Dorit Ravid$^\psi$, Elite Olshtain$^\otimes$ & Rachel Ze'elon$^\psi$
Tel Aviv University$^\psi$, Hebrew University$^\otimes$

Gradeschoolers' linguistic and pragmatic speech adaptation to native and non-native interlocution

Running title: Native and non-native interlocution

Address for correspondence
Dr. Dorit Ravid
School of Education and the department of Communications Disorders
Tel Aviv University
Tel Aviv 69978
Israel
Email: doritr@ccsg.tau.ac.il

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Abstract

This study examines conversational skills and attention to interlocutor's speech features in Hebrew-speaking gradeschoolers in verbal interaction with Russian-speaking Hebrew learners and with Hebrew native speakers. 12 native Hebrew-speaking gradeschoolers aged 9-10 years were recorded in conversation with a native-speaking partner and with a non-native Hebrew learner. When addressing non-native partners, participants used features of Foreigner Talk. The differing discourse they produced in talking to native and non-native partners showed that gradeschoolers are already able to vary their speech in different circumstances, taking into account the linguistic knowledge of their addressee. However, gradeschoolers differed widely in their communicative skills and in their ability to lead the conversation, steer their partners towards desired goals, and supply missing information in cases of communication breakdown.

1.0 Introduction: Foreigner Talk

This paper explores Israeli children's sensitivity to the linguistic register termed "foreigner talk" by analyzing linguistic and pragmatic features in protocols of verbal interaction between pairs of native and non-native Hebrew-speaking gradeschoolers. "*Foreigner talk*" (henceforth: FT) is a subset of linguistic registers involving modified linguistic input to language learners, such as *caregiver talk* ("Motherese" or Child Directed Speech) *inter-language talk,* and *pidgins* (Ellis, 1994; Ferguson, 1971; Freed, 1981; Krashen, 1981; Snow, 1995), as well as modified input addressed to elderly, hearing- or language-impaired people (Coupland, Coupland, Giles & Henwood, 1988). These linguistic varieties are all motivated by the universal wish to adjust one's speech to that of the conversational partner so as to negotiate meaning successfully while keeping the conversation comprehensible and congenial (Giles & Smith, 1979; Tarone, 1983). Such varieties with modified linguistic input emerge in conversation when speakers are uncertain of the amount of linguistic knowledge and world knowledge shared by their interlocutors (Smith, Scholnick, Crutcher, Simeone & Smith, 1991).

FT is one special case of this modified-input phenomena, and refers to the speech used when a native speaker addresses a non-fluent non-native learner-speaker (Ferguson, 1971: 143). The general view is that native speakers accommodate and modify their speech in order to facilitate communication and ensure comprehension by the non-native conversational partner (Freed, 1981; Smith et al., 1991). Studies of accommodating FT have two main emphases: One set of studies focuses on the grammatical characteristics of FT discourse, and particularly on processes of simplification, regularization, elaboration, and sometimes ungrammatical modifications, which resemble pidginization processes (Ellis, 1994; Katz, 1981;

Larsen-Freedman & Long, 1991). A second set of studies focuses on pragmatic or communicative features of FT discourse, the significance of its social context, and particularly on the array of pragmatic devices intended to maintain communication and repair communication breakdown (Pica, 1992; Zuengler, 1991). Strategies at both linguistic and pragmatic levels are supposed to provide input that is easier to comprehend by non-native speakers. They include common, simple, regular, general, unmarked, transparent and short words and syntactic units, canonical word order, slower speech rate, comprehension checks, questions to establish and control conversation topics, requests for clarification, and elaborated explanations of language perceived as too hard for the non-native conversational partner (summed up in Ellis, 1994).

However, there has also been work indicating that the measures taken by native speakers to modify speech addressed to second language learners (especially in situations of guest/foreign workers) consist of "looking down" on the non-native learner, and might result in ungrammatical, pidgin-like input, resembling or even matching the speech of the non-native partner (Ferguson, 1971; Meisel, 1983). In that sense, FT might be counter-productive, limiting access to the language and culture of the native speaker, and even causing language fossilization in language learners. Also, experiments requiring native speakers to accommodate their speech to that of a non-native learner entailed expressions of tension and frustration. These are thought to be the result of the switch from automatic, effortless processes of talking to a peer interlocutor, to controlled, effortful processes required when having a non-native speaker as a conversational partner, increasing the cognitive load on the native speaker (Smith et al., 1991).

Studies of FT have found a great deal of variability among native speakers addressing second language learners, foreign interlocutors, tourists and visitors. Some native speakers are able to accommodate their speech patterns to the foreign addressees, while others use complex and confusing syntax and vocabulary, speak too rapidly, and use avoidance and inappropriate repair strategies when reacting to requests for clarification. Cognitive / pragmatic models predict that speakers will have fewer problems in successfully accommodating their input to non-native learners when the topic is concrete and simple and the conversational pace is slow (Snow, van Eeden & Muysken, 1981), and also when the native speaker is experienced in using accommodation devices (e.g., teachers and people in public service). Moreover, those aspects of speech that ordinarily require deliberate control will be more readily accommodated than those that are usually under automatic control (Smith et al., 1991: 181-183). Studies with a socio-linguistic orientation account for this variability through the constant interaction between the sensitivity and communicative competence of the native speaker, on the one hand, and the linguistic level and degree of social involvement of the learner-interlocutor, on the other.

To accommodate such variability in an ethno-linguistic framework, Zuengler (1991), based on Giles (1977) and Coupland et al. (1988), proposes four communicative strategies in FT. Two of these involve linguistic and pragmatic accommodation measures of native speech: *convergence* – various degrees of linguistic adaptation of native speaker speech to foreign interlocutors; and *complementary* usage – accommodating speech style to the social roles in the encounter. When the native speaker perceives him/herself in the role of instructor, this entails a slower speech rate and "explanatory" prosody. Two other strategies do not involve adaptation of speech style: *maintenance* of ordinary non-FT speech style, and

divergence – "correct" and high-register usage, especially when the foreign

interlocutor indicates relatively good comprehension of the target language.

According to Zuengler (1991), a number of prosodic, lexical, morphosyntactic

and pragmatic strategies characterize the input addressed to non-native interlocutors.

They occur in different concentrations, degrees and clusters in different contexts,

subject to interlocutor type and to the specific circumstances.

Prosody. Clear and emphatic enunciation, slow pace with many pauses, high

volume, clarificatory prosody and repeated utterances.

Lexicon. Standard, general, unmarked, and frequent vocabulary, analytic

expressions (e.g., *the day after* for *tomorrow* in Hebrew for single-word *moxoratayim*

'tomorrow-dual'), lexical repetitions and universal cognates.

Morpho-syntax. Short and simplex clauses, unmarked word order, subject

saliency and analytic, non-bound forms.

Pragmatics. Focus on the "here and now", and superficial treatment of

conversational content, introduction of new topics by question forms, comprehension

checks, encouraging comments, and utterances intended to maintain conversational

topic. New topics initiated and highlighted by pauses and stressed enunciation, as

compared with long-term topic maintenance in native-native conversation.

Our aim in this paper is to examine linguistic and pragmatic features of discourse

produced by native Hebrew-speaking gradeschoolers with native and non-native

interlocutors. The following section discusses linguistic and pragmatic capabilities in

native-speaking gradeschoolers in Israel.

1.1 Communicative and linguistic competence in gradeschoolers

Most studies of FT have investigated adaptation processes in adults conversing

with non-native interlocutors, often in situations of "talking down" to students,

children or guest workers, or in guidance roles. There are few studies of children

being able to do that (Hirvonen, 1985; Katz, 1981). It seems that the reason for this

lack is the fact that it takes both mother tongue mastery as well as flexibility of using

it and controlling it in order to manipulate one's speech in such a way. This is

something adults can obviously do, but it is an open question whether schoolage

children control the necessary linguistic resources with sufficient flexibility to

monitor their speech processes when encountered with a learner interlocutor their age.

This is the question at the focus of the current study.

The ability to tailor one's speech patterns so as to fit the contours of a

conversation with a non-native partner requires close attention to overt signals of on-

line linguistic processing in one's conversational partner as well as control over one's

own language processes. In order to do that, a native speaker needs to possess

linguistic literacy and to be "rhetorically expressive", using Slobin's (1977)

terminology. This is characterized by the availability of multiple linguistic resources,

and by the capability to consciously access one's own linguistic knowledge and to

view language from numerous perspectives (Ravid & Tolchinsky, in press).

Developing linguistic literacy means gaining increased control over a larger and more

flexible linguistic repertoire and simultaneously becoming more aware of one's own

spoken and written language systems (Olson, 1994). Specifically, linguistic literacy

brings about an awareness of one's own particular linguistic identity, a corollary of

which is the recognition of the existence of other linguistic identities, entailing

awareness of those features that constitute the difference between one's own and other

linguistic systems. And it also leads to control of one's linguistic repertoire so that it

can be adapted to different addressees and circumstances. Linguistic control and

freedom of linguistic choice - switching from the 'restricted' to the 'elaborated' code -

is grounded in linguistic literacy, as demonstrated from Bernstein (1970) to Biber (1995). Although spoken usage is sufficient to recognize different users and circumstances and to react to them appropriately, literacy fosters the ability to recognize and apply precise, context-appropriate linguistic features in speech, so that linguistic literacy and adaptation interact in a complex way.

Rhetorical expressiveness derives from the communicative need of speakers / writers to hold the attention of their addressees, and consists of the capacity to produce interesting and varied linguistic output attuned to different addressees and circumstances (Ravid & Tolchinsky, in press). Rhetorical flexibility develops side by side with core language abilities and concomitantly with an increasing ability to think about and analyze domains of language (Bialystock, 1991), to create "flexible and manipulable linguistic representations" for metalinguistic reflection (Karmiloff-Smith, 1992: 32). Linguistic awareness involves *cognitive control*, which implies a certain detachment from content, and the ability to select appropriate linguistic forms, morpho-syntactic constructions and lexical expressions, to weigh alternatives, and to access non-default, less productive, marked options. Moreover, various types of oral language awareness are correlated with both basic and advanced literacy skills and general school achievement at different levels of schooling (Ravid & Tolchinsky, in press).

Gradeschoolers are not yet fully linguistically literate, nor in possession of all the linguistic and cognitive resources necessary for rhetorical flexibility and for metalinguistic control. However, they are already proficient native speakers and know a great deal about their language. Children aged 9-10 have rapidly-increasing literate lexicons mostly deriving from the written language, are able to discern different language registers, produce well-constructed narratives, and understand metaphors,

idioms and ambiguous constructions (Andersen, 1990; Anglin, 1993; Berman & Slobin, 1994; Nippold, 1985; Nippold & Taylor, 1995). A survey of developmental studies of children's conversational skills (Nippold, 1998: 178-181) indicates that there is gradual refinement in their ability to hold extended dialogues and make relevant comments adding new information to the topic at hand, to maintain and smoothly shift conversational topic, with fewer abrupt topic switches and more factually-related and perspective-related utterances. Especially pertinent to this paper, gradeschool children are in the process of learning to adjust their speech to the thoughts, motives and feelings of others, and to wait for a pause in the conversation before moving on (Brinton & Fujiki, 1984; Ford & Thompson, 1996). However, Nippold also points out that despite the general improvement in conversational coherence during and beyond gradeschool, studies always find large differences in children's and adolescents' conversational skills and in the structure and content of their conversations (Schober-Peterson & Johnson, 1993).

Thus, it seems reasonable to expect children aged 9-10 to be able to make some changes in the pragmatic aspects of their speech to non-native peers. Making the appropriate linguistic adjustments depends on their language-specific knowledge of Hebrew.

Most of the basic morphology and syntax of Hebrew is well-established by age 6 (Berman, 1985, 1990). Beyond this age and in the next 10 years, Israeli children acquire a number of rarer, more opaque and literacy-related structures such as participial constructions, optional inflectional morphology, passive voice, denominal adjectives, and deverbal nominals (Cahana-Amitay & Ravid, 2000; Levin, Ravid & Rappaport, in press; Ravid & Avidor, 1998). Syntactic configurations such as NP structure, relative clauses, and syntactic packaging grow richer and more elaborate

(Ravid, van Hell, Rosado & Zamora, in press). In addition, children learn to manipulate word order to express syntactic and pragmatic functions. Concurrently, children acquire a larger, more diverse and lexically specific lexicon, dependent on knowledge of morphological and syntactic networks. Linguistic material becomes denser and more accessible to gradeschoolers, and they are able to manipulate it in increasingly larger textual segments in various genres. 4th graders tell interesting, well-constructed stories, but their expository texts leave much to be desired (Berman & Ravid, 1999). They are able to produce and enjoy linguistic jokes, riddles and puns and to recognize a variety of textual genres (Ashkenazi & Ravid, 1998).

Conversation does not place high cognitive and linguistic demands on interlocutors, nor does it usually require much of the literate lexical, morphological and syntactic resources described above. However, attending to grammatical and lexical aspects of the speech of a conversational partner and controlling and adjusting these aspects in one's own oral production do require considerable rhetorical flexibility, which in turn depends on linguistic knowledge (Schegloff, 1996). We assumed that children aged 9-10 were proficient enough in their mother tongue to be able to undertake this task.

2.0 The study

Our aim in this paper was to compare native discourse with FT in dialogic encounters of Israeli native-Hebrew speaking gradeschoolers with native speakers of Hebrew and with non-native children who had recently immigrated to Israel from the former Soviet Union.

2.1 Population and procedure

The study population consisted of 12 native Hebrew-speaking 4th and 5th graders (9-10 year olds), seven girls and five boys. Each of them was recorded twice

in conversation with a gradeschooler of the same sex from his/her class. One condition consisted of an encounter between the native-speaking subject (henceforth, native speaker) and another native speaker. The other condition consisted of an encounter between the same native Hebrew-speaking subject, and a non-native Hebrew learner (henceforth, Hebrew learner), who had been in Israel for a period of three to four months. Thus, every subject was recorded twice in conversation with two different partners, and all in all there were 24 sessions. Each session lasted for about 20 minutes, and all encounters focused on the same discourse task (see below) so as to produce comparable linguistic material in the two conditions. In half of the cases the native-native condition was first, and in the other half the native-learner condition was first, so as to prevent the consistent effect of one condition on the other.

All Hebrew learners were native Russian speakers, and had immigrated to Israel with their families from the former Soviet Union. Russian speakers were selected as non-native interlocutors since they constitute the overwhelming majority of the nearly million new immigrants to Israel in the last decade (Kraemer, Zisenwine, Levy-Keren, & Schers, 1995; Shuval, 1996). The period of 3-4 months' stay in Israel was determined with the idea that after this period of time, native language acquisition was under way, and these young Hebrew learners already knew some vocabulary and structures in Hebrew, so that verbal rather than non-verbal communication could take place. On the other hand, this period was too short for these learners to have become skilled Hebrew speakers.

2.2 Materials and task

Three tasks had been piloted for eliciting conversation: Free interview, birthday planning, and picture completion. The first two tasks were not found suitable for eliciting interactive conversation. The interlocutors were not genuinely interested

in each other, and their interview questions were repetitive and lacked a common communicative goal. The birthday planning was mostly one-sided and consisted of dictation by the native speaker.

The task finally selected consisted of the subject instructing his/her interlocutor in completing a partial picture (Appendices I, II). The two conversational partners – native speaker and learner or another native speaker - sat at a table. They each held a copy of the picture. The native speaker's copy was a full picture of two houses and nine items between and around them – dogs, people, birds, a clothes line, etc. (see Appendix I). Some of these items were drawn with variations so as to elicit adjectives in their description (e.g., a square and a round window). The learner's copy was a partial picture of the two houses. Nine items had been cut out and were lying on the table in front of the learner in full view of the two interlocutors. The learner's task was to reconstruct the picture with the missing nine items according to the instructions of the native speaker. A screen was placed between the two pictures so as to prevent non-verbal pointing at the desired site on the picture or deictic, less lexical instructions such as *Put it here,* and to promote verbal descriptions (Edwards, 1997).

All 24 sessions were videotaped and fully transcribed into protocols, including para-linguistic elements such as pauses, pitch, volume and stress. Each protocol was divided into nine content units (exchanges – see below), according to the missing items (e.g., bird, windows) that the addressee had to place in the appropriate sites. The set of nine content units in the same native speaker's protocol was compared in the two conditions - when talking to a learner partner and when addressing another native speaker. Transcribed material is presented here in English translation.

2.3 Categorization

In preparation for analysis, each task transcription was divided into units at four hierarchical levels, following Strenstrom's (1994) model of conversational analysis:

1) *Transaction* – the most general task, the top-most level of conversational interaction. In this work, this consisted of the whole picture.

2) *Exchanges* – content units. These are the smallest interactional units (Ford & Thompson, 1996). In this study, the exchanges were the nine pictorial details that had to be placed in their appropriate sites in the picture. Each content unit consisted of at least one or more turns dealing with one of the following topics:

   1. Woman hanging laundry

   2. Two dogs

   3. Five windows

   4. Laundry line with clothing

   5. Bird

   6. Girl standing on a ladder

   7. Two chimneys

   8. Two girls

   9. Man reading newspaper

For example, example 1 below consists of exchange / content unit 2 (Two dogs) between Asher, a native speaker, and Yevgeni, a Hebrew learner.

1. Asher: *You see a dog? There's two, two dogs, a dog that's sitting, put it next to mommy.*

Yevgeny: *Dog this?*

Asher: *Yes. Now there's another dog, put it next to the house that's falling.*

3) *Turns* – everything said by one interlocutor until the other one gets started. Since conversation is talk-in-interaction, turns are the basic units of a conversational discourse. A "turn constructional unit" (TCU) serves as the basic natural environment for sentences, though sentences are not conversational units (Schegloff, 1996).

4) *Acts* – the smallest conversational unit, corresponding to intonational units rather than to clauses or sentences (Ford & Thompson, 1996). Example 2 consists of 6 acts: 2. *That's a woman / and put it / put it next to the house / next to the house / yes / great.* The intonational unit is a distinct linguistic entity bounded by prosodic signals such as pauses, emphases and changed intonation (Du Bois, Schueze-Coburn, Cumming & Paolino, 1993). According to Chafe (1993), intonational units (IUs) constitute verbal representations of focused attention on particular discourse aspects: hesitation, emphasizing an idea, lexical search, etc. Transcribing IUs thus means tracing thought processes during on-line speech. IUs come in two types: Substantive or content IUs, which are longer (one to five words) and usually consist of a full clause, e.g., *Take the woman with the sock*; and regulatory IUs, which usually consist of words (*yes*) or other prosodic units (*mmm*).

2.4 Analysis

Analysis focused on the speech produced by the native speaker subject, rather than on the speech produced by his / her two conversational partners – the learner and the other native speaker. Their grammatical and communicative patterns were taken

into account in motivating the native-speaking subject, but not as independent research material. 24 protocols of the dialogue between the two interlocutors discussing the picture completion task were transcribed, two for each native speaker subject in the two conditions. The basic unit for comparison was the exchange (= content unit).

In this paper, we focus on a quantitative analysis (t-tests) that was performed on linguistic and pragmatic measures in the two transcripts of the same native speaker subject when interacting with a learner and with another native speaker.

(i)   The following linguistic measures were compared (per content unit, unless specified otherwise):

1) Number of words (per transcript); 2) Number of types; 3) Type / token ratio; 4) Mean length act (in words); 5) Lexical simplification; 6) Lexical specificity; 7) Predicate-initial clauses; 8) Change in basic word order; 9) compounds; 10) Bare NPs (including pronominal NPs); 11) NPs with one expansion; 12) Extended NPs; 13) Bare VPs; 14) VPs with a single complement; 15) Extended VPs. These measures are illustrated in Table 1 below.

INSERT TABLE 1 ABOUT HERE

These criteria related to lexical and grammatical "richness" in subjects' output. They were selected based on lexical and syntactic sites indicated in previous work on children's discourse capacities (Berman & Ravid, 1999; Berman & Slobin, 1994). Measures 1-6 concern lexical diversity; measures 7-8 relate to word order; measures 9-12 relate to NP structure; and measures 14-15 – to VP structure.

(ii)   The following pragmatic measures were compared (per content unit,

unless specified otherwise):

1) Total number of acts (per transcript); 2) task-promoting acts (per

transcript); 3) Clarificatory acts (per transcript); 4) Comprehension checks; 5)

Performance checks; 6) Confirmation / refutation; 7) Feedback; 8) Repetition;

9) False starts and incomplete units; 10) Change in instruction; 11)

Interjections; 12) Less focused instruction; 13) Addressing interlocutor by

name; 14) Demonstration and illustration by iconization and prosody; 15)

Lexical explanation. These measures are illustrated in Table 2 below.

INSERT TABLE 2 ABOUT HERE

Pragmatic measures all related to subjects' ability to introduce new

information, discuss conversational topic, maintain topic, repair when

necessary, clarify and illustrate, and also examined subjects' sensitivity to

interlocutors' comprehension processes (Fox, Hayashi & Jasperson, 1996).

100% of both linguistic and pragmatic measures were analyzed by a linguist

and a speech clinician. Interjudge reliability was 87%. Cases of disagreement

were discussed with a third linguist until a decision was reached.

2.5 Predictions

We made the following predictions re the measures for analysis:

(i)   Predictions concerning linguistic measures: More words, longer acts

and specifically more types of content words will be found when the

interlocutor is a native speaker. Type/token ration will be different,

with more types and fewer tokens in speech addressed to another

native speaker. Input to native speakers will contain more lexically

specific items, while input to learners will contain more lexically

simplified vocabulary. Learner-directed discourse will contain fewer

changes in basic SVO word order. There will be fewer compounds in

input to learners, and phrases (both NPs and VPs) will be shorter and

less hierarchically structured than those found in input addressed to

native speakers.

(ii)   Predictions concerning pragmatic measures: There will be more acts

in input directed to learners, with fewer task-promoting acts. There will

be more clarification, repetition, verbal and non-verbal explanations,

checks and feedback phenomena in learner-directed input, but fewer

false starts, incomplete utterances, interjections and changes in

instructions than in input directed to a native speaker.

3.0 Results

Below, we present the results of the analysis of the 24 protocols of the 12

subjects working with their partners on the picture completion task. T-tests were

conducted to determine the significance of the linguistic and pragmatic measures

(presented in 2.4 above) in the speech directed by each subject to the learner and

native speaker partners.

3.1 Results of the linguistic measures

Of the 15 linguistic measures presented in 2.4 above, six were found to be

significantly different in the input to the learner vs. to the native speaker interlocutor.

Table 3 presents these results.

INSERT TABLE 3 ABOUT HERE

According to Table 3, significant differences were found between the two conditions

(speech addressed to native speaker interlocutor and speech addressed to learner

interlocutor) on the following linguistic measures:

(1) *Mean length act* measured in number of words per act. In subject-native speaker encounters there were significantly longer acts than in subject-learner encounters. In example 3, Chen (girl) addresses native speaker: 3. *Put it in the last garment that was on the line, before the mommy*; Chen addressing learner on the same topic: *On this, above the clothes*.

(2) *Mean number of words.* Subjects addressed significantly longer input to learner than to native speaker interlocutor.

(3) *Token / type ratio*. A significantly larger token / type ratio was found in input to learner than to native speaker interlocutor.

(4) *Lexical simplification.* Significantly more lexically simplified items were found when addressing learner rather than native speaker interlocutor, e.g., 4. Chen addressing native speaker: *laundry*; Chen addressing learner: *clothes on a string.*

(5) *Bare NPs*. Significantly more bare (=single word) NPs (e.g., *the dog, mommy,* and including free or bound pronominal forms, e.g., *you, on her*) were found when addressing learner rather than native speaker interlocutor.

(6) *VPs with a single complement.* Significantly more VPs with a single complement (e.g., *take a window, put it*) were found when addressing learner rather than native speaker interlocutor.

(7) *Lexical specificity.* Though no significant differences were found between the two conditions, subjects addressed more lexically specific items to native speaker rather than to learner interlocutors (.44 versus .2 respectively).

3.2 Results of the pragmatic measures

Of the 15 pragmatic measures presented in 2.4 above, six were found to be significantly different in the input to the learner vs. to the native speaker interlocutor. Table 4 presents these results.

INSERT TABLE 4 ABOUT HERE

According to Table 4, significant differences were found between the two conditions (speech addressed to native speaker interlocutor and speech addressed to learner interlocutor) on the following pragmatic measures:

(1) *Total number of acts.* The discourse produced by the native speaker subject, which was addressed to a leaner interlocutor, had significantly more acts (= intonation units) than the discourse addressed to a native speaker interlocutor.

(2) *% Task-promoting acts out of all acts*. Subjects produced a significantly higher percentage of acts which started a new topic or initiated a new activity (e.g., 5. *take a man who's reading a newspaper*) when talking to a learner than to a native speaker interlocutor.

(3) *Comprehension checks*. Comprehension checks were performed with significantly greater frequency in speech addressed to learner than to native speaker interlocutors.

(4) *Lexical explanations*. Attempts to explain words appeared frequently in speech addressed to learners, and were virtually absent in speech addressed to native speakers.

(5) *Repetitions*. Subjects repeated words and utterances significantly more frequently when interacting with learners rather than with native speakers.

(6) Demonstration by gestures and prosody. When attempting to explain matters to learners, subjects used significantly more iconic demonstrations by gestures and prosody than when talking to native speakers.

The two conditions differed, though not significantly, on an additional number of pragmatic measures: Interjections were more frequent in subject-native speaker

than in subject-learner encounters (.18 versus .06 respectively); subjects addressed

their interlocutor by name more frequently when he / she was a learner (.31 versus .01

respectively); performance checks were more frequent in speech addressed to learners

than to native speakers (.36 versus .15); feedback acts were more frequent in speech

addressed to learners than to native speakers (1.26 versus .33); instructions were

changed after having been given more often in native speaker-native speaker

encounters than in native speaker-learner encounters (.46 versus .15); and instructions

were more precise in native speaker-native speaker encounters than in native speaker-

learner encounters (.49 versus .26).

3.2 Discussion

We hypothesized that subjects' speech directed to learners would be simpler,

more transparent and less marked, and would consist of shorter units of speech

directed to native speakers. Results of the quantitative analyses highlight the specific

measures taken by Israeli gradeschoolers during FT, as well as the enormous

variability among them in the extent of this usage.

3.2.1 Wordiness

Looking at the linguistic measures, a number of findings indicate that Israeli

gradeschoolers perceive wordiness as an aid to communication with peer learners of

Hebrew. In the native speaker-learner condition, subjects produced more words, and

had more acts per content unit. These measures reflect numerous repetitions and

clarifications in addition to new information concerning the task itself, which was not

understood on the first attempt. Subjects' superfluous wordiness was also expressed in

the higher token / type ratio in the native speaker-learner condition, repeating content

words and utterances in an attempt to clarify a point. The number of content word

types, however, was identical in both conditions, as a result of the task-dependent

nature of the conversation and the fixed visual stimulus. Thus the information conveyed in both conditions was the same, but words used to express it were repeated in the learner condition. Note, for example, Reut in interaction with a learner and with another native speaker:

6. Reut to learner: *Bird. The bird, did you find the bird? Put in the broken house. That was broken. At the top. The broken house. That was broken. On top-on top (=at the very top) of the broken house.*

Reut to native speaker: *There's a bird, like it's coming out of the chimney of the broken house.*

Subjects differed in the amount of repetitious input to learners as an FT strategy. Consider the type/token ration of content words in three of the subjects: Elly (boy), Asher (boy), and Reut (girl). Elly had exactly the same number (63) of content types in both conditions, but he used 136 tokens in the learner condition versus 84 with the native speaker. Asher, in contrast, employed instruction construction in the learner condition, and therefore did not rely on repetition. He used fewer content types (83) with native speakers than with learners (110), but almost the same number of tokens (155 vs. 167). Finally, Liat 's main strategy was concise and specific instructions to learners, including repetitions at all levels, and she used both more types and tokens when talking to them (83 and 216 respectively) than to native speakers (64 vs. 110). Thus the quantitative results on superfluous talk addressed by gradeschoolers to learners in FT reflect a general trend, but not all children feel they have to talk more to the learner in order to make him / her understand, and consequently use this strategy in differing degrees.

Subjects' repetitions of words and utterances in FT can be classified into three functional groups:

(1) Repeating key words for stress and emphasis, for example:

7. Liat: *Take a dog that's not barking. Dog not barking.*

Learner: *This?*

Liat: *Yes. And put it… Take a bigger one, like you put now,*

bigger, bigger, put it…

Learner: *Yes.*

(2) Repeating in order to lead learner from the general scene to a particular

item embedded within it:

8. Asher: *You see mommy hanging laundry? Mommy hanging*

laundry. Mommy, mommy, mommy. Yes.

9. Asher: *You see a round window? Window, shaped like a circle[1].*

Learner: *This?*

Asher: *No, circle, circle. Put it…*

(3) Perseverative repetitions, indicating inflexibility, inability to explain, and

helplessness in view of a communication breakdown.

10. Revital: *A woman hanging laundry, Inya.*

Learner: *Here?*

Revital: *A woman hanging laundry, woman hanging laundry,*

laundry, Inya, laundry.

Learner: *What's this?*

Revital: *This is laundry* (pointing at the item)

11. Idit: *Take the ladder, ladder, ladder, do try to understand*

what's a ladder, no, a ladder.

Despite the larger amount of speech addressed to learners, acts were shorter in

the learner condition, and were often incomplete or telegraphic, leaning heavily on

visual cues. Thus subjects perceived short, isolated messages with a lot of repetitions as facilitating learners' comprehension.

3.2.2 Lexical simplification

One of the accommodation strategies reported in the literature and used most frequently by subjects in this study was selection of simpler and more accessible words and expressions in subjects' instructions to learners (Ferguson, 1982; Snow & Hoefnagel-Hohle, 1982). The conversational context did not encourage the use of vocabulary items widely diverging in register. Rather, items were designated "lexically simplified" if they diverged from the unmarked usage addressed to native speakers. In addressing learners, subjects selected words that were either very basic (bordering on Motherese) or else inappropriate or deviant words or expressions that they probably perceived as easier than the one they used when instructing the native speaker. 12 below lists a number of examples (lexical item underlined):

12. Asher to learner: *You see mummy hanging laundry?*

Asher to native speaker: *Now there's a lady who's hanging laundry?*

Reut to learner: *String with laundry*

Reut to native speaker: *laundry hanger*

Hila to learner: *The house that's going a little to the other side*

Hila to native speaker: *The house that's leaning on its side*

Natalie to learner: *Take a man on a chair reading pages*

Natalie to native speaker: *Take a man who's reading a newspaper*

The conversational context did sometimes call for simpler and even inappropriate words in speech addressed to native speakers, and subjects perceived this as the effect of FT:

13. Hila to native speaker: *The house that's going like that… that's leaning to its side. Oops, I got used to talking to Bronya.*

In some cases, subjects also used lexically more specific words in the native speaker-native speaker condition. In these cases, items were designated "lexically specific" if they were more marked or literate than those usually used in native conversation. For example, to describe the leaning house on the right of the picture (Appendix I) Asher used the word *nofel* 'falling' when addressing the learner and the word *kores* 'collapsing' when addressing the native speaker. He also used the unmarked expression *by the house* in the learned condition and the expression *adjacent to the house* in the native speaker condition. Unlike Zuengler (1991), we did not perceive this strategy as condescension towards learners, but rather as an indicator of gradeschoolers' emerging perception of register distinctions.

3.2.3 NP structure

The picture-completion task involved a number of given items (windows, houses, dogs, etc.), which were labeled in the subjects' instructions. Labels could consist of bare NPs, including pronominal forms (*the man, a window, he, with it*) or of heavier NPs conveying more information in denser and more elaborate form (*the broken window, a man reading a newspaper*). NP complexity may be overtly expressed in terms of length and by different syntactic structures. The type, the syntactic function and the complexity of NPs are diagnostic of linguistic development (Ravid et al., in press). Therefore, we had predicted differences in types of NPs to be found in the two conditions. Findings indicated that there were indeed more bare NPs in the learner condition than in the native speaker condition, meaning nouns were labeled without any additional information. Note, however, that bare NPs were the most frequent NP type in all protocols for both conditions, and that no other

differences were found between the two conditions: There were few more elaborate NPs in the protocols, and there was no difference between the number of NPs with one or more expansions (e.g., *the edge of the laundry that you have just taken*). This is probably due to the nature of the on-line conversational context that did not permit the creation of larger nominal units, and also the task that involved a number of given, visible items, directed to specific locations which were also designated by bare NPs, and which were often referred to by pronouns, e.g., *Put it in the corner*.

Nevertheless, subjects used more bare NPs in the learner condition. One reason was the general tendency to use shorter linguistic units with learners. This strategy was more apparent in some of the subjects. For example, note how Asher instructs a learner and a native speaker partner:

14. Asher to learner: *You see a dog? There's two. Two dogs. Dog sitting. Put it next to mommy.*

Asher to native speaker: *There're two dogs. One is barking and one is sitting. Put the barking one below the lady that's hanging laundry.*

Asher arranged his instructions in such a way that the learner could identify the item exactly from its label, using a number of bare NPs and one NP with one expansion. Talking to the native speaker, Asher divides the set of dogs into two, identifying each dog, and using more expanded NPs on the way.

Another reason for the high number of bare NPs in learner-directed speech was the large amount of noun repetitions. For example:

15. Revital to learner: *Now a woman. Woman.*

   Learner: *This one?*

   Revital: *No. A woman, Inya. A girl and a woman – this is a woman.*

Such repetitions isolated target nouns by focusing on the specific noun in an NP and repeating it:

16. Idit to learner: *Take <u>the second girl</u>. <u>The girl</u>.*

Asher to learner: *<u>The last rung of the ladder</u>. On <u>the ladder</u>.*

3.2.4 VP structure

The task discussed in this study involved selecting an item and placing it in a designated location. The resulting verbal interaction mainly took the form of instructions for carrying out the task on the part of the subject, performance or clarification requests on the part of the partner, and a possible reaction from the subject. Instructions usually consisted of a subjectless imperative transitive verb (*Take…Put…*), which could be followed by one or more complements. Like NP structure, VPs with more complements reflect a denser informational structure and a more hierarchical configuration. In this study, there were more VPs with a single complement (e.g., *Take the second girl / Put on the ladder*) in the learner condition, meaning that in many cases either the direct object or the place complement was absent. This could again reflect gradeschoolers' perception of shorter units as more appropriate for their learner partners. We did not find more expanded VPs in the native speaker condition, probably due to the conversational context, which did not encourage long and complex clause-level syntax.

A closer look at VP structure in the study protocols reveals interesting syntactic patterns in learner-directed instructions. A common strategy was *direct instruction*: Pointing out and labeling a specific item out of the collection, then designating a location on the picture where it should be placed. The resulting structure had an imperative "find and do" formulaic pattern:

17. *Take… and put (PRO / 0) p (Location)*

e.g., *Take a barking dog and put it next to the crooked house.* Or

18. *You see…? Put (PRO / 0) p (Location)*

e.g., *You see mommy? Put her next to the line.*

The direct instruction strategy was used in 116 cases in the learner condition, versus only 11 cases in the native speaker condition. This imperative instructional pattern reflects an intuitive understanding on the part of the subjects that it was first important to make sure the learner could relate the picture of the object and its label. This was done by identifying and isolating the label of the object in a single clause, using a transfer or perception verb (*Take… You see…?).* Then focus and attention were shifted towards the designated location, again encoded in a single imperative clause. In a sense, native speaker subjects were taking on teacher-like roles. In addition, it seems that gradeschoolers already have an intuitive grasp of the process of second language learning and of the need to present linguistic material to learners in analytic, transparent and easy to map quanta, as well as of the advantages of using deictic and visual cues.

In contrast, an *indirect instruction* strategy was used mainly in the native speaker condition and involved referring to an object, and then providing more information about it:

19. *There's… (Information on location in the context)*

e.g., *There's a bird. It's like flying out of the chimney.*   Or

20. *There's… Put (PRO p (Location)*

e.g., *There's a wide window. Put it in the straight house.*

The indirect instruction strategy was used in 14 cases in the learner condition, versus 43 cases in the native speaker condition. Here, interlocutors' roles were more equal. Instead of identifying the item and labeling it for the conversational partner, the

latter's attention is drawn to the fact that such an object exists, treating it as given information without resorting to deictic cues. Then more information is provided about the item, placing it in the pictorial context, with or without direct instruction. This strategy again provides a window on gradeschoolers' intuitive understanding of the difference between learners and native speakers. The latter are supposed to be in command of the desired lexical terms instead of having to learn them, and to be able to understand a more elaborate construction and to perform an indirect instruction.

3.2.5   Clarification strategies

In verbal interaction with a learning partner, maintaining communication depends crucially on the learner's understanding of words and expressions used by the native speaker. This was even more important in a task such as the one described in this paper, where verbal interaction focused on instructions and their interpretation. Therefore, confirming our predictions, the learner condition differed on a number of clarification measures from the native speaker condition.

(1) *Lexical clarification.* Most subjects resorted to word explanation, clarification and definition when addressing learners. There was only one case of lexical clarification in the native speaker condition, where Shay had to explain to his native speaker partner what a chimney was (Israel being a warm country, chimneys are very rare). Most lexical explanations took the form of definitions and focused on three nouns: *ladder, clothes line, and chimney:*

21. Elly: *Laundry with clothes. On the line there're clothes.*

22. Rami: *A ladder is a thing that you climb on.*

23. Revital: *Dog. With a tail. That's walking… Dog. Four legs.*

24. Hilla: *The dog that's barking*

   Learner: *Barking?*

Hilla: *Haw-haw-haw.*

Subjects' definitions mostly concerned the object's function or shape, the type of definition that usually characterizes preschoolers (Snow, 1990; Watson, 1983). It seems that this derives from the combination of cognitive, linguistic and communicative challenges put forward by that this task, as well as an attempt to simplify learner-directed discourse.

(2) *Demonstration by gestures.* When verbal explanations did not suffice in the learner condition, subjects resorted to gestures. This strategy did not occur in the native condition, except for once, when the subject demonstrated a direction.

25. Hilla: *Ladder. It looks like this (drawing in the air). And you climb on it to reach. Like that. You climb (demonstrates).*

26. Chen: *Chimney… something that smoke comes out of. It looks like this, like this (drawing in the air). Like it's a column and on top like this.*

(3) T*ask-promoting acts and comprehension checks.* Task-promoting acts were utterances that resulted in task performance, and these occupied a higher percentage out of all acts in the native speaker condition. Since the number of task-promoting acts was similar in both conditions, this meant that there were many more acts in the learner condition which served to clarify, to check and to confirm learner's comprehension.

3.2.6   Communicative / cognitive simplification

Three other strategies reflected gradeschoolers' assumption about the necessity for cognitive and communicative in addition to linguistic simplification of the message: General instructions, frequent feedback (*good, fine*), and addressing learner by name. Together with lexical simplification and a great deal of repetitions, these features also characterize Motherese or Child Directed Speech, caregivers' input

to young children (Freed, 1981). Gradeschoolers thus perceive their role in the
conversation as language instructors, and monitor their own speech production as well
as that of their conversational partners to achieve maximal performance.

When addressing learners, subjects tended to provide general and often
imprecise instructions about the placement of task items compared to detailed
instructions given to native speakers. For example:

27. Idit to learner: *Put the bird above the broken house, in the air, at the
    top.*

    Idit to native speaker: *Put this bird above this chimney.*

27. Chen to learner: *Now a ladder… above this. Above the clothes.*

    Chen to native speaker: *The ladder. Put it in the last garment that was
    on the line, before the mother.*

28. Asher to learner: *Mommy, yes. Put her next to a house that's not
    falling.*

    Asher to native speaker: *A lady that's hanging laundry. Put her at the
    side of the line knot of the leftside house.*

29. Natalie to learner: *Take some clothes on a string… and put at the
    bottom, in the picture. In the middle. At the bottom.*

    Natalie to native speaker: *Take some clothes on a line, and hang
    them…on the ladder. On the rungs of the ladder.*

The imprecision of instructions directed to learners goes hand-in-hand with
other features of FT that have been discussed in this paper. Precise instructions
require more information, streamlined and smoothly flowing discourse, longer
linguistic units, larger and denser NPs, and specific vocabulary – all of which are
lacking in FT. So gradeschoolers already have sufficient conversational skills and
perception of their addressees' linguistic abilities to accommodate their instructions at

all levels to learner peers. Moreover, in the learner condition subjects demonstrated greater control and awareness of their own speech patterns. They did not "let themselves go" by using slang expressions, humorous comments and spontaneous changes of instructions as they did in the native speaker condition, although they were acquainted with their learner partners.

3.3 General discussion: accommodation strategies in Hebrew-speaking gradeschoolers

Despite the small number of subjects participating in this study, some tentative conclusions can be drawn re conversational capacities in gradeschoolers and their ability to adapt their speech patterns to non-native partners. As a group, children aged 9-10 are already able to perceive the special needs of learner peers and to come up with distinctly modified discourse directed to learners when compared to their unmarked verbal interaction with native speakers. However, they also find such interaction effortful and often frustrating, and there is great variation in their ability and/or willingness to modify their speech so as to ensure comprehension and performance.

FT in gradeschool contains more, and sometimes more superfluous language in shorter units, with many repetitions of morphemes, words, phrases, and utterances, and with direct instructions accompanied by little elaboration in almost formulaic configurations. Lexical choice is simple and often inappropriate, even ungrammatical. Subjects are constantly alert, their behavior often stressed and their attempts to find a working solution effortful. The rhythmic result is often uneven, irregular, staccato discourse, characterized by interruptions in the form of lexical and non-verbal clarifications, feedback and comprehension checks. Subjects' instructions to native speakers clearly indicate that this is not a developmental problem. When talking to

their native peers, discourse rhythm is smooth and flowing, instructions are usually precise and informative, linguistic units are longer and more elaborate, subjects and partners cooperate good-humoredly and with no stress.

Smith et al., (1991) have developed a model that predicts and explains native speakers' frustration, effortful speech patterns and infelicitous accommodation strategies when engaged in FT. According to this model, when the conversational topic is easy and cognitively non-demanding, native speakers are not overloaded and they perform adequately. However, when Gricean maxims of informativeness and clarity are violated by learner partners, cognitive processes in native speakers are switched from automatic and effortless to controlled and effortful, increasing the cognitive load. In our case, subjects were not simply involved in a conversation, but rather had to perform a task, and it was the responsibility of the native speaker subjects to be in charge of the successful performance of this task, an extra burden which might have conflicted with conversational goals (Harding, 1986).

3.3.1 Different styles in gradeschool FT

Subjects in this study differed widely from each other in the strategies they used and in the degree to which they used each strategy. Instruction types can be classified into four groups of FT styles:

(1) Communicative and linguistic accommodations

(2) Normative or less deviant language patterns

(3) Pragmatic strategies

(4) Similar patterns in the learner and native speaker conditions

Communicative and linguistic accommodations. This style consisted of most strategies discussed above in different combinations and degrees, indicating awareness of the difference in conditions. Successful instructors had more

proportionate amounts of linguistic and pragmatic strategies rather than repetitions and demonstrations, and possessed good linguistic abilities. They were able to regulate syntactic structures in their instructions in a planned and structured manner. Both Idit and Revital, for example, had different openings for the two conditions. In the learner condition, Revital (example 30) always started a content unit with a statement about the target item, e.g.,30. *Now a window; a dog; now a woman.* In the native speaker condition, she used a more elaborate address: *Then there is a kind of window, sort of broken; You should take the dog; There's a woman now who's hanging laundry.* Another syntactic strategy was word order change (which was not found diagnostic statistically), as shown in the following example of Elly's learner discourse:

31. *The house that's going to fall… almost falling the house.*

A man sitting in an armchair. Sitting a man…

Markedly normative language patterns. Conversation often contains many hedges, false starts, repairs, repeats and incomplete clauses, as well as in-group and slang terms (Chafe, 1994; Fox et al., 1996). These reflect on-line processing, speaker-addressee orientation processes, and socialization practices (Clark, 1996), but they may hinder comprehension in discourse shared by native speakers and learners. Our gradeschool subjects worked under the assumption that explicitly stated and syntactically well-constructed utterances are easier to process by a learner addressee. Consequently, another stylistic variation of FT consisted of grammatical, even over-normative (i.e., with no "deviant" linguistic patterns) constructions in the learner condition (Ravid, 1995). None of the subjects used this strategy consistently and across the board, but some of them used better-constructed and more normative utterances when instructing the learner. The fact that subjects often used formulaic

constructions with learners helped in creating the impression that these were more grammatical and less choppy structures. For example, Liat's directing her partner in placing a dog in 32.

32. Liat to learner: *Take a dog that's not barking, put it under the building that's not broken..*

Liat to native speaker: *So the dog… what you're touching… like near the house that's not broken.*

Mainly pragmatic strategies. All learner conditions contained pragmatic facilitating devices such as repetitions, demonstrations and addressing learner by name. However the degree to which these were used was higher when subjects found it difficult to achieve comprehension. Then instructions became rigid and inflexible, with monotonous and sometimes impatient repetitions, until the learner selected the correct item by a process of elimination. Revital, for example, is a representative of this FT style, with double the number of words in the learner condition (516) than in the native speaker condition (285), multiple repetitions and frequent use of the learner's name:

33. Revital: *Put it next to the woman, next to the woman, Inya.*

Learner: *Here?*

Revital: *A woman hanging laundry, woman hanging laundry. Laundry, Inya, laundry.*

Similar patterns in both conditions. Every subject made some adaptation in his / her speech in the learner condition, but some of the children did not modify their speech as much as others, and consequently their speech patterns were rather similar in the two conditions. Hilla, for example, used telegraphic speech in both conditions:

34. Hilla to learner: *Bird.*

Learner: *Bird?*

Hilla to learner: *Bird. Above the chimney.*

Hilla to native speaker: *Bird above the chimney.*

Hilla to learner: *Small windows. In the second house. Like this.*

Hilla to native speaker: *Two small windows. In the house that's leaning aside.*

Hilla used lexical specificity when addressing the native speaker, but her utterances had similar syntactic organization in both conditions. Dudi, in contrast, had similar lexical and syntactic structures in both conditions.

35. Dudi to learner: *Now take the woman, put her next to the laundry, eh…on the laundry.*

Dudi to native speaker: *Now put the woman. Take the woman, put her next to the girl's ladder.*

Dudi to learner: *Take the bird and put it above the chimney as if it's flying away from the chimney.*

Dudi to native speaker: *Now take the bird high high up. Put as if it's flying away out of the chimney.*

3.3.2   Factors affecting gradeschoolers' FT style

A number of factors were found to determine how well a gradeschooler could modify his / her speech patterns in the learner condition. These were (i) the communicative and linguistic level of the native speaker subject; (ii) the discourse style of the conversational partner; and (iii) the nature of the specific exchanges (content units) with the accompanying items.

Speaker's communicative and linguistic level. Subjects' linguistic abilities were reflected in the degree of flexibility in selecting vocabulary and constructing

syntactic strings. The lower this level was, the more pragmatic the devices and the less diverse and more repetitive the resulting discourse.

Hilla's style (see above) was telegraphic in both conditions. Her adaptation consisted of lexical and pragmatic accommodations in the learner condition (see examples 24 and 25 above). She often used lexically specific terms in the native speaker condition, e.g., 36. *The smoke from the hearth is going up the chimney* (and see also 34 above).

Shay, in contrast, had restricted access to lexical items and often spoke hesitantly in both conditions, producing choppy discourse with many repetitions, word explanations and comprehension checks as aids. For example, 37. (addressing learner) *Take a round window and put it on the house. This one. On this triangle of the house. The roof…Did you put it?* (addressing native speaker) *Take the round window and put it in the house that's… in this, in the triangle. In the roof. The house that's not broken.*

Subjects' linguistic level was also expressed in the amount of sensitivity to learners' responses. Some subjects ignored learners' comments either because of presuppositions which did not allow room for unexpected comments, or because they did not understand the question, as in 38.

38. Natalie to learner: *… Put the bird on the right side.*

Learner: *Right?*

Natalie to learner: *Bird, bird.*

But in other cases, subjects were able to respond appropriately and in a communicatively adept manner, and even demonstrate understanding of unclearly phrased questions.

39. Learner to Hilla: *In the house like this or in the house like this?*

Hilla to learner: *In the straight house.*

40. Learner to Dudi: *House not going there?*

Dudi to learner: *Not crooked house². Straight.*

Effect of the conversational partner. In general, communication in the native speaker condition was less controlled, more easy-going and flowing than in the learner condition (see above). A number of communicative behaviors which occurred in the native speaker condition were totally absent in the learner condition. One was humorous exchanges between conversational partners. A second was elliptic utterance completion:

41. Native speaker to Reut: *…that's next to the…*

Reut to native speaker: … *the leg of the woman's that's hanging a sock.*

A third native speaker-only behavior involved the addressee's engaging in questions and guesswork with the subject so that he or she only had to confirm or complete the instruction. Elly, in particular, was almost passive in the native speaker condition with a particularly alert conversational partner, whereas he had a great deal of work explaining and detailing his instructions in the learner condition.

42. Native speaker to Elly: *To put (=should I put) the mother that's hanging laundry on the side?*

Elly to native speaker: *Yes, but on the side of the house that's standing.*

Elly to learner: *A woman, a person. Woman is here. That she's standing. A woman that she's hanging laundry. On a line. Standing³.*

43. Native speaker to Elly: *To put (=should I put) the laundry between the two houses?*

Elly to native speaker: *Yes.*

The more attentive and communicatively adept the conversational partner, either learner or native speaker, the more interactive the discourse was. Dudi, for example, conversed with a particularly observant and alert Hebrew learner, who did not let go until he was sure of the precise location of the task items.

44. Dudi to learner: *Now take the second dog. Put it under the straight house.*

Learner: *There's no room.*

Dudi: *There's no room?*

Learner: N*o.*

Dudi: *Low-dow down. Like you put the second dog.*

Learner: *Don't have.*

Dudi: *What do you have down there?*

Learner: *A dog and a girl.*

Dudi: *Then not the first dog. The one with the teeth. Put under the crooked house.*

In other cases, when the learner was less outspoken, discourse was less interactive, consisting mostly of instructions for performance and lexical explanations when necessary, and instructions were often general and unfocused (see above). There were whole exchanges where the learner performed the task following instructions with no verbal response. There were also cases where subjects deliberately gave up leading the learner to a precise location of a task item, foreseeing incomprehension, e.g., 45. Reut to learner: *And what about this part? Put it wherever you think it should be.* In very few cases, subjects imitated (either consciously or unconsciously) learners' interlanguage.

46. Learner: *More one house?*

Elly: *More one house.*

Other examples of native speakers' erroneous Hebrew in the learner condition are found in 40 and 42 above. This kind of learner-directed response in native speakers engaging in FT is described in Ferguson (1975).

Effect of the content units. Task items differed in the degree of difficulty they created for subjects. Particularly hard items were those with unfamiliar names, such as chimney and ladder, and particularly the latter, which entailed juvenile functional definitions (see above). Items which gave rise to a variety of strategies were figures engaged in particular actions, such as a woman hanging laundry, a man reading a newspaper, and a barking dog. These led to a number of modified constructions: Lexical simplification or specificity (e.g., *mother / woman, lady; father / person, man; string / rope, line, hanger; pages / newspaper*); pruned N[PP] constructions (*woman holding a sock → woman with a sock; barking dog → a dog with teeth; sitting man → man with a chair*); imprecise identification of several items of the same kind, e.g., identifying a barking dog out of a pair as *dog* and the second one as *another dog.*

Finally, an examination of how native speaker subjects describe the two houses in the task picture sheds some light on their perception of learner-directed discourse. In the learner condition, the task houses were referred to without any additional information 22.5% of the time. 62% of the time, subjects referred to a house with some external property, e.g., *the broken house, the crooked house,* while deictic comments (*this one, the first one*) constituted 10% of the descriptions of the house. In the native speaker condition, in contrast, bare references to the houses were 10%, external properties 42.5%, deictic references 5%, and the spatial

configuration of the house (*the house in the air, on the left*) constituted 10% of the descriptions. This is further support to the frequently mentioned hypothesis that native speakers focus more on the here and now when talking to learners, while touching on more diverse and elaborate contents when talking to native speakers (Katz, 1981; Zuengler, 1991).

4.0 Conclusions

Most studies of language in gradeschool children focus on the acquisition of literacy and on sustained discourse. In this study we have examined conversational skills and attention to interlocutor's speech features in Hebrew-speaking gradeschoolers in verbal interaction with Russian-speaking Hebrew learners and with Hebrew native speakers. In general, every single FT feature mentioned in the literature is found in the conversational discourse produced by these 4th and 5th graders. Thus, in addition to being proficient story tellers (Berman & Slobin, 1994), gradeschool children are quite skilled conversationalists. Their attention to speech patterns in learner versus native speaker peers requires linguistic control and monitoring of their own discourse and comprehension processes in their partners, as well as sufficient communicative proficiency and metalinguistic awareness to come up with alternatives to unmarked vocabulary and syntactic constructions. However, gradeschoolers differ widely in their communicative skills and in their ability to lead the conversation, steer their partners towards desired goals, and supply missing information in cases of communication breakdown.

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Linguistic measure	Examples
Lexical simplification	*Clothes on a string FOR laundry*
Lexical specificity	*kores 'collapsing' FOR nofel 'falling'*
Predicate-initial clause	*Be (=there's) a <u>lady</u> who's hanging laundry*
Change in word order	*A man sitting in an armchair. Sitting a man…*
Compound	*Knot line*
Bare NP	*The dog*
NP with one expansion	*The crooked house*
Extended NP	*The house that's falling*
Bare VP	*Put*
VP - single complement	*take a window*
Extended VP	*Put her next to the line*

Table 1. Illustration of the linguistic measures analyzed.

Pragmatic measure	Function	Example
Task-promoting act	Starts a new topic or initiates a new activity	*take a man who's reading a newspaper*
Clarificatory act	Repeats and expands to clarify speaker's intent	*Put in the broken house. That was broken. At the top. The broken house.*
Comprehension and / or performance check	Verifies addressee's comprehension and/or performance of instruction	*Did you put it?*
Feedback	Maintains interpersonal communication lines	*Good, fine*
Repetition	Stress and emphasis; leads learner from the general to the particular; perseverance	*Take a dog that's not barking. Dog not barking*
False starts and incomplete units	Function in on-line processing, speaker-addressee orientation processes	*Yes. And put it… Take a bigger one, like you put now*
Less focused instructions	General and often imprecise instructions	*Now a ladder… above this. Above the clothes*
Interjections	Surprise, displeasure	*Oops*
Addressing interlocutor by name	Speaker-addressee orientation processes	*A woman hanging laundry, woman hanging laundry, laundry, Inya, laundry*
Lexical explanation	Attempts to explain words	*A ladder is a thing t you climb on*

Table 2. Illustration of the pragmatic measures analyzed, with their functions.

Linguistic measure	Native speaker interlocutor		Learner interlocutor		df	t
	Mean	SD	Mean	SD		
Mean length act	2.96	5.72	2.47	3.86	11	*3.05
Total number of words	258	85.66	347	97.44	11	**3.76
Type / token ratio	1.52	.21	2.13	.51	11	**4.12
Lexical simplification	.17	.19	.76	.55	11	**3.93
Bare NPs	5.97	2.51	9.36	2.77	11	**3.71
VPs with a single complement	1.72	1.22	2.62	1.13	11	*2.70
Lexical specificity	.44	.56	.20	.29	11	1.30

*P<.05, **p<.01

Table 3. Mean numbers, standard deviations and t – values of significant linguistic measures in speech per content unit (exchange) produced by the 12 native-speaking subjects, by interlocutor type: native speaker and learner.

Linguistic measure	Native speaker interlocutor		Learner interlocutor		df	t
	Mean	SD	Mean	SD		
Total number of acts	9.89	3.06	16.09	6.03	11	3.72**
% Conversation-promoting acts	30.16	10.36	16.10	8.84	11	3.68**
Comprehension checks	.02	.07	.26	.31	11	2.72*
Repetitions	.85	.79	4.45	3.15	11	4.13**
Demonstration by gestures and prosody	.08	.14	1.22	.92	11	4.48**
Lexical explanation	.01	.03	1.05	.41	11	8.57**

*P<.05, **p<.01

Table 4. Mean numbers, standard deviations and t – values of significant pragmatic measures per content unit (exchange) in speech produced by the 12 native-speaking subjects, by interlocutor type: native speaker and learner.

Appendix I: The completed picture

Appendix II: The partial picture.

Notes

[1] The noun 'circle' *igul* and adjective 'round' *agol* share the root *'-g-l*.

[2] Erroneous Hebrew.

[3] Erroneous Hebrew.