5.2. Motion and Location

Consistent with the verb-framed typology of the language, speakers of all ages rely primarily on verbs of motion to encode trajectories, with limited encoding of source or goal, and very little attention to manner of movement. Some preschoolers add more detail by the use of directional locative adverbs, but this phase is short-lived, and school-age children and adults prefer to devote more narrative attention to stage-setting, thereby allowing locative trajectories to be inferred.

5.3. Perspective

Word order variation is flexibly and appropriately used by the youngest narrators, along with clitic object pronouns, for purposes of topic maintenance and shift, as well as introduction of new participants. These alternatives are supported by person/number marking on the verb, which is also mastered early on. (As a consequence, passive constructions are rare and mature forms in our texts.) Reflexive forms of transitive/causative verbs provide speakers with means of deriving intransitive/inchoative forms, providing a mediopassive or middle-voice perspective.

5.4. Connectivity

Preschoolers make abundant use of simple "chaining" connectives, equivalent to 'and', 'then'; older narrators tend to use such connectives only between larger narrative segments. Temporal subordination with *cuando* 'when' is present from age 3, indicating both simultaneity and immediate anteriority; causal subordination develops in the later preschool period. Relative clauses are used by the youngest children, but acquire an increasing range of functions with age. Presentative and continuative relative clauses are present at earlier ages than in most of the other languages of the study. The youngest children make appropriate use of null subjects. Subject pronouns are vanishingly rare — suggesting that the Spanish-speaking child is faced with the task of learning the appropriate contexts for the use of subject pronouns. Clitic object pronouns, by contrast, are appropriately used by the youngest narrators.

Chapter IIID

DEVELOPMENT OF LINGUISTIC FORMS: HEBREW

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0. INTRODUCTORY NOTE

The language of the Hebrew narratives is contemporary Israeli Hebrew, the standard version of which is exemplified by our adult subjects, who are native-Hebrew speakers from middle-class educated backgrounds, with high school or college-level education, like the parents of the children whose stories are described below. Descriptions of major features of the phonology, morphology, and syntax of current Hebrew are provided by Berman (1978, 1985, pp. 257-263, in press-e). Hebrew texts and examples are given here in a broad phonetic transcription, meant to represent the speech of the adults in our sample, rather than to capture morphophonological distinctions which may still be manifested in the consonantal orthography of Modern Hebrew, but have been neutralized in current pronunciation.

1. HEBREW TENSE/ASPECT

As noted in Chapter IIIo, Modern Hebrew has the least elaborated system of obligatory grammatical marking of tense/aspect distinctions by verb inflections of the five languages under study. Hebrew verbs have a rich array of agreement-marking inflections for grammatical number, gender, and person, but only five obligatory formal alternations marking grammatical mood and tense. These five categories are: infinitive, imperative, present, past, and future, described briefly below as they relate to our narratives.[1]

(1) **Infinitives**: These are the major nonfinite verb form in the language. They take a prefixal *l-*, and function primarily as complements of modal and aspectual verbs which carry tense-marking for present, past, or future, e.g. *roce li-nshox* 'wants to-bite' [*H3a-3;0*], *nisa la-alot* 'tried to-climb' [*H5b-5;1*], or *himshix le-tapes* 'continued to-climb = went-on climbing' [*H5c-5;2*]. They also occur in **purpose** adverbials, with or without an overt conjunction, e.g., *hu raca le-tapes **kdey limco** ota* 'he wanted to-climb **in.order to.find** it' [*H9b-9;2*].

(2) **Imperatives**: This category is marginal to the current study. Imperative forms occur only occasionally in direct speech address attributed to one of the protagonists, e.g., when the boy says to the frogs at the end of

[1] In this chapter, the term "verb" refers to a consonantal root as used in a particular *binyan* pattern or conjugation, e.g. the transitive verb *sagar* 'close, shut' and the intransitive change-of-state verb *nisgar* 'get/be shut' are formed from the same root s-g-r in two different conjugations, and the intransitive medio-passive verb *nistar* 'be-hidden/invisible', the reflexive-passive *histater* 'hide (oneself)', and causative *histir* 'hide (something or someone)' are all formed from the root s-t-r in different conjugations (Section 1.2.1). Examples of verbs in isolation are given in the morphologically simple form of past tense, 3rd person, masculine singular, even when translated by an English infinitive or present tense.

the story *"bo'u, bo'u"* 'come:PL, come:PL' [*H3j-3;9*], or the deer bids the boy *"bo ta'ale el-ay"* 'come climb.up to-me' [*H5i-5;6*].

(3) **Present Tense**: These forms are traditionally termed *benoni* 'intermediate' since they function both as present-tense finite verbs and as participles. They differ from past and future-tense verbs in not being inflected for person but, like nouns and adjectives, only for number and gender. Verbs in this category are used both for immediate present and for habitual and generic or extended present as well as for historic or narrative present. In copular sentences, there is no present tense form of the verb *haya* 'be'. This yields constructions termed "nominal sentences," which consist of a subject NP and a predicate complement without any overt verb form, e.g., *hem me'od acuv-im 'they very sad-PL'* [*H5l-5;9*], *ulay ze lo hacfardea shelo* 'maybe it not his frog' [*H20c*].

(4) **Past Tense**: This is the form par excellence for describing events which took place prior to the time of speaking, irrespective of whether durative or telic in nature, and whether they were ongoing or completed at that time. There is no grammatical marking of aspect on past (or present) tense verbs. Past-tense forms are typically used for all kinds of narratives, including those in our sample. A stereotypic example of how each event in the sequence is presented in this simple past tense is provided by the following excerpt from a 5-year-old story:

(1) *Ha-kelev **lakax** et ha-ke'ara shel ha-cfardea ve **sam*** ota al ha-rosh shelo, az axarkax ha-yeled ***patax** et ha-xalon ve hem **ra'u** ota, axarkax ha-kelev **nafal** ve ha-yeled **yarad** ve hu **xibek** oto.*

'The-dog **took** the frog's basin and **put** it on his head, so afterwards the boy **opened** the-window and they **saw**:PL it, afterwards the dog **fell** and the boy **descended** and he **hugged** him' [*H5b-5;1*].[2]

These two forms, present and past, are thus used for the entire range of time-span from before and up to the time of speaking. As a result, relative tense in Hebrew is expressed by alternations between these two forms in matrix and complement verbs.[3] Past tense followed by present tense

[2] In translating motion verbs into English, we use the Latinate versions so as to retain their flavor as monolexemic compared with Germanic verb plus particle combinations like *go down, go up, go out*, etc. (see Chapter IIIo). In Hebrew these do not represent a higher register but are everyday colloquial verbs. This is also true of the verb *xipes*, which we translate as 'search', *barax* as 'flee', or *radaf* as 'pursue', rather than their everyday Germanic alternants 'look for', 'run away', 'run after'.

[3] There is one complex form: Habitual past is expressed by a past-tense form of *haya* 'be' followed by a present-tense *benoni* participle, e.g., *haya holex* literally 'was go(ing)' [=used to go]. This construction never once occurred in our Hebrew narratives.

represents the simultaneity of the two events, e.g., the boy's discovery of some frogs behind a log is described as: *ve axarey ze hu* ***ra'a*** *et ha-cfardea shelo ve od cfardea-ben kaxa* ***mitxab'im*** *ke'ilu beyaxad* 'and after that he **saw** his frog and another baby-frog sort of **hide**:PL together' [*H9e-9;6*]. Past tense followed by past tense specifies that the event described in the complement was anterior to the matrix-verb event (where the four other languages would use pluperfect forms), e.g., the scene where the boy discovers that his frog is gone is described as follows: *kshe hu* ***kam*** *hu* ***ra'a*** *she ha-cfardea* ***ne'elma*** 'when he **got.up**, he **saw** that the-frog ***disappeared'*** [*H9j-9;8*]. Where a narrative is set in present tense, sequence-of-tense requires that the complement remain in the present for simultaneous events, and switch to the past for anterior events, e.g., an adult describes the same scene thus: *mishe* ***mit'orerim*** *ha-kelev ve ha-yeled, hem* ***ro'im*** *she* ***eyn*** *cfardea, ve hem lo* ***yod'im*** *le'an hi* ***ne'elma*** 'Once they **awaken**:PL, the-dog and the-boy, they **see**:PL that **there** no frog, and they do not **know**:PL to-where it **disappeared**' [*H20c*]. In order to express relative tense between matrix and embedded clauses, Hebrew-acquiring children must thus learn how to alternate between the two forms of present and past — as well as future — tense.

(5) **Future**: Future-tense forms — the third finite-verb inflection in the language — are used for events located temporally subsequent to time of speaking, and in a variety of other contexts where other languages might use subjunctives, conditionals, and other irrealis forms. Like imperatives, future forms are relatively marginal in this set of narratives. They occur mainly in irrealis complements, e.g. *ha-cipor afa alav, ve az hu* ***poxed*** *she hi* ***tered*** *al ha-rosh shelo* 'the-bird flies over him, and then he **fears** that it **will.descend** on his head' [*H4g-4;6*].

By age 3, Hebrew-speaking children generally have command of these five forms of the verb, as part of the obligatory inflectional markers in the domain of the simple clause (Berman & Dromi, 1984). The texts of the youngest children in the Hebrew sample — aged 3;0 to 3;11 — all demonstrate command of a rich range of agreement markers, which include inflections for number and gender on verbs, nouns, and adjectives, as well as person marking for verbs.

1.1. Present and Past Tense

The verbs in the Hebrew frog stories rely heavily on two of the forms listed above: present and past tense. Here, we consider how these two sets of forms are used from three points of view: to encode sequence of tenses (Section 1.1.1), to mark a dominant tense (1.1.2), and in tense shifting (1.1.3).

1.1.1. Sequence of tenses

Children from the youngest age groups use complement clause constructions, mainly with the verbs of perception *ra'a* 'see' or *maca* 'find', with cognitive verbs like *xashav* 'think', *yada* 'know', and address verbs like *amar* 'tell'. No errors were found in sequence of tense use, although children quite often omitted the complementizer *she-* 'that', which is obligatory in these contexts (except in direct speech). Amount of complement clauses does, however, increase with age: Only four of the 3-year-olds and six of the 4-year-olds use such constructions, compared with all 12 of the 5- and 9-year-olds.

Choice of matrix-verb tense depends generally on the dominant tense favored for a particular narrative — either present or past. The single most common construction type has a matrix verb in the present or past tense, followed by a stative complement clause in the present tense "nominal sentence" form — with no overt verb-form, e.g. *hu* ***ra'a*** *she ha-kufsa* ***reyka*** 'he **saw** that the-jar **empty**' [*H3b-3;4*]. These account for well over half of all the complement clauses at ages 3 to 5. Only the 9-year-olds have more complements with lexical verbs than with zero-verb copulas. These manifest all possible combinations, from age 5 up, e.g.:

(2a) **Present + Present = Simultaneous**:
Hu ***ro'e*** *she hu* ***yored***.
'He **sees** that he **descends**.' [=boy sees the dog falling out of the window]' [*H5k-5;9*]

(2b) **Past + Present = Simultaneous**:
Ha-kelev ***ra'a*** *she ha-dvorim* ***yoc'im***.
'The-dog **saw** that the bees **exit**.' [*H4k-4;10*]
Ve ***raca lir'ot*** *ma ha-cvi* ***ose*** *la-kelev*.
'And (he) **wanted to.see** what the-deer **does** to the-dog.'
[*H5g-5;4*]

(2c) **Present + Past = Anterior**:
Ha-yeled ***ro'e*** *she ha-cfardea* ***barxa***.
'The-boy **sees** that the frog **escaped**.' [*H4c-4;3*]

(2d) **Past + Past = Anterior**:
Hu ***xashav*** *she* ***hivriax*** *oto*.
'He **thought** that (he) **made.flee** him.' [=the boy thought that he had chased away the dog] [*H5c-5;3*]

(2e) **Present + Future = Modal-Irrealis**:

*Lo **roce** she ha-kelev **yir'e**.*

'not **wants** that the dog **will.see**' [*H5e-5;3*]

(2f) **Past + Future = Modal-Irrealis**:

*ve **amar** she gam hem **yavo'u***

'and **said** that they also **will.come**' [=the other frogs should come along] [*H5a-5;0*]

These examples show that in order to define a temporal relationship of simultaneity, anteriority, or prospection to the complement, Hebrew speakers need to alternate between one of two tense forms for the matrix verb (either present or past, depending on the anchor-tense selected for narrative as a whole) and between one of three tense forms for the complement clause. Hebrew-speaking children from an early age learn to use the three tense forms to meet the functions of elaborated relative tense marked by distinct inflections in English or Spanish. But fully flexible use of a full range of alternations occurs mainly from age 5 years in our Hebrew narratives. Younger children tend to restrict complements to description of states with present-tense copula constructions without any overt verb form. Only the older children embed ongoing activities within more complex syntactic structures, e.g., the equivalent of 'He saw the frog disappeared' in preference to 'He saw the frog is not there' or 'the jar is empty'. Similarly, chains of complement clauses are found only from age 5 years up, e.g., *az **yada** ha-yeled she hu **roce le-hagid** lo she ha-cfardea **kan*** 'then the-boy **knew** that he [= the deer] **wants to-tell** him that the-frog (is) **here**' [*H5i-5;6*].

1.1.2. Dominant tense

We examined what tense is favored by Hebrew speakers for telling this story, and to what extent they are consistent in reliance on this form — either present or past — as an "anchor" for the narrative as a whole in a larger set of Hebrew narratives: 16 at each of seven age groups, preschoolers aged 3, 4, and 5 years, school-age children aged 7, 9, and 11 years, and a group of 16 college students as adults (Berman, 1988). Our concern was not with children's command of grammatical tense inflections, since this is found among the youngest age group we studied. Rather, each narrative was analyzed for a "dominant tense," defined as 75% or more of all clauses in the text being in either present or past tense, the other verbs being in one of the other three forms: infinitive, imperative, or future.

Findings are set out in Table 1, where the category of "mixed" applies to narratives which have a more or less equal number of clauses in both tense forms.

TABLE 1
Number of Hebrew Texts with Dominant Present or Past Tense Forms in Seven Age Groups [N = 16 per group]

	3 yrs	4 yrs	5 yrs	7 yrs	9 yrs	11 yrs	Adult	Total
Past	5	9	10	14	15	12	8	73
Present	2	1	4	1	—	4	7	19
Mixed	9	6	2	1	1	—	1	20

Two-thirds of the subjects anchored their narratives clearly in the past tense, with only adults showing no clear preference in this respect. This favoring of the past is particularly clear among the school-age children, who rely predominantly on past-tense forms nearly 90% (41 out of 48) of the time. The rise in use of past tense from age 4 years up, and its stability across school age, confirms our prediction that school-age children would adhere quite strongly to the past tense, since this agrees with the narrative norms familiar to them from school readers and from other children's literature and storybooks. Reliance on past tense shows that these narratives were clearly in storytelling rather than in picture-description mode, where present tense is normative.

Yet contrary to what we had expected, the younger children do not rely largely on present tense. Only 15% of 48 preschoolers anchor their narratives consistently in the present, and only two out of the 16 children in the 3-year-old group do so. Instead, more than half the 3-year-old texts demonstrate "mixed" tense usage, creating texts which veer back and forth between present and past tense. This holds for nearly half of all the 3- and 4-year-old narratives (15 out of 32), but for very few of those from age 5 years and up. This indicates that the youngest children have not settled on a fixed temporal mode of predicating across the entire course of their narratives. Rather, they shift tense as they move spatially from one picture to the next and linguistically from one predicate to the next.

School-age Hebrew narratives adhere rigidly to pure past-tense forms — with the exception of occasional sequence-of-tense requirements — in contrast to the youngest children, who feel free to move back and forth across past and present tense as their narration proceeds. However, their shift in tense forms serves very different purposes compared with the more mature narratives.

1.1.3. Tense shifting

In considering grammatical sequence-of-tense, we noted that alternation between the three available forms of present, past, and future provides a means for specifying relative tense — to distinguish between simultaneity, anteriority, and prospection in relating the temporal locus of the matrix verb to the content of an associated complement clause. Here, we propose that switching back and forth between present and past tense forms provides Hebrew narration with a means for signaling aspectual distinctions of a more global, discourse-motivated nature. Speakers may choose to use the narrative past tense for the mainline, plot-advancing events associated with the notion of foreground, whereas background states describing scene-setting or associated circumstances will be presented in contrasting present tense.[4]

For example, a Hebrew adult story starts in present tense for setting the scene, and then proceeds to tell the story in the past, literally translated below:

(3) 'Well, first we **see** a boy and his puppy dog **look**:PL at a frog that he **keeps** in a jar. At night the frog **escaped** when he and the dog **slept**, the frog **removed.itself** from the jar and **fled**.' [*H20a*]

Another adult narrative starts out and proceeds in past tense consistently up until the beginning of the denouement, when the narrator switches to present tense right to the end, thus:

(4) 'And then it turns out that all he [=deer] **wanted to-do was** to get rid of this thing on his head, so when he **found** some kind of high place he **threw.down** the boy from there and the dog, that also **runs ~ ran**[5] together with him also **flies** [=goes flying off]. And to their great good luck they **fall** into some kind of swamp and **are.saved**. And (they) **continue** to-search for the frog.' [*H20b*]

A different motivation for tense switching in adult narratives is illustrated by another narrator (*H20c*). Her long narrative is all in present tense, but she switches to past five times for a variety of purposes, including: to set off a background state from plot-advancing events, as in (5a), or to highlight an event treated as particularly important to the progress of the story, as in (5b). These points are indicated by the verbs in boldface in the literal translations of relevant excerpts in (5a) to (5e).

[4] This differs markedly from reliance on formal distinctions of grammatical aspect marked in Biblical Hebrew between sequentially ordered foreground events in the developing narrative compared with background states or simultaneous and anterior events marked by different verb-forms (Givón, 1977; Hatav, 1985, 1989; Longacre, 1981).

[5] The 3rd person singular Hebrew form *rac* of the verb *la-ruc* 'to-run' is ambiguous between present tense 'run(s)' and past tense 'ran'.

(5a) 'A moonlit night, a boy and a puppy play with a frog that (is) inside a jar. (They) **finished** to-play, the boy and the dog **went** to sleep. The frog plots an escape and runs away ...'

(5b) 'The dog continues to play with the bees and shakes the tree so that the hive will.fall. And indeed, the hive **fell**. Millions of bees threaten the dog ...'

(5c) 'And the bees pursue him, the owl threatens the boy, and the boy **climbed** onto a large rock, and looks for his frog, while the dog ...'

(5d) 'And here they run, run, run and **failed** to notice the abyss gaping before them ...'

(5e) 'And when they approach, they see that it concerns a whole family of frogs. So the boy **took** his frog into his hand, **says** goodbye ...'

This narrator seems to need to break out of the shackles of a monotonous one-tense, one-aspect discourse to highlight momentous change-of-state points in the plot. For her, past tense signifies perfective aspect — and, indeed, the past-tense verbs are all semantically punctual.

A similar use of tense switch is made by another adult whose narrative is in the past except for three present-tense clauses, all pronounced with a highly dramatic intonation: (1) Clauses 9-11: 'In the morning the boy and the dog awoke. What **see** they? No frog! The frog vanished ...'; (2) Clauses 24-25: 'They continued to search, wandered about near the house, and don't **find**'; and (3) Clauses 35-37: 'They asked animals they met on the way; (they) don't **find** the frog': [*H20e*].

Mature Hebrew narrators may thus choose to shift between present- and past-tense forms in different ways, and for different purposes. For them, tense shifting serves diverse discourse functions, all motivated by the overall thematic content of the narrative. In this the adult narratives contrast markedly with the children.

Among the Hebrew 3- and 4-year-olds, switching from present to past or from past to present is typically **item-based**. In some cases, a verb-form that is phonetically ambiguous between past and present tense (like English *cut* or *put*) may trigger a switch from one tense to another — specifically, the forms *rac* 'run/ran', *ba* 'come/came', and *sam* 'puts/has put', in the first conjugation, and the verbs *nixnas* 'come.in/came.in', *nitka* 'get.stuck/got.stuck', and *nishbar* 'breaks/broke' in the mainly intransitive second conjugation. There is also a **semantic** reason why young children switch tense in midgear. Certain verbs are construed as highly perfective or completive in nature, and so for some children they trigger a continuation in past tense even where formerly they had used present tense. This is particularly the case with the verb *nafal* 'fell' and its causative counterpart *hipil* 'make.fall' or 'drop' in our sample.

For example, following three clauses in present tense, a 3-year-old shifts to past tense for these two verbs, and then switches back to present, as in (6).

(6) *Ve po hu ...* ***holex*** *ve hu* ***mexapes,*** *ve hu* ***yashen.*** *Ve po hu* ***nafal*** *ki ha-yanshuf* ***hipil*** *oto. Axarkax hu* ***ose*** *kaxa.*

'And here he ... **goes** and he **searches**, and he **sleeps**. And here he **fell** because the-owl **made.fall** him. Afterwards he **does** like this.' [*H3c-3;5*]

Conversely, a typically durative verb like 'want' may trigger a shift to present tense in the less well-formed narratives, as in the excerpt translated in (7).

(7) 'And the boy he **made** a hole, and the dog he **wants** to take it, and here the boy **dug** a hole, and then the frog **exited**.' [*H4g-4;6*]

Both directions occur in another 4-year-old's description of the boy's encounter with the deer in (8).

(8) *Kan hu* ***shaxav*** *al ec, kan hu* ***roce*** *li-rkav al ha ... kivsa. Ve kan ha-ayil hu* ***hipil*** *et ha-kelev ve et ha-yeled.*

'Here he **lay** on a tree, here he **wants** to-ride on the ... sheep. And here the-deer he **made.fall** the-dog and the-boy'. [*H4h-4;6*]

Immature switches between past and present tense like these are strictly local, and unmotivated in more general, discourse-related terms.

Relatedly, certain temporal adverbs trigger present-tense verb forms in rather idiosyncratic ways among the younger narrators. For example, one 3-year-old starts in present tense, then switches to past tense to describe all the boy's falls and being made to fall, but towards the end gives one verb in present tense, thus: *Hem kol hazman mitgalgelim* 'they all the time roll.around' [*H3k-3;11*]. Another child starts in present tense, shifts to past when she uses the phonetically ambiguous verb *nitka* 'get/got stuck', then goes back to present tense four clauses later, to say: *Ve po hu benatayim holex ve hu mexapes* 'and here he meanwhile goes [=walks] and he searches' [*H3c-3;5*]. These durative or iterative adverbs seem to trigger present tense which younger children may construe (non-normatively) as aspectually durative, by contrast with the for them aspectually perfective past tense.[6]

[6] This suggests, in line with what has been proposed for early development of linguistic temporality, (Aksu-Koç, 1988; Weist, 1986), that these children do have some sense of aspect. Other usages in the 3- and 4-year-old Hebrew texts also indicate some aspectual differentiation. Tense-shifting of the same verb from one clause to the next may denote different phases of an event. For example, a 3-year-old describes the boy's being pushed into the water by the deer by switching from past to present, to false-start present repaired to past, back to present, and again to past tense: *Ve hi* ***lakxa*** *oto bakarnayim shela. Ve axarey ze hi* ***yexola le-hapil*** *oto.* ***Mepi*** *- hi* ***hipila*** *oto,* ***mepila*** *oto, kaxa* ***haya.*** 'And it **took** him in its horns, and after that it **can** [=is able to] **make.fall** him. **Makes** - it **made.fall** him, **makes.fall** him, that's how it **was**' [*H3d-3;6*]. Occasional use of lative is further evidence of aspectual distinctions, as in a 4-year-old's use indicating inception with the verb for 'go' in describing the same scene: *Ve axarey ze hu* ***dahar*** *al ha-ayil, ve hu* ***nafal*** *me ha-ayil, ve hu* ***halax lipol*** *me ha-ayil, basof hem* ***higiu*** *le-makom she* ***yesh*** *bo yerida ...* 'And after that he **galloped** on the-deer, and he **fell** from the-deer, and he **went to-fall** [=was about to fall] from the deer, in the end they **reached** a place which **has** a descent' [*H4h-4;8*].

Lexically-motivated tense shifting is common in the 3- and 4-year-old Hebrew narratives which, as noted, tend toward "mixed" rather than "anchored" tense-usage. The 5-year-old narratives are more like those of the school-age children in this respect. They generally favor past tense, and tense is only occasionally switched in mid-course. In these cases, tense switching reflects a shift in discourse mode, rather than being simply lexically based. For instance, one child starts out in past tense, to tell a tale which opens with 'Once (upon a time) there was a boy ...', then later switches to present-tense in the picture-description mode, saying 'So now he looks for it and he calls to it' [*H5j-5;7*]. Avoidance of back-and-forth jerky swings from past to present and present to past noted for the 5-year-olds applies across the board among the school-age children with their strong reliance on past tense throughout their texts.

In sum, shifting between past and present tense in the Hebrew narratives closely mirrors the general developmental patterns outlined in Chapter IIA. Such shifts are common among the younger children, who fail to maintain a consistent storytelling mode — either deictically anchored present tense for picture description or temporally removed past tense for fictive narration — and they often lack any obvious motivation. The **item-based** nature of their shifts, triggered either by formal ambiguity or by aspectual features of inherent verb-semantics, accords well with Karmiloff-Smith's (1979, 1986b, 1987) "bottom-up" or databased accounts of immature narratives. The older children tend to less tense switching, generally sticking quite rigidly to a single tense. Where their narratives move between past and present, this tends to relate to **local reorganizations** in online text-production. Only the adults use tense shifting as a means of **global discourse organization**, to set off background settings or denouements from the central body of the plot, or to highlight events construed as critical to plot development.

Our findings thus far show that mature speakers of Hebrew, whose grammar confines them to only two tense forms for marking temporality in these narratives, can deploy these quite flexibly for multiple functions. We next consider whether they also use other, "compensatory" devices to express the aspectual distinctions marked inflectionally in the English, Spanish, and Turkish narratives.

1.2. Lexical Expression of Aspect

Hebrew has three lexical devices for expressing aspectual distinctions: derivational **verb morphology**, which differs from tense inflections in being nongrammaticized and so not fully productive across the lexicon — analogous to English prefixal *re-* to express iteration (Section 1.2.1); **verbs of aspect** that express inception — analogous to English *be about to, be going to* — and other phases in a process like *begin, go on, finish* (1.2.2); and **aspectual adverbs** like *already* for perfectness, or *meanwhile* for simultaneity (1.2.3).

1.2.1. Derivational morphology: **binyan** *verb patterns*

Modern Hebrew has a few restricted classes of aspectual marking by means of verb morphology. For example, motion verbs that are nondirectional in meaning may be changed from durative to iterative, as follows: Conjugation 1 *rac* 'run' compared with Conjugation 4 with prefixal *hit-* as in *hitrocec* 'run around', *af* 'fly' versus iterative *hit'ofef* 'fly around, hover'. Verbs in Conjugation 4 (*hitpa'el*) occur in our texts from the youngest age group — e.g., the verb *histakel* 'look (at)' is used without a related verb in another conjugation, and 3- and 4-year-olds also use this conjugation for derived, middle-voice or reflexive verbs that have transitive counterparts in other conjugations, e.g., *hitragez* 'get.angry' (cf. *merugaz* 'be.angry'), *hitxabe* 'hide:REFL' (cf. *hixbi* 'hide:TRANS'), *hit'orer* 'wake.up:INTRANS' (cf. *me'ir* 'wake.up:TRANS'). Yet there are only two instances of Conjugation 4 verbs with an iterative sense in the Hebrew sample: a 7-year-old describes the owl as *hit'ofef* 'flew.around' in the tree; and a 9-year-old describes the dog teetering on the windowsill as *hitno'anea* 'moved.about' (cf. the ordinary verb *na* 'move' from the same root).

Speakers use other devices for expressing iteration and repetition of activities. A favored means at all ages in Hebrew is through lexical **repetition**, with a single verb repeated several times to indicate protraction, as in the following examples.

(9a) *Ve hu* ***halax*** *le-tayel ...* ***halax ve halax****, ve kibel maka.*

'And he **went** for-a-walk ... **walked and walked**, and got hit.' [*H3h-3;8*]

(9b) *Az hem* ***hitgalgelu ve hitgalgelu ve hitgalgelu****.*

'So they **rolled and rolled and rolled**.' [*H3l-3;11*]

(9c) *Ve axarkax hem* ***halxu, halxu*** *ad she higiu ...*

'And afterwards they **walked, walked** until they came ...' [*H5d-5;3*]

(9d) *Ve ha-kelev* ***rac, rac, rac ve rac****.*

'And the dog **ran, ran, ran and ran**.' [*H5g-5;4*]

(9e) *Ve ha-yeled* ***yashan ve yashan*** *ve ha-kelev yashan leyad-o.*

'And the-boy **slept and slept** and the dog slept next.to-him.' [*H5h-5;7*]

Verb repetition occurs more sparingly in the older narratives, e.g., from one 9-year-old: *Ve hem* ***xipsu, xipsu*** 'And they searched, searched'; *Ve ha-kelev* ***barax. Hu barax, barax, barax*** *ve pit'om ra'a ...* 'And the-dog **fled. He fled, fled, fled** and suddenly saw ...'; or *Az ha-ayil* ***saxav oto ve saxav oto*** 'So the-deer **dragged him and dragged him**' [*H9c-9;4*]; and an adult also uses this device as follows: ***Mexapsim, mexpasim,*** *ha-kelev* ***mexapes betox*** *ha-cincenet, ha-yeled* ***betox*** *ha-magaf* '(They) **search, search**. The-dog **searches inside** the-jar, the-boy **inside** the-boot' [*H20C*]. Lexical repetition is a felicitous means of expressing aspectual iteration and protraction in current Hebrew. With the younger children, it sometimes indicates a disfluency, as a kind of hesitation phenomenon. Mature speakers use it more deliberately, often with a drawn out pronunciation of the stressed syllable of the repeated verbs expressive of intensely protracted activities.[7]

Another aspectual function of verb morphology is to express ingression or entering into a state. Conjugation 4 (*hitpa'el*) is used in this sense twice in the school-age Hebrew narratives, both with the verb for sitting. For example, after the boy climbed the tree: *hu* ***hityashev*** *shama* 'he **sat.down** there' [*H9a-9;0*] compared with simple Conjugation 1 *yashav* 'sat'. The other intransitive conjugation (*nif'al*) also occurs occasionally with an ingressive sense, e.g., in the verb *nishkav* 'lie down' compared with basic *shaxav* used by younger children to describe the boy's lying down in bed [*H3h-3;8*] and by older children for how the boy got settled onto the deer's head [*H9j-9;8*].

In general, use of verb morphology for such aspectual functions is rare in the Hebrew narratives, reflecting the generally nonproductive nature of this facet of the *binyan* system of verb-patterns in current Hebrew.[8]

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[7] This should not be interpreted as an attempt to "compensate for" lack of grammatical aspect in Hebrew. The iteration or protraction expressed by repetition denotes the "extended" aspect relevant to different phases of a process, rather than the internal contour of a unified activity as is expressed by progressive inflections on English, Spanish, or Turkish verbs.

[8] This contrasts markedly with their very productive functioning for marking distinctions of transitivity and voice in current Hebrew (Chapter IVC) and in expressing resultativity and causativity. These properties of the *binyan* verb patterns are well known to, and widely exploited by, Hebrew 4-year-olds (Berman, 1985, in press-b).

1.2.2. Verbs of aspect

One class of aspect-verbs express lative aspect, in the sense of moving one's person or changing location in order to perform an activity. The relevant verbs in the Hebrew narrative are the general word for going — *halax*, and the directional verbs for exiting — *yaca*, descending — *yarad*, and ascending — *ala*. A superficially similar picture emerges from the distribution of these forms among the youngest children and the adults by contrast with the older children. There are only two such examples in the 3-year-old texts: *halax le-xapes* 'went to-search' referring to the dog wanting to find the frog [*H3j-3;9*] and *yarad la-asot dvash* 'went.down to-make honey' [sic] [*H3d-3;6*] talking about what the dog was doing with the jar. And among the adults, only the verb for 'go' is used in this way, by only two narrators, once to describe the frog as going outside to take a walk, and once to describe the protagonists' response to the frog's disappearance — in the phrase *holxim le-xapes* 'go:PL to-search'. In contrast, the inception of the search is marked by lative use of 'go' by four of the 5-year-olds, and by the combination *yaca le-xapes* 'exit [=go-out] to-search' by another three 5-year-olds — devices also used by eight of the 9-year-olds. Elsewhere, the basic motion verbs are hardly ever used in a lative sense across the Hebrew texts.

Older narrators make rather wider use of verbs of extended aspect to express different phases in an ongoing process. There are two such verbs: *hitxil* 'begin, start' and *himshix* 'go on, continue' — both followed by a verb in the infinitive.[9] There is a clear developmental trend in use of these forms. None of the 3-year-olds express the idea of inception or initiation of a process, through the verb *hitxil* 'begin, start'. The two children in the 4- and 5-year-old groups who do so, use the verb infelicitously, once as part of a false start at the beginning of a narrative ('The-boy **started**, the boy er ... at night he sat next to his bed and ...' [*H4h-4;8*]) and once as part of a process whose endstate is more relevant than its inception ('The boy slept, and the dog slept with him, and the frog **started** to go-out') [*H5a-5;0*]. This contrasts with the school-age children. Several 7-year-olds, 11 out of the 12 9-year-olds, and all the adults in the sample use this verb appropriately to mark inceptive aspect. This suggests that the Hebrew verb for 'begin' constitutes an important aspectual marker for mature renderings of the story. Examples are: 'The dog found a hive of bees and **began** to play with the hive' [*H9a-9;0*]; 'They didn't find the frog, so then they **began** to-search for it on all sides' [*H9d-9;5*]; or 'And just then came a swarm of bees that the dog made.fall, and **began** to-fly after the dog' [*H9k-9;8*]. Moreover, among the younger children, the verb 'begin' is confined to local activities, such as the dog's beginning to play with the bees. In more mature narratives, it primarily serves the function of episode instantiation (Chapter IVD).

[9] The verbs specifying termination of a process, *hifsik* 'stop, end' or *gamar* 'finish', do not occur across our database in this sense. This is true of the other languages, too, probably because the story does not include noteworthy instances of cessation or termination.

The verb *himshix* 'continue, go on', also followed by a verb in the infinitive, indicates protraction or continuation of a process. It also is lacking in the youngest narratives, but occurs in two 5-year-old texts, e.g. 'And the dog continued to-scratch the tree and to-climb up it' [*H5h-5;5*]. Half the 9-year-olds and all the adults except one use this form at least once. The verb *himshix* thus shows a similar development to *hitxil*, although with lower frequency. The older children sometimes use it to express protraction in relation to events which are continuing concurrently with some other activity on the part of another protagonist, e.g., 'And suddenly there emerged from the burrow a mole, and the-dog **continued** to look up above, at the hive' [*H9f-9;6*]. A more childish use of this verb is: 'The dog searched inside the-hive and **continued** to search, and the-hive fell' [*H9i-9;7*]. Again, use of this aspectual marker, relating to the narrative plot as a whole rather than to an individual scene is confined to adults. For instance, one (*H20e*) repeats the same refrain *himshixu le-xapes* '(they) continued to-search' several times across her narrative, as each attempt gets thwarted.

In sum, Hebrew speakers use specific verbs for expressing the phasal aspects of inception and continuation from late preschool or school age. Earlier avoidance is not due to any structural difficulty, since 3-year-olds make free use of a finite verb plus infinitival complement in the construction traditionally defined as an extended predicate. However, they do so mainly with modal verbs like *raca* 'want', *yaxol* 'be able to', occasionally with verbs of lative aspect like *halax* 'go', *yarad* 'descend', but not with the verbs *hitxil* 'begin' or *himshix* 'continue'. Presenting events as having inceptive or continuative phases in this narrative context requires that children regard a series of events as interlinked and/or a given scene or event as constituting the starting-point or a continuation of a larger chunk out of the entire narrative. This is something which young children still need to learn, over and above the semantics of the verbs *hitxil* and *himshix* and the syntax of verb plus infinitive constructions, which are acquired well before 3 years of age.

1.2.3. Aspectual adverbs

Since the Hebrew verb-system lacks grammatical marking of aspectual distinctions, we might assume that the Hebrew narratives would rely heavily on aspectual adverbs as a periphrastic lexical device to express distinctions that are marked by verb inflections in languages like Spanish, English, or Turkish. In fact, this was not the case. Expressions like *kvar* 'already' for

perfect aspect, *tamid* 'always' or *kol ha-zman* 'constantly, all the time' for durativity, and so on, are rare in the Hebrew texts. The few times they occur, it is in the narratives of the younger children, not of the mature speakers. Thus *kvar* 'already' is used five times in all, by preschool children, never by 9-year-olds or adults. One 3-year-old uses this word, in conjunction with another aspectual adverb *kim'at* 'almost, nearly' as shown in (10).

(10) *Az ha-yanshuf ra'a she hu* ***kim'at*** *hipil oto, ve po hu -* ***kim'at*** *hi -* ***kim'at*** *... hu* ***ba-derex le-ze ...*** *po hu* ***kvar*** *hipil oto la-mayim.*

'Then the-owl saw that he **almost** made.fall him, and here he - **almost** she - **almost** ... he (is) **on.the-way** to it ... here he **already** made.fall him into.the-water.' [*H3l-3;11*]

The many hesitations and repairs and the unclear use of pronominal references make this extract hard to interpret even in context. Yet the child clearly means to specify incipient aspect by her use of the word for 'almost' and perfect aspect by use of *kvar* — particularly since the latter was pronounced with highly emphatic intonation. This is confirmed by a 4-year-old's use of *kim'at* to describe what happens to the boy after he climbs the rock.

(11) *Ve tipes al har exad,* ***kim'at*** *nafal. Ve hu nafal. Ve hu nafal la-mayim.*

'And climbed up a mountain, **nearly** fell. And he fell. And he fell in the water.' [*H4c-4;2*]

The few instances of such forms among older narrators tend to have an explicitly contrastive function, e.g., a 9-year-old describes the dog playing with the beehive and goes on to say: 'And then the-hive **almost** fell, and the-mole came-out, and then the-hive fell **completely**', with *kim'at* 'almost' counterposed by *le-gamrey* 'completely, altogether'.

In sum, uses of adverbial expressions like those meaning 'already' (perfect), 'almost' (incipient), and 'all-the-time' (protraction) are occasional and idiosyncratic in the Hebrew texts, confined to the youngest children. Our findings suggest that any effort to "compensate" for lack of overt markers of such distinctions in the grammar is shortlived. More mature speakers evidently do not need to use periphrastic lexical means to make such distinctions explicit in the context of these narratives.

Two other adverbs which we had not predicted to play a role in these narratives demonstrate a very different picture: *pit'om* 'suddenly' and *benatayim* 'meanwhile, in the meantime'. The first shows an inverse U-shaped distribution, as shown in Table 2.

The word *pit'om* 'suddenly' is used by only a quarter of the youngest children, never more than once or twice per text, and equally sparingly by the

TABLE 2
Distribution of the Adverb *pit'om* 'suddenly' in the Hebrew Texts, by Number of Narrators and Occurrences per Age Group

	3 yrs	4 yrs	5 yrs	7 yrs	9 yrs	Adult
No. of texts with *pit'om*	2	4	7	8	9	4
Total occurrences	3	8	22	32	25	9

adults. In contrast, two-thirds of the children in the middle age groups — 5, 7, and 9 years — use this form, on an average, three or four times per text. The pattern of usage is also developmentally determined. The youngest children use the form in idiosyncratic, unconventional ways. For example, one 3-year-old uses it to mark change, not of event, but of participants: 'And the-bird [=owl] pushed him down. And the dog he ran ... And **suddenly** there is a tortoise here. And here there is also a tortoise' [*H3k-3;10*]. From age 5, the word marks noteworthy new occurrences, as a means of dividing up the narrative into its component parts (see Chapter IVD). Typical is the 5-year-old who uses *pit'om* no fewer than nine times, e.g., Clause 14 — 'Suddenly the dog fell with the jar', Clause 22 — 'And ... the-dog suddenly saw a nest [=hive]', Clause 33 — 'Suddenly Uri [=boy] had the idea to climb the tree ...', Clause 40 — 'And suddenly he saw a tree' ... Clause 43 — 'Then suddenly came an owl' [*H5h-5;5*]. Another 5-year-old uses the word at the beginning of six clauses, e.g., 'And suddenly the boy woke up', 'And suddenly he saw a little hole', 'Then suddenly fell the bees' house' [*H5c-5;6*]. But, as is evident from the English translations, these are not fully felicitous even in the non-canonical function of marking new or noteworthy events in the ongoing narrative. For instance, the content of the story shown in the pictures in no way suggests that the child's waking up was an unexpected or abrupt change of state — as required by the normative referential sense of the word 'sudden'.

Nine-year-olds use *pit'om* more selectively. It is a high-frequency item in their texts, too, but they use it less mechanically than the 5-year-olds. It is not necessarily combined with the coordinator *ve* 'and' as a stereotypic introducer of each successive clause, and may occur in clause-medial or final position, e.g., 'They searched so much in all kinds of holes, that [=till] there jumped out at them **suddenly** a mouselike thing' [*H9b-9;2*], or 'So he swam with the-dog and arrived **suddenly** at a certain place' [*H9d-9;4*]. One 9-year-old always uses the form together with the verb *ra'a* 'see', to signal each encounter with a new and unexpected creature. But even these usages are juvenile, or non-normative, when compared with the adult narratives. Only four adults use this word (often its more literary counterpart *lefeta pit'om* 'all

of a sudden'), and they do so sparingly. The one adult who has the expression several times across her narrative (*H20c*) adopts it as one of several devices to create a self-conscious style suited to more traditional children's literature in Hebrew — including high-register vocabulary and subject-verb inversion (Section 3.1).

A similar developmental pattern emerges for the temporal adverbial *benatayim* 'meanwhile'. It is used by only **one** of the children aged 3 and 4 years, by four 5-year-olds, by half the 9-year-olds, and again by only about a quarter of the adults. In the one 3-year-old text, it seems to function as a semantically unmotivated discourse filler, thus: 'And here the dog gets stuck **meanwhile**', 'And when he once gets stuck **meanwhile**', 'And here he **meanwhile** walks' [*H3c-3;5*].[10]

The 5-year-olds use the word for 'meanwhile' in a mixed fashion. One child, who also uses *pit'om* conventionally, says: 'And he [=boy] and then he went to the tree instead of calling to-it, and afterwards he went **meanwhile** to see who was there' [*H5g-5;9*]. Only from school age is the term used with a well-defined temporal function of indicating **simultaneity** in the sense of one event being background to another co-occurrent event (Chapter IVA), e.g., 'And afterwards the boy went to sleep and the dog climbed up on top of him to sleep together (with him) and **meanwhile** the frog got out of the jar' [*H9d-9;5*]; or 'And the boy continued to search, and the hive fell. And the the boy **meanwhile** searched inside the hollow trunk of a tree' [*H9h-9;7*]. Adults use the word less often, always with the sense of co-occurrence, e.g., 'And from excess of fright, he fell from the-tree. **Meanwhile** the dog searched in another region' [*H20b*]; or 'And out of the tree emerged an owl, and threw him down to the ground. **Meanwhile** the-bees chased after Yoye [=dog]' [*H20g*].

Certain more general observations emerge from the way these two temporal adverbs are used in the Hebrew narratives. First, as relatively high-register items, they are rare in the youngest children's texts. Where the 3- and 4-year olds do use them, they lack any clear referential content. Five-year-olds use them more, with a function which, while semantically unconventional, is discourse-motivated. By age 9 years, usage is closer to the adults, but the terms have a stereotypic, mechanical quality. Adults alone use them sparingly, reflecting individual choice of expressive options. In the present context, *pit'om* 'suddenly' suggests adherence to a style evocative of children's storybooks, while *benatayim* 'meanwhile' stresses co-occurrence of foreground and background events. Second, it is not a priori obvious from the

[10] This child's text in general is sprinkled with temporal adverbs, like those meaning 'once', 'again', and 'over again', used without any clearly conventional referential content.

literal semantic or referential content of such terms what their function is in extended discourse. Thus *pit'om* serves to mark new or noteworthy events in a dramatic presentation of juvenile style narratives; and *benatayim* serves to link two or more events which are concurrently ongoing at a local level for some but not all the older Hebrew narrators. Third, in crosslinguistic terms, seemingly parallel forms may function differently in different languages. Thus *pit'om* appears to behave similarly to its counterpart in German, but not in English; and the word *benatayim* occurs over 20 times across the Hebrew narratives, but its literal counterpart, *meanwhile* is used only once in the entire English corpus.

2. EVENT CONFLATION

We have characterized Hebrew as a **verb-framed language** (Chapter IIIO), since the core information concerning locative trajectories is contained in the verb.[11] We start with a brief description of the motion verbs and prepositions relevant to expression of locative trajectories in the Hebrew database.

2.1. Verbs of Movement

Hebrew verbs of motion typically encode both direction and causation, as illustrated below:

(12)

Root	Gloss	Basic Verb Pattern	Causative Pattern
k-n-s	enter	*nixnas* [P2-*nif'al*]	*hixnis* [P5-*hif'il*]
y-c-?	exit	*yaca* [P1-*pa'al*]	*hoci* [P5-*hif'il*]
y-r-d	descend	*yarad* [P1-*pa'al*]	*horid* [P5-*hif'il*]
'-l-y	ascend	*ala* [P1-*pa'al*]	*he'ela* [P5-*hif'il*]
n-p-l	fall	*nafal* [P1-*pa'al*]	*hipil* [P5-*hif'il*]

The unmarked, general-purpose motion verb *halax* 'go' (and also 'walk') is widespread in the narratives of the younger children, who also use other, more specific motion verbs. For instance, in describing the "ascent" scenes — climbing onto the bed, the tree, the rock, the deer, and the log in the water —

[11] Recall that for a Semitic language like Hebrew, the term "verb" refers to the combination of a consonantal root and an associated morphological verb-pattern (Section 1.2.1). For instance, the four semantically related verbs *nixnas* 'enter, go in', *hixnis* 'insert, put in', *hitkanes* 'assemble:INTRANS, come in together', and *kines* 'assemble:TRANS, bring in together' all derive from the same root *k-n-s* signifying movement towards the inside of a place, used with four different *binyan* conjugation patterns, termed *nif'al*, *hif'il*, *hitpa'el*, and *pi'el*, respectively.

half of the 3-year-olds use the verb *ala* 'ascend, go.up', and another three use the verb *tipes* 'climb'. Their causative counterparts, too, are found in the youngest narratives, e.g., *ha-kelev* ***maxnis*** *et harosh letox ha-kufsa* 'the-dog **inserts** his head into the-jar' [*H3e-3;7*]; *ve kan hu* ***hoci*** *oto* 'and here he **extracted** him (from the water)' [*H4f-4;3*].

These direction-of-motion verbs function much like constructions with the verb for 'go' plus a locative particle in English and German, e.g., *hu* ***ala*** *al ha-ec* 'he **ascended** [=went-up] on the-tree' [*H3d-3;6*]; *ve az* ***yaca*** *ha-cfardea* 'and then **exited** [=went-out] the-frog' [*H4i-4;6*]. Like their Germanic bilexemic counterparts, Hebrew direction-of-motion verbs may occur alone, or governing a preposition before the noun phrase specifying the source or goal of motion, e.g., *ha-dvorim* ***yac'u*** *ve xazru le-...* 'the-bees **exited** and returned to ...' [*H9j-9;8*], and also ***me*** *ha-xor* ***yaca*** *eyze axbar* '**from** the-hole **exited** some mouse' [=a mouselike creature came out of the hole] [*H9j- 9;8*]. The Hebrew narratives make use of both options — bare verb or verb with prepositional phrase — across the age groups, although the younger children use the bare verb far oftener. In describing the dog and/or boy falling from the window, the tree, and the cliff, preschoolers aged 3 and 5 years use a bare verb 70% of the time, compared with 45% of the 9-year olds, and only 8% of the adults. The 9-year-olds add prepositional phrases, while the adults add prepositional phrases and/or locative adverbials meaning 'outside' and 'down(wards)'. Younger children also occasionally use an incorrect preposition, e.g., *nixnas be-* 'enter in' for required *nixnas le-* 'enter to'.

Motion verbs which encode **manner** in our sample include *rac* 'run', *af* 'fly', *kafac* 'jump', used from the youngest age groups. These verbs also have causative counterparts in the *hif'il* conjugation, e.g., *ha-cvi* ***he'if*** *otam* 'the-deer **made.fly** them' [*H5c-5;3*]. The verbs *barax* 'flee' and *radaf* 'pursue' are used from school age to describe, for instance, the dog running away from the bees, and the bees running after the dog. Again, these can be used alone, as bare predicates, or with a prepositional phrase — *barax mi* 'flee [=run-away] from', *radaf axarey* 'pursue [=run after']. But these are not structurally parallel to Germanic verb plus particle constructions since the verb itself encodes the direction and/or manner of activity. Nor do Hebrew motion verbs — whether or not they are marked for manner — have the equivalent of motion verbs like idiomatic 'run into','run around', 'run up'. The Hebrew counterparts of such expressions have no etymological relation to the verb *rac* 'run' or to each other.

In principle, Hebrew-speaking children might use directional adverbs as a redundant compensatory device for marking directionality. Yet this turns out not to be the case. For instance, the adverb *haxuca* '(to the) outside' occurs in only one-quarter of the children's narratives — at most once or twice per text — and it is used with the semantically related verb *yaca* 'exit' only around half the time. The only difference between young children and adults in this respect is that the older narrators make more use of this adverb, with a wider range of verbs. This is true of other adverbs of direction as well. For example, the verb *ala* 'ascend' is followed by *lemala* 'up(wards)' only once across the texts, as is *yarad* 'descend' with *lemata* 'down(wards)', while *nixnas* 'enter' is never once used with the adverb *pnima* 'to.inside'. These adverbs are used more — and with nonsynonymous verbs — by the adults than by any of the children, e.g., *boraxat haxuca* 'flees to.outside' [*H20j*], *afim lemata* 'fly:PL downwards (into the water)' [*H20l*], and *mecic lemala* 'peeps upwards' [*H20c*]. But this merely expresses the lexical specificity and richness typical of the adult narratives. Hebrew narrators in no way make a consistent effort to specify over and beyond what is encoded within the verbs of movement as independent lexical isolates.

2.2. Falling and Throwing in Hebrew

The same trend emerges in the way Hebrew narrators describe the various instances in which the boy and/or dog fall or are thrown — from the window, out of the tree, and into the water. Children rely almost exclusively on the verbs for falling — intransitive *nafal* and its morphologically related causative counterpart *hipil* 'make.fall', equivalent to English *drop* and also *push down* or *throw down*. All of the Hebrew 3- and 4-year-olds use the verb *nafal* on an average three times per story, and over half of them use its causative counterpart. But the children at all ages use *nafal* with some kind of locative prepositional phrase to indicate directionality only around half the time, and they hardly **ever** use expressions of directionality with the causative verb *hipil*.

Where 3-year-olds use a prepositional locative, it will be to express **goal**, e.g. ***al*** *ha-rosh* '**on** his-head' [*H3a-3;0*], ***la*** *brexa* '**to**.the pool' [*H3c-3;5*]. Four- and 5-year-olds occasionally express **source**, e.g., ***me*** *ha-ec* '**from** the-tree' [*H4d-4;2*], but only two preschoolers conflate both into a single clause. One child does so after some backtracking and self-repair to produce the sequence ***me*** *ha-ayil* ***letox*** *ha-mayim* '**from** the-deer into the-water' [*H4h-4;8*], and another uses a complex prepositional in the form ***me al*** *ha-giv'a* '**from on** the-hill' [=from on top of the cliff] [*H5g-5;4*]. Among the preschoolers particularly, the bare verb for falling or causing to fall suffices to express these downward trajectories most of the time.

School-age children, too, often state quite barely that 'he fell', or 'X made.fall him', with a sentence-final intonation indicating that no further specification is deemed necessary. They differ from the younger children in their occasional use of different verbs and/or adverbs, e.g. *ha-yeled af axora*

'the boy flew backwards' [*H9a-9;0*], *ha-cvi zarak oto la-yam* 'the-deer threw him to.the-sea' [*H9l-9;8*], and they occasionally express more elaborate trajectories, e.g., *nafal pnima im ha-rosh* 'fell inwards with his-head' [*H9j-9;8*]. Adults make use of both these devices far more liberally than any of the children. They use the verb *nafal* much less frequently; they occasionally replace it by a more specific manner verb — e.g., *conxim letox* ... 'parachute:PL [=plunge] into ...' [*H20l*]; and they use causative verbs like *he'if* 'make.fly' or *zarak* 'push' in addition to the ubiquitous *hipil*. Moreover, they alone provide relatively elaborate descriptions of locative trajectories, by one of two means. Adults may use prepositional phrases to conflate several facets of a complex event into a single clause, *hu'af al-ydey ha-cvi* ***el me'ever la*** *giv'a* ***el*** *ha-nahar* 'was.made.fly by the-deer **over to beyond**.the hill **to** the-river' [*H20i*], *hipil* ***me'ever la*** *tehom* ***letox*** *ha-bica* 'made.fall i**from beyond**.the cliff **into** the-marsh' [*H20k*]. But they are more likely to separate out different facets of the event by means of several distinct predicates, e.g. *Hu* ***me'if*** *oto mi ha-macok lema'ala. Ha-kelev* ***af,*** *hem* ***noflim*** *ltox* ha-nahar 'He **makes.fly** him from the-cliff on.top. The-dog **flies**, they **fall**:PL into the-river' [*H20b*].

2.3. Summary: Locative Trajectories

Hebrew lacks grammatical particles to specify direction of movement in combination with a nondirectional verb. However, motion-of-direction verbs may combine with prepositional phrases to further specify the source, goal, or path of movement. In our Hebrew narratives, the preschool texts generally contain no more than six or seven prepositions. These are basic, they tend to be monomorphemic and polysemous, and they serve both locative and other functions — e.g., to mark verb-argument case-relations or as lexically governed by verbs which take oblique rather than accusative objects. On the whole, the preschool narratives provide minimal locative information by means of prepositional phrases. In addition to stative *be-* 'in, at', younger narrators use *le-* 'to', *al* 'on (top of)', and ablative *mi-* '(away) from', and the all-purpose comitative preposition *im*, as in *nafal im ha-kad al ha-rosh* 'fell with the-jar on his head'. They also use two lexically complex prepositions *be-tox* 'in-within [=inside]' and *le-tox* 'to-within [=into]'. School-age children add several other locative prepositions, reaching an average of 10 per story. These include *mi-tox* 'from-inside [=off, out of]', *ad* 'up to, until', *leyad* 'next-to', *mi-taxat* 'under(neath), below' and *me-axorey* 'from-behind'. Adults average as many as 13 different locative prepositions per narrative, with not one adult using fewer than 10 such expressions.

This use of a wider range of locative prepositions can be attributed mainly to increased lexical diversity and use of a more formal register from school age on. On the whole, however, Hebrew speakers fail to elaborate

locative trajectories with much specific detail. This impression is confirmed by the paucity of prepositional phrases and other adverbials used to describe the upward (climbing) as well as the downward (falling) paths motivated by the search story. And it is supported by Hebrew descriptions of the location of the calling and searching activities of the boy and his dog. The lexically specific verb *xipes* 'search, look for' occurs in the text of only two children at age 3 and another two at age 4, in each instance with a direct object NP (grammatically appropriate) and no specification of locational goal. Of the five 5-year-olds who use this verb, two mention location, both with the preposition *betox* 'in(side)' referring to the boy's looking in his boots. In marked contrast, **all** the 9-year-olds specify location of the searching activity at least once, as in the following examples from four different texts: *xipes betox xor* 'searched inside a hole', *xipes mitaxat la-avanim* 'searched under to-stones [=underneath rocks]', *xipes leyad ha-kaveret* 'searched next-to [=beside] the hive', *xipes axarey geza-ec* 'searched behind a log of wood'. But this does not mean that these more mature Hebrew narrators are elaborating on locative trajectories in any **linguistically** significant fashion. Rather, consistently detailed specification of the location of the search by the 9-year-olds, in contrast to the younger children, demonstrates increased descriptive expressiveness, on the one hand, and greater reference to overall plot-structure and the search motif as an organizing element, on the other. Over half the Hebrew 9-year-olds use this verb with a locative expression giving a sense of the search as iterative and protracted, by means of the quantifier *kol* 'all, every' to express the equivalent of English *in all kinds of places, in every nook and cranny, throughout the forest.*

In sum, the Hebrew narratives — including those of the older school-age children — lack complex elaboration of locative paths, goals, or sources. At most, speakers mention either the goal or the source, typically in relation to verbs which lack inherent directionality — like looking or searching. The greater reliance on more — and more elaborate — locative and other prepositional phrases among preschoolers compared with older children, and children compared with adults, is attributable to a combination of Hebrew-particular and more general factors. Hebrew-educated schoolgoers and adults have access to a higher-register lexicon and the impact of literacy — in a language which manifests considerable diglossia between everyday spoken and more formal usage (Berman, 1987b; Ravid, in press). They also demonstrate greater attention to thematic coherence and a more general cognitive capacity for expressing richer descriptive detail typical of a more mature narrative style across the languages in our sample (Chapter IIA)

3. PERSPECTIVE

Here, "perspective" refers to the point of view narrators select in presenting the contents of a particular scene (Chapter IVC). This is expressed through the three interrelated factors of: (1) argument array — which referents are selected as syntactic subject or direct and/or oblique objects; (2) transitivity — does someone perform or undergo an activity, and is that activity self-contained or perpetrated upon some other entity; and (3) grammatical voice — active, passive, or middle. Perspective can be either local or global, depending on whether the scene is treated as an isolated situation or as part of a larger narrative context.

Different such options are analyzed for the Hebrew narratives through two scenes which represent complex interactions between a protagonist and an object (the dog getting its head stuck in the jar — Picture 4) and between protagonists (the boy getting carried away by the deer — Picture 16). Table 3 sums up how Hebrew narrators describe the latter scene. The categories encoded are: **No mention** — only one or neither of the protagonists is mentioned; **Boy as agent** — e.g., *hu ra'a cvi ve halax alav* 'he saw (a) deer and went on.him' [*H3l-3;11*]; **Deer as agent** — e.g., *cvi kaze lokeax et ha-yeled* '(a) deer like.that takes the-boy' [*H5;l-5;9*]; **Boy as patient** — e.g. *hu nitla al ha-karnayim shela* 'he got.hung on its-horns' [*H9f-9;6*]; and **Deer and boy have equal weight** — e.g., *ha-cvi gam asa lo, lakax oto + ve hu haya mamash al ha-cvi* 'the-deer also did to.him, took him + and he was right on the-deer' [*H5g-5;4*]; *ha-cvi hitxil li-dhor im ha-yeled + kshe ha-yeled al ha-karnayim shelo* 'the-deer began to-gallop with the-boy + while the-boy (is) on its-horns [*H20k*].

The general development from an agent to a patient perspective, with a concomitant downgrading of the boy as active initiator of all that happens to him, is consistent with what has been noted for the development of narrative abilities in other contexts (e.g., Karmiloff-Smith, 1981, 1983) as well as in these narratives in Hebrew (Berman, 1988) and in other languages (Berman & Slobin, 1987; Slobin, 1990). The global perspective which treats this scene as merely one instance of a more general cluster of events was noted in Chapter IIA. It is confined to the more mature narratives, as in the following translation from Hebrew: 'In the course of their pursuit, they saw different animals, experienced different adventures, an elk and an owl'[*H20f*]. The development of a plot-motivated perspective is also evident from children's descriptions of the dog's entry-into-jar scene. Over half the Hebrew 9-year-olds refer to the jar as where 'the frog was' [=had been] or 'escaped from', but only two 5-year-olds and not a single 3-year-old describe it as 'the frog's jar'.

TABLE 3
Hebrew Perspectives on Boy's Getting Caught by Deer (Picture 16) in Four Different Age Groups [N = 12 per group]

	3 yrs	5 yrs	9 yrs	Adult
No mention	6	0	0	0
Boy = agent	4	2	1	0
Deer = agent	2	7	6	3
Boy = patient	0	2	4	7
Both weighted	0	1	1	1
Generalized mention	0	0	0	0[a]

a. The adult column adds up to 11, since one adult did not mention this scene at all.

Several linguistic devices are available for differentiating perspectives in Hebrew (Berman, 1993). One means of distinguishing between arguments is by prepositional and inflectional casemarking. This is shown in the examples preceding Table 3, e.g., ***Hu halax alav*** '**He** went **on.him**'; ***Hu lakax oto*** '**He** took **him**', *ha-cvi asa* ***lo*** 'The-deer did (something) **to.him**'. Also, dative *le-* can be used to signal an "affectee" or "malefactee" perspective — e.g. *Hu yashan, ve ha-cfardea yac'a ve barxa* ***lo*** 'He slept, and the-frog exited and fled **to.him** [=away from him]' [*H5g-5;4*]. Even the youngest children in our sample have command of these common casemarking prepositions, either as free forms preceding nominals or as prefixes fused to a pronominal stem (Berman, 1985). In their narrations, they use them in the standard form of an unmarked subject NP followed by a direct-object NP with the accusative marker *et* and an adverbial prepositional phrase, e.g., *Hu sam* ***et*** *ha-kad* ***al*** *ha-rosh* ***shel-o*** 'He put ACC the-jar **on** the-head **of-him** [=his head]' [*H3d-3;6*]; *Ha-kelev hixnis* ***et*** *ha-rosh* ***letox*** *kufsa* 'the-dog inserted ACC the [=his] head **into** (a) can' [*H3f-3;7*]. Within these favored sentence schemata, two devices emerge as central to alternating perspective in Hebrew: (1) Speakers may adhere to the canonical SVO order of Modern Hebrew (Berman, 1980; Givón, 1977) and change the verb-argument array by focusing on patient rather than actor as surface subject (Section 3.1); or (2) they may change the basic SVO word order in order to focus on nonsubject elements, and so topicalize predicates, arguments, and/or adverbials by preposing them to pre-subject position (3.2).

3.1. Transitivity and Voice

We noted the *binyan* systems of verb conjugations as having little productivity for expressing aspectual distinctions in current Hebrew (Section 1.2.1). However, it is largely obligatory, and highly productive, for expressing changes in transitivity and voice. There are two major types of transitivity alternations — between intransitive activities (usually in *pa'al* forms) and their causative *hif'il* counterparts, and between intransitive, middle-voice events ("achievement" type predicates) in *nif'al* or *hitpa'el* and their transitive activity alternants. (Compare, for instance, the intransitive and causative verbs in (12) of Section 2.1.) These are generally mastered soon after inflections for grammatical tense and agreement, between ages 3 and 4 (Berman, in press-b). Full syntactic passives, in contrast, occur mainly from quite advanced school age. Use of the intransitive *nif'al* conjugation, which can function both as a middle-voice intransitive and as a full passive form, was analyzed for our narratives as expressing a patient rather than an actor-oriented perspective.[12] Verbs in this pattern are intransitive. They never govern the accusative casemarker *et*, so that they do not take direct objects and cannot be passivized, nor can they ever take the agentive casemarker *al ydey* 'by'. Verbs in the *nif'al* conjugation include (1) a basic direction-of-motion verb — *nixnas* 'enter' (Section 2.1); (2) other change-of-state or achievement verbs of the type termed "unaccusative" (Borer & Grodzinksy, 1986; Grimshaw, 1987), generally with causative counterparts in the *hif'il* conjugation, e.g., *ne'alam* 'disappear' (cf. causative *he'elim*), *nish'ar* 'stay, remain' (causative *hish'ir*); and (3) verbs which may function either as unaccusatives (hence always agentless) verbs or as the passive counterparts of *pa'al* verbs, e.g., *nishbar* 'break [=get-broken]', *nishpax* 'spill [=get spilt]', and also *nitpas* 'be caught, get caught', *nitka* 'be stuck, get stuck'.

Among 3-year-olds, this pattern was used mainly with the motion verb *nixnas* 'enter' (Section 2.1), occasionally for other change-of-state intransitives, e.g., *ve hem* ***nish'aru*** *kan* 'and they **remained**:PL here' [*H3c-3;5*]; *hi* ***ne'elma*** *haxuca* 'she [=frog] **disappeared** outside' [*H3l-3;11*]. There are only three instances of medio-passives in the 3-year-old narratives: one child refers to the jar as *nishbar* 'broke [=got-broken]', another refers twice to the dog as *nitka* 'stuck [=got-stuck]'. The 5- and 9-year-olds use far more change-of-state verbs in general, and over half of them use medio-passives to

[12] There are two other verb-patterns besides *nif'al* which function as passive voice forms, *pu'al* and *hof'al*. However, even 7-year-olds have been shown to avoid these forms in structured elicitation tasks, by contrast with their occasional use of *nif'al* to mark either "true" passives or middle-voice "medio-passives" (Berman, in press-b). Besides, *nif'al* is the only one of these three patterns which figures in our Hebrew children's narratives.

talk about the jar being broken or the beehive having spilt, while a third also talk about the boy and/or the dog as being *nitpas* 'caught', *nitla* 'hung', *nisrat* 'scratched', etc.[13] For instance, in describing the scene of the boy getting caught on the deer, patient-oriented verbs in the *nif'al* form are used by no 3-year-olds, by two children aged 5, by four aged 9, and by five adults. Also, two adults, but none of the children, use a reflexive-type intransitive *hitpa'el* conjugation verb to present the boy as undergoer — *hitlabesh* literally 'get (oneself) dressed, get wrapped around', and *hityashev* 'sit (oneself) down'. In a more extensive data-set analyzed for the dog's entry into the jar scene (Berman, 1993), the patient-perspective predicates *nitpas*, *nitka*, *nilkad* 'caught, stuck, trapped' were used by only 2 out of 28 preschool children, by one-quarter of those aged 7, 9, and 11 years, and by half of the adults. That is, with age, Hebrew speakers make increased use of a productive system of verb morphology to present a non-agentive perspective on events as befalling the boy-protagonist, rather than as prime activator of whatever happens. The means they prefer for doing so is with single-argument intransitive verbs rather than by full or syntactic passives which allow an oblique agent argument.[14]

3.2. Word Order

Modern Hebrew has canonical SVO order, favored at all levels of usage, especially conversational and colloquial narrative style. Departures from SV order are caused mainly by subjectless constructions, which occur in different syntactic contexts at all levels of usage (Berman, 1980, 1990). Our narratives show that subject ellipsis is an important device for achieving text cohesiveness in current Hebrew (Section 4.5). On the other hand, everyday Hebrew shows few traces of the predominantly VS order of Biblical narrative (Givón 1977; Hatav, 1985, 1989). Such predicate-initial constructions occur mainly in existential and possessive contexts with the verb *haya* 'be' or the present-tense existential particle *yesh* '(there) be'. These are common from the youngest narrations — e.g., ***yesh*** *yeled ve yareax ve kelev* 'be (a) boy and (a) moon and (a) dog' [*H3f-3;7*]; *pa'am axat* ***haya*** *yeled ve* ***haya*** *lo kelev* 'one time was (a) boy and was to.him dog [=Once there was a boy and he had a

[13] 9-year-olds and adults also make quite wide use of the "unaccusative" verb of inner-state *nivhal* 'be.scared, get a fright', although only the adults use its causative counterpart *hivhil* 'make.scared, frighten'.

[14] These occur in only **one** Hebrew text, as a device used three times in a short narrative for each instance where the boy is described as being harmed by animals, e.g., ***hutkaf*** *al-ydey shney-hem* '**was.attacked by both.of-them**, ***hu'af*** *al-ydey ha-cvi* '**was.plunged** by the-deer' [*H20i*].

dog]' [*H5d-5;3*]. In the adult texts, such constructions are confined mainly to the initial **scene-setting** part of the story.

Another common, though non-obligatory context for VS constructions is with "presentatives," i.e., predicates which describe appearance on (or disappearance from) the scene (Givón, 1976; Ziv, 1988). Typical contexts in our narratives are scenes where new characters emerge — the mole out of a hole in the ground, the owl out of the hole in the tree, and the bees out of the hive. Examples are given in (13).

(13a) *Ve me ha-xor **yaca** axbar*

'And from the-hole **exited** (a) mouse.' [*H5g-5;4*]

(13b) *Ve pit'om **hecic** me ha-xor axbarosh.*

'And suddenly **peeped** from the-hole (a) rat.' [*H7d-7;5*]

(13c) *Ve bediyuk **ba** nexil ha-dvorim.*

'And just (then) **came** the swarm of bees. [*H9j-9;8*]

(13d) *Le-feta pit'om **megiax** xoled mitox xor.*

'All-of a sudden **pops** (a) mole from-inside (a) hole.' [*H20c*]

These are contexts where the grammatical subject is not a possible (or at least a good) candidate for topichood. VS order assigns the subject nominal a dominant status, serving to introduce new information into the text — in our narratives, to present a new participant in the story — and at the same time focuses on the predicate as clause-initial (Giora, 1981, 1985a, 1985b).[15]

Inversions of the normal SV order are rare in spoken Hebrew, and they are grammatically prohibited if the subject is a personal pronoun (and hence represents topical old information). [16] Nonetheless, we expected the VS option to be quite common in our sample, since this order — which was basic to the narrative discourse mode of classical Hebrew and is still favored by some contemporary Hebrew novelists — is widespread in the archaic-sounding texts of much current Hebrew children's literature (Ziv, 1988). And we expected VS order to be favored for scenes where a new participant enters the stage — as in the examples in (13). Our findings only partially confirm these predictions. VS constructions are rare among the younger children — used by three 3-year-olds and seven of the 4-year-olds, in only 2.5% of their clauses altogether. Three-year-old usage is occasionally anomalous, but 4-year-olds use VS appropriately, with an existential or possessive 'be', or with a change-of-state verb like *nishbar* 'break, get-broken', *nirdam* 'fall.asleep', *nafal* 'fall', and an occasional presentative *ba* 'come', *yaca* 'exit [=come-out, emerge]'. Older children use VS with lexically specific verbs rather more, in nearly 5% of all clauses in the texts of the 5-, 7-, and 9-year-olds. The bulk of 5-year-old VS clauses are used by only two children, but they are more evenly distributed across the 12 9-year-olds. The 5-year-olds also use VS with a variety of predicates, whereas most such clauses among the school-age children have presentative predicates — *ba* 'come', *yaca* 'exit' *higia* 'arrive'.

We conclude that children know the grammar of VS constructions by as young as age 3 or 4. Later on, they may extend it to inappropriate contexts, to give their texts a deliberately "literary" or storylike flavor. In contrast to 5- and 7-year-olds, the 9-year-olds tend to adhere conservatively to SV order, most of them using it with an occasional presentative or else not at all. Adults, in contrast, show several different patterns of VS usage. Most use it sparingly, like the 9-year-olds, with a varied range of more lexically specific presentative verbs; one avoids it altogether (H20a); and some use VS in one-quarter to a third all their clauses (H20c, H20d, H20k). For them, it constitutes an expressive option suited to a deliberately narrative style of presentation.

In sum, Hebrew narrators learn to use VS constructions as part of an emerging narrative stance. At one level, they use this device in a plot-motivated way, in describing the entry onto the scene of a new protagonist — in this story, another creature that suddenly attacks the boy — an owl, a gopher, or a deer. Some form of the verb *yaca* 'exit, come-out, emerge' is so common as to seem almost formulaic. Yet narrators are free to select other options for introducing a new topic with ordinary SV order, whether with a presentative verb or not. Examples, in translation, include: 'He sees the owl exit(ing)' [*H5l-5;9*], 'And suddenly the boy saw that a mole comes out' [*H7g-7;6*], as well as 'And the boy searched near where a mole digs, and the mole exited' [*H9g-9;6*] or 'They looked in the hole of (a) mole. Suddenly the mole exited' [*H9l-9;8*]. Speakers have various options for specifying **topic perspective**, an ability which is well-established in the 9-year-old narratives. They may use VS to introduce new participants, but they can also alternate

[15] VS constructions sound distinctly odd with nonpresentative predicates or verbs of durative activity predicates and/or with definite NP subjects, e.g., the second of these two clauses: *Hu yaca haxuca ve **nafal** ha-kelev* 'He exited outside and **fell** the-dog' [*H5i-5;6*]. Similarly, the first of the following two clauses is well-formed, with a VS presentative predicate, but the one which follows it is anomalous: *Ve **yaca** mi-shama cipor ve **barax** ha-kelev* 'And **exited** from-there (a) bird and **fled** the dog' [*H5i-5;6*]. Even in English, a presentative predicate allows such inversion, particularly if preceded by a locative expression, e.g., *Out of the reeds come some baby frogs* [*E-20j*].

[16] A cross-sectional survey revealed fewer than 10% VS clauses in preschool children's conversational usage, nearly all of them existentials and possessives with initial *be* (Dromi & Berman, 1986). Longitudinal data also reveal very low occurrence of VS constructions in the speech of Hebrew-speaking children aged 1;6 to 3 years as well as in their parental input (Berman & Weissenborn, 1991).

between nondefinite clause-final **object** nominals in one clause and definite clause-initial subject nominals in the next. On the whole, Hebrew speakers very much adhere to canonical SV(O) order wherever a surface subject is required. Two 5-year-olds (*H5g-5;6* and *H5h-5;6*) and three 7-year-olds in the early phases of literacy acquisition show a stylistic preference for VS — evidently aiming to confer a literary or archaic flavor to their narratives; in contrast, it is avoided by 9-year-olds, and is selected as a self-conscious rhetorical option by an occasional adult.

This finding is confirmed by analysis of SV constructions which are not clause-initial. Modern Hebrew allows a wide range of dislocated constructions, in which a nonsubject argument or an adverbial adjunct is preposed to the subject NP for purposes of focus and topicalization. These include the left-dislocation traditionally termed *yixud* 'particularization' in literary Hebrew, in which the clause retains a pronominal copy of the fronted NP, e.g. *Ha-cfardea, hem xipsu* ***ota*** *be-xol makom* 'The-frog, they sought **her** in-every place', *Cfardeo, ha-yeled kara* ***la*** *shuv va shuv* 'His.frog, the-boy called **for.her** again and again'. Only one such construction was found in our narratives, which are typical of spoken usage rather than of more formal written style. Hebrew also allows simple fronting of postverbal nonsubject arguments, e.g. *Haya lo cfardea she* ***ota*** *hu sam betox cincenet* 'He had (a) frog that ***her*** he put inside (a) jar' [*H20e*]; *Ax* ***et ha-cfardea*** *lo mac'u* 'Yet ACC **the-frog** (they) not found' [=but the frog they did not find] [*H20f*]; *Ve mi* ***mishpaxat ha-cfarde'im ha'elu*** *hem lakxu cfardea* 'And **from the family of those frogs** they took (a) frog' [*H20h*]. Such constructions are also very rare, and occur mainly in the adult narratives. Again, our Hebrew narrators fail to avail themselves of a rich apparatus for fronting of object arguments as sentence topics.

The commonest type of dislocation we found are preposed adverbials, e.g., *Hem ra'u ec.* ***Al ha-ec*** *hem ra'u kadur hoki* 'They saw (a) tree. **On the-tree** they saw (a) hockey-ball' [sic] [*H5a-5;0*]; *Az* ***ba-xor shel ha-ec*** *haya yanshuf* 'So **in.the-hole of the-tree** was (an) owl' [*H9e-9;6*]; ***Sham leyad ha-nahar*** *shama eyze kol mukar* '**There by the-river** (he) heard a familiar voice' [*H20i*]. Preschoolers only rarely prepose locative adverbials, whereas over half the 9-year-olds, and nearly all the adults do so once or twice across their narratives. These serve to break up the monotonous SVO order of stringing one simple clause after another, by focusing on the locative site or source of an event which is presented as new information.

Some narrators also use right-dislocation, e.g., *Aval hu ka'as, ha-yeled* 'But he was.angry, the-boy' [*H3a-3;0*]; *Hu ala al ha-ec, ha-yeled* 'He ascended on the-tree, the-boy' [*H3d-3;6*]; *Hem yashvu, ha-kelev ve hu* 'They sat, the dog and he' [*H9k-9;8*]. These, too, occur occasionally, although they

are a well-established device in colloquial Hebrew. With the younger children, they are indicative of disfluency, or of a need to clarify the identity of a referent, rather than a deliberately focused perspective.

In sum, Hebrew speakers avail themselves primarily of verb morphology, less of subject-verb inversion or adverbial preposing, to depart from the neutral, unmarked perspective of SV(O). Across their narratives, these constructions are typically identified with Actor-Activity with or without specification of Undergoer and/or Location or Source — in that canonical order. With age, the narratives show more departures from this standard presentation of events, through increased reliance on an SV Patient-Event orientation, on the one hand, or through clause-initial lexical, presentative predicate or locatives which focus on the site of the event, on the other.

4. CONNECTIVITY

Narrators' choice of means for marking the temporal and logical relationship between events is affected by a combination of factors: (1) The range of devices available in the grammar and lexicon of a given language — their **structural** options — and the preferences they have for expressing certain kinds of relationships — the **rhetorical** options favored by their native language; (2) the overall organizational schema they adopt for presenting their narrative — at both the local and global level; and (3) stylistic preferences and inclinations of individual narrators. This section aims to show how these factors interact in the Hebrew texts to yield the following developmental and rhetorical patterns: The youngest children rely on deictic means of marking the discourse as ongoing (Section 4.1); children in the middle age ranges organize their narratives by means of temporal chaining (4.2); use of the coordinating conjunction *ve* 'and' decreases with age, serving quite different functions at the different stages; subordination increases as a means of event packaging with age (Section 4.3); and topic ellipsis is available to children on a local syntactic level and is used by adults as a means of organizing longer stretches of text (4.4).

4.1. Deictic Utterance Chaining

Various forms demonstrate that the Hebrew 3-year-olds are chaining their narratives from one point in the here-and-now (hence deictically anchored) situation of the ongoing discourse, rather than in terms of an overall plot schema. These include: reliance on deictics like 'now' or 'here' rather than markers of temporal sequence like 'then' or 'afterwards'; repetition of the same lexical items, phrases, and/or clauses coupled with the word *gam* 'also, as well'; and lengthy sequences of clauses all introduced by the single conjunction *ve* 'and'. The texts of the 3-year-olds average around five

instances per text of the deictic items *po* 'here', *hine* 'here's' (like French *voici*), and *axshav* 'now' — significantly more than any other age group (Berman, 1988). Deictics are used slightly less by 4- and 5-year-olds, around four times per text, as against once or twice per text among schoolchildren (7, 9, and 11 years of age), and hardly at all among adults.

Deictic anchoring is illustrated by the excerpt in (14) from the first part of a 3-year-old Hebrew text (set out with one clause above the next).

(14)	***Po** ha-yeled yoshev*	**Here** the-boy sits
	ve ha-cfardea ... yoshevet,	**and** the-frog ... er sits:FEM
	ve ... az ha-cfardea yocet.	**and** ... then the-frog exits:FEM.
	*Ve **po** ha-kelev nitka benatayim,*	**And here** the-dog is.stuck meanwhile,
	ve hu merim et ha-magaf gavoa.	**and** he raises ACC the-boot high.
	Ve hu mexabek oto	**And** he hugs him
	*Merov she hu lo mitnaheg yafe **kan**,*	From that he not behaves well **here**,
	ve she hu pa'am nitka benatayim.	**and** that he once is.stuck meanwhile.
	Ve od pa'am hem halxu	**And** another time [=again] they went
	ve hem nish'aru kan.	**and** they stayed here.
	Po hu gam od pa'am raca la'asot kaxa	**Here** he once more wanted to do like that.
	Ve po hu benatayim holex.	**And** here he meanwhile goes. [*H3c-3;5*]

The text in (14) manifests considerable connectivity, since each segment echoes an earlier one or is marked as the next step in the narrative. This is achieved by deictic chaining — overt marking of each clause as being added on to what has just been said — by the clause-initiating *po* 'here' and *ve* 'and', alone or in combination. 24 of the 29 clauses of this child's text are initiated by one or both of these markers. Nor is this an exception for the younger children, as shown in (15), a literal English translation of a full 3-year-old Hebrew text.

(15) 'A frog went into the jar, and then the ... the boy fell, and the frog went out. And the dog put its head inside the jar. The boy took the dog in his arms. And the boy calls for the frog. And the dog wants to climb up [=the tree]. And ... and **here** a mouse goes inside the hole. **Here** the dog fell. And the dog ran [=away from the bees]. And then the bird came. And the boy went up the mountain [=the rock]. And the deer up ... and the deer went up the mountain. And **here** the deer **also** went up the mountain. And the boy went to the sky. And the boy went into the sea with his shoes (on). And **here's** the boy. **Here** the dog goes into the sea. **Here** are frogs. **Here's** the dog and frogs.' [*H3g-3;8*]

Examples (14) and (15) are typical 3-year-old narrations, where the spatial term 'here' anchors the ongoing discourse in deictic picture description. Repeated use of 'and' to introduce each new utterance communicates that more is to come, the main function of children's early use of this marker in interactive conversational discourse; in these texts, it also provides a means of successive chaining of each new predication to the preceding ones (Berman, in press-c).

Children use two other means for cementing the discourse into a unit which is cumulatively rather than hierarchically organized. First, the word *gam* 'also, too, as well' is widely used by the younger children — at least once by nine of the 3-year-olds, eight of the 4-year-olds, and only six of the 5-year-olds. As shown in (15), this word reveals an immature reliance on repetition of the same content to describe distinct events. Another example is when a child says 'And the boy goes up on the deer, and also the boy sits on the deer' [*H3e-3;7*]. From age 5 on, the word is used more felicitously, with the semantically appropriate function of specifying the same situation as applying to two different participants — e.g., 'And the dog wanted to jump from the window, and and ... he jumped, and the boy watched, and after that the boy **also** jumped' [*H5e-5;3*]. In the 9-year-old narratives, the form is used with a combination of semantic felicity, syntactic complexity, and discourse-based motivation, e.g. *Ha'ayil hipil **gam** et ha-yeled ve **gam** et ha-kelev* 'The-deer threw.down **also** ACC the-boy and **also** ACC the-dog [= both the boy and the dog]' [*H9k-9;8*]. In the adult narratives, *gam* provides a **stylistic** option for marking thematic reiteration, or else it has a distinct discourse motivation. Narrator H20b, for instance, uses *gam* only to describe the **dog's** activities. She refers first to the boy as main protagonist, then to the dog as of secondary importance, in such terms as: 'And the dog also slept', 'And the dog also ran with him', 'And the dog also flew (off the cliff)'.

These different uses of the Hebrew form *gam* illustrate points which recur throughout this chapter (and the book, in fact). In terms of form-function relations, occurrence of *gam* as a means of marking narrative connectivity shows that it is not always possible to establish a priori what range of forms will prove relevant to any particular range of functions in extended discourse. In crosslinguistic terms, the literal counterpart to this term need not have the same function in discourse produced by children speaking languages other than Modern Hebrew.[17]

[17] The form *auch* seems to perform a similar function in the German children's frog

From a developmental point of view, we see the following progression. (1) The younger children make non-normative use of the form, giving it the unconventional discourse function of an immature device for marking connectivity, where this is defined as some ill-defined connection between what has just been said and what is currently being talked about. This form thus functions as a **precursor** to more mature, normative marking of connectivity in Hebrew narrative discourse. (2) From around age 5 years, *gam* is used with conventional semantic content. (3) Among older children, it may be combined with complex syntactic constructions to present different facets of a particular event, as a means of **event conflation**. (4) Lastly, some adults will choose to use the term with overarching discourse-based motivation — as a matter of personal rhetorical choice though not of grammatical necessity. Use of the form *gam* in these texts illustrates another developmental theme, linking the narrations of the youngest subjects with those of the adults. The 3- and 4-year-olds' often infelicitous use of the term is sometimes quite idiosyncratic. Because they do not fully master the conventional meaning or the syntactic constraints relevant to its discourse-appropriate usage, different children tend to use the term in rather different ways. The children from age 5 up use it conventionally, without much individual variation. The adults, again, are free to use it in individual ways suited to each narrator's selection of a particular narrative style and his or her own range of expressive options.

4.2. Temporal Chaining

Temporal chaining characterizes the texts of children who have a sense that events are organized sequentially, following one another in time within narrative mode (Berman, in press-c). The Hebrew forms which demonstrate this are the expressions *az* 'then', *axarey ze* 'after that', and *axar kax* 'afterwards' — often used with the coordinator *ve* 'and'. Children from age 4 to 9 years use these forms significantly more than either 3-year-olds or adults (Berman, 1988). They occur an average of around 10 times per text in these "middle" age groups, but only around four times per text in the two extreme groups. Example (16) is a typical example from a Hebrew 4-year-old who fails to organize his story in a plot-motivated way around the theme of the search.

(16) 1 'So he saw
2 And afterwards the frog went out.
3 Afterwards the dog went inside the frog's jar.

stories (see Chapters IIIB, IVA).

4 And he was mad at him.
5 He fell, the dog.
6 Afterwards, he called for the frog,
7 And - and the dog also. [= And the dog did so, too]
8 Afterwards he ... afterwards - afterwards he went out.
9 And he - and he climbed the tree.
10 And afterwards he fell from the tree.
11 And afterwards the dog ran away.
12 And afterwards he sat on those things.
13 And afterwards he went up on stones.
14 Afterwards he - he - he went with him [=deer].
15 Afterwards he, he falls, with the dog. ...
22 And afterwards they took the little frog,
23 And they said goodbye to the big frog.' [*H4d-4;2*]

Children's overuse of these temporal markers shows they have entered the narrative mode. These forms provide a mechanical means for temporal chaining, to announce each successive step in an unfolding discourse. With age, children learn to use these markers more selectively, and more appropriately. Mature narrators will introduce these overt markers of temporal sequentiality only occasionally, to emphasize a discourse-motivated shift from one stage in the plot to another (Chapter IVD).

4.3. Coordination

Hebrew coordination is structured much like in English, by means of the basic conjunction *ve* 'and'. Use of this form for connecting events in Hebrew shows the following development. Initially, children use *ve* as a merely "utterance-chaining" device, to introduce any new clause — as in the 3-year-old texts (14) and (15). There is no necessary semantic or discourse-motivated relation between the clauses introduced by *ve* — e.g., 'The frog er ... it was here, **and** - he also looked at it, **and** it was night' [*H4b-4;2*]. Most of the 3- and 4-year-olds use *ve* in this way, as a "next-utterance introducer," whereas 5- and 9- year-olds use it to chain **clauses**, so marking events in sequence. Around half of all clauses of the 5- and 9-year-old Hebrew texts are introduced by *ve*, compared with only one-third of the adults. (A detailed analysis of this phenomenon is provided in Berman, in press-c, comparing early conversational with narrative data.) This is exactly in line with our finding for the limited adult use of sequential connectives like 'then' or 'afterwards'. The conclusion is that the older children in our sample have mastered

the grammar of coordination, both its syntax and semantics, and they know, moreover, that in narratives, events follow one another in temporal sequence. Consequently, they use *ve* together with other forms that mark the unfolding or chaining of events in sequence. Adults in contrast know that these markers are unnecessary, since having one event follow another constitutes the **default** case in narrative. They use *ve* mainly as a syntactic (primarily same-subject) coordinator; they rarely use *ve* or any other means for explicit marking of narrative sequence; and they rely on other devices for embedding, as noted next.

4.4. Subordination

Subordinate clauses are constructed in much the same way in Hebrew as in English, with the following differences. A single subordinator marker *she-* 'that' serves current spoken Hebrew in all three types of subordination.

(1) It is the only complementizer occurring with non-question complement clauses — e.g., *Hu xashav* ***she*** *hu hivriax oto* 'He thought **that** he chased.away him' [*H5c-5;3*]; *Hu me'od da'ag la, ki ra'a* ***she*** *hi ne'elma* 'He was.worried about.it, **because** (he) saw that it disappeared' [*H9c-9;4*]. The complementizer is obligatory, and cannot be elided like English *that*. Children from age 3 years use these constructions in the context of verbs for seeing and thinking and, among the older children, of being afraid (that something will happen).

(2) The subordinator *she-* is also the main relative clause marker in spoken Hebrew, and is found occasionally in our 3-year-old narratives. The form *she-* is not a relative pronoun, since it merely subordinates the relative clause, and occurs either alone, or with a resumptive pronoun copy of the head NP, as follows. Clauses which relativize subject NPs need no such copy, e.g., *Hu lakax cfardea axat* ***she*** *hayta shayexet lo* 'He took one frog that used.to belong to.him' [*H5a-5;0*]. Clauses which relativize direct-object NPs may but need not have a pronoun copy. The following are both well-formed, (a) without a resumptive pronoun — *Hem xipsu betox geza ha-ec* ***she*** *hem mac'u* 'They searched inside the tree-trunk **that** they found' [*H7k-7;9*]; and (b), with a resumptive pronoun — *Hayta sham kaveret shel dvorim* ***she*** *ha-kelev nora raca litfos* ***otam*** 'Was there a hive of bees **that** the-dog terribly wanted to-catch **them**' [*H9j-9;7*]. A resumptive pronoun is obligatory where the relativized NP is oblique, i.e., marked by any preposition other than the accusative direct-object marker *et* — e.g., *ha-kli* ***she*** *ha-cfardea hayta* ***bo*** 'the-jar **that** the-frog was **in.it** [= that the frog had been inside]' [*H9i-9;6*] (see Chapter IVB).

The number of speakers using a relative clause one or more times increases exponentially in the Hebrew texts: from two at age 3 years to five at age 4 and eight at age 5; and 11 of the 9-year-olds and adults use them.

Nearly all the 3- and 4-year-old relative clauses, and over half those of the 5-year-olds, contain relativized **subjects** rather than objects, e.g., the equivalent of 'a boy that threw the frog' [*H3e-3;7*], 'the cube that hangs on the tree' [*H4g-4;3*]. In contrast, around two-thirds of the 9-year-old relative clauses relativize object or locational NPs — e.g., with a direct object, the equivalent of 'the toad that they found' [*H9i-9;7*]; with an oblique object — 'the owl that he called to' [*H9f-9;6*]; and, predominantly, with a locative phrase such as '(a) burrow that above it [=above which] was (a) beehive' [*H9e-9;6*].

Surprisingly, many of the relative clauses used by children are structurally ill-formed, even by standards of everyday colloquial usage. This is most notable among the 9-year olds, possibly because they construct more complex relatives than the younger children. Nearly all errors are in use of the resumptive pronouns. Younger children tend to insert redundant subject pronouns — e.g., the equivalent of 3-year-old 'a boy that **he** was very cute', or 5-year-old 'a boy that **he** caught a frog'; older children either omit the oblique pronoun, or else they repeat the full noun phrase or produce some incorrect version of the required pronominal form. The example in (17) is with a repeated NP and in (18) with omission of the obligatory resumptive pronoun, both from 9-year-olds.

(17) *Az ha'ayil saxav oto ve saxav oto, ve hu nafal im ha-kelev shelo letox ha-nahar. Em ... hu nafal letox ha-nahar* ***she ba-nahar betox*** *yesh cfarde'im.* (cf. ***she betoxo*** *yesh cfarde'im*)

'So the deer dragged him and dragged him, and he fell with his dog into the-river. Er ... he fell into the-river **that in-the river inside** are frogs.' (cf. **that inside-it** are frogs) [*H9d-9;4*]

(18) *Hu higia le-macok* ***she mitaxat*** *haya bica.* (cf. **she mitaxat-av** hayta bica)

'He reached to a-cliff **that under** was (a) swamp.' (cf. **that under-it** was:FEM (a) swamp) [*H9i-9;7*]

These errors seem due to difficulty in processing of the internal structure of relative clause constructions rather than to lack of grammatical mastery of the syntax of relative clause formation at the level of the isolated sentence. They suggest that in ongoing discourse, given the pressures of online processing and organization of information, speakers will opt for descriptive expressivity — which may sometimes be at the expense of structural accuracy.[18]

[18] This seems to be the case in relative clause construction in general. Listening to native adult speakers of English, even in relatively structured situations of lecturing or formal addresses, one is struck by the number of breakdowns in grammaticality in the relative clauses which they produce.

(3) The subordinator *she-* also serves in a third type of dependent clause construction — adverbials. These are typically introduced by prepositions which combine with *she-* to form subordinating conjunctions, e.g. ***axarey she*** *hem halxu lishon* '**after that** they went to-sleep' [*H9f-9;6*]; *hem himshixu le-xapes* ***ad she*** *ha-kelev nafal* 'they continued to-search **until that** the dog fell' [*H9g-9;6*]; ***bimkom she*** *ha-kelev yihye acuv, hu likek oto* '**instead that** the-dog will.be sad, he licked him [=instead of the dog being sad, he (=dog) licked him (=boy)]' [*H9k-9;8*].

The Hebrew narratives show a clear age-related development in amount and variety of adverbial subordination. Only two 3-year-olds use these constructions, but seven 4-year-olds, nine 5-year-olds, and all the 9-year-olds. The 3- and 4-year-olds use no more than one or two subordinators per text, limited to the monolexemic items *ki* 'because' and *she-* 'that' used as a truncated form of *kshe-* 'when, while, as', which they use to express cause and temporal contiguity. The 9-year-olds average around four such constructions per text, with as many as nine different subordinators. These include the more normative *kshe* 'when, while' (as common as the general subordinator *she-* in this temporal sense); several other temporal conjunctions — *ad she-* 'until', *me'az she* 'since', and *axarey she* 'after'; and other logical connectives — causative *mipney she-* 'because' (a higher-register variant of *ki*), purposive *kdey she* 'in order that' and *bishvil she* 'so that', and concessive *bimkom she-* 'instead that' and *afilu she* 'even that = even though'. The adult texts average five or six subordinators each, with a much wider range of lexical items — on a higher register of usage and denoting more specific semantic relations — e.g., ***mi-she*** *mit'orerim* '**from-that** (they) wake.up [=upon their waking up]', ***be-od she*** *ha-kelev xozer ...* '**in-another that** [=whereas] the-dog returns ...' [*H20c*]; ***bi-zman she*** *hem yeshenim* '**in-time that** they sleep [=while they are sleeping]' [*H20h*], ***lifney she*** *hem holxim lishon* '**before (that)** they go to-sleep' [*H20l*], and ***kax she*** *ha-cincenet nish'ara tfusa* '**such** [=so] **that** the-jar remained stuck' [*H20k*].

Hebrew has two other structural options for clause-subordination, infinitivals and nominalizations. The first express purpose, and are typically used alone by preschoolers, without an overt purpose marker like *kdey*, *al mnat* 'for, in order that' — e.g., *raca lavo la-cfarde'im shelo* ***lexapes*** *oto* 'wanted to.come to.his-frogs **to.search** (for) him' [*H4i-4;9*]; *raca lehikanes letox ze,* ***lir'ot*** *ma yesh po* 'wanted to go inside it, **to.see** what is there' [*H4l-4;11*]. The most complex subordinating constructions are nominalizations, in the form known as *shem ha-pe'ula* 'action noun' in Hebrew grammars. These are characteristic of a more formal register, and are mastered only at late school age by Hebrew-speaking children (Mayroz, 1988). They are translatable by both gerundive *-ing* forms and abstract nominals in English — e.g., *mi-bli* ***yexolet*** *shel ha-yeled la-redet* 'without **ability** of the-boy to.go.down' [*H20c*] translates as both 'without the boy being able to-go.down' and 'without the boy's ability to go down', and it has a more transparent finite clause equivalent *mi-bli* ***she*** *ha-yeled yaxol la-redet* 'without ***that*** the boy is.able to-go.down'. This nonfinite nominalized construction is syntactically very different from simple clause structure, since it contains no surface subject or else has the subject follow the nominalized verb. Such a nominalization is used once by only one child across the Hebrew children's texts: *Ha-yeled haya asuk benatayim* ***be-xipus*** *axarey ha-cfardea* 'The boy was busy meanwhile **in-search** for the-frog' [=searching for the frog] [*H9h-9;7*]. In contrast, eight out of the 12 adult narrators use such constructions at least once, and some of them do so several times, e.g., *Hem mamshixim bi-****merucat-am*** 'They continue in-flight-their [=they continue with their flight, they continue to flee'] [*H20d*], *Ha-kelev merim et ha-ozen shelo* ***le-shema*** *ha-kirkurim* 'The dog raises its ear **at-hearance** the-croakings' [=to hear, upon hearing] [*H20k*]. In structural terms, this is a fully productive option for syntactic subordination. The fact that it fails to occur in the children's narratives confirms that Hebrew nominalizations constitute a higher-level stylistic device, not nearly so typical of everyday colloquial (and hence children's) usage as either gerunds in English or the corresponding subordinating nominalizations in Turkish (see Chapters IIIA, IIIE).

In sum, the Hebrew narrators rely increasingly with age on subordination as a means of syntactic connectivity, whereas they make only occasional use of the more complex, and higher-register option of nominalization as a means of conflating separate predicates within a single surface clause.

4.5. Subject Pro-Drop = Topic Ellipsis

Languages characterized as "pro-drop" from the perspective of parametric syntax typically license the omission of surface subject pronouns in all types of clauses (Borer, 1984; Hyams, 1989; Weissenborn 1991). Yet Hebrew is not uniform in this respect (Berman, 1990). In simple clauses, verbs can occur without a surface subject pronoun in past and future, but not present tense, and in first and second person, but not in third person. We might therefore expect subject elision in the Hebrew frog stories mainly in coordination with same-subject predicates (Section 4.3), e.g., *Hem kar'u lo ve* ∅ *lo mac'u oto* 'They called to.it and ∅ not found it [=did not find it]' [*H5f-5;4*], *Ha-yeled kafac min ha-xalon ve* ∅ *herim et ha-kelev* 'The-boy jumped from the-window and ∅ lifted the-dog' [*H9e-9;5*]. But subjects may be elided in other, noncoordinating contexts in the Hebrew narratives, as a discourse-motivated device for establishing connectivity by means of **topic elision**. The surface subject is often omitted when there is no change of

referent, even where single-sentence syntax requires a grammatical subject. The extended adult excerpt in (19) illustrates topic elision.

(19) *Ba-boker* ***ha-yeled ve ha-kelev*** *hit'oreru. Ma* ***hem*** *ro'im? Eyn cfardea, ha-cfardea ne'elma! ∅ hitxilu le-xapes ba-xeder, ∅ herimu et ha-mita, ∅ herimu et ha-mnora, ∅ hezizu et ha-xalon, ∅ xipsu mitaxat ha-na'alayim, betox ha-garbayim, ∅ lo mac'u shum davar. ∅ patxu et ha-xalon, ∅ ca'aku baxuc,* ***ha-kelev*** *navax ...*

In.the-morning **the-boy and the-dog** awoke. What (do) **they** see? (There's) no frog, the-frog disappeared! ∅ began:PL to-search in-the-room, ∅ lifted:PL the-bed, ∅ lifted:PL the-lamp, ∅ moved:PL the-window, ∅ searched:PL under the-shoes, inside the-socks, ∅ not found:PL a thing. ∅ opened:PL the-window, ∅ shouted:PL outside, **the-dog** barked ... [*H20c*]

Third-person pronoun elision of the kind indicated by a zero in (19) is not syntactically licensed in Hebrew. Yet the need to use the overt pronoun *hem* 'they' for each clause referring to the boy and dog — established as the topic at the outset of this segment — is obviated by the discourse factor of **topic maintenance** across a stretch of text. The Hebrew children's narratives (as noted, largely in SVO order), reveal a marked rise in overall occurrence of null subject clauses with age: only 9% of clauses in the texts of the 3- and 4-year-olds, 16% in the 5- and 9-year-olds, and as high as 34% of the adults' clauses. With age, subject elision also occurs in different contexts. Among the 3-year-olds, the occasional null subjects occur in coordinated clauses or else they are referentially opaque. The 5- and 9-year-olds all use syntactically well-formed null subjects in coordinated clauses, and occasionally in subordinate clauses — e.g. *Hem halx-u ve halx-u, ad she ∅ higi-u le-makom ...* 'They walked:PL and walked:PL until (that) ∅ came:PL to (a) place ...' [*H5g-5;3*]; *Ba-boker hu kam ve me'od da'ag la, ki ∅ ra'a she hi ne'elma* 'In.the-morning he got.up and was very worried about.it, because ∅ saw that it disappeared' [*H9c-9;4*]. The older children also sometimes use topic elision as a device for connectivity, in grammatically separate but sequentially congruent clauses with a shared discourse topic, as in (20).

(20) *Ve ha-yeled yashan ve ha-kelev yashan al yado. ∅ hit'oreru, ve lo ∅ ra'u et ha-cfardea.*

And the-boy slept and the-dog slept next to-him. ∅ awoke:PL, and not ∅ saw ACC the-frog. [*H5h-5;5*]

This shared-topic application of subject elision is rare in the 3- and 4-year-old narratives (1.3% of their clauses) and is relatively infrequent among the 5- and 9-year-olds (15% of their subjectless constructions, compared with nearly half the subjectless clauses among adults). And even the older

children, the 9-year-olds, use subject elision for topic-maintenance in connecting single pairs of adjacent clauses as in (20), rather than across entire segments of narrative as in the adult text in (19). Among adults, thematic organization is commonly achieved by elision of a shared subject-topic, although not all of them rely equally on this device for achieving text connectivity. Four of the 12 adults produce texts 25% or more of whose clauses have thematically-determined null subjects, compared with an average of under one-tenth of the clauses in the other adult narratives. For some but not all mature narrators, so-called "pro-drop" is a favored expressive option which serves to create tightly-packed texts consisting of large chunks of verb-initial clauses with no surface subject.

5. NARRATIVE STYLE

Hebrew-acquiring children face the same task as children acquiring other languages from the point of view of narrative style. They need to recognize the linguistic conventions appropriate to this particular discourse mode in their culture. In Hebrew, this entails a rather extreme diglossia between normative, more classical forms of expression typical of literary style and the everyday conversational usage that underlies children's early language acquisition. Hebrew children's literature, including prose and verse works meant for toddlers and children of nursery-school and kindergarten age, to this day manifests peculiarly "literary" usages. We noted subject-verb inversion as an example of such a device, which is used quite widely by only a few preliterate children and self-consciously literary adult narrators in our sample (Section 3.2). A second indicator of higher, more literary style is use of bound morphology where spoken Hebrew prefers analytical expression — particularly in possessives and other genitive constructions. Although the preschoolers all show good command of tense and agreement inflections, they never use bound forms of possessive pronouns in these texts. They occur occasionally in school-age texts, e.g. *xadro* 'room.his' rather than colloquial *ha-xeder shelo* 'the-room of.him' both meaning simply 'his room' [*H7e-7;5*], *kalb-o* rather than *ha-kelev shelo* 'his dog' [*H9b-9;2*], *rosho* rather than *ha-rosh shelo* 'his head' [*H9d-9;5*], *beyt-am* 'house-their' for *ha-bayit shelahem* 'the-house of-them' = 'their house' [*H9k-9;8*]. They are commoner in the adult Hebrew texts, again used mainly by those who in general adopt a higher-level, self-consciously literary narrative style.

A third means of "raising" the narrative to a literary register is by higher-level vocabulary. In Hebrew, this is readily available for numerous vocabulary items, where a more formal term exists alongside of a relatively synonymous colloquial counterpart, often one deriving from the earlier Biblical stage and the other from the later Mishnaic stage, or vice versa. The more

formal alternatives are, again, a school-age development, not found in the preschool texts. For example, preschoolers use colloquial *hitxabe* for the verb 'hide (oneself)', but a few school-age children and adults use the higher register item *histater* 'hide [=secrete] oneself'. This is also true of certain closed class items, e.g. *le-axar mi-ken* 'thereafter' for everyday *axarkax* 'afterwards' [*H9f-9;6*] and *le-feta* 'of-a-sudden' in place of casual *pit'om* 'suddenly'. Use of the higher-level alternants indicates recognition that a more official or "bookish" narrative style is called for. This knowledge typically emerges with acquisition of literacy and the formal study of language at school, and is applied selectively by educated adult speakers of the standard dialect.[19]

6. SUMMARY

The Hebrew database reported on in this chapter in part relates to texts elicited from 7-year-olds and 11-year-olds (2nd and 6th graders) in addition to the age groups dealt with in the other chapters in this part of the book. Findings for these two groups confirm the two major breakoff points noted for the development of narrative abilities across the book: preschoolers compared with school-age children as against adults — where the 11- to 12-year-olds are in most respects more like their 9-year-old counterparts than like fully mature narrators (Berman, 1988) The following summary of the main findings reported in this study thus treats all the school-age children as a homogeneous group.

6.1. Tense/Aspect

Since Hebrew lacks grammatical marking of aspect, relative tense is expressed through alternation of the three simple tenses, present, past, and future. Five-year-olds already are able to vary tenses appropriately between matrix and complement clauses for this purpose. Moreover, unlike 3- and 4-year-olds, from age 5 years, children typically anchor their narrations in one dominant tense, whereas the 3-year-olds, and to a lesser degree the 4-year-olds, tend to move back and forth unsystematically between present- and

[19] A further source of evidence for a more formal, self-consciously "correct" style of usage is phonological — whether speakers observe classical alternations in certain morpho-phonological environments, which are typically violated in colloquial everyday usage of even standard speakers. Examples include substitution of the back vowel *u* for consonantal *v* (historically *w*) in pronouncing the coordinator meaning 'and' before bilabial consonants or a syllable with a schwa and spirantization of the stops *p*, *b*, and *k* in the appropriate environments. For example, speakers typically say *ve-be-kol a-...* 'and-in-all-the ...' instead of normative *u-ve-xol ha- ....* Again, some of the older, school-age children occasionally, and sporadically, as well as several adults, more consistently, observe these alternations — providing a more formal, higher-register delivery to their oral narratives.

past-tense forms of verbs. All the school-age children, and most of the 5-year-olds anchor their texts in the past tense, in a markedly similar fashion, with only the adults in several instances preferring present tense as the temporal anchor for their narratives.

There is a marked change in the function served by tense shifting between present and past across the age groups. As noted, the younger children do this unsystematically, motivated by local considerations of the form or content of the particular verb they have just uttered in the preceding clause; from age 5 years, tense shifting in Hebrew serves a normative grammatical function of sequence of tenses to mark relative tense in complex clause constructions; among adults, tense shifting is also used for its traditional literary purpose of creating contrasts between foreground and background material in extended discourse.

There is little use of other, "compensatory" means for expressing aspectual distinctions which are grammaticized in other languages in this sample. Verb-pattern *binyan* morphology is rarely exploited for this purpose across the Hebrew frog stories. The two aspectual verbs meaning 'start' for inception and 'go on' for protraction are quite common, but only from age 5 years on, increasing as a function of age from schoolchildren to adults. The other single favored means for lexical expression of aspect is through two adverbs: the first, meaning 'suddenly', is a favored marker of inception or abrupt change of state among children aged 5, 7, and 9 years old, in contrast to its low use among younger preschoolers and adults; the second, meaning 'meanwhile', is a preferred means of expressing simultaneity of two events, starting from age 5 years, with a clearly defined temporal function from age 9.

6.2. Event Conflation

In Hebrew, as a verb-framed language, children use verbs encoding direction of motion from age 3 years on, but there is little elaboration of locative trajectories across the sample, even though 9-year-olds and adults do occasionally mention both source and goal in a single clause (typically through prepositional phrases), and with age there is an increased variety in the range of prepositions used to express locative relations. Speakers also avail themselves of *binyan* verb morphology to encode causativity within the verb rather than across clauses.

6.3. Perspective

The devices used by Hebrew narrators to vary perspectives on a scene include changing verb-argument relations within the simple active clause by alternating nominatives, accusatives, and datives. This children can do from age 3 years on, although they vary these options less flexibly and skillfully

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.

[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

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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