motion events, the percentage of Figure is highly outstanding (%88). It shows that in a large number of sentences of textbooks, Figure is included in the sentences. If the Figure is not clearly included in the sentences, the readers have to identify the moving object through the pervious sentences. This involves making inferences and perhaps a detailed analysis of previous sentences. Therefore, if the Figure is not clearly in a text, the reader has to go beyond one sentence and chain the sentences together in order to identify the Figure. This makes the process of understanding much more difficult. This is particularly the case with low-level readers such as students of guidance schools. Reference to the Figure of a motion event can be made by mentioning the name of the Figure itself, by a pronoun, or simply by nothing. The last one can be called *zero-mentioning*. Among these three options, the last one is perhaps the most difficult one for a reader because the reader has to make some inferences in order to identify the moving object. In the following sentences, the Figure has clearly been mentioned:

That is where exercise comes in.

The blood in your body even moves more easily through the blood vessels.

The number of blood cells in your body increases, so the blood can carry even more oxygen.

In the first sentence, the Figure (exercise) and motion verb (come) are beside each other and there is no word between them. In this sentence, the interesting point is that the Path has been indicated by two elements. The verb *come* is a Path verb. The Path has been conflated within the verb itself. In addition to this, the satellite (*in*) shows the direction (Path) of the

movement. In other words, Path has been indicated by a conflated element and a satellite. Therefore, it can be said that Path has been mentioned by two elements: an invisible element (the element conflated into the verb) and a visible element (in). In the following paragraphs, such cases will be discussed in detail.

In the second sentence, the Figure (blood) and the motion verb (move) are separated by several words. It is one of the cases in which Figure precedes motion verb. In this sentence, Manner has been mentioned by an adverb (easily) and the Path by a prepositional phrase (through the blood vessels). The interesting point about the third sentence is that the motion verb (carry) has two figures: *blood* and *oxygen*. In fact, we have two moving objects, one of which is the carrier and the other one is the object that is being carried.

The above sentences are different from the following sentence in that the following sentences do not have a Figure:

It is time to get right into it and see why it is good to be fit.

But what about using them for harder activities, like taking long bike rides or climbing a tree?

In these sentences, Figure has not appeared in the surface form of the sentence. However, we have to distinguish between these types of sentences and sentences in which Figure occurs in another clause that is connected to the main clause by a conjunction or other linguistic elements.

Manner

As was mentioned in Table 1, in %27 of sentences collected from general English textbooks, the Manner had been clearly indicated by a linguistic element such as a manner adverb. English is known as a satellite-framed language. We saw that in this type of languages, Manner is encoded in the main verb, and Path is encoded as a satellite. For example, in the sentence '*John limped into the house*', the manner of movement is included in the verb itself, and there is no need for an adverb to describe the Manner of movement. The Path of movement has been indicated by '*into*'. In the sentences that were collected in this study, %27 of sentences included a linguistic element for describing Manner. The difference between English and Persian in terms of the way that motion events are encoded is a point that must be considered when English textbooks are prepared for Persian native speakers. While English is a satellite-framed language, Persian is known as an equipollentlly-framed language. In the following example, three verbs (*shake*, *rattle*, and *change*) have been used to refer to three types of motion events:

It may shake houses, rattles, windows, and change the place of small things.

In the first two verbs (*shake* and *rattle*), manner of movement has been encoded in the verb themselves. When we use these two verbs, it is absolutely clear what kind of motion we are referring to. However, the third verb (*change the place of things*) does not encode Manner of motion. In other words, it is not clear how the motion has taken place. The only clear point is that one thing moves from one point to another point. This movement can be made in many ways. However, this sentence does not say anything about the Manner of movement.

Since English is a satellite-farmed language, it has a lot of verbs for describing a motion event. For example, the verbs *run*, *jog*, *lop*, *sprint*, *dash*, *rush*, *hurry*, *scurry*, *scramble*, etc are used for very similar kinds of motion events. All of these words do not have Persian equivalents. Therefore, they are translated into Persian by using manner adverbs. This is the point that must be taken into account when general English textbooks are prepared for Persian native speakers. If the slight differences among manner verbs are not properly understood, L2 learners might be faced with difficulties in understanding L2 texts. Given such differences between English and Persian, it would be no surprise to see that Persian native speakers overuse manner adverbs. Since slight differences among Persian motion verbs are expressed by manner adverbs, Persian native speakers tend to overuse manner adverbs instead of using manner verbs such as *jog*, *lop*, *sprint*, etc.

Among the sentences that were collected in this study, the following case might be one of the most interesting ones:

You will want to use movements that are slow and careful but look natural.

In this sentence, Manner of motion has been expressed by three linguistic elements (*slow, careful,* and *natural*). Although the sentence has three linguistic elements for describing Manner of motion, it is not very difficult for Persian native speakers to understand it because it is similar to the way that Manner is encoded in Persian. Therefore, it cannot be said that the number of linguistic elements determines level of difficulty of a sentence for L2 learners; rather, the way that semantic components are encoded determines level of difficulty. In the case of encoding Manner of motion, Persian native speakers do not have serious difficulties in understanding motions that are described by adverbs or adjectives. However, they are faced with difficulties for understanding motion verbs that describe very similar motion events. This can be explained by the structural features of Persian. The findings of a study conducted by Havasi and Snedeker (2004) support this proposal. They found that when a novel verb paired with a single motion event is given to English native speakers, they interpret it as a manner verb.

On the other hand, Spanish speakers interpret novel verbs as path verbs. However, after conducting two experiences, they concluded that lexicalization biases change over time in response to input. Based on these findings, it can be suggested that Persian native speakers might be faced with difficulties in interpreting English verbs as a result of lexicalization biases in Persian.

Path

As was mentioned in Table 1, in %48 of sentences collected from textbooks, Path had been indicated by a linguistic element. Since English is a satellite-framed language, this percentage (and even a higher percentage) of encoding Path by satellites was expected. An important point about the encoding of Path is the number of satellites that represent Path of a motion event. In some sentences, a lot of details about the Path of a motion event are given by several satellites. On the other hand, sometimes few details are given. In the following sentences, Path has been mentioned by one linguistic element:

In 1871 Edison moved to New York.

Man has sent spacecrafts to other planets.

It is time to get right into it and see why it is good to be fit.

In the first sentence the satellite '*to*' indicates the direction of movement (toward New York). In this sentence, the motion verb is immediately followed by the satellite. Similarly, in the second sentence the satellite '*to*' indicates that the direction of movement (toward other planets). However, the motion verb and its satellite have been separated by one word (spacecrafts). In the third sentence, the satellite '*into*' is followed by a pronoun (*it*), which clearly shows the direction of motion event. However, the Goal (lungs) has not been mentioned in the sentence. This is one of the cases that might be difficult for L2 learners.

Although English is a satellite-framed language, the Path of motion event might be encoded in the verb itself; however, this happens in a very small number of English verbs. The following example is one of such cases:

Since it cannot lift weights to get stronger, it relies on you to do aerobic exercise.

The verb '*lift*' refers to a motion event that starts from a lower point and ends at a higher point. Compared to those motion verbs whose Path are indicated by satellites, verbs such as '*lift*' create less problems for Persian native speakers because it is more similar to the encoding of Path in Persian verbs.

The final point that needs to be emphasized here is that except a very small number of sentences, the other sentences that were collected from textbooks had at most one Path satellite. This can be seen in the following examples:

Please make any endeavor to arrive on time (no Path satellite).

Drivers should drive carefully in winter (no Path satellite).

These sentences are much simpler than the following sentence that was taken from a source for English native speakers:

They walked outside the house down to the back of the garden along an old road out into a forest.

This indicates that sentences of general English textbooks are simpler than typical English sentences. They do not provide detailed information about the Path of motion events in the same way that typical English texts provide.

Source and Goal

Among the sentences that were collected from textbooks, Source and Goal had been mentioned in %9 and %13 of sentences, respectively. Motion verbs can take both Source and Goal, one of them, or none of them. Therefore, the amount of information related to Source and Goal is dependent on the writer rather than on the structural necessities of the language. In other words, the information about Source and Goal is an optional part of the sentence; it can be excluded without creating any problem for the grammatical correctness of the sentence. This can be seen by comparing the following examples:

The United States launched its own satellite the next year.

Soon both countries were launching humans into space.

While the second sentence has a Goal, the first one does not. However, both sentences are grammatically correct.

Cause and Ground

As was mentioned in Table 2, %38 and %8 of sentences that were collected from textbooks included Cause and Ground, respectively. Cause is usually the subject of the sentence. Cause and Figure might be the same; however, this does not always happen. In the following sentence, Cause and subject are the same:

All parents should send their children to school.

The word '*parents*' is the subject of the sentence and Cause of the motion verb '*send*'. '*Children*' is the Figure of motion event. Therefore, subject, Cause, and Figure might be the same entities or not. In the following sentence that was taken from 'English Book 3', subject, Cause, and Figure of the motion event are the same entity:

He is jumping up and down.

The pronoun '*He*' plays the three roles of subject, Cause, and Figure. In fact, these three entities have been conflated into a single linguistic element.

Real and metaphorical motion events

As was mentioned in Table 3, %93 of sentences that were collected from textbooks described a real motion event. On the other hand, %7 of sentences were metaphorical; that is, they described a non-motion event in terms of a motion event. In order to understand such metaphorical sentences, comprehender must go beyond the surface meaning of words and understand a non-motion event on the basis of a motion event. The same points that were discussed in describing real motion events can also be discussed for metaphorical motion events. However, because of their nature, metaphorical sentences might be more difficult to understand in those cases whose understanding involves some degree of deduction.

According to Gentner's (1983) structure-mapping theory, metaphors are understood by the mapping of relations of base domain into relations of target domain. This theory holds that when a non-motion event is described in terms of a motion event, the components of motion event (base domain) are mapped into components of non-motion event (target domain). Each component in the target domain has a corresponding component in the base domain, and each relation in the target domain has a corresponding relation in the base domain. The mapping of elements and relations from base domain into elements and relations of the target domain leads to the understanding of the metaphorical expression. The following example can help to make the point clearer.

But if the body is not able to use all the calories that are coming from food, it stores them as fat.

In this sentence, calories are considered as entities that move from their producer (*food*) to the cells. The motion verb of '*come*' describes a process through which calories are produced by food in the body and are given to the cells. In the base domain, there is a source that produces something and sends it to the point of consumption. In the target domain, there is some food that produces calories and gives them to the cells. The

mapping of components and relations from base domain into target domain can be seen as following:

Food → Source

Cell → Consumption point

Calories → Packages of products

Giving calories to cells → Sending products to the consumption point

Based on the structure-mapping theory, these mappings correspond to the processes through which the metaphorical expression is understood.

Sometimes metaphorical statements are based on a special type of figure of speech which is called personification. The following sentence that was taken from 'English for Pre-University Students' is one of such cases:

Just because the weather has been hot for a month or two does not mean that global warming has arrived.

In this metaphorical sentence, '*global warming*' is seen as a living entity that has arrived a given place. In fact '*global warming*' has been given the attribute of a living organism. Since this particular metaphor and an infinite number of similar metaphors are shared by English and Persian, they cannot create any problem for Persian native speakers who learn English as an L2.

Since a large number of researchers (such as Honeck, 1997; Graesser, Mio, & Millis, 1989; Pollio, Barlow, Fine, & Pollio, 1977) have emphasized the high prevalence of metaphors in daily language use, the %7 of metaphoric sentences in general English textbooks is considered very low. Therefore, it can be said that the description of non-motion events in terms metaphorical motion events is not prevalent in textbooks.

Having discussed various categories of data that were collected in this study, we are now in the position to answer research questions of the study. To answer the first research question, it must be noted that the ways that motion events are described in general English textbooks are oversimplified. Based on the data presented in tables 1,2,3,4, and also the examples that were discussed throughout the discussions, it seems that the structures that are employed to describe motion events in English textbooks of Iranian schools are much simpler than typical English sentences that are employed by native English speakers. Therefore, the first research hypothesis is confirmed.

Regarding the second research question, it must be said that metaphorical statements are underused for describing motion events. Among the sentences that were collected from textbooks, only %7 were metaphorical. Compared to high prevalence of metaphorical statements in texts prepared English native speakers, this percentage of metaphorical

statements is very low. Therefore, the second research hypothesis is confirmed.

Findings

Based on the data obtained in this study, it was found that the structures employed to describe motion events in English textbooks of Iranian schools are much simpler than typical English sentences that are employed by native English speakers. Among the sentences that were collected from textbooks, only %7 were metaphorical. Compared to high prevalence of metaphorical statements in texts prepared English native speakers, this percentage of metaphorical statements is very low. Only in %4 of sentences satellites and prepositional phrases are used together to describe a motion event. Compared to higher percentages in texts prepared for English native speakers, %4 is considered as a low value. All in all, it must be said that sentences of English textbooks taught in Iranian schools are simplified versions of typical English sentences in terms of the way that components of motion events are encoded and also in terms of the way that metaphorical sentences are employed to describe a non-motion event.

Conclusion

In the previous sections, the results of analyzed data were presented and each section of data was discussed separately. A number of sentences collected from textbooks were discussed in detail in order to show how components of motion events are encoded in the textbooks. After discussing the data and related examples, it was concluded that the five main components of motion events (Figure, Manner, Path, Source, Goal) are underrepresented in the sentences of general English textbooks that are taught in Iranian guidance schools and high schools. In other words, the sentences of these textbooks that describe motion events are simplified version of typical English sentences. A relatively low percentage of sentences of textbooks describe a non-motion event in terms of a motion event. These are metaphorical sentences based on which one system of events is described and understood in terms of another system of events. In order to understand such metaphorical sentences, a one-to-one correspondence must be created in the mind of comprehender. Each element in the system of non-motion event is represented by an element in the system of motion event. Therefore, the understanding of these metaphorical sentences involves some degree of inference in the mind of compreheneder. The complexity of comprehension process depends on the complexity of two corresponding systems. Since a relatively small number of sentences of textbooks were metaphorical, they are considered to be the simplified version of typical English sentences in terms of literal/metaphorical description.

All in all, the findings of this study indicated that general English textbooks taught in Iranian guidance schools and high schools do not offer a complete picture of motion events. These sentences minimize the motion events and exclude the details of such events. Therefore, they cannot be the representatives of typical English texts that are used to describe motion events in authentic English texts.

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