

Linguistic recycling in language acquisition

Child-directed speech and child speech in the study of language acquisition

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The paper examines how children quote their parents' utterances. In other words, it investigates linguistic recycling as an aspect of language learning and how the child-directed speech (CDS) of adults influences child speech (CS). This topic is examined especially in the light of research made in the crosslinguistic project on pre- and protomorphology in language acquisition. *Premorphology* is characterized by rote-learned forms, which the child has memorized and stored as chunks from CDS (e.g., Finn *vettä*, Est *vett* 'water,' partitive form). During *protomorphology*, the child imitates CDS and produces analogical forms (e.g. Finn CDS: *söi* vs. CS: *syöi* 'ate', Est CDS: *ütles* vs. CS: *ükki* 'said'), which then gradually evolve into adult-like grammar. Usage-based approaches to language acquisition rely on the assumption that language structures are learned from language use. Typical material in present-day child language research is based on tape recordings and transcripts made from these recordings. This kind of data makes it possible to take into account the influence of CDS to CS in a more accurate way than the earlier data collecting methods, such as diary material, which usually contains mostly utterances produced by the child do. The article examines how CDS gives models to CS and how the acquisition proceeds from early rote-learned forms to adult-like grammar from the perspective of frequency distributions of inflectional patterns and elaboration on linguistic forms in CDS – CS interaction. On the basis of analyzed speech samples and previous results, it is obvious that the quoting in children's and adults' speech is present on different levels of language and is often bidirectional in nature.

Keywords: language learning, child-directed speech, child speech, premorphology, protomorphology, bidirectional quoting



1. Introduction

The very nature of early language acquisition is quoting: At first, children repeat or attempt to repeat expressions and word forms used in child-directed speech (CDS). This early stage of child language can be called *premorphology*, because there is still no inflection. This stage is characterized by the use of isolated word forms such as in Finnish *anna* ‘give’, *kat(s)o* ‘look’, *nalle* ‘teddy bear’, *käsi* ‘hand’, *vet-tä* ‘water-PARTIT’, *koti-in* ‘home-ILL’, and in Estonian *kommi* ‘candy.PARTIT’, *õue* ‘outside.ILL’, *tule* ‘come.IMP’ etc. Later, in the stage of *protomorphology*, children start to inflect words, that is to use words in several forms according to the models provided by CDS, for example constructing such miniparadigms as Finnish *anna* ‘give’ : *antaa* ‘gives’ : *anto(i)* ‘gave’ and *käsi* ‘hand’ : *kät-tä* ‘hand-PARTIT’ : *käte-en* ‘hand-ILL’. The frequency of different forms and patterns in CDS plays an important role in the process of acquisition inflection, as is shown in the articles about different languages in Stephany and Voejkova (2009).

Transcripts of tape-recorded parent-child interaction provide good possibilities for quantitative research. From the transcripts, one can calculate the frequencies of linguistic categories, forms, patterns, and lexemes. The frequency of linguistic elements in CDS has been a central issue when analyzing the child’s speech development. The usage-based approach to the first-language acquisition (see Lieven, 2016; Tomasello, 2003), which has gained prominence among different developmental approaches in recent decades, considers CDS and more specific factors like frequency and transparency (e.g., every inflectional suffix is separable and has a separate meaning in a inflectional form) as a key factor in language acquisition. In examining how children learn language skills, it is useful to separate between intake, i.e., what the young child can be considered to perceive or notice of the input, and uptake, i.e., what children abstract from the intake and store in their implicit memory (Dressler et al., 2017, pp. 5–6).

This paper presents the ways in which CDS is taken into account in present-day child language research as a means to shed light on how child speech (CS) is influenced by adult speech. This is treated in light of selected topics examined in the crosslinguistic project on pre- and protomorphology in language acquisition.¹ The writers contributing to this project were Laalo as a researcher of Finnish, and Argus, as a researcher of Estonian.

1. The project participants are linguists conducting research on several languages from different language groups such as Indoeuropean (Austrian German, Croatian, Danish, Dutch, French, Greek, Italian, Lithuanian, Russian, Spanish, etc.) and Fennougric (Estonian, Finnish, Saami) languages, Hebrew and Yucateco Maya. The results of the project have been published both in scientific articles and in compiled volumes.

The paper presents the influence of CDS to CS in terms of frequency in Section 2. An overview of one of the adaptation strategies used by parents, the use of diminutives, is provided in Section 3. Section 4 deals with the interaction strategies used by parents during the child's language development. Section 5 is an overview of the relationship between a child's acquisition of early grammar and linguistic recycling.

2. Frequency distributions of inflectional forms

In CDS, the frequency of different forms has some variation. The closely related languages Finnish and Estonian are typologically mainly agglutinative, but Estonian is more fusional than Finnish. The acquisition of these languages has many similarities (Argus, 2009; Laalo, 2009).

The influence of CDS to CS can be observed in frequency distributions of inflectional forms. For example, the distribution of case forms of nouns is quite similar in CDS and CS. In Finnish, nominative is the most frequent case, next comes partitive, then follows genitive-accusative; after these grammatical cases, come the local cases, among them first illative, allative, and adessive (Laalo, 2009, pp. 68, 79–80). This is actually very natural, because these frequency distributions are observed in the use of Finnish case forms in general. The distributions also reflect the pragmatic importance of these frequently used cases. In Estonian, the case forms are distributed in a very similar way as in Finnish: Nominative is the most frequent case both in CDS and CS, and next come partitive, genitive, and illative (Argus, 2009).

In the research on the acquisition of Estonian noun inflection, CDS as a valuable source of information has been used in several subtopics. In the acquisition of different case forms of nouns (Argus, 2009, pp. 111–152) by two Estonian children, the distribution of different case forms is very similar in CS and CDS. For example, in a 60-minute recording of one child's speech at the age of 2;0 (2 years and 0 months), the frequencies of the child's singular case forms are quite similar to those found in the input. The most frequent case occurring in the input is the nominative (e.g. 52 lemmas/191 tokens, i.e., usages).² While the partitive (20/36), genitive (15/31), and illative (9/20) also occur quite frequently, the inessive, comitative, and allative are found less frequently, followed by rarely used elative

2. Lemmas refer to nouns as a lexical unit as a whole and tokens to every single appearance, that is, actual usage of that noun, e. g., when a child uses the noun *apple* three times (twice *apple*, once *apples*), it was calculated as one lemma and three tokens.

and translative forms. Noun case forms were acquired by Estonian children in the sequence of their frequency in the input.

Also, the emergence and frequency of plural case forms in CS correspond to input frequencies to a great extent. In the entire recordings of one child's input, nominative plural forms occur most frequently both lemma- and tokenwise, followed by plural partitives, genitives, comitatives, and allatives in descending order of frequency. Nominative and partitive plural are also the first forms to emerge in the child's speech. All plural case forms missing from the input (such as local cases and most of the marginal cases) are not found in the child's speech either.

The frequency of inflectional patterns in CDS can also influence the order of their acquisition. For example, the choice of short (fused) over long (agglutinating) case forms only exists in the partitive and illative singular in Estonian, and the frequency of short illative and partitive forms is much higher than that of the long forms also in the input. The short illative form appears in child's speech at 1;8 (e.g. *'kotti* 'bag-ILL'), while the first occurrence of the long illative with the ending *-sse* is only found at age 2;0 (e.g. *tasku-sse* 'pocket-ILL'). Short illatives are usually used with high-frequency words and are highly irregular, but they are easier to pronounce because they are usually trochaic. Although long illatives can, in principle, be formed from these words (e.g., *koti-sse* 'bag-ILL') they are neither used in colloquial Estonian nor in CDS, so that they are not found in the input. The child's use of the short illative rather than the long one is, therefore, simply a reflection of input frequency.

The early genitives in the two boys' speech all come from nouns belonging to the inflectional class in which the nominative and genitive singular coincide:

- (1) Hendrik at 1;6 (Estonian)

kutsu *mämm*
 dog.GEN food.NOM
 'dog's food'
venna *auto*
 brother.GEN car.NOM
 'brother's car'

- (2) Andreas at 1;8

emme *käsi*
 mummy.GEN hand.NOM
 mummy's hand'

Input preferences seem to play a considerable role here: Two-syllable words in weak grade, which do not formally distinguish between the nominative and genitive singular, occur very frequently in Estonian CDS (see also Pajusalu, 2001, p.85). Not only do these forms fit the trochaic phonological pattern, but the

homophony of the two cases also provides the beginning learner with convenient multipurpose forms.

The frequency of certain pattern in CDS can also have a direct impact on the acquisition of first miniparadigms (three different forms from the same lexeme). For example, the first words of one child under observation, forming miniparadigms at 2;0 belong to one and the same regular and productive inflectional class with weakening gradation: *poeg* 'son.NOM', *lill* 'flower.NOM', *klots* 'toy block.NOM'. At this point in the boy's development, the input frequency of words of this class is quite high: Approximately 30% of all nominal lexemes belong into the above-mentioned inflectional class in the input.

The frequency effects can be observed also in the acquisition of semantic roles of different case forms. The early case forms in the speech of Estonian children fulfill a number of semantic functions, such as neutral participant, partial and total object, destination, instrument and companion, possessor, and location. These semantic roles, as well as the lexemes and case forms by which they are expressed, are also frequently encountered in the children's input so that input frequency may be said to play a major role in this early language development period.

The frequency of some linguistic element in the CDS has been also used as an exclusive factor in the research on the acquisition of morphology. For example, the early emergence of the partitive plural cannot be explained by input frequency in Estonian since nominative plurals occur ten times more frequently in the input. If the reason of early acquisition of some element cannot be the input frequency, it may be the importance of the semantic functions of the case forms in everyday interaction or pragmatic factors such as different conversational strategies of children and adults. For instance, children use more speech acts of requesting (with partitive forms), while parents use more naming of different objects using nominatives.

3. Diminutives: Simplification of linguistic forms in CDS – CS interaction

CDS can simplify, regularize, and highlight relevant linguistic structures and thus facilitate the language acquisition process (Laalo & Kunnari, 2012; Savickiene & Dressler, 2007). A very characteristic feature of CDS is the use of diminutives. Diminutives are morphological derivations that express smallness and have affection and endearment as connotations. The meaning of smallness belongs in a natural and inherent way to many diminutives in CDS, for example, to those referring to the child's body parts, toys, and toy animals.

In the crosslinguistic project on pre- and protomorphology in language acquisition, one fruitful topic of research has been the use of diminutives in CDS and CS. From the perspective of language acquisition, there are many advantages when diminutives are used instead of their simplex counterparts (e.g., Finnish diminutive *känny* instead of the simplex *käsi*): Diminutives simplify the segmentation of inflectional forms and thus facilitate the acquisition of morphology (cf. the genitive and partitive forms *känny+n* : *känny+ä* vs. *käde+n* : *kät+tä*). They also increase word-ending invariance and decrease complexity (cf. *känny* vs. *käsi*: *käde-* : *kät-*). Diminutives also often have regular stress patterns, for example regular trochaic pattern. When used in CDS, diminutives are transparent and easier for the child to perceive than the simplex words, and in CS, their different inflectional forms are easier to produce. It is unclear how much CS has been affected by adults' use of diminutives. However, it seems that to some extent adults have – probably unconsciously – adapted their speech to more simple and transparent inflection patterns, which facilitate the child's efforts to both perceive and use different forms. In general, diminutives are not frequently used in Finnish and Estonian, but in CDS and CS they are used more than in adult-oriented speech.

3.1 Diminutives in Finnish

There are several types of diminutives in Finnish; those ending in *o*, *ö*, *u*, and *y* are inflected in the most simple and transparent way. Other types are, for example, *nen*-diminutives (e.g., *kirja* 'book' > *kirjanen* 'booklet'), *ke*-diminutives (e.g., *niemi* 'cape' > *niemeke* 'little cape') (*UkkA*-diminutives (e.g., *nenä* 'nose' > *nenukka* 'little nose') (Laalo, 2007: 265–266).

The use of diminutives in CDS and CS is a practical way to avoid some complex stem alternations, which are common in Finnish noun inflection. In diminutive formation, the words are typically modified so that their inflection becomes more transparent. For example, the nominative, genitive, partitive singular, and partitive plural forms of the following diminutives have no stem alternations, but all suffixes (genitive *n*, partitive *A*, plural *j*) are simply added to the invariant stem:

- (3) *känny* 'hand': *känny+n*: *känny+ä*: *känny+j+ä*
poju 'boy': *poju+n*: *poju+a*: *poju+j+a*
jänö 'bunny': *jänö+n*: *jänö+ä*: *jänö+j+ä*

When these transparent diminutive paradigms are compared with their corresponding non-diminutive (simplex) counterparts, the inflectional complexity of the latter, especially in stem formation is evident:

- (4) *käsi* 'hand': *käde+n*: *kät+tä*: *käs+i+ä*
poika 'boy': *poja+n*: *poika+a*: *poik+i+a*
jänis 'rabbit': *jänikse+n*: *jänis+tä*: *jäniks+i+ä*

These two groups of inflectional paradigms illustrate the advantages that diminutives offer the children acquiring inflectional morphology: The diminutive stem, which has no stem alternations, is easy both to perceive and to produce. The inflectional suffixes are added to the same invariant stem in all forms, whereas in the non-diminutive counterparts, there are complex stem alternations of different types.

3.2 Diminutives in Estonian

Noun diminutive formation is very productive in Estonian, although there are only three diminutive suffixes used.

The most frequent suffixes of diminutive formation are: *-u* (e.g., *nukk* > *nuk-u* 'doll-DIM', *käsi* > *kät-u* 'hand-DIM', *lutt* > *lut-u* 'pacifier-DIM'); *-ke* (e.g., *kala* > *kala-ke* 'fish-DIM', *saba* > *saba-ke* 'tail-DIM'); and double diminutives formed with the suffix *-kene* (e.g., *kala* > *kalakene* 'fish-DIM'). Diminutives consisting of two subsequent suffixes are common in modern Estonian but are not as frequent as the other two suffixes in the speech of children and their caregivers. In early CS as well as in CDS diminutives mainly refer to family members but also to animals and different items belonging to children (e.g., *tekk* > *tek-u* 'blanket-DIM').

Noun diminutives provide the largest group of suffixed noun derivatives in the early speech of Estonian children and CDS. Analyzing three Estonian child language corpora (Kapanen's, Vija's, and Zupping's databases)³ we can see that diminutives form the biggest group of noun derivatives: one-quarter or even one-half of all noun derivatives in the speech of children (see Table 1).

Children start to use the first diminutives very early: The first diminutives are mostly *u*-diminutives, and they are found already in the first recordings of children's speech, e.g., at age 1;3 in the speech of Martina (*nuk-u* 'doll-DIM'). Although the *ke*-diminutives emerge also quite early, (e.g., *linnu-ke* 'bird-DIM', Martina, at age 1;5) they are not so numerous as *u*-diminutives. The main reason *u*-diminutives are preferred in CS and CDS is their morpho-phonological structure. *U*-diminutives will not make the word longer than two syllables and are, therefore, easy for the child to pronounce. The second reason is inflectional: Using the pattern of diminutive formation the stem loses its grade alternation

3. Estonian child language corpora can be found in CHILDES database at <https://childes.talkbank.org/browser/index.php?url=Other/>

Table 1. Noun derivatives in the speech of Estonian children and their caregivers (children's age 1;3–3;0)

	Number of diminutive tokens	Number of derivative tokens	The percentage of diminutives among all noun derivatives
Martina	50	181	27.6%
CDS to Martina	60	316	19%
Andreas	46	101	45.5%
CDS to Andreas	51	248	20.6%
Linda	31	100	31%
CDS to Linda	204	668	30.5%

(e.g., *lutt* : *luti* : *lutti* 'pacifier.NOM : pacifier.GEN : pacifier.PARTIT' vs. *lut-u* : *lut-u* : *lut-u-t* 'pacifier-DIM.NOM : pacifier-DIM.GEN : pacifier-DIM-PARTIT') and shifts to the much easier inflectional pattern. In that way, the caregivers (probably unconsciously) using diminutives offer easier inflectional patterns to children and make children's acquisition of quite complex system of Estonian inflection a little bit easier.

4. Elaboration of linguistic forms in CDS – CS interaction

4.1 Quoting in CDS – CS interaction

In early language acquisition, the child uses word forms as whole chunks acquired as such from CDS; this is a very basic type of quoting. These early word forms are actually recycled as unanalyzed chunks – or, if they are long or phonetically demanding, children at least attempt to recycle them, but may simplify the chunks. Caretakers often use soft means to elaborate the phonetic, morphological, and syntactic features of CS by repeating child utterances in an elaborated form, using full forms. This interaction is a kind of mutual quoting and recycling. For example, in the following example from a recording by the Finnish-speaking Mari, the mother repeats the two final words of the child utterance and offers a phonetically elaborated infinitive form (first example) or plural partitive form (second example) instead of the form used by the child:

(5) Mari 2;1 (Finnish)

Mari: nyt ne haluaa kalo-ja puulutta-maan.
 now they want fish-PL catch-ing
 'Now they want to go catching fish.'

Mother: kalo-ja pyydystä-mään
 fish-PL catch-ing
 'Catching fish.'

(6) Hendrik 2;3 (Estonian)

Hendrik: *tät-u pesi.*
 hand-DIM wash
 '(I) washed (my) hands'

Mother: *kät-u-sid pesi-d?*
 hand-DIM-PART.PL wash-2.SG.PAST
 '(you) washed (your) hands?'

Hendrik: *jaa.*
 'yes'

4.2 CDS – CS interaction schemes in the acquisition of adjectives

In CDS, one way to help the children to figure out the meaning of adjectives is to offer contrast information. Corpus studies reveal that both in CDS and in CS, antonymous adjectives (e.g., good – bad, and color adjectives) co-occur in sentences more often than would be expected by chance (Tribushinina, Voekova, & Nocetti, 2015, p. 4). One way to learn the language, also the use of adjectives, is to repeat immediately what adults have said, which is one way of quoting.

In early language acquisition, the children's vocabulary contains numerous nouns. Verbs are not as numerous because they are semantically more challenging; that is why they are acquired slowly at first, but, at some point, the verb spurt occurs (Argus & Kõrgesaar, 2014, p. 45). Adjectives, in turn, present an even greater challenge because of their conceptual complexity, and also because they are not as frequently used in CDS as are nouns and verbs. As a result, the first adjectives are acquired only later than the first nouns and verbs, and the number of adjectives grows rather slowly for several reasons: They are conceptually complex, their frequency is lower than that of nouns and verbs, and their form (agreement) and meaning depend on the head nouns (*cf.* small tiger – small cat).

Certain interesting CDS – CS interaction schemes can be observed in the acquisition of adjectives (Laalo, 2015). The simplest one of them is repetition: The child repeats the adjective occurring in CDS – or at least tries to repeat it. A most

natural way to repeat is answering a question, as the following examples from Mari's transcripts show. Finnish-speaking Mari had a relatively strong trochaic stage, during which she used almost exclusively two-syllabic (trochaic) word forms. In the following examples, the full form of the adjective is used in the question in CDS, and this adjective, the communicatively most important word in the CDS utterance, is repeated in Mari's answer but the adjective is shortened to fit the trochaic pattern:

(7) Mari 1;7 (Finnish)

Father: On-ko sopi-va?
COP-CLITIC fit-PARTICIPLE
'Is it fitting?'

Mari: Sopi.
'fitting' (shortened)

(8) Mari 1;7 (Finnish)

On-ko tulppaani-t punais-i-a?
Father: COP-CLITIC tulip-PL red-PL-PARTIT
'Are the tulips red?'

Mari: Puna [< punaisia].
'red' (shortened)

Besides answering questions, children can repeat adjectives for other reasons, for example, when expressing mutual understanding.

(9) Andreas 1;8 (Estonian)

Mother: näe kui suur ja pikk auto.
look.IMP how big.NOM and long.NOM car.NOM
'look at this big and long car'

Andreas: pikk auto.
long.NOM car.NOM
'long car'

In the following examples, phonetic elaboration is a part of mutual interaction. In the first example, the adjective *kypsä* 'completely cooked' is confirmed by both sides. The adult uses an adjective in his question, the child repeats it in the answer in a phonetically reduced form, and then the adult gives the unreduced full form when confirming the child's utterance:

- (10) Tomi 1;9 (Finnish)
 Father: *On-ko kypsä-ä?*
 be&3SG-CLITIC completely cooked-PARTIT
 ‘Is (the food) completely cooked?’
 Tomi: *Kyppä-ä* [*< kypsä-ä*].
 completely cooked-PARTIT
 ‘Completely cooked.’
 Father: *Kypsä-ä on.*
 completely cooked-PARTIT be&3SG
 ‘Completely cooked.’

In the next example the conversation proceeds in a similar way. The child repeats the adjective in a reduced form, and the mother uses the unreduced full form:

- (11) Martina 1;3 (Estonian)
 Mother: *Martiina vaata-b, see on põnev onju?*
 Martiina.NOM look-3.SG it.NOM be.3.SG exciting.NOM isn't it
 ‘Martina is looking, this is exciting, isn't it?’
 Martina: *põne* [*< põnev*].
 exciting (shortened)
 Mother *põnev, diktofon on põnev.*
 exciting.NOM recorder.NOM be.3.SG exciting
 ‘exciting, the recorder is exciting’

In the following examples, the elaborative interaction starts when the child introduces an adjective to the discussion, the adult repeats it, elaborating it phonetically, and, finally, the child confirms that this is what was meant. If the phonetically elaborated form is difficult for the child to produce, it is possible to give still another confirmation by using a synonym, for example a synonymous onomatopoeic expression as in the following example from the recording Tomi 1;8:

- (12) Tomi 1;8 (Finnish)
 Tomi: *Yhä* [= *hyvä-ä*].
 good-PARTIT
 ‘Good.’
 Father: *Ol-i-ko hyvä-ä?*
 be-PAST-CLITIC good-PARTIT
 ‘Was it good?’

Tomi: Yhä [= hyvä-ä].

good-PARTIT

‘Good.’

Tomi: Nam nam.

(onomatopoetic expression for something which tastes good)

Although the child may not always be able to produce the full form, it is evident that the child is attempting to use it:

(13) Tomi 1;10 (Finnish)

Tomi: Aamis.

‘Ready.’ (< valmis)

Father: Valmis.

‘Ready.’

Tomi: Aamis.

‘Ready.’ (< valmis)

(14) Mari 1;7 (Finnish)

Mari: Vava [= vahva].

‘Strong.’

Father: Tuuti on vahva.

Tuuti COP strong

‘Tuuti is strong.’

Mari: Nalle vava [= vahva].

teddy bear strong

‘The teddy bear is strong.’

Father: On-ko nalle-kin vahva?

COP-CLITIC teddy bear-CLITIC strong

‘Is the teddy bear also strong?’

(15) Linda 1;11 (Estonian)

Linda: *Linda on mōlu* [= *mōru*].

Linda.NOM be.3.SG bitter.NOM

‘Linda tastes bitter’

Mother: *mōru ole-d vōi?*

bitter.NOM be-2.SD or

‘Are you bitter?’

Linda: *ja*.

‘yes’

- Mother: *minu aru-st ole-d sa nii maitsev.*
 I-GEN mind-ELA be.2SG YOU.NOM SO tasty.NOM
 'I think that you are so tasty'
- Linda: *mõlu [= mõru] ikka.*
 bitter.NOM till
 'still bitter'

If the full form in CDS is phonetically very complex, the child can give the confirmation implicitly, not by repeating the adjective but by normal exchange of questions and answers so that the phonetically complex word is elliptically deleted:

(16) Tomi 1;9 (Finnish)

Tomi: *Määkä-ä [= märkä-ä].*
 wet-PARTIT
 'Wet.'

Father: *Mikä on märkä-ä on-ko joku märkä-ä?*
 what COP wet-PARTIT COP-CLITIC something wet-PARTIT
 'What is wet? Is something wet?'

Tomi: *Peikko.*
 troll
 'The troll.'

(17) Martina 1;10 (Estonian)

Martina: *see on kas see või on kuvaa[=kõva]?*
 it.NOM be.3.SG if it.NOM butter.NOM be.3.SG hard.NOM
 'it is, where, is this butter hard?'

Mother: *ma võtsi-n külmkapi-st, praegu on kõva*
 I.NOM take-1.SG.PAST freezer-ELA now be.3.SG hard.NOM
natukene, palun
 little please
 'I took from the fridge, now (it) is hard a little bit, please'

Martina: *natukene*
 'a little bit'

5. The early grammar of the child and CDS

When the child starts to construct word forms by producing combinations of lexical stems and suffixes, the developmental stage of protomorphology is reached. The

child uses his/her own rules, which correspond to a large extent with the rules of adult grammar but sometimes are more straightforward or simplified. The models provided by CDS help in the fine-tuning of the first rules, but a more comprehensive implementation of the adult models is a relatively slow process. This can be illustrated by the following examples from Finnish-speaking children (Laalo, 2011).

In CS, there is a tendency to use transparent forms instead of the more complex established forms. For example, in the production of past tense verb forms certain one-syllabic verbs have complex stem alternations such as change of diphthong type (e.g., *syö* 'is eating' : *söi* 'ate', *tuo* 'brings' : *toi* 'brought'). Children can produce transparent (agglutinating) past tense forms so that they simply add the past tense suffix to the present tense form of the verb; so instead of the standard past tense form *söi* 'ate', the child produces an analogical form *syö+i* 'ate', and instead of *toi* 'brought' an analogical form *tuo+i* 'brought' (Laalo, 2011, pp. 199–203). The model for these analogical formations is provided by the transparent verb type which involves many frequently used verbs, for example *sanoa* 'say', past tense *sano+i*, *katsoa* 'look', past tense *katso+i*, *kaatua* 'fall', past tense *kaatu+i* etc. In this transparent verb type, the stem ends in a labial vowel and the suffix *i* of the past tense is simply added to the stem.

In these one-syllabic verbs, not only is the past tense formed in an exceptional way (the diphthong changes *syö* 'eats' vs. past tense *söi* 'ate') but the conditional forms of these verbs, similarly, also have a diphthong change: indicative *syö* 'eats' vs. conditional *söisi* 'would eat', indicative *tuo* 'brings' vs. conditional *toisi* 'would bring', indicative *vie* vs. conditional *veisi* 'would bring'. Children's analogical formations include transparent conditional forms (e.g., *syöisin* instead of *söisin* 'I would eat') which are formed according to a general, transparent and productive model *sanoo* 'says': *sanoisi* 'would say', *katsoo* 'looks' : *katsoisi* 'would look'.

In the following Example (Laalo, 2011, p. 202) Tomi 2;₁ produces an analogical and transparent past tense form *syö-i-n* consisting of the stem of the verb (*syö-*), the past tense suffix and the suffix of the first person singular when answering the question whether he has eaten the bread. The CDS provides a model for past tense with a standard form *sö-i-t*, but the past tense form in CS is not formed according to this immediately preceding model in the question.

(18) Tomi 2;₁ (Finnish)

Father: *jo-ko sinä sö-i-t leivän?*

already-Q you eat-PAST-2S bread

Did you already eat the bread?

Tomi: *syö-i-n.*

eat-PAST-1S

I ate.

In a similar way, in the next Tomi 2;2 Example (Laalo, 2011, p. 202), the question in CDS offers a model with a past tense form *toi* but Tomi produces an analogical, transparent past tense form consisting of the stem *tuo* ‘bring’ and the past tense suffix attached to the stem:

(19) Tomi 2;2 (Finnish)

Father: *To-i-ko puuro+setä puuro-a?*
bring-PAST-Q porridge+uncle porridge-PARTIT

Did the waiter bring porridge?

Tomi: *Tuo-i puuro-a puuro+setä.*
bring-PAST porridge-PARTIT porridge+uncle

The waiter brought porridge.

The models provided by CDS have an effect on CS, but the child grammar is not immediately changed in a permanent way. This is illustrated by the following example (Tomi 2;2) where Tomi at first uses his own analogical S₁ past tense form *syö-i-n* (eat-PAST-S₁) ‘I ate’ but in the immediately following CDS utterance the established S₂ past tense form *sö-i-t* is used. This provides a model. Immediately after that, Tomi quotes in his utterance first the established S₁ form *sö-i-n* corresponding to the form used in the preceding CDS utterance, but after a short hesitation he uses his own analogical form *syö-i-n* (eat-PAST-S₁) again:

(20) Tomi 2;2 (Finnish)

Tomi: *Minä äkkiä syö-i-n.*
I fast eat-PAST-S₁

I ate fast.

Father: *Sö-i-t äkkiä jäätelö-n loppu-un.*
eat-PAST-S₂ fast ice cream-ACC end-ILL

You ate fast all the ice cream.

Tomi: *Minä siksi äkkiä sö-i-n # minä siksi äkkiä syö-i-n*
I therefore fast eat-PAST-S₁ I therefore fast eat-PAST-S₁

ei Rölli-peikko ota.

not the Rölli take

‘I therefore ate fast. I therefore ate fast that the Rölli does not take it.’

In the next example Tomi uses at first own analogical forms, but after a CDS question he uses in his answer at first a similar established form as in the question but then again an analogical form:

(21) Tomi 2;4 (Finnish)

- Tomi: *Tää syö-is ja juo-is.*
 this eat-COND and drink-COND
 This one would eat and drink.
- Father: *Kuka sö-is ja jo-is?*
 who eat-COND and drink-COND
 who would eat and drink?
- Tomi: *Mä sö-isi-n ja juo-isi-n.*
 I eat-COND-S1 and drink-COND-S1
 I would eat and drink.

6. Conclusion

As the material presented shows, an essential feature of language acquisition is quoting. Forms and expressions used in CDS are recycled in CS – at first by simply quoting certain CDS word forms as such, later, by using CDS as a model for producing the child's own linguistic forms. Quoting can be bidirectional: Sometimes adults repeat in an elaborated form certain forms used by the child.

The use of simple forms, e.g., diminutives, is a way to avoid certain complex inflectional types, and diminutives are used in CDS and CS more than in the usual communication between adults.

When children construct their grammar, they make rules for producing forms, but many of these rules are provisory and must be changed when the acquisition proceeds. Children do not always change their provisory rules immediately, but elaboration of the grammar needs several repetitions of the model. Sometimes the influence of the model can be noticed immediately when the child quotes the CDS form in his/her next utterance, but the integration of the new form to the child grammar usually takes more time. Often the analogous forms based on the child's own rules are used as variants, as the examples of past tense and conditional forms of verbs above illustrate.

To sum up: we can argue that quoting and recycling play an essential role in the acquisition of language. Still, further research and detailed analysis is needed to detect all strategies used by children in the acquisition of words belonging into different word classes and inflection patterns as well as word formation.

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