than older children and adults. Adopting a patient perspective through use of intransitive, inchoative-type verb-morphology occurs from age 3, but is found increasingly both in quantity and variety of predicates so alternated from school age on.[20] Use of VS rather than standard SV order to vary perspective by highlighting a presentative predicate (e.g., 'and suddenly jumps out a strange animal') becomes established only at school-age, with adults making selective use of this option in some but by no means all of their narrations. Younger children again, vary word order in a less well-motivated fashion, with schoolchildren adhering more typically to standard, quite stereotypical SVO canonical order.

6.4. Connectivity

Three-year-olds chain one utterance after another in their ongoing discourse, typically by means of spatial deictics meaning 'here' and/or by reiteration of utterance-initial 'and'. A precursor of more normative connectivity marking is an additive element meaning 'also, too' to indicate that the same thing is happening again, or the same character is appearing again. In contrast, 5-year-olds and school-age children typically link up each ensuing clause to the one just preceding in a mechanical overmarking of temporal sequentiality or successiveness, by expressions meaning 'and then, afterwards', with older children making increasingly felicitous use of syntactic coordination with same-subject deletion. Two more mature devices to achieve textual cohesiveness in Hebrew are by subordination, which shows a clear linear progression across the different age groups, and subject elision, which serves in grammatical coordination and subordination increasingly from age 5 years up, and for maintained topic elision among some 9-year-olds but more extensively among the adults alone. Another means of packaging clauses within more tightly bound syntactic bundles is through use of nominalizations, again a device confined to the older Hebrew texts.

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[20] Flexible deployment of the same verb-root in different *binyan* affixal patterns is probably a major means for selecting, maintaining, or alternating perspectives in Hebrew discourse.

Chapter IIIE

DEVELOPMENT OF LINGUISTIC FORMS: TURKISH

Ayhan A. Aksu-Koç

0. INTRODUCTION

This chapter tells the story of the Turkish frog stories, with particular focus on the expressive means used in their telling. The Turkish frog stories come from child and adult native speakers of standard Turkish from urban middle-class backgrounds in Istanbul. The majority of the 3- and 5-year-olds

were seen individually in their preschools, and a few in their homes. The 9-year-olds were all seen at home. The adult group consists of 20-24 year-olds, all students at Boğaziçi University. There were 10 subjects in each group. Although some of the adult narratives reflect a playful attitude and an intentional choice of more "literate" syntactic forms, all the narratives represent colloquial Istanbul Turkish.

An evaluation of the Turkish preschool narratives in terms of the criteria of general narrative ability formulated in Chapter IIA yields the following picture. The 3-year-olds, like their peers in other languages, describe independent picture frames rather than recounting events organized around a plotline. A few narrators point to the escape of the frog as the event marking the beginning of a sequence of events, one refers to the search, and two note the termination of the search with the finding of a frog. As a result, the texts of the 3-year-olds do not meet the standards of a narrative, and lack coherence and cohesion (Halliday & Hasan, 1976). While there are no apparent grammatical errors in the use of the highly regular verb morphology, a few errors are observed in the use of more complex subordinate clauses.

About half of the 5-year-olds follow this same pattern, while the other half produce narratives which display a more sophisticated narrative structure, with reference to the inception, the continuation, and the termination of the plotline. Their texts provide evidence for the differentiation of a narrative time distinct from speech time (see Chapter IVA), displaying linguistic means such as sequentiality markers and an anchor tense. These texts contain more grammatical errors since they contain many more complex syntactic constructions.

The 9-year-old narratives present a very stable picture: All refer roughly to the three major components of the plot; all maintain an anchor tense and use temporal markers with a global, theme-related motivation. The two temporal axes are differentiated in the sense that children can go back and forth between sequencing events in narrative time and making evaluations about them in discourse, but they do not exploit this possibility much, preferring to stick to the linear progression of events.

Additions in the adult narratives involve the use of a formally rich language to express a tightly cohesive and coherent story. Most of these texts suggest that our adult narrators interpreted their task within a "children's storytelling frame" and produced detailed descriptions and elaborations as they probably would if they were really telling the story to a child.

This chapter summarizes developments in the formal means of expression in the Turkish narratives: After a sketch of the tense-aspect-modality system (Section 1), we examine the development of means for describing the

component parts of a situation (Section 2), means for encoding different perspectives (Section 3), and means for achieving textual cohesion (Section 4).

Descriptions of major features of the phonology, morphology, and syntax of Turkish are available in various grammars of Turkish (Banguoğlu, 1974; Gencan, 1975; Kononov, 1956; Lewis, 1967; Underhill, 1976, to cite a few) and major trends in the acquisition of Turkish as a native language can be found in Aksu-Koç and Slobin (1985). Analyses relating to linguistic and structural aspects of adult narratives based on film retellings are found in Erguvanlı-Taylan (1987) and Aksu-Koç (1992a, 1992b). Other treatments of specific aspects of Turkish grammar will be referred to in the relevant sections.

1. TURKISH TENSE/ASPECT/MODALITY

Turkish, which has an agglutinative morphology, expresses the categories of tense, aspect, and modality: (1) morphologically by a set of affixes appended after the invariant verb root, and (2) lexically, with verbs and adverbs. A brief summary of the most basic affixes is sufficient in the present context.

The essential pattern is a root followed by a series of affixes, adjusted by vowel harmony and voicing assimilation to fit the root and each other, proceeding from left to right.[1] The verb complex itself can be quite long, consisting of a string of affixes between the root and the final tense-aspect and person-number affixes. The intervening affixes indicate valency and voice

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[1] Vowel harmony operates throughout all words of native origin and for all grammatical suffixes, which harmonize with the last vowel of the lexical root. There are two main sets of vowel allomorphs in grammatical morphemes: a two-way alternation, *e/a*, for the plural, most oblique cases, and several verb affixes; and a four-way alternation, *i/ı/ü/u*, for accusative, genitive, possessive, and most verbal and deverbal affixes. The two-way contrast is a front-back alternation of unrounded low vowels, as in the plural suffix *-ler/-lar*, e.g., *büyük-ler* 'parents' and *çocuk-lar* 'children'. The four-way contrast is a front-back, rounded-unrounded alternation of high vowels, as in the present progressive suffix *-iyor/-ıyor/-üyor/-uyor*, e.g., *gel-iyor* 'coming', *al-ıyor* 'taking', *düş-üyor* 'falling', and *koş-uyor* 'running'. For the sake of simplicity, all examples of grammatical morphemes in this volume are given in the front unrounded form (e.g. *-ler* PLURAL and *-iyor* PRESENT/PROGRESSIVE). An additional morphophonemic change affects stop consonants, which undergo voicing assimilation. As a consequence, the past-tense suffix, represented here as *-di*, has a *d/t* alternation along with the four-way vowel contrast, resulting in forms such as *gel-di* 'came', *git-ti* 'went', *bul-du* 'found,' *düş-tü* 'fell', and so forth. In addition to verb and noun inflections, the yes/no question particle *mi* and the topic/focus particle *de* undergo the alternations described above. As reported by Aksu-Koç and Slobin (1985), vowel harmony is mastered early and without error by Turkish children, and all of these variants are equally accessible and productive.

(causative, reciprocal, reflexive, passive), negation, modality (ability, necessity, probability, optativity), and illocutionary force. For example, consider the following verb from the frog story, which conveys negative ability in the past tense and was predicated of the boy and dog: *bul-a-ma-dı-lar* 'find-ABILITY-NEG-PAST-PLURAL' (=were not able to find). In addition, there are various nonfinite and deverbal forms. (Most important for our texts are the various "converbs" that function for temporal coordination and subordination, discussed in Section 2.)

The Turkish tense-aspect-modality system can be characterized in terms of two main dimensions, one temporal, PAST-NONPAST, and one modal, DIRECT EXPERIENCE - INDIRECT EXPERIENCE. The indirect experience modality includes both **inference** and **hearsay**. A choice of one of the two modal forms is obligatory when reporting past events. The suffix indicating direct experience is *-di*, and this form is glossed as D.PAST, which can be read as either "direct experience past" or "*di*-past." The indirect experience (or "nonwitnessed") form is *-miş*, glossed here as M.PAST, which can be read as "*miş*-past," summarizing over its several functions as described below. The past-tense distinction can be illustrated by the following example. If I have seen the boy fall from the tree, I must say *Çocuk düş-tü* 'boy fall-D.PAST; if I infer that he fell from the evidence of seeing him on the ground, or if I have been told that he fell, I must say *Çocuk düş-müş* 'boy fall-M.PAST. Because the inferential use of the M.PAST reports a completed past process on the basis of its result, it is often translated by a present perfect ("The boy has fallen"); however this form is not, in itself, a perfect, and in most instances it can also be translated by a simple past ("The boy fell").[2] In its hearsay use, however, it is a simple past tense ("The boy (evidently) fell"). The M.PAST is also the modality of folktales and traditional stories, and some of our narrators use this "narrative modality" to convey the entire frog story. In such narrations the D.PAST is absent and the M.PAST serves as the sole past tense.

Within the domain of aspect, the morpheme *-iyor*, which is traditionally glossed as PROGRESSIVE, is more of an imperfective and serves as present tense for both states and processes, contrasting with the habitual/generic *-er*. In this study we gloss V + *-iyor* simply as PRESENT (abbreviated as PRES). In the past tense, however, *-iyor* combines with both D.PAST and M.PAST to produce past progressives: *düş-üyor-du* 'fall-PROG-D.PAST (=was falling) and *düş-üyor-muş* 'fall-PROG-M.PAST' (=was (apparently) falling). There is no grammaticized marking of perfectivity (i.e., completion or boundedness) as in

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[2] For a discussion of the relations between perfects and evidentials, see Anderson (1982, 1986).

languages like Spanish or Russian.[3]

In the domain of tense, the affix *-ecek* indicates future tense (and has modal uses that need not concern us here). Turkish has recourse to compound tense/aspect constructions in both the past and future. Of relevance to the frog story is the past perfect, which is formed in both modal versions of the past. The D.PAST suffix is affixed to *-miş*, historically a participle, to produce a **direct experience** past perfect: *düş-müş-tü* 'fall-PERFECT-D.PAST' (=had fallen). Within a narrative text anchored in the M.PAST, the past perfect is formed by combining the participial use of *-miş* and its modal-temporal use: *düş-müş-müş* 'fall-PERFECT-M.PAST (=had apparently fallen).[4]

1.1. Tense

1.1.1. Anchoring tense/modality

One of the criteria for the well-formedness of a narrative is the choice of a consistently favored tense. In the present context this was defined as the tense of at least 75% of the clauses in a given text. In Turkish narratives, either the PRESENT, the D.PAST, or the M.PAST can be the dominant or anchor form. Between 2 to 3 years of age, Turkish children learn to use all three inflections quite flexibly and without any error of form. Around age 3 they begin to oppose the two past-tense forms to distinguish the two evidential modes.

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[3] The morpheme *-iyor*, historically the progressive marker, is better characterized as an imperfective aspect marker today, as recent analyses suggest (Aksu-Koç, in preparation; Dahl, 1985; Erguvanlı-Taylan, 1992). In the narrative context investigated here, its use in reference to past situations serves to present temporally-bounded situations in their ongoingness and as such makes the gloss of PAST PROGRESSIVE, in keeping with the traditional use, more appropriate.

[4] There are many other complex combinations, but this sketch should be sufficient to orient the reader to the distinctions that play a role in the frog story texts. Analyses of both acquisition and adult data suggest that modal and aspectual distinctions are more basic than tense distinctions in Turkish. For example, Yavaş (1980) proposes that in Turkish, the present tense receives zero marking and that the only true tense marker is *-di* for past tense. Slobin and Aksu (1982) analyze the semantics of *-miş*, with discussion of its aspectual and modal as well as temporal functions. Aksu-Koç (1978, 1988a) reviews the developmental progression of the aspectual, temporal, and modal functions of *-iyor*, *-di*, and *-miş* in acquisition. Savaşır (1986) describes the modal as well as aspectual character of *-er* and traces the development of future reference in children's language (1983). Tura (1986) shows that *dir* is a modal operator that assumes different values on a scale of factivity. Work by Johanson (1971), Dilâçar (1974), Slobin (1993a), Aksu-Koç (1988b, 1992), and Erguvanlı-Taylan (1988, 1993) suggests the dominance of aspectual or modal meanings carried by various subordinating structures.

At age 3, all three forms can be observed in the children's narrations, but they are not used with clear discourse organizational functions. This is evident from the children's inability to maintain an anchor tense across a piece of narrative discourse. By age 5, more than half of the children can adhere to a dominant tense and make discourse-appropriate use of tense/aspect shifts; and by age 9 and beyond, all speakers manipulate tense/aspect in accordance with the demands of a thematically organized and cohesive narrative. The distribution by age of Turkish texts anchored in the present, the D.PAST, and the M.PAST is presented in Table 1.

TABLE 1
Frequency Distribution of Turkish Texts Anchored in
PRESENT, D.PAST, and M.PAST, by Age

Age Group	Mean Age	Mean No. Clauses	Dominant Tense			
			PRES	D.PAST	M.PAST	MIXED
3 yrs	3;11	35	3	—	1	6
5 yrs	5;5	52	4	—	3	3
9 yrs	9;7	39	7	1	2	—
Adult		82	6	2	2	—

The ability to follow the plot structure goes together with the tendency to maintain a dominant tense. Those narrators who incorporate the major plot components into their stories are also the ones who use an anchor tense. More than half the 3-year-olds do not keep to an anchor form but shift between the three tense forms, as motivated by the inherent aspectual properties of the verbs evoked by the pictures. The remaining children prefer the PRESENT, as a tense anchored in the deictic present, or use the M.PAST, which can indicate either state or narrative modality. The number of 5-year-olds maintaining an anchor tense increases, and only three show mixed use. Examples (1) and (2) illustrate mixed tense/aspect use.[5]

(1) *Bir de kozalak düş-müş. Arılar çık-mış, dala çık-mış deliğe bak-ıyor çocuk.*

'And a pine cone fell-M.PAST. The bees exited-M.PAST, the boy climbed-M.PAST the branch, and is.looking-PRES at the hole.' [*T3b-4;0*]

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[5] Verbs in subordinate clauses in (2) and (3) are nonfinite converbs, with no tense marking, as described in Section 2.

(2) *Çocuk elbisesini ters giy-iyor. Camdan bakarken çocuk başına giy-di o kurbağanın olduğu şeyi.*

'The boy is.wearing-PRES his clothes backwards. While the boy was looking [while.looking:CONVERB] out of the window (the dog) wore-D.PAST the thing the frog was in on its head.' [*T5e-6;0*]

At age 9, all the narrators maintain an anchor tense, favoring either the PRESENT or the M.PAST, with only one text in the D.PAST. The 10-clause text below exemplifies this 9-year-old strategy very well, with all main-clause verbs marked with the PRESENT (-/fIiyor).

(3) *Çocuk bir kurbağa yakal-ıyor. Akşamleyin çocuk uyurken kurbağa kaçıyor. Çocuk sabah kalkınca kurbağayı arıyor, bulam-ıyor. Çeşitli hayvanları kurbağa zanned-iyor, en sonunda bir geyiğin sırtına düş-üyor. Geyik onu suya atıyor. Suda kurbağayı bul-uyor.*

'The boy catches:PRES a frog. In the evening while the boy is sleeping [while.sleeping:CONVERB] the frog escapes:PRES. When he wakes up [when.wake.up:CONVERB] in the morning the boy searches:PRES for the frog, he cannot.find:PRES it. He mistakes:PRES various animals for the frog, finally he falls:PRES on the back of a deer. The deer throws:PRES him into water. He finds:PRES the frog in the water.' [*T9h-9;11*]

The majority of the adults similarly prefer to anchor their narratives in the present, though two use the D.PAST and two use the M.PAST. It could be argued that a preference for the present is a function of the task, which involves looking at the pictures while telling the story. However, a tendency to use the present as a narrative form was also observed in a study in which adults had to retell a segment of a Turkish movie immediately after viewing it. In this task, 70% of the narrators used the present -iyor as the anchor tense, 10% used the habitual present -er, and 20% chose the past of direct experience -di (Erguvanlı-Taylan, 1987). In other words, these findings suggest that the present is the appropriate tense for a vivid narration in Turkish. The present may be preferred for recounting events viewed from inside, i.e., regarded as psychologically relevant to the self, and the narrative -miş may be preferred if a psychologically distant perspective is chosen.

Since the frog stories were elicited with the use of a picturebook, our texts contain many static descriptions. These are nominal predications with a demonstrative plus noun, or predications with the existential forms var/yok 'exist/not exist', either unmarked or marked with -miş. These constitute 23% of the total number of clauses of the 3-year-olds, and are deictically anchored to the moment of speech and perception, as in the following example:

(4) *Bu da kurbağa anne bu da bebek.*

'And this (is the) frog mother and this (is the) baby' [T3d-3;7]

In adult texts, on the other hand, only about 9% of clauses use nominals to predicate locative or experiential states.

Stative predications can be either juvenile, perceptually-motivated, or mature, thematically-motivated, as shown in the following two examples, both from 5-year-olds.

(5) *Burda bir köpek var, kurbağa var, çocuk var. Burda da bir çocuk var. Uyuyor yatağında. Burda kurbağa var.*

'Here there is a dog, there is a frog, there is a boy. And here there is a boy. He's sleeping in his bed. Here there is a frog.' [T5b-5;0]

(6) *Sonra bakıyor çocuk uyandığında, kurbağa yok. Çizmesinin içine bakıyor, yok orda da.*

'Then, at.his.waking the boy looks, the frog is not there. He looks inside his boot, it is not there either.' [T5a-5;4]

More mature functions of such predications are found in older texts. Example (7), from a 9-year-old, shows the use of an existential predication for the purely discourse purpose of backgrounding, and example (8), from an adult, describes the psychological state of a protagonist.

(7) *Daha sonra geyik tam uçurumun kenarına geliyor, orada da bir göl var, onu - onları oraya atıyorlar.*

'Later on they come just to the side of the cliff, and there, there is a lake, they throw him - them there.' [T9a-9;3]

(8) *Çocuk- şey- korkulu ama hiç urkutucu, panik bir hava yok, resimlerde hiç bir şekilde.*

'The boy is in fear but there isn't a scary, panicky atmosphere, in the pictures in any way.' [T20f]

In sum, the static descriptions are triggered by the perceptually available pictures at all ages but the function of such predications in narrative discourse changes with development.

1.1.2. Tense shifting

The major functions of tense shifting in narrative are to indicate changes in temporal perspective and to speak in "different voices." Tense shifting allows the speaker to make grounding distinctions between events, and to move between narrative and discourse time for digressions, asides, and evaluations. For example, in (9) the narrator shifts out of narrative time (marked with D.PAST) to the PRESENT HABITUAL to make a statement of opinion:

(9) *Ama büyük bir şanssızlık topraktan kurbağa — tabii kurbağa ne arar toprağın içinde — kokarca çıktı.*

'But with real bad luck, out of the hole, the frog — of course what does a frog do-PRES.HAB in the ground — a skunk came.out-D.PAST.' [T20c]

Another function of tense shifting is to mark retrospection to a past time relative to the anchoring point. Example (10) illustrates a shift from the PRESENT to PAST PERFECT to refer to a past event, then to -miş to refer to its present result, then back to the PRESENT:

(10) *Sonra dışarı pencereden bağır-ıyorlar, ha, ha, ha, köpek de kafayı sok-muş-tu ya kurbağanın [=kavanozun] içine orada kal-mış kafası. O da onunla birlikte otur-uyor pencerenin pervazına.*

'Then they call-PRES out the window, ha, ha, ha, you know the dog had.inserted-PAST.PERF its head into the frog [=frog's jar], there remained-M.PAST its head. It is sitting-PRES together with him on the windowsill.' [T20f]

Shifts from the PRESENT to the M.PAST also serve to retrospectively express the coda at the end of the story. Example (11) shows such a switch for presenting an evaluative statement arrived at by inference from evidence.

(11) *Ve kurbağayı gör-üyorlar, yanında eşi de var hatta. Demek kurbağa eşine ve çocuklarına kavuşmak için herhalde özgürlüğü seç-miş kavanozdan kaç-mış.*

'And they see-PRES the frog, he even has his wife beside him. It turns out that the frog probably has.chosen-M.PAST freedom and escaped-M.PAST from the jar in order to be together with his wife and children.' [T20d]

The 9-year-old sample reveals a different picture. Six of the ten narrators display no tense switching. They maintain an anchor tense and use adverbial, complement, and relative clauses as well as aspectual shifts to present events from different perspectives. They keep to the forward moving tempo of the story, relating events sequentially or simultaneously, without diverging from the timeline of events for elaborations. The few instances of tense shifting mark retrospection. Example (12) illustrates an interesting shift from the M.PAST to the D.PAST for referring to a prior event:

(12) *Çocuk da atla-mış ve köpeğine çok kız-mış kavanoza gir-di diye başı.*

'The boy jumped-M.PAST as well and really got.mad-M.PAST at his dog because its head got.into-D.PAST the jar.' [T9c-9;1]

A 9-year-old whose story is anchored in the present switches to the M.PAST for expressing the resolution of the story with an inferential statement.

(13) *Yani böyle birsürü macera geç-iyor başlarından. Ondan sonra bir ağacın şeyinde kurbağa, çocukları var, bir de eşi var. Yani evine git-miş kurbağa.*

'They go.through-PRES a lot of adventures. After that at a thing of a tree [=hive] there's the frog, there are its children and there is its wife. That is, the frog went-M.PAST home.' [T9b-9;5]

The 5-year-old stories present frequent alternations between tense/aspect forms but these are aspectual rather than systematic tense shifts, in line with this age group's tendency to move between the narrative and the picture description modes. Children who display tense switching are those whose texts show some level of plot organization. Example (14) comes from a text in which the preferred tense is the PRESENT but there are frequent shifts to the D.PAST. The motivation for type of shift is not so clear, but it allows the child to juxtapose an ongoing activity with a concurrent event:

(14) *Arılar da köpeğe saldır-ıyorlar. Çocuk düş-tü.*

'The bees are.attacking-PRES the boy. The boy fell-D.PAST.' [T5e-6;0]

Some 5-year-olds also display the use of the M.PAST to express inferred information, if not exactly for retrospection, as illustrated in (15):

(15) *Sonra bak-ıyor, bak-ıyor, kurbağa yok. Kurbağa yok ol- kurbağa kaybol-muş.*

'Then he looks-PRES, he looks, the frog is not there, the frog be.NONEXIS is- the frog got.lost-M.PAST.' [T5c-5;1]

The majority of the 3-year-olds use mixed tense aspect. Their shifts are motivated by the nature of the activities in the pictures, and are, therefore, aspectual in character, as discussed in the next section.

1.2. Aspect

Turkish speakers have several means to express aspect: (1) grammatically, in the verb inflectional system; (2) with a few serial-verb constructions composed of a main verb plus an aspectual verb, functioning like a grammatical morpheme (such as *bak-a-kal-mak* 'stay-looking', *koş-u-ver-mek* 'give-running' (=run in haste)); (3) with verbs of aspect that express inception, cessation, protraction, and the like; (4) aspectual adverbs such as *hala* 'still', *zaten* 'already', *heryerde* 'at all places', *hertaraf* 'all over'; and (5) nonfinite verb forms such as converbs and nominalizations used in subordination. The devices in the last category are discussed in Section 2 (event conflation), in Section 4.2 (grammaticized connectivity), as well as in Chapters IVA on the expression of simultaneity and IVC on event packaging; therefore they are not examined here.

1.2.1. Grammatical aspect

In this section we examine how shifts between present (*-iyor*), stative, and habitual forms are used in texts anchored in the present and the two modal forms of the past tense.

TABLE 2
Proportion of Simple and Aspectually Marked Clauses
over Total Number of Clauses,
by Age and Tense[a]

Verb Form	Age			
	3 yrs	5 yrs	9 yrs	Adult
Present Tense				
EXIS (substantives)	22.8	10.0	8.5	8.9
PRES (*-iyor*)	26.6	39.6	44.9	32.4
HAB (*-er*)	0.3	-	-	1.2
D.Past Tense				
D.PAST (*-di*)	5.6	9.5	7.5	7.5
D.PAST.PROG (*-iyor-di*)	0.8	1.2	0.5	1.6
D.PAST.PERF (*-miş-di*)	0.3	-	-	1.0
D.PAST.HAB (*-er-di*)	-	-	-	-
M.Past Tense				
M.PAST (*-miş*)	35.9	26.7	18.3	15.7
M.PAST.PROG (*-iyor-miş*)	2.6	4.1	1.3	1.2
M.PAST.PERF (*-miş-miş*)	0.3	-	0.3	0.6
M.PAST.HAB (*-er-miş*)	-	0.2	-	-

a. The proportions do not add up to 100 because subordinate clauses with nonfinite verb forms are not included.

In the present tense, existentials (*var/yok*) and predicate nominals serve to present states of existence. Verbal predicates take either the PRESENT *-iyor* for ongoing/durative activities/states or the HABITUAL *-er* for generic statements about states of affairs viewed from outside the narrative line (background information). If the story is told in the witnessed modality, anchored in the D.PAST, background information can be provided in the PAST PERFECT *-miş-di*, the PAST PROGRESSIVE *-iyor-di*, and the PAST HABITUAL *-er-di*. If the

story is told in the nonwitnessed or narrative modality, anchored in the M.PAST, -miş is interpreted as anchored at a past temporal point. Aspectual distinctions in M.PAST narratives parallel those described above for D.PAST: the PAST PROGRESSIVE -iyor-miş, the PAST PERFECT -miş-miş, and the PAST HABITUAL -er-miş.

Table 2 presents the proportion of simple versus aspectually marked clauses with the three anchor tense/modality bases. The PRESENT -iyor occurs with high frequency at all ages. The proportion of clauses in the D.PAST PRO-GRESSIVE and the M.PAST PROGRESSIVE is much lower. In fact, these decrease in the 9-year-old and adult texts together with the shift away from the use of the M.PAST as the preferred anchor form.

In the adult texts anchored in the present, stative information about the setting or characters is typically introduced at the beginning with substantive predicates, while the dynamic events of the story are presented with -iyor. In texts anchored in the past, shifts from the D.PAST to the D.PAST PROGRESSIVE -iyor-du, or from the M.PAST to the M.PAST PROGRESSIVE -iyor-muş, serve to make grounding distinctions, to present two or more events as simultaneous, or to introduce narrator's comments or evaluations. The nature of these rela-tions may be further specified with aspectual or temporal adverbs. In (16) a switch from the anchoring M.PAST to the M.PAST PROGRESSIVE functions to present the dog's activities as an ongoing background event, further emphasized with the imperfective adverb *hala* 'still'. In (17) the alternation between the D.PAST and the PAST PROGRESSIVE similarly relates the two events as cotemporal, but the adverb of simultaneity assigns equal value to both.

(16) *Derken o yuvanın içerisinden sıncap çıkınca, şey, çok şaşır-**mış** ve kork-**muş** çocuk. Köpek de **hala** arı kovanına bak-**ıyor-muş**.*

'When a squirrel came out of that nest, the child really got.surprised-M.PAST and got.scared-M.PAST. And the dog **still** was.looking-M.PAST.PROG at the beehive.' [T20a]

(17) *Osman olanca gücüyle bağır-**dı**. **Bu sırada** Bobi de kafasındaki kavanozdan kurtulmaya çalış-**ıyor-du**.*

'Osman called-D.PAST with all his might. **Meanwhile** Bobi was.trying-D.PAST.PROG to get rid of the jar on his head.' [T20e]

These same functions are observed in the texts of the 9-year-olds. In the following example, the setting is described with the M.PAST in its inferential/perfect functions, introducing already achieved states. Then the PRESENT -iyor is used as the dominant tense for the foreground events of the story:

(18) *Şimdi bir çocuk bir kurbağa bul-**muş**. Bunu bir kavanozun içine koy-**muş**. Ondan sonra çocuk uyurken kurbağa kaç-**ıyor**.*

'Now, a boy found-M.PAST [=it seems] a frog. This he put-M.PAST [=it seems] in a jar. And then, while the boy (is) sleeping [while.sleeping:CONVERB], the frog escapes-PRES'. [T9e-10;0]

Shifts in the 5-year-old texts are typically for local contrasts between events/states and ongoing activities. However, there are also sporadic exam-ples of more mature uses. One child who uses the M.PAST for recounting the main story events sets the scene with M.PAST.PROGRESSIVE as in (19), and comments on the typical characteristic of a protagonist with the M.PAST.HABITUAL as in (20).

(19) *Bir varmış bir yokmuş. Burada çocuk yatağının başında otur-**uyormuş**. Sonra köpek de kaplumbağaya bak-**ıyormuş**. Sonra çizmelerinin arasında otur-**uyormuş** çocuk. Bir gün yatağına gir-**miş** horl-**uyormuş**. Sonra köpek gel-**miş**, üstüne atla-**mış**.*

'Once there was once there wasn't [=once upon a time]. Here the boy was.sitting-M.PAST.PROG on his bed. Then, and the dog was.looking-M.PAST.PROG at the tortoise. Then (he) was.sitting-M.PAST.PROG between his boots, the boy. One day he got.into-M.PAST his bed and was.sleeping.deeply-M.PAST.PROG. Then the dog came-M.PAST and jumped-M.PAST on him.' [T5g-5;2]

(20) *Çocuk çok kız-**mış** çünkü kargayı görünce, hiç sev-**mezmiş** kargayı.*

'The boy really got.angry-M.PAST on seeing the crow because he didn't.like-M.PAST.HAB the crow at all.' [T5g-5;2]

For some of the younger children, shifts between aspectual forms seem to be motivated by a need to contrast dynamic events with states from the per-spective of an anchoring point which coincides with the moment of percep-tion (see Chapter IVA). This perspective seems to be true of all of the 3-year-olds, and it occurs in portions of 5-year-old narrations when they move into picture description. This kind of aspectual contrast is particularly evident in cases where PRESENT -iyor alternates with -miş, as in (21) and (22):

(21) *Burada gid-**iyorlar**. Bir ağaç bul-**muş-lar**. Kurbağa, arılar gid-**iyor** şu resimde. Kork-**muş** bu da.*

'Here they are.going-PRES. They found-M.PAST a tree. The frog, the bees are.going-PRES in that picture. And that one got.scared-M.PAST.' [T5h-5;0]

(22) *Köpekle çocuk ormana çık-**ıyor**. Kozalak, bir de köpek, bir de çocuk, bir de delik ... bir de kozalak düş-**müş**. Arılar çık-**mış**, dala çık-**mış**, deliğe bak-**ıyor** çocuk.*

'The dog and the boy are.going.out-PRES to the woods. A pine cone, and a dog, and a boy, and a hole ... and a cone fell-M.PAST. Bees came.out-M.PAST, the boy climbed-M.PAST the branch (and) is.looking-PRES in the hole.' [*T3b-4;0*]

Sometimes a shift between *-iyor* and *-miş*, contrasting activities with states, may be a function of the half-narrative half-descriptive strategy of the narrator. Even adults move between the two modes, but their aspectual alternations function to describe the physical setting or the emotional state of a protagonist inferred from the pictures.

1.2.2. Lexical aspect

The proportion of utterances with lexical specification of aspect increases with age: 3% and 4% of the clauses in the data of 3- and 5-year-olds contain some lexical specification of aspect, rising to 8% for 9-year-olds and 12% for adults. These relatively low proportions are not surprising, since aspect is grammaticized in the verb inflectional system. Table 3 presents the distribution of aspectual verbs and adverbs in aspectually specified clauses by age.

TABLE 3
Proportion of Aspectual Verbs and Aspectual Adverbs in Clauses
with Lexical Specification of Aspect, by Age

	3 yrs	5 yrs	9 yrs	Adult
Aspectual Verbs	20.0	41.0	34.2	50.8
Aspectual Adverbs	50.0	51.0	64.1	41.4
Repetition of Main Verb	30.0	10.0	—	3.6
Serial Verb	—	—	—	1.8

First, it is observed that the rhetorical strategy of repeating the main verb for expressing protracted aspect is favored by younger narrators, as in *Ağaç düşüyor, düşüyor, düşüyor, düşüyor* 'The tree is falling, falling, falling, falling' [*T3e-4;0*] or, *Koşmuş koşmuş geyik* 'Ran, ran the deer' [*T5j-5;3*]. The few instances of repetition in the adult data mark iterative aspect: *Arılara havlamış, havlamış, havlamış.* 'He barked, barked, barked at the bees' [*T20i*].

Second, only the adults use certain aspectual verbs conjoined in serial-verb-like constructions. These are locative verbs with stative meaning such as *kal* 'stay, remain', *koy* 'put', *dur* 'stop, remain', and the verb *ver* 'give'. There are several examples of this category in the data, signifying protracted

or inceptive aspect, as in the following example, with *ver*:

(23) *Bu arada ilerideki bir ağaçta asılmakta olan arı kovanı gözlerine ilişi-ver-di*

'In the meantime a beehive hanging on a tree ahead attracted their attention [lit. 'gave-touch to their eyes'].' [*T20e*]

Table 3 shows that the children tend to favor aspectual adverbs over verbs, while adults prefer aspectual verbs. Two possible explanations come to mind: First, younger narrators may prefer adverbs because these can be used for modifying one or two constituents within the clause, while verbs have the whole clause under scope of modification. A second explanation rests on the discourse functions that are typically served by these forms in our stories: aspectual adverbs have a **local**, and aspectual verbs a **thematic** function

1.2.2.1. Aspectual verbs.
Aspectual verbs occur as the main verbs of infinitival complements of the form V+INF(+CASE). This complement type is already observable in the 3-year-old narratives, although almost exclusively with the modal verb *iste* 'want'. Aspectual verbs in such constructions start to be used at age 5, becoming more frequent in the data of older children and adults. Adult narratives show that complement clauses with verbs such as *başla* 'start', *çık* 'set.out', and *devam et* 'continue' function to express the instantiation, reinstantiation, and continuation of the search, the general theme of the story. It is, therefore, not surprising that younger children, whose narrations proceed picture by picture, do not use these linguistic means.

Adults express twice as many different categories of aspect with verbs as compared to children, who mark only **inceptive, protracted**, and **lative** aspect. The first two categories can also be adverbially marked, whereas lative aspect, denoting an agent's movement to perform an action, can only be expressed with verbs (e.g., *çık* 'exit', *koyul* 'set.out'). Only three of the 5-year-olds specify lative aspect, two locally, as in (24) and one thematically, foreshadowing the mature uses to mark the beginning of the search as in example (25) from a 9-year old:

(24) *Köpek de arıların yuvasındaki şeyi rahatsız ediyor, onlar da sokmağa geliyor.*

'And the dog bothers the thing in the bee hive, and they **come to.sting**.' [*T5e-6;0*]

(25) *Sonra köpeğiyle beraber kurbağayı aramağa çıkıyorlar.*

'Then together with his dog they **set.out to.search**.' [*T9e-10;0*]

Inceptive aspect is the most frequently marked category across the different ages. The verb *başla* 'start' is similarly used to mark the beginning of a locally specific activity by 5-year-olds, as in (26).

(26) *Arı eviymiş dediler, **vurmağa başladılar.***

    'They said "it's a bee house," they **started to.hit.**' [*T5a-5;4*]

'Start' is also used to indicate the beginning and the reinstantiation of the search, as in *aramağa başlıyorlar* 'they start to.search' [*T20b*] or *seslenmeğe başlıyor* 'he starts to.call.out' [*T20a*], as well as in relation to a local activity by some 9-year-olds and almost all adults.

Verbs of protracted aspect such as *devam et* 'keep.on' and *kal* 'remain' are rarely used by 5-year-olds, and not at all by 9-year-olds. Adults use these verbs to carry on the search theme as in (27) and less often, to refer to a locally specific situation as in (28):

(27) *Daha sonra arayış ormanda **sürmeğe başladı.***

    'Later on the search **started to.proceed** in the woods.' [*T20e*]

(28) *Baykuş çocuğu **korkutmağa devam ediyor.***

    'The owl **continues to.scare** the child.' [*T20b*]

Perfective and cessive aspects are rarely expressed verbally.

In sum, the use of aspectual verbs for thematic purposes develops with age. Younger children use these verbs infrequently and only in reference to local activities, whereas older narrators use them for episode instantiation (see Chapter IVD). As noted, aspectual verbs occur in infinitival complements, which are already acquired by 3-4 years. Therefore, their infrequency in the children's narratives cannot be explained on syntactic grounds. Rather, younger children still lack the ability to conceive of a complex process in its totality while relating different subprocesses or events to it.

1.2.2.2. Aspectual adverbs. Aspectual adverbs increase in both variety and frequency with age. The most frequent aspectual adverbs in the data are those of **iterative** and **recurrent** aspect, two categories which are not marked with verbs. Recurrence adverbs are used rather infelicitously (e.g., in reference to an activity that occurs once) and locally by the younger children, and serve to indicate the continuation of the search theme only in the 9-year-old and adult stories, as in (29):

(29) *Kurbağalarını aramağa başlıyorlar **tekrar.***

    'They start to.seek their frog **again.**' [*T20b*]

Iterative aspect is expressed by 5-year-old and older narrators with locative terms functioning adverbially, such as *heryer* 'everywhere'. These always occur in the contexts of calling or searching for the frog and assume a thematic role:

(30) *Kurbağayı orada göremedikleri zaman **heryere** bakıyorlar.*

    'When not seeing the frog there they look **everywhere.**' [*T5d-5;3*]

Adverbs of **protracted, perfect, immediate,** and **inceptive** aspect are used for modification at the local level only. Protracted aspect is rarely marked in the children's data: *çünkü devamlı havlıyordu* 'because it [=dog] was constantly barking' [*T9j-9;1*], and is not very frequent in the adult texts.

Adverbs of imperfect aspect, *hala* 'still', are used by 5- and 9-year-olds and adults to indicate the relevance of a given state to the moment of speech or to a designated reference time, as in the following examples.

(31) *Sonra çocuk ona kızdı, köpek **hala** seviyor.*

    'Then the child got mad at him, the dog **still** loves (him).' [*T5e-6;0*]

(32) *Köpek **hala** o arı kovanını almağa çalışırken...*

    'While the dog was **still trying to get that beehive...**' [*T9d-9;11*]

Immediate aspect is marked by both children and adults for stylistic purposes as in (33):

(33) ***Hemen** giyinerek **hemen** onu aramağa koyuldu.*

    '**Immediately** getting dressed, he **immediately** set out to search for it.' [*T9j-9;1*]

Finally, adverbs of inceptive aspect such as *birdenbire* 'all of a sudden', which increase with age, are used to mark new events in the story.

In summary, verbal and adverbial marking of aspect serve several purposes in the frog stories. Adults mark the instantiation of the plot with verbs of inceptive aspect and iterative adverbs imposing a focus on the repeated nature of the search, and foreshadowing its continuity. Nine-year-olds also use verbs or adverbs of inceptive aspect thematically, to mark the beginning of the search, though to a much lesser extent than adults. Five-year-olds are not systematic in the way they use the different kinds of aspectual devices they control. Three-year-olds mark aspect only by verb inflection.

2. EVENT CONFLATION

Event conflation involves the distribution of information across the verb and its associated elements within the clause, as discussed in Chapter IIIo. Given its agglutinative morphology, Turkish is a language which has various means for event conflation. Information can be so tightly packaged that it is expressed in a single verb, modified, for instance, with particles which indicate agentive causation (*-dir*) or reciprocal action (*-iş*),[6] or it can be integrated

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[6] Turkish has productive grammatical rules for transitivizing intransitive verbs with the causative particle and intransitivizing transitive verbs with the passive particle, or changing the verb stem into a reflexive or reciprocal one. These are discussed further in Section 3.1.

in a slightly looser fashion and expressed, for instance, in another clause with converbs compressing two situations as aspects of one, or in a close temporal connection. Events may also be related sequentially, respecting their boundaries, and expressed in independent or subordinated clauses.

At this point it will be useful to introduce some of these structures. **Converbs** are nonfinite verb forms which function as adverbials and take their temporal specification from the tense of the main clause. They have the following meanings, where X and Y represent clauses, with the converb suffixed to the verb of the X-clause:

X-*ince* Y   'when X, Y' / 'as soon as X, Y'
X-*ken* Y   'while X-ing, Y'
X-*ip* Y   'X and (then) Y'
X-*erek* Y   '(in,by) X-ing, Y'

These converbs are illustrated below from the Turkish frog story texts, labeled as follows: V+*ince* 'when', V+*ken* 'while', V+*ip* 'and (then)', and V+*erek* 'by V-ing'.

V+*ince*:
Çocuk kalk-ınca kurbağayı arıyor.
boy get.up-**INCE** frog:ACC search:PRES
'When the boy gets up he searches for the frog.'

V+*ken*:
Çocuk uyur-ken kurbağa kaçmış.
boy sleep:HAB-**KEN** frog escape:M.PAST
'While the boy was sleeping the frog escaped.'

V+*ip*:
Çocuk camdan atlay-ıp onu alıyor.
boy window:ABL jump-**IP** 3SG.PRO:ACC take:PRES
'The boy jumps from the window and picks him [=dog] up.'

V+*erek*:
Köpek pencereden aşağı düş-erek kavanozu kırıyor.
dog window:ABL downwards fall-**EREK** jar:ACC break:PRES
'The dog, in/by falling down from the window, breaks the jar.'

Both V+*ince* 'when' and V+*ken* 'while' clauses designate the time of the event they refer to as a reference time with respect to which the event encoded in the main clause is anterior, posterior, or cotemporal (Aksu-Koç, 1988a). Thus they set up a close temporal relation between events expressed in

adjacent clauses. Syntactically, the subjects of clauses joined by these converbs can be the same or different. V+*ince* indicates immediate succession or partial overlap, and thus may imply a simultaneous or causal meaning as well as sequence. V+*ken* is a pure marker of simultaneity, and presents the event in the conjunct clause in its temporal extension, from an imperfective perspective.

V+*ip* 'and (then)' and V+*erek* 'by V-ing', allow for a variety of temporal and circumstantial relations between the two events, and require the same subject in the conjunct and main clause. In the frog stories, V+*ip* functions to link clauses together in narrative units, packaging constituents of an event into a larger event (Slobin, 1993a; Chapter IVC). And, given its nontemporal character, V+*erek* can assume various meanings in context, such as simultaneity, succession, instrumentality, reason, or manner of action.

Since this is the story of a search for a lost frog, it provides ample opportunity for narrators to talk about causation and path of movement, which may or may not be elaborately specified. There are three scenes in the frog story conducive to descriptions of caused movement and locative trajectories: (1) the fall of the dog from the window; (2) the fall of the beehive from the tree shaken by the dog, and the fall of the boy, scared by the owl, from the tree; and (3) the fall of the boy and the dog, thrown by the deer, from the cliff into the water. Section 2.1 presents data on causation of movement, and Section 2.2 on path of movement in these scenes. Finally, Section 2.3 deals briefly with manner of movement.

2.1. Causation of Movement

Turkish codes notions of agency and caused action through its productive verb morphology. Intransitive verbs are transitivized by adding a causative particle — e.g., *düş* 'fall' (intransitive) → *düş-ür* 'drop' (transitive), and transitive verbs are causativized with the same particle — e.g., *kır* 'break' (transitive) → *kır-dır* 'cause to break' (causative). There are exceptions to the rule and some verbs have lexical causative counterparts as in *gir* 'enter' versus *sok* 'insert', *gel* 'come' versus *getir* 'bring'.

Across the three main scenes of falling, the most frequently used verb is *düş* 'fall' for change of locative state. Its use shows extremely stable proportions across the age groups (70% for 3-year-olds and 66% for 5- and 9-year-olds and adults). Conversely, the proportion of verbs expressing caused movement (*düşür* 'make.fall', *at* 'throw', *it* 'push') increases from 20% at age 3 to 27% at age 5 and remains stable for the older groups. These findings point to some change in preference for verbs expressing causation of movement around the age of 5-6. Further developments relevant to event conflation involve the use of devices other than lexical verbs incorporating causation and

movement in their meaning. Various ways of expressing causation of move-
ment are illustrated in descriptions of the fall of the beehive by the adult nar-
rators:

(34) *Neyse köpek havlıyor mavlıyor* **sonra** *kuut, arı kovanı yere düşüyor.*

'Anyway the dog barks-shmarks **then** bam, the beehive falls to the
ground.' [T20f]

(35) *Öte yandan Karabaş ağacı sallamış, havlay-ınca arılardan tepki
gelmediği için fazla sallamış ve kovan yere düşmüş.*

'On the other side, Karabash [=dog] shook the tree, (and) because
when.barking [V+ince] didn't get a reaction from the bees, he shook too
much **and** the hive fell to the ground.' [T20i]

(36) *Ağacı sallay-ınca arı kovanı yere düştü ve köpeğin peşine takıldı bütün
arılar.*

'**Upon.shaking** [V+ince] the tree, the hive fell to the ground **and** all of
the bees set off after the dog.' [T20c]

(37) *Daha sonra ağacı sallar-ken ağaçtaki oğulu düş-ür-üyor ve arılar
kızgınlıkla yuvalarından fırlıyor.*

'Later on, **while.shaking** [V+ken] the tree, (he) **knocks down**
[=cause.fall] the hive on the tree and the bees furiously swarm out of
their nest.' [T20b]

The relation in (34) is not causal but an antecedent-consequent relation
encoded in two independent clauses with finite verbs and conjoined with
sonra 'then,' implying a temporal lag. In (35) the dog's act of shaking is
recognized as causal but the two events are again presented as successive.
Although the causal link is not explicitly expressed, the two situations are
connected with *ve* 'and', which implies immediate succession and therefore a
more integrated relation. Example (36), on the other hand, connects the two
situations more tightly with the converb *-ince*, expressing sequential
overlap/causal connection, while still using the nonagentive *düş* 'fall'. Finally
(37) presents the two events in a highly conflated fashion: The close temporal
relation between the two events is specified with the converb *-ken* expressing
simultaneity and the agentive role of the dog is explicitly specified with the
transitivized form of the main verb *düş-ür* 'cause.fall'.[7]

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[7] It is interesting to note that in this context the converb *-ken* always occurs with the transi-
tive form of the verb and the converb *-ince* with the intransitive form. Simultaneity in time
strongly suggests physical/spatial contact, which strongly suggests direct causation.

Nine-year-olds exhibit similar strategies. Some simply refer to the two
events successively, as in (38), leaving the causal relation to be inferred from
context. Others make the causal relation explicit with a causative verb and a
causal adverb as in (39):

(38) *Daha sonra arı yuvasını sallıyorlar, içinden arılar çıkıyor.*

'Then they shake the beehive, bees exit from inside.' [T9a-9;3]

(39) *Köpek sonunda arı kovanını ağaçtan* **düşürüyor,** *bir sürü arı* **böylece**
çıkıyor kovandan.

'The dog finally **causes.fall** the beehive from the tree, a mass of bees
consequently exit from the hive.' [T9d-9;11]

The preschool children tend to keep the events discrete as in (40) or even
unrelated as in (41):

(40) *Köpek sonra bu şeyi yakalamış, bütün arılar üşüşmüş köpeğe.*

'Then the dog caught something, all the bees swarmed around the dog.'
[T5j-5;3]

(41) *Bir de kozalak düşmüş, arılar düşmüs, arılar çıkmış.*

'And the hive fell, the bees fell, the bees exited.' [T3b-4;0]

In the boy-and-owl scene, where the boy's fall is more likely to be inter-
preted as a consequence of the fear instigated by the appearance of the owl,
the causal relation is even less explicitly specified, possibly because psycho-
logical rather than physical causation is involved. Only two adults describe
this scene in a relatively conflated manner, using the causative *düş-ür* 'make-
fall' which incorporates both causation and direction of movement, and *kork-
ut* 'make-scared' which incorporates causation in its meaning:

(42) *Ve bu arada bir baykuş da o kovuktan* **çık-ıp** *çocuğu* **kork-ut-uyor** *ve
ağaçtan* **düş-ür-üyor.**

'And in the meantime an owl, **exiting** [V+ip] from that hole, **scares** the
boy and **makes** him **fall** from the tree.' [T20d]

Five adults establish a less direct causal relation between the different phases
of the whole event, as illustrated in the following example, which is almost
exactly the same as (42) except that the verbs 'scare' and 'fall' are not causa-
tive:

(43) *Tam o sırada ağaç kovuğunun içersinden bir baykuş çıkmış. Çocuk*
kork-up *içeri, aşağı* **düşer-ken** *köpek de hızla yanından* **koş-arak**
geçmiş.

'Just then an owl exited from inside of the hole in the tree. The boy
got.scared [V+ip] (and) **while.falling** [V+ken], the dog passed by run-
ning [V+erek] quickly.' [T20a]

The following nonconflated version is also interesting in formulating the indirect causation explicitly:

(44) *Bu arada ağaçtaki kovukları yoklayan Tim baykuşu rahatsız ed-ip baykuşun dışarı çıkmasına neden oldu.*

'Meanwhile Tim, who was going up to the holes in the tree, **disturbed** [V+*ip*] the owl (and) **was the cause** of the bees' exiting outwards.' [*T20c*]

Three adults, similar to half the 5- and half the 3-year-olds, simply note the appearance of the owl and imply no causal relation to any other event. Of the children, only one 9-, one 5-, and one 3-year-old present an integrated account of this scene, using an agentive or causative verb as in (45) and (46).

(45) *Oradan bir baykuş çıkıyor, çocuğu yere atıyor.*

'An owl comes out of there, **throws** the boy to the ground.' [*T9a-9;3*]

(46) *Çocuk da ağaca çıkıyor, sonra baykuş düşürüyor onu.*

'The boy climbs the tree, then the owl **makes** him **fall**.' [*T5f-6;1*]

In the descriptions of the remaining narrators, the causal connection is implied by the sequential relation between the events. Some of these involve a tight packaging of events with the converb *-ince* and with the specification of the causal source although a causative verb is not used:

(47) *Baykuşu gör-ünce korkudan düşüyor.*

'**Upon.seeing** [V+*ince*] the owl he falls **from.fright**.' [*T9e-10;0*]

These examples from the beehive and the owl scenes illustrate that between 5 and 9 years of age, further developments take place in the use of clause-linking devices, integrating their aspectual, modal, temporal, or causal meanings with meanings inherent in the main verb. Furthermore, these examples show a sensitivity to the tightness of the semantic link between two situations, reserving the use of causative verbs for situations of direct, successful manipulation, and using other types of linkage for more loosely integrated situations.

2.2. Locative Trajectories

As noted in Chapter IIIo, Turkish can be characterized as a verb-framed language, where the verb carries information concerning locative trajectories (source, goal, and direction) while details of path and manner may be elaborated in associated adverbs, locative phrases, and converbs. Turkish verbs of motion typically encode direction. As in Spanish and Hebrew, there are verbs which specify movement into/out of — *gir* 'enter' and *çık* 'exit', and verbs which specify movement up/down — *in* 'descend' and *çık* 'ascend', or movement away from — *kaç* 'escape'. (Note that *çık* means both 'exit' and

'descend'. As indicated in the chart, below, this verb is often accompanied by disambiguating adverbs: *dışarı* 'outwards' and *yukarı* 'upwards'.) It is also possible to express the same notions with a general verb of movement and a directional adverb, such as *içeri gel* 'come towards.inside'.

Verbs of motion most frequently encountered in the Turkish frog stories are the following:

Gloss	Transitive	Intransitive	Causative	Passive
enter	*sok*	*gir*	*sok-tur*	*gir-il**/*sok-ul*
exit	*çık-art*	*çık (dışarı)*	*çık-art-tır*	*çık-ıl**/*çık-art-ıl*
ascend	*çık-art*	*çık (yukarı)*	*çık-art-tır*	*çık-ıl**/*çık-art-ıl*
descend	*in-dir*	*in*	*in-dirt-tir*	*in-il**/*in-dir-il*
fall	*düş-ür*	*düş*	*düşürt-tür*	*düş-ül**/*düş-ür-ül*
come/bring	*getir*	*gel*	*getirt-tir*	*gel-in**/*getir-il*
go/take	*götür*	*git*	*götür-t-tür*	*gid-il**/*götür-ül*

* The passives of these verbs are grammatical only when used in impersonal constructions.

The data present both all-purpose motion verbs such as *git* 'go' and *gel* 'come' and directional motion verbs such as *çık* 'exit' versus *gir* 'enter', *çık* 'ascend' versus *in* 'descend', from the youngest age onwards.[8]

Contrary to what might be expected, directional verbs of motion occur not only with their associated arguments specifying the source or goal or both, but also quite often with a locative adverb or a locative postposition in the dative, further specifying direction. The following examples illustrate this in the various uses of the verb *çık* 'exit/ascend'. The verb may be used alone as in (48), with the source argument specified with a locative demonstrative as in (49), with a directional adverb only (50), or with the source NP plus a postposition (51):

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[8] While the transitivized counterparts of intransitive verbs of motion are used correctly in general, younger children sometimes have problems with verbs with lexical counterparts. Contrast the correct use of the transitive *sok* 'insert' in *Sonra kafasını da soktu* 'Then it [=dog] inserted its head as well' [*T3i-3;11*] with the intransitive *gir* 'enter' infelicitously used with an object in the accusative in **Sonra köpek kavanoza girmiş, kafasın-ı yani.* 'Then the dog entered the jar, I mean its head-ACC' [*T3c-4;3*].

(48) *Arılar küçük köpeği kovuyor, baykuşlar **çıkıyor**, akşam olmağa başlıyor.*

'The bees follow the little dog, owls **exit**, evening is coming along.' [T20j]

(49) ***Oradan** arılar çıkıyor, **buradan** da köstebek çıkıyor.*

'Bees **exit from.there**, and a gopher **exits from.here**.' [T5d-5;3]

(50) *Daha sonra arı yuvasını sallıyorlar. **İçinden** arılar çıkıyor.*

'Later on they shake the beehive. **From.inside.it exit** the bees. [T9a-9;3]

(51) *Tam o sırada **ağaç kovuğunun içersinden** bir baykuş çıkmış.*

'Just at that moment an owl **exited from (the) tree trunk's interior**.' [T20a]

During the preschool years, the proportion of clauses using *çık* with locative adverbs or postpositions increases, although always remaining below the use of the verb alone. This is not surprising since *çık* in itself indicates directionality. In fact what needs to be explained is why such locative modifications are used at all. A closer look at the data suggests that such use is motivated by discourse-related factors. As the examples above illustrate, direction of motion verbs occur in the following ways: (1) verb alone, if the source or goal can be presupposed from the nonlinguistic context or real world knowledge as in (48), (2) VERB+NP/PRO+DAT/ABL to indicate goal/source as in (49), (3) VERB+LOC.MOD if the source or goal is given in the previous linguistic context as in (50), and (4) VERB+NP+LOC.MOD for an additional, more detailed specification of the goal or the source as in (51). Furthermore, this is more or less the developmental sequence observed. (In addition, as noted above, *çık* is ambiguous, meaning both 'exit' and 'ascend'. This factor necessitates adverbial specification of direction in some discourse contexts.)

Such developmental change can be explained by two closely related factors. First, young children do not use locative modification to elaborate on locative trajectories because they are not yet concerned with establishing discourse internal relations. Some 3- and 5-year-olds who operate in the picture description mode tend to regard events as unrelated, and talk about them as discrete situations. Second, young children tend to describe what is most salient as new information in the pictures, which is typically the movement itself, while the source is given and the goal needs to be inferred. Thus, they use just the verb, or a deictic, or at best an associated casemarked NP to indicate source or goal. Older children, just like adults, use locative modification in a discourse motivated way, referring back to something already established in the previous context. It is these mature speakers who engage in elaborate

specifications of source, goal, direction of movement, and manner of movement. A 9-year-old example is given in (52).

(52) *Arılar **yuvalarından** çıkarak çocuğun köpeğinin **üstüne** **doğru** yürümüşler.*

'The bees, exiting [V+*erek*] **from their hive**, went straight for the boy's dog.' [T9c-9;1]

What has been discussed above with regard to the verb *çık* applies equally to other verbs of motion used with and without locative modification for elaborating locative trajectories, as summarized in Table 4, below.

TABLE 4
Distribution of Motion Verbs (MV) Used with and without Locative Modification (LM) for Direction of Movement, by Age

	3 yrs	5 yrs	9 yrs	Adult
Number of types of LM[a]	5	9	13	16
Total MV+LM	23	32	34	77
No. LM for GOAL	17	25	22	64
No. LM for SOURCE	6	7	12	13

a. LM includes locative adverbials and locative postpositions; each form is counted only once, regardless of the different case inflections it occurs with (locative, dative, ablative).

As can be observed, the variety of locative adverbials and postpositions specifying the trajectory of motion increase, from five at age 3 (such as *içine* 'to.inside', *dışarıya* 'to.outside', *üstüne* 'to.top', *aşağı* 'downwards') to 16 for adults (to include items such as *kenarına* 'to.edge', *dibine* 'to.bottom'). Also, the ratio of clauses with motion verb plus locative modification to motion verbs used alone is 1:4 in the preschool data, whereas it is about 1:2 in the data of the two older groups. This suggests that with age, the tendency to elaborate on locative trajectories increases in our sample.

Three-year-olds and adults have a greater tendency to add locative modification to stative predicates. The 3-year-old locative state expressions are existential or substantive predications put together in a nonrelational descriptive way as in (53).

(53) *Köpek de kafası **aşağıda**, bacakları denizin, suyun **içinde**.*

'And the dog, his head **below**, his legs **inside** the sea, the water.' [T3j-4;2]

The locative expressions of adults, on the other hand, include stative verbs used in elaborate descriptions of locative states as in example (54).

(54) *Çocuk da geyiğin kafasının **üstünde** olmuş oluyor. Geyik bunu boynuzlarının **üstünde**, kafasının **üstünde** götürüyor.*

    'The boy **comes to be on top of** the deer's head. The deer takes him **on top of its antlers, on his head**.' [T20d]

Table 4 also presents information about how direction of movement is elaborated in the frog story. Narrators of all ages, and particularly adults, tend to specify the **goal** of movement much more than the **source**. This should not be surprising since in the present story concerning a search, the goal of movement is more informative than its source. Children typically specify either the source or the goal, and conflation of the two is more characteristic of adults. Example (55) illustrates the adult strategy of talking about the different phases of the event by means of several predicates and elaborating on the source and the goal of the movement.

(55) *Geyik bir tane uçurumun kenarına **geliyor** ve uçurumun ucunda çocuğu başından aşağı **atıyor**. Köpeği de **düşüyor** bu arada, ikisi, hep beraber, **bir suyun içine düşüyorlar, bir nehrin içine düşüyorlar**.*

    'The deer **comes** to the side of a cliff and at the edge of the cliff **throws** the boy from its head downwards. In the meantime his dog also **falls**, the two of them together **fall to.inside the water, they fall to.inside a river**.' [T20h]

It is proposed in Chapter IA that speakers of verb-framed languages tend to use more elaborated descriptions of locations of protagonists or objects and of end states of motion, while speakers of satellite-framed languages tend to use more detailed descriptions of path and manner of motion. Although Turkish has a number of verbs which incorporate direction of motion in their meaning, this does not preclude the use of postpositions and locative adverbials that further specify the source and goal of movement. While example (55) above suggests that in Turkish narratives we can find path elaborations that are typical of satellite-framed languages, example (56) below shows the sort of static locative elaboration typical of verb-framed languages such as Spanish.

(56) *Geyik tam uçurumun kenarına **geliyor**. Orada da bir göl var. Onu - onları oraya **atıyor**.*

    'The deer **brings** them right to the edge of the cliff. And there is a lake there. He **throws** him - them to there.' [T9a-9;3]

2.3. Manner of Movement

Verbs of motion which encode manner of movement frequently observed in the frog stories are *koş* 'run', *üç* 'fly', *yüz* 'swim', and *atla* 'jump'. The converb *-erek* functioning adverbially as in *koşarak çıktı* '(he) exited running' or adverbs such as *yavaşça* 'slowly' or *yavaş yavaş* 'slowly slowly' are also used frequently. Only *yüz* 'swim', *kaç* 'escape', and *atla* 'jump' are used by 3-year-olds. Five-year-olds add other verbs such as *kovala* 'chase', *yuvarla* 'roll', *üşüş* 'collect around'; and older narrators use *devir* 'make fall on its side', *dolaş* 'wander around', *fırlat* 'hurl', *izle* 'follow', as well as those which occur with adverbial extensions such as *peşine takıl/düş* 'follow go after' [lit. set/fall on the trail of], *üstüne uç* 'fly up.onto'.

A scene appropriate for the use of manner of movement verbs in the frog story is shown in Pictures 2 and 3, in which the frog leaves the jar and runs away. This event is mentioned by four of the 3-year-olds, seven of the 5-year-olds, and all 9-year-olds and adults, using almost exclusively two directional motion verbs, *çık* 'exit' and *kaç* 'escape'. Although it does not specify the exact nature of the movement, *kaç* implies manner of motion in its meaning. The absence of manner adverbs in clauses containing *kaç*, in contrast to the presence of such modification in clauses with *çık*, supports this view. Moreover, *kaç* has the aspectual connotation of achievement of an end point. *Kaç*, then, is more suitable than *çık* for the presentation of the event in a conflated form.

The younger children typically use *çık*, mentioning either the source or the goal of motion. Source is mentioned more often, possibly because it is clearly represented in the pictures of this scene, as suggested by the use of the demonstrative in example (57).

(57) *Kurbağa bunun içinden **çıkıyor**.*

    'The frog exits from.inside of.this.' [T3j-4;2]

Only two 5-year-olds use *kaç*, one as a motion verb, the other as an aspectual verb indicating the achievement of a goal as shown below.

(58) *Kurbağa dışarı **çıkmış**, **kaçmış**.*

    'The frog exited outwards, (and) escaped.' [T5i-6;0]

Two narrators in this group also specify manner of movement with the adverb *yavaş yavaş* 'slowly slowly'. Nine-year-olds use *kaç* more often (eight narrators) than *çık*, and only two narrators use both verbs, elaborating on different phases of the event as in (59) or integrating them more closely with the converb *-erek* as in (60):

(59) *Kurbağa kavanozun içinden **çıkıyor** ve **kaçıyor**.*

'The frog **exits** from.inside of the jar and **escapes**.' [T9a-9;3]

(60) *Kurbağa kavanozdan çık-arak kaçtı.*

'**Exiting** [V+*erek*] from the jar the frog **escaped**.' [T9j-9;1]

Finally, seven adults use *çık* and six use *kaç* and several other manner of movement verbs such as *kaybol* 'get.lost', *sıyrıl* 'slip.out', *adım at* 'take a step'. In five instances, *kaç* occurs with another verb suggesting that it functions more like an aspectual than a motion verb for adults. These narrators also use adverbs of manner of motion or attitude in their descriptions. The majority of adults also mention source of movement more often than its goal. While some adults give conflated descriptions like in (60) above, most adult descriptions are elaborated as in (61).

(61) *Kurbağa kavanozdan emin adımlarla sıyrıldı ve dışarıya doğru ilk adımını attı. Evet, kurbağa kaçıyordu.*

'The frog **slipped.out** of the jar with sure steps and **took his first step towards.outside**. Yes the frog **was escaping**.' [T20e]

To sum up, these observations suggest that Turkish narrators make use of a limited lexical repertoire of verbs in describing manner of movement, but prefer clausal or phrasal descriptions of manner, particularly at older ages. To impose an elaborated versus a conflated perspective on events, the Turkish speaker can rely heavily on the verb, given the possibility of modification of both its finite and nonfinite forms. In a way, Turkish compensates for the lack of lexical richness characteristic of English and German verbs of manner by the use of productive verb morphology that allows for packaging of events in a variety of ways. The frog's escape is a significant point in the story, where the force motivating the search is introduced. It would therefore seem that proficient narrators would choose to elaborate the events of this scene in separate clauses or phrases, as both the Turkish- and the English-speaking adults seem to do, even if they have the means for a conflated presentation.

3. PERSPECTIVE

Perspective refers to the point of view which narrators adopt in presenting a given situation. In the case of the frog story, narrators can talk about a given scene either from a local perspective, as a self-contained totality, or from a global perspective, regarding it in the context of the larger story. Narrators can also take the perspective of different protagonists as they appear in the series of events, or maintain the perspective of the main protagonist(s) all the time, or do both by embedding the former in the latter.

Turkish uses several devices for the manipulation of perspective (see Chapter IIIo). These are (1) the syntactic role assigned to different arguments in the clause, (2) flexible word order which can be varied for pragmatic

purposes, and (3) the use of the topic/focus particle *de* 'too, also, and'. The first two mechanisms are made possible by the consistent casemarking on NP arguments and subject agreement marking on the verb. (1) and (2) are discussed in the next two sections. The use of the particle *de* is dealt with in the context of these discussions rather than in a separate section; it also figures in the section on connectivity (4.1).

3.1. Transitivity and Voice

The arrangement of the verb-argument arrays is closely tied to transitivity and voice in Turkish. As noted earlier, Turkish verbs can be classified as intransitive or transitive. The causative particle -*(d)ir* converts an intransitive verb root into a transitive one, as in *geç*- 'get.on' (intransitive) versus *geç-ir* 'put.on' (transitive). Arguments are distinguished by a very transparent and regular case inflectional system: The subject is always in the unmarked nominative case and the direct object (DO) takes the accusative if [+definite], but if [-definite] it remains unmarked or takes the indefinite article *bir* 'one'.[9]

Indirect objects (IO) are marked with the dative, and oblique objects are marked with the ablative, genitive, or comitative suffixes. The following examples illustrate changes in transitivity and casemarking. Example (62) shows an intransitive verb with its arguments and (63) presents its transitivized agentive counterpart.

(62) *Kavanoz-Ø köpeğ-in baş-ın-a geç-miş-ti.*

jar-NOM dog-GEN head-POSS-DAT get.on-PERF- D.PAST

'The jar had gotten on the dog's head.'

(63) *Köpek-Ø kavanoz-u baş-ın-a geç-ir-miş-ti.*

dog-NOM jar-ACC head-POSS-DAT get.on-CAUS-PERF-D.PAST

'The dog had put the jar on its head.'

In (62) the dog [=dog's head] is the IO / locative undergoer, and the action is conceived of as spontaneous and non-agentive, whereas in (63) the dog is the subject / agent of action.

Transitive verbs are passivized with the suffixes -*il/-in*. The passivized version of (63) where the dog is the IO/locative undergoer, is given below.

(64) *Kavanoz-Ø köpeğ-in baş-ın-a geç-ir-il-miş-ti.*

jar-NOM dog-GEN head-POSS-DAT get.on-CAUS-PASS-PERF-D.PAST

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[9] Indefinite and nonreferential/nonspecific objects get neither the accusative nor the indefinite article.

'The jar had been put on the dog's head.'

Two other morphologically marked categories that effect differences in transitivity are the reflexive and the reciprocal. Verbs in the reflexive (derived with the addition of *-in* to the verb root, as in *yıka-n-dı* 'washed.oneself') and in the reciprocal (derived with the addition of the suffix *-(i)ş* as in *karşıla-ş-tı* 'came.face.to.face') present the situation from a perspective where the entity is simultaneously an actor and an undergoer and thus correspond to "middle voice." The reflexive and the reciprocal forms thus signal reduced transitivity.

To see the extent to which Turkish narrators manipulate perspective, consider the following two scenes: Picture 4, where the dog's manipulations of the jar result in his getting his head stuck in it, and Picture 16, where the interactions of two protagonists, the boy and the deer, result in the boy and dog's fall into the water.

An examination of both scenes shows that there is a developmental shift from an agent to an undergoer/patient focus. Only three of the 3-year-olds mention the scene of the dog with the jar, two from an agentive and one from a patient focus. The majority of the 5-year-olds, three of the 9-year-olds and three adults similarly adopt a transitive perspective and present the dog as an agent. The preschool child's agentive focus may be a function of the tendency to treat each picture as a self-contained frame and to assign the agent role to the most prominent figure in it, as suggested by (65).

(65) *Sonra camdan bakarken bir kavanozu alıp da köpek başına geçirmiş.*

'Then, while looking out the window, taking a jar the dog put (it) on his head.' [T5g-5;2]

The adults' choice of an agentive perspective, on the other hand, might be a function of stylistic concerns: The characterization of the dog as a mischievous agent allows for the use of this scene as a humorous point in the story. A patient focus becomes dominant in the stories of the 9-year-olds and adults who present the dog as an undergoer, referring either to the final state of the jar on its head or to the accidental nature of the event with an intransitive verb. These strategies are summarized in the first part of Table 5, which presents the distribution of narrators in terms of the different perspectives adopted in (1) the dog and the jar, and (2) the boy and deer scenes, by age.

In the case of the deer scene, again there is a developmental shift from an agentive to a patient focus between ages 5 and 9. Younger children talk about one or both of the protagonists as the agent, as in:

(66) *Onu taşırken geyik köpek kaçıyor.*

'While **the deer** is.carrying him, **the dog** runs away.' [T3i-3;11]

TABLE 5
Frequency of Different Perspectives on the Dog and Jar Scene (Picture 4)
and the Boy and Deer Scene (Picture 16), by Age

	3 yrs	5 yrs	9 yrs	Adult
Dog and Jar:				
No Mention	7	1	1	1
Dog Agent	2	7	3	3
Dog Patient	1	1	6	4
Stative Foci	—	1	—	2
Boy and Deer:				
No Mention	7	1	1	1
Boy Agent	—	4	1	—
Deer Agent	2	3	2	3
Boy Patient	1	1	6	4
Two Foci	—	1	—	2

About half of the 5-year-olds behave like the 3-year-olds, shifting from one agent to the next across successive clauses. Those 5-year-olds who have adopted a narrative stance appear to maintain a subject/agent focus on the boy as if to hold onto the thread of the plot by holding onto a topic, as suggested by *Sonra, sonra hayvanın üstüne bindi.* 'Then, then (he) got.on top of the animal' [T5a-5;4]. In fact, all four narrators who chose the boy and one who chose the deer as agent maintain the subject as the topic across the utterances describing this scene, as below.

(67) *Boynuzlarına almış onu götürmüş. Koşmuş, koşmuş geyik bir uçuruma getirmiş onları, uçuruma, sonra denize atmış sonra geyik.*

'It [=deer] took him on its antlers and carried him off. Ran and ran the deer, brought them to a cliff, to a cliff, then threw them to the sea, then, the deer. [T5j-5;3]

Older children and most adults, on the other hand, maintain the boy as the topic in the subject position, but in the role of undergoer. This is illustrated

in the following examples of reduced transitivity with an intransitive verb in (68), a passive in (69), and a reflexive in (70). Thus, they prefer to keep the perspective of the boy as the main protagonist but while doing so, can present him in a variety of roles besides that of agent.

(68) *Bu sırada işte geyiğin başına **düşüyor**.*

'In the meantime he just **falls** on the deer's head.' [*T20h*]

(69) *Daha sonra çocuk yine kurbağasını aramaya başlamış, o zaman bir geyiğe **takılmış**.*

'Later on the boy started to search for his frog again, at that point he **got.caught** on a deer.' [*T9c-9;1*]

(70) *Kendini birden kayalıktan geyiğin boynuzlarında **buluverdi**.*

'He suddenly **found.himself** off of the rocks (and) on the antlers of the deer.' [*T20c*]

Two adults present the situation from a stative perspective of low transitivity, focusing equally on the boy and the deer:

(71) *Geyik kafasını kaldırdığında çocuk da geyiğin kafasının üstünde **olmuş oluyor**.*

'When the deer lifts up its head the boy **comes to be** on top of its head.' [*T20d*]

This view of the boy and the dog as undergoers in a series of events in search for the frog is expressed succinctly by a 9-year-old (who summarizes the whole story in 16 clauses) in the following way.

(72) *Bir sürü macera geçiyor başlarından*

'A lot of adventures befall them.' [*T9b-9;5*]

Some adults, on the other hand, shift the topic to the deer, picking it as the subject/agent and the boy as the object/patient, as in the following example:

(73) *Çocuğu alıyor, boynuzlarının arasına kaldırıyor.*

'It takes the boy and lifts (him) up to between its antlers.' [*T20f*]

Shifting perspective to a new protagonist with clauses high in transitivity has the effect of maintaining an active narrative tempo and breaking the monotony of a single perspective in adult narratives.

In summary, we see the following developmental progression: For the younger children, who proceed picture by picture, the subject is an agent but changes from one protagonist to the other (the boy, the deer, or the dog) in successive clauses describing the same scene, without any regard for topic maintenance. The older children, who are telling the story as a narrative, on the other hand, tend to maintain the topic by choosing one of the protagonists

(the boy or the deer) as the subject who is consistently assigned the agent role. It is as if for them this parallelism between subject position and agentive role is necessary for topic maintenance in narrative. Finally, the mature narrators prefer to maintain the same protagonist as the topic, telling the tale as his story, but playing around with semantic roles and transitivity in order to present events from different perspectives. For them it is not necessary for the subject position to be occupied by an agent for topic maintenance.

Parallel to the change from agent to patient focus in these scenes, with age there is an increased tendency to use verbs of reduced transitivity. The 3- and 5-year-olds describe the deer scene with simple active sentences using a transitive or an intransitive verb without any voice modifications (e.g., age 3: *git* 'go', *düş* 'fall', *düş-ür* 'drop', *taşı* 'carry'; age 5: *bin* 'get on', *götür* 'take along', *al* 'take', *çık* 'appear', *kovala* 'chase'). Their occasional use of the passive is limited to transitive change-of-state verbs such as *kır* 'break' and *dök* 'spill', and of the causative to change-of-state verbs such as *düş* 'fall' and *geç* 'go.in'. The 9-year-olds and adults, on the other hand, use voice alternations flexibly, for transitivizing or intransitivizing verbs of motion, cognition, and emotional experience as well as change of state. In addition, they reflexivize motion, activity, and change-of-state verbs to refer to entities which are simultaneously the actor and the undergoer as in *sık-ış* 'get.stuck', *kendini bul* 'find oneself', or they passivize verbs not common in the children's descriptions, such as *tak-ıl* 'get caught', or use a reciprocal verb such as *karşı karşıya kal* 'come face to face' as in the following example.

(74) *Ali de bir baykuşun haşin kanat çırpınışıyla karşı karşıya kalmış.*

'And Ali came face to face with the fierce wing flappings of an owl.' [*T20i*]

The proportions in Table 6 show that with age there is a decrease in the use of the causative but an increase in the use of the passive, reflexive, and reciprocal forms, with the net effect being one of reduced transitivity.

TABLE 6
Proportion of Clauses with Valence Modifications, by Age

	3 yrs	5 yrs	9 yrs	Adult
Causative	21	18	12	11
Passive	12	10	26	19
Reflexive	3	2	15	11
Reciprocal	—	2	3	6

Turkish children control the morphological system of voice quite early. Their occasional errors are either in the direction of over- or under-productivity (Aksu-Koç & Slobin, 1985). Therefore the low frequency of voice modifications in the data of the younger narrators is more a result of constraints on shifting perspectives in narrative discourse than constraints related to knowledge of syntax.

3.2. Word Order

The second device Turkish syntax offers for manipulating perspectives is its flexible word order. The canonical SOV order can be varied for the pragmatic purposes of indicating contrastive focus, topicalization, and backgrounding. In her analysis of the pragmatics of word order in Turkish, Erguvanlı (1984) observes that deviations from the canonical order are subject to certain syntactic and semantic restrictions under particular discourse conditions. Three syntactic positions in the sentence are associated with three pragmatic functions: (1) the sentence-initial position marks topic, (2) the immediately preverbal position marks focus, and (3) the postpredicate position marks background information.

First, semantic-syntactic restrictions on the sentence-initial topic position require that the subject NP occupying it be [+definite] and/or [+animate]; indefinite subject NPs occur immediately before the verb. Object NPs in topic position must be either [+definite] or [-definite, +specific]; otherwise they are fixed to the preverbal position. An NP other than the subject which has been fronted is a marked topic. Topics which carry contrastive overtones are marked by the postposed particles *de* or *ise*. (See Erguvanlı, 1984, for a detailed analysis of word order in Turkish.) Second, under normal conditions of SOV, the preverbal focus position is the slot for any [-definite, -animate] NP which provides the least "given" information. In any marked order where definite NPs can move around, the NP just before the verb is in "contrastive" focus, i.e., is regarded as the most information-bearing element in that context. Third, in a marked-order sentence, the postpredicate position is used to background or defocus a [+definite] NP, an adverb, or a subordinate clause. This is also the position for afterthoughts.

For adverbials of time and place, the unmarked word order is as follows: S (Time/Place Adv) OV. In the absence of a subject NP, the time/place adverb occupies the sentence-initial topic position, setting the scene within which the predication is to hold. These adverbs may occur in topic, focus or background position in a sentence without any restrictions, but the result is marked word order sentences that differ pragmatically (Erguvanlı, 1984).

In summary, with transitive verbs, SOV and OV constitute unmarked orders, and with intransitive verbs, SV is the normal order. Pragmatically

marked orders occur when the NPs in the sentence are all [+definite] but their positioning deviates from the normal SOV order. Marked orders are: (O)VS, OSV, (S)VO, VSO, VOS. Table 7 presents a summary of canonical versus the most frequent nonstandard word orders observed in the data.

TABLE 7
Distribution of Clauses According to Word-Order Type, by Age

	3 yrs	5 yrs	9 yrs	Adult
Total No. of Clauses with Finite Verb	246	415	344	671
Unmarked Orders:				
SOV/SV	95	154	161	308
OV/V	128	210	164	321
Total	223	364	325	629
Percentage	91	87	94	94
Marked Orders:				
(O)VS	18	18	5	15
(S)VO	3	27	8	23
Other	1	6	6	4
Total	23	51	19	42

The proportion of clauses with canonical, unmarked SOV word order is very high across all age groups. Furthermore, the proportion of subjectless (OV, VO, and V only) constructions is around 50% at each age level, with noncanonical VO sentences constituting a very low proportion of these. A high proportion of subjectless clauses is to be expected since subject-verb agreement allows for subject ellipsis, which is, furthermore, required for text cohesion.

The most frequent nonstandard orders observed in our narratives are the verb-medial ones, where S or the O is moved to postverbal position for de-emphasis. The element remaining in preverbal position is then under focus. It may or may not be the topic as well, depending on whether or not an adverbial occupies sentence-initial position.

(O)VS constructions are used occasionally by about half of the narrators in each age group. Movement of the subject to postverbal position occurs typically in contexts where the subject of the preceding clause becomes the

patient/undergoer, but is still maintained as the topic, as in (75) and (76). Thus, one factor motivating subject postposing is topic maintenance. (Note, in the following examples, that Turkish does not have a definite article, but that the accusative indicates a definite direct object.)

(75) *Köpek düşmüş. Köpeğini almış kucağına çocuk.*

    '(The) dog fell. Took his dog in his arms, **(the) boy**.' [T3c-4;3]

(76) *Ağacı sallayınca arı kovanı yere düştü ve köpeğin peşine takıldı **bütün arılar**.*

    'When (the dog) shook the tree, (the) beehive fell down and followed the dog **all (the) bees**.' [T20c]

(S)VO order, on the other hand, is rarely used by 3-year-olds; much more frequently by the 5-year-olds; again by a few 9-year-olds, and by six adults. The following example illustrates how postposing the object has the effect of defocusing given information and underscoring the action.

(77) *Sonra bir babasının çizmesine bakıp orada buldu **kurbağayı**.*

    'Then looking into (his) father's boot, there (he) found **the frog**.' [T5a-5;4]

Example (78) shows a postverbal subordinate clause encoding given information.

(78) *Çocuk da atlamış ve köpeğine çok kızmış, **kavanoza girdi diye başı**.*

    'And (the) boy jumped and got real mad at his dog, **because its head got into (the) jar**.' [T9c-9;1]

Topic changes constitute possible contexts for perspective shifts and in the frog story these arise where a new character emerges (e.g., a gopher out of the ground, bees from the hive, an owl from the tree). The new character, which constitutes new information, will be encoded with a [-definite, +animate] NP, and can therefore occur in the preverbal focus or the sentence-initial topic position if it is the grammatical subject. In these contexts the most commonly used verb is the intransitive *çık* 'exit', which takes a locative phrase as an oblique object. Typically, narrators first introduce the location of the new character with a [-definite] NP in the preverbal position of an unmarked (S)OV sentence, then encode it with a [+definite] NP and front it to the topic position, introducing the new character in the preverbal focus slot. Finally, the latter may be referred to with a [+definite] NP and assigned to the topic position now that it is given information. In this context, younger children typically use demonstratives with or without an NP, or an infelicitous [+definite] NP in the topic position, given the contextual support of the pictures:

(79) *Sonra çocuk daldan düşüyor. Kuş da ... kuş çıkıyor yuvadan.*

    'Then (the) boy falls from (the) branch. And (the) bird ... (the) bird comes out of (the) nest.' [T3b-4;0]

Older children and adults use [-definite] NPs. Mature narrators also use relative clauses to introduce the location and the character in a compact manner. In (80) the new character is introduced in a relative clause in the object role, without any change in topic or perspective.

(80) *Sonra bir arı kovan-ı bulmuş, eşek arılarının bulunduğu bir kovanı. Kovandaki arılara havlamış. Arılar uçmağa devam ediyorlar.*

    'Then (dog) found a beehive [-def DO], a hive in which there (were) bumblebees [REL.CLAUSE]. (It) barked at the bees [+def IO] in (the) hive. (The) bees [+def SUBJ] continue to fly. [T20i]

In (81) the first clause gives relevant preparatory information which renders the [-def] NP in the subject slot of the second clause less than new information, and appropriate for the topic position.

(81) *Köpek sonunda arı kovanını ağaçtan düşürüyor. Bir sürü arı böylece çıkıyor kovandan.*

    '(The) dog finally makes the.beehive [+def DO] fall from (the) tree. A mass of bees [-def SUBJ] come out of (the) hive in this way.' [T9d-9;11]

The new character may also be introduced in preverbal position, as [-definite] IO of a reciprocal verb of reduced transitivity, as discussed in the preceding section, and exemplified in (82).

(82) *Karabaşı arılar kovalarken, Ali de bir baykuşun haşin kanat çırpınışıyla karşı karşıya kalmış.*

    'While (the) bees were following Karabash [=dog], Ali came face to face with the fierce wing flappings of an owl.' [T20i]

The above examples also show that locative and temporal adverbs occur frequently in the topic or the postpredicate position in these scenes, where a new protagonist appears. A temporal or locative adverb in sentence-initial position signals topic shift (Chafe, 1987) and sets the scene for the new event as in (83).

(83) *Tam o sırada, ağaç kovuğunun içerisinden bir baykuş çıkmış.*

    'Right at that moment out of the tree hole exited an owl.' [T20a]

By postposing the temporal or locative adverbial the narrator can de-emphasize the time and place and thereby the event itself, as in the following example:

(84) *Köpek de arı oğuluyla ilgileniyor bu arada arkada.*

'And the dog is attending to the beehive in the meantime at the back.' [T20b]

Left-dislocation in active verb clauses can be used for re-topicalization of old information, as shown below.

(85) *Köpeği de arılar kovalıyormuş.*

'As for the dog, the bees were chasing him.' [T9j-9;1]

This example also uses the topic/focus particle *de* to bring the item of old information under contrastive focus. Another example of left-dislocation is:

(86) *Bu sefer dışarıya bakmaya başlamışlar. Köpek, kafasında hala kavanoz varmış.*

'This time they started looking outside. The dog, it still had the jar on its head.' [T20a]

If the narrator had used a relative clause instead, the effect achieved would have been to background this old information rather than assigning it a value equivalent to the other forward moving events of the story.

In summary, with development narrators become more sophisticated in presenting background information for recasting [-definite NP] to [+definite NP]. While 3-year-olds present such information with existential clauses, if at all, adults do so with elaborate relative clauses. Shifts in word order do not seem to pose any problems for young children in Turkish. However, the low proportion of noncanonical orders in the sample suggests that this is not a strategy much resorted to in narrative discourse. A comparison of the proportion of standard versus deviant word order clauses in the frog stories with proportions from conversational data of Turkish children and adults (Slobin, 1982, p. 191) reveals that the proportion of standard SOV clauses is much higher in narrative as compared to conversational data. The verb-medial orders are also the most frequently preferred orders in conversational speech, suggesting that both in conversational and in narrative discourse the nonstandard orders preferred for perspective shifting are the same, though the frequencies of their use are different. This difference probably has to do with the different demands of dialogic versus monologic discourse for organizing information in terms of emphasis, focus, and topic maintenance.

4. CONNECTIVITY

The syntactic complexity of our narratives increases with age: while the texts of younger narrators are composed of simple independent clauses, those of 9-year-olds and adults have complex sentences with more than one subordinate clause dependent on or embedded in a main clause. Table 8 presents the distribution of simple and complex clauses in the Turkish narratives by

age.

TABLE 8

Percentage of Simple (Main Clause Only) and Complex (Main and Subordinate) Clauses, by Age

Clause Types	Age			
	3 yrs	5 yrs	9 yrs	Adult
Simple Clauses	90.1	73.8	64.7	55.0
Complex Clauses	9.9	26.1	35.2	45.0
Complex Clauses				
Main	4.5	12.2	13.8	17.1
Subordinate	5.4	13.9	21.4	27.9

Age-related changes in syntactic complexity even after the preschool years are not surprising, since an important feature of mature narrative discourse is the connectivity of its different parts through temporal, causal, or logical relations. The narrator composes a story in accordance with such relations at the conceptual level and deploys the structural options of the language (e.g., syntactic coordination or subordination and lexical devices such as pronouns, nominals) in accordance with personal stylistic preferences. Such connections can be at the local level, between adjacent clauses constituting a unit, as in example (87), or at the global level, between a larger unit of text and the whole through a thematic relation, as in (88).

(87) *Sonra bakıyor çocuk uyandığında, kurbağa yok.*

'Then the boy looks upon waking, the frog is not there.' [T5a-5;4]

(88) *Daha sonra arıları çağırarak kurbağasını bulmak için onlardan yardım istedi.*

'Later on, calling the bees he asked their help in order to find his frog.' [T9j-9;1]

In this section, we examine the syntax of clause combining as a means of effecting discourse connectivity. For clause combining, Turkish relies on (1) **conjunctions** joining two independent clauses: *ve, ama/fakat, ancak, buna rağmen* 'and, but, however, despite this'; (2) **converbs**, i.e., nonfinite verb forms which yield dependent but nonembedded adverbial clauses: V+*ince*, V+*ken*, V+*ip*, and V+*erek*; (3) **nominalized verb plus postposition** also functioning as adverbial clauses: V+*me*+POST, V+*mek*+POST, V+*dik*+POST;

(4) **complement constructions** with nominalized verb forms, involving both dependency and embedding relations: *-dik, -ecek, -me*; and (5) **relative clauses**, which may or may not involve embedding. The grammar of **subject marking** also plays a natural role in connectivity, since Turkish, a "pro-drop" language with systematic person and number marking, makes extensive use of subject (as well as object) ellipsis, and uses pronouns for contrastive reference, topic shifts, and the like.

The following sections consider the first four types of clause-linking mechanisms used to effect connectivity in narrative discourse. Relative clauses and subject marking are not treated here since these are discussed in Chapters IVB and IVC.

Different types of connectivity are characteristic of the different age levels. For the youngest children, the pictures of the storybook provide the scaffold that ensures continuity, and the use of deictic terminology with regard to the pictures provides a sort of connectivity (Section 4.1). Five-year-olds replace spatial deictics with temporal adverbials and work on establishing grammaticized connectivity with coordinate and subordinate structures at the clause level (Section 4.2). Nine-year-olds, whose stories are tightly organized around a plotline, perfect the use of these formal means and add a few new ones. They achieve some level of thematic integration by chunking several events together. Finally, adults add the use of specific lexical items, increased layers of embedding, and specific discourse strategies such as flashbacks and foreshadowing, which all contribute to creating thematic connectivity rhetorically (Section 4.3).

4.1. Deictic Chaining of Utterances and Coordination

In coordination, constituent clauses in the joined sentences are not grammatically dependent, but are added together in sequence, with or without conjunctions. We can therefore expect coordination to be the earliest syntactic mechanism of connectivity in discourse. Turkish uses a variety of devices for this purpose such as the topic/focus particle *de* 'and, too, also', the coordinating conjunction *ve* 'and', the adversative conjunctions *ama/fakat* 'but', *ancak* 'however', *buna rağmen* 'despite this', as well as unmarked chaining. Temporal adverbs *ondan sonra* 'then, after that', and *o sırada,* 'meanwhile' function anaphorically for intersentential connectivity. However, these formal means do not appear all at once in our texts, but follow a developmental progression partially determined by the changes in capacity for narrative organization.

The texts of the 3-year-olds present no evidence for a conceptualization of events as temporally related (see Chapter IVA). Instead, two entities or situations are spatially related by virtue of their being in the same picture

frame, available to a single act of perception. This is evidenced by the use of the deictic locative adverbs *burada/orada* 'here/there' before almost every utterance, anchoring the discourse in the axis of perception. Connectivity between situations is implied by the particle *de*, which connects the word it modifies to another word of the same class, either already mentioned or presupposable in terms of a relation of likeness, equality or participation (Gencan, 1975, p. 411). The main function of *de* is pragmatic: It serves to present the two entities or situations referred to as **contrastive topics** or brings them under **contrastive focus**. For example, after an NP in topic position, *de* functions to bring old information into the forefront of consciousness as contrastive topic.

In deictic chaining, *burda/orada* 'here/there' occur frame-initially and mark progress from one picture to the next. Eighty percent of the 3-year-olds use these forms with high frequency. Two narrators use *sonra* 'then', for the same function of sequencing utterances in discourse rather than events on the temporal plane. The following example illustrates such deictic chaining with *burada* 'here', *orada* 'there', *şimdi* 'now', and the particle *de* (translated as 'and' or 'too' in the gloss).

(89) *Çocukla köpek oturuyorlar.* **Burda** *kurbağa, çocuk yatıyor.* **Bir tanesi** *de oturuyor.* **Orda da** *o çocuk* **da orda** *uyuyor.* **Burdaki** *çocuklar napıyor yaa? O zaman bu* **da** *evin içindeler.* **Burda,** *köpek düşmüş aşağıya camdan bakarken.* **Burda** *camdan o* **da** *bakıyor.* **Şimdi burdaki** *köpeği almış eline ama camdan aşağı düşmüşler.*

'The boy and the dog are sitting. **Here** the frog, the boy he's lying. **And** one of them is sitting. **And there** and that boy **too** is sleeping **there**. What are the children that are **here** doing? Then they **too** are inside the house. **Here** the dog fell down while looking out the window. **Here** he is looking out the window **too**. **Now** he took the dog that is **here** in his hand but they fell down from the window.' [T3a-3;6]

An explicit indicator of the low degree of connectivity characteristic of the 3-year-old stories is the use of the demonstrative *bu* 'this' in reference to the boy or dog as in *bu çocuk* 'this boy' or *bu köpek* 'this dog' in each picture, as if this were a new character different from the boy in the previous picture.

All 3-year-olds except one use *de* extensively (in 26% of total clauses) as if marking successive acts of perception and thereby connecting predications about entities successively focused. *De* functions as an additive "tag" for successive utterances, particularly when it follows *burda* 'here'. When it follows an NP in the second of two clauses with the same verb and tense, it functions to specify a given situation as applying to two different participants as in the

following example.[10]

(90) *Çocuk uyuyor, köpek de uyuyor*

'The boy is sleeping, the dog is sleeping **too**.' [*T3f-4;0*]

In the absence of any further temporal specification such constructions with different participants imply a relation of simultaneity between two situations, as discussed in Chapter IVA.

Five-year-olds use this particle more or less like the threes but less frequently (in 16% of total clauses). They use it after spatial or temporal deictics for discourse continuity, to shift focus to a different participant engaged in the same situation, and to emphasize the recurrence of a given situation, as in (91) (glossing *de* as 'either' in these negative clauses).

(91) *Çocuk uyandığında kurbağa yok, çizmesinin içine bakıyor, yok orda da, ondan sonra terliklerine bakıyor, elbiselerine bakıyor, orda da yok.*

'At the boy's waking the frog is not there, he looks inside his boot, it is not there **either**, and then he looks in his slippers, his clothes, it is not there **either**.' [*T5a-5;4*]

In the 9-year-old texts the proportion of *de* decreases (to 13% of the clauses) but its use becomes more discriminative. In addition to marking shift of focus to a different participant, *de* is used to shift focus to a different event/process going on at the same time. It may occur either after temporals *o sırada/bu sırada* 'in the meantime' to anaphorically designate a previous discourse unit as reference time as in (92) or after a temporal adverbial clause as in (93).

(92) *Bir baykuş çıkıyor oradan, fakat o sırada da köpeğin arkasında bir arı sürüsü var.*

'An owl comes out of there, but **at the same time** *de* there is a mass of bees after the dog.' [*T9d-9;11*]

(93) *Çıkarmak için pencereden atladı. Vazo kırıl-dığı zaman da kendini kurtarabildi.*

'In order to get it off, he jumped off the window. **And when the vase broke** *de* he could save himself.' [*T9j-9;1*]

In other words, 9-year-olds insert syntactically larger units under the scope of *de* and thus topicalize a clause or chunks of clauses.

A further use appears at the discourse level: that of packaging several related events together into a single chunk. In the example below, three

___

[10] *De* in these contexts functions like the Hebrew particle *gam* 'also' in one of its uses (Chapter IIID).

events are enumerated and tied together, with emphatic focus on the last item or participant.

(94) *Oradan bir baykuş çıkıyor, çocuğu yere atıyor, köpek de bu sırada kaçıyor.*

'An owl comes out of there, throws the boy to the ground, and in the meantime the dog *de* escapes.' [*T9a-9;3*]

In adult texts the use of the particle shows variation across narrators: some never use it, some use it over 25 times (in 12% of the clauses). A new function is its rhetorical use, coupled with the indefinite article *bir* for introducing new information, as in (95):

(95) *Bir de ne görsünler, bir de bakmışlar ki orda bir kadın bir erkek, bir dişi bir erkek kurbağa başbaşa oturuyorlar.*

'And what should they see, once [*bir de*] they look and there are a man and a woman, a male and a female frog sitting tête-à-tête.' [*T20a*]

Developmental progress in the positioning of *de* can be summarized as follows: *burda da* 'and here' > *sonra da* 'and then' > *o sırada da* 'and in the meantime' > *kavanoz kırıldığında da* 'and at the breaking of the jar'. That is, *de* starts off as a multifunctional particle which takes its meaning from context, and as other explicit devices for marking semantic relations such as simultaneity or sequence emerge, it becomes more and more of a discourse operator, to mark contrastive topic/focus, and to effect event packaging.

Other forms observed in the texts of the youngest children are the conjunction *ama* 'but' and the adverb *o zaman* 'at that time', both used rather infelicitously:

(96) *Burda camdan o da bakıyor. Şimdi buradaki köpeği almış eline. Ama camdan aşağı düşmüşler.*

'Here he is also looking out the window. Now he took the dog here in his hands. **But** they fell out of the window.' [*T3a-3;6*]

Both 3- and 5-year-olds use the coordinate *ama* 'but' as if it were the negation of *de*, and relate two situations engaged in by two protagonists through simple contrast, as in (97).

(97) *Sonra köpek çıkmış, sonra ama çocuk çıkmamış*

'Then the dog went out, **but** then the boy didn't go out.' [*T5b-5;0*]

Although these early uses express the basic function of *ama* to indicate what is contrary to expectation, they sound juvenile because the implied expectation is based on what is apparent in the pictures, not on a temporal or causal relation between events. In 9-year-old and adults narratives, on the other hand, *ama* expresses the narrator's stance by properly negating the

implication of the first clause:

(98) *Epeyce ıslanmışlardı* **ama** *olsun önemli değildi bu.*

'They were quite wet **but** this wasn't important.' [*T20c*]

In summary, the texts of all 3- and some 5-year-olds display deictic discourse connectivity between utterances. Clause-initial *burda* 'here' or *sonra* 'then' serve to inform the listener that more is to come — either a picture or an utterance. The topic/focus particle *de* plays an important role in establishing connectivity between successive clauses. While there are examples of concessive conjunctions, Turkish children do not use the coordinating conjunction *ve* 'and', which appears with high frequency only in the adult narratives, presumably because it does not function for simple coordination but for packaging chunks of events into larger units (Slobin, 1989, 1993a; Chapter IVc).

4.2. Temporal Chaining and Grammaticized Connectivity

Texts of children who can impose a linear organization on events on the time axis display temporal chaining and grammaticized connectivity. Use of sequence or simultaneity markers such as *sonra* 'then', *ondan sonra* 'after that/and then', *o zaman* 'at that time, then, when' results in temporal chaining of events. Grammaticized connectivity is realized with the converbs *V+ince*, *V+ip*, *V+erek*, and *V+ken*; or with nominalized verbs in casemarked form as in *V+diğinde* 'at his V-ing'; or followed by postpositions such as *V+dikten sonra/önce*, *V+meden sonra/önce*, 'after/before V-ing', or by the noun *zaman* 'time' as in *V+diği zaman* 'at the time of his V-ing'. Such subordinating constructions appear in the texts of the 5-year-olds and increase in frequency with age. The temporal adverbs *daha sonra* 'afterwards/later on' and *bu arada/o sırada* 'meanwhile' appear in the 9-year-old and adult texts only and are functional in thematic connectivity as discussed in the next section. Table 9 presents the proportion of clauses with different types of temporality markers and grammaticized forms across all ages.

As can be observed, sequence markers such as *sonra, ondan sonra* 'then, and then' increase noticeably at age 5, with one-fourth of the clauses so marked, and remain frequent at 9 years. The lower proportions in the 3-year-old and adult texts, on the other hand, are not surprising since (1) 3-year-olds, who cannot organize narrative events temporally, do not need such markers, and (2) sequential relation between events is the default case in narrative and therefore does not need to be marked, as adults are well aware.

TABLE 9

Percentage of Clauses with Different Types of Temporal Markers, by Age

Temporal Marker	Age			
	3 yrs	5 yrs	9 yrs	Adult
No Temp. Marker	78.3	68.5	63.3	72.6
Deictic Temp. Adv.	2.8	0.8	3.4	2.2
Sequence Marker	15.5	24.4	19.6	10.5
Temporal Adv.	0.0	0.0	1.0	1.9
V+*ince*	1.4	1.4	1.3	1.9
V+*ken*	1.1	1.2	2.9	3.3
V+*ip*	0.6	1.9	2.1	3.8
V+*erek*	0.0	0.2	4.1	1.2
V+*dik/me*+POST	0.3	0.4	1.5	1.0
V+*diğinde*	0.0	1.2	0.8	1.6

The overuse of sequence markers by 5-year-olds suggests that these children have entered the narrative mode. However, this in fact applies only to about half of the narrators. The remaining children are in transition from description to narration. For example, all the clauses marked for sequence with *ondan sonra* 'and then' in (99) refer to the same picture apprehended in a single moment of perception, whereas those in (100) refer to successive events in time, not utterances in discourse.

(99) *Şimdi o oturuyor. Ondan sonra o kurbağaya bakıyor. O köpek ondan sonra o köpek de gülüyor. Ondan sonra köpek onun içine girmek istiyor. Sonra çocuk orda oturup bakıyor girecek mi girmeyecek mi diye.*

'Now he is sitting. And then he's looking at that frog. That dog, and then that dog is laughing too. And then the dog wants to enter inside that [=jar]. Then the boy is sitting there looking to see if it will enter or not.' [*T5a-5;4*]

(100) *Ondan sonra bu kavanoz kırılıyor, çok kızıyor çocuk. O da, köpek de onu yalıyor. Ondan sonra "kurbağa, kurbağa" diye bağırıyor. Orda ağaçlar gözüküyor. Ondan sonra bir de bakıyor belki buradadır diye köpek. Buraya [=kovana] bakıyor.*

'And then this jar breaks, the boy gets very angry. And it, and the dog licks him. And then he calls "frog, frog." There the trees are seen. And then the dog looks saying maybe it's here. It looks here [=hive].' [*T5d-5;3*]

Texts with a temporal organization are not restricted to forms like *sonra* 'then' used to introduce successive frames, but have explicit marking of temporal/aspectual relations with the converbs *V+ken* 'while V', *V+ince* 'when V', *V+ip* 'and (then) V', *V+erek* 'in doing V', and with nominalized verb forms *V+diğinde* 'at time of V-ing' and *V+dik+*ABL *önce/sonra* 'before/after V-ing'. Of these forms, *V+ince*, *V+ken*, and *V+ip* appear as early as age 3, and increase in frequency around age 5. *V+erek* shows a late development and is felicitously used by most 9-year-olds and all adults.

The conjunct clause marked with *-ince* 'when/as soon as' sets up a condition — temporal or causal — in which the main clause can be realized. Given its narrowly temporal meaning, this converb allows for a minimal set of inferences about the speaker's communicative purpose in syntactically linking the two clauses (Slobin, 1993a). There are very few examples of *V+ince* in the 3-year-old data, but from age 5 onwards it is used variously to mark simultaneity/causality between perceptual and affective states as in (101), or sequence as in (102):

(101) *Köpek de şaşırmış onu gör-ünce.*

'And the dog was surprised upon.seeing [V+ince] it.' [T5h-5;0]

(102) *Çocuk sabah kalk-ınca kurbağayı arıyor.*

'Getting.up [V+ince] in the morning the boy searches for the frog.' [T9h-9;11]

Although *-ince* presents the first event as in some way subsidiary to the second, it is not necessarily a narrative backgrounding device since the events in both clauses can advance the plot.

V+ken 'while', which carries the same meaning for younger and mature speakers, presents an event as an extended state or ongoing process simultaneous with the event referred to in the main clause. It thus serves a backgrounding function, as illustrated in the following examples.

(103) *Onlar uyur-ken çocuğu ile köpeği kurbağa kaçıyor.*

'While they are sleeping [V+ken] — the boy and his dog — the frog escapes.' [T5e-6;0]

(104) *Sonra çocuk yukarıya doğru çıkar-ken geyiğin boynuzlarına takılıyor.*

'Then when the boy is going.up [V+ken] he gets caught on the antlers of the deer.' [T9a-9;3]

-Ip corresponds to a general conjunction such as the English *and/and then*. The nature of the relation expressed is to some extent constrained by the coreference requirement on the subjects of the joined clauses. Typically this is a relation of close succession, since two events for which a single actor is responsible will be interpreted as sequential in time unless the meanings of

the verbs allow for a simultaneity interpretation. The following examples illustrate how the *-ip* clause presents one event as, in some sense, subsidiary (Slobin, 1993a) but an integral part of another, while the *-ken* clause specifies a backgrounded event as reference time for their occurrence:

(105) *Sonra camdan bakar-ken, bir kavanozu al-ıp da köpek başına geçirmiş.*

'Then while looking [V+ken] out the window, taking [V+ip] the jar the dog put it on his head.' [T5g-5;2]

(106) *Onlar uyur-ken kurbağacık usulca kavanozdan çık-ıp usulca ortadan kayboldu.*

'While they were sleeping [V+ken] the little frog, silently coming.out [V+ip] of the jar, silently got lost.' [T20c]

Finally, the converb *-erek* 'in/by doing' contributes to discourse connectivity by presenting two situations in a highly integrated fashion, as aspects of one event. It carries aspectual meaning: while *-ip* can be characterized as perfective in meaning parallel to D.PAST *-di*, *-erek* can be characterized as imperfective parallel to PRESENT *-iyor*. Noting that *-erek* gets its meaning from the types of situations it frames and the inferences thereby licensed, Slobin (1993a) suggests that this form has several semantic functions. Briefly, the *V+erek* clause presents a situation which is either a preparatory phase, or a goal-oriented instrumental phase, or a simultaneous/accompanying phase for the situation mentioned in the main clause. Thus, conjoining with *-erek* requires taking into account the aspectual character of the subordinate and the main verbs and the possible ways they could be related. *-Erek* is used only once in the entire sample of preschoolers, in a construction which is almost a frozen form. Mature uses appear only in the 9-year-old narratives, but even then not without errors. Some of these involve the violation of the coreferentiality requirement as in (107), and some the violation of the ordering requirement between events, presenting the action instead of the motivation for action as the background preparatory event, as in (108):

(107) *O da [=çocuk] ağaca tırmandığında bir delik gör-erek bir baykuş çıkıyor oradan.*

'At his [=boy] climbing the tree, (boy) seeing [V+erek] a hole an owl comes.out from.there.' [T9d-9;11]

(108) *Çocuk ağaca çık-arak kurbağanın bir deliğe saklanmış olduğunu sandı.*

'The boy climbing [V+erek] the tree thought that the frog had hidden in a hole.' [T9j-9;1]

In sum, as Slobin (1993a) puts it, this converb is, essentially, a narrative form and its proper use requires an ability to manage attention flow in narrative in

addition to the cognitive ability to mark two actions as constituent parts of a superordinate event, without actually naming the event. (See, further, Chapter IVC, Section 2.3.3.)

Adverbial clauses with the nominalized verb plus a postposition, such as V+*dik*+POSS+LOC 'at time of V-ing', V+*dik*+POSS+ABL *önce/sonra* 'before/after V-ing', and V+*me*+POSS+ABL *önce/sonra* 'before/after V-ing' are almost totally absent from the 3-year-old and rare in the 5-year-old data. They show a fourfold increase in the 9-year-old and adult texts (see Table 9). V+*dik*+POSS+LOC, typically appended to change-of-state verbs, presents a situation as a background state for a plot-advancing event and is the most frequently used subordinating construction at age 5. Most narrators use it in the context of the frog's escape as illustrated in the following example:

(109) *Çocuk uyan-dığ-ında kavanozu boş görünce çok korkmuş.*

'Upon.waking [V+*dik*], the boy was very scared when he saw the jar was empty.' [*T9c-9;1*]

There are also a few instances of V+*dik*+ABL followed by the noun *zaman* 'time' as postposition, meaning 'when', similarly used as a background device. It appears that the 5-year-olds are discovering how to make grounding distinctions and trying out differential marking to this end. They use temporal adverbs for sequencing equally weighted foreground events and grammaticized subordinators for introducing background states. Nine-year-olds prefer the V+*dik*+POSS *zaman* construction to V+*dik*+POSS+LOC, which is more perfective than stative in meaning. They also use V+*dik*+ABL *sonra* 'after having/being V-ed' for integrating successive events in a close sequential relation. These are exemplified below:

(110) *Seslen-diğ-i zaman da köpek aşağı atlayıp onu bulmağa çalışıyor.*

'And at the **time** of his calling [=when he calls], jumping down the dog tries to find it.' [*T9g-9;9*]

(111) *Ondan sonra, çocuk yat-tık-tan sonra kurbağa bu cam kavanozun içinden kaçıyor.*

'And then, **after** the boy's going to bed, the frog escapes from inside the glass jar.' [*T9d-9;11*]

The proportion of adverbial clauses expressing causal relations with V+*dik*+POSS *için* 'for/because of V-ing' also increases at this age. Finally, the adult texts display these forms with much higher frequency and contain subordinators that mark relations of cause, purpose, intention, consequence, and concession as well as temporality, as the following examples demonstrate. Grammaticized connectivity is in fact a defining feature of mature narratives.

(112) *Ertesi sabah çocuk kurbağasını kavanozun içinde bulama-dığ-ı için çok üzüldü.*

'The next morning the boy got very sad because of not finding his frog in the jar.' [*T9j-9;1*]

(113) *Geceleri yat-madan önce kurbağasına iyi geceler diliyormuş Ali.*

'In the evenings, Ali used to say goodnight to his frog **before** going to bed.' [*T20i*]

In summary, in this middle phase of connectivity we see sequential chaining with temporal terms such as 'then', 'and then', 'later', and grammaticized connectivity mainly with converbs and other subordinators. These all involve local rather than thematic relations between situations.

4.3. Mature Thematic Chunking

The ability to use the time concept as a basis for hierarchical organization of discourse appears in the narratives of school children and adults. Pairs of clauses joined by different types of subordinators are embedded within bigger chunks which are in turn presented as simultaneous or sequential with the use of adverbs. Overt markers of discourse connectivity which rely on intersentential relations typically occur clause initially and refer back anaphorically to an already established state of affairs, while those grammaticized into a nonfinite verb form establish interclausal relations.

Narrators differ in their choice of connective. Some use adverbs of sequence such as *ondan sonra* 'and then' or *daha sonra* 'later on' to preface a set of clauses that refer to a series of events which together constitute a single episode, while others use adverbs of simultaneity such as *bu sırada/o sırada* 'meanwhile' to similarly package events into larger units. In the following example, *daha sonra* 'later on/afterwards', which first appears in the 9-year-old stories, marks the boundary between the dog's fall from the window, the encounter with the gopher, and the disturbing of the bees.

(114) *Daha sonra köpek camdan düşüyor. Çocuk da camdan atlayıp onu alıyor. Daha sonra orman gidiyorlar, ormanda arıyorlar. Sonra bir arı yuvası buluyorlar. Yerde bir sincap yuvası buluyorlar. Oraya bakıyorlar. Oradan bir sincap çıkıyor. Burnunu ısırıyor çocuğun. Daha sonra arı yuvasını sallıyorlar.*

'**Afterwards** the dog falls from the window. The boy, jumping from the window picks it up. **Afterwards** they go to the woods, they search in the woods. **Then** they find a beehive. They find a gopher's hole in the ground. They look there. A gopher comes out of there. It bites the boy's nose. **Afterwards** they shake the bee hive.' [*T9a-9;3*]

Furthermore, these narrators reinstantiate the search theme at the beginning of a new episode and preface such utterances with their preferred adverb. This 9-year-old systematically pairs the sequential adverb *daha sonra* 'afterwards' with the discursive strategy of explicitly stating the search theme as in *Daha sonra çocuk yine kurbağasını aramağa başlamış* 'Afterwards the boy started searching for his frog again', while reserving *sonra* 'then' for sequencing events within an episode, as above. *Bu sırada/o sırada* 'meanwhile/in the meantime', much more frequent in the adult texts, are used for chunking sequences of events engaged in simultaneously by the different protagonists, and thus signal topic shifts. In short, temporal adverbs are used for thematic purposes to mark movement through different phases or episodes of the search. Peterson and McCabe (1991) have similarly observed the use of connectives as markers of macrostructure in narratives of 9-year-old children.

Not surprisingly, there are differences between the 9-year-olds and adults in the degree of text cohesion. Devices such as *V+ince*, *V+ken*, *V+diğinde*, *V+diği zaman* are used by adults not only to relate adjacent utterances but also to pick up information introduced a number of utterances earlier and re-present it as background for a new situation. There is, thus, a continuous process of tying up of nodes of information into a single thread of discourse:

(115) *Kovandaki arılara **havlamış havlamış**, arılar uçmaya devam ediyorlar. Henüz bir tepki gelmemiş arılardan. Öte yandan Alinin burnunu soktuğu kovuktan bir kokarca çıkmış. Alinin burnuna pis kokular gelmiş. Öte yandan Karabaş ağacı sallamış. **Havlayınca** arılardan bir tepki gelmediği için fazla sallamış.*

'He **barked and barked** at the bees in the hive, the bees continue to fly. There's yet no reaction from the bees. On the other hand a skunk came out of the hole Ali put his nose in. Bad odors came to Ali's nose. On the other hand Karabash shook the tree. He shook hard because there was no reaction from the bees **when he barked** [*V+ince*].' [*T20i*]

Temporal terms such as *gece, geceleyin, sabah* 'night, at night, in the morning' are used by school children and adults. Temporal adverbs such as *bir gece* 'one night', *bir gün* 'one day' become functional in establishing purely discourse internal reference points in these stories.

(116) ***Geceleyin** köpekle çocuk uyuduktan sonra kurbağa kavanozun içinden çıkarak kaçmış. **Sabahleyin** uyandıklarında köpekle çocuk kurbağanın kaçtığını görmüşler.*

'**At night**, after the dog and the frog slept the frog coming out of the jar escaped. **In the morning**, at their waking the dog and the boy saw that the frog escaped.' [*T20a*]

Modal verbs and adverbs qualify descriptive statements that introduce the narrator's perspective. Adults use these in complement clauses to describe an event and a related attitude or mental state simultaneously.

(117) *Fakat Frog bir kavanozun içinde. **Mutlu olmasına rağmen kendini hapsedilmiş gibi hissediyor.** Küçük köpeği onu inceliyor. Gece küçük çocuk ve köpeği uyurken Frog kaçmağa kalkıyor.*

'But Frog is in a jar. **Although he is happy he feels as if imprisoned.** His little dog is inspecting him. At night while the little boy and his little dog are sleeping, Frog attempts to escape.' [*T20j*]

Complement clauses, other than infinitival complements, are late to appear in our narratives. Turkish makes extensive use of nominalized forms such as VERB + INFINITIVE *-mek*, the nominal particle *-me*, the past participle *-dik*, and the future participle *-ecek*. V+*dik*, V+*ecek*, and V+*me* complements take casemarking and person/number marking for agreement with the subject which surfaces in the genitive (e.g.V+*dik*+POSS+CASE). V+*mek* complements take only casemarking since the subject of the complement verb is coreferential with the subject of the main verb, and can therefore be said to be syntactically simpler. The *-mek* complementizer occurs with modal or aspectual verbs and forms a very tightly linked unit, almost a single clause, expressing a relation not between discrete situations but rather a focus on a phase of a single situation. The *-dik*, *-ecek*, and *-me* complements, on the other hand, are more sententialized and form looser linkage between situations (Lehmann, 1988). Table 10 presents the distribution of different types of complementizers by age.

TABLE 10
Frequency of Different Types of Complementizers, by Age

Type of Complementizer	Age			
	3 yrs	5 yrs	9 yrs	Adult
-mek	10	18	20	52
-dik	—	5	3	10
-me	—	—	1	4
-ecek	—	—	—	3

Nominal constructions with *-mek* are quite frequent in the data and start at the youngest age with modal verbs such as *iste* 'want' and *çalış* 'try', as in *yakala-**mak** istiyor* 'wants to catch' at age 3, and aspectual verbs such as

başla, devam et 'start, continue' as in *ara-mağa başlıyor* 'starts to search', at age 5, serving local functions. These constructions increase, particularly in the adult texts, where they assume the discourse organizational function of marking episodic boundaries (Aksu-Koç, 1993), as already noted in Section 1.2.2.1.

-Dik complements, where the main verb is typically a cognitive/perceptual verb such as *bil* 'know', *anla* 'understand', *gör* 'see', *farkında ol-* 'be aware', occur occasionally in the preschool texts (Aksu-Koç, 1992b). These constructions appear to pose problems, particularly when the complement verb is the irregular verb *ol* 'be' with its existential forms *var/yok* 'exist/not.exist'. In the following, an initial attempt at a complement results in a finite clause:

(118) *Kurbağa yok.* **Kurbağa yok ol-** *kurbağa kaybolmuş görüyor.*

> 'The frog isn't there. **The frog isn't there** [*yok ol-*] he sees the frog has gotten lost.' [*T5c-5;1*]

The single instance of a *-me* complement in the children's data is found in a 9-year-old text with a verb of saying: *Çocuk köpeğe sus-ma-sını söyledi* 'The boy told the dog to be quiet'. The complement clause in such a construction is compacted into a single deverbal noun — something like 'the-dog's-being-quiet — which also indicates a nonfactive reading. What is difficult for children is probably this sort of conceptual abstraction and condensation, rather than syntactic complexity per se, since there is evidence from non-narrative data for the use of *-me* complements earlier than this age (Aksu-Koç, 1992b).

The adult narratives show higher frequencies of different types of complements, though with the same relative proportions observed in the children's texts. *-Mek* complements mark the beginning of new episodes, *-dik* complements refer to mental states of the protagonists with cognitive verbs, as in (119), and *-me* complements are used both with utterance and manipulative verbs, as in (120):

(119) *Kavanozun saydam birşey ol-**duğ**-unu kestiremiyordu.*

> '(The dog) couldn't figure.out that the jar is [*V-dik*] something transparent.' [*T20e*]

(120) *Onun kendisini yala-**ma**-sına izin verdi.*

> 'He permitted it [=dog] to.lick [*V-me*] him.' [*T20e*]

The scarcity of complement constructions in the frog story is hardly surprising, given that these have a rather specialized discourse function. Complement constructions serve to present a situation either (1) in terms of the emotional, cognitive, perceptual, or communicative activity of a narrator

(with verbs of thinking or saying, such as 'know', 'think', 'say'); or (2) as a function of the manipulative activity of a subject (with verbs such as 'make', 'tell', 'order', 'ask'); or (3) in terms of a subject's binding relation or perspective towards a situation (with modality and aspectual verbs such as 'want', 'begin', 'finish', 'try', etc.) (see Givón, 1990). As such, these constructions do not play an essential role in the formation of a linear relation between events, but function in the construction of more complex abstract relations. In other words, complement constructions do not encode a relation between two discrete situations, but present a situation as the object of the cognition, perception, intention, communication, or manipulation of an experiencer or agent. Studies of children's understanding of mental verbs in English show that the presuppositional and implicational properties of such verbs are learned around 4-5 years of age — based not only on learning the semantics of the verbs or their use in different types of complement constructions (e.g., Abbeduto & Rosenberg, 1985; Moore & Davidge, 1989), but also on the development of an understanding of the representational nature of mind (Astington, 1990). It is therefore not surprising that these types of constructions are only used by mature narrators, who relate events hierarchically, manipulate perspectives, introduce narrator's comments, or speculate about cognitive or emotional states of protagonists.

To sum up, the kind of cohesion realized by adults is more advanced on the functional plane, reflecting the kinds of relations that mature narrators weave between events, states, actions, and intentions. Mature elaboration of discourse structure with regard to issues of grounding and introduction of a narrator perspective requires a number of devices not to be found in the children's stories.

5. CONCLUDING OBSERVATIONS

This survey of the development of grammatical and lexical forms in Turkish narratives has shown that the major change that occurs with age is in form-function relationships. That is, linguistic devices assume different functions at different ages and are effective in creating different levels of textual cohesion.

Our youngest narrators are 3- to 4-year-olds who have acquired the basic syntactic devices of their language. Although further developments take place in the various aspects of their grammar, the more significant changes occur in their skills related to narrative construction. In our sample, the ability to organize narrative events on a temporal axis starts around age 5 as evidenced by the use of (1) temporal adverbs relating successive utterances that refer to a sequence of events, and (2) grammaticized means such as V+*ince*, V+*ken* and V+*dik*+POST that contract clause internal relations. By using

these devices children start establishing one event as a reference point for another in narrative time. Furthermore, the narrative ability that involves attending to two or more components of an event also emerges, in Turkish, as in other languages, at about age 5. This was observed, for example, in the description of the frog's escape in two distinct, though successive, phases. The more mature narrators, on the other hand, integrate event components from a specific perspective, using various linguistic means such as the converbs -ip or -erek or the conjunction ve.

The next level of development observed in narrative structuration involves the organization of sequentially related events in terms of a higher level goal of the story. The 3- and 5-year-olds provide little or no evidence for a distinction between linear and thematic organization of events. Most 9-year-olds and all adults on the other hand, produce stories structured in accordance with a guiding theme as well as a temporal sequence, but they differ in the extent to which they mark these different levels of organization linguistically. Adult narrators differentiate between episode boundaries and within-episode event transitions, marking the former with aspectual verbs and adverbs, and the latter with temporal adverbs of sequence. Nine-year-olds do not use differentiated linguistic forms although they have the same conceptual organization as the adults. Their use of sequential adverbs just at the beginning of new episodes, but rarely within an episode, suggests that they feel the need to indicate the relation of successive events to the guiding theme, but can only use temporal sequence markers as a readily available means to do so. Establishing such form-function relations at the hierarchical level, then, is the last step in this development.

As for the particulars of the developing form-function relationships, it was observed that the functions of linguistic forms change with development. For example, temporal adverbs first function as discourse fillers and then as connectives: sonra 'then/after', a term expressing temporal sequence, is first used as a discourse sequencer, then to introduce independent clauses referring to successive events, and last as a subordinator following a dependent clause. Similarly, adverbs that are based on discourse-internal deixis appear at different stages of narrative development, depending on their functions in the text. Sequential adverbs appear early to relate successive events, while adverbs expressing simultaneity between sequences or chunks of events are used later. Another example for a change in form-function relations is observed in the domain of locative modification. Turkish children have a very early command of casemarking (Aksu-Koç & Slobin, 1985) and correctly use locative postpositions such as içinde 'in', üstünde 'on' by age 3 (Johnston & Slobin, 1979). However, they come to use these devices for modification of locative trajectories in a narrative context only gradually. Similarly, the

linguistic forms used in the elaboration of causation and manner of movement are available to children from quite a young age, but they occur with a narrative function only in the texts of the older speakers in our sample. Other examples of the same phenomenon are the -mek and -dik nominals that first appear in subordinating constructions, and later in complement clauses.

It was also found that a given function is realized by different forms for establishing levels of connectivity at different ages. For example, with age, existential predications are largely replaced by relative clauses in the introduction of background information. Similarly, adversative relations are expressed by younger children with the coordinating conjunction ama 'but' joining two independent clauses. In the texts of the older narrators the same relation is also expressed with rağmen 'despite' functioning either as a subordinator after a nominalized verb or as a text-level coordinating conjunction between sentences.

In conclusion, we have seen that children's skill in narrative construction involves changes both in conceptual organization and in the ability to manipulate form-function relationships. Underlying both however, may be a deeper level cognitive change. Investigations of narrative abilities within the framework of children's theory of mind suggest that there is "a general change that underlies children's cognitive abilities at about the age of four years [that allows them] to comprehend representations as representations, and that this ability enables the child to appreciate the dual landscape of a story" (Astington, 1990, p. 157). That is, children start to regard the events and actions of the story from the perspective of its protagonists, understanding their beliefs, fears, mental states and intentions around this age. Thus, 4-year-olds, but not 2-year-olds, "are able to see that another's belief is in fact his or her representation of reality. It therefore represents the realworld for the other person, and is the world in which that person will act..." (Astington, 1990, p. 158). In the present data, this ability manifests itself relatively later, with occasional examples in the texts of the 5-year-olds, to be observed fully only in the stories of the older children. This should not be surprising, since in a complex narrative task such as the telling of the frog story, the child is expected to construct a coherent text relating a long sequence of events, and make it meaningful from the point of view of the protagonists experiencing those events. The interweaving of these two levels or landscapes takes place between age 5, when we see the beginnings of it, and 9, when we observe it in almost a mature form. One might say that while the 5-year-old is working on the construction of an objective series of events, the older child has accomplished the higher level task of attributing them as subjective experiences to the person of a protagonist, presenting them from his point of view, that is, the task of subjectification (Bruner, 1986).

6. SUMMARY

6.1. Tense-Aspect-Modality

There is a developmental change from use of mixed tense to a preference for the present and, somewhat less, to one of the two past tenses as an anchor form. Static descriptions, available to Turkish speakers at an early age, are used for the function of discourse backgrounding only by older children and adults.

Tense shifts are unsystematic in the younger age group, but function for backgrounding at older ages. For example, a shift from -di past to the present habitual serves for general informational backgrounding in evaluations, and a shift from the present -iyor to the past perfect serves for temporal backgrounding in retrospection.

Aspectual shifts between stative, habitual, and progressive within a given tense/modality anchor in the preschool texts are also more random, and at best they involve local contrasts between different types of events. In the adult narratives, such shifts function at a more global level, for example for framing the story events recounted in the present or in the past by describing the setting with the use of stative aspectual forms.

In the lexical expression of aspectual distinctions, children prefer the use of adverbs over aspectual verbs. Aspectual modification is made adverbially at the clause level, and so is restricted locally to a single event in the children's texts. Aspectual verbs, marking inceptive, protracted, and lative aspect, increase in the adult texts, and are used for demarcating episode boundaries, so that a series of events falls under the scope of the perspective set by aspectual marking. Adverbial marking is particularly common for categories such as recurrent and iterative aspect, which are not marked morphologically. Adults express twice as many different types of aspect as do children.

6.2. Event Conflation

Different syntactic mechanisms play a role in event conflation in Turkish. These include: sequencing of independent clauses, subordination with adverbials or converbs, tightly embedded complements, and lexicalization. As compared to schoolchildren and adults, who may or may not use a conflating form to present two or more events as closely integrated, the preschool children fail to mark events as related. The proportion of verbs expressing **caused** movement increases slightly from around age 5 years. Also, causative verbs are used to express direct manipulative causation, while other, more syntactic devices, are used for linking less closely integrated situations.

In describing locative trajectories, all-purpose motion verbs and directional motion verbs are both used at all ages. However, with age, there is an increase in the variety and use of locative adverbs and postpositions to the verb, to specify the goal and/or source of an action. Relatedly, with age there is a greater variety of verbs used to encode manner of movement as well as manner adverbs. Adults use the productive verb morphology (particularly the converbs -ip and -erek) for presenting an elaborated view of closely related events.

6.3. Perspective

Younger children prefer an agent focus, while older children and adults can flexibly adopt an undergoer/patient orientation. The strategy of making valency changes on the verb (for example, by passivizing or reflexivizing) and thus presenting events from a perspective of reduced transitivity while maintaining topic, increases with age.

Both younger children and adults prefer the canonical SOV word order. There appears to be no developmental change in the frequency of more marked orders. Although infrequent, subject postposing for topic maintenance appears in the texts of both younger and older narrators. Shifting word order for topic change and defocusing does not seem to present a problem for children.

6.4. Connectivity

The use of different devices for clause linkage in the interests of textual connectivity increases with age. This is reflected in the higher proportion of complex clauses in the texts of the older narrators. The very young children's texts contain only perceptual-spatial connectivity, realized by the use of deictics and the topic/focus particle de 'also' as well as some connectives such as ama 'but'. Starting around age 5, connectivity is indicated by temporal adverbials like sonra, ondan sonra 'then, and then' and by coordinate and subordinate clause-linking devices. Among these devices are the different-subject converbs -ince and -ken and later, the same-subject converbs -ip and -erek. Temporal adverbial clauses with nominalized verb forms and postpositions also increase in frequency during this period. As the proportion of such devices for tighter linkage increases between ages 5 and 9, the proportion of sequential adverbs decreases. Finally, some older children and adults present events in more integrated syntactic packages. For this purpose, speakers make use of adverbs of simultaneity which allow for the temporal aligning of a sequence of events, as well as complement clauses which present one situation as a component of another. Chunks of events linked to one another by converbs and adverbials occur commonly in more mature narratives.