Hacettepe University Graduate School of Social Sciences

English Linguistics

AN ANALYSIS OF MOTION EVENT COMPONENTS AND ACCOMPANYING GESTURES IN TURKISH NARRATIVES IN TERMS OF SENTENTIAL FOCUS POSITION

Olcay Türk

Master's Thesis

Ankara, 2014

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Prof. Dr. Işıl Özyıldırım

Yrd. Doç. Dr. Elif Ersözlü

Yrd. Doç. Dr. Olcay Sert

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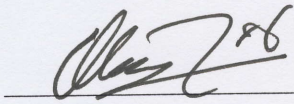
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Olcay Türk

To my parents for their endless love, support and devotion

Sonsuz sevgi, destek ve fedakarlıkları olmadan asla bitiremeyeceğim bu tezi anne ve babama adıyorum.

... and to my ferocious companion Sabri The Cat

ABSTRACT

TÜRK, Olcay. *An Analysis of Motion Event Components and Accompanying Gestures in Turkish Narratives in Terms of Sentential Focus Position*, Master's Thesis, Ankara, 2014

The present study investigates motion event expressions and their accompanying gestures in Turkish discourse. Firstly, it aims to present the lexicalization patterns of literal motion event descriptions in Turkish comparing the results to those of metaphorical motion event descriptions. Secondly, it tries to explain the relationship between linguistic typology and gestures focusing on the effect of sentential on motion event gestures. In order to achieve these objectives a small gesture and speech annotated corpus is compiled from video recorded narrations of a story in wordless pictures told by Turkish native speakers. Overall, literal motion events and metaphorical motion events are found to show similar patterns in lexicalization with slight differences that can be attributed to different nature of the event descriptions. It is observed that path gestures were the most used type of gestures in the narrations. However, manner information is more frequently gestured when we compare the number of manner expressions and manner gestures, which makes the manner the most salient component among other components. Yet, this result is challenged by the second analysis of this study. It is found that the narrators preferred gesturing for path more than manner despite the fact that both types of information are marked as prominent by prosody. This result is inconsistent with the assumption that motion event gestures and motion event typology are highly related.

Keywords: Motion event, gesture, information structure, linguistic typology

ÖZ

TÜRK, Olcay. *Türkçe Anlatılarda Devinim Olayları Öğelerinin ve Onlara Eşlik Eden Jestlerin Cümle Odak Pozisyonu Açısından İncelenmesi*, Yüksek Lisans Tezi, Ankara, 2014

Bu tez, Türkçe söyleminde devinim olaylarını ve onlara eşlik eden ikonik jestleri incelemektedir. İlk olarak, gerçek devinim olaylarının sözcükleştirme örüntülerini eğretilemeli devinim olaylarıyla kıyaslamayı amaçlamaktadır. İkinci amaç ise, dilbilimsel tiplendirme ile jestlerin ilişkisini cümle odaklarını inceleyerek açıklamaktır. Bu iki amaca ulaşabilmek için Türkçe anadil konuşucularının hikâye anlatılarının video kayıtlarından oluşturulan, devinim olayları çevriyazılarını ve jestlerin açıklamalarını içeren küçük bir derlem oluşturulmuştur. Genel olarak, gerçek devinim olaylarının ve eğretilemeli devinim olaylarının farklı olay tiplerinin doğasına dayandırılabilecek küçük farklılıklar dışında benzer sözcükleştirme örüntüleri sergilediği bulunmuştur. Buna ek olarak, yön gösteren jestlerinin sayıca en çok kullanılan jest türü olduğu gözlenmiştir. Ancak, biçim bilgisinin konuşmalara dahil edilme oranı göze alındığında en sık jestlendirilen devinim öğesi olduğu bulunmuştur. Bu bulgu biçimi diğer öğelere kıyasla en önemli ve göze çarpan öğe yapmaktadır. Fakat bu sonuç çalışmadaki ikinci çözümlemenin sonucuyla çelişmektedir. Bu çözümlemede anlatıcıların hem yön hem de biçim bilgisinin odak altında bulunmasına rağmen yön öğesini jestlerindirdikleri gözlenmiştir. Bu ikinci sonuç, devinim olayları tiplendirmesi ve devinim olaylarına eşlik eden jestler arasındaki varsayılan güçlü paralelliğe ters düşmektedir.

Anahtar kelimeler: Devinim olayları, jest, bilgi yapısı, dilbilimsel tiplendirme

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ABBREVIATIONS

ABL	Ablative suffix
ABS	Absolutive suffix
ACC	Accusative suffix
ADJ	Adjectivalization suffix
ADV	Adverbialization suffix
ALLAT	Allative case
CAUS	Causative suffix
COMP	Compound verb suffix
CONV	Converb suffix
DAT	Dative suffix
GP	Growth Point
INF	Infinitive suffix
NOM	Nominalization suffix
POSS:1SG	First person singular possessive suffix
POSS:3SG	Third person singular possessive suffix
POSS:1PL	First person plural possessive suffix
POSS:3PL	Third person plural possessive suffix
PLU	Plural suffix
PAST	Past tense suffix: simple past or past progressive
PRES	Present tense suffix: generic or present progressive

CHAPTER 1

INTRODUCTION

Fie, fie upon her!
There's language in her eye, her cheek, her lip,
Nay, her foot speaks; her wanton spirits look out
At every joint and motive of her body.

William Shakespeare - Troilus and Cressida

Linguistic typology, a branch of linguistics, investigates languages by comparing linguistic phenomena observed to point out their variation and unity. It also defines the extent of the variations and decides what generalizations can be made regarding those variations. Typological studies deals with variation at all aspects of language structure including syntax, morphology, phonology and semantics. A well-known study of Greenberg (1963) on word-order can be shown as an example to the typological studies. His study has identified several universal correlations and generalizations based on typological features such as:

> ...a language with SOV [Subject, Object, Verb] order is highly likely to have modifiers that precede their head nouns, auxiliaries that follow their main verbs, postpositions instead of prepositions, and a rich case system for nouns. A VSO [Verb, Subject, Object] language, in contrast, usually has modifiers that follow their nouns, auxiliaries that precede their verbs, prepositions, and no cases. (Trask & Stokwell, 2007)

Cognitive linguistics, another branch of linguistics, can be defined as analytical viewpoint on language which aims to explain cognitive foundations of language use with respect to conceptual formation and to language structure. When we compare the descriptions of linguistic typology and cognitive linguistics it is obvious that these two branches are deeply compatible (Auwera & Jan Nuyts, 2007). What cognitive linguists study are the notions that are hypothesized to be the portions of our conceptual system. It is important for cognitive linguists to attest the universality and variability of concepts

based on variation in language structure presented by linguistic typology, which is what has been tried to accomplish in the current study.

Spatial cognition is one of the tools that our conceptual apparatus offer in order to manage our knowledge about space. Language has means to refer to spatial events and objects taking part in them. In novels and stories, which in nature use language, we activate our spatial thinking to pertain to people, objects and places in attempt to create a mental imagery of the event mentioned. It must be noted that there may be differences between what we think or what we have as a mental image about such spatial events and how we express them. Those differences are the results of the fact that language can be more efficient in carrying some kind of spatial information but not in carrying others. Drawing upon these differences, Talmy (1985, 1991, 2000) suggested that languages can be grouped together in terms of how they draw semantic domains into syntactic domains. First, he defines an event that includes a movement or the preservation of a location as a motion event, which generally includes five semantic components being figure, ground, motion, manner and path (Talmy, 1985). A motion event and its components can be observed in the following example:

(1) John ran into the room.

FIGURE MOTION+MANNER PATH GROUND

> There is a moving ***figure*** (single human male) in ***motion***, moving in a particular ***manner*** (running) forward along a ***path*** that crosses a boundary into a ***ground*** location (a room). (Slobin, 2005: 307)

Manner is seen as "external" component which is optional in an event scheme while figure, motion, ground and path are "internal" components which are obligatory.

Returning to Talmy's categorization of languages, although the components are accepted to be universal, languages vary in their spatial organization and in their way of expressing spatial information because of the typological factors affecting the choice and assembling of information of the individuals. According to Talmy (1985), languages are divided into two typologically different groups in describing motion events depending on where the path of motion is expressed whether in verb roots (verb-

framed like Turkish, Spanish and French) or separate from the root in a particle (Satellite-framed like English, German)

(2a) The dog **ran** out

(2b) Der Hund **rannte** hinaus.

"the dog **ran** out"

(2c) El perro salió **corriendo**

"the dog exited **running"**

(2d) Köpek **koşarak** çıktı.

"the dog **running** exited"

The examples (2a), (2b), (2c) and (2d) lay out the pattern of manner and path encoding of verb-framed languages Turkish and Spanish"(2c) and (2d)" and satellite-framed languages English and German"(2a) and (2b)". Manner component is in bold and path component is underlined. The obligatory path component without which one cannot talk about a motion event (Slobin, 2004) is typically encoded within the main verb in verb-framed languages. However, satellite-framed languages slot path information in a particle outside of the main verb which contains manner of motion whereas verb-framed languages prefer encoding manner outside of the main verb. It should be kept in mind that languages offer such information in various ways. This categorization is based on preference and frequency.

The introduction of Talmy's (1983) schematization proposal saying that language "schematizes" space by means of selecting certain features and filtering out others and Slobin's (1987) thinking for speaking theory which basically suggests that "the way we speak shapes the way we think", the interest in motion events' use in motion events themed cognitive studies has grown. Many languages such as English, Spanish, Japanese, Chinese, Basque and Turkish have been studied under this topic. Yet, there are still gaps to be filled by descriptive studies with different aims to help interpret the already existing data by means of comparison, which is one of the motives of this thesis.

After seeing evidence for the claim that typological variation has cognitive implications based on analyses on verbal data (Slobin, 1996a, 1996b, 2004; Brenan & Slobin, 1994), researchers tried to confirm the claims studying non-verbal signals such as gestures that also assumed to represent cognitive organizations along with speech. What is more, gesture and speech are often argued to be generated by one system since gestures

constitute a vital part in conversations. Gestures' occurring only during speech and their semantic and pragmatic co-expressiveness can also be shown as evidence to this proposal. In addition, they are known to develop jointly with speech in children and break down together in aphasia (McNeill, 1992).

Researchers have always been interested in gestures. Till Efron's study (1941) in which linguistic facets of gestural behaviors of certain racial groups in New York is studied in a systematical way, gesture studies had been mainly concerned with rhetoric (i.e how it affects oral skills) and language evolution (Ishino & Stam, 2011). Studies of Kendon (1980, 1982) and McNeill (1981), which see gesture and speech as the two co-dependent parts of a single production system mark the beginning of modern gesture studies.

While sitting at a café watching people talking to each other, one thing that you might notice would be their hands moving around. Regardless of culture, race and language they speak, humans use their hands. It is likely that it serves a communicative purpose. Then, why do we gesture when we are on the phone despite the fact that the person we are speaking cannot see us? There are contrasting views about the function of gestures we use (Kendon, 1994; Krauss et al., 1996). However, it is for sure that gestures play an important part in human communication (McNeill, 1992).

Then what is a gesture? All gestures that scholars study are not the same and have various features that make them different from the others. Roughly, all visible bodily actions employed intentionally and meaningfully are referred to as gestures (Ishino & Stam, 2011). Manipulation of the objects in an environment and touching oneself such as scratching and stroking hair in this sense are not included in gestures in this sense (McNeill, 1992). Gestures have been classified by a few scholars in time (Efron, 1941; Freedman & Hoffman, 1967; Ekman & Friesen, 1969; Kendon, 1982; McNeill, 1992). McNeill (1992) in his approach categorizes spontaneous gestures (gesticulation) into five being iconic, metaphoric, deictic, butterworths and beat gestures. Iconic gestures are the ones that hold close semantic connections to its accompanying speech. A gesture in which a hand moves forward in a sagittal way on a sentence like (2a) "The dog ran out" is an iconic gesture since it conveys the trajectory information accompanying and aligning with speech counterpart. Metaphoric gestures are abstract and conceptual

version of iconic gestures in that they present an image of the abstract concepts such as knowledge (McNeill, 1992). A gesture in which a hand parallel to the ground is raised from the elbow level to the level of head synched with accompanying the utterance "He got promoted" is a metaphoric gesture. Deictic gestures as the name suggests are pointing gestures. Hands or parts of body are simply used to "point at" someone or something from the point of something or someone else in a spatial representation. Beats are movements that don't carry a meaning at all. They do not need any preparation of the hands and occur without much effort. Butterworths are gestures that occur when speakers are trying to recall another verbal expression or word. All in all, spatial affordance in gestures accompanying speech can be best observed in iconic gestures as only they carry the semantic content of the speech they align to (for literal events). Therefore, it is only logical to use gestures in a supportive or rather an alternative way in psychological or cognitive studies which take speech as data.

1.1 The Study

First part of the study provides descriptive data in an attempt to fill a research gap by complementing and comparing earlier works. More specifically, it provides descriptive data about the patterns of motion event components in Turkish. There are many studies with the same purpose dealing with different languages such as Spanish, Basque, Chinese, English as well as Turkish. (Brenan & Slobin, 1994; Ozcaliskan, 2004; Ozcaliskan¸ & Slobin, 1999; 2000a; 2000b; 2003; Ibarretxe-Antuñano, 2004; Ozyurek & Kita, 1999; Kita & Ozyurek, 2003; Chui, 2009). The major descriptive studies on Turkish are conducted by Ozcaliskan and Slobin. Each of their studies has different purposes. Ozcaliskan & Slobin's studies (1999, 2000a, 2000b) have analyzed variation within motion event language typology by studying speaker's from different ages. Their results have revealed that there is difference in narrative attention paid to motion components and that lexicalization patterns are in typologically different languages start very early. Ozcaliskan & Slobin's study (2003), being a cross-linguistic study, tries to draw typological contrast between English and Turkish motion events while mainly focusing on manner lexicalization by the languages using oral and written data. Finally, Ozcaliskan (2004) studies semantic components of motion events focusing on less attended ones being ground and path.

Aim #1: Despite the previous studies mentioned above, there are gaps in the inquiry of verbal and non-verbal Turkish motion event expressions. As Ozcaliskan (2004) puts it "there is no existing study that looks at the frequency of verbs with path satellites for literal motion events in Turkish" (Ozcaliskan, 2004: 15). The first part of this study tries to fill this research gap by analyzing manner, path and ground information expressions with their form based frequency and distribution. In the first part of the study, Ozcaliskan's (2004) study is taken as a reference and is used to make comparison of the results between literal and metaphorical motion event patterns. In addition, this study integrates iconic gestures to its analysis in an attempt to see if motion events with accompanying imagistic representations can be used to comment on or to detail the results further as a transition to the second part of the study. Most of the studies on Turkish mentioned above focus on a specific motion event component at a time. The current study, on the other hand, provides an extensive map of lexicalization patterns in morphological detail. Another thing what separates this study from other studies on Turkish is that conceptualization and typological studies analyzing imagistic and linguistic representations of motion events have made use of either only one particular scene or an episode in a full story or a list of them in isolation (see. Ozyurek & Kita, 1999; Kita & Ozyurek, 2003; Ozcaliskan & Slobin, 2003). This study seeks lexicalization and gestural patterns in holistic narration texts.

As for the second part of this study, it tries to contribute to the controversy about speech and gesture production interrelation. Despite the fact that modern gesture studies start with an assumption that speech and gesture are parts of one system, that has not stayed challenged for long. There are two mainstream views regarding speech and gesture production. The first view claims that gesture and speech are parts of one system and are generated co-dependently showing evidence from language typology such motion events (Ozyurek & Kita, 1999; Kita & Ozyurek, 2003, McNeill, 2000, 2007; McNeill & Duncan, 2000). The second view proposes that gestural representation has nothing to do with linguistic typology while claiming that gesture and speech are two separate systems (Chui, 2009; Hadar & Butterworth, 1997; Krauss, 1998).

As mentioned earlier, gesture, a more visceral part of human communication, is assumed to be linked and accommodated to the linguistic structure in form and meaning

(Haviland, 2005). Spontaneous iconic gestures accompanying speech have shown evidence that gestures and speech are systematically combined with respect to one another (McNeill, 1985; Ozyurek & Kita, 1999). When we consider verb-framing typology of motion events in relation to gesture, Turkish speakers' use of co-speech gestures when describing a motion event is intriguing since the speakers can express manner and path in two verbal clauses in just one sentence.

(3) "Dönerek indi" (It descended spinning)

V-spin-CONV (Dön-erek) V-descend-PAST (in-di)

Keeping the gesture and speech relation in mind, a Turkish speaker might prefer using a manner-only gesture, a path-only gesture or a manner-path conflated gesture complementing the lexical implication in the depiction of the event. The problem here is Slobin's (1987) Thinking-for-Speaking Theory suggests that speakers organize their thinking to meet the needs of the linguistic encoding; in other words, how we say something affects our thinking of it (will be detailed in the next chapter). In this sense, the separate use of two verbal clauses for manner and path would suggest a separate conceptualization of manner and path information of the motion events in our minds (Ozyurek & Kita, 1999).

Such separate conceptualization is supposed to be observed in iconic gestures too considering the tight relationship of speech and gesture. Thus, in Turkish, the manner and path of motion should not be conflated within a single gesture due to the use of manner and path in two separate verb clauses within one sentence. However, information structure presents a challenge to the theory. The focus of a sentence is accepted to carry important information (Bolinger, 1972) and in speech gestures and parts of speech that carry important information are correlate (Cassell et al., 2001). These suggest a logical and temporal relationship between focus and gesture in speech. In Turkish, although it may vary, the default focus position is just before the main verb (Goksel & Ozsoy, 2000). As a result, single sentence motion event expressions including both manner and path information such as (3) "dönerek indi" (descended spinning) should require the use of a manner information in gesture either alone or conflated with path information since manner is in focus by default. However, the

theory suggests that in Turkish, a v-framed language, gestures should not conflate the manner and path of motion despite the fact that the verbal adverb is in focus, which should cause the production of manner-only gestures and path-only gestures. Manner is assumed to be the most salient information type perceptually as it is added optionally and only when it is necessary contextually. In this case, in Turkish when manner is in focus it should be gestured because gestures and speech are assumed to form growth points which are psychological predicates carrying "newsworthy" information (McNeill & Duncan, 2000). This study investigates the claim that manner information might be downplayed by path information which is also tend to be in focus being attached to a satellite as a result of the assumption that information structure modality would emphasize path information in gestures as it is the core component of any motion event (Slobin, 2004).

The default position for focus is not fixed due to the flexible word order of Turkish allowing the focus to move outside of the pre-verbal slot depending on new/given information in context. Similarly, verbal adverb containing the manner of the motion can be moved out of focus. This way, it is possible to compare different syntactic situations where foci are on the different parts of the sentences which may potentially produce interesting results.

Aim #2: As for the second part of the study, it aims to investigate how and to what extent gesture and linguistic typology are related with a special focus on linguistic and imagistic representations (iconic gestures) of motion events in relation to sentential foci. Although there are examples of gesture and information structure studies (Foraker, 2011; Wilkin & Holler, 2011; Ebert et al., 2011) which deal with functional aspects of gestures, information structure and gesture relationship has not been investigated in order to explain the relationship between speech and gesture to our knowledge. This is a multi-dimensional study which pioneers in the literature by integrating of focus to explain speech and gesture reference. In addition, the current study provides comparative data to Chui's (2005, 2009) claim that information structure has an effect on gesture patterns.

To this end, the study makes use of the linguistic typology of motion events and co-speech gestures in oral narratives in addition to the acoustic features of speech in spoken

Turkish. All related concepts mentioned so far will be clarified and detailed in the next chapter.

1.3 Research Questions

This study has an interdisciplinary aspect in that it investigates conceptual - linguistic variation through motion event typology making use of gestures and prosody drawing from cognitive science and linguistics coalescing into cognitive linguistics. Conducting a descriptive study to contribute to literature by mapping lexicalization patterns and predominantly explaining the relation between linguistic typology and gestures constitute the main interests of this study. Accordingly, this thesis undertakes the following research questions:

Research Question 1: What is the prevalence of mention and lexical variety of manner, path and ground components of literal motion events in Turkish oral narratives?

Research Question 2: How are motion events and their accompanying iconic gestures matched?

The first two questions here not only serve their primary purpose but also set up for the third question in that they create a small corpus for data extraction to be used in the second part of the study.

Research Question 3: What is the effect of sentential focus position on gestures of manner & path components of literal motion events in Turkish?

1.4 Hypotheses

If under focus, manner of motion in verbal adverb should be gestured in motion event descriptions where both manner and path information is presented, which would suggest the use a manner/path conflated gesture or a manner-only gesture where path information coexist. Such gestures under those situations are predicted to be unlikely due to the separate conceptualization of manner and path components resulting from the use of separate verb clauses for manner and path according to the thinking for speaking theory (Slobin, 1987). This study also predicts that manner-only gesture and path-only gestures will be used at comparable rates. However, because the narrative attention paid

to manner information in V-framed languages is relatively low, manner gestures will be used less than path gestures despite the linguistic salience, which violates linguistic typology and gesture relationship.

If the foci of the sentences are actually on the manner verbal adverb and they are not gestured, it can have two possible interpretations. It can be interpreted to confirm that linguistic typology and gestures may not have anything to do with each other and the gestures are mere tools that can go beyond speech communicating one's own grasp of the event. Secondly, it can be said that gesture and linguistic typology can be overridden and restrained by different modalities such as information structure which ultimately suggests the departure of speech and gestures from being a tight, single system matching in all aspects. Another thing to consider is that despite the literature, motion event typology may not be a determining feature in deciding between single and two separate systems as motion event typology might prove itself to be a cross-cutting dimension contributing to a single system or a shared/not-shared feature between two separate systems in the end.

1.4 Limitations

Because of its descriptive feature, the study should not attempt to control speech production. A method like picking out single events from narrations and limiting the analysis to those extracts would lead only to expected results. When a participant is asked to narrate something based on stimuli, speech produced would undoubtedly be different from another participant. Details, word choice and even inclusion/omission of events vary naturally in such productions. However, a descriptive study should be comprehensive and representative. In a study like this, where the amount and the type of verbs, satellites, particles and gestures matter, it is important to use efficient and fair stimuli. The stimuli used in this study are not extracted from real life figures and their actions but cartoonish drawings. The participants may react to real life figures and action differently, which may potentially result variation in expressions and gestures (see Toplu, 2011).

Another issue is related to the video recordings. Focus detection using prosody gets tricky as the extracts are taken from narrations. Thus the extracts do not always contain

vibrant sounds which are continuous to the end. F0 tracks acquired from the extracts are edgy and not smooth which makes track interpretation rather hard. Although the tracks were comprehensible in most cases this limitation is easily overcome via native speaker consult in addition to a Praat script equipped.

The effects of social interaction on spontaneous speech and gestures such as the function of gaze and pointing on turn-construction and attention have been shown in numerous studies (de Fornel, 1992; Streeck 1993, 1994; Goodwin, 1986, 2000; Holler & Wilkins 2011; Tabinsky, 2001). Human actions can occur in social interactions as well as individually. When we are taking part in a social interaction our actions depend on the other people's behaviour and actions. However, as this study aims to explain cognitive processes of speech and gesture production processes, the effect of social interaction in our data has not been dealt with. The presence of an addressee in the design of the data collection sessions is required to increase the sample size of gestures and the representativeness of motion event expression and gestures in addition to eliminate the possible effects of discomfort (Mol, et al. 2011). All the same, although the addressees were encouraged to participate in narrations by asking for clarification whenever they felt like, they did not do so at all. When the addressees spoke, their contribution was in question forms, which were easily replied by the narrator. Accordingly, no long exchanges were observed between the interlocutors in the first place. It must also be noted that this study makes use of constructed data which is produced in a controlled research environment with selected participants talking about selected stimuli.

The following chapter details all the concepts mentioned so far and introduces some others in addition to reviewing previous studies in the field.

CHAPTER 2

BASIC CONCEPTS & PREVIOUS STUDIES

We dissect nature along lines laid down by our native language. Language is not simply a reporting device for experience but a defining framework for it.

B. L. Whorf

2.1 Motion Event Typology

Despite the fact that there are significant differences in the mapping of spatial information between languages, our spatial cognition is characterized as universal customarily. The existence of such differences includes irregularities in prominence given to certain spatial information components due to their typical encoded formation. This situation attracts researchers who study the relation between language and cognition. In other words, linguistic variation has raised curiosity about how and to what extend language may affect our mental representation of events leading into series of conceptualization studies.

Talmy (1972, 1985, 2000) can be considered as the father of modern motion event typology studies thanks to his studies on lexicalization patterns. It must be noted that his studies are affected by earlier scholars who have had similar observations in different languages and have made proposals regarding conceptualization system making use of motion event expressions such as Bergh (1948), Vinay & Darbelnet, (1958), Wandruszka, (1971) and Tesnière (1959) (as cited in Hickmann et. al, 2010). Nonetheless, Talmy is considered to be the one who proposed the most thorough layout of this topic with a detailed survey on different languages (Hickmann et. al, 2010).

2.1.1 Talmy's Lexicalization Patterns

In his initial version of motion event typology, Talmy (1972) compares English and Atsugewi. The coinage of the term "motion event" comes later in his studies. At first his starting point is "translatory situation" which is an event in which a figure moves along a path. A situation consists of four fixed components which are:

Figure: “the object which is considered as moving or located with respect to another object.”

Ground: “the object with respect to which a first object is considered as moving or located.”

Directional: “the respect with which one object is considered as moving or located to another object.”

Motive: “the moving or located state which one object is considered to be in with respect to another object” (Talmy, 1972: 11)

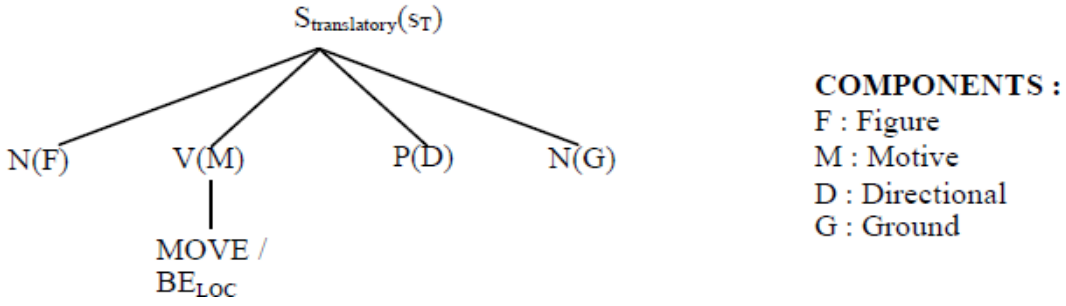


Figure 1. A translatory Situation Structure (Talmy, 1972)

At first, he explains manner and path expressions outside the verb with the term "to assatellate" (Talmy, 1972: 257), which names the movement of a component into adjunction forming a verb complex. He claims that assatellation of directional expression into adjunct position (path satellites) is a typical feature of Indo-European languages. He also notes that constituents of a translatory situation or parts outside of a situation can merge in order to turn what would otherwise be a complex formation into a simpler one by insertion/omission of lexical items, which he called "conflation" (Talmy, 1972: 257). In his example: "To a point which is of the surface of" complex formation is said to be conflated into "onto". He explains the addition of manner information in certain languages (which he terms satellite-framed languages in 1985) as a conflation as well. An external manner component conflates with Motive component forming a Mm verb (Motive + manner). The following explains a Mm conflation in a translatory situation tree of the sentence "The bottle was floating in the cove" (Talmy, 1972: 19).

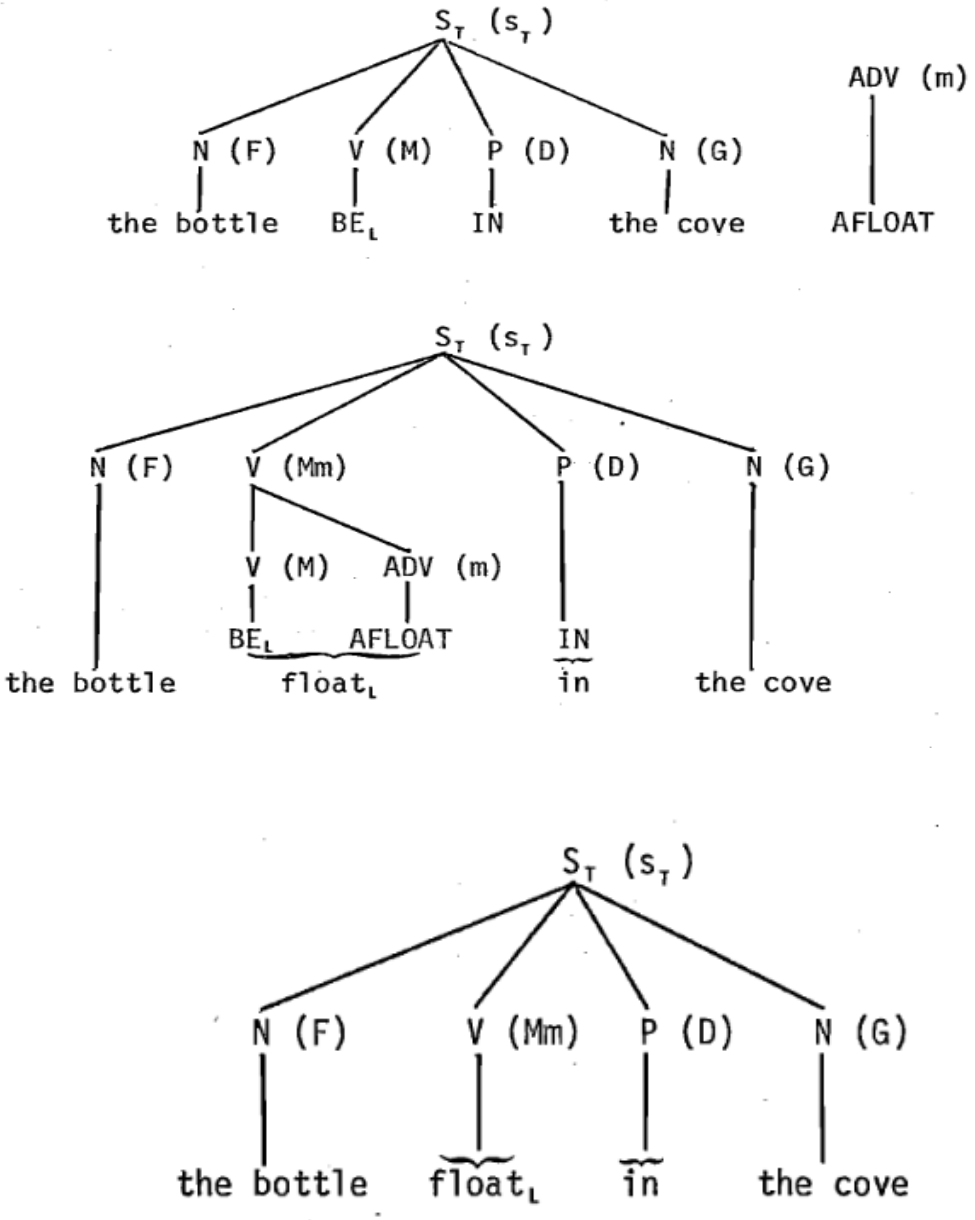


Figure 2. The Mm verb conflation

As seen in Figure 2. MOVE and BE are considered fixed unspecified set members with respect to moving and locative state of Motive. Another typical conflation he characterizes in some languages is MD conflation. (Motive + Directional). Such a conflation can be found both in English and Spanish (i.e. entrar - enter [MOVE + IN]). What separates the languages mentioned is that Spanish does not typically conflate manner with Motive (Mm). "Any notion of manner in Spanish is either established in the prior discursive context is specified by an independent expression which is

included" (Talmy, 1972: 288). Lastly, he identifies some parts of the situation as being closer to the verb than prepositions. For example, he considers "She ran into the room" as Motive + Manner + Directional conflation because he analyzes the sentence as having two different TO IN structure one being a satellite and the other as preposition conflating into simpler form that is "into" and assatellating to the Mm verb (move + run) (Talmy, 1972: 269).

Talmy (1985, 2000) revisits his study and introduces motion events (instead of translatory situation) with four main components being figure, motion, path and ground as well as a verb-framing typology as mentioned in the previous chapter. There are significant differences in general but one of the most important is that he does not claim Motion + Manner verbs conflate path information as in "She ran into room" any more. On the contrary, Path is offered in a particle outside of the verb, a satellite which is defined as: “It 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” (Talmy, 2000: 102).

2.1.2 Slobin's Thinking-For-Speaking

Considering the typological features of languages mentioned till now, it is safe to assume that languages have preferences when encoding semantic domains into syntactic ones. There are several studies which confirmed the difference claimed between encoding of manner and path information (Slobin, 1991, 1996a, 1996b; Ozyurek & Kita, 1999; Ozcaliskan & Slobin, 2000a, 2000b; Choi & Bowermann, 1991).

How speakers of different languages express a motion event considering discourse context is a feasible research topic itself but it may have further cognitive implications because such preferences cause speakers to aim attention at components both in separation and together as commanded by lexical preference and syntax (Slobin, 1997). With this in mind and following Talmy's lexicalization patterns, Berman & Slobin (1994) study motion event descriptions in 21 languages. The descriptions are extracted from narrations of a story told in a wordless picture book by Mercer Mayer (1969) which have been used by many researchers studying this topic. "Frog story" tells the

story of a boy and his dog searching for his pet frog that escaped into a forest. Based on his data, Slobin (1996a) points out some distinctions:

1. S-framed language speakers use manner of motion verbs more than V-framed languages, which also affects the number of manner verbs in language and their expressiveness.

2. Ground descriptions in V-framed languages are not many and not elaborated as detailed as they are in S-framed languages.

3. Less narrative attention is paid to motion per se but more to scene setting in V-framed languages.

In the story, a scene where an owl flies out of a tree has been used to demonstrate the frequency of manner of motion verb usage in V-framed and S-framed languages. The example sentences are as follows:

V-framed languages:

a. Spanish: **Sale** un buho. (=**Exits** an owl.)

b. French: D'un trou de l'abre **sort** un hibou. (=From a hole of the tree **exits** an owl.)

c. Italian: Da quest' albero **esce** un gufo. (=From that tree **exits** an owl.)

d. Turkish: Oradan bir baykuş **çıkıyor**. (=From there an owl **exits**.)

e. Hebrew: **Yaca** mitox haxor yanšuf (=Exits from inside the hole owl.)

S-Framed languages:

a. English: An owl **popped out**.

b. German: ... weil da eine Eule plötzlich **raus-flattert**. (=because there an owl suddenly **out-flaps**)

c. Dutch: ...omdat er een uil **uit-vliegt**. (=...because there an owl **out-flies**)

d. Russian: Tam **vy-skočila** sova. (=There out-jumped owl.)

e. Mandarin: **Fei-chu** yi zhi maotouying. (=**Fly out** one owl.) (Slobin, 2004:225)

Overall percentage of narrators' using a manner verb in the descriptions of the same scene is provided below (Slobin, 2004):

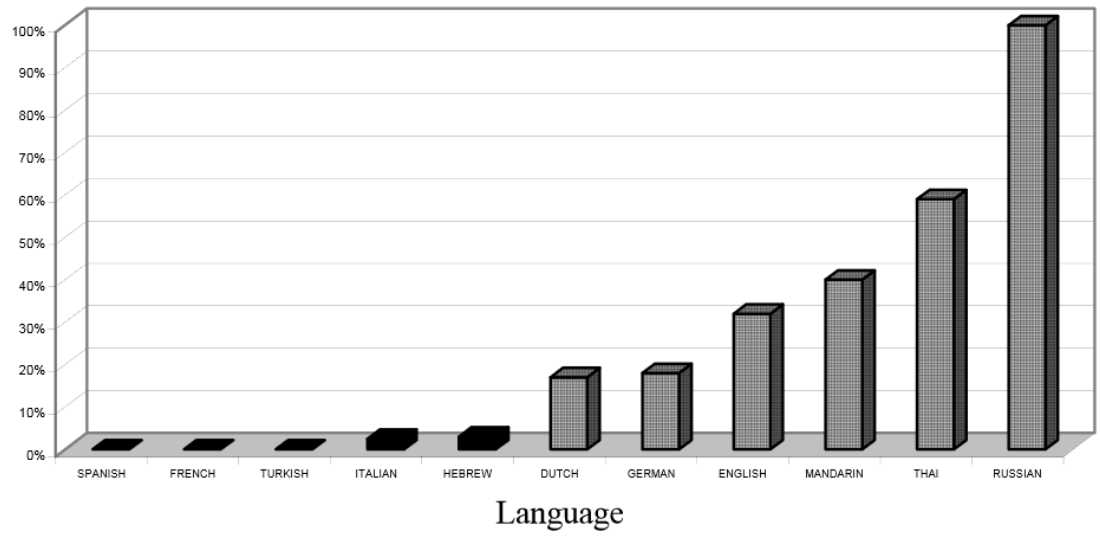


Figure 3. Manner verb use percentage in owl scene.

It is clear from the data above that there are striking differences among even S-framed languages in terms of frequency of manner verb use. In addition, some difference between V-framed languages has been found as well. Ibarretxe-Antuñano (2004) reports that Basque, a V-framed language, prefers giving detailed descriptions of path information regardless of verb type.

> Azkenean, habixe, erleabixe, lurrera jun zan
>
> finally nest:ABS beehive:ABS ground:ALLAT go:PFV AUX
>
> In the end, the nest, the beehive, went down to the ground. (Ibarretxe-Antuñano, 2004: 95)

Complex case marking system of Basque language allows for the inclusion of path segments redundantly. Turkish can also be said to carry the same characteristics. For instance, a sentence like "Çocuk camdan yere indi." (= The boy from the window to the ground descended) includes a complete path description and has 2 path segments acquired through suffixes in addition to a path verb. Such a difference may be expected to cause difference in elaboration when compared to other languages which do not possess such a detailed case marking system such as Spanish. As a result, Basque

speakers do not describe a scene-setting outside motion event clauses (Ibarretxe-Antuñano, 2004), which is not a typical feature of V-framed languages as Slobin (1996) suggested. Furthermore, Zlatev & Yanklang's study (2004) has shown evidence that languages differ on other aspects in addition to the typological variation previously suggested, which are as follows:

1. Core schema
2. Co-events (adverbials)
3. Boundary-crossing constraints
4. The number of path segments per clause
5. Diversity and frequency of manner verbs
6. Ground specification
7. Event granularity across clauses
8. Expression of scene setting (Zlatev & Yanklang, 2004: 197)

Following these differences, peculiarities and parameters Slobin (2004) suggests that Talmy's dichotomy should be revised into a more comprehensive model. Therefore, he proposes another category "Equipollently-framed languages" in addition to Verb-framed and Satellite-framed languages. This category comprises languages like Mandarin in which motion event verbs are expressed in series with equal status not as satellites. The following is a sample from Chen & Guo's study (2009) which confirms that Mandarin is Equipollently-framed language in support of Slobin's proposal:

M+D
赵玉林慌忙爬起来，往北门跑去.
Zhàoyùlín huāngmáng pá qǐ lái, wǎng běi mén pǎo qù.
Zhaoyulin hastily crawl rise come toward north gate run go
"Zhaoyulin scrambled up hastily, and ran toward the north gate."
P+D
他拉开门出去了。
Tā lā kāi mén chū qù le.
he pull open door exit go PFV
"He pulled the door open and went out."
P+P
他们回到家里。
Tāmēn huí dào jiā lǐ.
they return arrive home in
"They returned back home."

As it is apparent in the examples from their study, verbs carrying different types of information are expressed in series under different combinations. Slobin (2004) also proposes to classify languages with a less rigid scale according to their manner salience being high or low. Yet, this proposal have not gained recognition widely as manner encoding features of the languages such as frequency and number do not co-vary in order to be fitted on a scale which would distinguish them from other languages (Fortis, 2010).

Returning to cognitive implications of this typological variation, in his studies Slobin (1987, 1991, 1996a, 1996b, 1997, 2000) has proposed "Thinking-for-Speaking" theory, which claims that speakers of different languages attend to information in speech as much as the language allows them to. Slobin describes his formulation as the following:

> The expression of experience in linguistic terms constitutes thinking for speaking – a special form of thought mobilized for communication. Whatever effects grammar may or may not have outside of speaking, the sort of mental activity that goes on while formulating utterances is not trivial or obvious, and deserves our attention. We encounter the contents of the mind in a special way when they are being accessed for use. That is, the activity of thinking takes on a particular quality when it is employed in the activity of speaking. In the evanescent time frame of constructing utterances in discourse one fits one's thoughts into available linguistic frames. "Thinking for speaking" involves picking those characteristics of objects and events that (a) fit some conceptualization of the event, and (b) are readily encodable in the language. (Slobin, 1996b)

The theory emphasizes the essentiality of perspective in the framing of events. Although the target event is the same, it has to be expressed via language specific linguistic patterns which filter or rather favour information. Considering the data shown in the abovementioned studies, the difference in linguistic behaviour seems to lead the speakers to experience an event variously. Slobin's theory is conceived as a neo-Whorfian viewpoint. Brown (1976) outlines Sapir-Whorf hypothesis as follows:

> I. Structural differences between language systems will, in general, be paralleled by non-linguistic cognitive differences, of an unspecified sort, in the native speakers of the two languages.

> II. The structure of anyone's native language strongly influences or fully determines the world-view he will acquire as he learns the language. (as cited in Kay & Kempton, 1984: 66)

Although there is reasonable similarity within the approach, thinking-for-speaking is essentially different from Sapir-Whorf "linguistic relativity" in that its basic motive is not to point out the effects of grammar on the conception of the world and behaviour in general. Thinking-for-speaking theory claims that humans formulate their thoughts according to the means and ways provided by the language they speak (Ibarretxe-Antuñano, 2002).

In order to test Slobin's Thinking-for-Speaking theory, non-linguistic tasks are also employed in several experiments in addition to linguistic ones. Gennari et al.'s study (2002) uses similarity judgement task on English and Spanish speakers. They have found a significant effect of language packaging in a task where the participant has to choose one of two alternatives (2nd & 3rd picture) as the most similar one to the event demonstrated as target (1st picture). Confirming the hypothesis, Spanish speakers has chosen the picture with same path/different manner components as the most similar one more than English speakers (Only when they made verbal descriptions of the target at first).



Figure 4. Target (1st) Same manner different path(2nd) Same path different manner (3rd) (Gennari et. al., 2002)

Similarly, Soroli & Hickmann (2010) has employed similarity judgement tasks on French and English speakers. As explained in Figure 5., the target have been made available both as visually and verbally in order to see if the presentation of the stimuli matters.

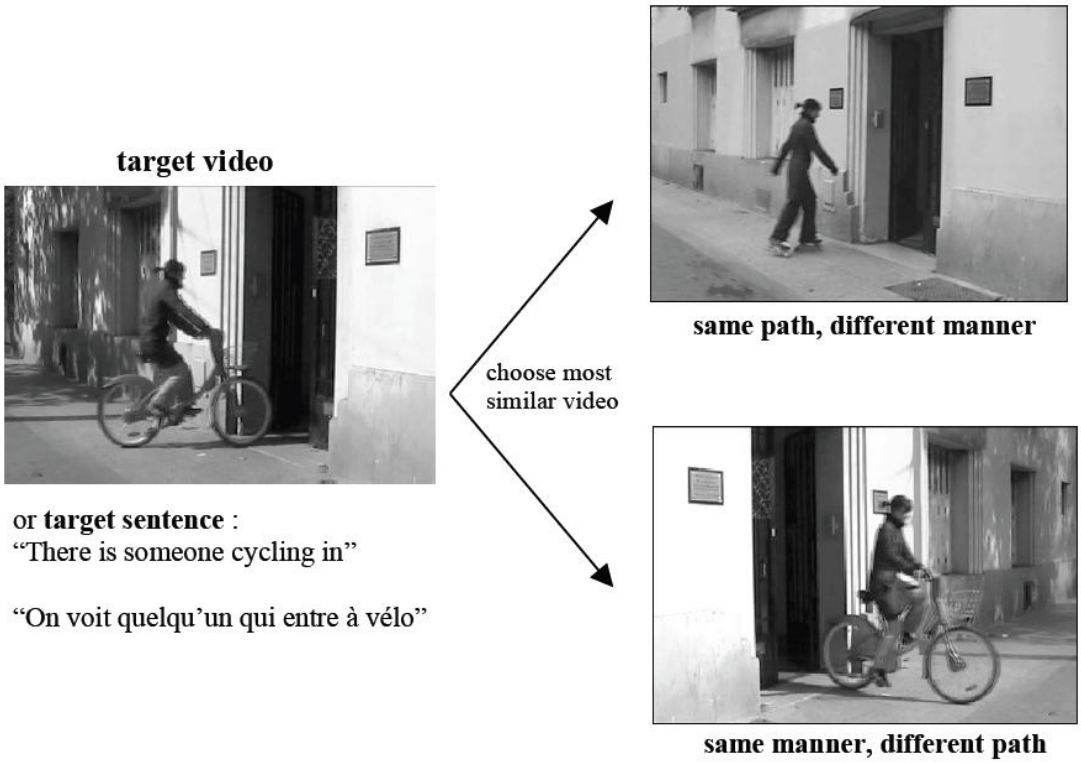


Figure 5. Similarity Judgement Stimuli (Soroli & Hickmann, 2010)

In visual cases, French speakers have chosen same path/different manner option more than English speakers have done. In verbal cases, French again opted for same path/different manner despite the fact that same manner/different path option have risen in number for both languages. The results of categorization tasks back the effects of linguistic typology on non-linguistic tasks. Soroli & Hickmann (2010) also make use of eye-tracking methodology. They have found different eye movement patterns depending on the type of visual stimuli being cartoon or real-life video recordings.

Real-life stimuli provided no significant patterns in fixation. On the other hand, in cartoons stimuli French speakers are found to focus on path area as the task progress, whereas English speakers have shown balanced fixation. Similar results have also been reported for Turkish (Toplu, 2011).

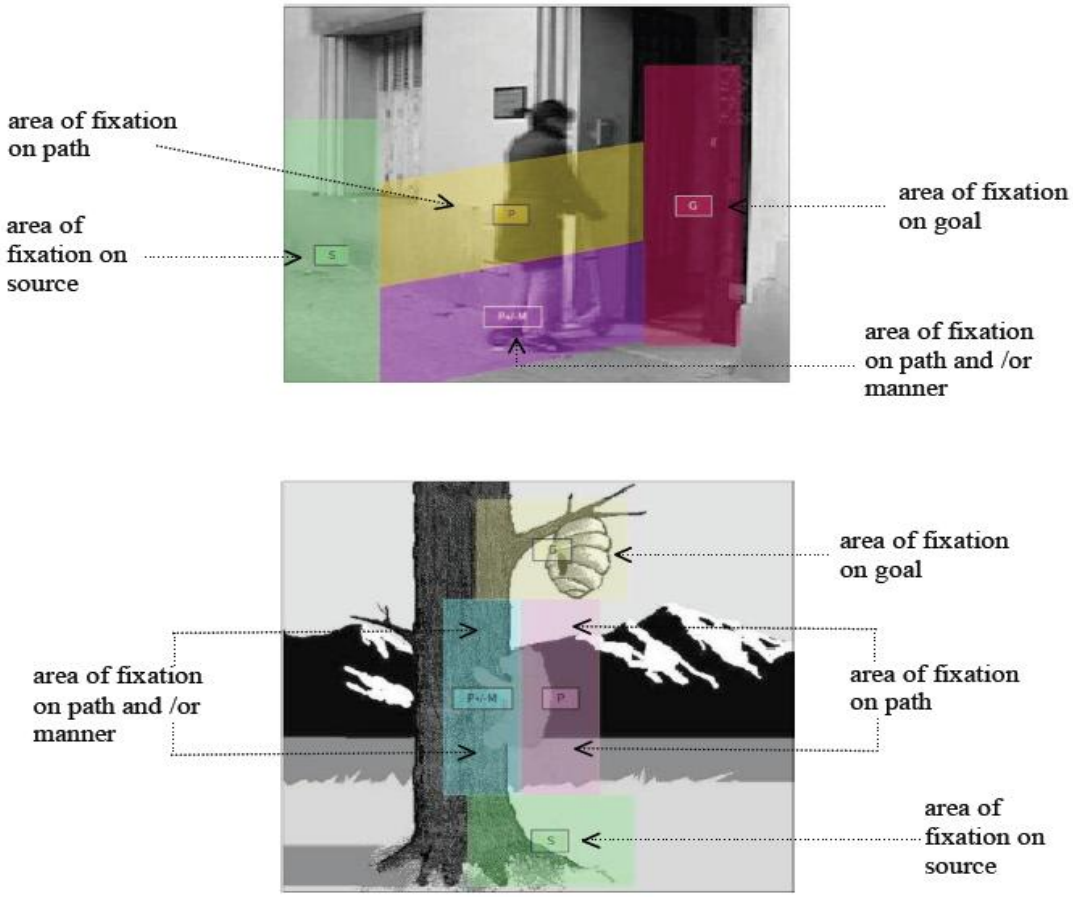


Figure 6. Visual Stimuli in Soroli & Hickmann (2010) (Taken from Fortis, 2010)

In conclusion, it is not possible to observe the effects of linguistic typology in all tasks. It seems that verbal actualization and the feature of the task alter the effect on non-linguistic behaviour in some way.

2.1.3 Ozcaliskan and Slobin's Typological Variation Studies in Turkish

Turkish, a V-framed language, has been included in typological variation studies thanks to Slobin and Ozcaliskan. This part provides a brief summary of their chosen studies in which Turkish data has been used.

Ozcaliskan & Slobin (2000a) analyzes how lexical preferences are affected by syntactic complexity, which suggests a relationship between syntactic and semantic formulation in determining lexical packaging. They assume that speakers tend to express more with

less effort in favour of practicality. Therefore, they expect that if the language have the means of offering manner and path information in a single verb clause (the other option would be manner as a subordinate), the speakers of the language is likely to opt for it. Furthermore, this can also have developmental implication in that children can start out encoding them separately or in distribution regardless of typology but switching to single verb forms of manner and path information or to verb + satellite constructions as they acquire the language. The developmental aspect roots from the earlier study of Ozcaliskan & Slobin (1999) which claims that children are perceptive of typological factors starting at the age of 3.

They have used the data from Brenan & Slobin's study (1994) which holds spoken narratives of "The Frog Story" (Mayer, 1969) of monolingual English and Turkish speakers with ages ranging as 3,5,7,9,10 and adults (Ozcaliskan & Slobin, 2000: 3).

In line with their expectation, they have found that V-language speakers prefer giving manner and path information in single verbs encoding only path in main verb if the option is available. When the single verb option is not available V-framed languages simply prefer using path verbs omitting manner. S-framed languages also behave in that way yet, manner presence is still higher than the V-framed language. Developmental variation is also observed for both languages.

> For Turkish speakers, the use of path verbs decreased with increasing age, and this change was accompanied by a steady increase in the use of manner-path conflated verbs. For English speakers, we also observed a steady increase in the use of manner-path conflated verbs with increasing age. (Ozcaliskan & Slobin, 2000: 7)

Such a result naturally has brought along a variety in motion event lexicon causing an increase in the number of manner verbs used by age (Ozcaliskan & Slobin, 2000).

Ozcaliskan & Slobin's other study (2003) focuses mainly on manner of motion expressions. Previously in our study, it has been mentioned that path information is at the core of motion event constructions and languages are categorized according to where they typically encode path information. S-framed languages typically encode path information in satellites leaving out main verb slot for manner. On the other hand,

V-framed languages typically encode path within main verb. Consequently, manner information must be given in other ways such as subordinate constructions or manner-only main verbs. By comparing English(s-framed) and Turkish(v-framed), their study investigates how exactly Turkish language speakers make up for this typological packaging optionally that is when manner information is not provided in the main verb slot. Their expectations are as follows:

> Turkish speakers do not typically elaborate manner of motion, due to constraints in conflation patterns for encoding path and manner; or (2) given the availability of alternative lexical means of encoding manner, Turkish speakers may encode manner information at comparable rates to English speakers. (Ozcaliskan & Slobin, 2003: 260)

Their samples come from written narratives taken from selected episodes in 18 different novels and oral narratives of "Frog, where are you?" (Mayer, 1969) titled wordless picture book.

Table 2: Percentage* of motion verb use in adult frog stories

	V:manner	V:path	V:neutral	V+V:m (SUB)
English	54%	30%	15%	1%
Turkish	30%	62%	7%	1%

*Percentages are based on the total number of motion verbs in each language.

Table 1: Percentage* of motion verb use in literary texts

	V:manner	V:path	V:neutral	V+V:manner(SUB)
English	51%	27%	20%	2%
Turkish	30%	59%	7%	4%

*Percentages are based on the total number of motion verbs in each language

Table 1. Motion verb percentages from Ozcaliskan & Slobin (2003)

Typological variation between the languages can clearly be observed from the tables above. This kind of variation in manner token numbers is also paralleled in manner verb types. English speakers used significantly more types of manner verbs in both written and oral narratives. Furthermore, the study has shown that Turkish speakers do not use subordinate clauses to encode manner often. Instead, they prefer using manner adverbials frequently e.g. "Evden yel gibi çıktı." (= he exited house like the wind) (pp. 265). In addition, their study takes the descriptions of physical setting and inner state or physical conditions of the moving entity as alternative lexical means for encoding

manner. However, such description are not reliable ways of doing so because the encoding can only be assumed or rather inferred from the description, they can or cannot be related to the motion event itself. Such lexical means are found both in English and Turkish often. The distinctive feature is that such items are used as a supplement to main verbs that encode path information in Turkish. However, English speakers use them with manner verbs more in order to expand the already given manner by adding details. These results support the claim that "V-framed language speakers' mental image of motion events is shaped with less focus on manner of motion compared to S-framed language speakers" (Ozcaliskan & Slobin, 2003: 267).

Typological variation studies comparing S-framed and V-framed languages are many; however, each one has different foci. Ozcaliskan (2004) reports that semantic components other than manner (i.e. path and ground) are not dealt with as much. She expands her study to metaphorical motion events in order to see if lexical distinctions apply to them as well. Earlier studies of Slobin (1996a, 1997) has shown that the possibility of adding more than one ground elements and path segments are higher in S-framed languages than V-framed languages. In her paper, Ozcaliskan (2004) investigates if this distinction can also be observed in metaphorical motion events. A metaphorical motion event can be considered as a "metaphor structured by source space domain" (e.g. "Depresyona girmek" (=enter depression) or "she fell in love) (Ozcaliskan, 2004: 76). Her expectations are that typological distinctions observed in literal motion events would apply to metaphorical motion event as they are: 1. Motion and manner components are typically conflated in S-framed languages. 2. Motion and path components are typically conflated in V-framed languages. 3. To encode path information S-framed languages use path satellites. 4. V-framed languages mainly use manner adverbial or adjuncts to convey manner outside of the verb. 5. Ground information is not typically given within the verb. 6. S-framed language speakers favour attaching more than one ground elements to only one verb (Ozcaliskan, 2004: 77). Her study makes use of 20 novels originally written in English and Turkish (10 for each) Complementing her expectations, typological distinction in literal motion event is clearly observable in the numbers manner and path verbs in metaphorical motion events. As for encoding manner outside of the verb, it is observed that English novels include more manner adverbials and adjuncts than Turkish novels. This is an interesting

result since Turkish would be expected to use them more as typically it has no slot available for manner because of encoding path within the main verb. Yet again, these manner adverbials/adjuncts mostly accompany manner verbs in English unlike Turkish in which they accompany path verbs, which is also found in Ozcaliskan & Slobin's (2000) previously mentioned study. When it comes to the encoding of path information outside of the main verb, Ozcaliskan's (2004) study considers case marking suffixes for Turkish as the most common path segments outside of the verb (which are path satellites for S-framed languages) Despite the "inflectional morphology of Turkish which allows easy encoding of path information outside the verb" (Ozcaliskan, 2004: 87). English uses more path satellites and tends to attach more path segments to a single verb construction than Turkish in metaphorical motion events. The analysis of ground components in both languages has revealed no differences between them in the number of ground elements in total or attached to a single verb, which is against what is predicted by Slobin (1997).

Typological variation and its cognitive implications mentioned above are investigated based on verbal expressions at first. Researchers have looked for alternative ways to attest the typology and its implications. To this end, gestures - non-verbal expressions that can accompany speech - have been used in numerous studies because of their assumed high relationship to speech.

2.2 Gesture and Speech

In the previous chapter, spontaneous gestures co-occurring with speech are categorized (i.e. iconic, metaphorical, deictic, butterworths and beat). Those are the gestures that intrigued researchers the most due to their representational affordance of speech. However, not all gestures have such quality. Following Kendon's (1988) work which points out the ways how gestures can be linked to communicative purposes and actualization, McNeill (1992) systematizes a "continuum" of gestures depending on gesture autonomy and representativeness.

Gesticulation > Speech-framed gestures > Pantomimes > Emblems > Sign languages.

Figure 7. Kendon's Continuum

As we follow the arrows from gesticulation to sign languages, it is possible to observe two differences. "First the degree to which speech is an obligatory accompaniment of gesture *decreases*. Second, the degree to which gesture shows the properties of a language *increases*" (McNeill, 2010). Along these lines, gesticulations carry the most similar information to the accompanying speech. Gesticulations are produced mainly through hand movements. It must be noted that when we say gesture, we do not necessarily mean only hand movements but also torso, legs, feet and head movements as well. Gesticulations are synched with speech and have communicative purpose (McNeill, 1992). Speech-framed gestures are used to add information which is not presented within the speech. Consider the following as an example for such gestures:

(4) Sabri is walking. [hand gesture of swinging object in a side while saying "walking"]

Unlike gesticulations, the gesture here does not synchronize with a particular part in the utterance in terms of content. Instead, it fills an information slot which hinders gesture and speech temporal coordination, which is swinging an umbrella whilst walking in (4). Emblems are relatively inflexible gestures which vary culturally or do not exist at all. They are autonomous and can be used instead of speech. Unlike gesticulations, emblems can be fully translated as they do not require co-expressions to be meaningful, which suggests standard and conventional forms. Less polite gestures that people occasionally use to show our offensive emotions to other people are also considered as emblems. Emblems occur rarely in during speech compared to gesticulations. Pantomimes are familiar to most by its name. They are consecutive gestures which are ordered in a narrative fashion to tell a story without speech. If we look back on the continuum at this point, it can be observed that accompanying speech presence has been lost consistently from obligatory presence to obligatory absence. At the utmost end of the continuum we have sign languages. Each lexical word in a sign language is considered as a gesture. Sign languages have systematic structures, syntax, lexicon, morphology which are independent from a spoken language spoken in the same



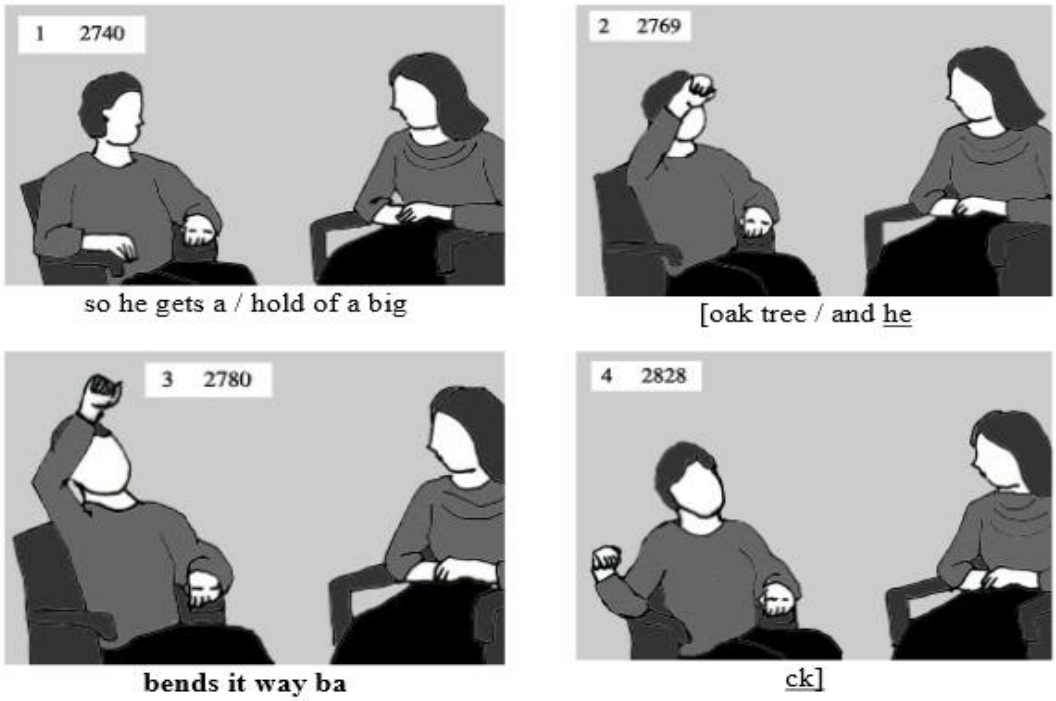
Figure 8. OK emblem

communities. Considering the motivation behind the emergence of sign languages, they obligatorily do not require the existence of speech. In the general scheme of this study, the word "gesture" is used to refer iconic gestures for practicality.

2.2.1 Gesture Production Phases

Gesture phases refer to the temporal state of hands in the process of gesture productions. The general aim of gesture phases is to match the most effortful part of the gesture (stroke) with the co-expressive part of the accompanying speech (McNeill, 2010).

Following figure exemplifies gesture phases which have taken place in 1.5 seconds:



Panel 1. **Pre-preparation position**. Hand is shown just prior to lifting off from the armrest.
Panel 2. A **Prestroke hold** occurs while saying "he" – the hand waiting for "bends." This figure decpicts the hand at the start position of the stroke (ready to pull down and to the rear). The preparation interval was slightly less than 1 second.
Panel 3. Middle of **stroke** – "way" The hand has closed around the 'oak tree' and is moving downward and to the rear. Note how the speaker's own position in space defines the location of the oak tree and the direction of the bending back movement – the gesture framed according to a 'first-person' or 'character' viewpoint.
Panel 4. End of stroke and beginning of the **poststroke hold** in the middle of "back." Hand is at its farthest point to the rear. After the poststroke hold, the hand immediately launched into a new gesture.

Figure 9. Gesture Phases of "so he gets a hold of a big oak tree and he bends it way back" (McNeill, 2010)

There is another phase which is not in the figure, *retraction*. It is basically the phase in which hands return to a relaxed position after the completion of gesture. According to

Kendon (1980), a gesture phrase is where a gesture comes to life and dies. A gesture phrase involves up to 5 phases. The first one is *preparation* and it is optional. In this part, the means of gesture (i.e. arm) moves from the relaxed position to the position where gesture stroke takes place complementing to speaker's mental representation. *Stroke* is the only obligatory phase in the production of a gesture. It is the most effortful part of the gesture and it carries actual relatable meaning. *Retraction* is an optional phase which is already explained as being the end phase. *Pre and Post-stroke hold phases* are short freezes either before or after the stroke phase. Their function is to make sure that the stroke phase and co-expressive speech meet. Pre and Post hold phases set a basis for claim that gesture and speech in fact forms an ideal entity which must be already there in mind at the start of the production.

It must be noted that only gesticulations are supposed to match with the stroke phase of a gesture due to relatability in content. McNeill (2005) claims that speech and gesture's temporal alignment resists to the factors trying to separate them in several situations. For example, delayed auditory feedback is known to affect human speech and emotions such as causing stress (Badian et. al, 1979; Perkell et. al, 1997). It is a method that enables a speaker to speak to microphone and hear her voice through a headphone with a slight delay. Despite the disruptions and slower speech, speech and gesture synchrony is maintained (McNeill, 2005). Mayberry & Jaques (2000) also reports that speech and gesture synchrony remains not disrupted in stuttering. In their study, it is observed that when stuttering match with a gesture stroke, the gesture waits or gets cancelled. Another evidence comes from blind-from-birth speakers. They are known to use gestures as much as people with sight in spite of the fact that they know they are talking to another blind person (Iverson & Goldin-Meadow, 1998). Lastly, information acquired from speech or gesture can be recalled as being transmitted via gesture or speech regardless of the actual source (McNeill, 2005).

2.2.2 Gesture Production Theories

Abovementioned studies make it clear that spontaneous gestures accompanying speech carry information in line with the speech. However, how information encoding process is achieved has been subject to different theoretical proposals. There are three hypotheses explaining the cognitive process of gesture production in relation to speech

production. They are 1. The Free Image Hypothesis (Krauss et al. 1996; 2000), 2. The Lexical Semantic Hypothesis (Butterworth & Hadar, 1989), 3. The Interface Hypothesis (Kita & Ozyurek, 2003).

The Free Imagery Hypothesis assumes that gestures are produced via the mental images stored in working-memory, which are drawn based on thought processes and events stored in long-term memories. An important point in Krauss et al.'s studies (1996, 2000) is that gesture generation is assumed to occur before the linguistic generation of speech. This feature leads to the prediction that gestures should not be affected from the verbal expression of information. However, it has been reported in several studies that linguistic variation affects imagistic representation of events (McNeill, 1992; Duncan & McNeill, 2000; Ozyurek & Kita, 1999). For example, Ozyurek & Kita (1999) claims that separate conceptualization of motion events in Turkish resulting from the expressions of manner and path information in separate clauses within a single sentence also affects gesture formulation. In the study, Turkish speakers are found to gesture manner and path in two separate gestures or to ignore one component in the gesture altogether. English, on the other hand, is found to conflate manner and path information in one gesture complementing to the linguistic coding of the components within a clause in similar situations.

The Lexical Semantic Hypothesis claims that gestures are generated from one of the semantic features of lexical items in speech (Butterworth & Hadar, 1989). Kita & Ozyurek (2003) reports that it was Schegloff (1984) who initially proposed the idea that gestures stem from lexical items. Thus, it can be inferred from the hypothesis that gestures cannot contain information that is not encoded linguistically. Previously in this chapter, speech-framed gestures are distinguished from other gestures exactly due to their feature of encoding information that is not given in speech.

Lastly, Interface Hypothesis adopting Slobin's thinking-for-speaking theory suggests that gestures come from "interface between speaking and spatial thinking" (Kita & Ozyurek, 2003: 17). A gesture is claimed to be formed concurrently by:

> 1. How information is organized in the easily accessible linguistic expression that is concise enough to fit within a processing unit for speech production.

> 2. The spatio-motoric properties of the referent (which may or may not be verbally expressed) (Kita & Ozyurek, 2003: 18)

Considering the statements above, it is possible to say that The Interface Hypothesis draws from the other hypotheses. In their study, Kita & Ozyurek (2003) investigates cross-linguistic data from English, Turkish and Japanese for cross-linguistic data in attempt to provide evidence against The Free Imagery Hypothesis and The Lexical Semantic Hypothesis. They confirm that gestures show similar semantic content to their co-expressive speech while also maintaining the possibility of adding extra information which is not given in speech. Furthermore, they report that how gestures encode such information varies cross-linguistically. The Interface Hypothesis builds on Levelt's (1989) model of speech production with considerable modifications (Kita & Ozyurek, 2003). It is also designed to integrate the Growth Point Theory proposed by McNeill & Duncan (2000) (originally by McNeill, 1992) in that co-dependent imagistic and linguistic representations forms an analytic unit.

2.2.3 The Growth Point

Gesture and speech synchrony and their solid binding lead to the proposal of the theoretical unit, growth point (GP), which blends imagery and linguistic content analytically (McNeill & Duncan, 2000). It is considered to be the *minimal psychological unit* that keeps the basic features of an image and linguistic coding (McNeill & Duncan, 2000). A GP is not applicable to all kinds of gestures because, in nature, it requires relatable content and synchrony (see gesticulations above). In order to locate a GP, the synchrony and the semantic content of the gesture and linguistic items are used since GP is assumed to be codified in them. Consider the example in Figure 9. The images are of a person bending back a tree branch which he holds in his hand. The linguistic items "it" and "back" and the gesture also demonstrates the spatial thinking of an object being moved back in a certain fashion by an agent. McNeill & Duncan (2000) summarize GP theory as the following:

> A GP is neither word nor image. It is thinking in global imagery and linguistic categories simultaneously. Its essential feature is a dialectic of these forms of thinking, and it gives rise to speech and gesture through their collaboration...Speech-gesture synchrony is therefore explained genetically,

> as an inevitable consequence of how the idea unit itself took form and its resistance to interruption during unpacking. Speech-gesture synchrony could not be otherwise with an initial organizing impulse of this sort. Thinking, according to this hypothesis, is both global and segmented, idiosyncratic and linguistically patterned. The implied model of language production is then isn't G→L; that is, language is not a translation of imagery. Nor is it L→G, meaning that the gesture depends "sequentially and organizationally" on language. (McNeill & Duncan, 2000: 8, 9)

All DAF experiments, studies on stutter and interaction gaps and fluency investigating gesture and speech synchrony mentioned above offer evidence for the Growth Point Theory. In addition, Slobin's (1987) thinking-for-speaking also acknowledges imagistic and linguistic representations as fundamentally united since their interaction makes it possible to influence each other, which serves as a channel between cognition and language (McNeill & Duncan, 2000).

Because GPs are meaningful, they have to be extracted from communicative events with an aim of conveying a message. However, there are controversies about the functions of gesture dealing with whether they are communicative (listener-oriented) or they are for speech production (speaker-oriented), which assumes speech and gesture productions to be governed by a single system or two different systems respectively (see McNeill, 1985, 1992, 2000; Krauss et. al. 2000; Hadar & Butterworth, 1997). There are many different studies which imply an either/or stance in which gestures seem to have different functions based on different situations. It has been reported that we still use gestures in the absence of a listener (Rimé, 1982). Then again, the number of gestures used increases as a listener is present and seen by the speaker (Cassell, 1998; Mol et al. 2011). This increase in rate can be interpreted as being a result of having communicative purpose. There are several studies which have offered evidence for communicative function of co-speech gestures which add significant information to the speakers' message (Holler et al. 2009; Kelly & Church, 1998). Social context of conversation such as the location of the addressee is also found to have affects on gesture adjustment (Ozyurek, 2002). Furthermore, conversation analysts have also presented analyses which have shown the effects of co-speech gestures on the organization of turns and mutual appointing (de Fornel, 1992;

Goodwin, 1986, 2000). For instance, pointing gestures (deictic gestures in McNeill's (1992) taxonomy) are observed to serve as means for estimating self-selection, transition and speech turn assignment (Mondada, 2007). Gesture-in-interaction studies have also focused on addressee feedback. Tabensky (2001) has investigated how speakers rephrase the other speakers' gestures in conversations. It has been found that rephrased gestures offer feedback to addressees based on the gestures that have been previously equipped with new/modified interpretations. Similarly, there are other studies which focus on the reproduction of the same gestures by the speakers in interaction, which is known as gesture mimicry or return gestures (Holler & Wilkin, 2011; de Fornel, 1992; Kimbara, 2006, 2008). Holler & Wilkin (2011) categorized mimicked gestures into three groups based on their functions. First group is *presentations*, which serves as "conceptual pacts" according to which a specific body is conceptualized by the interlocutors. These gestures show the concept they are talking about is the same and shared. The second group consists of gestures showing *acceptance*. They co-occur with expressions of acceptance and referring expressions, which leaves less room for questioning whether the interlocutor has understood the message or not such as "yeah, a large bottle of beer". The last group is *displaying incremental understanding*. They tend to occur without speech and addressees signal speakers an increase in understanding as well as an effort to reach mutual conceptualization. All in all, what their study shows that gesture mimicry serves to create a joint understanding and it is essential for collaborative use of language. How speakers alter their gestures with regards to particular addressee feedback has also been investigated by researchers. Streeck (1993, 1994) puts forward the ways in which addressees shape the gestures of speakers. His findings show that speakers are responsive to addressees' behaviour, especially to gaze direction. For instance, addressees' aversion of gaze causes the previous gesture to be reproduced in a more representative and visible way when gaze returns to speakers (Streeck, 1994). Speakers are also observed to clearly merge their iconic gestures into speech using deictic markers (e.g it is *this* small, she fell like that), which draws attention to accompanying gesture (Goodwin, 1986). Another strategy to mark communicative relevance used by speakers is shifting their gaze

to their gestures. (Goodwin, 1986; Streeck, 1993) This valid attention target is found to be respected by interlocutors too (Gullberg & Holmqvist, 2006). Considering the results of all abovementioned studies, speakers have to make sure that their communicative objective can be conceived by the listener both in linguistic and non-linguistic elements. This means that verbal and non-verbal elements in utterances are listener-oriented. However, a message we want to convey can be successfully transmitted to a listener when there is no gesture (i.e. when on phone etc.), which makes gesture not an essential part to speech. On the other hand, it must also be noted that listeners can look for gesture content to interpret speech when speech recognition is prevented for some reason (Rogers, 1978; Thompson & Massaro, 1986). Similarly, Cassell et al. (1999) report that when participants are subjected to different information (extra or opposing) encoded in speech and gesture, they synthesize the information in both speech and gesture into a single representation, which has co-dependency implications for speech and gesture production systems. McNeill (1985) in another study takes a different perspective by taking neurological damage into consideration. He suggests that gesture, just like speech, is also affected by Broca's and Wernicke's types of aphasia. For example, in Brocka's patients "retain the ability to create referential gestures but have lost the ability to mark interrelations of items parallel to with the dissolution of the ability combine linguistic symbols" (McNeill, 1985: 362). On the same issue, Hadar et al. (1998) argue that gestures facilitate lexical retrieval based on their gesture data coming from brain-damaged patients with different conditions as previously claimed by Hadar & Butterworth (1997) and Butterworth & Hadar (1989). Krauss (1998) supports Hadar et al.'s (1998) study with evidence found from gestures in rehearsed and spontaneous speech by analyzing gesture and speech synchrony, the effect of linguistic content on gesture and the effect of gesture production hindrance on speech production. He concludes that gesture aids the production of speech by helping out retrieving words from memory.

To sum up, the collection of the studies already set the points which can reveal the functions of gestures accompanying speech clearly. However, there still seems to be an unsolved controversy about the issue.

2.3 Gesture & Information Structure

In all GP explanations and examples there is the proposal that GPs are gleaned from speech and gesture synchronizations, which aim to convey a message that is particularly *important* in context. Such momentous points mark the departure from the previous discourse, which are called *psychological predicates* by Vygotsky (McNeill & Duncan, 2000). Vygotsky's psychological segmentation is different from grammatical segmentation (grammatical subject and predicate) as it focuses on consciousness and context. Vygotsky explains the psychological segmentation and its difference from grammatical with the following examples:

> Consider the sentence "The clock fell." In it "the clock" is the subject, and "fell" is the predicate. Imagine that this sentence is uttered twice in different situations and consequently expresses two different thoughts using one and the same form. I direct your attention to where the clock lies and ask how that happened. I receive the answer, "The clock fell." In this case the notion of the clock was already in my consciousness; the clock is the psychological subject, which the speech is about. The notion that the clock fell emerges second. In this case "fell" is the psychological predicate, that which is said about the subject. In this case the grammatical and psychological segmentation of the sentence coincide, but they also may not coincide. Working at a table I hear the noise caused by a falling object and ask what fell. In response I am answered with the same sentence, "The clock fell." In this case the notion that something fell is my consciousness first; "fell" is what is spoken about, that is, the psychological subject. What is to be said of this subject, what emerges second in consciousness, is the notion of clock, which in this case is the psychological predicate. In essence this idea can be expressed as follows: what has fallen is the clock. In this case the psychological and grammatical predicate would coincide, but in our example they do not. Our analysis shows that in a complex sentence any member can be the psychological predicate. When something is the psychological predicate, it carries the logical stress, the semantic function of which is the setting off of the psychological predicate. (Wertsch, 1985: 141)

In other words, a psychological subject is what appears in the consciousness of the addressee earliest in order; and a psychological predicate is what is being newly declared about the subject.

McNeill & Duncan (2000) consider a GP as a psychological predicate. As they put it, "the psychological predicate: (1) marks a significant departure in immediate context and (2) implies this context as background" (Duncan & McNeill, 2000: 8). In this way, GP

and speech context are able to be connected via a theoretical basis. This approach clearly suggests that "differentiation of a focus from a background contributes to GP construction" (McNeill, 2010: 8).

Nobe (1996) provides evidence for GP as a psychological predicate claim using acoustic features of speech. Nobe has found that gesture strokes and acoustic peaks are closely tied in a temporal relationship (see Kendon; 1980; McNeill, 1992; Loehr, 2004). Such synchrony of gesture and acoustic peaks suggest that information carried in speech and accompanying gesture is evidently important as it is marked by prosody. In fact, it has a lot in common with Halliday's (1967) new and old information in context. He terms parts of sentences which offer new, contrastive and non-deductive information as *focus*. As mentioned in the previous chapter, the focus of the sentences are known to carry important information (Bolinger, 1972) complementing Vygotsky's psychological predicates. In other words, the information structure of sentences establishes a connection to other sentences in discourse or to the collection of related knowledge. What Nobe's (1996) study makes use of are the claims that "intonation belongs more with gesture than with grammar" (Bolinger, 1983: 157) and that there are phonetic actualizations of focus such as pitch, length and intensity (Büring, 1997). However, there are differences in how languages mark focus of the sentences using prosody. Languages such as English, German and Greek mark prominence hence focus via pitch accents. For example, in English a nuclear pitch accent on the primary stressed syllable followed by the deaccentuation marks the focus (Ladd, 1996). For other languages like Chinese which has lexical tones but no pitch accents and focus is marked via changes in pitch range and duration (Xu, 1999). Lastly, languages like Korean and Japanese mark focus via phrasing, which has to do with grouping of tones and downsteps (see Selkirk & Tateishi, 1991; Isihara, 2003 for details).

As for Turkish, it is claimed that pitch is the most reliable cue for marking prominence in word level as well as in larger domains, which outlines that accent and focus are in close relationship (Kamali, 2011). For the most part, Turkish tonal phenomena seem to require more studies in order to be fully understood. Issues like focus phrasing and whether Turkish is a pitch accented language need further explanation. Commenting and detailing such topics are far from the scope of this study. Instead, this study follows

Kamali's (2011) study in the tonal marking of focus and phrasing as it seems to be the one of the most extensive study on Turkish tonal events. Thus, the reader is referred to Kamali's (2011) study for details and issues not mentioned in here. Kamali's study will be introduced in detail in the next chapter (Methodology) as its content is used as a means for data analysis.

In general there are several studies on information structure and gestures. For example, Wilkin & Holler (2011) investigate gestures accompanying new and old information while including definite and indefinite articles, which reveals that definite articles correlate with iconic gestures whereas indefinite articles do so with deictic gestures. Cassell et al. (1994) uses intonation and gestures relationship in an animated conversation generation system. They assume that allocation of intonation is akin to gestures' in three aspects: (1) Gesture units and intonation units (as they term it) start and end at the same time. (2) Gesture stroke and pitch accent takes place concurrently (3) Gestures co-occur with focal parts of speech (Cassell, 1998). Following their framework their agent was able understand and respond to speech and gestures. In a similar study, Cassell et al. (2001) provides data supporting the relationship between posture shifts and discourse structure making use of the correlation between gesture and sentence parts carrying important information. Their approach has improved "the animated conversational agent's" naturalness in non-verbal behaviour during conversation.

Despite the number of studies on gesture and information structure, there are not many studies that investigate gesture and focus relationship specifically. The alignment of main accents of utterances with gesture strokes is widely accepted. Yet, no studies cover accentuation in relation to sentential focus including gestures in a systematic way except for Ebert et al.'s (2011) study. They hypothesize that gesture can be used to remove ambiguity with regard to focus position just like intonation and word order. They also point out the gap in the literature by stating that although the alignment of smaller units like accents and strokes are investigated, there are no studies dealing with alignment in phrasal level (i.e. Focus phrase and gesture phrase). More specifically, in their study they claim that the "onset" of a gesture phrase and the leftmost member of focus phrase co-occur. To assay their proposal, they have analyzed gesture and focus temporal

alignments. They make use of an already annotated Bielefeld SAGA (Speech and Gesture Alignment) corpus. Because the corpus only demonstrates kinds of gestures, they have additionally annotated focus positions and some intonational phenomena. Only 20 minutes of speech is analyzed by finding focus phrases and corresponding gestural phrases in utterances, which is included only when the stroke phase of gesture overlaps with a main accent. Their results show that main accents and gestures indeed align as foretold in earlier studies. In addition, they report that gesture and focus onsets align but not their offsets confirming their hypothesis that "gestures are a means of marking information structure next to intonational and syntactic means, i.e. speech-accompanying gestures can indicate focus domains" (Ebert et al, 2011: 204). Although they state that their study shows gestures can be used to disambiguate "even when intonation is taken into account", they do not present actual samples which can be interpreted as disambiguation by gestures. Gestures' close relation with the main accent of the utterances might be the only reason causing the temporal correspondence between the onsets. The correlation of an optional unit for disambiguation process is not reliable as pre-stroke holds are optional in gesture phrases functioning only to ensure the match of speech and gesture strokes. Furthermore, they couldn't find a similar result for offsets of the phrases even though they removed retraction phase. The proposal that post-stroke holds are also optional phases in gesture phrases contributes to the controversy which suggests a need for further evidence.

The most similar study to our second part of the study comes from Chui (2009). Her study explores motion event expressions and their accompanying gestures in Chinese discourse. The study comes up as a counter-argument to the study of McNeill & Duncan (2000) which is touched upon in Growth Point introduction section within this chapter. In addition to their GP elaboration, they have also provided evidence to the theory by comparing motion event descriptions and their accompanying gestures in English, Spanish and Chinese. Firstly, they present how those languages downplay manner information. English speakers are claimed to gesture manner information when it is in focus. In contrast, Spanish speakers prefer using path verbs in general with the gestural supplementation of manner. When it comes to Chinese, they claim that motion event gestures in Chinese are produced in the beginning of utterances complementing to the topic-prominent feature of Chinese (see Li & Thompson, 1981 for typology). Chui

(2009) spots two problems in McNeill & Duncan's (2000) study. First one has to do with focus identification. Because in their study they do not give a clear definition of what/how they consider as the focussed part in an utterance, Chui (2009) sees the claim that "stroke and manner information synchronization in English and Spanish depends on focus" as circular problem in that the identification focus depends on the true synchrony of the speech and stroke. Secondly, Chui (2009) reports that unlike McNeill & Duncan's (2000) generalisation, her Chinese discourse data do not represent the specific characteristic of a topic-prominent as motion event gestures are not found to precede their linguistic representations. On the contrary, they are found to synchronize with the gesture strokes just like English and Spanish which are subject-prominent languages, which suggests a controversy between gestures and language typology. However, Chui's (2009) data reports only %51 synchronization of stroke and speech. %49 mismatch is probably a significant difference when compared to an analysis from a subject-prominent language, which is subject to further analysis. An extensive description of gestures of motion events in Chinese discourse is also provided in the study. Manner information is found to be encoded in single verb forms quite often yet not gestured frequently. Path information is conveyed usually in prepositional phrases and verbs and is gestured more frequently compared to manner. Chui (2009) supports her claim that linguistic typology and gestures do not have anything to do with each other stating that similar results can also be observed in English which belongs to a different category in motion event typology. (English S-framed; Chinese Equipollently-framed) Namely, similarities in gesturing in typologically different languages go against the essence of such categorization of languages. Chui's (2009) study resembles our study in that it includes references to information structure, gesture and motion event typology. This study will try to clarify focus relation to gesture in Turkish using intonation. In addition, the study at hand provides data from Turkish discourse for comparison with Chinese data, which can potentially support or oppose Chui's claim.

The next chapter introduces the method equipped in order to meet the research objectives which are synthesized from these basic concepts and previous studies mentioned above.

CHAPTER 3

METHODOLOGY

In order to be able to answer the research questions, first a small spoken corpus of motion events expressions annotated with gesture strokes and motion event components must be compiled, which is then followed by marking of focus for certain units. The method employed in doing so is detailed in this chapter.

3.1 Participants

54 participants were involved within the study. The participants were called up in pairs as the main speaker and the addressee (27 pairs in total). However, only the narrations that had the following conditions were included in the study: (1) The narrations have at least one iconic gesture (2) The narrator places his/her hands in a position which allows gesture production throughout the narration (as they had been instructed). As a result of these criteria, 7 narrations were excluded from the study. The participants were undergraduate students (second, third and fourth grade) of Hacettepe University. All participants were native Turkish speakers who were adults with ages varying between 19 and 22. The participants were selected at convenience regarding their availability and the availability of the room in which the sessions took place. Since the study aims to investigate the cognitive processes of speech and gesture interrelation and motion event conceptualization, gender and socio-cultural background variables were not taken into consideration.

3.2 Stimuli

The narrations of stories are the most suitable way to capture online speaking with accompanying gestures while not controlling the production strictly. The oral narrations used in this study were elicited from the participants using stimuli consisting of a black and white wordless picture book that tells the story of a boy and his dog searching for a pet frog which escaped from its jar at home into the forest. The picture-book used in this study was an edited version of Mayer's (1969) book "Frog, where are you?" which has sufficient number of motion events to create a database for analysis. The edition of the picture book was done in order to eliminate pictures which present several motion

events simultaneously which may lead to the skipping of some motion event expressions and gestures lowering sample size as a result. In addition, the edition of the pictures allowed bringing forward manner and path information in some motion events which otherwise was not very perceptible (e.g. whether a character is moving to which direction; is the figure taking a step or running). As a projector was used to reflect the images, too much drawing details made the projection blurry. Accordingly, in addition to preceding reasons, drawing details was also reduced for clarity.



Figure 10. Edited version (left) vs. Original version (right) of the same scene

In the process of editing two raters were advised in order to spot and check the scope of editing. The raters had been briefed about the subject beforehand. After the edition the story went from 24 pictures to 34 pictures overall.

3.3 Design & Procedure

In their university, the participants were called up to a quiet and large room in which the sessions took place. Each session required 2 native Turkish speakers. One of them was the main speaker and the other one was the addressee whose main purpose to be in the room is to listen to the speaker and to ask details and questions when/if they could not figure out something in the story the speakers was telling. The existence of an addressee instead of just a voice recorder may lead to a more natural conversation as well as to the possible reduction of shyness and discomfort as their pairs were their classmates with whom they wanted to come along. In addition, seeing the target audience is found to increase the gesture production rate (Mol et al., 2011). The participation in the study was voluntary and the participants were informed that they could stop and leave the session anytime if they so desired. They were rewarded in grade points for their

participation by their instructors. They were also informed about video recording process and ensured that their data would be confidential and were going to be used only for academic purposes.

Upon entering the room, the pairs were seated face to face. Again depending on the willingness of individuals, one of the participants in a pair was asked to narrate the story told in pictures which were casted onto a screen via a projector readily available in the session room. The pairs were given a very brief oral summary of the story as a warm-up, which was followed by instruction process about the participants' function in the narrations as the narrator and the addressee in the way that is mentioned above. They were also instructed not to hold anything in their hands, cross arms or clasp their hands so as not to hinder gesture production (the aim was not told). The pictures were showed one by one to the narrator without delay as the pairs finished talking about the picture projected. Since they were facing each other, only the designated narrator could see the screen, which was essential in order to create a conversation. The narrations were video recorded. Recordings lasted 5 to 12 minutes. Overall, 2 hours and 42 minutes of speech was acquired from 20 pairs of participants. After the narrations were started the researcher did not interrupted the participants asking for elaboration even if the participants did not mention the target motion event(s) (and its specific components explicitly) or did not gesture at all.

In no part of the sessions the participants were told the focus of the study was on gestures and motion events as that might cause artificial productions. Their class instructors, who had been asked for permission and been briefed about the study, informed the participants about the aim and focus of the study only after the completion of all recordings. They were also encouraged to contact Assist. Prof. Dr. Zeynep Doyuran, at the Department of English Linguistics, for more information and the results of the study.

3.4 Data Analysis

3.4.1 Transcription & Coding

3.4.1.1 Speech Transcription

All speech which has to do with motion events was relevantly transcribed by the researcher who is a native speaker of Turkish using ELAN which is a professional tool for annotating video recordings and audio tracks under multiple layers which can be inter-connected (Lausberg & Sloetjes, 2009). It must be noted that speech was transcribed partially; that is to say, the utterances that included motion verbs encoding neutral or path/manner information were marked, segmented in clauses and transcribed accordingly. Subordinate clauses as well as main clauses were transcribed as separate motion events unless subordinate clauses contained manner information associated to a motion verb in main clause. In other cases of motion subordination with converbs which referred to other motion events conveying temporal relation to what was expressed in the main verb, the sentences were cut off after the motion event and not transcribed. Consider the following as examples for segmentation of clauses indicated with brackets: (i.e. only the words between the brackets were transcribed)

(5a) O aşağıya bakıyor ve [... kurbağa da zıplayarak gidiyor.]

It down-DAT look-PRES [frog jump-CONV go-PRES]

(5b) ... [Çocuk dışarı çıkıyor.] ...

[Kid outside exit-PRES]

(5c) [Eve giderken ...] şarkı söylüyor.

[Home-DAT go-CONV] (he) sing-PRES

Only targeted event descriptions in speech were annotated in speech tier in ELAN.

3.4.1.2 Speech Coding

Every target-event description annotated was coded again by the same researcher with respect to motion event components and the information they encode. In addition to the

identification of figure (the moving object), ground (the referent object), path (trajectory), manner (form of movement) components, those components were analyzed and marked under several different linguistics categories being:

1. Main verbs,
2. Gerunds,
3. Verbal adjectives (adjectival),
4. Verbal adverb (adverbial),
5. Noun phrases and their affixed forms
6. Postpositional phrases
7. Verb particles (e.g. -Ivermek),
8. Deictic words

Information state of each component was also identified as given/new. Motion verbs were categorized under three groups being manner verbs (e.g. yürümek = to walk), path verbs (e.g. çıkmak = to exit) and neutral verb (e.g. hareket etmek = to move). Lexical diversity was calculated by listing the different verbs in each category. The target event descriptions that included path information and manner information in subordination for the same motion event were marked and listed in order to be used in the second path of the data analysis. The following is an example of the coding sequence:

(6) [Çocuk delikten aşağıya doğru yuvarlanarak iniyor.]

Boy hole-ABL down-DAT towards tumble-CONN descend-PRES

Coding: *Figure (given) Ground 1 (given, NP+ Abl) Ground 2 (new, deictic) Postposition (-A) Manner verb (new, verbal adverb) Path verb (Main verb, new) [2 ground, 3 path, (Abl, Post, main verb) 1 manner]*

What makes Turkish different from many other languages is that it allows the speakers to encode path information several times outside of the verb through inflections, deictic words and postpositions. Ablative and dative cases on ground components are commonly used to determine a complete path (Ibarretxe-Antuñano, 2004) in which a figure starts and ends moving from its source to its goal as it can observed in (6). Manner information can also be expressed outside of verbals/verbs in adverbs.

(7a) Bir hışımla çıktı. (= (She) rapidly exited)

(7b) Hızlıca oraya koşuyor. (= (She) quickly there running)

As it is exemplified in (7a) and (7b) manner information can also be given outside of the verb regardless of the main verb category (manner or path) either complementing to core path information by adding a manner or contributing to the already existing manner by adding another domain such as speed. Accordingly, for each component how many times the relevant information was packaged in speech was also calculated in the analysis.

3.4.1.3 Gesture Transcription

All gestures that accompany target event descriptions were transcribed regardless of what component they co-occur with. In order to decide which information the gestures encoded, the stroke phase of gestures (Kendon, 1982; McNeill, 1992, 2010) were set apart and analyzed frame by frame using ELAN following Kita, van Gjin & van der Hulst's (1998) study which is also employed in similar studies such as Ozyurek et al. (2005, 2008). Kita, van Gjin & van der Hulst's (1998) study propose a "syntagmatic rule system" laying out the segmentation and identification of movement phases in gestures and sign languages. Their proposal is basically the same as McNeill's (1992, 2010), which have already been mentioned in the previous chapter. As an addition, Kita, van Gjin & van der Hulst's (1998) study provides descriptive criteria for the units of analysis such as the interpretation of limb movements. Therefore, it will not be further detailed here.

3.4.1.4 Gesture Coding

Only the iconic gestures identified within target event descriptions were categorized according to which information related to a motion event component they encode. Namely, there were 5 categories of gestures which are: *path gestures* showing the trajectory of a locational change without manner (e.g arrow like movement of hand forward to represent the trajectory of "going"), *manner gestures* showing the form of movement without trajectory (e.g. index finger successively drawing a semi-circle in the same area to represent jumping), *manner/path conflated gestures* showing both form and trajectory of motion in a single gesture stroke (e.g. index finger successively drawing semi-circles while the hand moves forward.), *figure gestures* showing a quality(s) of the moving object/subject (e.g all fingers in both hands raised

symmetrically curved towards the palms just enough to leave a hole that a wood branch to be thrown can fit) and *ground gestures* showing a quality(s) of an object/subject other than the moving object with reference to which the movement takes place (e.g hands drawing a rooftop to represent a house that a figure is moving towards).

Although the study assumes that gesture strokes and their accompanying linguistic representation co-occur, there might be some cases of mismatch between those units. Because the first part of the study is interested in gesture and speech distribution, the mismatches and asynchrony between gesture strokes and linguistic components they correspond were noted and analyzed. It must be noted that slight extensions to other components were also tolerated.

Following GP theory (McNeill & Duncan, 2000), all gestures (with certain exceptions such as the ones functioning for lexical retrieval) should be on new elements in context. In an attempt to identify possible matches between given elements and gesture strokes, gestures that were not on new elements were also marked. Speech-framed gestures were also marked in order to see at what rates gestures made up for the information missing in linguistic expressions of motion event in Turkish.

To establish reliability in preceding transcription and coding sequences for speech and gestures, 25% of all data was transcribed and coded by another coder who had sufficient knowledge on the topic at hand. The agreement between the coders was 100%.

3.4.2 Focus Marking

In the second part of the analysis, selected motion event expressions which concurrently encode manner and path information for the same event (without conjunctions) were analyzed in order to find the relationship between focus position and gesture.

It was already mentioned that pitch (F0) is the most dependable signal for focus marking (Kamali, 2011). In order to get pitch tracks selected target motion event descriptions were cut off from their original video recordings and converted into ".wav" files. There were 41 target motion event descriptions fitting to the criteria sought. However, 3 of the utterances were excluded since those target components were too far away from each other. That is, one component was added due to a self-monitoring after

a silent period, which occurred as a result of the end of the actual utterance. Such occasions could not produce healthy pitch track analyses. The remaining target descriptions came from 17 participants as 3 participants did not produce any motion event packaging in the desired format. The sound files lasted 3 to 10 seconds. The extracted files were transferred to Praat (Boersma & Weenink 1992-2010) for pitch track analysis. To get more accurate and smoothened F0 tracks and to remove sharp edges and spikes ProsodyPro Praat script (Xu, 2013) was used.

Analyses using Praat was guided by Kamali's (2011) study in which she investigates prosodic marking of focus in Turkish and her findings are as follows:

The pre-nuclear area (the area before focus):

> A high tone is found at the right edge of both regularly stressed and lexically accented words. (Kamali, 2011: 70)

Nuclear area (the focussed area):

> ...a pervasive realization of the nuclear domain is in the form of a plateau followed by an elbow... Finally stressed words retain a plateau throughout with no marking on the final syllable while lexically accented words show an early fall starting from the lexical accent until the post-nuclear onset. (Kamali, 2011: 74-77)

Post-nuclear area (the area after focus):

> The post-nuclear verb starts off with and maintains a low tone throughout which is most usually the bottom of a given speaker's pitch range. ... There are two main observations to be made about the post-nuclear domain. The first is that the final fall starts quite early on, at the beginning of the verb, ...the second observation is that this domain does not allow lexical accents of any sort. (Kamali, 2011: 67-77)

It is possible to observe her findings in Figure 11. It can be said that pre-nuclear area and nuclear area keep a mid range; however, the end of pre-nuclear area is marked with high tone. Nuclear area remains unchanged forming a pitch plateau till the start of the post-nuclear area if there is no lexical accent.

In that case, the post-nuclear fall starts earlier. The final fall starts at the start of the verb, which does not allow accents and is lower than pre-nuclear and nuclear areas (Kamali, 2011).

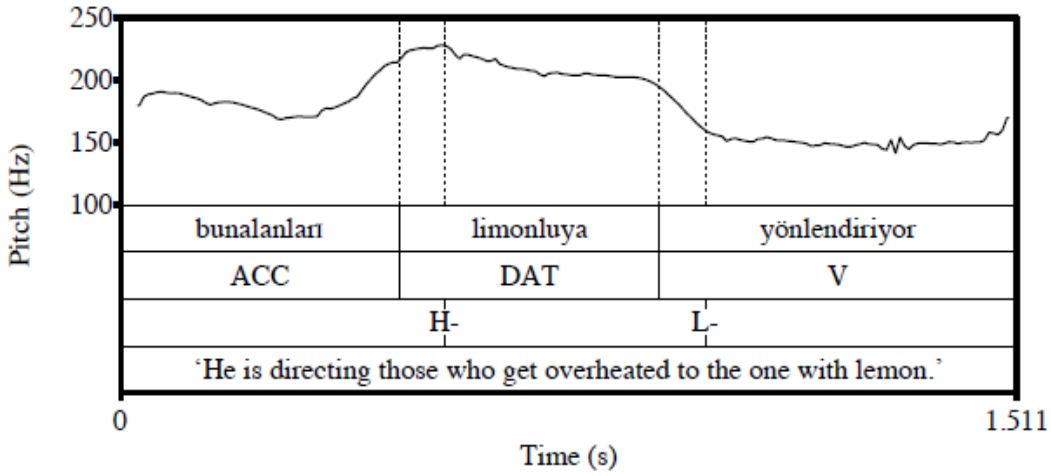


Figure 11. Pitch track in all-new context (Kamali, 2011)

Figure 12. outlines the prosodic marking of focus best according to Kamali's data. It seems that focus is marked by diagonal pitch movements between H and L tones.

One difference between this study and Kamali's study is that she selected words containing only sonorant and voiced obstruent sounds for the sentences to be read, which resulted in non-cracked, smoother pitch tracks.

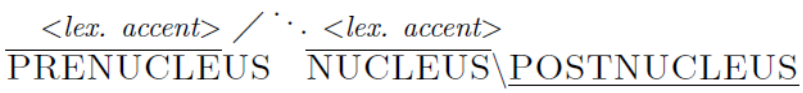


Figure 12. General tonal phrasing (Kamali, 2011)

The same strategy cannot be equipped in our study because the selected target event descriptions were extracted from video recordings of whole narrations which naturally had faint and non-vibrant sounds. Accordingly, large cracks and sharp edges are expected in the pitch tracks to be acquired within this study. As mentioned in the first chapter to overcome this situation, 2 native speakers of Turkish were advised to locate the focus through intonation when the pitch tracks reveal too little to be able to

comment on. In addition, raw pitch tracks acquired via Praat were compared to smoothened and time-normalized F0 tracks acquired via ProsodyPro script. To ease reading, dashed lines were provided as a guideline in order to show pitch movements roughly on raw pitch tracks for each extract. It must also be noted that the dashed lines are drawn after the comparison of smoothened and normalized track with raw tracks.

It was already presumed that not all the specific indicators of focus would be observable in the pitch tracks acquired. The identification of a post-nuclear fall was accepted to be the obligatory and the most reliable cue for focus as it was assumed to be the reason why the native speaker could feel the prominence (Kamali, 2011). After the identification of focus positions for each extract, whether the target event descriptions were gestured was checked and noted. If gestured, gesture stroke positions and focus alignment were checked in order to decide if the growth point matched with the focussed parts.

The next chapter presents and discusses the findings obtained using the method detailed above.

CHAPTER 4

FINDINGS & DISCUSSION

Employing the methods mentioned in the previous chapter, this chapter presents the findings acquired from the analyses of the data. The findings will be compared and discussed with reference to earlier studies.

4.1. General Remarks

162 minutes of video recordings provided sufficient numbers of motion verbs to establish a decent database. There were 881 motion verbs in the data. A total number of 303 gestures accompanied motion event descriptions. 34% of the motion events were found to have an accompanying gesture that encoded motion event information of some kind (after the reduction of path + manner conflations as such structures target the same motion events.)

Lists of manner, path and neutral verbs used in the narrations are given below.

Manner verb types: (40 types)

atlamak (= to jump), gezinmek (=to roam), koşmak (=to run), takılmak (=to trip), kapaklanmak (=to fall flat on sb's face), zıplamak (= to jump), yürümek (=to walk), kaymak (=to slide), emeklemek (=to crawl on knees), sürünmek (=to grovel), yüzmek (= to swim), yatmak (= to lie), yaslanmak (=to lean), atmak (=to throw), sallanmak (=swing), tutunmak (=to hang on), devrilmek (=to knock), yuvarlanmak (=to roll), uçmak (=to fly), çırpınmak (=to flicker), hamle yapmak (=to spurt), adım atmak (=to step), uçuşmak (= to flit), dolaşmak (=to wander), takla atmak (=to tumble), sarkmak (=to hang down), fırlatmak (=to throw), asmak (=to hang), uzanmak (=to lie), sallamak (=to shake), (ayakta) durmak (=to stand), kulaç atmak (=to swim by striking out), dolanmak (=ramble), alabora olmak (=to capsize), fırlamak (=to spring), sıçramak (=to hop), (ayağa) kalkmak (=to stand up), çömelmek (=to squat), sekmek (=to bounce), dönmek (=to spin)

Path verbs: (30 types)

girmek (=to enter), düşmek (=to fall), çıkmak (=to exit), tırmanmak (=to climb), ilerlemek (=to advance), yönelmek (=to move towards), kaçmak (=to escape), gelmek (=to come), dönmek (=to return), havalanmak (=to lift), kaldırmak (= to raise), konmak (=to land), sokmak (=to insert), çekmek (=to pull), inmek (=to descend), yükselmek (=to rise), götürmek (=to take away), gitmek (=to go), geçmek (=to pass), getirmek (=to fetch), takip etmek (=to follow), uzaklaşmak (=to move away), çıkmak (=to ascend), izlemek (=to pursue), yaklaşmak (= to approach), uzatmak (=to reach), ayrılmak (=to leave), çekilmek (=to withdraw), yol almak (=to move forward), varmak (=to arrive)

Neutral verbs: (4 types)

hareket etmek (=to move), koymak (=to put), yola koyulmak (=to set off), oynamak (=to move)

Manner verb usage showed more diversity than path verbs although path information was encoded more frequently in motion event descriptions. It can be attributed to path verbs' forming a closed set in that trajectory of motion can be perceived in limited aspects; whereas the manner in which a motion happens can emerge in unlimited ways (Ozcaliskan, 2004).

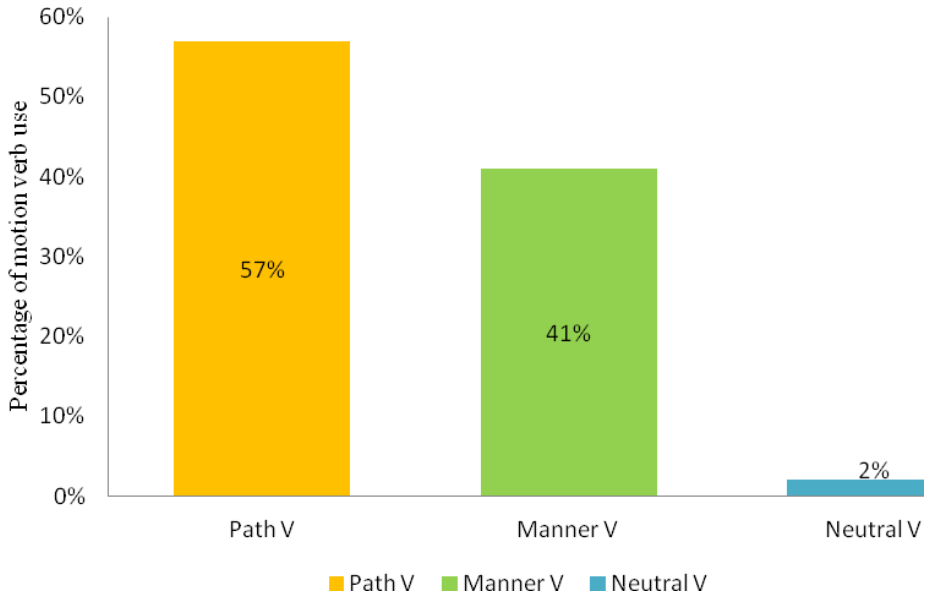


Figure 13. Percentage of motion verb used based on the total number of motion verbs

Although the narrators used more manner verb types, more than half of the motion verbs used was path verbs complementing the typological contrast (cf. Ozcaliskan & Slobin, 2003).

4.2. Encoding of Manner Information

Languages offer a variety of ways and tools to express motion in speech such as consolidation of lexical items and morphemes in different formations (Slobin, 2004). As mentioned earlier, the way of expressing manner information rests on codability (Slobin, 2004). Turkish, being a V-framed language, does not possess high cod ability of manner as encoding path and manner information together in a single sentence require an additional clause. However, other options are also possible. Main verb slot can be reserved for a manner verb leaving path out altogether. Manner can again be given in main verb slot and path information can be added via inflection and phrases. Manner can also be added in an adverbial modifying a path verb. Lastly, it can be added through verb particles forming compound verbs with rapidity aspect. Furthermore, Ozcaliskan & Slobin (2003) suggest alternate ways of including manner:

> 1. Adverbial expressions that describe or suggest manner of movement. E.g evden yel gibi çıktı ‘he exited from the house like the wind’, she walked in a crippled way
>
> 2. Descriptions of internal state or physical condition of a moving entity, allowing one to infer manner of movement. (e.g., he was exhausted)
>
> 3. Descriptions of physical setting features that could influence manner of movement. (e.g., the trail was steep and slippery) (Ozcaliskan & Slobin, 2003: 266)

It must be noted that the last two of these alternatives are indirect ways of expressing manner information outside of motion verb construction unless connected via conjunctions, punctuation or in stylistic fashion. It is also controversial to which degree they are conceived and associated with motion events by speakers and addressees. Accordingly, this study will not consider the "alternative lexical means" as expressions of manner except for "adverbial expressions".

Manner in V				Manner outside V	Manner in conflation		Total
Verbal Noun	Adverbial	Adjectival	Main verb	Adverbial	Adverbial	Adjectival	
31	21	32	212	12	72	3	383

Table 2. Frequency distribution of different lexical ways of conveying manner. V stands for verb.

Table 2. above shows the individual forms of manner encoding and their frequency in our database. Some examples of such constructions data are presented below:

Manner in V:

(8) Verbal Noun: Participant 9: ...balon bağlamış 2 tane, [uçmaya çalışıyor.]

[fly-NOM -DAT try-PRES]

(= ... tied two balloons, (it) is trying to fly.)

(9) Adverbial: Participant 1: Birisi saatin sallangacı mı ne olur ya [onda sallanırken] diğeri... [that-LOC swing-PRES-CONV]

(= When one of them swings on that, the swinging thing)

(10) Adjectival: Participant 2: Az önce kurbağanın [yürüdüğü patika yolda] bu sefer ...

[walk-PART-POSS:3SG pathway-LOC]

(= On the pathway the frog walked a short time ago, this time ....)

(11) Main verb: Participant 7: Rüzgar esiyor böyle. [Perdeleri uçuşturmuş].

[curtain-PLU-ACC flit-CAUS-PAST]

(= Wind is blowing. (It) made the curtains flit.)

Manner outside V:

(12) Adverbial: Participant 19: Köpeğiyle beraber [hızla uzaklaşmaya] çalışıyorlar.

[speed-POST move away-NOM-DAT]

(= (He) and his dog try to move away quickly)

Manner in conflation:

(13) Adverbial: Participant 12: [Seke seke böyle ormanlık bir alana doğru gidiyor.]

[hop-CONV deictic forest-ADJ area-DAT Postposition go-PRES]

(= (It) goes towards a forested area by hopping)

(14) Adjectival: Participant 6: Dikkatini çeken şeye [yaklaşıyor emekler vaziyette]

[approach-PRES crawl-ADJ state-LOC]

(= (He) is approaching the thing that drew his attention in a crawling state)

"Manner in V" section in Table 2. represents the expressions of manner in single verb forms without being subordinates to a path verb in an independent motion event. Verbal forms of manner other than the ones in main verb slot appeared in the sentences in order to mark the reference to a previously mentioned motion event or to its mental image not linguistically expressed as in (10). In addition, they were also used to make temporal references to motion events (converbs) as in (9). In cases of nominalization (8) another aspect was added to the motion such as expectation and effort.

"Manner outside V" section represents non-verbal adverbials that modified neutral verbs or already existing manner verbs in main verb slot which can be observed in the example below:

(15) Participant 9: Köpek önden [koşuyor hızlıca.]

[run-PRES speed-ADJ-ADV]

(= Dog is running ahead fast.)

"Manner in conflation" section represents conflation of manner information in non-verbal adverbials just like (15), but this time they modified the event expressed with a path verb. Other adverbial conflations were two clausal formation in which manner is given in subordinate clauses as in (13). Although it was rare, the speakers also produced sentences like (14) where the verbal adjective encodes manner in which motion took place, which was not reported in previous studies on Turkish (i.e Ozcaliskan & Slobin, 2000; 2003). Such constructions are different from "alternative lexical means" since they are neither internal/physical state nor physical setting descriptions of objects/subjects. In fact, they are *verbal* adjectives. Another rare example which occurred only in one instance is encoding of manner and path information within the same main verb through a verb particle which is "-Ivermek".

(16) Participant 6: Bir anda yere [düşüveriyor]

[fall-COMP]

(= Suddenly (it) falls on the ground)

Our data in Figure 13. confirmed that Turkish speakers do not typically encode manner information because of the typological constraints in which the main verb slot is reserved for path information (Slobin, 1996a, 1996b; Ozcaliskan & Slobin, 1999). However, the claim below presents a different story:

> The analysis of motion verbs has clearly shown that Turkish speakers do not typically encode manner in the main verb due to the lexicalization patterns of their native language, where the main verb is mainly reserved to encode path information. (Ozcaliskan, 2004: 82)

This statement offers two options for the typical expressions of manner in Turkish: either manner information gets omitted or the speakers use different means to include manner. What this study reveals is that when the speakers find manner salient enough to express linguistically, they tend to express manner in main verbs 56% (N= 212) of the time as seen in Table 2., which can be described as a typical act in a non-typical behaviour. In fact, 77% (N= 296) of all manner information was given in verbal forms. Even though they weren't always main verbs they served as the main in indicator of motion when making references independent from a path verb relying on path suffixes,

deictic words and postpositional phrases or ignoring linguistic encoding of path altogether as in (9) and (10). Similarly, examples where path information linguistically were not present were observed 14% (N=134) of the time as NP-LOC + manner verb constructions. They indicated that omission of path information was indeed a valid option for V-framed language speakers unlike what is claimed by Slobin (2004). We assume that in those cases the speakers rely on inherited path of the motion within a manner verb since path is an obligatory component lack of which blocks motion essentially (Slobin, 2004). For example, in (9) "the swinging thing" can only move sideways, which probably is standard in pendulum clocks in our mental images. This kind of cases potentially allows for the use of speech-framed gestures which add information that is not expressed in speech. Overall, this study showed that lexicalization patterns dictated by typology can be overridden by salience and codability in speech (Slobin, 1996, Ozcaliskan & Slobin, 2000). In literal motion events Turkish speakers typically encode manner in main verbs because manner and path subordinations violates the tendency that "conveying most amount of semantic information in the simplest syntactic form" (Ozcaliskan & Slobin, 2000: 559). Regarding non-verbal formation of manner (adverbs as in (15)), our results confirm the previous finding that those formations are mainly used to add manner information to path verb constructions with 72 % (N= 31) (cf. Ozcaliskan & Slobin, 2003).

4.3. Encoding of Path Information

As previously mentioned, Turkish speakers tend to use more path verbs than manner verbs as a result of lexicalization patterns. Yet, the same feature was not observed for the diversity of path verbs in our data when we compared manner verb types (40 types) to path verb types (30 types). Same results were also observed in metaphorical motion event descriptions (Ozcaliskan, 2004). Ozcaliskan (2004) sees path verbs' inability to allow for more elaboration to be the cause of the deficiency in path verb diversity which is clearly observed in token/type. (510 verbs - 30 types)

Main verb	Adjectival	Adverbial	Verbal Noun	Total
423	28	22	37	510
83%	6%	4%	7%	100%

Table 3. Frequency and percentage distribution of different verbal path expressions

Table 3. shows that the narrators preferred using path verbs in main verb slots complementing the lexicalization. Examples below exemplify each verbal forms of encoding path:

Verbal forms:

(17) Path in main verb, Participant 20: İçeriye rüzgar [giriyor].

[enter-PRES]

(= The wind enters inside)

(18) Adjectival, Participant 6: [Düşen kavanozun] içinden bir kurbağa çıkıyor.

[fall-ADJ jar-POSS:3SG**]**

(= A frog exits from the jar that fall.)

(19) Adverbial, Participant 3: [Çocuk kaçarken] bir taşa takılıyor ...

[boy escape-PRES-CONV]

(= When the boy escapes he trips ...)

(20) Verbal noun, Participant 14: Onları rahat bırakıp [ilerlemeye devam ediyor.]

[advance-NOM-DAT continue-PRES]

(= After leaving them alone, (he) continues to advance)

Just like their manner verbal equivalents different forms of path verbs were used to refer to previously mentioned motion events (18) or to make temporal references (19). Ozcaliskan & Slobin (2003) argue that easier codability of manner in main verb slot allows for greater diversity and greater number of manner use in English. The same can be said for path in main verb slot in Turkish. However, complex inflectional morphology of Turkish also provides high codability for path information outside of the verb (in path satellites).

Postposition		Deictics		NP + Suffix		Total
Deictic + Post	NP + Post	Deictic + M	Deictic + P	DAT (-E)	ABL (-dEn)	
19	85	12	67	246	199	628
17%		13%		70%		100%

Table 4. Frequency and percentage distribution of path segments attached to motion verbs. Percentages were calculated based on total number of path segments. Post: postpositional phrase, M: manner verb, P: path verb, DAT: dative case marker, ABL: ablative case marker.

In Table 4. all path satellites in our data were presented. Differently from the data provided in Ozcaliskan's (2004) study, verb particles and path adverbials were united under deictics. In addition, deictic adverbs inflected with dative case marker were given under NP + Post column as such an inflection causes the adverb to be nominalised being NP for a postpositional phrase. Bare deictic adverb + postposition constructions were also an option in oral narratives of literal motion events in Turkish. Deictic adverbs, in nature, encode path information stating trajectory with reference to the speakers' viewpoint similar to deictic path verb "to go". Deictics were also categorized according to which verb type they modify being manner, path and neutral verbs (last category was absent in our data).

The following are examples for each kind of path satellites:

Postposition:

(21) NP + Post, Participant 16: ... köpeği [kapıya doğru gidiyor.]

[door-DAT Postposition go-PRES]

(= ... the dog is going towards the door)

(22) Deictic + Post, Participant 9: [Aşağı doğru kaymaya] başladılar uçurum gibi yerden

[Down toward slide-NOM-DAT]

(= (They) started to slide towards down from the somewhere like a cliff)

NP + Suffix:

(23) NP + DAT, Participant 1: Sonrasında [eve giriyor].

[house-DAT enter-PRES]

(Afterwards, (he) enters to the house)

(24) NP + ABL, Participant 7: [O oyuktan içeri] girdi.

[that hole-ABL deictic]

(= (He) entered inside from that hole)

Deictics:

(25) Deictic + Manner verb, Participant 5: Pencereden [dışarı atladı] kurbağa.

[out jump-PAST]

(= The frog jumped out from the window)

(26) Deictic + Path verb, Participant 13: Evden [dışarı çıkmış.]

[out exit-PAST]

(= He exited out from the house)

Replicating the results of Ozcaliskan's (2004) study, in literal motion events too, path information outside the main verb was conveyed typically via noun phrase + dative and + ablative suffixes (see (23) and (24)).

When metaphorical (Ozcaliskan, 2004) and literal motion event descriptions were compared, it was possible to observe an increase in the percentage of the use of postpositional phrases and path adverbials as they only constituted 3% (N=13) of all path satellites in Ozcaliskan's study on metaphorical motion events whereas for literal motion events, they constituted 30% (N= 183). When categorizing deictics and the verb types they were attached, an interesting match was found. Deictics encoding path information tended to modify path verbs more with 85% (N= 67), which means non-verbal adverbials (or alternative lexical means Ozcaliskan & Slobin (2003)) were not necessarily used to add manner information otherwise not encoded in anywhere. Because the main verb slots are occupied by path verbs, such additional path satellites provides elaboration on already given path of motions in the main verbs. This kind of relation was very similar to manner verb + manner adverbial constructions since the satellite modifies and elaborates the information in main verb redundantly (Ozcaliskan & Slobin, 2003).

Returning to the effect of inflectional morphology on the encoding of path information, Basque language was reported to show similarity to Turkish in expressing path information outside the verb (Ibarretxe-Antuñano 2002; 2004). Unlike other V-framed languages such as French and Spanish, Turkish and Basque prefer elaborating path information via satellites further. Especially, Basque was reported to include the source and the goal of motion despite the lack of a grammatical rule dictating so. Ibarretxe-Antuñano (2002) calls this type of constructions "complete path constructions". However, Turkish does not necessarily follow the same pattern although it has suffixes to encode source and goal domains. Instead, what Turkish prefers is to encode only one domain.

Addition of only one path satellite was found to be the most common type of path segmentation in literal motion events, which makes goal domain most likely to be given in noun phrase + dative inflections with 39% (N= 246 in Table 4.). Accordingly, unlike Basque which prefers complete path descriptions, Turkish prefers semi-complete descriptions in which goal of movement preferred over the source complementing to Zlatev & Yanklang's study (2004) which argues that even languages belonging to the same typological category differ in some aspects.

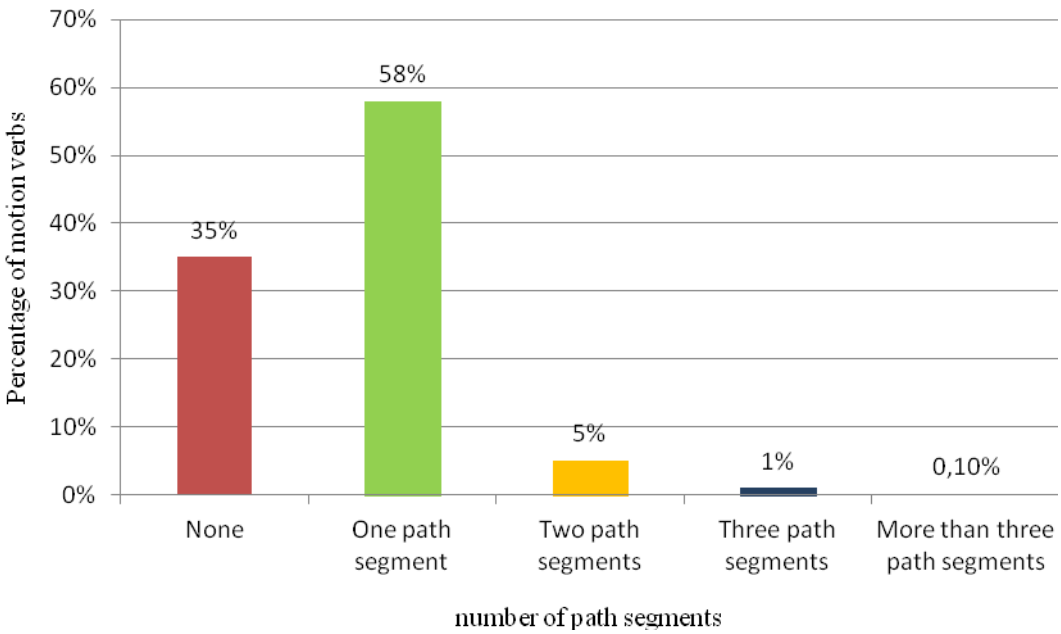


Figure 14. Percentage distribution path segments attached to a single verb of motion. Percentages were calculated based on the total number of motion verbs.

When compared to metaphorical motion events, our findings replicated the findings of Ozcaliskan (2004), that is both kind of motion events preferred attaching only one path segment to a single motion verb. One and three path segmented verbs of motion were exemplified in (27a, 27b):

(27a) Participant 13: bir [odaya] giriyor.

[room-DAT]

(= (He) enters to a room)

(27b) Participant 13: ... gittiği [patika yoldan evine geri] dönüyor.

[pathway-ABL house-DAT back]

(= From the pathway he had gone, he returns back to home.)

In English on the other hand, although number of none and only one path segmented verbs of motion were observed to be somewhat close to Turkish, a significant difference

was found between number of two path segmented motion verbs in metaphorical motion events and literal motion events by Ozcaliskan (2004) and Slobin (1997).

4.4. Encoding of Ground Information

In Turkish, as explained above, ground information which is outside the verb also carried path segments. However, only locative constructions appeared newly compared to Table 4. as they carry no path information when added to a noun/noun phrase. Another type of ground expressions which do not carry path information is bare grounds without any suffixes. Unlike in metaphorical motion event descriptions (Ozcaliskan, 2004), no bare grounds were observed in literal motion event descriptions in Turkish.

Table 5. below presents the distribution of ground expressions in our data. In (23) and (24) noun phrases affixed with dative and ablative cases were already adduced. Example (10) also presented a noun phrase attached with a locative suffix "yürüdüğü patika yolda [walk-PART-POSS:3SG pathway-LOC]". Noun phrase + postpositional constructions consisted of the combination of noun phrases and deictic adverbs nominalised with the suffix "-E" with a postposition. Such were also illustrated in the examples of (21) and (22).

NP + Suffix			**NP + suffix +Post**	**Total**
NP + DAT	NP + LOC	NP + ABL		
246	98	199	85	628
39%	16%	32%	13%	100%

Table 5. Frequency and percentage distribution of ground expressions in literal motion events

	PreP	NP	NP-suffix	PostP-suffix	TOTAL
English	411	72	N/A	N/A	483
Turkish	N/A	68	427	4	499

Table 6. Frequency distribution of ground in metaphorical motion events in Turkish and English (Ozcaliskan, 2004)

When we compare Table 5. and Table 6. (literal vs. metaphorical), bare grounds, which were not found in our data, were the second most used type of ground expression in metaphorical motion events. Such occurrences could be linked to the event type because when the motion per se is literal its source and goal should also be so. In metaphorical motion events such a link is not necessary. For example in "hasta düş" (=fall sick) requires neither goal nor source as there is no possible referent object towards/from which the movement can happen. The same cause can also be valid for the rise in the number of ground + postposition constructions as literal motion events are more likely to leave a trajectory in mental imagery along which the moving object/subject can change location.

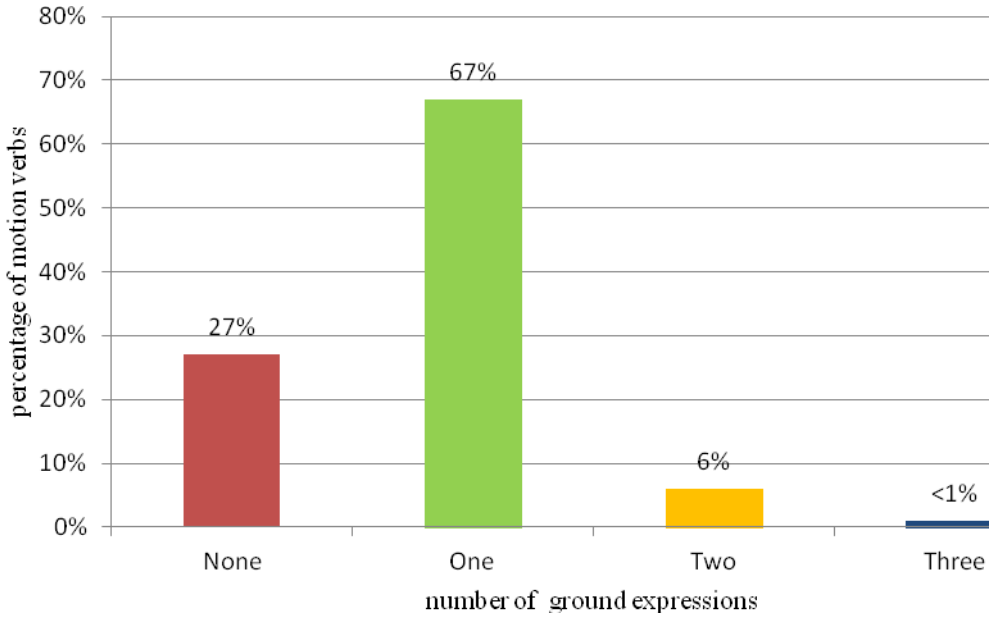


Figure 15. Percentage distribution of ground expressions attached to a single motion verb. Percentages are based on total number of motion verbs.

The percentage distribution of ground expressions in literal motion events mirrored the results obtained from metaphorical motion events (Ozcaliskan, 2004). Turkish speakers were more likely to attach only one ground expression to single motion verbs, which was parallel to the distribution of path segments attached to motion verbs (cf. Figure 14).

Patterns of information state in ground expressions were found to show difference from those of manner and path. Only 8% (N= 33) of manner verbs and 14% (N= 75) of path

verbs were given in context whereas 51% (N= 324) of ground expressions were given. A plausible explanation for the situation at hand comes from Slobin (1996a). He argues that speakers of V-framed languages pay more attention to physical setting in motion event. We assume that such narrative attention would cause elaboration to take place in sentences other than the ones the motion is given in order to lessen the cognitive load. Those sentences are accepted to precede the motion event descriptions in that the narrative attention paid grants them salience and precedence. Accordingly, the already mentioned landmarks in speech get given status in motion event expressions.

4.5. Gesture and Motion Event Components

As mentioned in Chapter 2, linguistic descriptions of motion events and their accompanying gestures are assumed to form psychological units, which would mean that they share certain features and are able to influence one another. Therefore, linguistic typology of motion events can be used to observe speech and gesture relationship resourcefully. To explore more of the nature of linguistic typology we investigated their accompanying iconic gestures in relation to information state.

M & P conflated gestures	Manner gestures	Path gestures	Ground gestures	Figure gestures	Total
7	108	152	29	7	303
2%	36%	50%	10%	2%	100%

Table 7. Various types of gestures

Table 7. above shows the frequency and percentage distribution of various types of gestures that carry certain content(s) of motion events. Following Ozyurek & Kita (1999) and McNeil (2000), our data showed that the effect of separate conceptualization of manner and path motion event components in Turkish could also be observed in gestures too. That is, manner and path conflating gestures, with 2% (N=7) occurrence rate, were not used as often as their manner-only/path-only versions. Path gestures were used most frequently with %50 (N= 152) followed by manner gestures for manner information with 36% (N= 108).

Matching of the gestures with their linguistic pairs, on the other hand, tells a different story. Out of 372 instances that contained manner information linguistically, 29% (N= 108) of them had an accompanying gestures with the same content. In example (28), when the speaker said "sürünüyor" (= is crawling), her hand wriggled at where it was raised (see Figure 16.).

(28) Daha doğrusu [sürünüyor].
[crawl-PRES]

(= Rather, (he) is crawling.)

Pic. 1(leftmost) Pre-preparation position: hands are on/between thighs

Pic. 2 & Pic. 3 Gesture stroke: hand twists from side to side in wriggling fashion

Pic. 4 Retraction: her hand returns back to its resting position.



Figure 16. Manner gesture: description of crawling (44 frames)

Furthermore, 10% (N= 11) of those manner gestures occurred in the absence of a manner encoded constituent. Accordingly, manner gestures could also be considered as a tool for encoding manner in speech (McNeill, 2000).

When it comes to path information, out of 741 instances that encoded path information linguistically (whether in path verbs or satellites) only 152 (20%) of them were accompanied by path gestures.

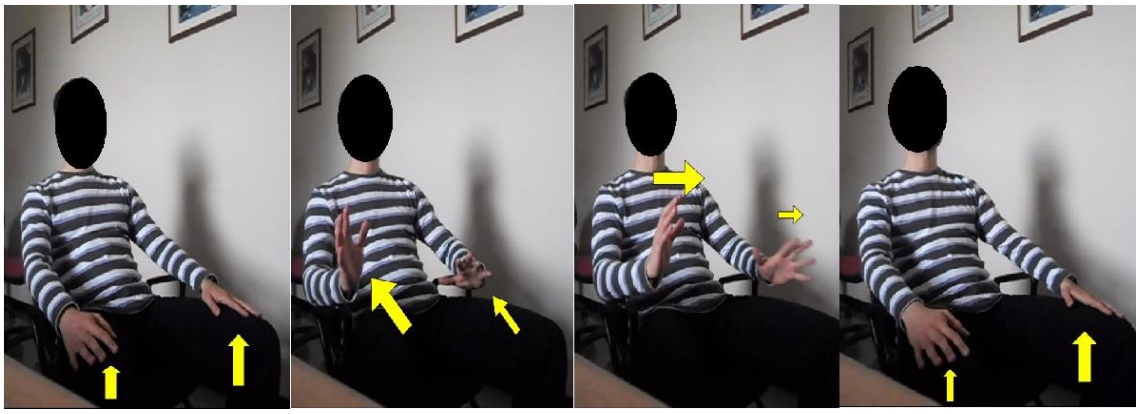


Figure 17. Path gesture: description of exiting (203 frames)

In example (29) below, the frog leaves the house by jumping out of a window. The speakers hands showed the trajectory of the motion on the path verb "çıkmaya" (= to exit) (see Figure 17. above).

(29) ... camdan [çıkmaya] çalışıyor. [exit-NOM-DAT]

(= (it) is trying <u>to exit</u> through the window.)

Pic. 1 (leftmost) Pre-preparation position: Hands are on knees

Pic. 2. Pre-stroke hold: Both hands are drawn back which is the starting position of the stroke. Hands are waiting for the word "çıkmaya".

Pic. 3 Gesture stroke: Both hands make a lateral movement to signify the trajectory of the motion "exit"

Pic. 4 Retraction: Both hands are returned to a relaxed position.

Another important observation about path gestures was that they tended to synchronize with path satellites (49%, N= 75) more than path verbs (39%, N= 59) unlike what is claimed by McNeill (1992). One possible explanation for this comes from the granular structure of path encoding. Unlike many other V-framed languages such as Spanish, languages like Turkish encode path redundantly via suffixes, postpositional phrases and adverbials (deictic). Therefore, it would be safe to say that path information in satellites was regarded as salient as path information encoded in verbs, which allowed them to form psychological predicates along with gestures (McNeill & Duncan, 2000). Although a few, there were some ground gestures in our data. Example (30)

demonstrates a ground gesture when the speaker was talking about a cliff in a motion event (see Figure 18.).

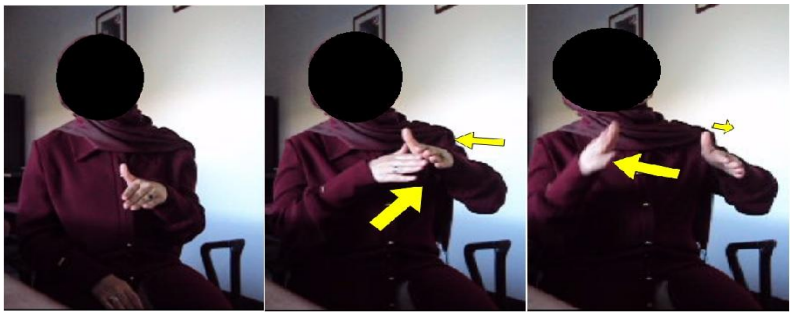


Figure 18. Ground gesture: description of a cliff (50 frames)

(30) [Uçurum kenarından] kaymaya başlıyorlar köpekle çocuk. [cliff edge-POSS:3SG-ABL] (= The boy and the dogs starts to slide from the edges of the cliff)

Pic. 1 Post-stroke hold: After the completion of the last gesture only one hand returned to a relaxed position, the other one remained at its place waiting for the next stroke.

Pic. 2 Gesture stroke: Right hand was raised from its relaxed position to signify the angle of cliff's edge representing the ground on which the motion takes place.

Pic. 3 Pre-stroke hold: Hands immediately move to the starting position of the following stroke skipping retraction.

Out of 678 motion events which included at least one ground element only 4% (N= 29) of them were accompanied by ground gestures. There are two possible explanations for this low frequency of ground gestures compared to their token number. First, table 4. shows that most of the path satellites were attached to ground elements. As such units would in a way conflate ground and path information in speech, ground information might be downplayed by path information causing the preference of path gestures over ground gestures. Second explanation is related to givenness of ground in the descriptions. Previously, we reported that 51% (N= 324) of ground expressions were already given in context, which stems from the description of physical setting outside of the motion event expressions as result of importance given to physical setting of motion events in V-framed languages. According to our study, Turkish speakers tended not to gesture for given information as there were only 18 instances (6%) of gestures synchronizing with given tokens. Consequently, high occurrences of given grounds

might also be the result of lesser ground gestures. It is also possible to say that combination of both first and second explanations might be the actual cause.

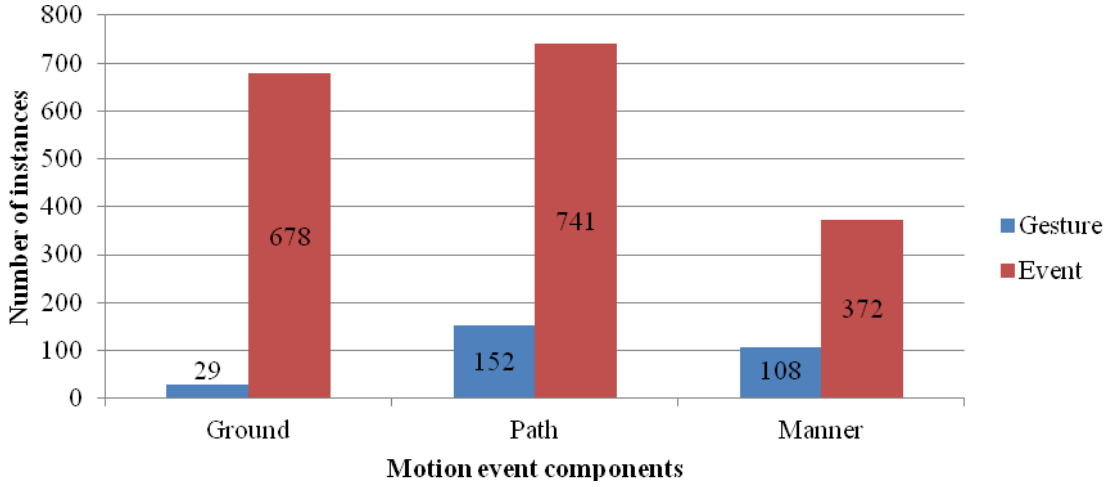


Figure 19. Motion event components and their gestural occurrences

Overall situation of motion components and their gestural representations are presented in Figure 19. In her article Chui (2009) approaches linguistic expressions of motion events and gestures in terms of information structure. She reports that despite the high prevalence and general salience of manner in motion event expressions in Chinese, manner gestures were not observed quite as much. She assumes that such a result might stem from the information state of manner expression as gestures are more likely to occur at new narrative events or themes (McNeill & Levy, 1993). However, Chui (2005) reports that Chinese speakers just like Turkish speakers tend not to gesture for given information. She concluded that low number of manner gestures could not be traced back to their information state and Chinese speakers are not likely to gesture to express manner information although the information is new (Chui, 2009). The same result for the manner of motion was not replicated in our study as manner expressions and their gestural occurrences showed a closer percentage to overall gesturing rate. Path information on the other hand, despite the high number of occurrences (at least once) was not gestured as often as manner gesture (20% for path to 29% for manner). This situation proposes that Turkish speakers are less likely to gesture for path although the information is new and in Turkish, manner of motion is the most salient component as claimed by Slobin (2005).

In sum, ground information was affected by information state more than manner and path, as it was in Chui's study (2009). Therefore it can be said that the information state of the motion event components was observed to cause different gestural patterns. Based on this finding, we expected to see a similar effect on other aspects of information structure such as focus, which led to the second part of this study.

4.6 Focus Analysis

In this analysis, we analyzed the motion event descriptions in our data that encode path and manner information in two clauses (manner in subordination) in single motion event descriptions such as "yuvarlanarak git" (= go by rolling), which we will call target event descriptions. Following the claim that gesture and speech form a psychological predicate which is what is being said about the subject, those predicate bound to carry prominence marked via prosody. Therefore, in such constructions manner information is likely to be marked via pitch as focussed possibly along with a ground item to which a path satellite attached regarding the findings previously put forward in this study. When the speakers want to gesture for any information in those utterances, they have to make a choice considering which information they encode in the gesture either manner or path as they do not prefer using single conflated gestures which encode both. Example (31) below shows a conflated gesture.

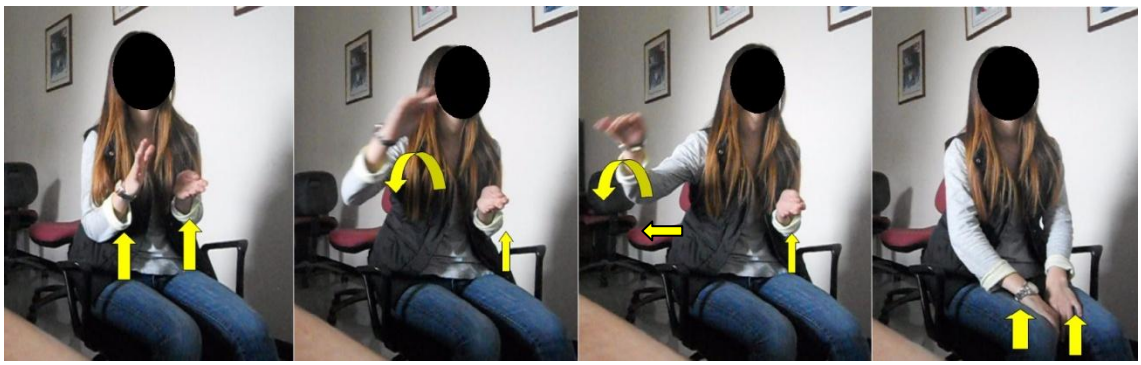


Figure 20. Manner and path conflated gesture: description of the motion "to go by jumping" (76 frames)

(31) Oraya doğru [zıplayarak gidiyor].

[jump-CONV go-PRES]

(= (It) is going towards there by jumping)

Pic. 1 Post-stroke hold: Hands do not return to a relaxed position waiting for the next stroke.

Pic. 2 & 3 Gesture stroke: One hand draws consecutive semi-circles ridging upwards while advancing in lateral trajectory on "zıplayarak gitti" (go by jumping). The other hand remains stable.

Pic. 4 Retraction: Hands are returned to a relaxed position.

First, we found that in 36 out of 38 (98%) target event descriptions manner adverbial in subordination were under focus. Additionally, some forms of path satellites or path verbs were included under focus in 26 instances (68%). 55% (N= 21) of the target event descriptions were accompanied by gestures. Only 2 gestures did not synchronize with the focus. 57% (N= 12) of these gestures encoded path information despite the fact that manner information was also under focus and 43% (N= 9) of the gestures encoded manner in gesture in target event descriptions. What is more, in 2 instances the speakers chose to gesture path information even though manner were under focus alone without a path satellite of any sort whereas no manner gestures were observed when manner was not under focus.

The important thing here is that when we compare the frequency of mention, path information was encoded %46 (N=12) of the time in gestures whereas manner was encoded %25 (N=9) of the time. Moreover, in five of the utterances where manner was encoded in gestures, path information was also encoded in the gestures in addition to the manner information either in conflated form or in sequence with separate path gestures. Only 19% (N= 4) of gestures encoded manner in without path information in the same or in a different gesture for the same event.

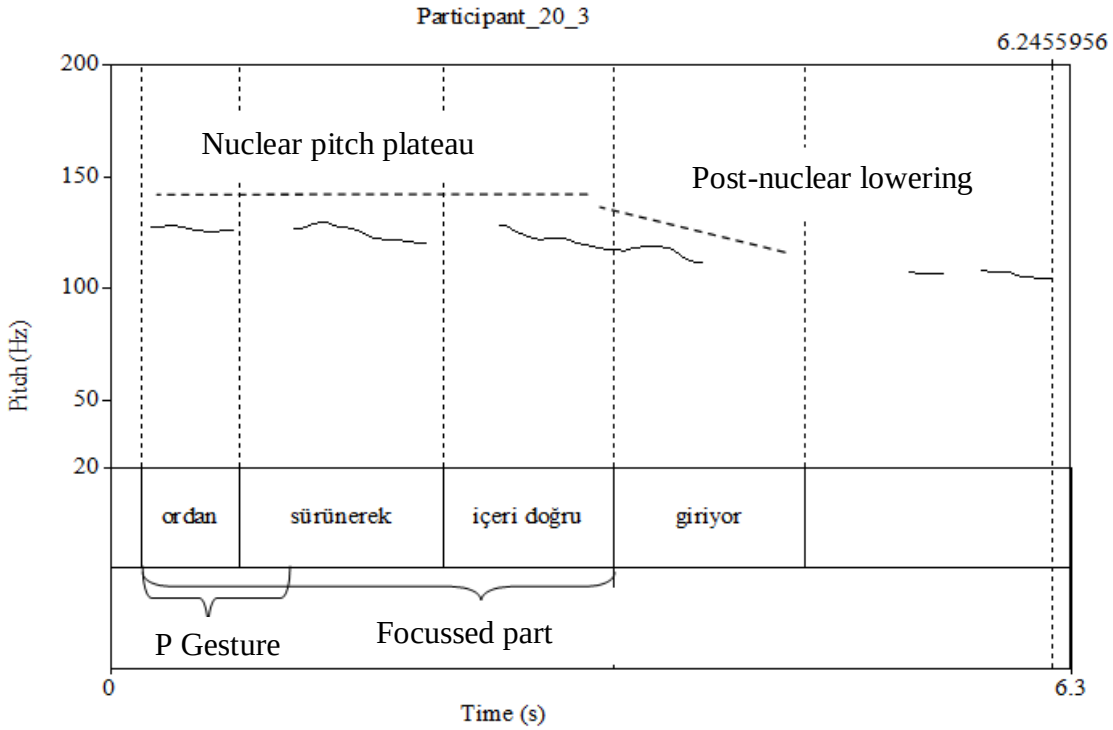


Figure 21. Gesture and focus annotated pitch track of the utterance "[From there | by crawling | towards inside | enters]" P = Path. Graph#22 in appendix.

Figure 21. above exemplifies instances in which a path gesture was preferred over manner even though they were both under focus. The path gesture stroke synched with NP + path satellite (DAT suffix) construction extending slightly into manner adverbial (0,341 seconds). Post-nuclear fall in this example started early on postpositional phrase which was also observed in time-normalized F0 track acquired via ProsodyPro (Xu, 2013). Manner information is clearly downplayed despite its presumed salience and high gestural occurrence rate observed compared to path information in the first part of the study.

Figure 22. and 23. below give a detailed description providing gesture phases in association with the pitch track of the same target event.

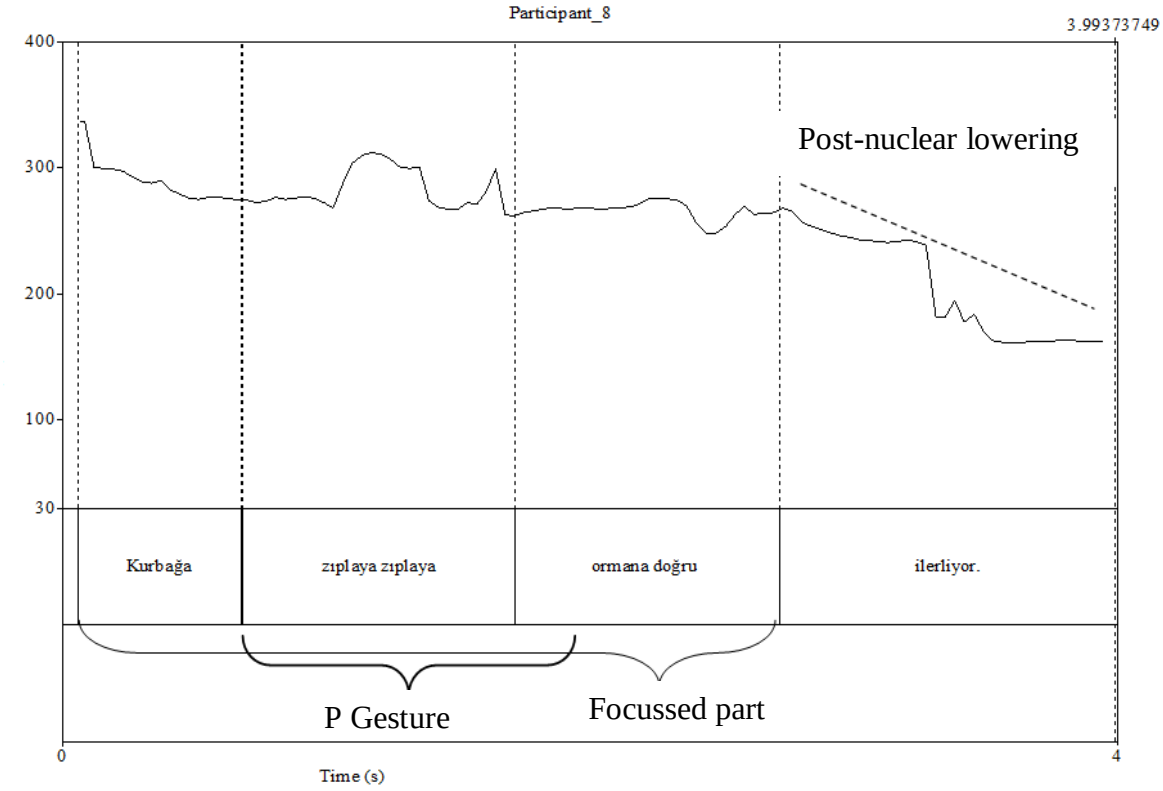


Figure 22. Gesture and focus annotated pitch track of the utterance " [Frog | by jumping | towards forest | advances] P = Path. Graph# 34 in appendix.

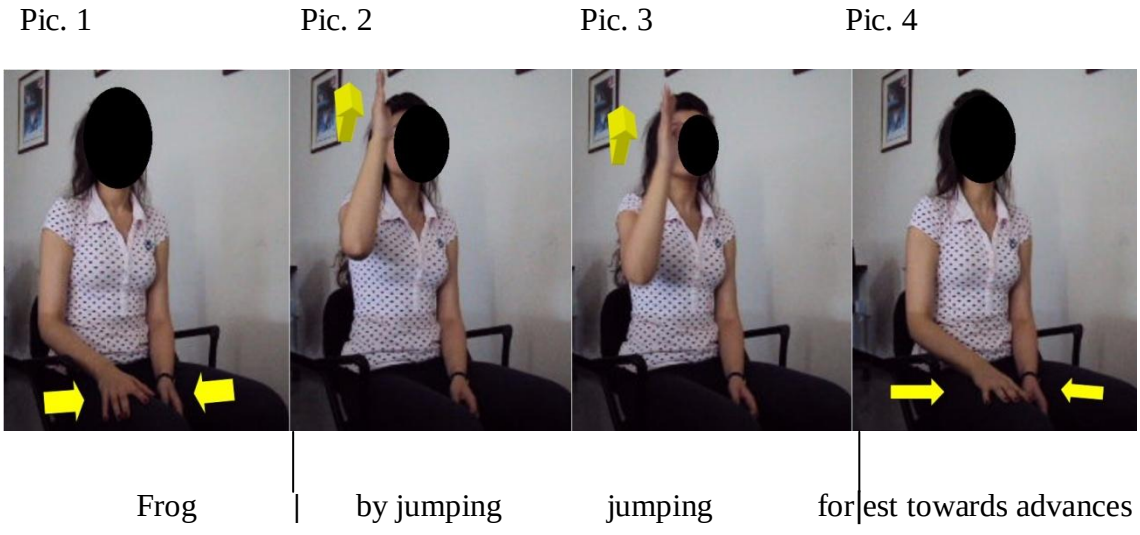


Figure 23. Path gesture in Figure 22. : description of "advance"(53 frames) (see example (32) below)

(32) [Kurbağa zıplaya zıplaya ormana doğru ilerliyor.]

[frog jump-CONV jump-CONV forest-DAT toward(POST) advance-PRES]

(= The frog advances towards the forest by jumping)

Pic. 1 Pre-Preparation position: Hands are in a relaxed position till to the end the word "kurbağa"

Pic. 2. & Pic. 3 Gesture stroke: Right hand is raised pointing upwards sagittally. Edge of the palm faces front and the hand moves forth and back without and any rotation or wiggling on fingers on the words "zıplaya zıplaya" (by jumping jumping)

Pic. 4 Retraction: The moving hand returns to its original position.

In the instance given above, adverbial manner expression synchronized with a path gesture stroke slightly extending to postpositional phrase (0.187 seconds). Putting the preference of encoding path over manner in the gesture, it seems that manner expression and path gesture stroke synchronized. Accordingly, manner in speech and complementary path information in gesture formed a GP. Instances like these were somewhat the opposite of what had been reported for Spanish, a v-framed language. Spanish speakers were reported to complement manner which is absent in speech with manner gestures (McNeill & Duncan, 2000).

Figure 22. and 23. below demonstrate two instances in which manner gestures were preferred over path when they are both under focus complementing the perceptual salience claimed.

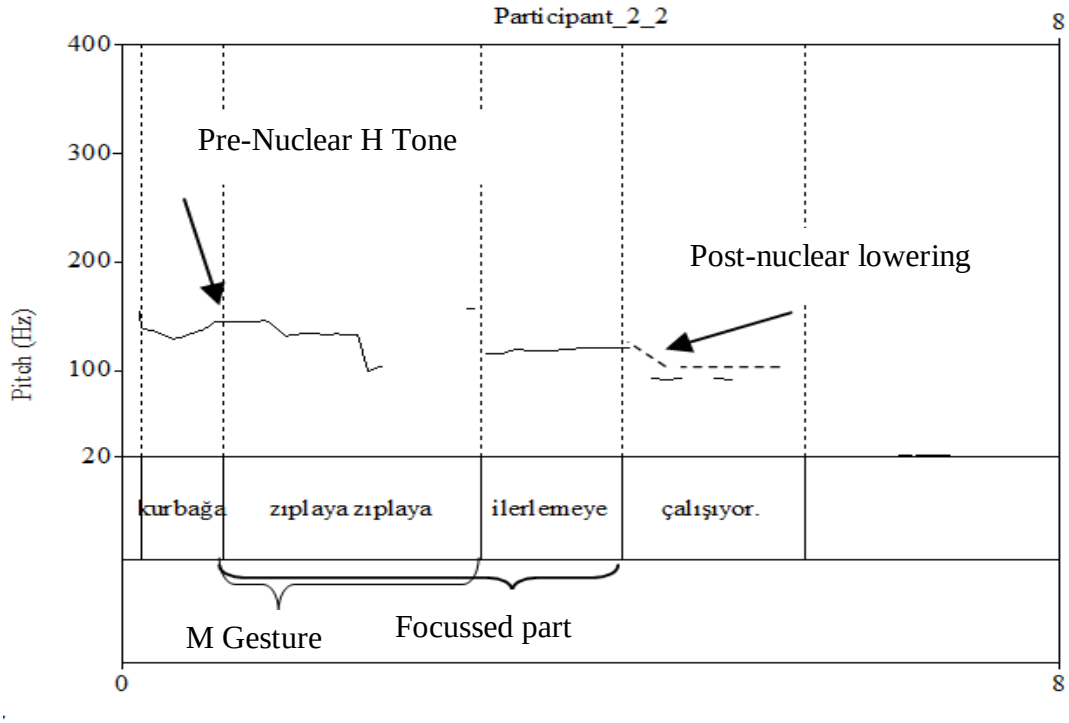


Figure 24. Gesture and focus annotated pitch track of the utterance " [Frog | by jumping | to advance | tries] M = Manner. Graph#23 in appendix.

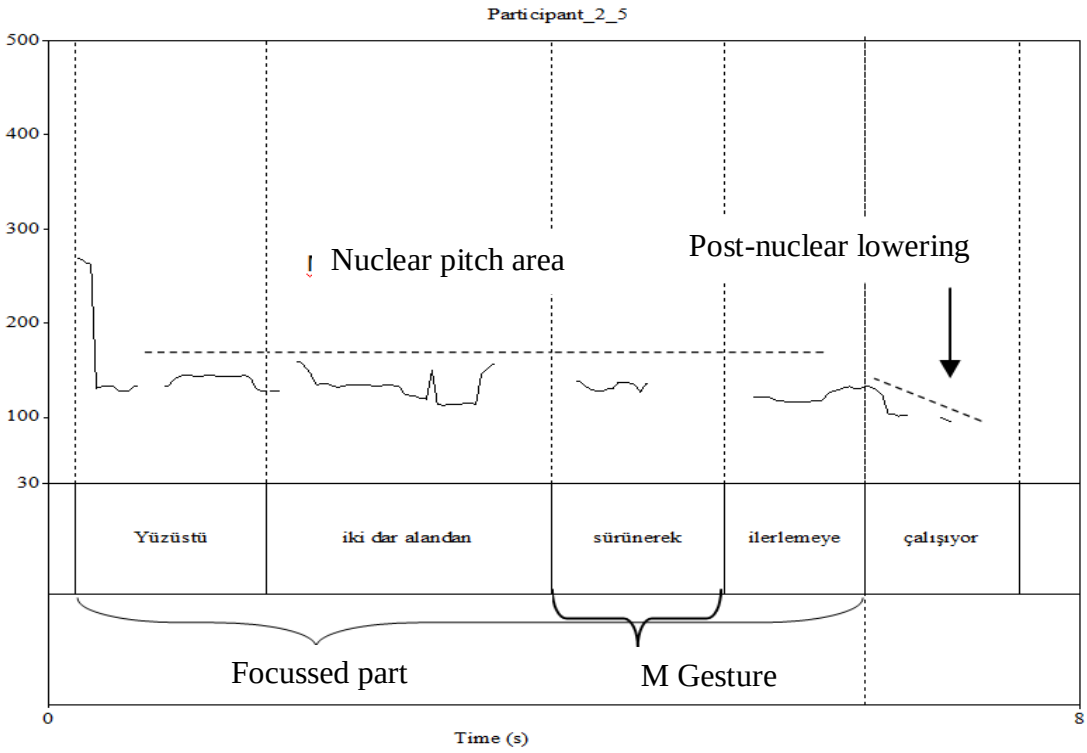


Figure 25. Gesture and focus annotated pitch track of the utterance " [Facedown | from two narrow sides | by crawling | to advance | tries] M = Manner. Graph#26 in appendix.

According to the first part of the study, manner information was found to be the most salient component when we compare token and gesture number. However, the same salience in speech were not observed in gestures under information structure modality in single motion events that give manner in subordinations, which overrides supposedly tight linguistic typology and gesture relation.

In summary, the analysis of pitch tracks, imagistic and linguistic representation of target motion event descriptions revealed the effect of information structure on gestures could not fit into typological constraints demonstrating contradiction.

CHAPTER 5

CONCLUSION

This chapter provides a brief summary of the study and based on the findings in the results section, it also discusses the relationship among gesture, language and motion event typology.

The current study has aimed to contribute to speech and gesture interrelation hypotheses using information structure notions being focus and givenness. Overall this thesis has used motion event typology as base for analyses because of its affordance observable in both speech and gesture. Creating a gesture annotated video corpus in which literal motion events are frequently expressed has been essential to answer all research questions asked. Based on the data the study analyzed the lexicalization options of manner, path and ground provided by Turkish, a V-framed language. The results were compared to earlier studies which used Turkish data (i.e. Ozcaliskan, 2004; Ozcaliskan & Slobin, 1999, 2000, 2003; Ozyurek & Kita, 1999). Especially, Ozcaliskan's (2004) study has been used for comparison as it has dealt with the typological variation in metaphorical motion events. Moreover, the study has aimed to provide data to compare literal and metaphorical motion events, which has been reported to present information gaps (i.e frequency of verbs and verb forms in addition to satellites). Based on our findings, it is possible to say that metaphorical motion events and literal motion events show similar patterns in lexicalization. Extension of the study to micro level however, revealed some differences. For instance, this study confirms that manner information is not typically encoded in motion event expressions; nonetheless, when manner is salient enough to be linguistically encoded, it is encoded in the main verbs. In fact, motion event constructions which do not encode path information are also observed which makes linguistic omission of path viable in a v-framed language making manner comfort path's role. For path information an increase has been observed in postpositional phrases and path adverbials when compared to metaphorical motion events. Accordingly, it is possible to assume that the end point of the path of the motion becomes more important for speakers when they mention literal motion events. We have also observed an intra-typological variation between two v-framed languages

Turkish and Basque. Thanks to its inflectional morphology, Basque speakers tend to express "a complete path" structure with source and goal information. Turkish morphology is very similar to Basque. However, instead of complete path constructions Turkish speakers tend to include only one path segment (which is more likely to be goal of the motion) in addition to the verb. In terms of percentage distribution of path segments attached to single verbs of motion literal motion events has shown a similar pattern to metaphorical motion events. When it comes to ground component of motion events, we have found no bare ground in event descriptions in literal motion event unlike metaphorical events. This result might be driven from the same reason that has caused an increase in postpositional phrases in literal motion events. Namely, metaphorical motion events do not always require a referent object for the motion to take place as source and goal of motion could be hidden as in "hasta düşmek" (= to fall sick). As a result, literal motion events are more likely to leave a trajectory with a point of origin and end in our mental imagery as opposed to metaphorical motion events. Percentage distribution of the number of ground expressions attached to single verbs of motion we have found for literal motion events have replicated metaphorical motion events' (Ozcaliskan, 2004).

The analysis of gestures in association with the corresponding motion event components has revealed that path gestures are the most used type of gestures to accompany motion event descriptions. However, when we have compared the frequency of mention with the frequency of gesture types, we have found that manner information was gestured more frequently than path, which can be attributed to the so-called perceptual salience of manner. Being an optional component in motion events, manner of motion was only brought up in speech when it is felt necessary by the speakers. Previous works already has reported typologically different languages pay differential attention to the manner of motion. Correspondingly, encoding of manner in speech would bare salience for the speakers of v-framed languages like Turkish. Complementing their proposed separate conceptualization, Turkish speakers did not conflate manner and path information in one gesture. Furthermore, path gestures have been found to synchronize with path satellites more than they do with path verbs, which suggests that path information given in path satellites are also prominent enough to form GPs, namely psychological predicates. Ground gestures are the least gestured type of information (after figure) in

our data. Following two explanations might be claimed to be the reasons for such a situation. Firstly, as ground expressions have always included a path satellite, ground information in gestures gets downplayed by path. The frequent synchrony of path satellites with path gestures can be shown as evidence to this claim. The second reason has to do with information structure. Unlike manner and path expressions, ground expressions are under given status half of the time. As Turkish speakers tend not to gesture for given information, number of ground gestures are reduced indirectly. Overall, despite the high prevalence, path information is not gestured more than manner. The reason cannot be related to the information state as both manner and path expressions are not given in context commonly. Therefore, it seems that Turkish speakers tend not to gesture for path information although it is new in context in spite of the fact that v-framed languages pay greater attention to the path of motion, which sets up a contradiction. In addition, in Turkish path information is mentioned very often in forms of path verbs or various kinds of path satellites, which is also observed in English and Chinese (McNeill, 2005; Chui, 2009). In English and Chinese, speakers gesture path information more than manner just like Turkish. The problem here is that those three languages belong to different typological categories. Following Chui (2009), such similarities in the gesturing of motion events in can be interpreted to be the evidence for the claim that linguistic typology and gestures are not as interrelated as previously assumed. What is more, unlike Spanish, a v-framed language, which is reported to allow manner in gestures without corresponding linguistic representations abundantly (McNeill & Duncan, 2000), Turkish, another v-framed language is not found to do so. This situation can also be shown as evidence to contribute to Chui's (2009) claim that similarities in gesturing between typologically different languages and differences between the languages of the same typology violate linguistic typology and gesture's supposedly tight relation.

Driven from the effect of information state on ground gestures, in an attempt to observe the other possible effects of information structure on gestures and linguistic typology, this study has also analyzed the effect of focus in gesturing manner and path information in motion event descriptions where manner is expressed in subordinate clauses to path main verbs. By default, these constructions have involved manner subordinate adverb under focus as well as a path satellite or verbal path forms such as

gerunds. Namely, both manner and path information have been generally marked as prominent by prosody in the target event descriptions. It has been found that in the target event descriptions path information is chosen to be gestured more than manner gesture when they are both marked as prominent by intonation. Manner has been accepted to be perceptually salient as it was encoded optionally making it arise because of a narrative need in a V-framed language. Accordingly, in the first analysis, we have reported that manner information have been gestured more than path based on the number of times single motion events included manner in speech. In addition, we have stated that high prevalence of linguistically encoded path information have not been observed in gestures. However, the findings of the first analysis and focus analysis are in contradiction. When manner and path information are both prominent, manner should have been gestured more than path as it is more salient. We have found that path information in gestures is more salient in manner subordination instances because the speakers have tended to gesture for path information more than manner contradicting with the general assumption and the finding in the first part of the study. Linguistic typology and gesture relationship has been observed to differ under information structure modality although much parallelism has been found in other aspects.

In summary, we agree that conceptualization of an event is composed of both imagery and linguistic content as they can be observed in gesture and speech. Yet, the conceptualization is also integrated in social interactions (Chui, 2009). Based on the evidence presented in this study, it is not possible to maintain the assumption that motion event gestures and linguistic typology are highly related and dependant. As a result, speech and gestures may be governed by two separate systems that happen to show similar motion event typology at certain times. Moreover, gesture and speech may also be governed by a single system that consists of cross-cutting dimensions comforting to different modalities by showing similarity and difference. In the end, the dichotomy in the literature about speech and gesture production systems being separate or single may not be a necessary one, which awaits future studies.

5.1 Further Studies

This study has looked at only gesture strokes and focus matches. It is also possible to analyze gesture and focus match in phrasal level in that not only gesture strokes can be

included to the analyses but also the onsets and offsets gestures. Although there are studies which dealt with iconic gestures on the same topic, the match between onsets and offsets of deictic, metaphoric and beat gestures and focus phrases are not investigated to the researcher's knowledge.

This thesis has also 0shown that path satellites and ground expressions conflate under NP + suffix forms. Moreover, path satellites tend to form growth points with gestures more than path main verbs, which make the information they carry just as salient. According to our data, as ground and path components are conflated in every motion event descriptions, they are very likely to be conceptualized together following thinking for speaking theory (Slobin, 1987). As a result, path or ground gestures of Turkish speakers should show difference from the gestures of a speaker who speaks a language which does not conflate ground and path components commonly since the effect of conflation is also to be observed in gesture resulting in ground/path conflated gestures. A study investigating gestures in such two languages can contribute to linguistic typology and gesture relationship hypotheses.

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APPENDICES

Appendix A

Transcriptions

Participant 1

Speech	Odaya rüzgar girmiş durumda
TC	00:00:30.026 - 00:00:32.011
SD	(0.05)
Speech	Kavanoz düşmüş
TC	00:00:32.070 - 00:00:36.458
SD	(2.75)
Speech	Kavanoz diye adlandırdığım şey masadan aşağıya doğru düşüyor
TC	00:00:39.211 - 00:00:43.092
SD	(3.6)
Speech	Daha sonrasında ise masanın içindeki kavanozun içinden bir kurbağa çıkıyor yere düşen kavanozdan
TC	00:00:46.701 - 00:00:53.373
SD	(5.95)
Speech	Daha sonrasında kurbağa kavanozdan çıkıp perdeye doğru tırmanıyor
TC	00:00:59.327 - 00:01:04.178
SD	(3.4)
Speech	Kurbağa pencereden dışarı atlıyor
TC	00:01:07.581 - 00:01:10.148
SD	(1.68)
Speech	daha sonrasındaysa zıplaya zıplaya ormanlık bir alana doğru boş bir patikada ilerliyor
TC	00:01:11.835 - 00:01:19.477
SD	(11.28)
Speech	Köpek kavanozun etrafında geziniyor
TC	00:01:30.760 - 00:01:32.775
SD	(5.26)
Speech	Bir hışımla dışarı çıkmaya yöneliyorlar köpeğiyle beraber
TC	00:01:38.044 - 00:01:41.880
SD	(31.37)
Speech	Daha sonra kuşun eşliğinde patikadan ilerlemeye başlıyor çocuk ve köpek
TC	00:02:13.253 - 00:02:18.402
SD	(11.19)
Speech	Çocuk oraya doğru yöneliyor
TC	00:02:29.596 - 00:02:31.507
SD	(4.31)
Speech	Daha sonra oradan bir baykuş çıkıyor ve çocuk bundan ürküyor

TC	00:02:35.820 - 00:02:40.089
SD	(1.19)
Speech	Sonrasındaysa koşarak köpeğiyle beraber kaçmaya başlıyor ordan
TC	00:02:41.283 - 00:02:46.119
SD	(3.04)
Speech	Koşarken bir taşa takılıyor
TC	00:02:49.163 - 00:02:52.178
SD	(0.14)
Speech	Yüzüstü kapaklanıyor
TC	00:02:52.327 - 00:02:54.357
SD	(12.76)
Speech	Köpeğiyle beraber yürümeye devam ediyorlar ama artık yolun sonuna gelmişler.
TC	00:03:07.119 - 00:03:14.596
SD	(0.95)
Speech	Ordan aşağıya doğru kaymaya başlıyorlar
TC	00:03:15.551 - 00:03:19.984
SD	(13.04)
Speech	Oraya doğru ilerliyor
TC	00:03:33.029 - 00:03:35.492
SD	(3.99)
Speech	Ordan içeri girerek emeklemeye başlıyor
TC	00:03:39.491 - 00:03:42.491
SD	(0.07)
Speech	daha doğrusu sürünüyor içinde çok küçük bir alan çünkü
TC	00:03:42.565 - 00:03:45.864
SD	(1.79)
Speech	Ordan köpeğiyle beraber çıkıyor
TC	00:03:47.656 - 00:03:49.790
SD	(11.09)
Speech	Kurbağası yüzerken balonlar eşliğinde havalanmaya başlıyor
TC	00:04:00.880 - 00:04:05.208
SD	(3.53)
Speech	Kenarda yatan başka bir kurbağa var.
TC	00:04:08.745 - 00:04:11.029
SD	(0.32)
Speech	O kurbağa ağacın kenarında yaslanarak güneşleniyor
TC	00:04:11.357 - 00:04:16.432
SD	(11.32)
Speech	Onlara veda ederek geri dönüyor
TC	00:04:27.760 - 00:04:31.999
SD	(1.1)
Speech	Evine şarkılar eşliğinde varmış.
TC	00:04:33.104 - 00:04:36.402

SD	(8.98)
Speech	Köpeğine sopa atıyor
TC	00:04:45.387 - 00:04:47.372
SD	(6.03)
Speech	Sonrasında eve giriyor
TC	00:04:53.402 - 00:04:55.761

SD	(10.61)
Speech	Odasına döndüğünde ...
TC	00:05:06.372 - 00:05:10.372
SD	(0.03)
Speech	Birisi saatin sallangacı mı ne olur ya onda sallanıken
TC	00:05:10.402 - 00:05:15.551
SD	(1.79)
Speech	diğeri de tavanda duran ışığın gövdesinde tutunuyor
TC	00:05:17.342 - 00:05:23.760

Participant 2

Speech	Bu rüzgar sayesinde masanın üzerindeki eşyalardan biri devrilmiş
TC	00:01:40.681 - 00:01:44.454
SD	(2.37)
Speech	Vazolardan biri devrik halde
TC	00:01:46.828 - 00:01:49.783
SD	(15.26)
Speech	Masanın üzerindeki vazo yuvarlanarak yere doğru düşüyor
TC	00:02:05.044 - 00:02:09.817
SD	(16.8)
Speech	Bu vazonun içinden kurbağa çıkıyor
TC	00:02:26.624 - 00:02:30.862
SD	(6.71)
Speech	Vazonun içinden çıkan kurbağa perdeye doğru tırmanmaya başlıyor
TC	00:02:37.579 - 00:02:43.090
SD	(4.33)
Speech	Pencereden dışarı atlıyor
TC	00:02:47.420 - 00:02:50.533
SD	(12.27)
Speech	iki şerit arasındaki patikadan kurbağa zıplaya zıplaya ilerlemeye çalışıyor
TC	00:03:02.805 - 00:03:09.874
SD	(1.69)
Speech	Tekrar odaya geldik
TC	00:03:11.567 - 00:03:13.749
SD	(33.1)
Speech	Örtüyü kaldırmış yatağın altına bakıyor
TC	00:03:46.851 - 00:03:51.374
SD	(4.02)
Speech	Odadan çıkmak için hareketleniyor koşar adımlarla
TC	00:03:55.397 - 00:04:00.124
SD	(2.03)
Speech	Dışarı çıkıyor, bir ağacın yanına geliyor
TC	00:04:02.159 - 00:04:05.761
SD	(12.11)
Speech	Galiba o çıktığı ev, galiba bir ormana girmiş
TC	00:04:17.874 - 00:04:22.124
SD	(10.34)
Speech	... çıkan kurbağa olabilir acaba buraya gelmiş midir diye
TC	00:04:32.465 - 00:04:36.624
SD	(1.5)
Speech	Az önce kurbağanın yürüdüğü patika yolda bu sefer çocuk da yürümeye başlıyor.
TC	00:04:38.124 - 00:04:44.033
SD	(4.18)

Speech	Kuş da aynı doğrultuda uçuyor
TC	00:04:48.215 - 00:04:52.056
SD	(2.15)
Speech	daha büyük bir ağaca geldiler
TC	00:04:54.215 - 00:04:58.737
SD	(0.08)
Speech	Kuş ağaca konmuş
TC	00:04:58.817 - 00:05:01.056
SD	(11.8)
Speech	oyuğa doğru elini atmış bir şekilde içeriye sokuyor
TC	00:05:12.863 - 00:05:17.318
SD	(8.94)
Speech	Oyuktan bir baykuş gibi bir canavar gibi bir şey çıkıyor hayvan çıkıyor
TC	00:05:26.267 - 00:05:33.329
SD	(0.34)
Speech	Çocuk çok irkiliyor bundan ve kendini geriye doğru çekiyor
TC	00:05:33.669 - 00:05:38.715
SD	(2.36)
Speech	Ardından çocuk köpeğiyle beraber kaçmaya başlıyor
TC	00:05:41.079 - 00:05:49.420
SD	(10.05)
Speech	çocuk koşarken bir kapan olabilir bir çalılık olabilir bir şeye takılıyor
TC	00:05:59.477 - 00:06:08.717
SD	(0.12)
Speech	...ve düşüyor yere doğru yüzüstü
TC	00:06:08.840 - 00:06:12.806
SD	(14.57)
Speech	Pantolonunun o diz kapağındaki parça yere düşmüş
TC	00:06:27.385 - 00:06:30.522
SD	(0.82)
Speech	Ardından bir uçurum kenarına geliyor
TC	00:06:31.351 - 00:06:34.862
SD	(16.54)
Speech	Uçurumdan aşağı doğru yuvarlanarak düşüyor
TC	00:06:51.409 - 00:06:55.738
SD	(0.06)
Speech	Köpek yuvarlanıyor ama çocuk normal kayarak iniyor aşağıya doğru
TC	00:06:55.806 - 00:07:02.670
SD	(34.38)
Speech	Çocuk dizlerinin üzerinde çömelerek o oyuğa doğru ilerliyor
TC	00:07:37.055 - 00:07:42.477
SD	(4.62)
Speech	Ve onun içine giriyor
TC	00:07:47.098 - 00:07:50.759

SD	(8.17)
Speech	yüzüstü iki dar alandan sürünerek ilerlemeye çalışıyor
TC	00:07:58.929 - 00:08:06.042
SD	(4.18)
Speech	süründükten sonra...
TC	00:08:10.224 - 00:08:12.365
SD	(4.91)
Speech	Köpekle beraber az önce süründüğü yerden çıkıyor
TC	00:08:17.281 - 00:08:22.352
SD	(0.21)
Speech	başka bir yerden çıkıyor
TC	00:08:22.563 - 00:08:25.605
SD	(3.87)
Speech	Kavanozdan çıkan pencereden atlayan kurbağayı görüyor
TC	00:08:29.478 - 00:08:34.787
SD	(11.43)
Speech	Bir kurbağa yüzüyor
TC	00:08:46.224 - 00:08:48.238
SD	(0.02)
Speech	Bir kurabağanın da şuralarında iki tane bir şey var balon gibi sanki yükseliyor...
TC	00:08:48.261 - 00:08:55.430
SD	(0.1)
Speech	Çırpınarak kuş gibi uçmaya çalışıyor gibi bir görüntü var
TC	00:08:55.534 - 00:09:01.281
SD	(10.87)
Speech	ellerini ensesine koymuş
TC	00:09:12.154 - 00:09:14.619
SD	(10.73)
Speech	Ve çocuk elini çenesine götürüp...
TC	00:09:25.351 - 00:09:28.380
SD	(23.02)
Speech	Sol elini kaldırmış sanki birine selam veriyormuş gibi...
TC	00:09:51.408 - 00:09:55.760
SD	(2.3)
Speech	köpeğiyle beraber yürür adımlarla ilerliyor...
TC	00:09:58.069 - 00:10:02.041
SD	(22.01)
Speech	Belki kendi tekrar evine dönüyor olabilir
TC	00:10:24.056 - 00:10:26.380
Speech	bir kulubeye doğru yürüyor tekrar
TC	00:10:26.380 - 00:10:29.366
SD	(5.28)

Speech	Köpeğe bir dal gibi bir şey atıyor
TC	00:10:34.647 - 00:10:37.140
SD	(0.19)
Speech	Köpek de onu almak için hamle yapıyor.
TC	00:10:37.337 - 00:10:40.929
SD	(2.54)
Speech	havada oraya doğru o doğrultuda gidiyor
TC	00:10:43.478 - 00:10:46.394
SD	(0.03)
Speech	ve eve daha çok yaklaştılar
TC	00:10:46.429 - 00:10:48.668
SD	(18.23)
Speech	Çocuk da dalı bekliyormuş gibi hamle yapıyor iki eliyle böyle
TC	00:11:06.901 - 00:11:10.464
SD	(3.32)
Speech	İçeri girdi
TC	00:11:13.788 - 00:11:15.943
SD	(4.32)
Speech	..odasına doğru gidiyor
TC	00:11:20.267 - 00:11:22.576
SD	(6.26)
Speech	Çocuğun sırtı dönük...
TC	00:11:28.845 - 00:11:32.704
SD	(12.23)
Speech	odaya doğru adım atıyor
TC	00:11:44.936 - 00:11:48.316
SD	(1.7)
Speech	ve odaya girdiğinde...
TC	00:11:50.020 - 00:11:52.260
SD	(7.55)
Speech	Avizede bir kurbağa, bir tablo var o tabloda da diğer bir kurbağa sallanıyorlar
TC	00:11:59.816 - 00:12:14.267

Participant 3

Speech	Rüzgar geliyor
TC	00:00:51.464 - 00:00:53.084
SD	(0.21)
Speech	Perdeler uçuşuyor
TC	00:00:53.295 - 00:00:55.943
SD	(10.49)
Speech	Masadaki boş kavanoz yuvarlanıyor ve yere düşüyor
TC	00:01:06.435 - 00:01:12.041
SD	(10.91)
Speech	Yandaki boş kavanozun içinden kurbağa çıkmış durumda
TC	00:01:22.956 - 00:01:27.168
SD	(5.77)
Speech	Kavanozdan çıkan kurbağa perdeye tırmanıyor şu an
TC	00:01:32.943 - 00:01:36.084
SD	(4.37)
Speech	Kurbağa pencereden dışarı çıktı.
TC	00:01:40.463 - 00:01:43.041
SD	(0.15)
Speech	Bahçeye çıktı sanırım...
TC	00:01:43.196 - 00:01:46.393
SD	(2.38)
Speech	Zıplayarak bir tane yoldan ormana doğru gidiyor şu an
TC	00:01:48.774 - 00:01:56.028
SD	(11.04)
Speech	Köpek de kavanozun etrafında dolaşıyor
TC	00:02:07.068 - 00:02:10.688
SD	(0.63)
Speech	Çocukla köpek dışarı çıkmak üzereler kapıya yöneliyorlar
TC	00:02:11.322 - 00:02:16.040
SD	(6.69)
Speech	Ormanın içine giriyor şu an
TC	00:02:22.731 - 00:02:24.886
Speech	Kurbağa da oraya doğru kaçmıştı zaten
TC	00:02:24.900 - 00:02:26.591
SD	(9.87)
Speech	Ormana doğru yürümeye devam ediyor
TC	00:02:36.463 - 00:02:39.351
SD	(9.39)
Speech	Üstünden de bir kuş geçiyor
TC	00:02:48.746 - 00:02:51.027
SD	(13.45)
Speech	Ağacın üstündeki oyuğa doğru hamle yapıyor.
TC	00:03:04.478 - 00:03:07.548
Speech	Ellerini sokuyor içine

TC	00:03:07.548 - 00:03:09.717
SD	(1.39)
Speech	İçinden bir baykuş çıkıyor
TC	00:03:11.111 - 00:03:12.970
SD	(2.55)
Speech	Geri doğru hamle yapıyor
TC	00:03:15.520 - 00:03:17.225
SD	(1.61)
Speech	Çocukla köpek kaçmaya başlıyor şimdi ormanda.
TC	00:03:18.844 - 00:03:22.379
SD	(3.11)
Speech	Çocuk kaçarken bir tane taşa takılıyor ayağı ve yere düşüyor
TC	00:03:25.492 - 00:03:29.788
SD	(12.45)
Speech	Bir tane uçurum kenarına geliyorlar köpekle birlikte
TC	00:03:42.239 - 00:03:45.717
SD	(7.7)
Speech	Ordan aşağıya doğru kaymaya başlıyorlar
TC	00:03:53.422 - 00:03:56.718
SD	(1.35)
Speech	Köpek düşüyor, takla atıyor.
TC	00:03:58.069 - 00:04:00.182
SD	(0.04)
Speech	Çocuk da vücudunun üstünde kayıyor şu an
TC	00:04:00.224 - 00:04:04.759
SD	(19.86)
Speech	Oyuğun içine giriyor şu an
TC	00:04:24.619 - 00:04:26.957
SD	(0.04)
Speech	Yerde sürünerek içeride ilerliyor..
TC	00:04:27.006 - 00:04:29.091
SD	(5.3)
Speech	Başka bir yerden ya da aynı oyuğun içinden tekrar çıkıyor
TC	00:04:34.393 - 00:04:37.731
SD	(2.95)
Speech	Oyuktan çıktıktan sonra kurbağayı görüyor
TC	00:04:40.689 - 00:04:44.337
SD	(0.02)
Speech	Bir tane kurbağa derenin içinde yüzüyor
TC	00:04:44.365 - 00:04:47.478
SD	(1.97)
Speech	Yukarı doğru kurbağayı götürüyor şu an
TC	00:04:49.450 - 00:04:51.886
SD	(5.74)

Speech	Kurbağa ağaca yaslanmış yatıyor şu an
TC	00:04:57.632 - 00:05:03.252
SD	(16.6)
Speech	ve ters tarafa doğru gidiyorlar köpekle beraber
TC	00:05:19.858 - 00:05:24.591
SD	(2.12)
Speech	Eve doğru yürüyor aynı geldiği yoldan
TC	00:05:26.718 - 00:05:29.549
SD	(7.97)
Speech	Köpeğe doğru atıyor
TC	00:05:37.520 - 00:05:38.675
SD	(0.02)
Speech	Köpek de onu havada yakalamak için zıplıyor
TC	00:05:38.696 - 00:05:41.343
SD	(1.45)
Speech	Köpek çubuğu tutuyor çocuğa geri getiriyor
TC	00:05:42.802 - 00:05:45.760
SD	(4.47)
Speech	Eve geliyorlar
TC	00:05:50.238 - 00:05:51.914
SD	(18.76)
Speech	İçeri girdiğinde lambada sallanan ve...
TC	00:06:10.675 - 00:06:14.605
SD	(6.01)
Speech	İkisinin üstünde kurbağa sarkmış durumda sallanıyor evin içinde şu an
TC	00:06:20.618 - 00:06:24.731

Participant 4

Speech	Masanın üzerindeki kavanozlardan biri devrilmiş
TC	00:00:48.626 - 00:00:52.417
SD	(24.05)
Speech	Masada kavanoz yere doğru düşüyor
TC	00:01:16.476 - 00:01:20.626
SD	(1.32)
Speech	düşüşünü görebiliyorum.
TC	00:01:21.950 - 00:01:24.032
SD	(11.22)
Speech	yere düşen kavanozun yanında kurbağa gibi bir hayvan var
TC	00:01:35.253 - 00:01:40.537
SD	(0.28)
Speech	ve kavanozdan sola doğru gidiyor
TC	00:01:40.820 - 00:01:45.596
SD	(1.98)
Speech	Perdeye tırmanıyor kurbağa odanın camının perdesine
TC	00:01:47.581 - 00:01:53.506
SD	(6.65)
Speech	Odanın perdesine tırmanıp camdan atlıyor
TC	00:02:00.163 - 00:02:06.432
SD	(5.12)
Speech	Oraya doğru zıplayarak gidiyor
TC	00:02:11.560 - 00:02:15.306
SD	(4.97)
Speech	Kavanozun yere düştüğünü görüyor
TC	00:02:20.277 - 00:02:23.650
SD	(15.63)
Speech	Kavanozun yanında hayvanları dönüyor
TC	00:02:39.283 - 00:02:44.745
SD	(19.32)
Speech	Kapıya doğru yöneliyor
TC	00:03:04.073 - 00:03:06.476
SD	(0.07)
Speech	arkasından köpeği geliyor
TC	00:03:06.551 - 00:03:08.969
SD	(2.79)
Speech	Ağaçların olduğu bir yere geliyor
TC	00:03:11.760 - 00:03:13.551
SD	(14.23)
Speech	...sonra ilerliyor...
TC	00:03:27.790 - 00:03:30.103
SD	(1.58)
Speech	Kuş diyor ki burdan gidiyor...
TC	00:03:31.686 - 00:03:34.029

SD	(0.02)
Speech	Takip ediyor kuşu.
TC	00:03:34.058 - 00:03:36.461
SD	(4.67)
Speech	Sonra tekrar bir yere geliyorlar
TC	00:03:41.134 - 00:03:44.686
SD	(7.91)
Speech	Sonra bir ağaca geliyor.
TC	00:03:52.596 - 00:03:54.894
SD	(6.0)
Speech	Sonra içerden baykuş çıkıyor büyük bir kuş.
TC	00:04:00.895 - 00:04:04.999
SD	(9.12)
Speech	Sonra köpeği önden koşmaya başlıyor
TC	00:04:14.119 - 00:04:16.790
Speech	O da köpeğinin arkasından koşuyor
TC	00:04:16.805 - 00:04:20.432
SD	(6.41)
Speech	Koşarken düşüyor galiba
TC	00:04:26.850 - 00:04:29.999
SD	(16.37)
Speech	Sonra yürüyor uçurumun kenarı gibi bir yerde galiba
TC	00:04:46.372 - 00:04:50.282
SD	(4.12)
Speech	bu sefer aşağı doğru kayıyor.
TC	00:04:54.409 - 00:04:56.738
SD	(5.94)
Speech	Onlar da düşüyorlar
TC	00:05:02.686 - 00:05:05.059
SD	(3.67)
Speech	Tekrar ağaçlık bir yere geliyor yokuştan düşüp
TC	00:05:08.731 - 00:05:12.507
SD	(21.41)
Speech	içeri giriyor.
TC	00:05:33.925 - 00:05:36.641
SD	(9.32)
Speech	İçeri giriyor sürünerek.
TC	00:05:45.969 - 00:05:49.327
SD	(3.38)
Speech	Sonra yeni bir yere geliyor
TC	00:05:52.715 - 00:05:54.745
SD	(7.13)
Speech	Sonra kurbağaların olduğu yere geliyor

TC	00:06:01.884 - 00:06:05.147
SD	(7.21)
Speech	...balonlarla yukarı doğru uçmaya çalışıyor.
TC	00:06:12.360 - 00:06:15.819
SD	(5.49)
Speech	bir tanesi yüzerken...
TC	00:06:21.311 - 00:06:23.229
SD	(3.86)
Speech	Sanırım aynı kurbağa yüzüp uçuyor
TC	00:06:27.097 - 00:06:31.786
SD	(12.86)
Speech	Yatıyor ağaçta şöyle
TC	00:06:44.655 - 00:06:49.605
SD	(27.93)
Speech	Evine doğru şarkı söyleyerek gidiyor
TC	00:07:17.540 - 00:07:20.917
SD	(4.6)
Speech	Köpeğine çomak fırlatıyor.
TC	00:07:25.524 - 00:07:30.212
SD	(9.41)
Speech	Sonra eve giriyor...
TC	00:07:39.622 - 00:07:43.016
SD	(14.52)
Speech	Eve girince saate asılı bir kurbağa ve lambaya asılı bir kurbağa görüyor.
TC	00:07:57.540 - 00:08:06.180

Participant 5

Speech	... bir tanesi düşmüş.
TC	00:01:11.637 - 00:01:14.722
SD	(1.91)
Speech	... rüzgar giriyor içeri.
TC	00:01:16.637 - 00:01:19.957
SD	(2.38)
Speech	düşük demiştim ya şişe...
TC	00:01:22.340 - 00:01:26.851
SD	(1.36)
Speech	o yüzden yuvarlanarak yere düşüyor masadan
TC	00:01:28.212 - 00:01:32.531
SD	(9.51)
Speech	İçinden kurbağa çıkıyor...
TC	00:01:42.042 - 00:01:46.616
SD	(2.44)
Speech	Kurbağa perdeye tırmanmış
TC	00:01:49.063 - 00:01:52.722
SD	(0.06)
Speech	Sanırım dışarı çıkmaya çalışıyor...
TC	00:01:52.786 - 00:01:56.510
SD	(2.42)
Speech	Pencereden dışarı atladı kurbağa
TC	00:01:58.936 - 00:02:02.404
SD	(0.14)
Speech	... ormana doğru zıplaya zıplaya gidiyor.
TC	00:02:02.552 - 00:02:07.616
SD	(14.27)
Speech	...odayı dolaşıyor...
TC	00:02:21.892 - 00:02:24.403
SD	(5.55)
Speech	Evin kapısına yöneliyor...
TC	00:02:29.956 - 00:02:32.530
SD	(0.04)
Speech	dışarı çıkacak sanırım.
TC	00:02:32.574 - 00:02:35.446
SD	(20.46)
Speech	Sonra adam ormana doğru yürüyor
TC	00:02:55.914 - 00:02:58.786
SD	(1.0)
Speech	... kurbağa da ormana doğru gitmişti
TC	00:02:59.786 - 00:03:02.574
SD	(20.31)
Speech	Bir anda ordan baykuş çıkıyor ve çocuk korkuyor.
TC	00:03:22.893 - 00:03:26.872

SD	(0.06)
Speech	Sonra koşarak uzaklaşıyor köpeği önde o arkada
TC	00:03:26.935 - 00:03:32.318
SD	(5.21)
Speech	yüzüstü yere yuvarlanıyor çocuk düşüyor
TC	00:03:37.531 - 00:03:41.977
SD	(4.91)
Speech	Koşarken yere düşüyor ayağı takılıyor.
TC	00:03:46.893 - 00:03:49.936
SD	(12.89)
Speech	Uçurumun kenarına doğru gidiyorlar köpeği önde o arkada
TC	00:04:02.829 - 00:04:08.893
SD	(0.06)
Speech	Uçurumdan aşağı böyle kayıyor
TC	00:04:08.956 - 00:04:11.020
SD	(0.1)
Speech	..düşerek değil hızlı olsun diye iniyor
TC	00:04:11.127 - 00:04:17.318
SD	(7.04)
Speech	Oraya doğru gidecek büyük ihtimal
TC	00:04:24.361 - 00:04:27.212
SD	(15.89)
Speech	Ordan aşağıya düşüyor o boşluktan
TC	00:04:43.106 - 00:04:49.489
SD	(0.04)
Speech	Bir yere çıkıyor ordan
TC	00:04:49.531 - 00:04:53.254
SD	(9.66)
Speech	bir tanesinde balonlar takılı uçuyor hatta
TC	00:05:02.914 - 00:05:06.871
SD	(0.04)
Speech	bir tanesi de yüzüyor yerde
TC	00:05:06.914 - 00:05:10.275
SD	(26.78)
Speech	... evine şarkı söyleyerek geri dönüyor.
TC	00:05:37.062 - 00:05:42.998
SD	(10.47)
Speech	bir şey fırlatıyor...
TC	00:05:53.468 - 00:05:57.021
SD	(7.04)
Speech	...eve geliyor
TC	00:06:04.063 - 00:06:06.276
SD	(8.1)
Speech	...odasına geliyor...

TC	00:06:14.382 - 00:06:16.169
SD	(4.49)
Speech	sallanan bir şeyler var odanın ampulünden ve saatin altından
TC	00:06:20.659 - 00:06:28.127

Participant 6

Speech	Dışarıdan gelen bir rüzgar...
TC	00:01:20.067 - 00:01:23.976
SD	(2.68)
Speech	Masanın üzerindeki iki kavanozdan biri devrilmiş durumda şu anda
TC	00:01:26.658 - 00:01:32.658
SD	(8.97)
Speech	şişe birbiri ardına düşüyor.
TC	00:01:41.634 - 00:01:45.020
SD	(5.38)
Speech	aynı odaya dönüyoruz burda...
TC	00:01:50.408 - 00:01:53.203
SD	(1.15)
Speech	düşen kavanozun içinden bir kurbağa çıkıyor
TC	00:01:54.361 - 00:01:59.066
SD	(14.34)
Speech	düşmüş vaziyette bir şişe var.
TC	00:02:13.409 - 00:02:17.704
SD	(19.72)
Speech	evin dışına çıktı...
TC	00:02:37.431 - 00:02:39.976
SD	(0.11)
Speech	Kurbağa az önceki kavanozdan dışarı çıkıyor
TC	00:02:40.090 - 00:02:43.408
SD	(0.09)
Speech	Önce kavanozdan dışarı çıkıyor sonra evin dışına çıkıyor.
TC	00:02:43.499 - 00:02:48.477
SD	(5.59)
Speech	Üç tane kurbağa birbirlerini izlercesine yola koyulmuş.
TC	00:02:54.067 - 00:03:00.976
SD	(47.63)
Speech	ve kavanozun etrafında dönen iki tane yaratık var...
TC	00:03:48.612 - 00:03:52.567
SD	(11.13)
Speech	kurbağalar dışarı çıkmış.
TC	00:04:03.704 - 00:04:05.136
SD	(10.95)
Speech	o da onun arkasından koşuyor
TC	00:04:16.090 - 00:04:19.090
SD	(26.41)
Speech	ağacın yanından devam etmekte olan bir patika yola giriyor.
TC	00:04:45.502 - 00:04:49.843
SD	(2.97)
Speech	ayak izleri doğrultusunda yürümeye devam ediyor kahramanımız
TC	00:04:52.818 - 00:04:58.068

SD	(38.77)
Speech	Ordan baykuş görünümlü bir hayvan uçuyor bir anda
TC	00:05:36.840 - 00:05:44.658
SD	(13.88)
Speech	hayvanıyla birlikte kaçmaya başlıyor hızlı bir şekilde
TC	00:05:58.545 - 00:06:05.227
SD	(4.24)
Speech	kaçarken bir yere ... takılmışçasına ...
TC	00:06:09.476 - 00:06:19.590
SD	(0.06)
Speech	ayaklarını hareket ettiremiyormuş gibi bir durum var ortada.
TC	00:06:19.658 - 00:06:23.589
SD	(5.33)
Speech	Bir anda yere düşüveriyor.
TC	00:06:28.919 - 00:06:33.033
SD	(21.19)
Speech	yere düşen kahramanımızın...
TC	00:06:54.226 - 00:06:56.590
SD	(16.59)
Speech	Daha sonra uçurumun kenarına gelmiş biri
TC	00:07:13.181 - 00:07:18.454
SD	(21.93)
Speech	Kaymaya başlıyor ordan.
TC	00:07:40.385 - 00:07:44.522
SD	(2.04)
Speech	tekrar az önceki ormana geliyor
TC	00:07:46.567 - 00:07:49.635
SD	(13.61)
Speech	dikkatin çeken şeye yaklaşıyor emekler vaziyette
TC	00:08:03.249 - 00:08:08.499
SD	(14.59)
Speech	Az önce baktığı şeyin içine girmiş ...
TC	00:08:23.090 - 00:08:27.703
SD	(0.13)
Speech	birinin uzanmış vaziyette olduğunu...
TC	00:08:27.840 - 00:08:31.726
SD	(5.63)
Speech	girdiği yerden çıkıyor...
TC	00:08:37.363 - 00:08:41.999
SD	(8.11)
Speech	çalılıkların arasına giriyor
TC	00:08:50.113 - 00:08:54.431
SD	(50.5)
Speech	kurbağanın yattığını görüyor ağacın altında.

TC	00:09:44.931 - 00:09:48.681
SD	(40.68)
Speech	arkasını dönüp el salıyor...
TC	00:10:29.363 - 00:10:34.499
SD	(1.03)
Speech	eve dönüş yoluna girmiş gibi...
TC	00:10:35.533 - 00:10:38.828
SD	(5.69)
Speech	Eve dönüyor burda...
TC	00:10:44.521 - 00:10:45.794
SD	(11.61)
Speech	Elindeki sopayı uzağa doğru atıyor...
TC	00:10:57.408 - 00:11:00.545
SD	(8.79)
Speech	köpek onu sahibine getiriyor
TC	00:11:09.340 - 00:11:11.931
SD	(3.68)
Speech	sonra eve geliyor
TC	00:11:15.613 - 00:11:17.340
SD	(10.56)
Speech	yere kavanozun düştüğünden...
TC	00:11:27.908 - 00:11:31.681
SD	(19.29)
Speech	odada bir lambaya asılı kalmış bir kurbağa var
TC	00:11:50.976 - 00:11:56.930
SD	(0.09)
Speech	... duvara asılmış bir kurbağa...
TC	00:11:57.021 - 00:12:02.544

Participant 7

Speech	perdeleri uçuşturmuş.
TC	00:00:38.595 - 00:00:41.212
SD	(0.04)
Speech	Kavanoz devrilmiş masanın üzerinde
TC	00:00:41.254 - 00:00:42.818
SD	(9.79)
Speech	Pencereden rüzgar eserken kavanoz masadan aşağı düşüyor yavaşça
TC	00:00:52.616 - 00:00:59.872
SD	(3.8)
Speech	Kavanozun içinden bir kurbağa çıkıyor yürüyor.
TC	00:01:03.680 - 00:01:08.276
SD	(15.74)
Speech	... kurbağa tırmanıyor gidiyor...
TC	00:01:24.021 - 00:01:26.063
SD	(0.06)
Speech	odadan içeri bir tane kuş girmiş
TC	00:01:26.126 - 00:01:28.828
SD	(4.4)
Speech	Kurbağaymış o tırmanan
TC	00:01:33.233 - 00:01:35.254
SD	(1.44)
Speech	kurbağa camdan dışarı atladı kaçıyor şu an
TC	00:01:36.701 - 00:01:39.552
SD	(3.66)
Speech	zıplaya zıplaya bir yerlere gidiyor şu an
TC	00:01:43.212 - 00:01:46.531
SD	(22.87)
Speech	köpek de sağda solda dolanıyor kavanozun etrafında
TC	00:02:09.404 - 00:02:12.744
SD	(3.97)
Speech	Çocuk dışarı çıkıyor.
TC	00:02:16.722 - 00:02:17.829
SD	(0.03)
Speech	köpek de arkasından geliyor
TC	00:02:17.860 - 00:02:19.414
Speech	Kapıya doğru yönelmiş
TC	00:02:19.424 - 00:02:21.424
SD	(1.51)
Speech	Çocuk dışarda bir tane ağacın tepesine gitmiş
TC	00:02:22.935 - 00:02:27.573
SD	(9.49)
Speech	bu çocuk başka bir yere gidiyor
TC	00:02:37.063 - 00:02:40.446

SD	(8.82)
Speech	yoldan ormana doğru gidiyor
TC	00:02:49.275 - 00:02:51.105
SD	(0.03)
Speech	ayak izleri var onları takip ediyor
TC	00:02:51.137 - 00:02:52.733
SD	(0.07)
Speech	bir tane de kuş uçuyor tepede
TC	00:02:52.807 - 00:02:54.850
SD	(19.76)
Speech	Oraya elini sokmuş...
TC	00:03:14.616 - 00:03:15.893
SD	(6.44)
Speech	İçerden bir baykuş çıkıyor
TC	00:03:22.340 - 00:03:25.084
SD	(7.59)
Speech	Köpeğiyle beraber kaçıyor ormandan.
TC	00:03:32.680 - 00:03:35.744
SD	(1.04)
Speech	taşa takılıyor
TC	00:03:36.786 - 00:03:38.340
SD	(0.04)
Speech	düşüyor çimlerin üzerine
TC	00:03:38.382 - 00:03:41.425
SD	(30.49)
Speech	Oraya doğru gidiyorlar köpekle beraber
TC	00:04:11.915 - 00:04:14.489
SD	(4.27)
Speech	bir şeyden aşağı kayıyorlar şimdi...
TC	00:04:18.765 - 00:04:24.127
SD	(7.42)
Speech	ormana gitmiş yine..
TC	00:04:31.553 - 00:04:33.872
SD	(14.7)
Speech	oraya gitmiş...
TC	00:04:48.573 - 00:04:51.807
SD	(4.63)
Speech	o oyuktan içeri girdi.
TC	00:04:56.446 - 00:05:01.212
SD	(0.04)
Speech	sürünüyor böyle kayanın içinde
TC	00:05:01.255 - 00:05:05.383
SD	(11.85)
Speech	başka bir yerden çıkmış yanında köpek var

TC	00:05:17.233 - 00:05:20.084
SD	(11.78)
Speech	onlar yüzüyor ...
TC	00:05:31.872 - 00:05:33.999
SD	(3.06)
Speech	oraya kaçmış...
TC	00:05:37.063 - 00:05:38.957
SD	(3.66)
Speech	Ağacın altında yatan bir kurbağa görüyor kendi çapında...
TC	00:05:42.617 - 00:05:50.425
SD	(17.68)
Speech	bye bye diyor gidiyor
TC	00:06:08.106 - 00:06:11.637
SD	(3.85)
Speech	şarkı söyleye söyleye geri dönüyor
TC	00:06:15.489 - 00:06:18.382
SD	(8.8)
Speech	köpeğine çubuk attı.
TC	00:06:27.190 - 00:06:30.020
SD	(0.02)
Speech	o da geri getirdi.
TC	00:06:30.041 - 00:06:32.361
SD	(1.7)
Speech	eve giriyor
TC	00:06:34.063 - 00:06:35.595
SD	(0.05)
Speech	Annesi geldi
TC	00:06:35.648 - 00:06:37.521
SD	(6.13)
Speech	Kurbağa da geri geldi bu sıra da camdan içeri
TC	00:06:43.659 - 00:06:47.340

Participant 8

Speech	masanın üzerinde köpek uzanmış
TC	00:01:00.765 - 00:01:03.191
SD	(31.23)
Speech	masadaki kavanoz düşmüş
TC	00:01:34.424 - 00:01:37.084
SD	(7.51)
Speech	kavanozun düşüş anı gözüküyor
TC	00:01:44.595 - 00:01:49.659
SD	(9.73)
Speech	kavanozun içinden bir kurbağa çıktı.
TC	00:01:59.392 - 00:02:03.030
SD	(41.16)
Speech	... uçan bir şey var.
TC	00:02:44.191 - 00:02:46.701
SD	(0.05)
Speech	açık pencereden çıkmaya çalışıyor.
TC	00:02:46.755 - 00:02:49.414
SD	(17.3)
Speech	kurbağa zıplamış
TC	00:03:06.723 - 00:03:09.595
SD	(2.38)
Speech	kurbağa kavanozdan çıkmıştı
TC	00:03:11.978 - 00:03:15.000
SD	(0.08)
Speech	...zıplayan ... şey pencereye doğru kurbağaymış
TC	00:03:15.084 - 00:03:19.127
SD	(0.44)
Speech	kurbağa pencereden dışarı çıktı
TC	00:03:19.573 - 00:03:23.148
SD	(1.19)
Speech	kurbağa zıplaya zıplaya ormana doğru ilerliyor
TC	00:03:24.339 - 00:03:27.765
SD	(6.06)
Speech	... kaçmış şu anda kurbağa
TC	00:03:33.828 - 00:03:35.531
SD	(7.65)
Speech	köpek de kavanozun etrafında dönüyor.
TC	00:03:43.190 - 00:03:46.999
SD	(2.21)
Speech	Köpekle birlikte hızlıca çıkıyorlar
TC	00:03:49.212 - 00:03:51.786
SD	(0.04)
Speech	Kapıya doğru yöneliyorlar
TC	00:03:51.829 - 00:03:54.191

SD	(23.76)
Speech	bir ormanın içinde bir yerlere doğru yürüyor
TC	00:04:17.956 - 00:04:21.977
SD	(33.93)
Speech	oraya doğru bir elini uzattı.
TC	00:04:55.914 - 00:04:59.041
SD	(6.7)
Speech	...baykuş vari bir şey çıktı birden
TC	00:05:05.744 - 00:05:09.893
SD	(2.63)
Speech	...köpeğiyle kaçmaya başladılar
TC	00:05:12.531 - 00:05:15.361
SD	(5.36)
Speech	koşarken ayağı kocaman bir taşa takıldı ve düştü
TC	00:05:20.723 - 00:05:25.765
SD	(12.29)
Speech	köpeğiyle birlikte yürüyorlar şu anda yine
TC	00:05:38.063 - 00:05:43.020
SD	(1.87)
Speech	oraya doğru yürüyorlar
TC	00:05:44.892 - 00:05:47.339
SD	(0.1)
Speech	bu sefer de yamaçtan düştüler işte.
TC	00:05:47.446 - 00:05:51.765
SD	(5.36)
Speech	ayakları filan kaydı
TC	00:05:57.126 - 00:05:59.850
SD	(26.19)
Speech	içine girdiler o oyuğun
TC	00:06:26.041 - 00:06:30.637
SD	(0.24)
Speech	delikten çıktılar köpeğiyle birlikte
TC	00:06:30.882 - 00:06:35.286
SD	(12.71)
Speech	bir gölet gibi bir yere geldiler sazların olduğu
TC	00:06:47.999 - 00:06:53.148
SD	(0.06)
Speech	Kurbağası yüzüyor...
TC	00:06:53.212 - 00:06:54.999
SD	(3.04)
Speech	uçmaya çalışan bir kurbağa var balonlar takılı
TC	00:06:58.042 - 00:07:03.957
SD	(0.08)
Speech	yüzüp uçmaya çalışacak galiba

TC	00:07:04.041 - 00:07:07.935
SD	(16.25)
Speech	ağaca yaslanmış böyle....
TC	00:07:24.191 - 00:07:30.999
SD	(18.58)
Speech	bye bye yapıp ilerliyor köpeğiyle
TC	00:07:49.584 - 00:07:53.988
SD	(6.41)
Speech	müzik dinleyerek evine doğru ilerliyor sakin bir şekilde
TC	00:08:00.403 - 00:08:05.956
SD	(2.02)
Speech	tahta filan fırlatıyor evin önünde yine
TC	00:08:07.978 - 00:08:11.914
SD	(0.95)
Speech	köpeğe atıyor.
TC	00:08:12.871 - 00:08:15.169
SD	(0.9)
Speech	getiriyor ... tahtayı
TC	00:08:16.073 - 00:08:17.605
SD	(3.62)
Speech	içeri giriyor...
TC	00:08:21.233 - 00:08:23.489
SD	(13.14)
Speech	bir tanesi lambanın üzerinde sallanıyor gibi tarzan vari
TC	00:08:36.638 - 00:08:42.042
SD	(5.97)
Speech	sallanana tutunmuş bir oraya bir buraya gidiyor.
TC	00:08:48.021 - 00:08:54.999

Participant 9

Speech	...sandalyesiçekikmasanın
TC	00:00:35.637 - 00:00:38.510
SD	(0.63)
Speech	perdenin arasından ipleri sarkıyor aşağı doğru böyle uzun bir şekilde
TC	00:00:39.148 - 00:00:43.424
SD	(21.32)
Speech	hafif rüzgar giriyor
TC	00:01:04.744 - 00:01:06.829
SD	(6.04)
Speech	birisi düşmüş.
TC	00:01:12.871 - 00:01:14.594
SD	(4.59)
Speech	rüzgar giriyor odanın içine
TC	00:01:19.191 - 00:01:21.808
SD	(15.31)
Speech	kavanoz rüzgardan dolayı yuvarlanıyor yavaş yavaş aşağı düşüyor.
TC	00:01:37.127 - 00:01:41.637
SD	(16.46)
Speech	kavanozun içinden kurbağa çıkmış.
TC	00:01:58.106 - 00:02:04.191
SD	(8.4)
Speech	kurbağa insan gibi ayakta duruyor.
TC	00:02:12.594 - 00:02:17.488
SD	(12.31)
Speech	kurbağa cama doğru zıplamış böyle
TC	00:02:29.807 - 00:02:33.914
SD	(9.7)
Speech	kurbağa aşağı doğru zıplamış
TC	00:02:43.617 - 00:02:49.361
SD	(8.53)
Speech	kurbağa zıplamış...
TC	00:02:57.892 - 00:02:59.786
SD	(2.98)
Speech	böyle bir yol gibi... bir şeyin üstünde çalılıklara doğru yürüyor gidiyor.
TC	00:03:02.775 - 00:03:14.839
SD	(8.69)
Speech	başucu değil de ayak ucuna doğru sürünerek gelmiş
TC	00:03:23.531 - 00:03:28.850
SD	(14.27)
Speech	yatağın altını kaldırmış böyle.
TC	00:03:43.127 - 00:03:46.467
SD	(5.89)
Speech	köpek kavanozun etrafında geziyor böyle

TC	00:03:52.361 - 00:03:55.893
SD	(1.89)
Speech	çocuk kapıya doğru yöneliyor.
TC	00:03:57.786 - 00:04:00.063
SD	(0.06)
Speech	evden çıkıyor
TC	00:04:00.127 - 00:04:02.680
SD	(8.29)
Speech	köpek de çocuğun arkasından kapıya doğru yürüyor
TC	00:04:10.978 - 00:04:15.084
SD	(2.74)
Speech	bir ağacın yanına geldiler dışarıda
TC	00:04:17.829 - 00:04:20.467
SD	(34.4)
Speech	ağacın yanından ayrılıyor.
TC	00:04:54.872 - 00:04:58.318
SD	(4.68)
Speech	çocuk orda yürüyor
TC	00:05:02.999 - 00:05:05.361
SD	(0.19)
Speech	bir kuş uçuyor böyle.
TC	00:05:05.552 - 00:05:07.467
SD	(1.68)
Speech	ağaçlık ormana doğru gidiyor yol.
TC	00:05:09.148 - 00:05:12.701
SD	(8.93)
Speech	bir ağacın yanına geldiler
TC	00:05:21.638 - 00:05:24.701
SD	(17.46)
Speech	şimdi o kovuğa doğru yaklaştı.
TC	00:05:42.169 - 00:05:45.488
SD	(6.91)
Speech	birden baykuş çıkıyor böyle karşısına.
TC	00:05:52.403 - 00:05:55.424
SD	(0.77)
Speech	şaşırıyor böyle geriye gidiyor.
TC	00:05:56.200 - 00:05:58.711
SD	(2.62)
Speech	Köpek önden koşuyor hızlıca.
TC	00:06:01.339 - 00:06:05.871
SD	(2.97)
Speech	ordan beraber kaçıyorlar köpek önde çocuk arkada
TC	00:06:08.850 - 00:06:11.744
SD	(7.53)

Speech	çimlere takılıyor ve yere düşüyor
TC	00:06:19.276 - 00:06:23.106
SD	(12.36)
Speech	uçurum gibi bir yere geliyorlar şimdi
TC	00:06:35.467 - 00:06:38.616
SD	(13.74)
Speech	ordan kayıyorlar böyle.
TC	00:06:52.360 - 00:06:56.318
SD	(0.12)
Speech	uçurumun kenarından kaymaya başlıyorlar köpekle çocuk.
TC	00:06:56.445 - 00:07:00.892
SD	(0.83)
Speech	aşağı doğru kaymaya başlıyorlar uçurum gibi yerden
TC	00:07:01.722 - 00:07:06.052
SD	(3.73)
Speech	yine orman gibi bir yere geldiler
TC	00:07:09.786 - 00:07:12.723
SD	(9.58)
Speech	yine oraya doğru yaklaşıyor böyle...
TC	00:07:22.307 - 00:07:24.711
SD	(0.18)
Speech	bu sefer emekleyerek gidiyor çocuk.
TC	00:07:24.893 - 00:07:27.893
SD	(1.97)
Speech	çocuk o kovuktan içeri girdi...
TC	00:07:29.871 - 00:07:34.042
SD	(6.36)
Speech	sürünerek aşağı doğru iniyor
TC	00:07:40.403 - 00:07:44.552
SD	(1.34)
Speech	ordan çıktı.
TC	00:07:45.893 - 00:07:47.723
SD	(6.93)
Speech	emekleyerek giderken bir adımını dışarı attı. Köpeği de yanında
TC	00:07:54.659 - 00:08:02.084
SD	(11.72)
Speech	bir kurbağa böyle kulaç atıyor.
TC	00:08:13.807 - 00:08:17.531
SD	(5.29)
Speech	balon bağlamış uçmaya çalışıyor.
TC	00:08:22.829 - 00:08:27.063
SD	(0.17)
Speech	elleriyle çırpınıyor.
TC	00:08:27.233 - 00:08:29.956

SD	(3.66)
Speech	kurbağa ağaca yaslanmış...
TC	00:08:33.616 - 00:08:38.871
SD	(30.27)
Speech	köpeğiyle gidiyor herhalde...
TC	00:09:09.148 - 00:09:12.212
SD	(4.53)
Speech	şarkı söyleyerek evine doğru patika yoldan gidiyor
TC	00:09:16.744 - 00:09:21.914
Speech	köpeğine hani odun atarlar ya böyle...
TC	00:09:21.914 - 00:09:27.392
SD	(3.43)
Speech	çocuk ona atmış evin önünde.
TC	00:09:30.828 - 00:09:32.871
SD	(10.02)
Speech	çocuğa doğru getiriyor tuttuğunu.
TC	00:09:42.892 - 00:09:46.148
SD	(2.76)
Speech	eve girmişler...
TC	00:09:48.914 - 00:09:52.190
SD	(17.42)
Speech	sol elini havaya kaldırmış.
TC	00:10:09.616 - 00:10:12.095
SD	(27.06)
Speech	bir eliyle tutmuş sarkıyor avizeden.
TC	00:10:39.158 - 00:10:43.456

Participant 10

Speech	masanın üzerindeki kap düşüyor...
TC	00:00:55.148 - 00:01:00.489
SD	(21.6)
Speech	bu sefer yere düşüyor kavanoz.
TC	00:01:22.095 - 00:01:24.627
SD	(3.18)
Speech	yuvarlanıyor, aşağı iniyor
TC	00:01:27.808 - 00:01:32.318
SD	(0.06)
Speech	kurbağa çıkıyor bu kavanozdan
TC	00:01:32.382 - 00:01:34.872
SD	(6.97)
Speech	kurbağa camdan dışarı çıkmaya hazırlanıyor
TC	00:01:41.850 - 00:01:47.360
SD	(0.1)
Speech	perdeye tırmanmış şu anda
TC	00:01:47.467 - 00:01:50.552
SD	(6.48)
Speech	kurbağa dışarı çıkar
TC	00:01:57.041 - 00:02:00.467
Speech	...bahçeye atlamış...
TC	00:02:00.467 - 00:02:04.063
SD	(4.1)
Speech	kurbağa nehir gibi bir yerde yüzmeye, atlamaya başlıyor
TC	00:02:08.169 - 00:02:12.573
SD	(0.08)
Speech	Nehrin uzandığı yol boyunda
TC	00:02:12.659 - 00:02:17.297
SD	(8.63)
Speech	eve döndü yine...
TC	00:02:25.935 - 00:02:28.339
SD	(8.51)
Speech	sonra köpek de geliyor işte
TC	00:02:36.850 - 00:02:38.701
SD	(0.93)
Speech	kavanozun etrafında dolaşıyor.
TC	00:02:39.638 - 00:02:42.042
SD	(16.61)
Speech	çocuk ve köpek kurbağayı aramak için evden dışarı çıkıyor
TC	00:02:58.659 - 00:03:02.552
SD	(6.87)
Speech	ağaçların tepesine kadar köpek çıkıyor...
TC	00:03:09.424 - 00:03:15.935
SD	(6.89)

Speech	bir patikadan yürüyorlar
TC	00:03:22.829 - 00:03:26.170
SD	(3.89)
Speech	... geziyor gibi...
TC	00:03:30.063 - 00:03:33.446
SD	(1.19)
Speech	o tarafa doğru gidiyor galiba çocuk
TC	00:03:34.637 - 00:03:37.296
SD	(36.32)
Speech	ordan bir baykuş çıkıyor...
TC	00:04:13.616 - 00:04:16.254
SD	(3.55)
Speech	sonra hızla uzaklaşıyorlar ordan köpekle birlikte
TC	00:04:19.807 - 00:04:22.977
SD	(3.36)
Speech	ayağı taşa takılıyor ve düşüyor çocuk.
TC	00:04:26.339 - 00:04:30.275
SD	(13.68)
Speech	uçurum gibi bir yere geliyorlar köpekle
TC	00:04:43.956 - 00:04:47.318
SD	(11.7)
Speech	ordan kayıyorlar
TC	00:04:59.020 - 00:05:03.105
SD	(1.46)
Speech	yine ormana geliyorlar
TC	00:05:04.574 - 00:05:06.978
SD	(10.29)
Speech	oraya gidiyor.
TC	00:05:17.276 - 00:05:20.319
SD	(0.59)
Speech	yaklaşıyor iyice çukura
TC	00:05:20.914 - 00:05:23.126
SD	(2.78)
Speech	o mağaraya giriyorlar...
TC	00:05:25.914 - 00:05:30.148
SD	(6.7)
Speech	ordan çıkıyor köpekle
TC	00:05:36.850 - 00:05:41.850
SD	(3.06)
Speech	ormanlık alana geliyorlar
TC	00:05:44.914 - 00:05:47.723
SD	(11.12)
Speech	bir kurbağa yüzüyor...
TC	00:05:58.850 - 00:06:01.722

SD	(42.68)
Speech	çocuk gidiyor...
TC	00:06:44.403 - 00:06:46.999
SD	(11.57)
Speech	.... evine gidiyor.
TC	00:06:58.573 - 00:07:02.552
SD	(0.25)
Speech	köpeğine sopa fırlatıyor.
TC	00:07:02.807 - 00:07:05.701
SD	(7.23)
Speech	Köpek çocuğun attığı sopayı getiriyor.
TC	00:07:12.936 - 00:07:17.723
SD	(0.1)
Speech	eve giriyor.
TC	00:07:17.829 - 00:07:19.999
SD	(3.44)
Speech	evden içeri girerken görünüyor şu anda
TC	00:07:23.446 - 00:07:28.787
SD	(13.4)
Speech	bir kurbağa lambada sallanıyor.
TC	00:07:42.191 - 00:07:45.340
SD	(0.06)
Speech	saatin tiktağına sarılmış sallanıyor.
TC	00:07:45.403 - 00:07:50.935

Participant 11

Speech	köpek yatıyor masanın üstünde
TC	00:00:33.786 - 00:00:37.169
SD	(18.74)
Speech	kavanoz devrilmiş
TC	00:00:55.914 - 00:00:58.893
SD	(5.46)
Speech	masanın üstünden kavanoz dönerek düşüyor yere...
TC	00:01:04.361 - 00:01:10.808
SD	(6.63)
Speech	yatakta birisi yatıyor
TC	00:01:17.446 - 00:01:19.850
SD	(7.0)
Speech	kavanozun içinden .... kurbağa çıkıyor
TC	00:01:26.850 - 00:01:33.765
SD	(10.85)
Speech	kurbağa camdan atlayacak...
TC	00:01:44.617 - 00:01:46.191
SD	(0.11)
Speech	perdeye tırmanıyor
TC	00:01:46.308 - 00:01:48.202
SD	(2.76)
Speech	dışarı camdan atlıyor...
TC	00:01:50.967 - 00:01:55.553
SD	(6.89)
Speech	zıplaya zıplaya gidiyor ormana doğru küçük patika gibi bir yoldan
TC	00:02:02.446 - 00:02:08.361
SD	(15.27)
Speech	köpek de kavanozun etrafında geziyor
TC	00:02:23.637 - 00:02:25.701
SD	(5.78)
Speech	odadan çıkıyor...
TC	00:02:31.489 - 00:02:33.659
SD	(13.48)
Speech	çocukla köpek dışarı çıkıyorlar
TC	00:02:47.148 - 00:02:49.808
SD	(8.93)
Speech	kurbağa ağacın üstüne çıkmış.
TC	00:02:58.743 - 00:03:01.211
SD	(11.08)
Speech	çocuk kurbağanın geçtiği o patikadan yürüyor.
TC	00:03:12.296 - 00:03:15.424
SD	(0.38)
Speech	burdan mı gideceğim ...
TC	00:03:15.808 - 00:03:18.233

SD	(0.43)
Speech	üstünden bir tane kuş geçiyor ormana doğru
TC	00:03:18.669 - 00:03:21.967
SD	(25.01)
Speech	içinden baykuş gibi büyük bir hayvan çıkıyor oyuğun
TC	00:03:46.978 - 00:03:52.063
SD	(1.21)
Speech	çocuk geri çekiliyor.
TC	00:03:53.275 - 00:03:54.722
SD	(2.89)
Speech	köpek önde çocuk arkada koşmaya başlıyorlar.
TC	00:03:57.616 - 00:04:01.637
SD	(4.59)
Speech	çocuk taşa ... takılıyor..
TC	00:04:06.233 - 00:04:10.255
SD	(0.1)
Speech	düşüyor yere.
TC	00:04:10.361 - 00:04:11.553
SD	(7.1)
Speech	uçurum gibi bir yere geliyor köpek önde çocuk arkada.
TC	00:04:18.659 - 00:04:24.339
SD	(0.17)
Speech	oraya doğru yürüyorlar
TC	00:04:24.510 - 00:04:26.701
SD	(7.59)
Speech	ordan yuvarlanıyor aşağı doğru köpek çocuk.
TC	00:04:34.297 - 00:04:39.680
SD	(1.51)
Speech	yine ormana geldiler
TC	00:04:41.190 - 00:04:43.382
SD	(13.18)
Speech	çocuk oraya doğru ... emekleye emekleye giriyor bu.
TC	00:04:56.563 - 00:05:02.574
SD	(1.0)
Speech	giriyor o oyuğun içine.
TC	00:05:03.574 - 00:05:06.999
SD	(0.23)
Speech	aşağı doğru böyle kayıyor
TC	00:05:07.233 - 00:05:10.893
SD	(2.04)
Speech	bir yere çıkıyorlar.
TC	00:05:12.935 - 00:05:15.850
SD	(19.42)
Speech	bir tanesi yüzüyor.

TC	00:05:35.276 - 00:05:36.914
SD	(7.1)
Speech	başka bir kurbağa ağaca yaslanmış...
TC	00:05:44.021 - 00:05:51.255
SD	(18.25)
Speech	güle güle deyip gidiyorlar çocukla köpek.
TC	00:06:09.510 - 00:06:13.595
SD	(4.51)
Speech	... eve doğru gidiyor o patika yolda.
TC	00:06:18.105 - 00:06:23.701
SD	(9.38)
Speech	çocuk köpeğe sopa atıyor
TC	00:06:33.084 - 00:06:34.829
SD	(4.59)
Speech	çocuk sopayı atıyor.
TC	00:06:39.425 - 00:06:41.425
SD	(0.58)
Speech	köpek ... geri getiriyor çocuğa sopayı.
TC	00:06:42.010 - 00:06:45.148
SD	(2.04)
Speech	çocuk eve giriyor.
TC	00:06:47.191 - 00:06:49.148
SD	(23.1)
Speech	duvar saati altında şey oynayan...
TC	00:07:12.255 - 00:07:16.148
SD	(2.23)
Speech	lambaya da bir tane kurbağa asılı.
TC	00:07:18.382 - 00:07:21.255

Participant 12

Speech	içeri rüzgar giriyor.
TC	00:00:41.666 - 00:00:43.055
SD	(0.81)
Speech	kavanozlar devrilmiş
TC	00:00:43.869 - 00:00:45.869
SD	(0.33)
Speech	içinde kurbağa olan kavanoz da devrilmiş
TC	00:00:46.203 - 00:00:48.703
SD	(4.88)
Speech	kavanoz yuvarlanıp yuvarlanıp yere düşmüş masadan
TC	00:00:53.592 - 00:00:57.184
SD	(14.14)
Speech	kavanozdaki kurbağa çıkmış...
TC	00:01:11.333 - 00:01:12.777
SD	(6.03)
Speech	kurbağa zıplamış.
TC	00:01:18.814 - 00:01:20.499
SD	(1.05)
Speech	kavanozundan filan uzaklaşmış.
TC	00:01:21.555 - 00:01:23.703
SD	(0.03)
Speech	dışarı doğru gidiyor
TC	00:01:23.740 - 00:01:26.222
SD	(3.22)
Speech	dışarıya çıkmış kurbağa
TC	00:01:29.443 - 00:01:31.499
SD	(0.37)
Speech	pencereden atlamış yani
TC	00:01:31.869 - 00:01:33.832
SD	(2.11)
Speech	seke seke böyle bir ormanlık alana doğru gidiyor.
TC	00:01:35.944 - 00:01:39.777
SD	(15.92)
Speech	onlar da kavanozun etrafında dönüyorlar
TC	00:01:55.703 - 00:01:58.407
SD	(2.4)
Speech	çocuk bir hışımla dışarı doğru köpeğiyle beraber kapıya yöneliyor.
TC	00:02:00.814 - 00:02:06.518
SD	(3.33)
Speech	...ağacın yanına gelmiş
TC	00:02:09.851 - 00:02:11.425
SD	(3.79)
Speech	patikadan bir kuşla beraber ilerliyor.
TC	00:02:15.221 - 00:02:20.647

SD	(20.46)
Speech	sonra birden bir baykuş çıkıyor
TC	00:02:41.110 - 00:02:43.055
SD	(4.94)
Speech	çocuk kaçmaya başlıyor...
TC	00:02:47.999 - 00:02:50.296
SD	(3.33)
Speech	... bir taşa takılıyor..
TC	00:02:53.628 - 00:02:55.702
SD	(0.13)
Speech	ve düşüyor yüzüstü.
TC	00:02:55.833 - 00:02:57.240
SD	(8.35)
Speech	köpekle beraber bir uçurumun kenarina geldiler
TC	00:03:05.592 - 00:03:08.388
SD	(2.61)
Speech	aşağı doğru köpekle beraber yuvarlanıyorlar.
TC	00:03:10.999 - 00:03:14.628
SD	(5.87)
Speech	aşağı indiler artık.
TC	00:03:20.499 - 00:03:23.295
SD	(9.18)
Speech	mağara gibi bir şeyin içine giriyor çocuk.
TC	00:03:32.481 - 00:03:36.222
SD	(4.53)
Speech	bir yerden başka bir yere geçti.
TC	00:03:40.758 - 00:03:43.018
SD	(0.05)
Speech	tünel gibi bir şeyden geçmiş herhalde...
TC	00:03:43.073 - 00:03:45.795
SD	(18.83)
Speech	yüzüyor kurbağa gölette bence.
TC	00:04:04.628 - 00:04:07.314
SD	(5.38)
Speech	...güneşleniyor ağaca yaslanmış.
TC	00:04:12.703 - 00:04:17.000
SD	(14.92)
Speech	...çocuk köpekle gidiyor herhalde...
TC	00:04:31.925 - 00:04:34.332
SD	(5.2)
Speech	şarkı söyleye söyleye çocuk eve doğru yol alıyor.
TC	00:04:39.536 - 00:04:44.110
SD	(9.16)
Speech	...köpek odun getiriyor herhalde.

TC	00:04:53.277 - 00:04:57.536
SD	(2.35)
Speech	eve giriyor...
TC	00:04:59.888 - 00:05:01.962
SD	(7.31)
Speech	bir bakıyor ki odasındaki lambadan ve saatten kurbağalar sarkıyor.
TC	00:05:09.276 - 00:05:20.054

Participant 13

Speech	biri devrilmiş.
TC	00:01:01.190 - 00:01:02.636
SD	(12.51)
Speech	tek bir vazo... ... devriliyor
TC	00:01:15.148 - 00:01:20.744
SD	(33.42)
Speech	...camdan çıkmaya çalışıyor.
TC	00:01:54.169 - 00:01:56.616
SD	(17.42)
Speech	evden dışarı çıkmış...
TC	00:02:14.042 - 00:02:15.659
SD	(0.64)
Speech	bahçede geziyor.
TC	00:02:16.308 - 00:02:17.712
SD	(6.58)
Speech	ormana doğru gidiyor kurbağa ince bir patika yoldan...
TC	00:02:24.297 - 00:02:30.063
SD	(10.23)
Speech	vazo yere düşünce...
TC	00:02:40.297 - 00:02:43.020
SD	(5.7)
Speech	kurbağasının kaçtığını farkedince...
TC	00:02:48.723 - 00:02:50.510
SD	(21.61)
Speech	hemen dışarı çıkmak istiyor çocuk.
TC	00:03:12.127 - 00:03:15.063
SD	(0.03)
Speech	odasını terk ediyor.
TC	00:03:15.095 - 00:03:16.074
SD	(0.07)
Speech	peşinden de köpeği geliyor.
TC	00:03:16.148 - 00:03:17.680
SD	(17.31)
Speech	kurbağanın ormana gittiği yol...
TC	00:03:34.999 - 00:03:38.148
SD	(0.05)
Speech	aynı patika yoldan ona seslenerek ilerliyor.
TC	00:03:38.201 - 00:03:43.520
SD	(2.37)
Speech	tepesindeki kuşla beraber yol alıyorlar.
TC	00:03:45.893 - 00:03:49.722
SD	(2.87)
Speech	bir ağacın yanına geldi bunlar...
TC	00:03:52.595 - 00:03:55.084

SD	(30.44)
Speech	tuttuğu şeyden uzaklaşıyor çocuk...
TC	00:04:25.531 - 00:04:29.084
SD	(1.38)
Speech	ordan bir baykuş çıkıyor.
TC	00:04:30.467 - 00:04:35.318
SD	(10.0)
Speech	... hem çocuk hem köpek ordan kaçıyorlar.
TC	00:04:45.318 - 00:04:49.169
SD	(12.38)
Speech	çocuğun ayağı bir şeye takılıp yere düşüyor
TC	00:05:01.552 - 00:05:05.275
SD	(10.57)
Speech	sonra bir uçurum kenarına geliyorlar.
TC	00:05:15.850 - 00:05:18.722
SD	(15.46)
Speech	uçurumdan ikiside yuvarlanıyor aşağı doğru.
TC	00:05:34.190 - 00:05:39.233
SD	(3.55)
Speech	yine bir ormanlık alana geliyorlar...
TC	00:05:42.786 - 00:05:45.446
SD	(15.12)
Speech	...ona doğru yaklaşıyor
TC	00:06:00.574 - 00:06:02.042
SD	(8.34)
Speech	...mağaradan içeri giriyor.
TC	00:06:10.382 - 00:06:12.616
SD	(6.36)
Speech	girdiği yerden dışarı çıkıyor.
TC	00:06:18.978 - 00:06:21.489
SD	(18.46)
Speech	gölde yüzen bir kurbağa...
TC	00:06:39.957 - 00:06:42.404
SD	(4.48)
Speech	... kurbağa uçuyor.
TC	00:06:46.893 - 00:06:49.275
SD	(0.94)
Speech	hangisi onun ... yüzen mi yoksa uçmaya çalışan mı
TC	00:06:50.223 - 00:06:54.606
SD	(41.73)
Speech	köpeğiyle geri dönüyor.
TC	00:07:36.340 - 00:07:38.063
SD	(2.82)
Speech	gittiği patika yoldan evine geri dönüyor.

TC	00:07:40.892 - 00:07:44.807
SD	(8.91)
Speech	köpeğine kemik filan atıyor... , koşturuyor.
TC	00:07:53.722 - 00:07:56.159
SD	(7.69)
Speech	köpeğiyle eve girmek üzereler.
TC	00:08:03.851 - 00:08:06.127
SD	(31.76)
Speech	bir odaya giriyor...
TC	00:08:37.893 - 00:08:40.361
SD	(0.08)
Speech	lambaya asılı ve saate asılı iki kurbağa...
TC	00:08:40.446 - 00:08:44.659
SD	(2.4)
Speech	kurbağa asılmış lambaya.
TC	00:08:47.063 - 00:08:50.191
SD	(0.06)
Speech	böyle sallanıyor.
TC	00:08:50.255 - 00:08:52.787

Participant 14

Speech	masanın üstünde bir şey devrilmiş...
TC	00:01:09.886 - 00:01:12.204
SD	(5.97)
Speech	masanın üstünde bir şey devrilmişti...
TC	00:01:18.181 - 00:01:21.612
SD	(0.04)
Speech	o şu anda yere düşüyor.
TC	00:01:21.659 - 00:01:24.340
SD	(3.06)
Speech	ve içinden kurbağa çıkıyor.
TC	00:01:27.408 - 00:01:29.772
SD	(18.43)
Speech	dışarı çıkmak istiyor diye düşünebiliriz.
TC	00:01:48.204 - 00:01:50.954
SD	(9.63)
Speech	kurbağa... pencereden dışarı çıktı.
TC	00:02:00.590 - 00:02:03.204
SD	(3.34)
Speech	uzun bir yolda zıplayarak ilerliyor.
TC	00:02:06.544 - 00:02:10.249
SD	(7.4)
Speech	... nereye gitmiş olabilir?
TC	00:02:17.658 - 00:02:20.204
SD	(13.7)
Speech	dışarı süratle çıkıyorlar şu anda.
TC	00:02:33.908 - 00:02:37.294
SD	(18.31)
Speech	yürümeye devam ediyor.
TC	00:02:55.613 - 00:02:58.158
SD	(0.25)
Speech	kurbağanın süratle atladığı bir yer ...
TC	00:02:58.408 - 00:03:03.362
SD	(0.16)
Speech	ordan gidiyor yine...
TC	00:03:03.522 - 00:03:06.113
SD	(21.31)
Speech	ordan baykuş çıktı şu anda...
TC	00:03:27.430 - 00:03:30.180
SD	(5.86)
Speech	koşarak uzaklaşmaya başladı şimdi köpek önde o arkada.
TC	00:03:36.044 - 00:03:41.113
SD	(1.61)
Speech	takıldı ve düştü yüzüstü.
TC	00:03:42.726 - 00:03:45.408

SD	(9.22)
Speech	uçurumun kenarına geldi şu an köpeğiyle birlikte yürüyor.
TC	00:03:54.635 - 00:03:59.590
SD	(4.25)
Speech	ordan kaymaya başladı.
TC	00:04:03.840 - 00:04:05.135
SD	(0.04)
Speech	köpek takla atıyor.
TC	00:04:05.180 - 00:04:06.339
SD	(0.04)
Speech	kendisi oturarak popo üstü ilerliyor.
TC	00:04:06.384 - 00:04:09.861
SD	(24.91)
Speech	o aradan aşağı doğru kayıyor sanırım.
TC	00:04:34.772 - 00:04:38.318
SD	(1.72)
Speech	yeni bir yere geldi...
TC	00:04:40.045 - 00:04:42.113
SD	(10.79)
Speech	bir kurbağa yüzüyor.
TC	00:04:52.909 - 00:04:54.750
SD	(27.79)
Speech	onları rahat bırakıp ilerlemeye devam ediyor.
TC	00:05:22.544 - 00:05:25.317
SD	(2.56)
Speech	evinin yolunda şarkı söyleye söyleye ilerliyor.
TC	00:05:27.885 - 00:05:31.658
SD	(4.06)
Speech	... bir tane sopa atıyor...
TC	00:05:35.726 - 00:05:37.908
SD	(3.97)
Speech	evine geldiler
TC	00:05:41.885 - 00:05:43.635

Participant 15

Speech	içeri bir rüzgar giriyor
TC	00:00:41.914 - 00:00:44.319
SD	(22.14)
Speech	masanın üstünden şişe düşüyor.
TC	00:01:06.467 - 00:01:10.106
SD	(5.99)
Speech	şişenin içinden bir şey çıkıyor.... kurbağa.
TC	00:01:16.105 - 00:01:20.212
SD	(3.06)
Speech	düşmüş yani şeyin üstünden...
TC	00:01:23.276 - 00:01:25.616
SD	(0.07)
Speech	sonra içinden kurbağa çıkmış.
TC	00:01:25.691 - 00:01:27.329
SD	(12.01)
Speech	kurbağa... perdeye tırmanıyor.
TC	00:01:39.340 - 00:01:41.489
SD	(8.08)
Speech	sonra pencereden dışarı bahçeye çıkıyor.
TC	00:01:49.573 - 00:01:53.722
SD	(8.69)
Speech	oraya doğru zıplayarak gidiyor.
TC	00:02:02.414 - 00:02:06.733
SD	(2.73)
Speech	şişe düşmüş ya..
TC	00:02:09.468 - 00:02:11.191
SD	(1.0)
Speech	... kurbağa nereye gitti?
TC	00:02:12.191 - 00:02:13.254
SD	(16.04)
Speech	...kurbağa gitti yani...
TC	00:02:29.297 - 00:02:31.829
SD	(5.55)
Speech	köpeğiyle beraber dışarı çıkıyorlar.
TC	00:02:37.382 - 00:02:40.659
SD	(0.97)
Speech	odanın içinden değil ama evin başka bir yerinden dışarı çıkıyorlar.
TC	00:02:41.638 - 00:02:47.786
SD	(18.87)
Speech	bir yoldan ormana doğru gidiyorlar
TC	00:03:06.659 - 00:03:11.084
SD	(57.8)
Speech	ordan bir şey çıkıyor.
TC	00:04:08.892 - 00:04:11.722

SD	(9.72)
Speech	... köpekle beraber koşturmaya başlıyorlar...
TC	00:04:21.446 - 00:04:24.488
SD	(2.04)
Speech	kaçıyorlar yani...
TC	00:04:26.531 - 00:04:28.658
SD	(8.4)
Speech	ayağı bir şeye takılıyor.
TC	00:04:37.063 - 00:04:38.510
SD	(0.07)
Speech	düşmüş böyle yüzüstü
TC	00:04:38.584 - 00:04:40.690
SD	(14.33)
Speech	... düştü ya.
TC	00:04:55.021 - 00:04:57.106
SD	(3.06)
Speech	köpeğiyle beraber uçurum gibi bir yere geliyorlar.
TC	00:05:00.169 - 00:05:04.510
SD	(4.72)
Speech	ordan aşağı doğru yuvarlanıyorlar...
TC	00:05:09.233 - 00:05:16.105
SD	(7.83)
Speech	o taraftan gidelim...
TC	00:05:23.935 - 00:05:26.255
SD	(15.38)
Speech	böyle bir kayalığın altına mı giriyorlar?
TC	00:05:41.637 - 00:05:45.446
SD	(7.59)
Speech	oraya girdi...
TC	00:05:53.041 - 00:05:54.275
SD	(6.04)
Speech	girip tekrar çıkmış olabilir.
TC	00:06:00.318 - 00:06:03.318
SD	(19.23)
Speech	aşağıda da bir şey yüzüyor...
TC	00:06:22.553 - 00:06:24.957
SD	(22.72)
Speech	kurbağa.... ağaca yaslanmış...
TC	00:06:47.680 - 00:06:52.254
SD	(16.25)
Speech	.... o yüzden mi gitti?
TC	00:07:08.510 - 00:07:10.233
SD	(11.53)
Speech	...el sallıyorlar geri dönüyorlar.

TC	00:07:21.765 - 00:07:25.872
SD	(2.93)
Speech	şarkı söylüyor eve giderken...
TC	00:07:28.807 - 00:07:32.552
SD	(6.12)
Speech	... şey atarlar ya kemik gibi bir şey...
TC	00:07:38.680 - 00:07:41.616
SD	(17.17)
Speech	eve giriyor...
TC	00:07:58.787 - 00:08:00.404
SD	(12.27)
Speech	odasına gidiyor muhtemelen.
TC	00:08:12.680 - 00:08:14.850

Participant 16

Speech	rüzgar giriyor perdeden içeri
TC	00:00:56.999 - 00:01:00.148
SD	(6.46)
Speech	masanın üzerindeki şişeler düşmüş
TC	00:01:06.616 - 00:01:12.041
SD	(10.46)
Speech	masanın üzerindeki şişe yuvarlanarak yere düşüyor.
TC	00:01:22.510 - 00:01:28.148
SD	(3.34)
Speech	bir tane kurbağa çıkıyor şişenin içinden
TC	00:01:31.489 - 00:01:33.361
SD	(18.51)
Speech	kırılan şişenin içinden bir tane kurbağa çıkıyor.
TC	00:01:51.872 - 00:01:55.446
SD	(7.31)
Speech	...kurbağa perdeye tırmanıyor...
TC	00:02:02.765 - 00:02:06.340
SD	(10.21)
Speech	sonra perdeye tırmanıyor demiştim ya...
TC	00:02:16.553 - 00:02:18.893
SD	(0.25)
Speech	kurbağa kendini dışarıya attı.
TC	00:02:19.148 - 00:02:21.509
SD	(21.17)
Speech	o patika yoldan gidecek kurbağa
TC	00:02:42.680 - 00:02:45.574
SD	(2.91)
Speech	kurbağa ... zıplaya zıplaya gidiyor şu anda
TC	00:02:48.489 - 00:02:52.106
SD	(1.7)
Speech	şimdi odaya geri döndük
TC	00:02:53.807 - 00:02:56.041
SD	(37.55)
Speech	kavanozun etrafında dolanarak böyle...
TC	00:03:33.595 - 00:03:37.765
SD	(12.59)
Speech	çocuk kapıya doğru yöneldi...
TC	00:03:50.361 - 00:03:52.340
SD	(0.06)
Speech	arkasından da köpeği kapıya doğru gidiyor.
TC	00:03:52.403 - 00:03:54.935
SD	(7.57)
Speech	... kapıdan çıkacak şimdi.
TC	00:04:02.510 - 00:04:04.531

SD	(6.7)
Speech	... ormanlık alana geldi
TC	00:04:11.233 - 00:04:12.978
SD	(31.57)
Speech	... ayak izlerini takip etmesini söyledi...
TC	00:04:44.553 - 00:04:47.127
SD	(0.14)
Speech	kuş önde uçarak...
TC	00:04:47.276 - 00:04:49.978
SD	(1.48)
Speech	... çocuk da... patika yoldan ayak izlerini takip ederek gidiyorlar
TC	00:04:51.467 - 00:04:56.467
SD	(30.57)
Speech	birden içerden kocaman bir baykuş çıkıyor.
TC	00:05:27.041 - 00:05:31.084
SD	(7.1)
Speech	köpek önden çocuk arkadan bir hışımla geriye doğru koşuyorlar
TC	00:05:38.191 - 00:05:43.531
SD	(6.34)
Speech	nereye koştuğunu bilmeden direk koştuğu için...
TC	00:05:49.871 - 00:05:52.786
SD	(0.12)
Speech	ayağı bir çalıya takılıyor.
TC	00:05:52.913 - 00:05:55.424
SD	(0.05)
Speech	ve çocuk düşüyor.
TC	00:05:55.477 - 00:05:58.072
SD	(36.94)
Speech	düştüler şu anda.
TC	00:06:35.020 - 00:06:36.893
SD	(0.05)
Speech	...alabora oldu köpek.
TC	00:06:36.946 - 00:06:38.648
SD	(22.54)
Speech	sonra yanına yaklaşıyor ve bakıyor.
TC	00:07:01.190 - 00:07:04.828
SD	(10.93)
Speech	baktığı şeyin birazcık daha içine giriyor.
TC	00:07:15.765 - 00:07:19.743
SD	(0.17)
Speech	o aranın içine girip bakmaya çalışıyor
TC	00:07:19.914 - 00:07:24.382
SD	(6.38)
Speech	girdiği yerin dışından çıkıyor.

TC	00:07:30.765 - 00:07:34.445
SD	(7.15)
Speech	... çıktığı yerden yürüyor çocuk...
TC	00:07:41.595 - 00:07:44.361
SD	(6.1)
Speech	orda bir tane kurbağa yüzüyor.
TC	00:07:50.467 - 00:07:56.254
SD	(2.17)
Speech	... diğeri de zıplıyor...
TC	00:07:58.425 - 00:08:01.829
SD	(7.97)
Speech	bir tane kurbağa ağaca böyle sırtını yaslamış...
TC	00:08:09.808 - 00:08:14.425
SD	(18.02)
Speech	selam veriyor, arkasını dönüyor ve gidiyor köpek ve çocuk.
TC	00:08:32.446 - 00:08:36.957
SD	(1.8)
Speech	şarkı söyleyerek aynı patika yoldan eve geri dönüyor.
TC	00:08:38.765 - 00:08:43.127
SD	(5.25)
Speech	çubuklar olur ya böyle onu atıyor...
TC	00:08:48.382 - 00:08:51.276
SD	(8.7)
Speech	... koşarak sahibine geri getiriyor.
TC	00:08:59.978 - 00:09:02.999
SD	(3.55)
Speech	içeri girdi çocuk.
TC	00:09:06.552 - 00:09:08.680
SD	(21.44)
Speech	odasına giriyor...
TC	00:09:30.127 - 00:09:32.340

Participant 17

Speech	kurbağanın olduğu vazo devrilmiş.
TC	00:00:49.613 - 00:00:53.454
SD	(4.49)
Speech	bahsettiğim vazo yere düşüyor
TC	00:00:57.953 - 00:01:00.203
SD	(3.25)
Speech	içinden çıktı.
TC	00:01:03.454 - 00:01:06.136
SD	(13.59)
Speech	...masanın üstü gibi bir yere zıplamak istiyor gibi..
TC	00:01:19.727 - 00:01:23.795
SD	(5.5)
Speech	camdan dışarı fırlamış ..
TC	00:01:29.295 - 00:01:33.931
SD	(6.0)
Speech	kurbağa uzun bir yoldan ormana doğru gidiyor zıplaya zıplaya
TC	00:01:39.931 - 00:01:45.250
SD	(19.22)
Speech	çocuk bir hışımla odanın kapısına doğru yöneliyor.
TC	00:02:04.476 - 00:02:07.613
SD	(0.12)
Speech	köpek de arkasından kurbağayı aramaya gidiyor...
TC	00:02:07.737 - 00:02:10.146
SD	(5.21)
Speech	o da ormana doğru gidiyor.
TC	00:02:15.362 - 00:02:17.658
SD	(21.31)
Speech	... kurbağanın yürüdüğü yoldan gidiyor...
TC	00:02:38.976 - 00:02:41.772
SD	(0.04)
Speech	kuş tepesinde uçuyor.
TC	00:02:41.817 - 00:02:43.408
SD	(1.39)
Speech	çocuk da onu takip ediyor köpekle beraber.
TC	00:02:44.805 - 00:02:47.146
SD	(12.58)
Speech	çocuk da kovuğun içerisine tırmanmaya çalışıyor.
TC	00:02:59.726 - 00:03:04.226
SD	(2.97)
Speech	tam içine girecekken ordan bir tane baykuş fırlıyor bir anda
TC	00:03:07.204 - 00:03:11.454
SD	(1.56)
Speech	çocuk... geri doğru sıçrıyor.
TC	00:03:13.022 - 00:03:14.999

SD	(3.54)
Speech	çocuk... koşarak uzaklaşıyor.
TC	00:03:18.544 - 00:03:21.408
SD	(0.06)
Speech	köpek de ... onunla beraber kaçıyor.
TC	00:03:21.477 - 00:03:24.522
SD	(4.72)
Speech	çocuk koşarken...
TC	00:03:29.249 - 00:03:32.113
SD	(4.36)
Speech	... ve yere düşüyor.
TC	00:03:36.476 - 00:03:38.385
SD	(18.11)
Speech	... ormanın içerisinde yürüyorlar.
TC	00:03:56.499 - 00:03:59.090
SD	(0.45)
Speech	uçurum gibi bir yere varmış.
TC	00:03:59.544 - 00:04:02.067
SD	(3.7)
Speech	ordan aşağı .... kaymaya başlıyor.
TC	00:04:05.771 - 00:04:11.658
SD	(5.25)
Speech	... uçurumdan aşağı düşüyorlar.
TC	00:04:16.908 - 00:04:19.885
SD	(1.7)
Speech	düştüğü yerde...
TC	00:04:21.590 - 00:04:23.885
SD	(8.34)
Speech	yaklaşıyor bulduğu yere...
TC	00:04:32.226 - 00:04:35.522
SD	(9.56)
Speech	mağaranın içinden sürünerek aşağı doğru kaymaya başlıyor.
TC	00:04:45.090 - 00:04:52.362
SD	(4.43)
Speech	... daha geniş bir yere ulaşıyor.
TC	00:04:56.794 - 00:04:59.522
SD	(13.65)
Speech	bir tane kurbağa yüzüyor.
TC	00:05:13.181 - 00:05:15.590
SD	(4.29)
Speech	... onlarla havada uçuyor.
TC	00:05:19.885 - 00:05:23.158
SD	(21.75)
Speech	o yüzden mi buraya geldi? ...

TC	00:05:44.908 - 00:05:47.931
SD	(22.4)
Speech	evine yürürken şarkılar söyleyerek gidiyor.
TC	00:06:10.340 - 00:06:15.386
SD	(7.72)
Speech	ona sopa fırlatıyor...
TC	00:06:23.113 - 00:06:25.522
SD	(5.99)
Speech	... onu geri getircek şimdi.
TC	00:06:31.521 - 00:06:33.953
SD	(3.25)
Speech	eve geliyor..
TC	00:06:37.203 - 00:06:38.840
SD	(0.03)
Speech	evden içeri girerken...
TC	00:06:38.873 - 00:06:40.623

Participant 18

Speech	...pencereye doğru dönük
TC	00:00:25.325 - 00:00:27.825
SD	(10.42)
Speech	perdeler uçuşuyor...
TC	00:00:38.250 - 00:00:39.875
SD	(3.82)
Speech	birisi yatıyor yatakta, uyuyor.
TC	00:00:43.700 - 00:00:45.400
SD	(3.75)
Speech	masanın üstündeki kavanozdaki şey devrilmiş
TC	00:00:49.150 - 00:00:51.650
SD	(4.72)
Speech	düşüyor masadan aşağıya.
TC	00:00:56.375 - 00:00:59.425
SD	(2.37)
Speech	düşen şeyin içinden bir tane kurbağa çıkıyor
TC	00:01:01.800 - 00:01:05.775
SD	(0.1)
Speech	kurbağa ayakta duruyor.
TC	00:01:05.875 - 00:01:07.475
SD	(6.73)
Speech	o kurbağa perdeye tırmanıyor.
TC	00:01:14.213 - 00:01:17.138
SD	(0.98)
Speech	sonra camdan aşağıya atlıyor.
TC	00:01:18.125 - 00:01:20.775
SD	(0.8)
Speech	... zıplaya zıplaya ormana doğru gidiyor patika bir yoldan.
TC	00:01:21.575 - 00:01:27.625
SD	(5.57)
Speech	nereye gitmiş diye düşünüyor...
TC	00:01:33.200 - 00:01:35.850
SD	(7.6)
Speech	köpek de kavanozun etrafında dönüyor.
TC	00:01:43.450 - 00:01:46.325
SD	(3.25)
Speech	dışarı çıkmak için hızlı koşuyorlar
TC	00:01:49.575 - 00:01:52.450
SD	(15.32)
Speech	onu takip ettiğini düşünerek o yoldan yürüyor.
TC	00:02:07.775 - 00:02:12.300
SD	(0.08)
Speech	bir tane kuş uçuyor üstünde.
TC	00:02:12.388 - 00:02:14.663

SD	(14.58)
Speech	sonra da başka bir kuş çıkıyor.
TC	00:02:29.250 - 00:02:31.825
SD	(0.07)
Speech	korkuyor, sıçrıyor.
TC	00:02:31.900 - 00:02:33.525
SD	(0.17)
Speech	sonra köpekle insan koşturmaya başlıyorlar köpek önde insan arkada.
TC	00:02:33.700 - 00:02:40.350
SD	(4.8)
Speech	bir şeye takılıyor insan, düşüyor.
TC	00:02:45.150 - 00:02:50.125
SD	(12.17)
Speech	ondan sonra kalkmış gitmiş uçurum kenarı gibi bir şeye...
TC	00:03:02.300 - 00:03:07.700
SD	(0.06)
Speech	onun yanına gidiyor.
TC	00:03:07.763 - 00:03:10.538
SD	(0.2)
Speech	ordan kayarak iniyorlar
TC	00:03:10.738 - 00:03:13.963
SD	(0.07)
Speech	köpek yuvarlanıyor.
TC	00:03:14.038 - 00:03:16.838
SD	(10.46)
Speech	sonra ... oraya bakmak için yaklaşıyor.
TC	00:03:27.300 - 00:03:30.475
SD	(2.22)
Speech	sonra ordan içeriye giriyor.
TC	00:03:32.700 - 00:03:35.075
SD	(2.15)
Speech	Alice'in düştüğü çukur gibi...
TC	00:03:37.225 - 00:03:38.800
SD	(0.07)
Speech	ordan kayarak iniyor.
TC	00:03:38.875 - 00:03:41.525
SD	(0.08)
Speech	başka bir yerden çıkıyor sonra.
TC	00:03:41.613 - 00:03:45.063
SD	(4.91)
Speech	gölün kenarına geliyor işte.
TC	00:03:49.975 - 00:03:53.250
SD	(0.67)

Speech	bir tane kurbağa yüzüyor
TC	00:03:53.925 - 00:03:55.400
SD	(0.15)
Speech	bir tanesi de balon bağlamış uçmaya çalışıyor.
TC	00:03:55.550 - 00:03:59.150
SD	(5.85)
Speech	bir tane kurbağa da bir ağacın dibinde yatmış, dinleniyor
TC	00:04:05.000 - 00:04:09.400
SD	(16.05)
Speech	... diyor gidiyor köpekle birlikte.
TC	00:04:25.450 - 00:04:31.375
SD	(0.15)
Speech	şarkı söyleyerek eve doğru aynı patikadan gidiyorlar
TC	00:04:31.525 - 00:04:36.725
SD	(0.03)
Speech	sonra ordan köpeğe ... çubuk atıyor.
TC	00:04:36.763 - 00:04:42.038
SD	(0.03)
Speech	köpek zıplıyor.
TC	00:04:42.075 - 00:04:43.575
SD	(2.45)
Speech	yakalıyor, getiriyor köpek...
TC	00:04:46.025 - 00:04:49.350
SD	(2.07)
Speech	... sonra eve giriyor.
TC	00:04:51.425 - 00:04:52.975
SD	(6.0)
Speech	yatak odasına geri dönüyor çocuk.
TC	00:04:58.975 - 00:05:01.875
SD	(6.45)
Speech	saatin altında kurbağa gibi bir şey sallanıyor.
TC	00:05:08.325 - 00:05:11.975

Participant 19

Speech	içeriye rüzgar geliyor.
TC	00:00:49.999 - 00:00:52.169
SD	(16.25)
Speech	rüzgar geldiği belli
TC	00:01:08.424 - 00:01:10.573
SD	(2.04)
Speech	kavanoz yavaşça masanın üstünden düşüyor.
TC	00:01:12.615 - 00:01:17.190
SD	(7.49)
Speech	kavanozun içinden kurbağa çıkıyor.
TC	00:01:24.680 - 00:01:27.914
SD	(14.57)
Speech	kurbağa kavanozundan çıkmış perdeye tırmanıyor.
TC	00:01:42.489 - 00:01:46.468
SD	(3.46)
Speech	kurbağa pencereden dışarı çıkmış.
TC	00:01:49.936 - 00:01:53.191
SD	(1.72)
Speech	kurbağa yolda yürüyor.
TC	00:01:54.914 - 00:01:57.169
SD	(0.07)
Speech	ormana doğru gidiyor.
TC	00:01:57.243 - 00:01:59.648
SD	(7.62)
Speech	kurbağanın nasıl çıktığını anlamaya çalışıyor.
TC	00:02:07.275 - 00:02:09.637
SD	(7.02)
Speech	dışarıya da bir fare çıkmış sanırım kavanozun etrafında dolaşan.
TC	00:02:16.658 - 00:02:22.403
SD	(12.17)
Speech	çocuk köpeğiyle dışarıya çıkmak için hamle yapıyor.
TC	00:02:34.573 - 00:02:38.424
SD	(11.46)
Speech	...ormana gitti.
TC	00:02:49.892 - 00:02:51.339
SD	(19.93)
Speech	çocuk ormanın içinde geziyor yavaş yavaş.
TC	00:03:11.276 - 00:03:15.978
SD	(5.59)
Speech	yavaş yavaş köpeğiyle beraber yürüyor.
TC	00:03:21.574 - 00:03:24.702
SD	(5.23)
Speech	çocuk yine bir ağacın dibine gidiyor.
TC	00:03:29.935 - 00:03:33.233

SD	(8.78)
Speech	çocuk ağacın üstüne çıkmaya çalışıyor sanırım.
TC	00:03:42.021 - 00:03:45.276
SD	(6.91)
Speech	o ağacın içinden bir kuş çıkıyor.
TC	00:03:52.190 - 00:03:55.361
SD	(4.51)
Speech	köpeğiyle beraber hızla uzaklaşmaya çalışıyorlar.
TC	00:03:59.871 - 00:04:03.786
SD	(4.89)
Speech	çocuğun ayağı çimenlerde bir yere takılıyor ve yere düşüyor.
TC	00:04:08.680 - 00:04:13.872
SD	(11.23)
Speech	çocuğun yanına babası geliyor.
TC	00:04:25.106 - 00:04:29.148
SD	(0.06)
Speech	köpeğiyle beraber bir uçurumun kenarına gidiyorlar
TC	00:04:29.212 - 00:04:34.169
SD	(4.74)
Speech	çocuk köpek ile uçurumdan aşağı iniyorlar.
TC	00:04:38.914 - 00:04:43.829
SD	(35.55)
Speech	bu yamacın içine giriyorlar.
TC	00:05:19.381 - 00:05:22.360
SD	(17.51)
Speech	çocukla beraber bir ağaç kovuğunun içinden çıktılar.
TC	00:05:39.871 - 00:05:44.382
SD	(19.83)
Speech	...kaplumbağa yukarıya doğru çıkıyor.
TC	00:06:04.212 - 00:06:07.893
SD	(16.25)
Speech	bir hayvanı görüyor ağaca yaslanmış bir şekilde.
TC	00:06:24.148 - 00:06:27.573
SD	(20.68)
Speech	...köpeğiyle el sallayarak gidiyor.
TC	00:06:48.254 - 00:06:51.893
SD	(8.63)
Speech	çocuk evine şarkı söyleyerek gidiyor.
TC	00:07:00.531 - 00:07:04.935
SD	(3.04)
Speech	köpeğine bir ağaç atıyor evinin önünde.
TC	00:07:07.978 - 00:07:11.020
SD	(4.04)
Speech	köpeği ağacı çocuğa geri getiriyor.

TC	00:07:15.063 - 00:07:18.765
SD	(39.55)
Speech	...saatten ... zıplıyor kaplumbağa....
TC	00:07:58.319 - 00:08:06.978
SD	(0.06)
Speech	pencereye doğru çıkıyor.
TC	00:08:07.042 - 00:08:11.531

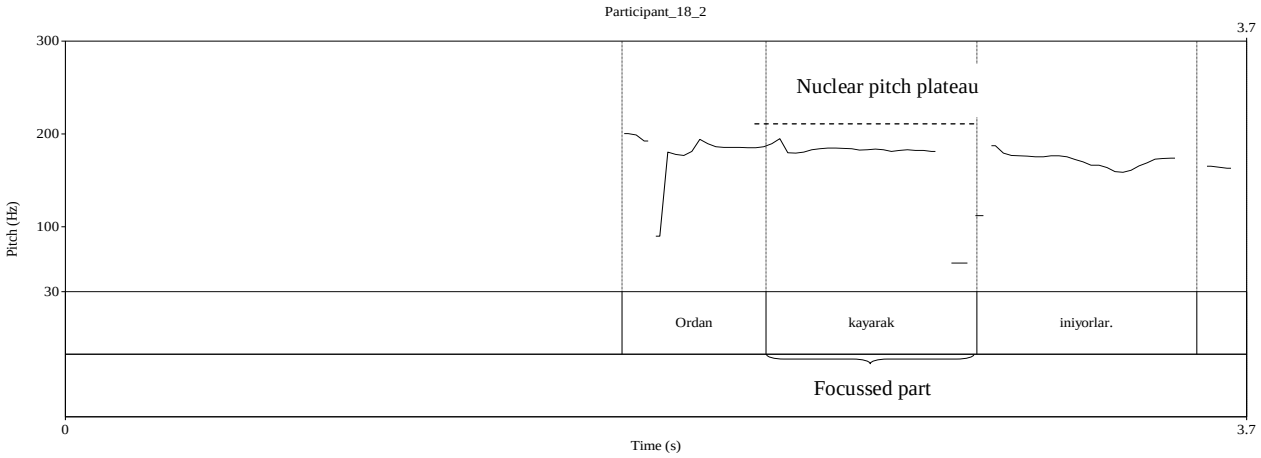
Participant 20

Speech	içeriye rüzgar giriyor.
TC	00:00:36.090 - 00:00:38.454
SD	(16.06)
Speech	rüzgarın etkisiyle masanın üzerindeki şişelerden biri yuvarlanarak yere düşüyor.
TC	00:00:54.522 - 00:01:02.431
SD	(6.29)
Speech	masadan düşen şişenin içinden bir tane kurbağa çıkıyor.
TC	00:01:08.726 - 00:01:16.226
SD	(17.65)
Speech	...perdeye tırmanıyor kurbağa.
TC	00:01:33.885 - 00:01:37.022
SD	(5.31)
Speech	kurbağa perdeden pencereye ordan dışarı atlıyor.
TC	00:01:42.340 - 00:01:46.249
SD	(5.79)
Speech	zıplaya zıplaya bir ormana doğru gidiyor.
TC	00:01:52.045 - 00:01:56.454
SD	(13.36)
Speech	köpek şişenin etrafında dolanıyor.
TC	00:02:09.817 - 00:02:12.544
SD	(4.52)
Speech	sonra çocuk köpekle beraber dışarı çıkıyor.
TC	00:02:17.068 - 00:02:21.772
SD	(9.11)
Speech	.... ormana doğru gidiyor.
TC	00:02:30.885 - 00:02:33.499
SD	(16.25)
Speech	ayak izlerini takip ede ede ormana doğru ...
TC	00:02:49.749 - 00:02:54.544
SD	(32.36)
Speech	ordan kocaman bir kuş çıkıyor.
TC	00:03:26.908 - 00:03:31.544
SD	(8.18)
Speech	korkarak kaçıyor köpekle beraber ormanda.
TC	00:03:39.726 - 00:03:44.885
SD	(7.95)
Speech	koşarken .... düşüyor.
TC	00:03:52.840 - 00:03:57.840
SD	(16.43)
Speech	sonra köpeğiyle beraber uçurum gibi bir yerin yanına doğru geliyor.
TC	00:04:14.271 - 00:04:20.590
SD	(4.15)
Speech	ordan kayıyorlar köpekle beraber.

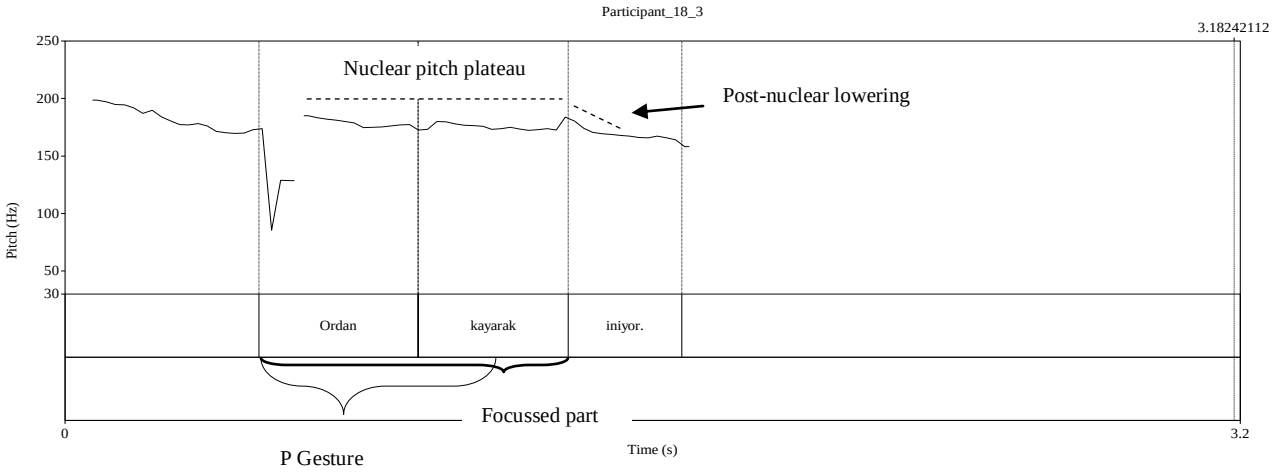
TC	00:04:24.749 - 00:04:27.453
SD	(11.75)
Speech	çocuk oraya gidiyor.
TC	00:04:39.204 - 00:04:41.158
SD	(5.81)
Speech	ordan sürünerek içeri doğru giriyor.
TC	00:04:46.976 - 00:04:52.499
SD	(2.79)
Speech	diğer ucundan kovuğun çıkıyor köpeğiyle beraber.
TC	00:04:55.295 - 00:04:58.522
SD	(12.63)
Speech	balonlarla kurbağa uçuyor.
TC	00:05:11.159 - 00:05:14.909
SD	(45.86)
Speech	evine mutlu bir şekilde dönüyor.
TC	00:06:00.772 - 00:06:04.431
SD	(10.61)
Speech	köpeğine sopa atıp getirtiyor.
TC	00:06:15.044 - 00:06:21.453
SD	(5.04)
Speech	eve geliyor annesinin yanına
TC	00:06:26.500 - 00:06:28.909
SD	(12.9)
Speech	... saatin sarkacında sallanıyor.
TC	00:06:41.817 - 00:06:49.977

Appendix B

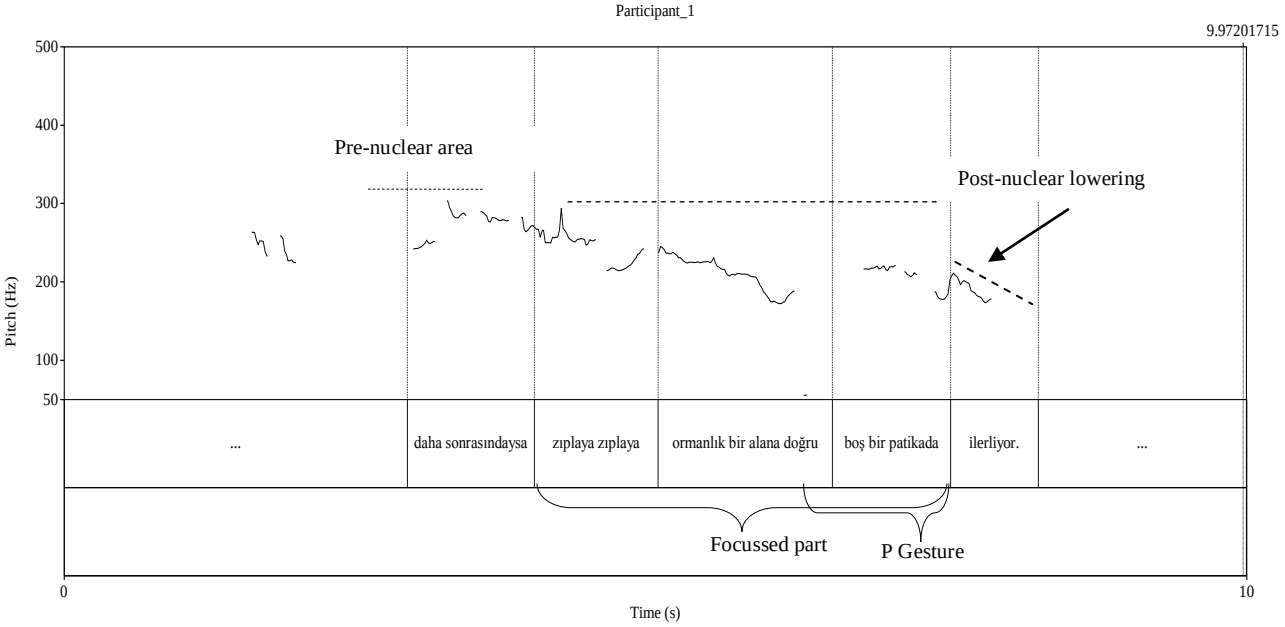
Pitch track charts of the target event description. Graph# 1 to 38.



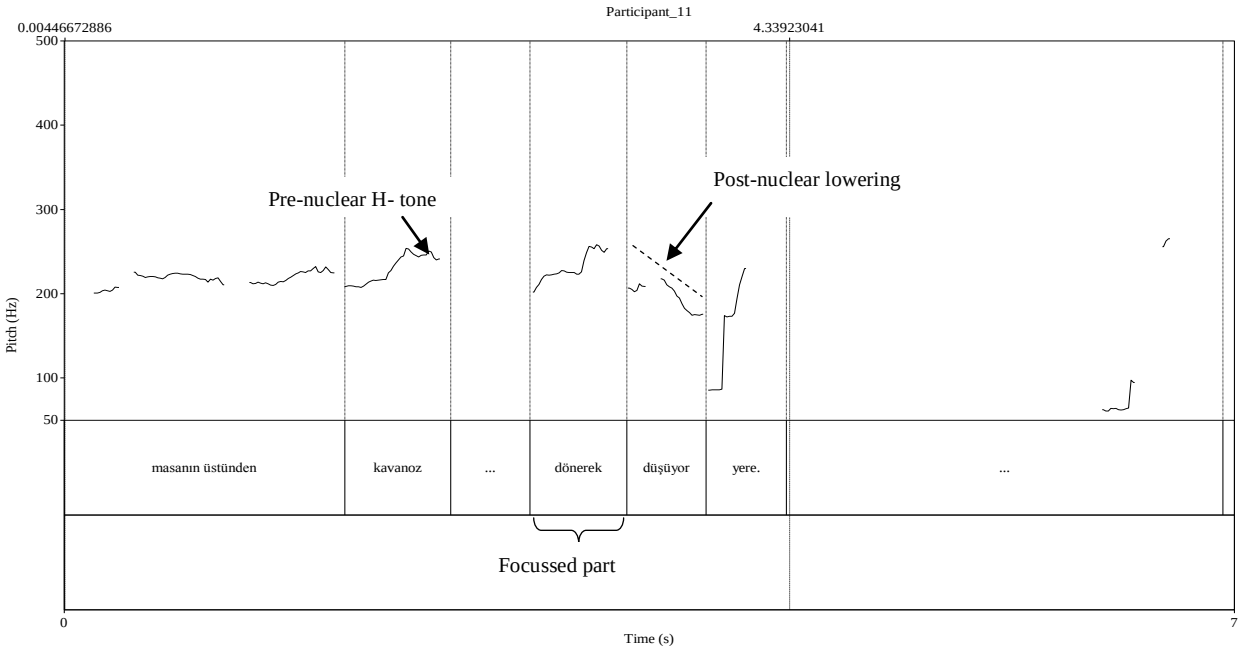
Graph # 1. Only ground is given in the context, "(They) descend by sliding from there". Native speaker informants are consulted. Focus on manner verbal adverb. No gesture.



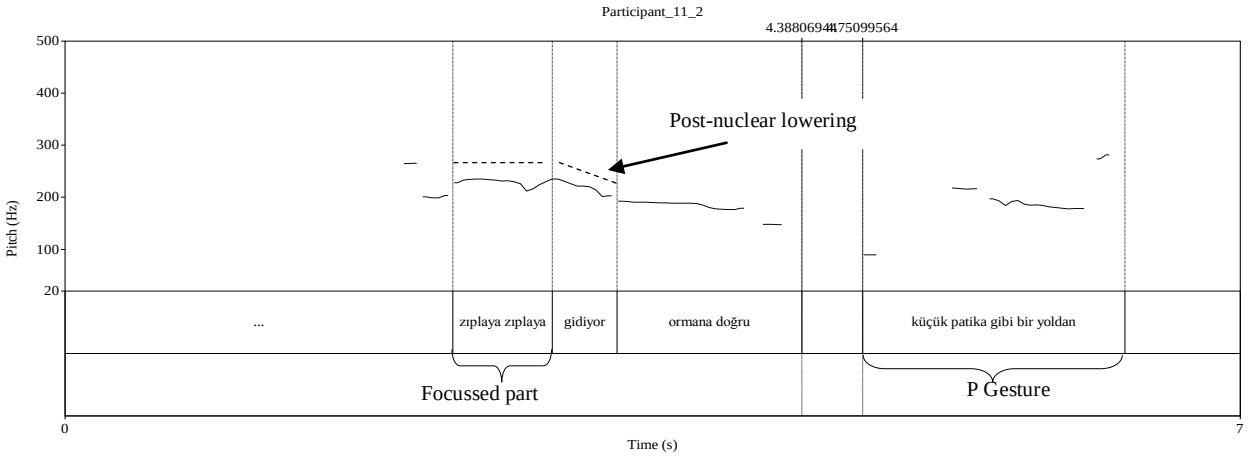
Graph # 2. Only ground information is given in the context, "(He) descends by sliding from there". Focus is on manner verbal adverb and ground + path suffix. Path gesture is on ground + path suffix slightly extending to the adverb.



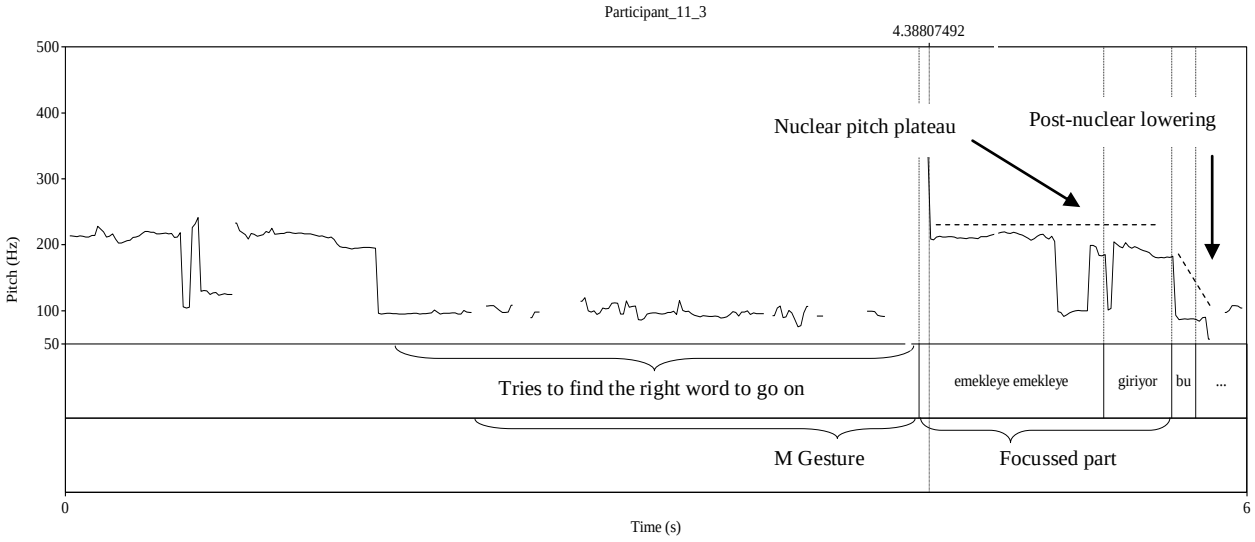
Graph # 3. All-new context, "Later on (he) advances towards a forested area by hopping". Path gesture is on ground & path verb. Focus is on manner verbal adverb and ground + postposition (path)



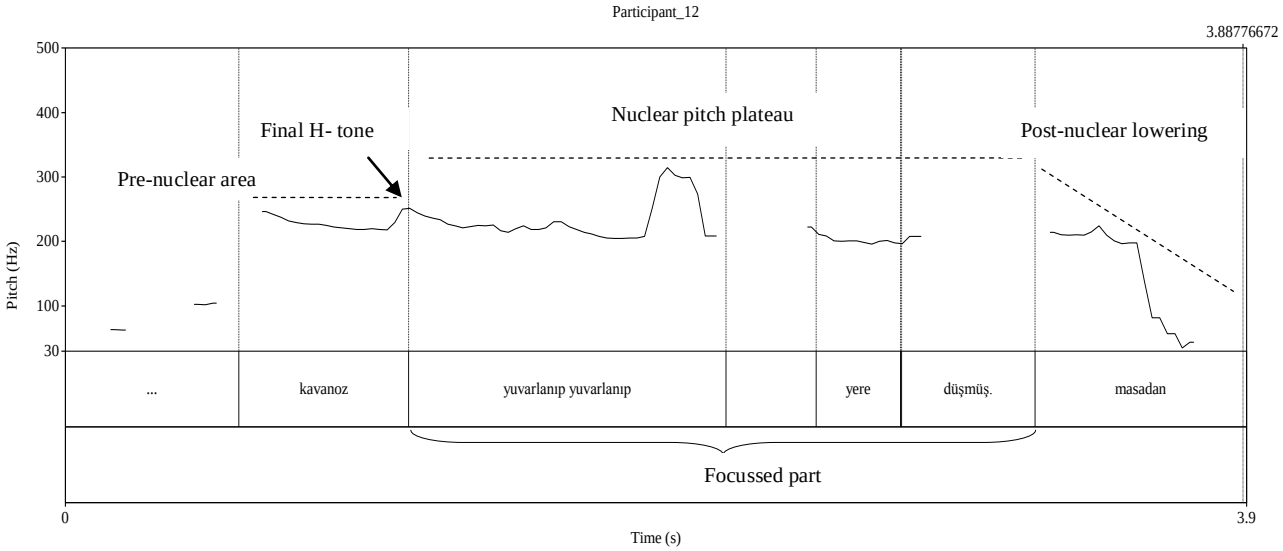
Graph # 4. Only ground and figure are given in the context, " The jar falls from the table spinning". No gesture. Focus is on manner verbal adverb.



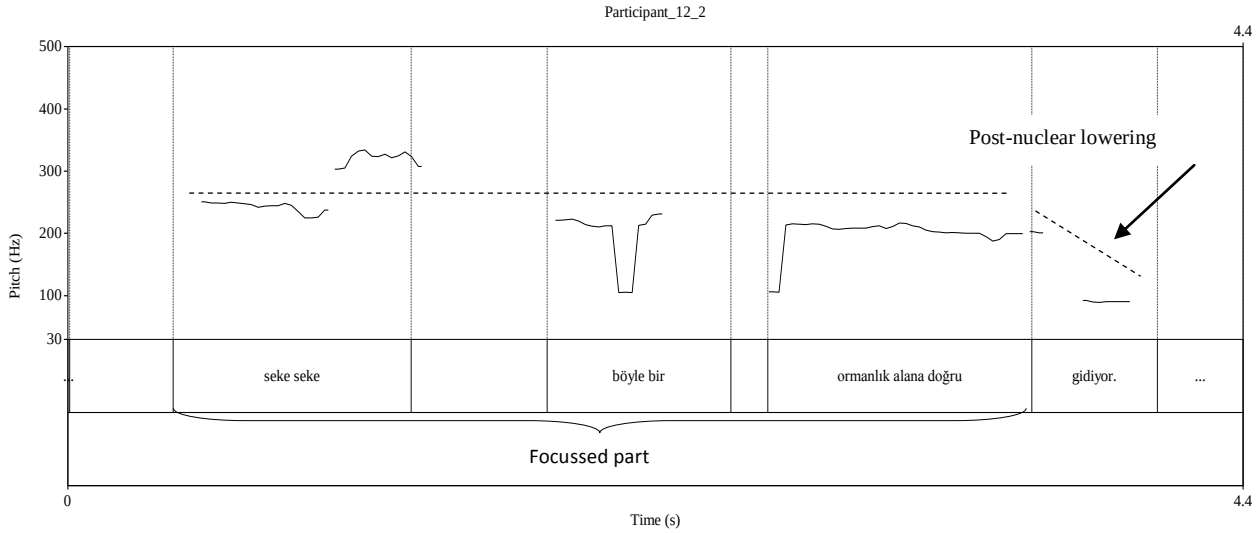
Graph # 5. All-new context, "(He) goes towards a forest through a pathway by hopping". Focus includes path main verb and manner verbal adverb. Gesture is on distant ground.



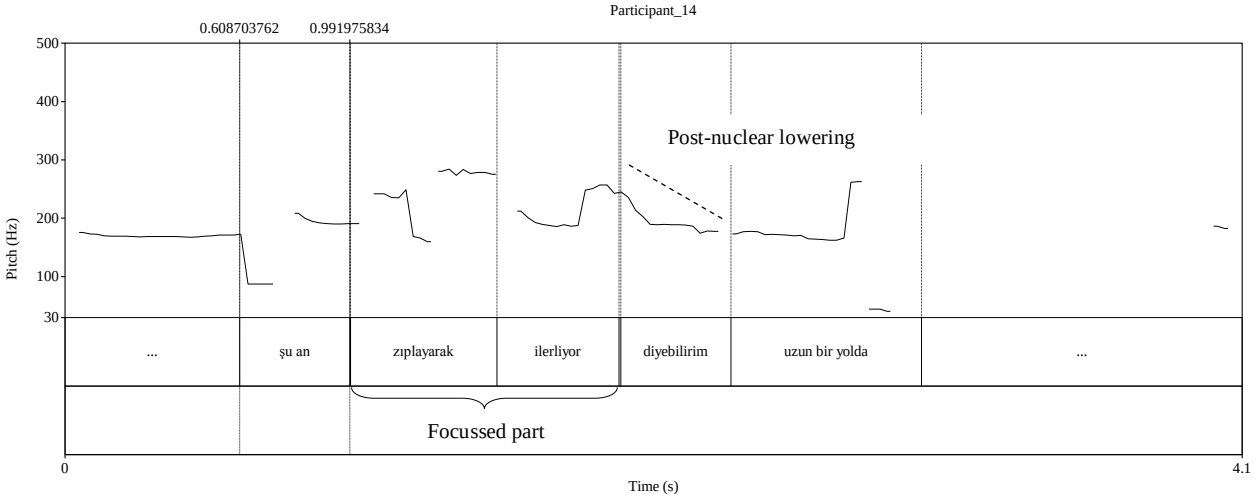
Graph #6. Only figure given context, "This (he) enters by crawling". Pauses to think for the work and ends up forming a new sentence. Focus is on manner verbal adverb and path main verb. Manner gesture is outside the utterance.



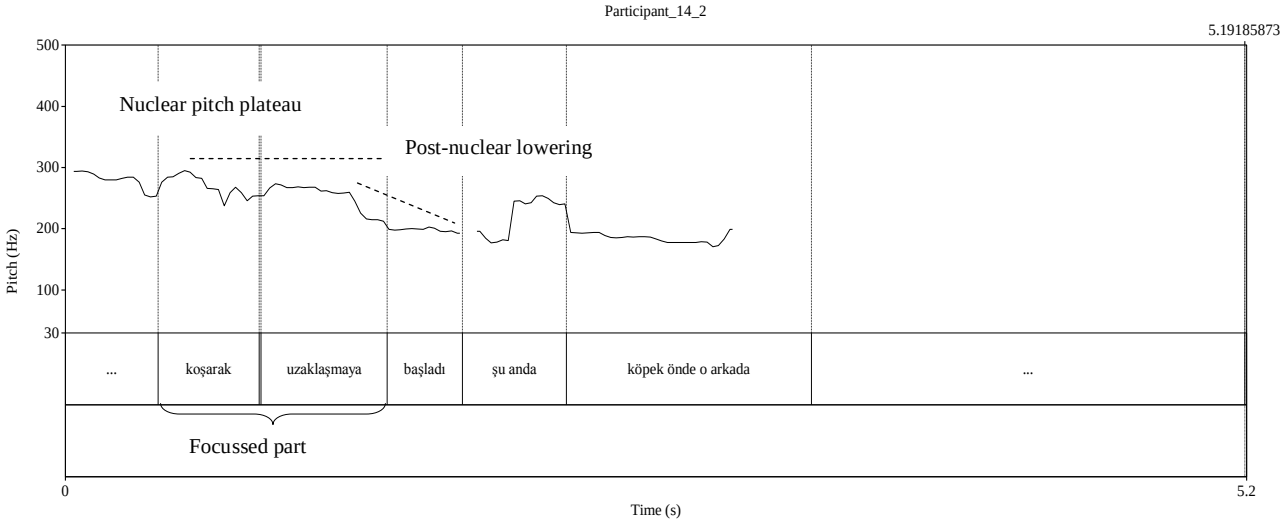
Graph #7. Figure and the last ground information (the table) are given in the context". The jar falls on ground from the table by rolling". No gesture.



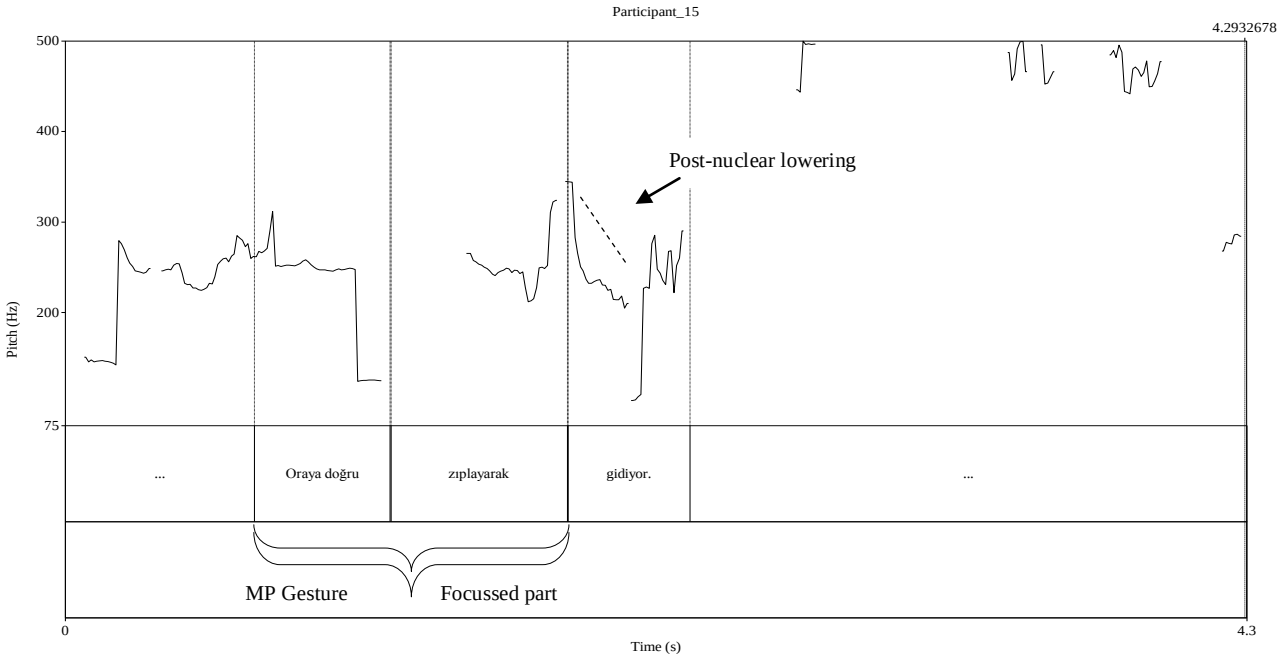
Graph #8. All-new context, "(He) goes towards something like a forested area by hopping". Focus is on all but main verb. No gesture.



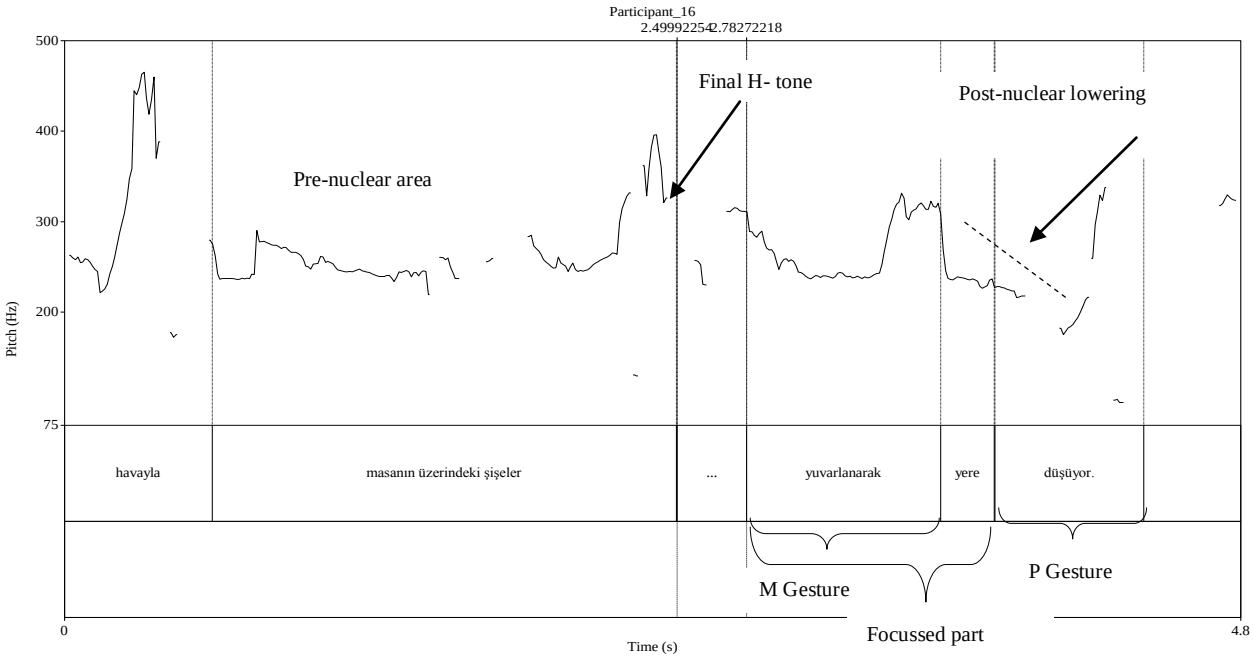
Graph #9. All-new context, " Right now I can say (It) advances on a long road by hopping". No gesture. Focus includes manner verbal adverb and path main verb.



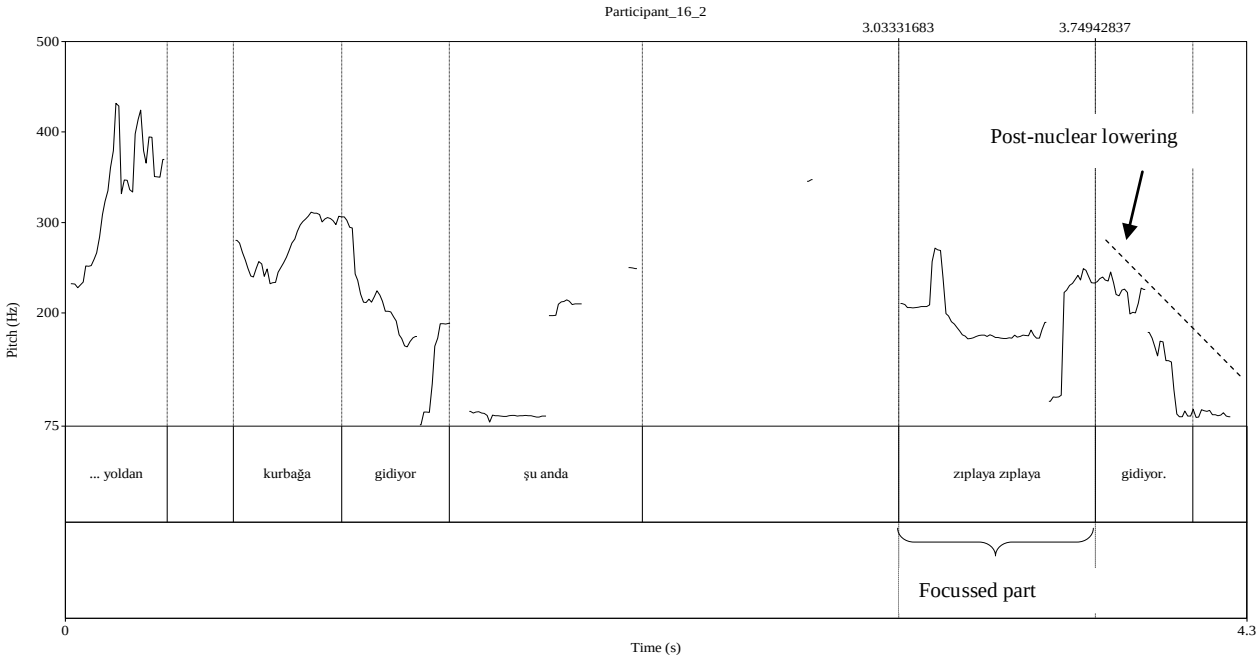
Graph #10. All-new context except figure, "The boy and the dog, one after the other, start to flee by running". Focus includes manner verbal adverb, and path gerund. No gesture.



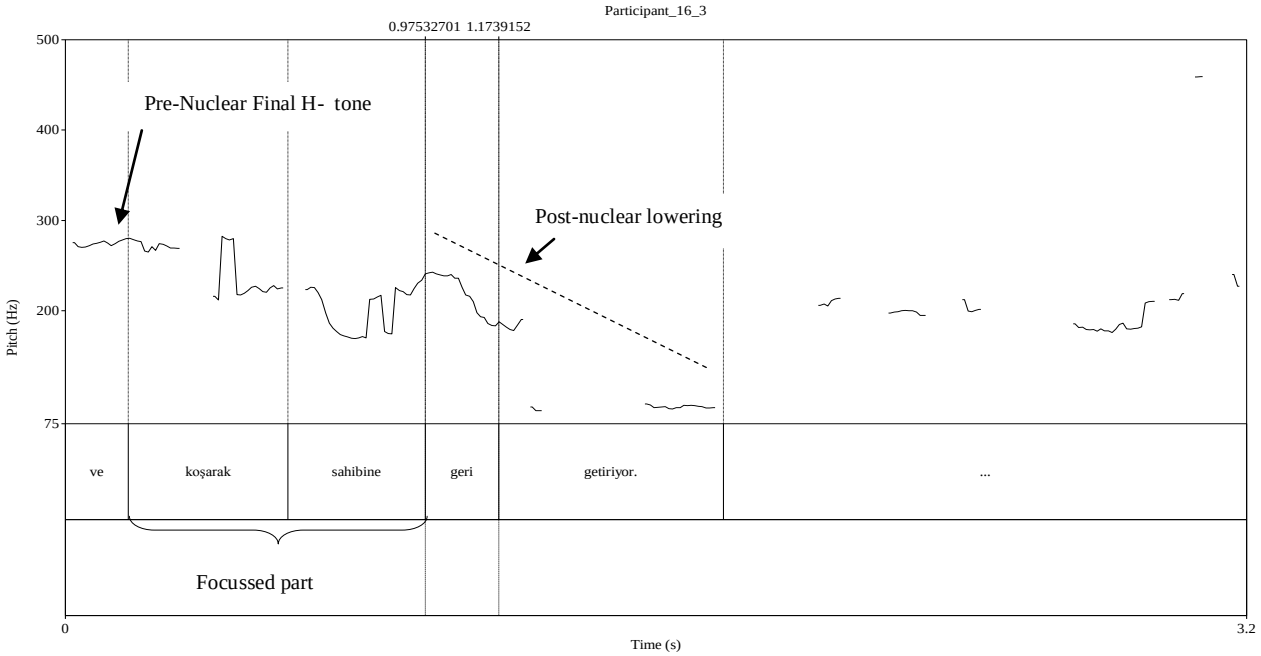
Graph #11. All-new context except for ground, "(It) goes towards there by hopping". Focus excluding path main verb. Manner & path conflated gesture on manner verbal adverb and ground + postposition (path)



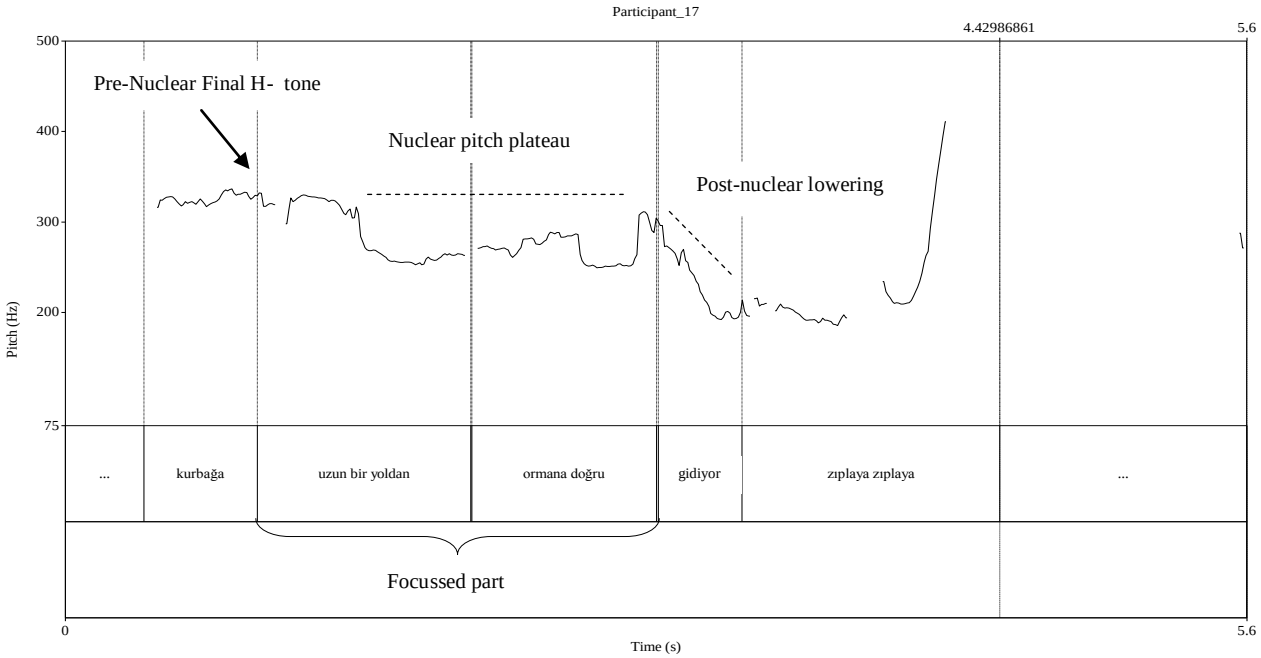
Graph #12. All-new context except for ground and figure, "Because of air, the bottles on the table falls on ground by rolling". Manner gesture on manner verbal adverb, path gesture on path main verb and on ground with a path suffix.



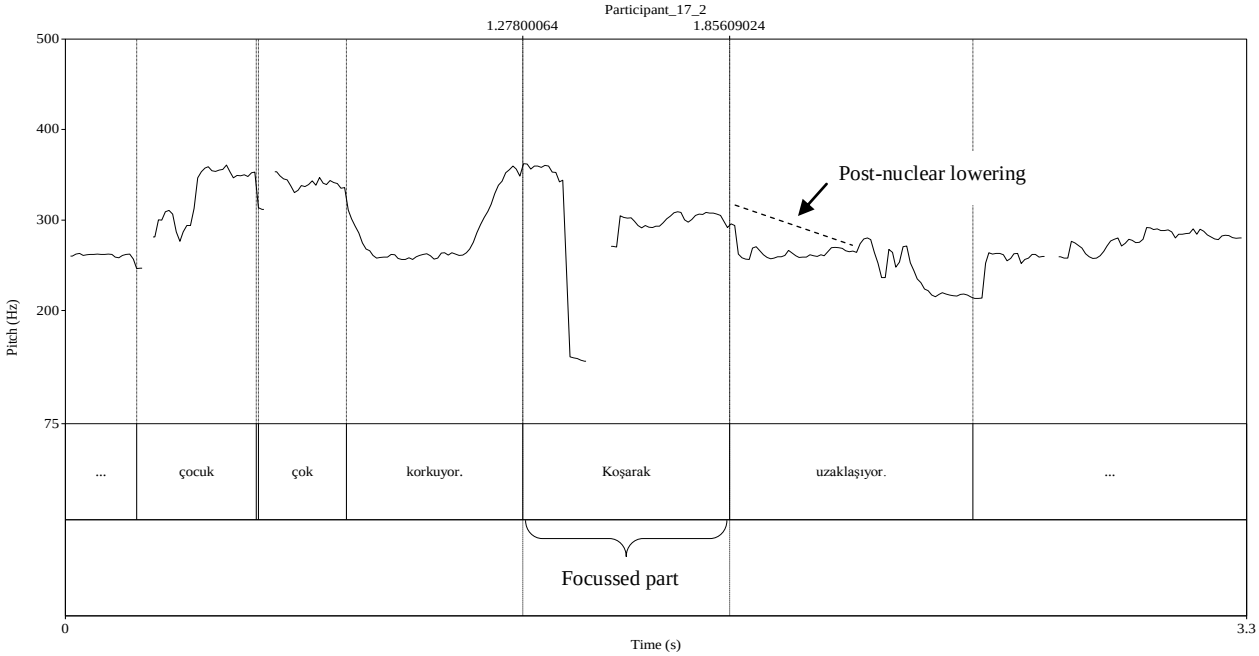
Graph #13. Manner verbal adverb is new in the context, main path verb is given as it can be seen from the previous sentence. Manner information is added as a repetition."(He) goes by hopping". No gesture.



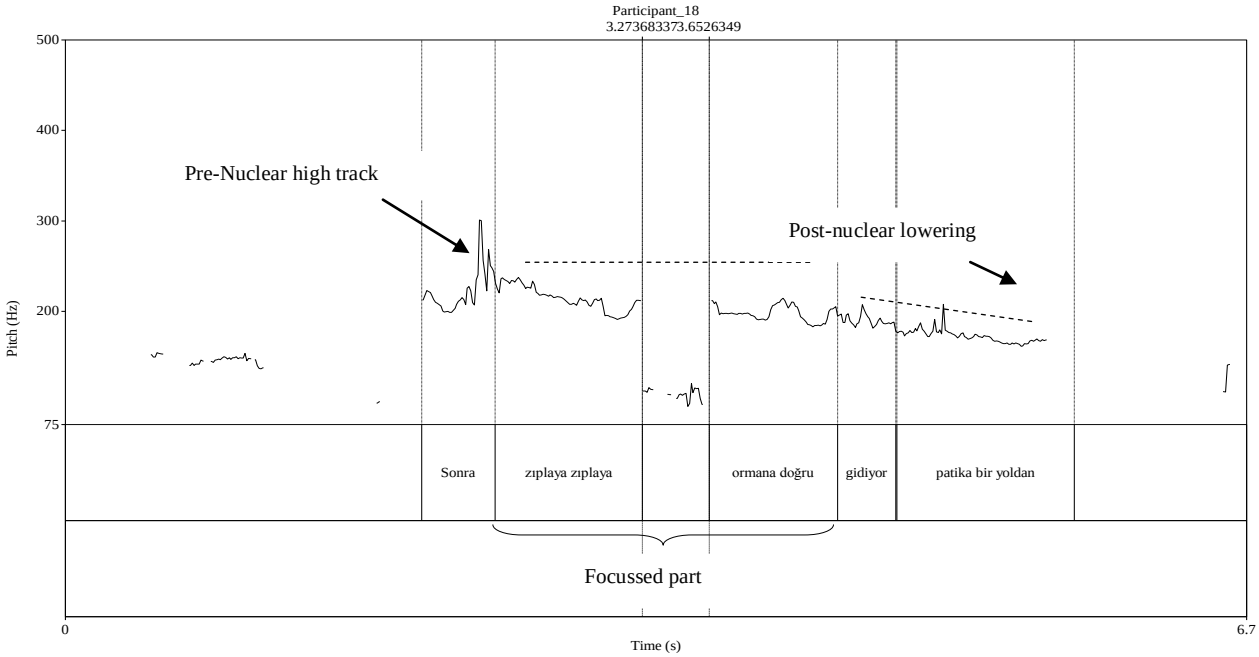
Graph #14. All-new in the context except for ground with path suffix, "...and (It) brings back to its owner by running". No gesture. Focus is on the ground and manner verbal adverb.



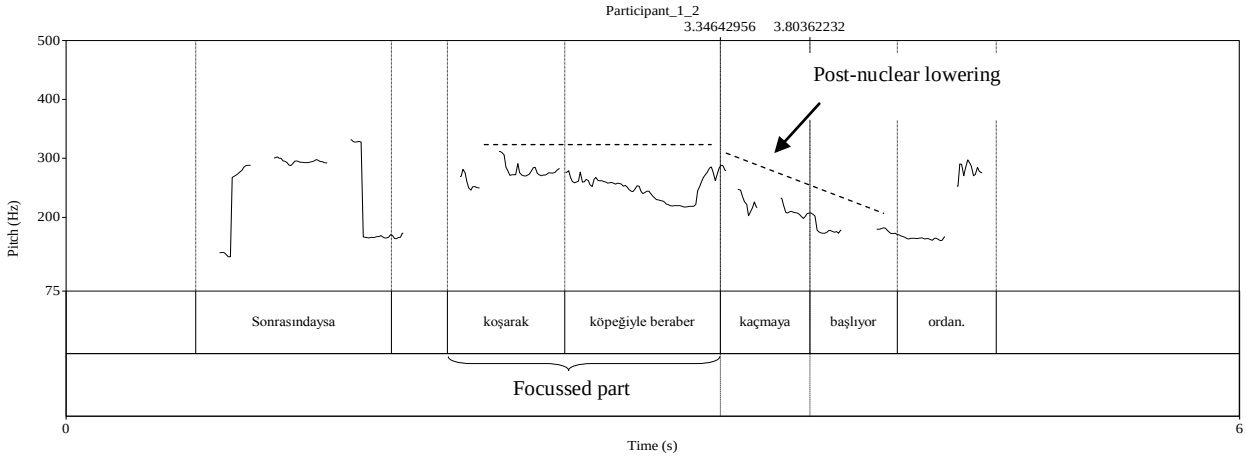
Graph #15. All-new in the context except for figure, "The frog goes towards a forest through a long road by hopping". No gesture. Focus is on ground + proposition (path) and another ground with path suffix.



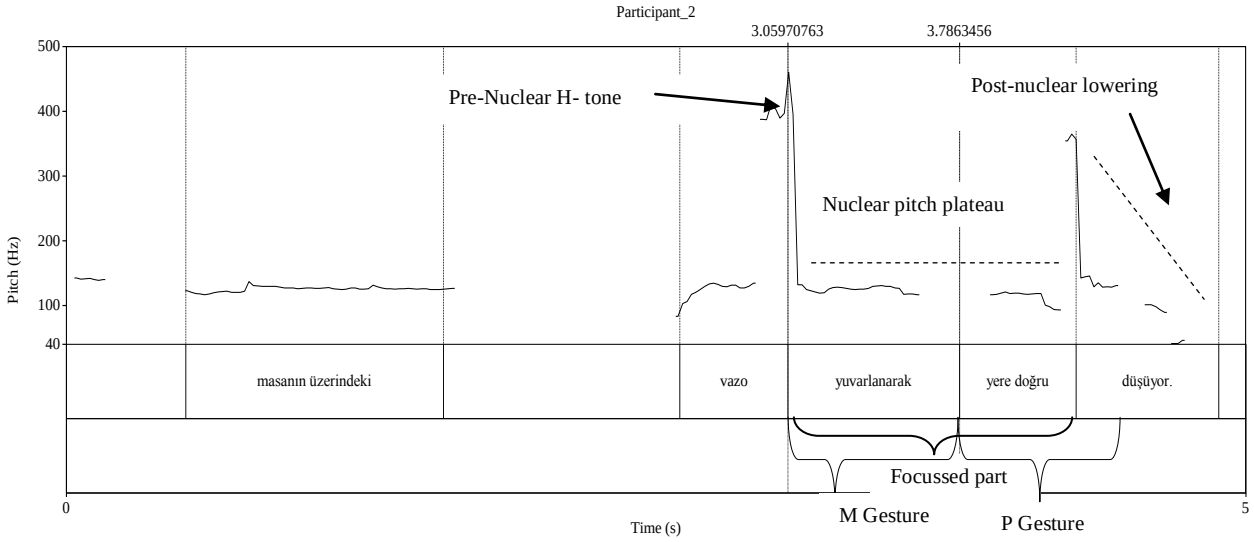
Graph #16. All-new sentence, "(He) gets away by running". Focus is on manner verbal adverb. No gesture.



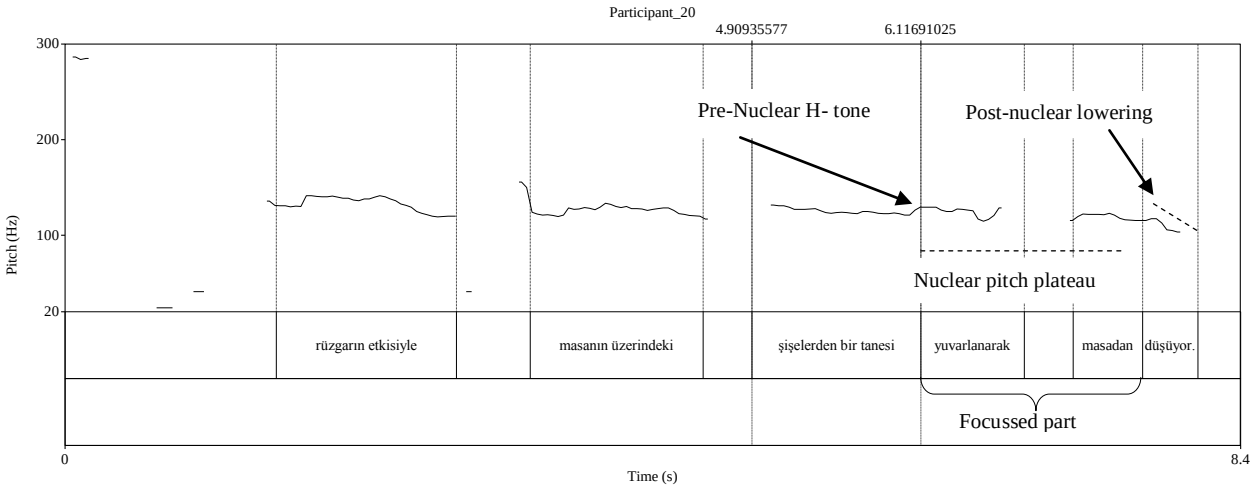
Graph #17. All-new sentence, "Later (he) goes towards a forest through a pathway by jumping". Focus is on manner verbal adverb and postpositional phrase. No gesture.



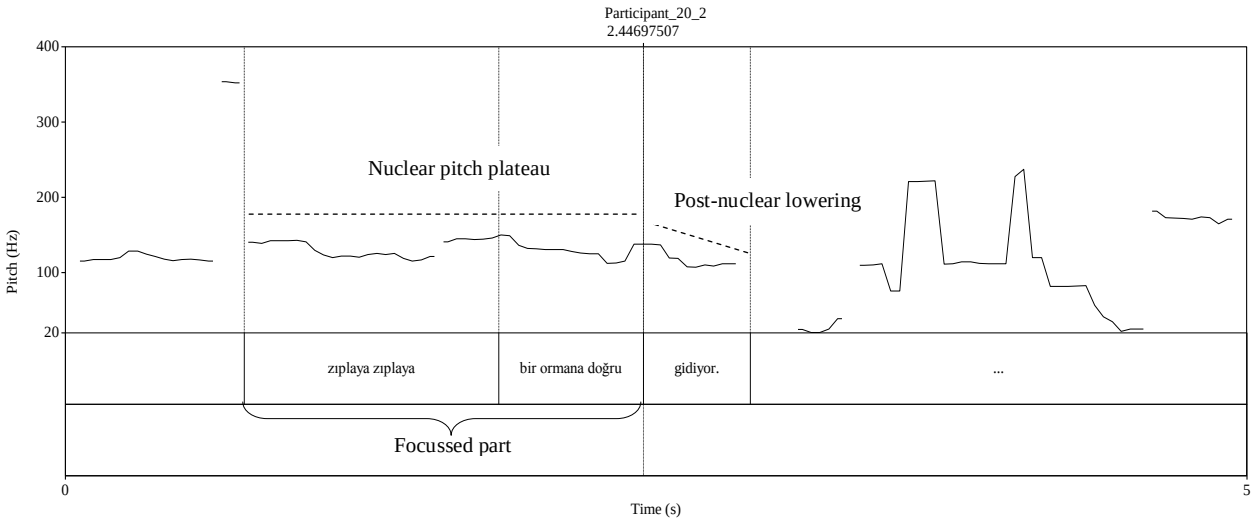
Graph #18. Only ground is given in the context, " Later on, together with his dog (he) starts to flee by running". Focus is on manner verbal adverb and figure (dog). No gesture



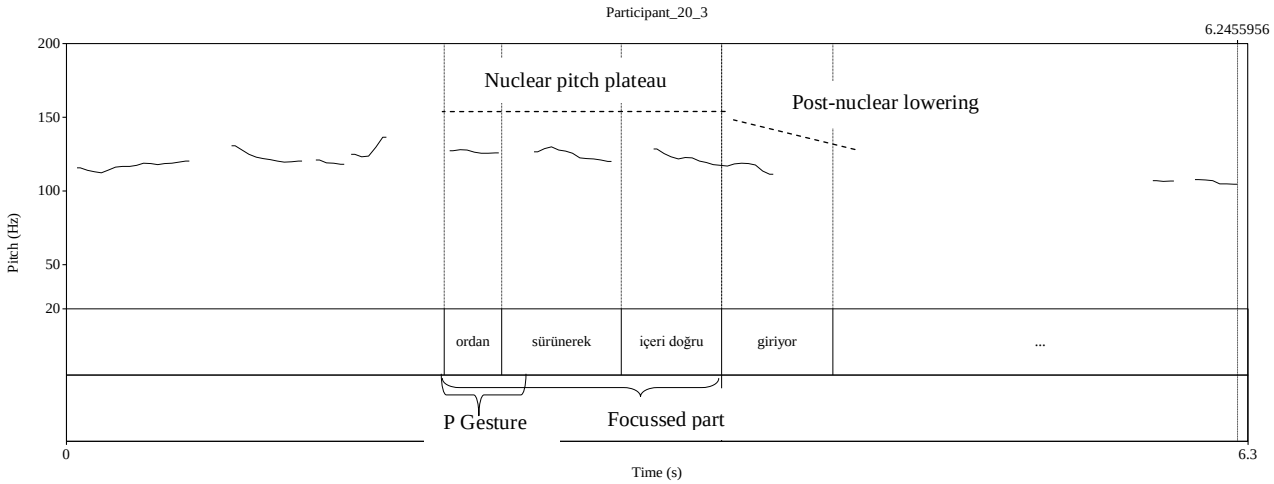
Graph #19. Only figure and ground information is given in the context. "The vase on the table falls towards the ground by rolling". Focus on manner verbal adverb and ground + postposition (path). Manner gesture on manner adverb, and path gesture on ground with path element slightly extending to path main verb.



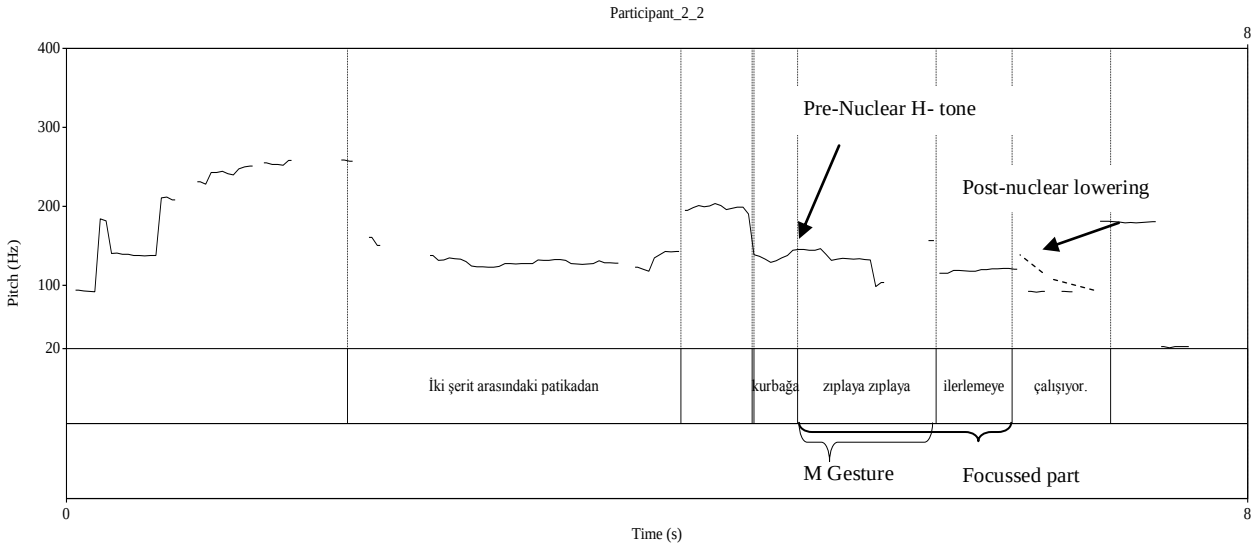
Graph #20. Only figure is given in the context, "Because of wind, one of the bottles on the table falls from the table by rolling". No gesture. Focus on manner verbal adverb, and ground + path suffix.



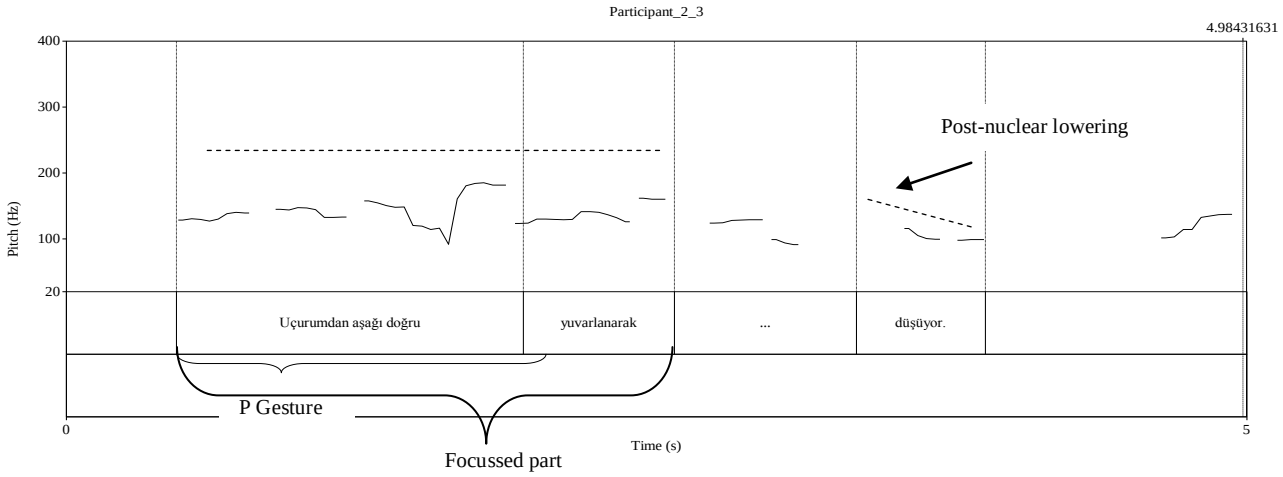
Graph #21. All-new context, "(He) goes towards a forest by hopping". Focus is on manner verbal adverb and ground + postposition (path). No gesture.



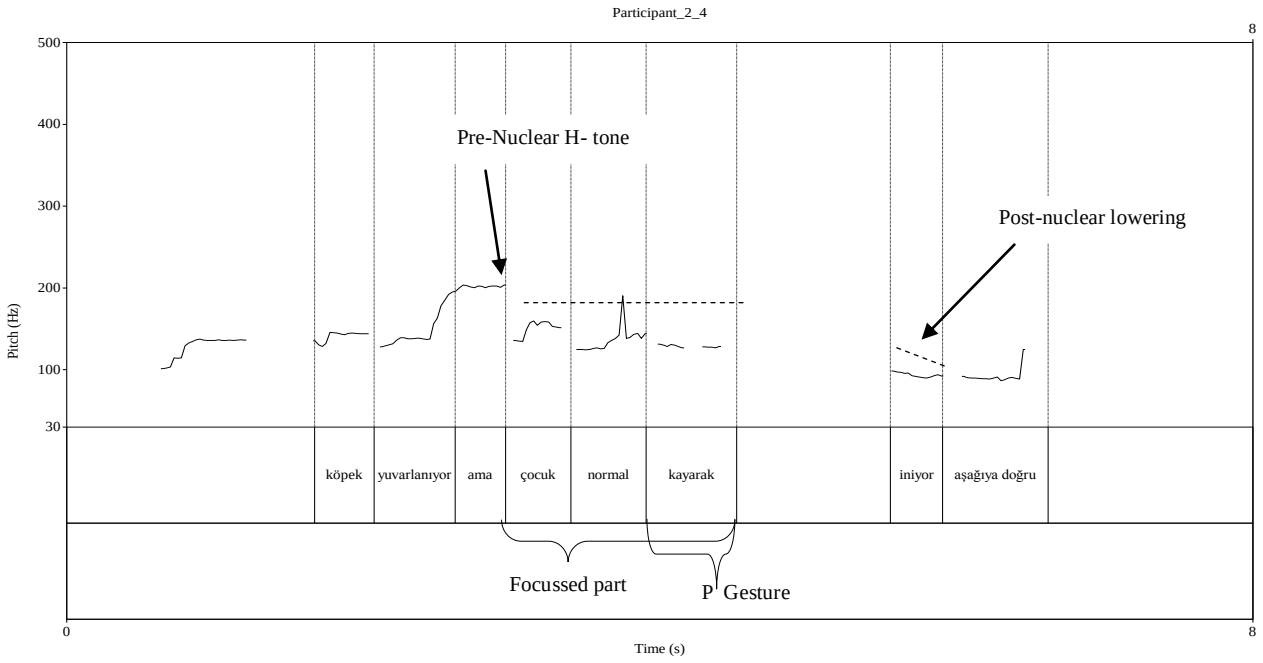
Graph #22. Only ground information is given, " From there (He) goes towards inside by crawling". Focus includes ground + path suffix, manner verbal adverb and deictic + postposition (path). Path gesture on ground + suffix slightly extending to the adverb.



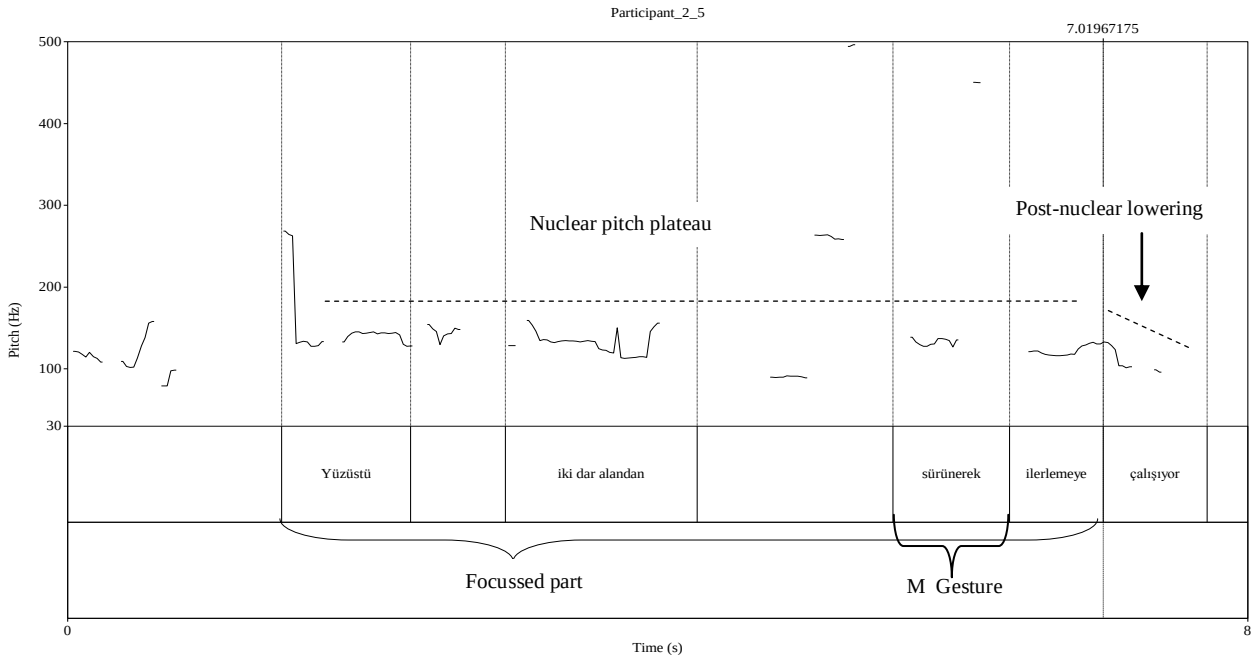
Graph #23. Only figure and ground information is given in the context, "From a pathway between two edges, the frog tries to advance by hopping". Focus is on manner verbal adverb and path gerund. Manner gesture on the adverb.



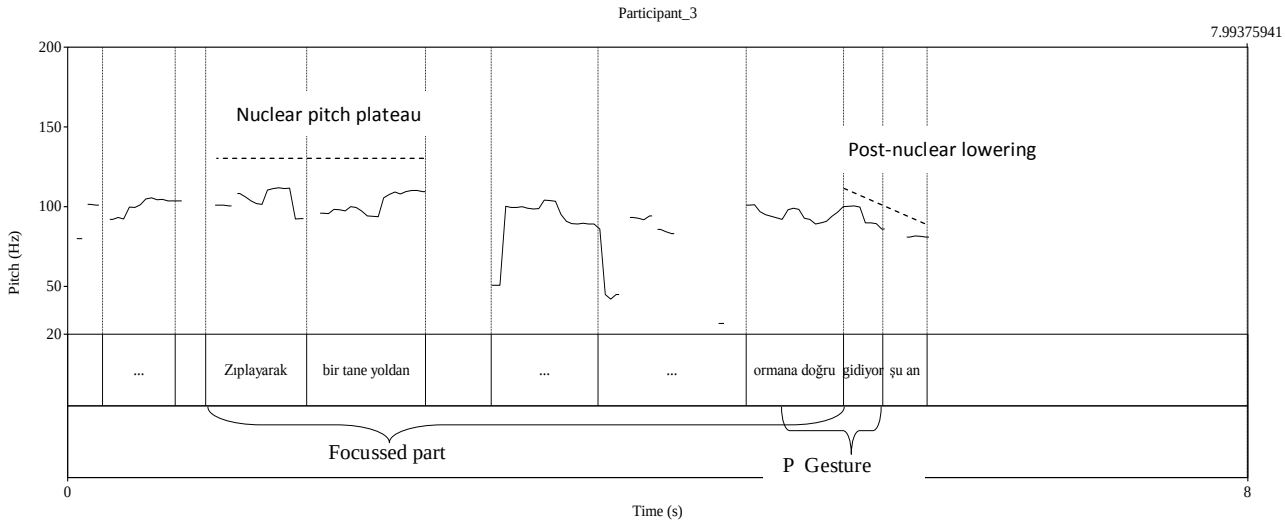
Graph #24. Only ground is given in the context, "(He) falls downwards from the cliff by tumbling". Focus is on manner verbal adverb and ground + deictic + postposition (path). Path gesture on postposition slightly extending to the adverb.



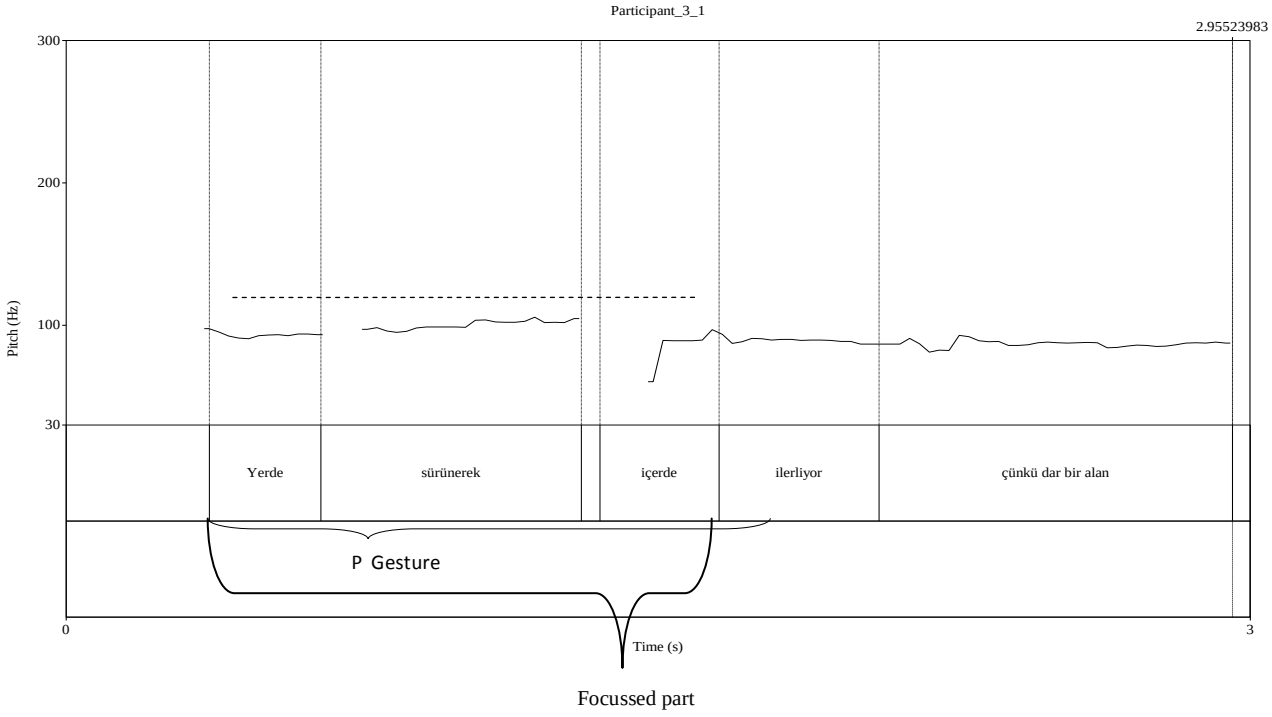
Graph #25. Only figure is given in the context, " ... the boy descends downwards by just sliding". Focus is on figure and manner verbal adverb. Path gesture is on manner verbal adverb. Given figure is contrastively focussed.



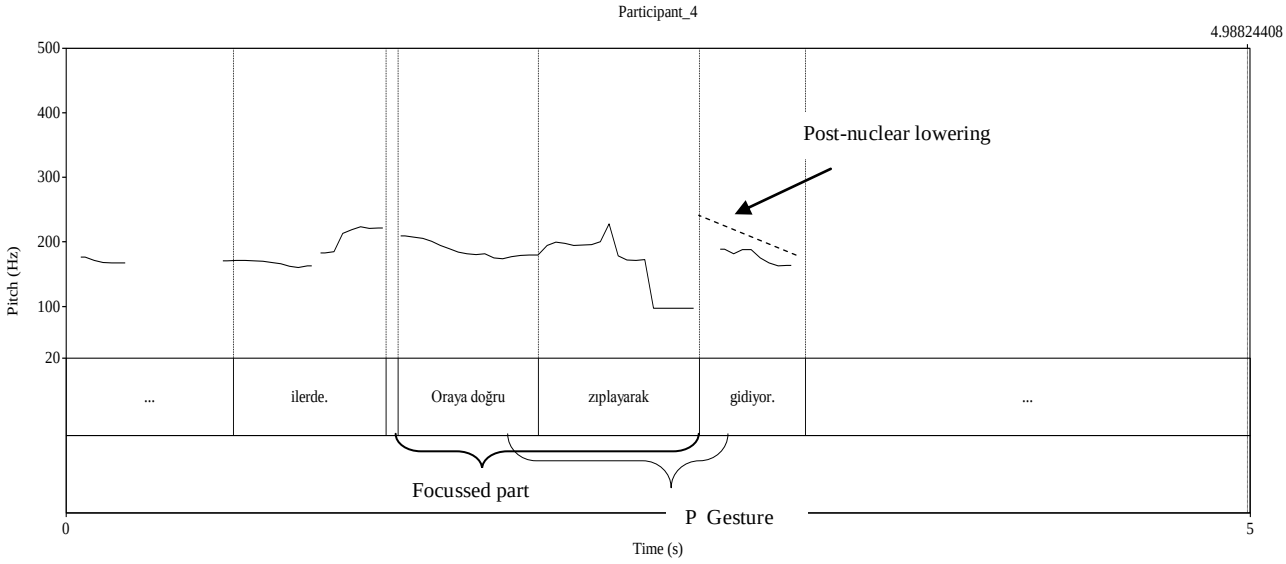
Graph #26. All-new sentence, "(He) tries to advance through an narrow area by crawling facedown". Focus is on all except the main verb (non-motion) Manner gesture on manner verb.



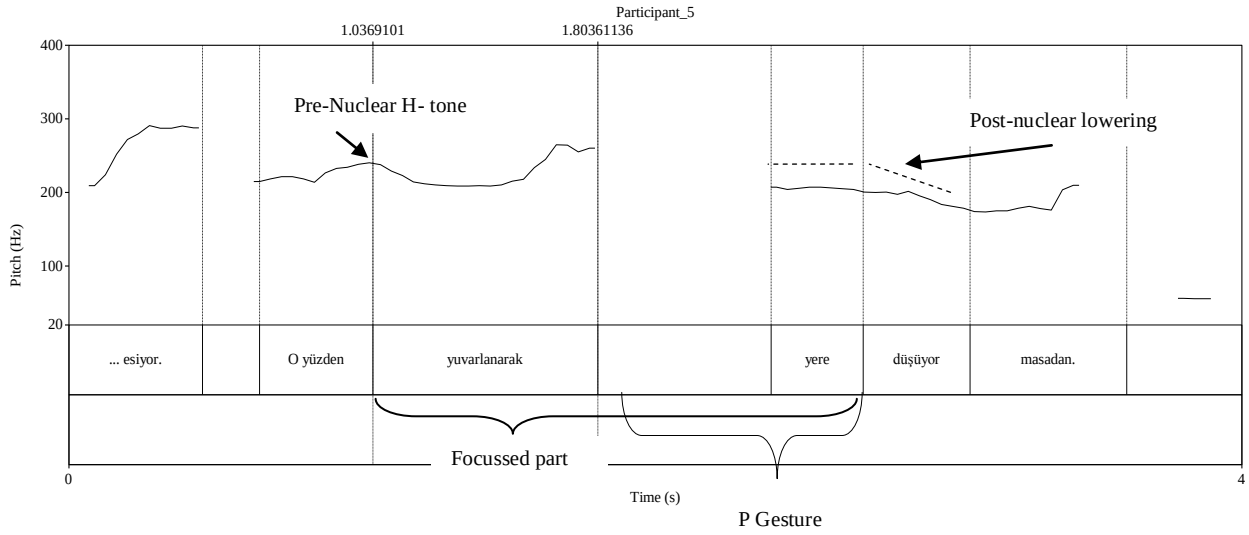
Graph #27. All-new context, "Right now (He) goes towards a forest through a road by hopping". Focus is on all except for path main verb. Path gesture is on path main verb starting early on ground + postposition (path)



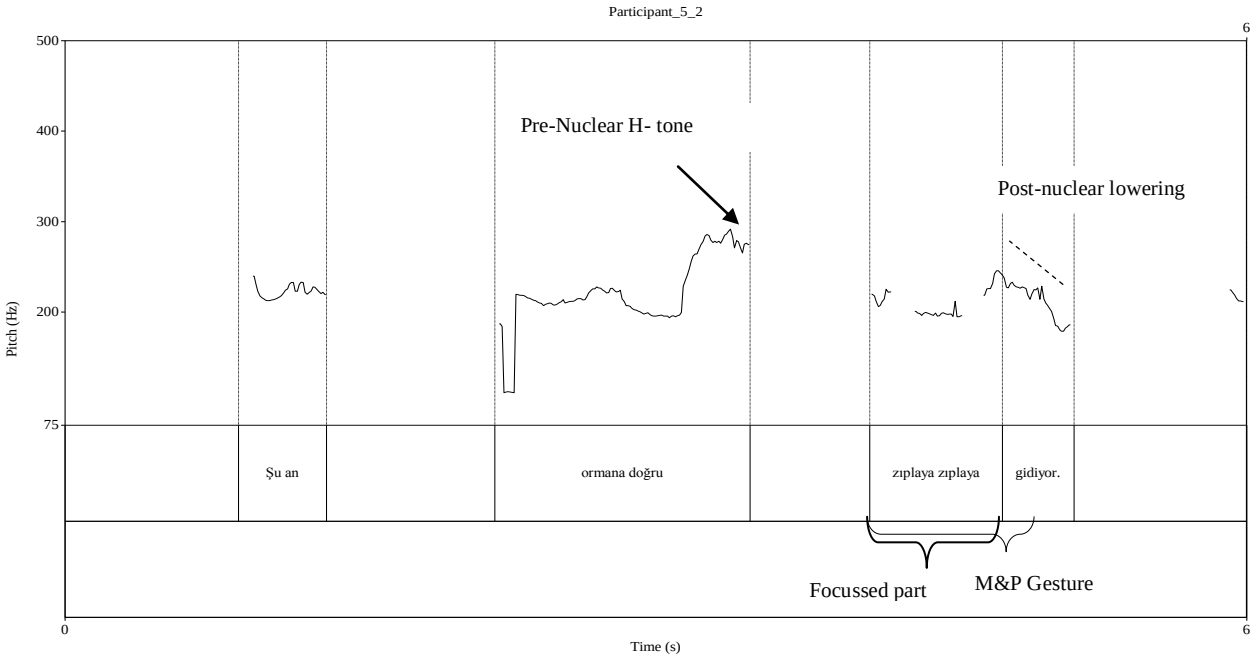
Graph #28. All-new context, "(He) advances inside by crawling on the ground". Native speakers are consulted, focus is on ground expressions and manner verbal adverb. Large path gesture extends to the path main verb accompanied the clause.



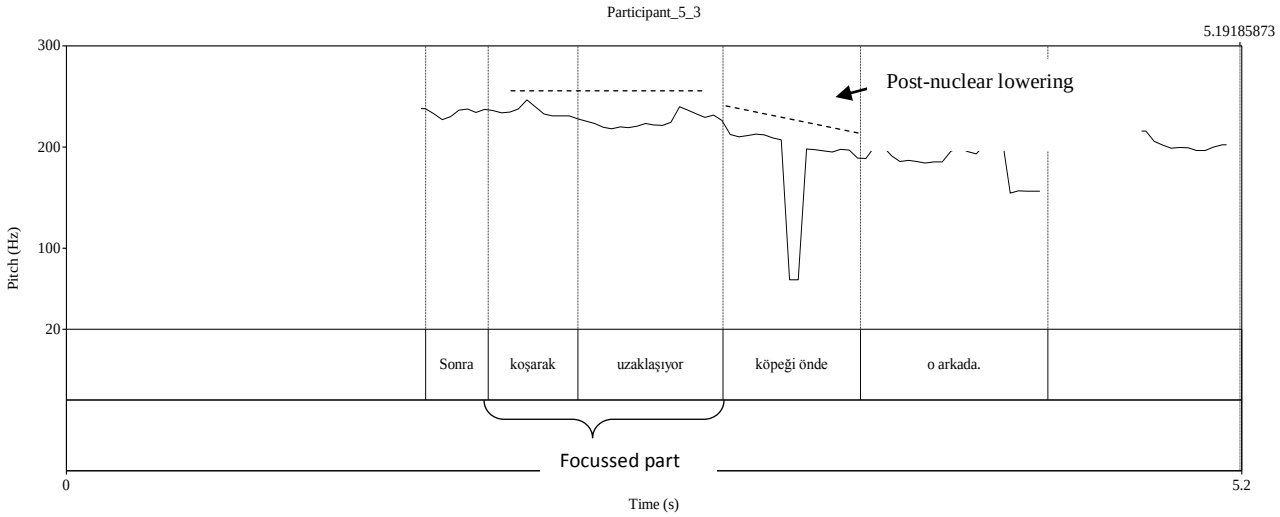
Graph #29. Only ground is given in the context, "(It) goes towards there by hopping". Focus is on ground + postposition and manner verbal adverb. Path gesture on the verbal adverb and extended to path main verb and postpositional phrase.



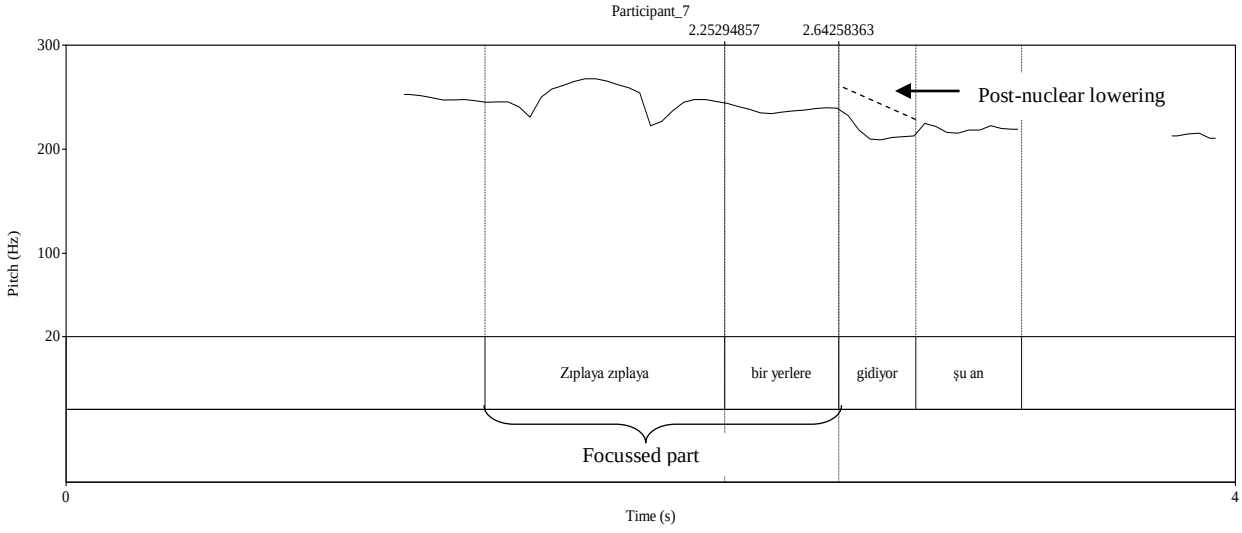
Graph #30. Only last ground is given in the context, "Thus (It) falls on the ground from the table by rolling". Focus is on manner verbal adverb and ground + path suffix. Path gesture is on the ground + path suffix extending to silent period.



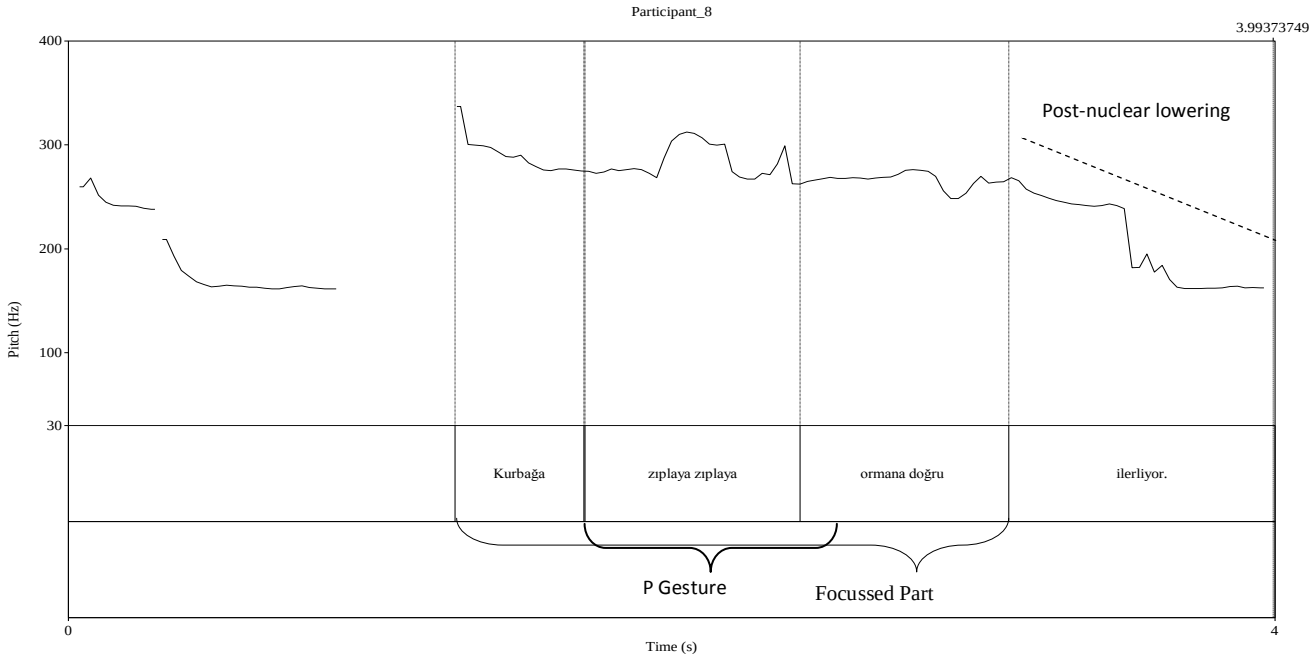
Graph #31. All-new context, "Right now (he) goes towards a forest by hopping". Focus is on manner verbal adverb. Manner and path conflated gesture on both the adverb and path main verb.



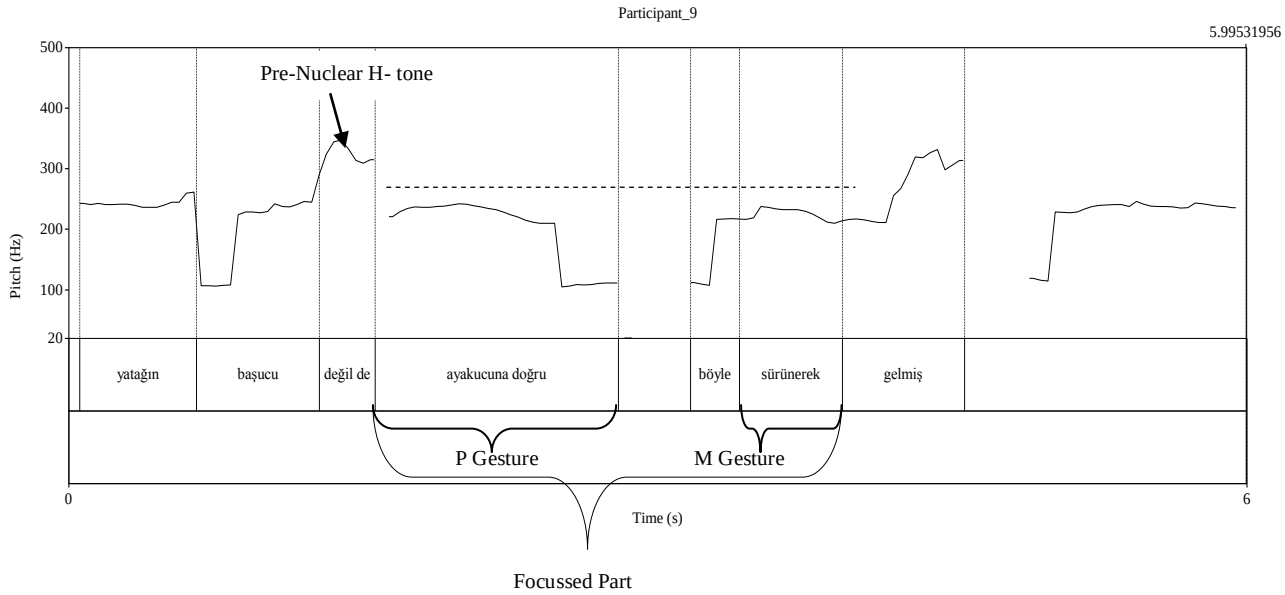
Graph #32. All-new context, "Later (he) gets away with his dog in front of him by running". Focus is on manner verbal adverb and path main verb. No gesture.



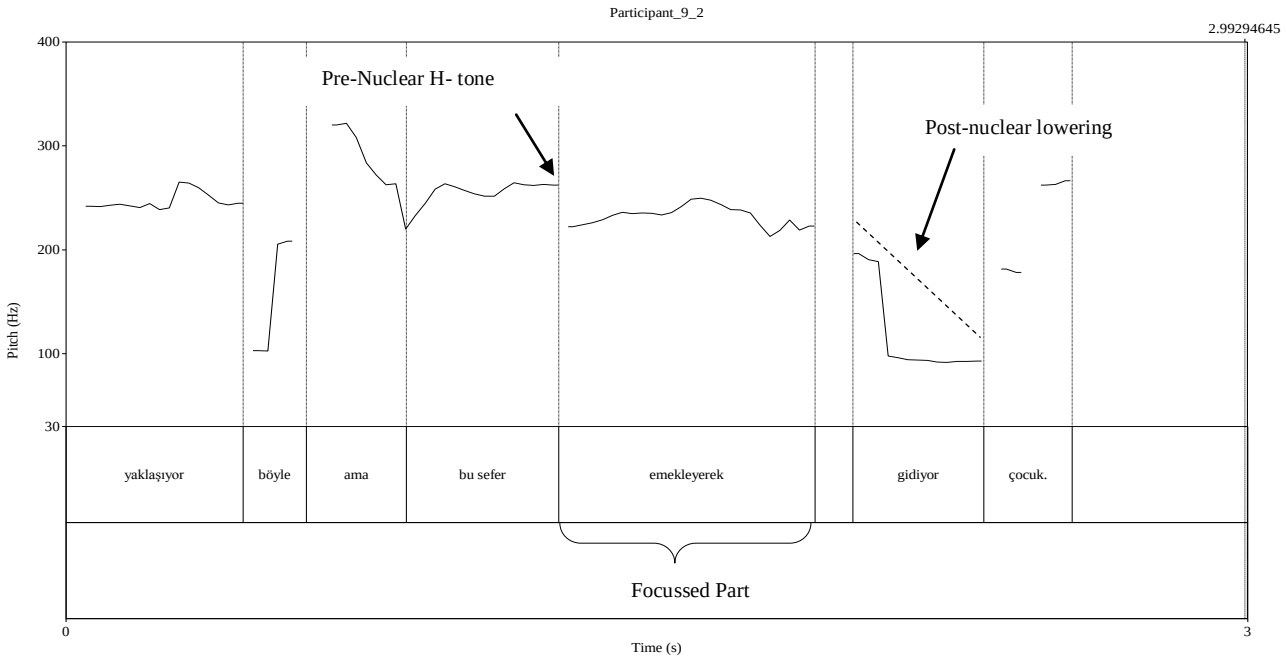
Graph #33. All-new context, "Right now (he) goes to some place by hopping". Focus is on manner verbal adverb and ground + path suffix, no gesture.



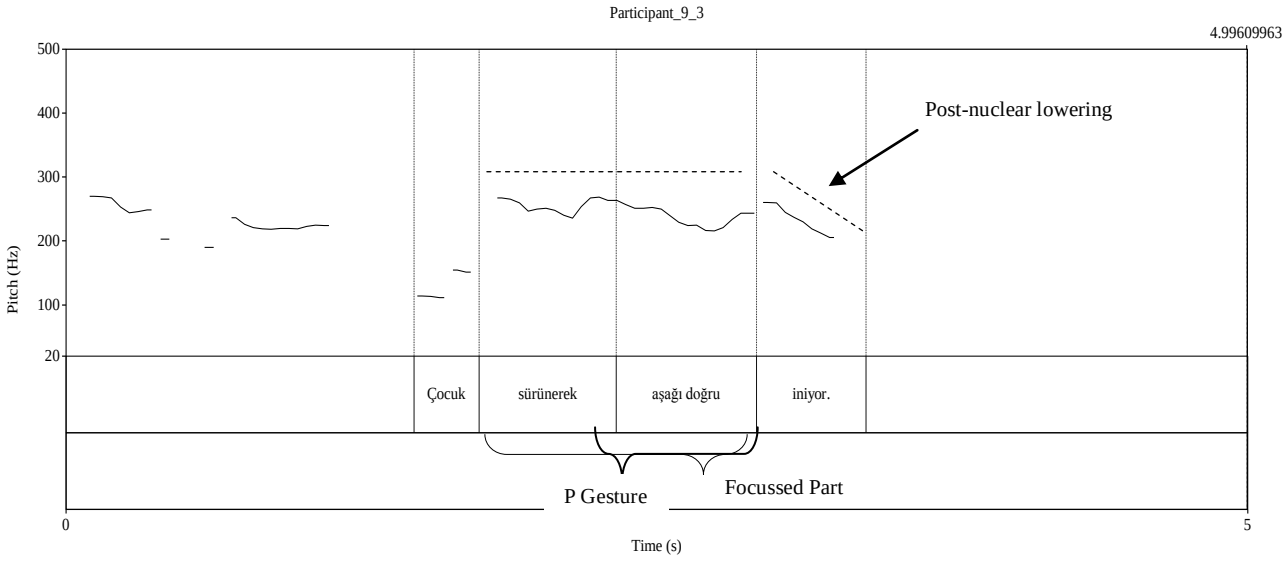
Graph #34. Only figure is given in the context, "The frog advances towards a forest by hopping". Focus is on all except path main verb, given figure is under focus due to surprised tone of the speaker. Path gesture is on manner verbal adverb slight extending to the ground + postposition (path)



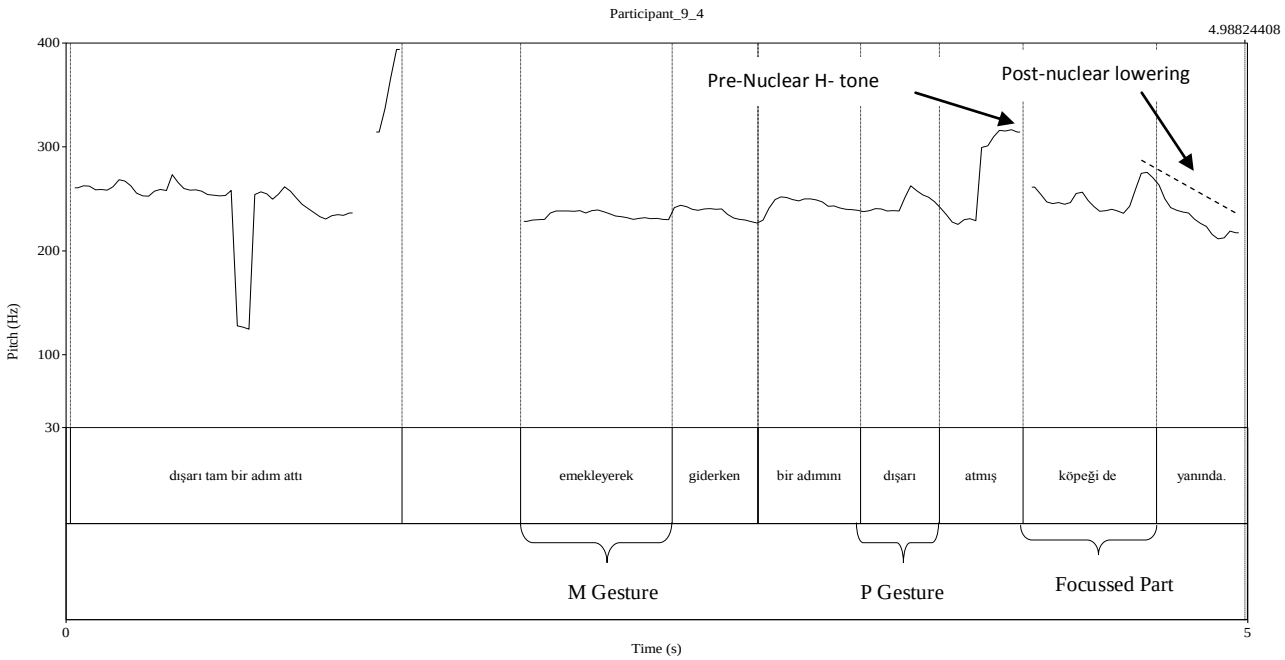
Graph #35. All-new context, "(He) comes towards the foot side of the bed not the head side by crawling.", Post-nuclear lowering could not be identified from the pitch track. Native speakers are consulted to mark the focus which includes manner verbal adverb and second ground + postposition. Path gesture is on ground + postposition (path), manner gesture on manner verbal adverb.



Graph #36. Only figure is given in the context, "This time the boy goes by crawling". Focus is on manner verbal adverb, no gesture.



Graph #37. Only figure is given, "The boy descends downwards by crawling". Focus is on manner verbal adverb and deictic + postposition. Path gesture is on deictic starting at the very end of the manner verbal adverb.



Graph #38. Only last ground information is new in the context, "(He) steps out with his dog at his side while going by crawling". Focus is on given figure (dog). Path gesture is on deictic. Manner gesture is on manner verbal adverb.

Appendix C

Stimuli: the frog story (Vertical order)

