

**Descriptions of Motions and Judgment of Different Conceptualization  
Patterns by English Non-native and Native Speakers**

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**Abstract:** Talmy's typology (2000) categorizing languages based on the linguistic level has led many studies to investigate how language speakers or learners encode components of motion event. Beyond this linguistic level, some studies looked for what spatial concepts are taken into account to conceptualize the path component of motions by speakers of different language types. It was found that verb-framed language speakers pay attention to the location of figure in motion while satellite-framed language speakers tend to describe the trajectory (course) of path, especially for long-trajectory motions compared with short-trajectory ones. In the present study, 25 Turkish pre-service teachers of English were requested to describe short and long trajectory motions in their L1 and L2. The patterns frequently used in spoken English were evaluated in a survey by the same pre-service teachers and native speakers of English. The findings revealed that Turkish pre-service teachers are in a transitional process to acquire the expected or natural English patterns, both in description or judgment tasks. In the survey, Turkish participants were relatively in agreement with native speakers of English for the natural satellite-framed patterns. However, they were partly satisfied with conceptualization patterns that native speakers of English found unnatural. In addition, native speakers of English were not totally dissatisfied with some verb-framed conceptualization patterns used by Turkish pre-service teachers, despite their infrequency in English. Lastly, the L2 narratives were elicited in spoken and written English so as to show the effect of language mode in conceptualizing motion event.

**Keywords:** Motion event, Second Language Acquisition, Path Encoding, Conceptualization Patterns, Cross-linguistic Effect.

## **Introduction**

Motion event has been the subject of many studies in the last twenty years as it is experienced by all humans and narrated in all of the languages across the world. For this reason, these studies made use of it as a common point to see how speakers of different languages see and describe the world around them. Language speakers map spatial semantic components of motion events onto particular syntactical forms. In this regard, Talmy (1985) created his commonly-held typology in which languages are mainly divided into two parts: v-framed (verb-framed) and s-framed (satellite-framed) languages. In this typology languages are categorized according to the syntactical locus of the path (trajectory taken by the figure in a motion) in a clause. While v-framed language speakers mostly encode path in main verb, s-framed languages prefer to use verb prefixes or particles, namely satellites, to express path component.

Based on this typology, Slobin (1996) claimed that expressing path outside the main verb allowed s-framed language speakers to encode manner, “motor pattern, rate, and degree of effort of the figure’s movement” (Özçalışkan & Slobin, 2003, p. 10), in main verbs of clauses. On the other side, v-framed languages have to encode manner in adjuncts or other clauses as the main verb is reserved for path. This linguistic advantage makes s-framed language speakers focus on and express manner in a more elaborated way than v-framed language speakers. Accordingly, Slobin’s thinking for speaking hypothesis suggests that language speakers pay attention to the particular components of events which can be easily encoded in their languages (i.e., manner for s-framed language speakers).

Depending on Talmy’s typology and Slobin’s hypothesis, many studies looked for the frequency or the locus of the manner and path components of motion events in descriptions by speakers of each type of languages. These studies proved the differences between language types to some extent. Especially for the boundary-crossing motions, in which a figure crosses a boundary and reaches an end-location (e.g., entering, exiting or crossing somewhere), it was found to be obligatory to

encode path in main verbs for v-framed language speakers (Slobin & Hoiting, 1994; Slobin, 2004). Therefore, learners of a language typologically different from their L1 maintained their habitual conceptualization pattern in L2, even at advanced proficiency level (Cadierno and Ruiz, 2006; Daller et al., 2011; Larranaga et al., 2012). The dominant language spoken in the society (Daller et al., 2011), the tuition style of learners (Filipovic & Vidakovic, 2010), the age when they start learning L2, or the amount of L2 exposure (Bylund & Athanasopoulos, 2015b) were found to be effective factors in using L1 conceptualization patterns. Moreover, İşler (2014) stated that learners might be more susceptible to L1 conceptualization patterns in written language compared with spoken English. Last but not least, Brown & Gullberg (2010; 2011; 2013) demonstrated that language transfer effect is bidirectional which means that learning an L2 might change L1 conceptualization patterns of language learners, even at the intermediate level and living in their home country where English is not spoken.

On the other side, some studies moved beyond this divergence on the linguistic surface level. Taking the linguistic availabilities of encoding path in any language, they drew attention to differences between languages in terms of what specific constituents of path were encoded by speakers (Brown & Goldberg, 2010; Carroll et al., 2012; Flecken, et al., 2015; Ibarratxe-Antunano, 2009; Jessen, 2014). It was found that v-framed language speakers (e.g., French) tend to encode the location of the figure (e.g. *He drove on the road*), especially for the motions with long-trajectories in path (Flecken et al., 2015) while s-framed language speakers (e.g., English) mainly express the trajectory taken by the figure in path (e.g. *He drove along the road*).

Accordingly, this spatial difference on the conceptualization level was found to be troublesome for v-framed language speakers in learning an s-framed language. Even at the advanced proficiency levels, these learners of s-framed language, as typologically different from their L1, showed resistance to focus on the expected natural path components in L2. That is, they maintained the locative path components in their L2 descriptions rather than ground-based knowledge of the trajectory. Especially for the motions for which they needed to encode manner, the

divergence was more salient with higher percentages of locative path expressions (Carroll et al., 2012; Flecken et al., 2015; Jessen; 2014).

None of the studies, to our knowledge, has so far tried to reveal how native s-framed language speakers, or learners of these languages with v-framed L1 judge description patterns with different spatial path components for short/long trajectory motions. Even though these language learners use the locative path components in their L1 and L2 descriptions, they might find these patterns in L2 as unnatural, and ground-based path components natural because of their high L2 proficiency. Additionally, it is not known to what extent native s-framed language speakers might find them unexpected or unnatural. Therefore, the present study aims to show how the patterns consisting of locative, ground-based (related to the trajectory) or goal path components are judged by Turkish (v-framed) pre-service teachers and native speakers of English (s-framed). Moreover, as the previous studies on motion event did not focus on pre-service teachers in this regard, the present study will disclose to what extent TPTE (Turkish pre-service teachers of English) may change their conceptualization patterns in L1 or L2, in their own country where English is not spoken. Lastly, the difference between spoken and written language modes, which has not drawn much attention so far, will be analyzed by comparing the descriptions in each language modes.

### **Research Questions**

1. To what extent do TPTE use the conceptualization patterns of native speakers of English for short/long trajectory motions in spoken and written English?
2. To what extent do TPTE show the conceptualization patterns of native speakers of English for short/long trajectory motions in Turkish?
3. How do TPTE judge the frequent patterns used in their descriptions of short/long trajectory motions in English?
4. How do NSE (Native Speakers of English in the present study) judge the frequent patterns used in TPTE's descriptions of short/long trajectory motions in English?

## **Literature Review**

The path in a motion comprises of different parts: the place where the figure starts the motion (the source of the path), the place where the figure arrives or head for (the goal or end-point), the course taken by the figure between source and goal (the trajectory), the location of the figure on this course (Carroll et al., 2012) or the boundary separating the ground object from other parts of the space (called as conformation path component by Talmy). Language speakers may express one or more than one of these path components at different frequencies regardless of their typologies as v-framed or s-framed (Ibarratxe-Antunano, 2009). It is because not only s-framed but also v-framed languages may have morpho-syntactical forms to encode these path components (Croft, Barddal, Hollmann, Sotirova, & Taoka, 2010; Filipovic, 2007). Instead of Talmy's typology limiting the path encoding on only main verbs or verb particles, languages may allow encoding these path components in different forms such as locative and directional nouns, case markers or postpositions (Ibarratxe-Antunano, 2009; Slobin, 2004).

In this regard, some researchers investigated what spatial components of path are expressed in different languages (either in native or foreign languages) by different language speakers irrespective of the linguistic structures (Brown and Goldberg, 2010; Carroll et al., 2012; Flecken et al., 2015; Ibarratxe-Antunano, 2009; Jessen; 2014). These researches thus revealed conceptualization differences between different language speakers and difficulties for language learners in choosing appropriate path components rather than surface lexicalization typology of Talmy (2000).

Slobin (2004) stated that v-framed language speakers do not give details of trajectories and choose to describe the settings in contrast to s-framed language speakers who elaborate the expression of trajectories within adverbials. In this respect, Carrol et al. (2012) investigated what spatial path concepts are used by native speakers of French (v-framed), German and English (s-framed languages), and French advanced learners of English and German. Spatial concepts are divided into two different main parts: entity-based (entity is the figure in a motion) and ground-

based (ground is the course taken by the entity). The stimuli used in the study included two different kinds of videos: short-trajectory videos in which the endpoints of the paths were quite salient and clear; and long-trajectory motions in which the endpoints were not salient and clear. Flecken et al. (2015) also analyzed eye movements of the participants during the verbal descriptions of the same kind of motions by native speakers of French and German, and French advanced learners of German.

Speakers of French, as a v-framed language, allocated more visual attention to the figure and the endpoint than monolingual speakers of German and English. Therefore, they encoded path in main verbs such as *se diriger vers* 'to head toward', especially for the short-trajectory motions, by using entity-based concepts such as orientation, proximity, or position of the moving entity with respect to a possible goal more frequently than German and English monolinguals who reserved main verbs for manner of figure for both types of motions. In adverbials, French speakers encoded locative path component (e.g., *sur la route* 'on a road'), especially for the long-trajectory motions, more frequently than German and English monolinguals who generally expressed path information by using ground-based spatial concepts within adverbials such as *along*, *over* or *around* (Carrol et al., 2012; Flecken et al., 2015).

Similarly, French learners did not express the features of the trajectory in English and German, especially for the long-trajectory motions (endpoint not salient), because they focused on the entity during the narration longer than German and English monolingual speakers. They preferred to express the location of the moving entity in adverbials (e.g., *walks on the road*) instead of the contours of the trajectory (e.g., *walk along the road*) for these motions, especially when they encoded manner in main verb in English and German.

Flecken et al. (2015, p. 118) stated that expressing location (e.g., *on*) instead of translational component of ground (e.g., *around*) have different pragmatic

implications in German (or English) “that there are alternatives to driving ‘on the road,’ for example, ‘driving off-road, in the fields.’” According to the results of the eye movements and verbal data, it was concluded that utterance planning processes including attentional conceptualization, using right spatial concepts and using lexical forms of target language is an important factor to express motion events appropriately.

Similarly, Jessen (2014) looked for the descriptions of motion events by Turkish and German advanced learners of Danish. Jessen (2014) revealed that Turkish learners of Danish differed from both German and Danish speakers (s-framed languages) in terms of path components. They frequently encoded locative path component (e.g., *crawls up on tree*) in L2 Danish in line with the Turkish native data for a motion with upward path while German and Danish speakers did not. These findings indicated that learners acquired to encode path in correct syntactical forms. However, they had problems in using target-like complexity and same path components. Therefore, Jessen (2014) suggested not stopping at the examination of lexicalization patterns but to go further and examine the spatial meanings of path.

### **Motion Event in Turkish**

Speakers of Turkish, as a v-framed language, mainly reserve main verbs for encoding path component of boundary-crossing motions (Özçalışkan, 2013); for example, *Odadan çıktı* ‘He exited from the room’. They typically choose to encode manner in gerundive adverbials (converbs) as they have to use path verbs as predicates for these motions (e.g., *Odadan emekleyerek çıktı* ‘He exited from the room by crawling’). However, Turkish language speakers may also use manner verbs easily as predicates (e.g., *Sınıfa doğru koştu* ‘He ran toward the classroom’) for non-boundary-crossing motions as frequently seen in other v-framed languages (Özçalışkan, 2013).

Moreover, Turkish language has some adverbial and morphological linguistic structures outside main verb to encode path as seen in many other v-framed languages such as Basque (Ibarratxe-Antunano, 2009). There are case suffixes

attached to nouns so as to encode directionality or location in Turkish (Aksu-Koç, 1994). These case markers (encoding locative or directional path) include dative, locative and ablative cases. The following example (5) shows the usage of these suffixes for a ground object (there are more than one suffix for each case due to the vowel harmony and consonant assimilation rules in Turkish [for detailed information, see Aksu-Koç, 1994, p. 331]):

(1) noun: *ev* 'house'

dative case markers *-e/a*: *eve* 'to the house'

locative case markers *-de/da/te/ta*: *evde* 'at the house'

ablative case markers *-den/dan/ten/tan*: *evden* 'from the house'

In addition to these suffixes, there are several adverbial postpositions (Aksu-Koç, 1994) which come after ground nouns such as *iç/içeri* 'inside', *dış/dışarı* 'outside', *yukarı* 'up', *aşağı* 'down', *üst* 'on', *alt* 'under', *arka* 'behind', *ön* 'front' or *boyunca* 'along'. These postpositions are used to specify the path based on the reference object/ground. When these postpositions come after a noun, the compounded noun takes a genitive suffix (compatibly with vowel harmony: *-ın/in/un/ün*) at the end. In addition, these adverbials might be used alone as locative or directional adverbs without ground object nouns indicating. Lastly, some locative demonstratives, as also seen in English, might be used as path adverbials such as *bura* 'here' or *ora* 'there'. Either alone or with a ground object, all of these adverbials might be inflected with case suffixes and might encode more than one path component by this way. Complex path segments encoding goal, source or ground components of path in the same clause are frequently used in Turkish (Slobin, 2004; Ibarretxe-Antuñano, 2004; 2008), as seen in the example (6) (source and goal components);

(2) *Çocuk evden okula koşuyor*

'The kid is running to the school from the house'

### **Motion Event in English**

In English, as an s-framed language, path component of motion is typically encoded in adverbials, which are verb particles (e.g., *out*) or prepositions (e.g., *out of the room*)



called as satellites by Talmy (1991). This allows English language speakers to give manner of the figure in main verbs (e.g., *He sauntered out of the room*), which are easily usable slots to encode manner according to Slobin (2004). On the other side, English language has also some Latinate path verbs such as *ascend, descend, exit, head* or *arrive* differently from some other s-framed languages such as Danish or Russian (Cadierno, 2008; Pavlenko & Volynsky, 2015) but they are less colloquial in daily English (Talmy, 1991). In addition, the deictic neutral verbs *go* and *come* are found to be used frequently with path adverbials (e.g., *He went out of the room*) by English speakers (Slobin, 2004). However, when they express manner component, they do not tend to encode it in adverbials (e.g., *He went out of the room by crawling*). In fact, they either choose to exclude manner or encode it in main verbs.

## **Methodology**

### *Participants*

There are 57 participants in the present study: 25 TPTE (52% female and 48% male) in the last year of an English Language Teaching Program at a university in Turkey and 32 NSE (53% female and 47% male) in various occupations. All of the participants filled out a questionnaire about their demographic and language backgrounds. TPTE are aged between 21 and 25 (the majority of the group was at 22). All of them started to learn English at the fourth grade of elementary school, and thus had been learning English for approximately 12 to 13 years at the time of the present study. Taking account of their longtime English instruction and bearing in mind that TPTE passed the national university entrance exam, which is the main criteria for registering at a university in Turkey, it can be stated that TPTE are relatively at the level of advanced proficiency in English. NSE are at different ages from 23 to 79. The majority of the group was American (24) compared with British participants (8).

Several TPTE stated that they have the knowledge of another foreign language other than English such as French and German. Similarly, some NSE indicated that they can speak some v-framed languages such as Turkish, French, Hebrew or Spanish. However, they are all at the pre-intermediate level or below. For this reason, they

were not excluded from the main data as the lowest level at which language learners show conceptualization differences in their L1 from the monolinguals of their native languages under L2 effect is known to be intermediate currently (Brown & Gullberg, 2010; 2011; 2013).

### *Stimuli*

Four motion videos from the study of Flecken et al. (2015) were used in the present study while one additional video was shown at the beginning for familiarization of the tasks but not analyzed later (see Appendix). In all of the videos, there are main components of motion event: figure, ground, path and motion as defined by Talmy (1991) as well as manner or cause. They are all between six to eight seconds long. Two of the videos contained short-trajectory, and the other two long-trajectory paths. The figures in the videos moved in different manners toward a goal or end-point at the end of the path. In two videos with short-trajectory, the end-point is so close to the figure and salient to notice. For this reason, it was expected that TPTE would express the orientation or the proximity of the figure toward the end-point. However, in two long-trajectory videos, the end-point is both far from the figure and not salient to detect. It means that TPTE had to focus on either the figure, its location on the ground or the trajectory taken by it. It was aimed to show what path components TPTE would prefer for these motions based on these spatial concepts. The list and order of the motions are seen in Table 1:

**Table 1.** *The List and Order of the Short/Long Trajectory Motions*

Order	Path	Manner
1	Long-trajectory	Drive
2	Short-Trajectory	Walk
3	Long-trajectory	Walk
4	Short-Trajectory	Drive

*Procedure*

In Clinical Elicitation task (called as description task from now on), TPTE watched the videos and described them in three language modes: L1 spoken Turkish, L2 spoken English and L2 written English. They were interviewed individually with at least one week interval between each section so as to minimize the language mode effect. The descriptions were elicited in Turkish by a native Turkish speaker and in English by a highly advanced English language speaker. Before the main task they had a small conversation in the language of the task so as to prepare them for the monolingual mode. Participants were given the following instructions either in Turkish or English based on the language mode of the task: “You will see some motion videos during the task. You will focus on the motion and describe what happens in the video without describing the setting or objects in detail. Wait until the end of each video before you begin to describe”. The first video was shown to familiarize them with the task and check that the participants understood the instructions correctly. In addition, they were given a list of nouns of the objects in the videos in case they could not remember them.

It was not needed to involve monolingual Turkish or English speakers in the present study. The conceptualization patterns of monolingual English speakers were already revealed for these kinds of motions by Carroll et al. (2012). On the other hand, the patterns of monolingual Turkish speakers are absent for the short/long trajectory motions in literature. Therefore, monolingual v-framed pattern was based on another v-framed language (French) data for these motions (Carroll et al., 2012; Flecken, et al., 2015).

As for the Acceptability Judgment task (called as judgment task or survey from now on), the most frequent four patterns used in the descriptions of each motion regardless of the type (clear, unclear or unsuitable) were chosen to prepare a survey from spoken English data. The reason why only spoken English data was used in the survey is that language learners were found to be more susceptible to bidirectional cross-linguistic transfer in spoken language (İşler, 2014). These patterns were

incorporated into the survey for the relevant videos on a webpage. Two weeks after the describing tasks, TPTE and NSE were sent an e-mail including a link to fill out the survey. They were asked to judge the naturalness of each pattern describing the videos on a scale of *totally unnatural* to *totally natural* so as to reveal the differences in perceptive knowledge of TPTE and NSE. The percentages of the ratings were presented in figures based on the types of the patterns.

### *Coding*

The descriptions of the videos in spoken Turkish, spoken English and written English were compared to each other in terms of the percentages of the categories and specific patterns explained below. The answers including grammatical structures relevant to the motion were categorized as *clear* patterns (e.g., *She walked toward the bins*). Those consisting of either ungrammatical or irrelevant path or manner components were labelled *unsuitable* (e.g., *They walked through the bins*). The unsuitable answers in English including structures directly transferred from Turkish were also named *L1 transferred* patterns and analyzed separately. Additionally, statistical analysis was not used in the present study because of the low number of participants and high number of pattern variations.

Any syntactical form outside the main verb was called as adverbials in both English and Turkish for the comparison of patterns. Path devices outside the main verb were prepositional clauses (e.g., *He ran to the car*) and verb particles (e.g., *He ran forward*) in English; noun phrases inflected with directional or locative case suffixes (e.g., *yolda koştu* 'ran on the road'), postpositionals in noun phrases (e.g., *evin dışı* 'out of the house'), adverbs (e.g., *dışarı* 'outside') and their inflected forms with directional or locative case markers in Turkish. Manner devices outside the main verb were also in the same category: converbs (e.g., *yürüyerek uzaklaştı* 'went away crawling') in Turkish, prepositional phrases (e.g., *approached by driving*) and participles (e.g., *exited crawling*) in English, and adverbs in both languages (e.g., *yavaşça* 'slowly').

The same coding system of Carroll et al. (2012) and Flecken et al. (2015) were followed to categorize the clear patterns for the motions with short or long trajectory paths. As the main question was whether s- and v-framed language speakers focus on the figure (called as entity by Carroll et al., 2012 and Flecken et al., 2015), the trajectory, or the end-point, the verbs and path devices were categorized according to their relation to these components.

The spatial concepts encoded in main verbs and adverbials by TPTE were examined in detail. The path verbs encoding the proximity or the orientation of the figures (entity) toward the end-point like *head* or *approach*, or the figure's relation with ground such as *pass* were categorized as entity-based path verbs. The neutral verbs such as *get*, *go* or *come* which encode only the orientation of the figure or the motion itself rather than path components were labeled deictic verbs; the verbs *drive* and *walk* indicating the motor pattern of the figure in these videos were called as manner verbs.

The adverbials were similarly categorized according to what spatial path components they encoded: the path devices indicating the location of the figure as locative path adverbial (e.g., *on the road*), the path devices encoding the trajectory taken by the figures as ground-based path adverbial (e.g., *along the road*), the devices showing the goal or the end-point of the figure as goal path adverbial (e.g., *to the bus stop*).

## **Results**

According to Table 2, all of TPTE were able to produce clear answers in Turkish for all of the motions while there are some unsuitable answers in English. For the short-trajectory motions with clear end-points, it is seen that TPTE gave clear answers slightly more frequently in spoken English than in written English. Especially, for the second video with manner driving, almost half of them did not give clear descriptions in written English. On the other hand, as for the long-trajectory motions with unclear end-points, there are not considerable differences between spoken and

written English in terms of clear and unsuitable answer percentages because the rates of unsuitable answers are also high in spoken English for the second type of videos.

As seen in Table 3, the percentages of manner verb *yürü* 'walk' as predicate are very high in Turkish for the first and third videos as it is a first-tier manner verb (very frequent) in daily language, and there is not a boundary-crossing situation in the videos. Interestingly, TPTE were slightly less inclined to use this verb in English even though it is an s-framed language. With respect to the differences between spoken and written English, the percentages of manner and non-manner verbs are very similar to each other for these videos with manner walking. Comparing different path types, the percentages of manner verbs relatively increased in all of the language modes for the motion with non-evident end-point; TPTE preferred non-manner verbs much less frequently for this video compared with the first one with evident end-point. In addition, the types of non-manner verbs for these videos are different in Turkish and English as TPTE mostly used deictic verbs *go* or *come* in English, which are simple neutral verbs giving only the orientation of the figure toward or away from the narrator without any path component. On the other hand, they used only entity-based verbs in Turkish such as *ilerle* 'advance' or *yaklaş* 'approach' giving more specific path knowledge. These verbs are related to the orientation of the figure toward a goal or the trajectory travelled by the figure.

As for the videos with manner driving, TPTE almost never used a manner verb in Turkish for the videos in which a car moves; and the driver is invisible. Manner verb *sür* 'drive' is only used as transitive in Turkish (e.g., *Adam arabayı sürdü* 'The man drove the car') rather than intransitive like in English (e.g., *The car drives away*). For this reason, the car can be the subject of sentence only in passive form as a caused motion; however, this pattern is very infrequent in Turkish (e.g., *Araba bir adam tarafında sürüldü* 'The car was driven by a man'). Similarly, none of TPTE showed tendency to express manner in English for the short-trajectory video with evident end-point like in Turkish. For the long-trajectory motion with non-evident end-point, there are only one description in Turkish and two in written English including

manner verb; the only one in Turkish and one of them in English are structured in active voice by expressing the agent of the motion (driver), who is causing the motion, (i.e., *Bir sürücü arabasını yolun üzerinde sürüyor* 'A driver is driving his car on the road') even though the driver in the car is not seen. The other description in English is in passive form as equivalent to Turkish conceptual rule (e.g., *A car is driven along the road*).

**Table 2.** *The Frequencies (in Parentheses) and Percentages of Answer Types in the Descriptions of the Motions with Short/Long Trajectories by TPTE*

Video No	Language Mode	Clear	Unsuitable
Manner: Walking / Path: Short-Trajectory			
Video 1	Spoken Turkish	100% (25)	-
	Spoken English	92% (23)	8% (2)
	Written English	76% (19)	24% (6)
Manner: Driving / Path: Short-Trajectory			
Video 2	Spoken Turkish	100% (25)	-
	Spoken English	84% (21)	16% (4)
	Written English	52% (13)	48% (12)
Manner: Walking / Path: Long-Trajectory			
Video 3	Spoken Turkish	100% (25)	-
	Spoken English	76% (19)	24% (6)
	Written English	68% (17)	32% (8)
Manner: Driving / Path: Long-Trajectory			
Video 4	Spoken Turkish	100% (25)	-
	Spoken English	56% (14)	44% (11)
	Written English	60% (15)	40% (10)

*Note.* TPTE = Turkish Pre-service Teachers of English

Inversely, TPTE predominantly used path and deictic verbs for the videos with manner driving; the types of non-manner verbs seem to be different in English and Turkish, similarly with the first motion including manner walking. Entity-based

verbs are more frequent in Turkish while the percentages of deictic motion verbs are much higher in English than in Turkish.

When it comes to the differences between spoken and written English, Table 3 shows that the percentages of each verb category are similar in both of the language modes. Comparing the path types, the percentages of entity-based verbs decrease for the last long-trajectory motion with unclear end-point in both Turkish and English because the amounts of deictic verbs increase for this motion compared with the second video with a salient endpoint and short-trajectory.

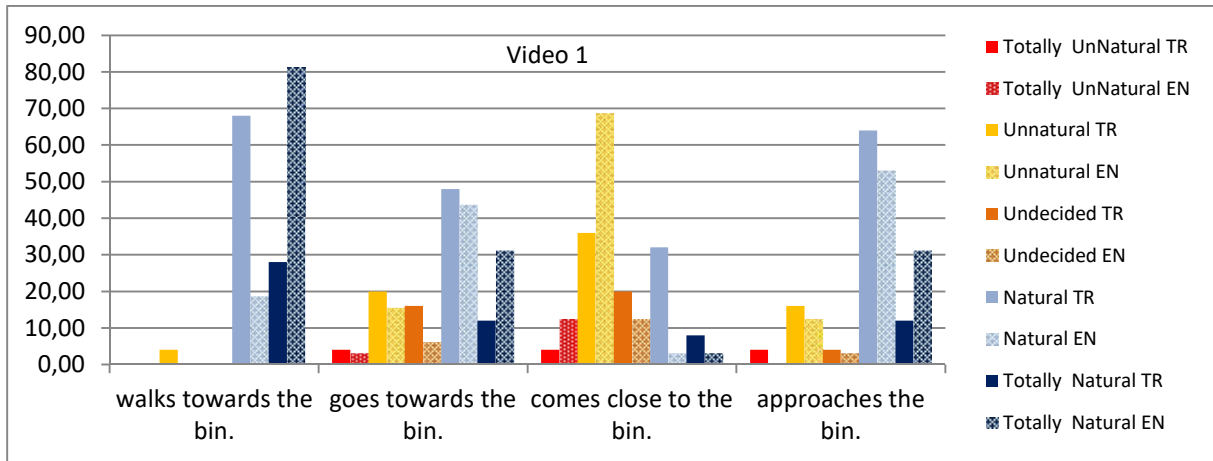
**Table 3.** *The Frequencies (in Parentheses) and Percentages of Verb types in the Descriptions of the Short/Long Trajectory Motions by TPTE*

Video No	Language Mode	Manner	Entity-based	Deictic Verbs
Manner: Walking / Path: Short-Trajectory				
Video 1	Spoken Turkish	72.0% (18)	28.0% (7)	-
	Spoken English	52.0% (12)	4.0% (1)	43.0% (10)
	Written English	52.6% (10)	-	47.4% (9)
Manner: Driving / Path: Short-Trajectory				
Video 2	Spoken Turkish	-	72.0% (18)	28.0% (7)
	Spoken English	-	14.3% (3)	85.7% (18)
	Written English	-	15.0% (2)	85.0% (11)
Manner: Walking / Path: Long-Trajectory				
Video 3	Spoken Turkish	96.0% (24)	4.0% (1)	-
	Spoken English	84.2% (16)	-	15.8% (3)
	Written English	82.4% (14)	-	17.6% (3)
Manner: Driving / Path: Long-Trajectory				
Video 4	Spoken Turkish	4.0% (1)	52.0% (13)	44.0% (11)
	Spoken English	-	7.2% (1)	92.8% (13)
	Written English	13.4% (2)	-	86.6% (13)

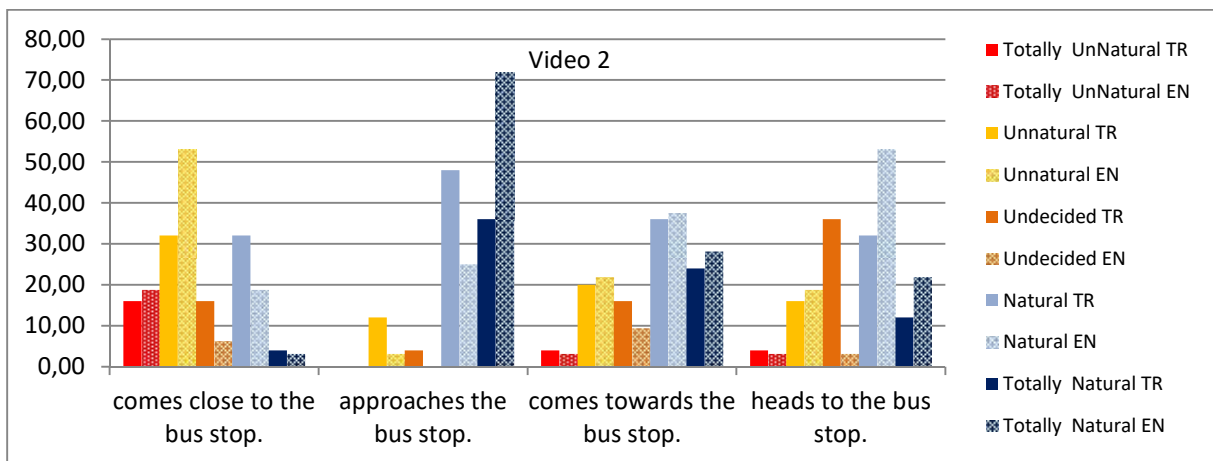
*Note.* TPTE = Turkish Pre-service Teachers of English



With respect to the survey results of the short-trajectory videos, it is seen in Figure 1 for the first video that both TPTE and NSE approved of the pattern including manner verb *walk*, and NSE were much surer of their judgments with higher percentages of *totally natural*. As TPTE did not use any manner verb in the descriptions of the second video, there is not any such kind of s-framed pattern incorporated into the survey for this motion (Figure 2).



**Figure 1.** Bar graph of Turkish and English groups' ratings of clear patterns frequently used in the descriptions of the motion with short-trajectory path and manner walking.



**Figure 2.** Bar graph of Turkish and English groups' ratings of clear patterns frequently used in the descriptions of the motion with short-trajectory path and manner driving.

Regarding the entity-based verb *approach*, both groups found it to be natural for both of the videos as seen in Figures 1 and 2. For this pattern, the rate of *totally natural* is higher for the second video than the first one in both groups. It is most probably because both groups compared this pattern with the s-framed one, which is a more natural English pattern, for the first video while there is not any s-framed pattern to compare with for the second video. The pattern including entity-based verb *head* for the second motion was found to be natural by the majority of NSE and almost half of TPTE. However, a considerable percentage of TPTE was undecided, possibly because it is not a frequent (or first-tier) verb in English. When it comes to the deictic verbs *go* for the first motion and *come* for the second one, both groups were relatively on the positive side of the cline. Lastly, NSE mostly rated the phrase *come close* to be unnatural for the second video, though not “totally”, because its meaning of “almost achieving something” is more common than “approaching”. On the other side, TPTE did not show a consistent tendency for this pattern as positive and negative ratings are almost equal.

As seen in Table 4, the percentages of path adverbials used in Turkish and English are mostly similar to each other for all of the videos. As for the short-trajectory motions, TPTE mostly expressed the directional goal component of path in adverbials, with suffixes in Turkish and prepositions in English (-e/a ‘to’ or *doğru* ‘towards’), as the end-points of the paths are very clear (e.g., *Çöp kutusuna doğru yürüdü* ‘She walked towards the bins’). In addition, one description in both spoken and written English necessarily lack adverbial after the path verb *approach* in English (e.g., *It approached the bus stop*). However, it is impossible to describe such directional motions without any overt goal path suffix in Turkish, even with path verbs (e.g., *Otobüs durağa yaklaştı* ‘The bus approached to the bus stop’).

With respect to the second type of path, the most frequent path adverbial is locative one in Turkish (e.g., *Yolda yürüdüler* ‘They walked on the road’). That is, TPTE mostly focused on the figure and it’s relation with the ground as there is not any evident goal in front of the figure to arrive. In regard to the English descriptions, the

participants show the same tendencies and predominantly chose locative adverbials for both of the videos. On the other hand, some TPTE chose ground-based path adverbials in both Turkish and English (e.g., *Araba yol boyunca ilerledi* 'The car advanced along the road'), which means that they paid attention to the ground followed by the figure.

One might speculate that some TPTE gave up paying attention to the ground for these videos while giving descriptions in English because the percentages of ground-based adverbials are to some extent lower in English than in Turkish. However, it is seen in Table 5 that a considerable number of the participants chose unsuitable, irrelevant prepositions *through* or *throughout* to give ground-based knowledge in English (e.g., *The car went through the road*). This is also the reason why the percentages of locative adverbials in clear answers are higher in English. As these prepositions are not equivalent to Turkish *boyunca* 'along', it can be stated that these TPTE are not aware of the differences between *through/throughout* and *along* in English (discussed below for Table 5). Even though the numbers of ground-based adverbials in clear answers of the English data are lower than those in Turkish, the total percentage of ground-based adverbials in clear and unsuitable answers is higher in English than in Turkish (shown with <sup>b</sup> in table 4).

**Table 4.** *The Frequencies (in Parentheses) and Percentages of Adverbial types in the Descriptions of the Short/Long Trajectory Motions by TPTE*

Video No	Language Mode	Ground-based	Locative	Goal
Manner: Walking / Path: Short-Trajectory				
Video 1	Spoken Turkish	-	-	100.0% (25)
	Spoken English <sup>a</sup>	-	-	100.0% (23)
	Written English <sup>a</sup>	-	-	100.0% (19)
Manner: Driving / Path: Short-Trajectory				
Video 2	Spoken Turkish	-	-	100.0% (25)
	Spoken English	-	-	95.0% (20)

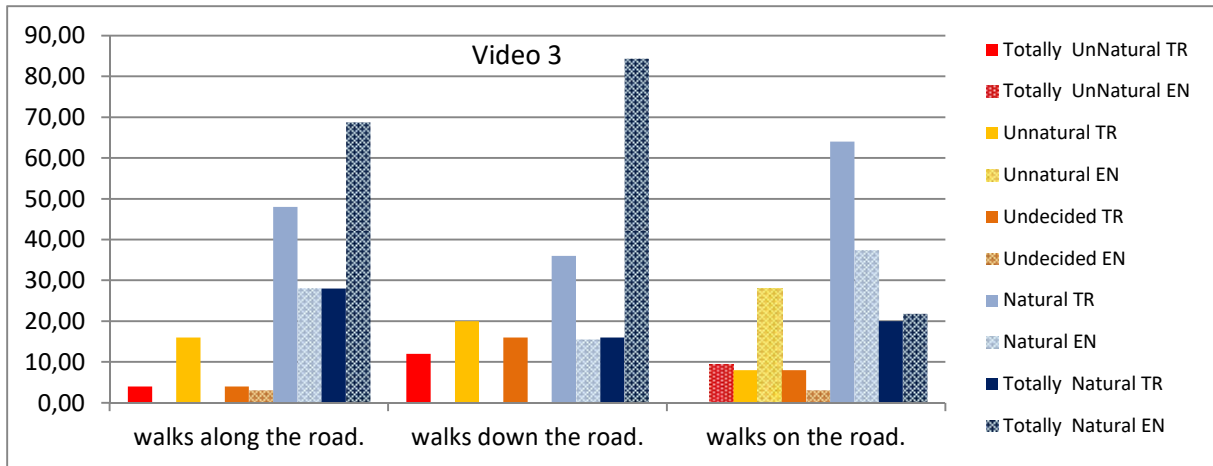
	Written English	-	-	92.0% (12)
	Manner: Walking / Path: Long-Trajectory			
	Spoken Turkish	24.0% (6)	68.0% (17)	8.0% (2)
Video 3	Spoken English	21.1% (4)/ 31.8% (7) <sup>b</sup>	78.9% (15)	-
	Written English	17.6% (3)/ 30% (6) <sup>b</sup>	82.4% (14)	-
	Manner: Walking / Path: Long-Trajectory			
	Spoken Turkish	40.0% (10)	52.0% (13)	8.0% (2)
Video 4	Spoken English	30.7% (4)/ 52.6% (10) <sup>b</sup>	69.2% (9)	-
	Written English	26.6% (4)/ 52.1% (12) <sup>b</sup>	73.4% (11)	-

*Note.* TPTE = Turkish Pre-service Teachers of English.

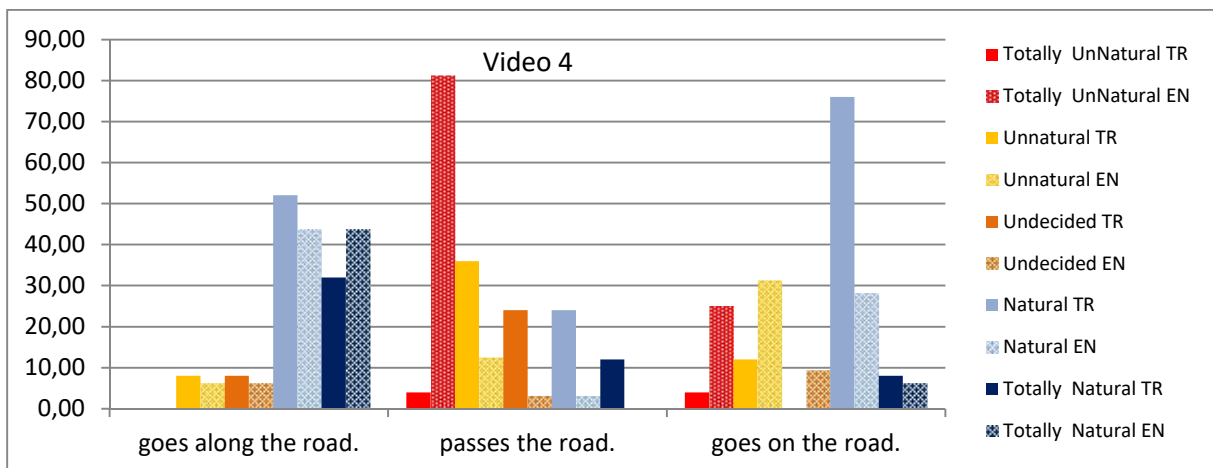
<sup>a</sup>One description in these data did not include any path adverbial with the path verb *approach*. <sup>b</sup>Total frequencies and percentages of ground-based adverbials in clear and unsuitable English data.

In addition, the amounts of ground-based adverbials (e.g., *boyunca* 'along') in all of the language modes are slightly higher for the video with manner driving than the one with walking. It is possible that the participants might have felt themselves obliged to express the ground-based knowledge since the car, as a faster figure, travels a longer path than people do.

Regarding the ratings in the survey for the second path type, it is seen in Figure 3 that s-framed patterns consisting of manner verb *walk*, and ground-based path adverbials *along* and *down* were met with approval by both groups; NSE were much surer of these patterns than TPTE. When it comes to the ground-based adverbial *along* with the deictic manner verb *go* in Figure 4, both groups mostly rated it to be natural to a similar extent.



**Figure 3.** Bar graph of Turkish and English groups’ ratings of clear patterns frequently used in the descriptions of the motion with long-trajectory path and manner walking.



**Figure 4.** Bar graph of Turkish and English groups’ ratings of clear patterns frequently used in the descriptions of the motion with long-trajectory path and manner driving.

In regard to the locative adverbial *on*, the majority of TPTE approved of these patterns for both of the videos. However, NSE’s ratings are relatively inconsistent for these patterns. With the deictic motion verb *go*, a high percentage of NSE found locative adverbial to be unnatural while they are comparatively on the positive side for the manner verb *walk*. Lastly, NSE almost always rated the entity-based verb *pass*, conflating with the ground component of the motion, to be “totally unnatural” while TPTE did not show consistency in their ratings.

As for the short-trajectory motions with evident end-points, some TPTE ungrammatically maintained the path components which are obligatory in Turkish while describing the motions in English (Table 5). These descriptions include goal path adverbial *to* following the verb *approach* (e.g., *She approached to the bin*) or preceding the preposition *near* (e.g., *The bus went to near the bus stop*) as literally equivalences of Turkish descriptions (*yanına* ‘to near’ / *bidona yaklaştı* ‘approached to the bin’). It is seen that the rate of unsuitable answers is higher for the second motion because the number of entity-based path verb *approach* is slightly more frequent for this video.

**Table 5.** *The Frequencies of L1 Transferred and Irrelevant Unsuitable Answers in the Descriptions of the Short/Long Trajectory Motions by TPTE*

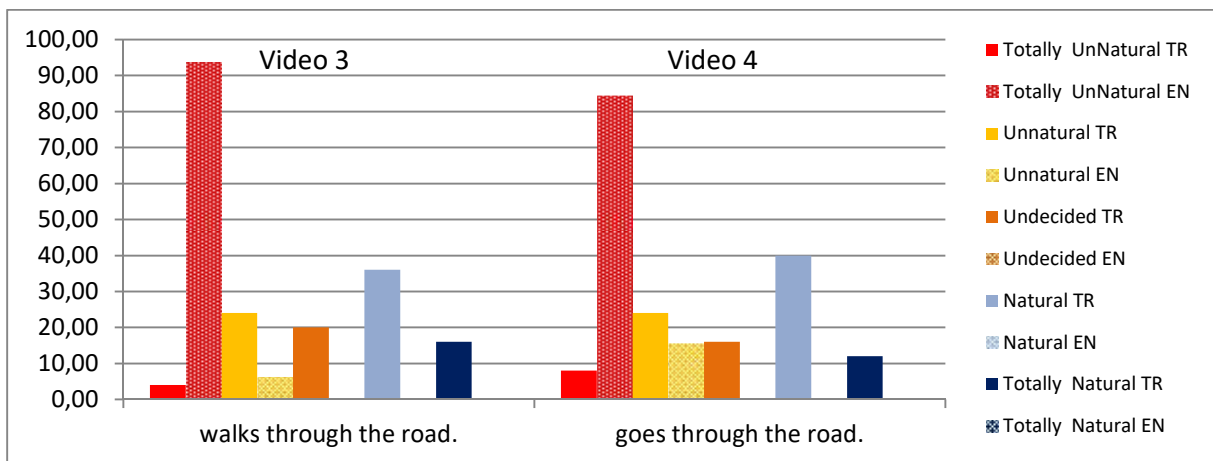
Video No	Language Mode	To	Through(out)	Of
Manner: Walking / Path: Short-Trajectory				
Video 1	Spoken English	1	-	-
	Written English	2	-	-
Manner: Driving / Path: Short-Trajectory				
Video 2	Spoken English	4	-	-
	Written English	7	-	-
Manner: Walking / Path: Long-Trajectory				
Video 3	Spoken English	-	3	1
	Written English	-	6	1
Manner: Driving / Path: Long-Trajectory				
Video 4	Spoken English	-	6	-
	Written English	-	8	1

*Note.* TPTE = Turkish Pre-service Teachers of English

In addition, another category of L1 transferred item was added to Table 5 for the motions with non-evident end-points even though it does not seem to be caused by L1 conceptual effect. The adverbial *boyunca* in Turkish refers to the length or a

specific line of a more or less horizontal place as equivalent for the adverbial *along* in English. However, these descriptions in English, as mentioned before, include *through* or *throughout* which have different conceptual meanings, unrelated to the path in these videos. These TPTE are not aware of the fact that *through* is mainly used for grounds or time concepts which have starting and ending sides, and *throughout* for expressing the whole of a place or time concept. On the other side, these ungrammatical usages provide the evidence for the fact that these participants pay attention to the ground while speaking in English because these adverbials were used to conflate with ground component of the path.

As *through* was used more frequently, it was included in the survey rather than *throughout* (Figure 5). According to Figure 5, it is clear that the entire NSE group found it to be unnatural for these motions, as expected. On the other hand, TPTE showed in-group divergence, and chose positive and negative anchors almost equally for both of the videos.



**Figure 5.** Bar graph of Turkish and English groups' ratings of unsuitable patterns frequently used in the descriptions of the motions with long-trajectory path.

Additionally, there is one description including an adverbial noun phrase comprising of *downside* (which means negative side of something) and possessive preposition *of* (i.e., *They are going downside of the road*) in each spoken and written English for the third video. In another description, *alongside* inappropriately precedes

the preposition *of* (which means “something next to”) in written English for the last video (i.e., *A car is going alongside of the road*). As these clauses include genitive marker (possessive preposition *of*), which is obligatory to overtly express within noun clauses in Turkish, it can be stated that Turkish might have misled these TPTE to find some similar structures in English, but to a very limited extent.

In regard to the differences between language modes, it is seen in Table 5 that the numbers of unsuitable answers, either because of misconceptions or L1 transfer, are slightly higher in written English. As TPTE had more time to create descriptions in written English, they might have fallen prey to Turkish conceptualizations or misconceptions unrelated to the path components of the motions more easily in written English than in spoken English.

### **Discussion**

In the present study, it was examined how TPTE would conceptualize the path components of the motions with short or long trajectories in spoken Turkish, spoken English and written English. TPTE described four videos relating to this divergence: two with short-trajectory and two with long-trajectory. The figures in each video moved in a different manner: either in *walking* or *driving*. As a different perspective from the literature on motion event, natural or unnatural L2 conceptualization patterns used by TPTE were judged by the same TPTE and NSE on a scale.

It was seen that TPTE used clear and grammatical answers in Turkish for all of the motions. However, they produced some unsuitable or unrelated patterns in English. In regard to the types of the patterns, it can be stated that TPTE to some extent followed v-framed conceptualization patterns in Turkish and English in both manner and path encoding.

As there is not any boundary-crossing situation in the videos, TPTE mostly used manner verb *walk* in both Turkish and English for the motions with manner walking. The usage of entity-based verbs (path verbs) was infrequent in Turkish compared



with French (another v-framed language) monolingual speakers in Carroll et al. (2012) and Flecken et al. (2015). It might be the effect of L2 English on L1 Turkish to encode manner in main verbs. However, it needs further research with monolingual Turkish participants to reveal such a difference exactly. In addition, the rate of s-frame was higher for the motion with long-trajectory and manner walking than the one with short-trajectory.

On the other hand, the manner verb *drive* can only be a causative motion verb in agentive active or passive voice in Turkish in contrast to intransitive form of it in English. In fact, contrary to English, cars cannot drive themselves, or a car is only driven by a person in Turkish. Because of these conceptual and linguistic differences, none of TPTE used manner verb *drive* not only in Turkish even also in English for the video with short trajectory path and manner driving. In regard to the video with long-trajectory, it was shown that TPTE still had difficulty in encoding manner driving because only one participant in Turkish and two participants in written English managed to use manner verb *drive*. However, these descriptions were within agentive active and passive voices in both Turkish and English.

Additionally, the non-manner verb types were comparatively different in Turkish and English for the motions with short-trajectories. Entity-based (path) verbs, related to direction or proximity of the figure to the end-point of the path, were more frequent in Turkish (e.g., *yaklaş* 'approach') while the percentages of deictic neutral verbs such as *go* or *come* were higher in English, which were also used by a small percentage of native English speakers (Carroll et al., 2012). TPTE might have just changed conceptualization patterns in English by encoding path in adverbials rather than verbs. It is also probable that TPTE chose these deictic verbs in English as they are more common in daily English and simpler than path verbs (Ziyan, 2013). As for the long-trajectory videos, the non-manner verbs were quite infrequent for the video with manner walking. When it comes to the last video with manner driving, it was found that the rates of deictic verbs slightly increased in both Turkish and English

compared with entity-based verbs, like in the descriptions of French L2-English and native English speakers (Carroll et al., 2012).

In relation to the path adverbials, TPTE mostly followed the same patterns in both Turkish and English. Regarding the videos with short-trajectories, they always used directional goal path adverbials compared with monolingual French speakers and French learners of s-framed languages who used not only goal but also locative adverbials for these videos (Carroll et al., 2012; Flecken et al., 2015). In addition, a few TPTE ungrammatically used the directional goal adverbial *to* with the entity-based verb *approach* or preposition *near* in English by directly transferring from Turkish. For the motions with long-trajectories, they used clear locative adverbials more frequently than ground-based adverbials in both languages as seen in the L1 and L2 narratives by French learners of English and German (Carroll et al., 2012; Flecken et al., 2015). However, it must be indicated that some TPTE used unsuitable adverbials in English such as *through* to encode the trajectory of the path. The total percentages of ground-based adverbials (including clear and unsuitable answers) thus relatively increased in English descriptions compared with Turkish, also higher than L2 descriptions of French learners (Carroll et al., 2012; Flecken et al., 2015).

All in all, it could be stated that TPTE showed some conceptualization differences from both monolingual s- and v-framed language speakers, as the evidence of conceptual convergence. They easily used manner verbs in both Turkish and English as long as it was conceptually possible in Turkish. It might be the evidence for L1 conceptualization change in TPTE because monolingual v-framed speakers show tendency to use path verbs, as seen in French speakers (Carroll et al., 2012; Flecken et al., 2015). As for the videos with conceptually different manner verbs (i.e., *drive*), they maintained the Turkish conceptual rule in English not to encode manner in main verbs. However, they preferred deictic neutral verbs in English rather than entity-based path verbs either because of internalizing L2 conceptualization way of encoding path in adverbials or simplicity of these verbs. In regard to path adverbials, it is clear that they had troubles in using appropriate patterns in English for the long-

trajectory motions because approximately half of TPTE still used locative prepositions (e.g., *on the road*), as in their native language. However, it can be stated they are at a transitional cognitive process because the trend for ground-based adverbials (e.g., *along the road*) increased in English compared with the Turkish data despite some ungrammatical ones. This means that TPTE relatively paid attention to the trajectory taken by the figures while speaking in English. In addition, TPTE might have used ground-based adverbials in Turkish under the effect of L2 English. However, we cannot be sure of this as the current study lacks monolingual Turkish group.

In relation to the survey, all of the patterns included directional goal adverbials *to* or *towards* for the short trajectory videos as they were the only one used by TPTE. Both TPTE and NSE found the patterns including manner verb *walk*, and the deictic verbs *go* and *come* with these adverbials to be natural; NSE were more satisfied with the manner verb *walk*. For the entity-based path verbs *approach* and *head*, it can be stated that not only TPTE but also NSE mostly rated them to be natural even though they were not chosen by English native speakers frequently in Carroll et al. (2012). Lastly for the phrasal verb *come close*, it was mostly unnatural for NSE as its meaning of “almost achieving something” is more frequent in daily English than “approaching something”. However, it was seen that TPTE were not consistent due to the equality of their positive and negative ratings for this pattern.

When it comes to the long-trajectory videos, the patterns including ground-based adverbials *along* or *down* with both manner verb *walk* and deictic verb *go* were judged to be natural by both groups; and NSE were again more certain about the one with manner verb *walk*. In relation to the locative adverbial *on* for these videos, TPTE mostly found it to be natural both with the manner verb *walk* and deictic verb *go*. In contrast to the finding that s-framed native speakers did not use locative adverbials for these videos (Carroll et al., 2012; Flecken et al., 2015), the majority of NSE in the current study found this adverbial with manner verb *walk* to be natural. On the other side, the locative adverbial with deictic verb *go* was comparatively rated to be

unnatural by NSE, but some NSE still found it as natural. Lastly, the v-framed pattern with path verb *pass* conflating with ground based knowledge, and s-framed patterns with ungrammatical adverbial *through* were equally judged to be natural and unnatural by TPTE while NSE mostly found them to be “totally unnatural”.

These findings clearly revealed that TPTE mostly showed similar trends with NSE for the grammatical patterns. As for the patterns that NSE were dissatisfied with, TPTE were partly on the same side of the scale with them. It means that they could be again at a transitional stage in judgment of these patterns or their receptive knowledge, just like in their productive answers. In addition, it is interesting that NSE might be compatible with some patterns which are not common and colloquial in s-framed languages such as path verbs relating to an end-point (e.g., *approach* or *head to*) or locative adverbials (e.g., *on*).

### **Conclusion**

Even though some studies emphasize the importance of immersion in the target society to achieve the expected conceptualization patterns in L2 (Flecken et al., 2015; Özyürek, 2002; Stam, 2015), formal language instruction of TPTE, who almost never lived abroad, seems to be partly sufficient for the acquisition of these patterns, just like the similar results of some studies with different language learners (Brown & Gullberg, 2013; Bylund & Athanasopoulos, 2015b; Song, Pulverman, Pepe, Golinkoff & Hirsh-Pasek, 2016). In fact, both L2 and L1 to some extent affected each other and caused analogical conceptualization patterns in each language, as a sign for the convergence of different patterns (Brown & Gullberg, 2010; 2011; 2013). In addition, they mostly showed similarity with NSE in judgment of the expected, natural patterns. It means that the receptive knowledge of TPTE is partly closer to the native English speaker thinking style compared with their productive skills.

On the other side, a considerable percentage of TPTE tended to maintain their v-framed thinking for speaking patterns in L2 English narrations. In judgment of some of these patterns, it was illustrated that TPTE were again diverged from NSE because

they were either inconsistent about these patterns, or to some extent on the positive side of the scale compared with NSE. That is to say, it might be difficult to discern the inappropriateness of some unnatural patterns in the target language for TPTE. The lack of immersion in the target society (Flecken, 2015), the influence of the dominant language in residential community (Daller et al., 2011), low input of motion events (Filipovic & Vidakovic, 2010) or insufficient L2 exposure outside the school (Bylund & Athanasopoulos, 2015a) may be relevant factors in this case.

Based on these results, formal language instruction in school, even without explicitly referring to motion event or in a society where target language is not spoken, might be to some extent effective in gaining expected, natural patterns. However, it can be guaranteed that pre-service teachers of English language realize the difference between conceptualization differences between their L1 and L2 for specific types of motion events. Explicit instruction of motion event expression may be necessary to facilitate the acquisition process of expected form-function mappings (Song et al., 2016; Stam, 2015; Ziyen, 2013).

Lastly, it must be indicated that using native-like patterns might not be an essential requirement for language teaching (Negueruela et al., 2004), which is outside the scope of the present study. As seen in the judgment task, NSE might not be totally dissatisfied with some v-framed (e.g., path verbs or locative adverbials) patterns as long as they are grammatical. It might be because these patterns describe the motion events in the present study thoroughly with the necessary event components even though not in the same way as native English speakers do. However, given the fact that teachers are the role-models of native language speakers, teacher training programs should be able to acquaint pre-service language teachers with the natural and frequent linguistic and conceptual(ization) L2 patterns (Bylund & Athanasopoulos, 2015a; Flecken et al., 2015). Moreover, raising consciousness about conceptualization patterns in target language may facilitate and accelerate language learning.

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**Appendix**

The screenshots of the videos, and the questions in the survey were given below.

*Video 1*



A car	Totally Unnatural	Unnatural	Undecided	Natural	Totally Natural
goes through the road.					
passes the road.					
goes along the road.					
goes on the road.					

*Video 2*



A woman	Totally Unnatural	Unnatural	Undecided	Natural	Totally Natural
walks towards the bin.					
goes towards the bin.					
comes close to the bin.					
approaches the bin.					

**Video 3**



A couple	Totally Unnatural	Unnatural	Undecided	Natural	Totally Natural
walks along the road.					
walks on the road.					
walks down the road.					
walks through the road.					

**Video 4**



A bus	Totally Unnatural	Unnatural	Undecided	Natural	Totally Natural
comes close to the bus stop.					
approaches the bus stop.					
comes towards the bus stop.					
heads to the bus stop.					