CHAPTER 9

Acquisition of diminutives in Hungarian[1]

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The chapter presents a longitudinal study on the acquisition of diminutives in Hungarian from the age of two to three. The analysis shows that the two children in the study followed their own particular paths while acquiring diminutive suffixes. Grammatical productivity did not exert an unequivocal effect on the sequence of acquisition: both children started with unproductive suffixes such as *-u* and *-ó*, with the productive *-kA* and the semi-productive *-i*, whereas the grammatically most productive *-cskA* was produced later. Our analysis indicates that matching relevant functions to diminutive suffixes is probably a later development: diminutive suffixes did not convey the semantic meaning of "smallness"; a positive emotional evaluation as a pragmatic value of diminutives was not clearly present in the analysed conversations either.

Introduction

Our primary aim in this chapter is descriptive: we want to describe the patterns of use of diminutives, and its change in time, by two Hungarian monolingual children. Furthermore, a set of more specific research questions will be addressed. What is the order of acquisition of the different suffixes of diminutives in Hungarian? Which diminutives are acquired first: the grammatically productive or non-productive forms? Can we detect in our children's language the semantic value of "smallness" frequently attributed to diminutives, or rather are they used to realize pragmatic information? We will also analyse the question whether acquiring diminutive forms could serve as bootstrapping device, due to the structural fact that they simplify noun suffixation, i.e. make it easier to acquire noun declension.

In our view, at least two main types of questions lie behind all psychological studies pertaining to human development, including linguistic development. The first is: *what are the possible mechanisms of development*? This means to identify the driving forces which make developmental changes occur, and which are responsible for development. The second set of questions is: *how does development proceed?* This means

looking for the pattern of changes in the relevant aspect or aspects of conduct. These are the issues of "how to learn" and of "what to learn" (Bodor 2004: 73–74).

There are three main types of answers to the first question, to the question of the possible mechanism of development. Note furthermore, that an answer to this question is also an attempt to give an *explanation of development*. According to the innatist answer, developmental changes can be attributed to the individual's pre-programmed resources, to its biologically given capacities (e.g. Meisel 1995); according to the environmentalist answer, environmental shaping forces are responsible for developmental changes (e.g. Elman 2001); the interactionist view, which we tend to share, though will not argue for in this context, maintains that both the individual's epigenetically continuously changing resources and the environmental context are instrumental in bringing about developmental changes (e.g. Nelson 1996).

The question of how development proceeds can be analysed in various ways. However, most researchers would endorse the claim that the process of acquisition involves a set of changes in the respective conduct with time. In other terms, while describing the process of development, perhaps all developmental studies are searching for a set of different patterns of conduct in time, and probably most would think that the relevant changes are qualitative ones. Answering this type of question amounts to offering a *description of development*. However, even qualitative changes do not qualify as developmental changes in themselves: nobody would consider regression as development, aphasia as language acquisition. Thus, it can be argued, that the developmentally relevant changes are directed toward some more or less clearly defined end-state, or end-states (Werner & Kaplan 1963; Kaplan 1992). In other terms, in our view, reconstruction of a developmental scenario necessarily involves teleological concerns. According to this view, development is more than mere change in time, it is directed to some target or targets, and consequently, description of development is a teleological enterprise. In this way, the telos of development, either tacitly or openly, must be identified by the researcher. Thus, for example, when the development of intelligence was analysed by Piaget, the target of development was his characterization of adult-like mental operations, what he called formal operations (Piaget 1947/2001). It is also widely known, that on the explanatory level, he used the dialectic triad of accommodation – assimilation – equilibration.

Human language development can be meaningfully analysed as learning the use of appropriate form-function pairings characteristic of the given language community. In our case the target of development is the way adults use diminutives in Hungarian. Our paper is organised in four main points. First, we will start with a relatively detailed characterization of forms and functions of the respective linguistic devices: we will present the structural characterization of diminutive formation in the Hungarian language, and describe the functional role diminutives play for Hungarians. The grammatical morphemes of diminutives in Hungarian and their semantic and/or pragmatic roles will be discussed. Furthermore, as already Ferguson (1964) supposed, there are certain characteristics of baby talk, including the relative high frequency of diminu-

tives, which may prove to be instrumental in language acquisition. According to a related, though more specific hypothesis, due to a structural fact present in a number of languages, namely that diminutivized nouns shift their classes of noun declension from less transparent to more transparent and/or from less productive to more productive classes, acquisition of diminutives may contribute to the ease of acquisition of noun inflection.[2] In order to prepare our related analysis whether the acquisition of diminutives contributes to the "ease" of acquisition of some noun inflection in Hungarian we will characterize the relevant aspects of the noun declension system of Hungarian as well. Second, we will introduce and characterize in general terms the two databases of our empirical analyses. Third, we will describe two Hungarian children's and their family's diminutive use and compare them. Here we will be oriented by such questions as how the different forms and functions of diminutives emerge. In this section we will also present our findings regarding the effect of diminutivization on the acquisition of noun inflection. Fourth, we will summarize and discuss our findings and their psycholinguistic implications.

1. Description of the adult language

1.1 Diminutive formation in Hungarian

Hungarian is a predominantly agglutinative language and it has a rather uniform manner of marking number and case (there is just one uniform suffix for plural and for each case both in singular and plural). Hungarian has both a productive and unproductive system of diminutive formation, both in terms of suffixation.

Usually in Hungarian grammars there is a differentiation between derivational suffixes used for forming diminutives (*-kA*,[3] *-(V)cskA)* and derivational suffixes used for forming hypocoristics (*-i*), but because in child language and colloquial speech *-i* is used widely and not only for forming hypocoristics, we treat it also as a diminutive suffix. However, there is a difference between *-i* used for deriving hypocoristics and *-i* used for deriving diminutives. Namely the first one is regarded as a productive way of derivation while the latter one is not, although it is spreading, but probably only analogically and not as a result of applying rules (Kiefer & Ladányi 2000; Kiefer 2003).

Table 1 shows the productive and unproductive diminutive suffixes in Hungarian with some examples partly also from our data.[4] Suffix *-i* is listed both among the productive and the unproductive suffixes; perhaps it can be coined as a semi-productive element. Despite the formal sameness, there is an essential difference between DIM3 and DIM4. While the former normally lacks any pragmatic function of typical diminutives and is largely conventionalized, DIM4 shares the pragmatic properties of DIM1 and DIM2.

Table 1. Diminutive suffixes in Hungarian

PRODUCTIVE SUFFIXES	
DIM1 = (V)***cskA***	orro***cska*** < orr 'nose', szeme***cske*** < szem 'eye', napo***cska*** < nap 'sun' vesszőcske < vessző 'tick'
DIM2 = ***kA***	malac***ka*** < malac 'pig', egér***ke*** < egér 'mouse'
DIM3 = ***i*** (+ truncation)	Ist***i*** < István, Józs***i*** < József, Kat***i*** < Katalin
UNPRODUCTIVE SUFFIXES	
DIM4 = ***i*** (+ truncation)	sün***i*** < sün 'hedgehog', csok***i*** < csokoládé 'chocolate', hus***i*** < hús 'meat'
DIM5 = ***csi*** (+ truncation)	pulc***si*** < pulóver 'pullover', Julc***si*** < Júlia
DIM6 = ***ci*** (+ truncation)	na***ci*** < nadrág 'trousers', Mar***ci*** < Márton
DIM7 = ***u*** (+ truncation)	any***u*** < anya 'mother', ap***u*** < apa 'father'
DIM8 = ***us*** (+ truncation)	kuty***us*** < kutya 'dog', pel***us*** < pelenka 'nappy'
DIM9 = ***ó/ő*** (+ truncation)	nyusz***ó*** < nyuszi 'bunny', gaty***ó*** < gatya 'trousers', tes***ó*** < testvér 'sibling'
DIM10 = ***(i)kó***	Pal***kó*** < Pál, ágy***ikó*** < ágy 'bed', ház***ikó*** < ház 'house'
DIM11 = ***si*** (+ truncation)	jog***si*** < jogosítvány 'driving licence', ak***si*** < akkumulátor 'accumulator'

All the productive diminutives are productive just in the case of simplex nouns. However, it is possible to attach diminutive suffixes to adjectives also, but they are rather analogical forms and sometimes they are also lexicalized (*szegény+ke* 'poor'*, okos-ka* 'clever'*, butá-cska* 'stupid'*, csúnyá-cska* 'ugly'). This is the case also with two pronouns (*valami+cske* 'something'*, magá+cska* 'formal you') and an adverb (*kettecskén* 'the two of us'). In colloquial speech, recently, it is very common to use diminutivized forms of greetings and modifiers as well (e.g. *helló-ka*, *köszi-ke* 'thanks', *bocs-i* 'sorry').

The three productive diminutive suffixes are *-(V)cskA*, *-kA* and *-i*.
-(V)cskA is the most productive diminutive suffix. Its form is *-cskA* when it is added to a word ending in a vowel. The epenthetic vowel used when the word is ending in a consonant can be *-a- (láb+acska* 'leg'*), -o- (kar+ocska* 'arm'*), -e- (szem+ecske* 'eye'*)* and *-ö- (ökr+öcske* 'bull'*)*.

The suffix *-kA* is less productive; its productivity is governed by phonological distribution. Two restrictions can be formulated in connection with suffix *-kA*. It cannot be used when the noun consists of one syllable and ends in a consonant (**lábka* 'leg') or when the noun ends in *-a/-e* (**kecskéke* 'goat') (Ladányi 2004).

In other cases it is possible to attach either *-(V)cskA* or *-kA*. *-(V)cskA* and *-kA* cannot be combined, nor *-i* and *-(V)cskA*. If the *-i* suffix is already attached to the stem, then *-kA* can be attached to it (*sünike*).

Word formation with *-i* is different from the majority of Hungarian derivation types, because *-i* is preceded by truncation. Truncation is a very rare phenomenon in Hungarian morphology, suffixes are attached usually to the complete word, not to a truncated form of it. Truncation appears also in connection with other, unproductive and much less frequent diminutive suffixes such as *-csi*, *-ci,- us* or *-si*.

Forming hypocoristics consists partly in employing the same strategies as in the case of diminutivizing common nouns. The most productive way of forming hypocoristics is attaching *-i* or *-kA* (or *-cskA* in the case of names ending in *-a/-e*) to the names. It is also possible to derive the *i* version first and then diminutivize it again by *-kA*. Hypocoristics can contain other, unproductive suffixes such as *-csi, -ci, -us, -kó*. There are some other, unproductive morphological processes in connection with hypocoristics that do not appear in forming diminutives from common nouns: the last syllable of the name is preserved or a consonant is added to the vowel-initial name, and then these are affixed with *-i*. Thus, from *Éva* and *István* we can form *Évi, Évike, Évácska, Vica, Vicus; Istvánka, Isti, Istike, Pista, Pisti, Pistike, Pistuka*.

Henceforward we will use four groups in the category of diminutives: diminutives derived from common nouns, hypocoristics derived from names, intermediate category (formed from kinship terms, such as *daddy* from *father*) and lexicalized forms (nouns that contain a diminutive suffix, but have no simplex counterpart or their simplex bases do not have the same meaning, for example *cukor* 'sugar', *cukorka* 'candy').

1.2 Declension of diminutives

Declension in Hungarian is less varied for diminutives than for their simplex bases. Diminutives inflect just in three (productive) declension classes, whereas their simplex bases in eight at least. It means that theoretically there is a possibility in Hungarian that diminutives may simplify the acquisition of the declension.

Table 2 shows Hungarian declension classes (Pöchträger, Bodó, Dressler & Schweiger 1998). We divided the classes into a productive and an unproductive group in order to be able to observe that diminutives appear only in productive declension classes. Some of the declension classes of simplex nouns are not listed here because of their rarity.

Diminutives ending in *-i, -u,* and *-ó/-ő* inflect according to class 1, diminutives ending in *-us* do so according to class 2, and diminutives ending in *-a/-e* inflect according to class 4. So it means that nouns belonging originally to an unproductive class are transferred to a productive class when taking any of the diminutive suffixes (for example *ló* 'horse' – Pl. *lov-ak*, Acc. *lov-at*, 1sgPoss. *lov-am*; *lovacska* 'horse-DIM' – Pl. *lovacská-k*, Acc. *lovacská-t*, 1sgPoss. *lovacská-m*).

Inflection is most transparent in class 1. Diminutives derived by *-i, -ci,- csi, -si, -u, -ó* and *-ő* from nouns belonging to another than class 1, inflect more transparently than their bases. Applying *-kA* or *-cskA* does not make the inflection more transparent, because stem-final *-A* lengthens before the majority of suffixes.

Table 3 shows for each combination of class of base and productive diminutive suffix, whether it increases productivity and makes the declension of the diminutive more or less transparent than that of the base. Some of the combinations exist only in theory due to the limited productivity of the suffix *-i* and the fact that names do not inflect in unproductive classes.

Table 2. Declension classes in Hungarian

Number of class	Description of class	Nouns belonging to the class	Pl.	Acc.	1sgPoss.
PRODUCTIVE CLASSES					
Class 1	nouns (and adjectives, etc.) without stem-internal alternation & no epenthesis in Pl., Acc. and possessive	*kicsi* 'small' *kapu* 'gate' *hajó* 'ship'	*kicsi-**k*** *kapu-**k*** *hajó-**k***	*kicsi-**t*** *kapu-**t*** *hajó-**t***	*kicsi-**m*** *kapu-**m*** *hajó-**m***
Class 2	nouns without stem-internal alternation & no epenthesis in Acc., but epenthesis in Pl. and possessive after stem-final consonant	*kakas* 'cock' *ember* 'human being'	*kakas-**ok*** *ember-**ek***	*kakas-**t*** *ember-**t***	*kakas-**om*** *ember-**em***
Class 3	nouns without stem-internal alternation but short mid insertion vowel in Pl., Acc. and possessive	*kalap* 'hat' *kép* 'picture'	*kalap-**ok*** *kép-**ek***	*kalap-**ot*** *kép-**et***	*kalap-**om*** *kép-**em***
Class 4	nouns with stem-internal alternation: stem-final vowel lengthening of nouns ending in *a/e*	*jóga* 'yoga' *csésze* 'cup'	*jógá-**k*** *csészé-**k***	*jógá-**t*** *csészé-**t***	*jógá-**m*** *csészé-**m***
UNPRODUCTIVE CLASSES					
Class 5	nouns without stem-internal alternation so called 'lowering stems': short low insertion vowel in Pl., Acc. and Poss	*ház* 'house'	*ház-**ak***	*ház-**at***	*ház-**am***
Class 6	nouns with stem-internal alternation: vowel epenthesis in Nom. and before any suffixes except for the plural, accusative, superessive, and possessed forms	*bokor* 'bush' *szerelem* 'love'	*bokr-**ok*** *szerelm-**ek***	*bokr-**ot*** *szerelm-**et***	*bokr-**om*** *szerelm-**em***
Class 7	nouns with stem-internal alternation: vowel shortening in a final closed syllable and low epenthetic vowel	*egér* 'mouse' *bogár* 'insect'	*eger-**ek*** *bogar-**ak***	*eger-**et*** *bogar-**at***	*eger-**em*** *bogar-**am***
Class 8	nouns with stem-internal alternation: so called 'v-stems': *v* epenthesis between the stem-final vowel and the suffix-initial vowel with compensatory shortening	*ló* 'horse' *fű* 'grass'	*lov-**ak*** *füv-**ek***	*lov-**at*** *füv-**et***	*lov-**am*** *füv-**em***

As to prosody, diminutive inflection in Hungarian is not necessarily more uniform than that of their simplicia. The majority of Hungarian case suffixes (e.g. Dat. *-nAk*, Iness. *-bAn*) increase the number of the syllables by one, because they constitute a syllable themselves. It means that the base is one syllable shorter than the inflected form both in diminutives and their base nouns (*ló* 'horse' – Dat. *lónak*, Iness. *lóban; lovacska* 'horse-DIM' – Dat. *lovacskának*, Iness. *lovacskában*). Therefore studying prosodic uniformity is more relevant in cases where the suffix consists of only one consonant (e.g. Acc. *-t*, Pl. *-k*) and does not necessarily increase the number of syllables. If a noun ends in a vowel (and does not belong to the class 8), then its inflection is as uniform as the inflection of a diminutive derived from it by *-i, -ci,- csi, -si, -u, -ó* or *-ő*. *-us* makes the inflection less uniform in the case of vowel-final nouns (*kutya* 'dog' – Pl. *kutyák*, Acc.

kutyát; *kutyus* 'dog-DIM' – Pl. *kutyusok*, Acc. *kutyust*). Nouns ending in a consonant, except for class 7, inflect prosodically in a less uniform way than their simplicia (*egér* 'mouse' – Pl. *egerek*, Acc. *egeret; egérke* 'mouse-DIM' – Pl. *egérkék,* Acc. *egérkét*).

It should be noted as well, that stress in Hungarian is always on the first syllable. In Hungarian there are no related categories such as pejoratives and augmentatives, but pejorative meaning can be expressed by diminutive suffixes.

Table 3. Comparing productivity and transparency of diminutives and their bases in the case of applying one of the productive diminutive suffixes (-i, -(cs)kA)

Class of base	Class of dim.		Productivity	Transparency of dim.
1	1	Ildikó > Ildi	same as base	same as base
1	4	kicsi > kicsike	same as base	less transparent
2	1	Gábor > Gabi	same as base	more transparent
2	4	ember > emberke	same as base	lengthening instead of insertion
3	1	Róbert > Robi	same as base	more transparent
3	4	kalap > kalapocska	same as base	lengthening instead of insertion
4	1	Andrea > Andi	same as base	more transparent
4	4	csésze > csészécske	same as base	same as base
5	1	láb > lábi	more productive	more transparent
5	4	ház > házacska	more productive	lengthening instead of insertion
6	1	történelem > töri	more productive	more transparent
6	4	bokor > bokrocska	more productive	lengthening instead of V deletion
7	1	–	more productive	more transparent
7	4	egér > egérke	more productive	lengthening instead of shortening and insertion
8	1	–	more productive	more transparent
8	4	ló > lovacska	more productive	lengthening instead of *v*-insertion and shortening

1.3 Functional aspects of diminutives

The function of diminutive suffixes is considered usually as semantic and/or pragmatic. Regarding the semantic meaning of the above mentioned diminutive suffixes, only *-kA* and *-cskA* denote primarily smallness, but only in certain contexts (Kiefer 2003, 2004). At the same time they can acquire a pragmatic meaning as well. All the other diminutive suffixes have a purely pragmatic function: according to Dressler and Kiefer (1990) they determine the relationship between the speaker and the listener. We would rather consider diminutives as having an emotional function in the sense that they are used for expressing or realizing the speaker's evaluative relationship to the object/person spoken about (Bodor 1997, 2004). This conceptualization of emotion and emotional language were developed from a social constructionist account of

emotions (Averill 1980, Coulter 1979, Sarbin 1989). Like in other languages, the use of diminutives and hypocoristics in Hungarian is typical in speech situations when it is important to express or realize emotions, characteristically in child-directed, lover-directed and pet-directed speech.

Considering the utterance as the unit of analysis, emotive speech-acts may realize this emotional function: linguistically realized emotional displays are performatives and can be coined as emotives. Various linguistic units may serve as device for carrying the illocutionary force of an emotive speech-act. Lexical units, such as emotional terms, for example 'love' or 'hate' can be taken as emotion specifiers, and as such they are constituents of *explicit emotive speech-acts*.[5] At the same time, other devices such as intonation (Bakhtin 1926/1985) or morphopragmatic units such as diminutives (Dressler & Merlini Barbaresi 1994) are devices carrying the action-value of *primary emotive speech-acts*. Under this description most emotion markers, including diminutive suffixes can be considered as emotion modulators as opposed to emotion specifiers (Ochs & Schieffelin 1989). Emotion modulators do not specify a particular emotional judgment in them;[6] rather, they contribute to the general evaluative character of the speaker's talk. Furthermore, usually the interlocutors share this evaluation; the participants presuppose it. In regard to diminutives this presupposed emotional evaluation or affective stance is positive as a default. Pejoratives as morphological units which carry negative evaluation are not present in Hungarian. However, diminutives may carry negative evaluation: when the default evaluation of an event or entity is positive, use of diminutives represents a negative evaluation on behalf of the speaker. For example, a perfectly intelligible common practice among Hungarians is to refer to disliked public figures (such as politicians) by diminutivized surnames, by hypocoristics. Similarly, you can get also a pejorative meaning in the case of nouns denotating professions: *költő – költőcske* ('poet' – 'an unimportant poet'), *elnök – elnököcske* ('president' – 'the president of an unimportant organization').[7]

2. Description of the databases

In order to establish an empirically grounded account of the emergence of diminutive use in Hungarian we analysed and compared two databases (girl Panna and boy Miki). The formal and functional concerns of our analysis, in other terms, the telos of acquiring diminutives in Hungarian were described in the previous sections of our paper. Here we will describe briefly the empirical material utilized by our analysis, and some general characteristics of our analysis.

The two databases we analysed according to the CHILDES standards (MacWhinney 2000). The first author collected Panna's data. Miki's data has been collected by Zita Réger and is partly available on the CHILDES database.

Both target children come from a similar background regarding the SES of their family and their parents' level of education. Furthermore, since both databases cover approxi-

mately one year (13 and 11 months), it allowed two longitudinal analyses and their comparison. Interestingly, apart from some pioneer cross-sectional studies such as MacWhinney (1974), Pléh, Vinkler and Kálmán (1996), and more recently Babarczy (2006) to our knowledge, there are no real longitudinal studies investigating the acquisition of Hungarian on the basis of transcribed conversations, i.e. studies which try to describe the emergence of one or more linguistic devices in time in one or more child productions.

2.1 Panna's database

Table 4. Description of the PANNA database: Number of recorded sessions and their „size" in number of words – All Speakers, Input, Child

Age of Child	No. of Sessions	Input - No. of Words (Type/Token)	Child - No. of Words (Type/Token)
2;00	2	1104 (543/1104)	185 (84 /185)
2;01	17	10658 (2170/10658)	4321 (645/4321)
2;02	11	7817 (1944/7817)	3592 (612/3592)
2;03	6	4429 (1215/4429)	2193 (440/2193)
2;04	8	5547 (1477/5547)	2585 (517/2585)
2;05	7	3791 (1223/3791)	2241 (519/2241)
2;06	3	2231 (799/2231)	1232 (384/1232)
2;07	2	986 (423/986)	412 (193/412)
2;08	2	1172 (553/1172)	449 (228/449)
2;09	3	1440 (534 /1440)	953 (369/953)
2;10	2	1259 (489/1259)	1086 (336/1086)
Total	63	40434 (6679/40434)	19249 (2786/19249)

Panna was born on 14 December 1992.[8] She comes from a middle class family living in Budapest. Her parents are native speakers of Hungarian. The Panna's database consists of 63 recordings, in which the girl was an active participant talking to her parents and

other family members. The majority of these conversations were recorded at home. The recordings were transcribed in CHAT format and cover 11 months from age 2;0 to 3;0. The most important characteristics of the Panna's database are presented in Table 4.

The table describes the number of recorded and transcribed sessions, and the number of "words" the target child, Panna, and her other family members produced during the recordings.

2.2 Miki's database

Table 5. Description of the MIKI database: Number of recorded sessions and their „size" in number of words – All Speakers, Input, Child

Age of Child	No. of Sessions	Input - No. of Words (Type/Token)	Child - No. of Words (Type/Token)
1;11	4	6324 (1463 /6324)	1859 (420/1859)
2;00	2	3355 (871/3355)	835 (248/835)
2;01	4	2277 (692/2277)	788 (314/788)
2;02	2	2509 (745/2509)	954 (331/954)
2;03	3	4375 (1078/4375)	1749 (521/1749)
2;04	1	1516 (472/1516)	674 (277/674)
2;05	2	2589 (758/2589)	1857 (593/1857)
2;06	2	3190 (869/3190)	1649 (539/1649)
2;07	2	3003 (932/3003)	1497 (584/1497)
2;08	2	4060 (1110/4060)	1837 (622/1837)
2;09	4	7615 (1834/7615)	3161 (910/3161)
2;10	2	2347 (727/2347)	1147 (402/1147)
2;11	1	1880 (642/1880)	1058 (399/1058)
Total	31	45040 (6483/45040)	19065 (3980/19065)

The principal child in Réger's database is a boy called Miki, born in 1990.[9] He comes from a middle-class family residing in Budapest. Miki's parents are native speakers of Hungarian. The Miki database consists of 31 recordings of Miki's conversations with his parents, his three siblings and other family members and friends. These conversations were recorded in natural settings, usually at home. The recordings were transcribed and are accessible in CHAT format. The transcribed conversations cover 13 months from approximately 2 to 3 years of age. One to four transcribed sessions are available for a month-long period. Some general characteristics of the Miki's database are described in Table 5.

2.3 The applied "data purification"

As in most cases of empirical analysis of language, we applied a "data purification" procedure as well. Items of diminutive forms used in *formulas* such as songs were identified and excluded from the analysis. The issue of *imitation* is an intricate and highly debated problem in language acquisition studies (cf. Ninio & Snow 1996). For our present purposes, we defined imitation on strictly formal bases: a token of diminutive use of Panna or Miki was taken as imitation, if exactly the same form was used by an adult or some other interlocutor in the previous utterance. Thus, if the child modified the morphological characteristics of the word it was not taken as an imitation, as the following example shows[10]:

(1) *MIK: öldöke [=? köldöke].
%eng: his (b)elly button:POSS.
*MOM: *pocija*?
%eng: his tummy-DIM:POSS [simplex: *pocak*]?
*MIK: *poci*.
%eng: tummy-DIM.
(1;11)

However, two qualifications were applied to this formal procedure of identifying imitations: First, if the adult already „imitated" the previous utterance of the child, as the following examples attest, they were not taken as imitations on behalf of the child.

(2) *PET: ki van ott például?
%eng: who is there, for example?
*PAN: *Sanyi, Panka*.
%eng: Sanyi:DIM, Panka-DIM.
*PET: *Sanyi és Panka*?
%eng: Sanyi-DIM and Panka-DIM?
*PAN: *Sanyi Panka igen*.
%eng: Sanyi-DIM Panka-DIM yes.
(2;4)

Second, when it was clear from the wider previous context that the child already acquired the specific linguistic device, i.e. s/he used it spontaneously, we did not consider it as imitation any more. Applying this procedure, four uses of the targeted forms proved to be imitations in the Panna database and six in Miki's speech. Although there were really few items of imitations, we excluded them from further analysis.

3. Description of the findings on Miki and Panna

3.1 Overall view of the children's use of diminutives in the corpuses

3.1.1 *Panna*

Altogether, Panna used 401 tokens of diminutives, which means that 2,08% of her words were diminutives. These words fell into 80 types in the corpus. It means, that she used two diminutives out of hundred words, and slightly less than three types of diminutives, 2,87 out of hundred types of words.

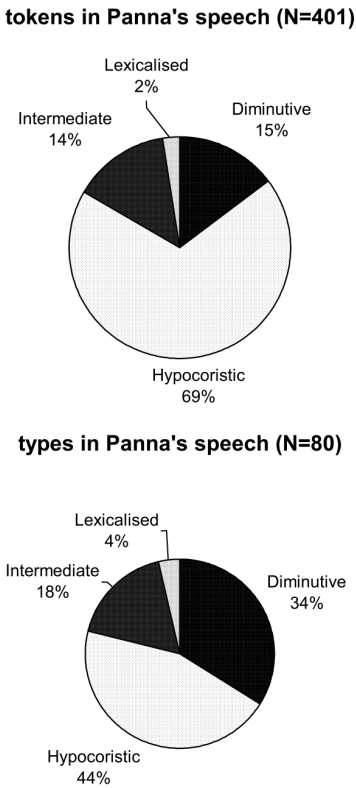

Figure 1. Diminutive types in Panna's data – type and token information

As the charts in Figure 1 show, the majority of her diminutives were hypocoristics, diminutive forms of personal names. The first diminutive in her data is a hypocoristic, her own name *Panni*, which appears at the age of 2;0. Her first real diminutive is *kupi* 'mess-DIM' at the age of 2;1, the first intermediate form is *apu* 'father-DIM' at the same age. The first lexicalized form (*popó* 'bottom-DIM') appears at the age of 2;1 as well.

3.1.2 *Miki*

Miki produced 829 diminutive items, somewhat more than 4 per 100 words (4,34%) during his recorded conversations. These words fall into 189 types, which mean 4,74% of all the types he uttered. Miki had several real diminutives (e.g. *cumika* 'pacifier-DIM', *motorka* 'motor-cycle-DIM', *vödörke* 'bucket-DIM') and hypocoristics (*Borika*, *Mikici*, *Levici)* already during the first investigated month (1;11). First intermediate forms from the same age are *anyu* 'mother-DIM', *anyuci* 'mother-DIM-DIM', *apu* 'father-DIM', *apuci* 'father-DIM-DIM' and first lexicalized forms are *apó* 'old man', *hami* 'food', *popó* 'bottom'. The following figures present the distribution of Miki's diminutives according to diminutive types.

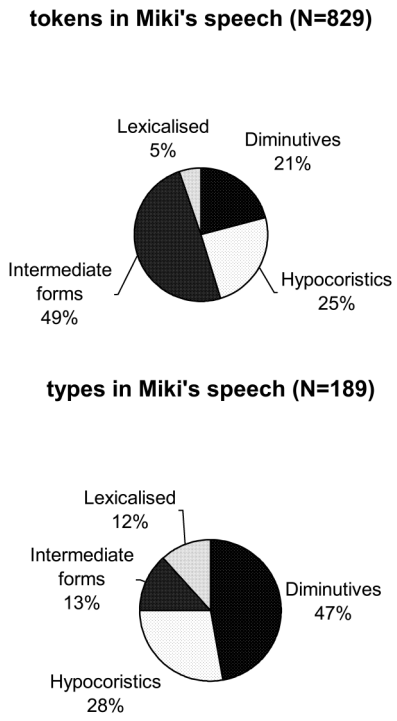

Figure 2. Diminutive types in Miki's data – type and token information

Figure 2 shows that Miki's favourite diminutives were what we called intermediate forms: mainly the respective forms of father and mother. One out of four diminutives he used were personal names, and only somewhat more than 20 percent of his diminutives were of common nouns.

3.1.3 *Comparing Panna's and Miki's use of diminutives*

From the comparison of Figures 1 and 2 it is clear that the number of types and tokens of diminutive use by the two investigated children are markedly different. Although less dramatically, the onset time of diminutive use is different for the two children as well: Miki used all four different types of diminutives roughly two months earlier than Panna did. Miki used approximately twice as many diminutive tokens as Panna did.

The respective numbers for the two morphologically productive endings of diminutive formation, for *-kA* and *-cskA,* are 1,29 per 100 words for Panna; 0,61 per 100 words for Miki; 1,12 per 100 words for all other speakers in the linguistic input of the two corpora. In our two corpora for all speakers this number is 1,07.

Consider that all of these figures are significantly greater than the frequency of "adult use" derived from the Hungarian National Corpus. Table 6 below shows the respective frequency of diminutives formed by *-kA* or *-cskA*.[11]

Table 6. Diminutive frequency in HNC: Hungarian National Corpus

diminutive types	3452	diminutive tokens	53631
noun types	705 377	noun tokens	59 000 000
% diminutive types in respect to noun types	0,489 %	% diminutive tokens in respect to noun tokens	0,09 %

In this way, the general wisdom that baby talk, or child-directed speech, just like child speech, contains more diminutives than other language use is supported by our data and proved to be valid for Hungarian as well.

What factors are responsible for the patterns of children's use of diminutives we found in our data? Clearly, the frequency of diminutive use depends on a great number of possible factors. Among these one can include structural, competence and social constituents alike. First the linguistic, structural factor can be mentioned in this context: languages are different in the richness of diminutivization, as other papers in the present volume attest. Second, the speaker's competence can influence production data as well. Third, contextually relevant social factors and attributes such as speech situation, the identity of speakers, even gender can influence the frequency of diminutive use. Thus, relatively frequent use of diminutives is considered as a feature of baby talk (Ferguson 1964) or child-directed speech. As we documented above, this is also true for Hungarian. Furthermore, Berko Gleason and her colleagues (1990) found, that girls are exposed to more diminutives than boys, which has been interpreted as socializing girls to be more emotional.

Naturally, structural and typological factors cannot be evoked for interpreting the difference in number of diminutive uses between Miki and Panna, since both speak Hungarian. Difference in competence is certainly playing a role in accounting for their difference in diminutive production: in general Panna was a relatively late talker compared to Miki. Consider moreover that both children's use of diminutives correlates with the frequency of diminutives they were exposed to – as figure 3 shows.[12] This indicates an effect of linguistic input on the production data, and possibly its effect on acquisition.

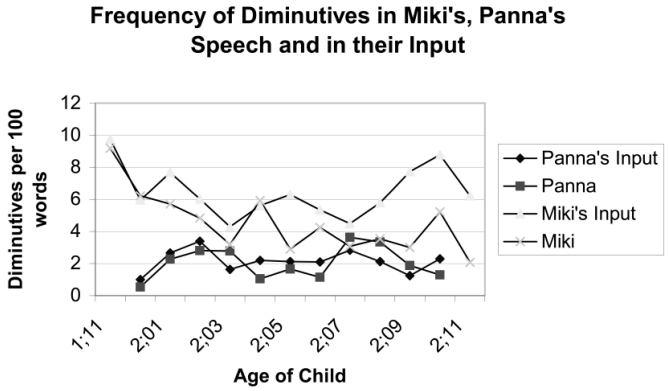

Figure 3. Frequency of diminutives in Miki's and Panna's speech and their input

More specifically, it seems that in our two cases something overwrites the effect of gender factor documented by Berko Gleason and her colleagues, since contrary to the prediction one may draw on the bases of their findings, in our data the boy's parents produced proportionally many more diminutives than the girl's parents. Thus, if we consider also the correlation which can be detected between the input and output, one may propose that something we may coin as "family culture" can be a relevant factor in this respect, i.e. can play a significant role in the amount of diminutives a particular child produces, and consequently, influence his/her acquisition process.

3.2 Distribution of different diminutive classes

In this section we will describe the distribution of different diminutive classes, in other terms, different diminutive suffixes in the two investigated children's speech and in their input.

Table 7 shows that the distribution of different diminutive classes is quite similar in Panna's input and output, apart from diminutive class 1 and the rarer classes DIM10, 8 and 6. The high token frequency in class 2 (in input and output) is due to the hypocoristic formed from Panna's name (*Panka*). According to our data *-cskA*, which is structurally the most productive diminutive suffix in Hungarian, despite its massive presence in the input, was not productive in Panna. The possible reason for the low frequency of

diminutive class 1 in the child's speech is the difficult consonant cluster in the suffix *-cskA*. Indeed, for Panna the sequence *-cska* was difficult to pronounce in other contexts as well, thus, instead of *macska* 'cat' she occasionally used a shortened version:

(3) *PAN: macs [: macska] baba xxx ott pici ga ott piszi ba.
%eng: cat baby xxx there little there little baby.
(2;3)

Table 7. Frequency of diminutive classes in Panna's speech and in her input

Diminutive suffix	Panna (types)	Panna (tokens)	Input (types)	Input (tokens)
DIM1 = (V)cskA	1	1	21	46
DIM2 = kA	11	248	37	441
DIM3,4 = i	22	87	31	170
DIM5 = csi	1	8	1	10
DIM6 = ci	–	–	6	18
DIM7 = u	3	56	5	81
DIM8 = us	1	1	5	159
DIM9 = ó/ő	1	13	8	15
DIM10 = (i)kó	–	–	2	3

Table 8. Frequency of diminutive classes in Miki's data and in his input

Diminutive suffix	Miki (types)	Miki (tokens)	Input (types)	Input (tokens)
DIM1 = (V)cskA	5	24	25	85
DIM2 = kA	30	93	47	389
DIM3,4 = i	27	231	48	1831
DIM5 = csi	2	5	3	5
DIM6 = ci	8	83	10	208
DIM7 = u	2	327	4	407
DIM8 = us	2	17	4	28
DIM9 = ó/ő	2	12	4	27
DIM10 = (i)kó	2	13	3	26

The occurrence of different diminutive formations in the child's speech and the input correlate in Miki's case as well. The exception is the diminutive class 1 again, though the difference between the input and the child's speech is not as striking as in Panna's case. Otherwise Miki produced all the diminutive classes that were used in the input. The diminutive suffix *-ci* is relatively frequent for being unproductive. It seems to be characteristic of the mother's language use that she attaches *-ci* to the names of every family member, although this method is not the conventional way of forming nicknames.

3.3 Evolution of the children's diminutive use in time

Until now we presented solely aggregated data which were created from whole databases. In other terms, development as a gradually enfolding process was not considered. In this section we will describe the pattern of different diminutive suffixes in the speech of Panna and Miki in time.

Mastering different linguistic devices even with the same function may very well be a gradual process. Insofar acquisition of different diminutive suffixes is similar to climbing up a staircase, Panna's mastering of the Hungarian diminutive suffixes can be represented visually as follows.

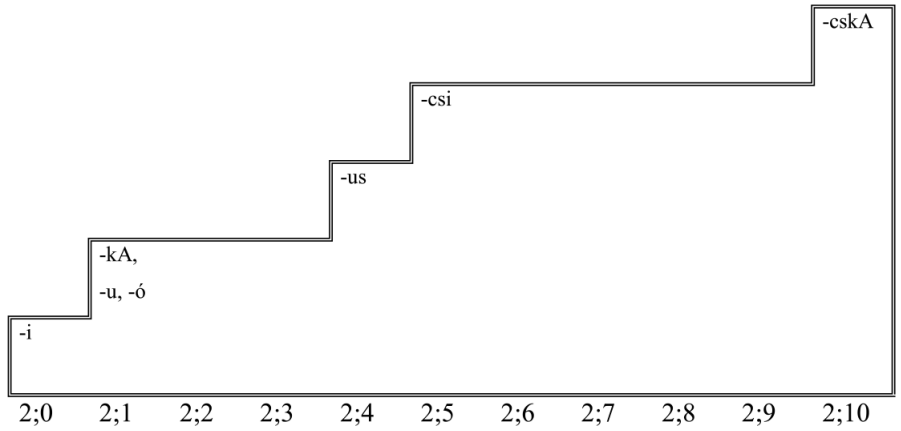

Figure 4. Panna's developmental staircase of diminutives: onset time for each particular suffix

Note, that the figure was compiled from data on onset time only. Further data on Panna's and Miki's use of different types of diminutive suffixes in time are included in Table 11 and 12 of the Appendix. These tables provide information on diminutive types and type/token information as well and qualify the developmental staircase above.

In Panna's speech the first diminutive suffixes occur in hypocoristics or intermediate forms. The first suffix to emerge also in common nouns is *-i* (DIM3, 4). Interestingly, this suffix is considered as being productive only in forming hypocoristics, but not for common nouns (see above under 1.1). *-kA* (DIM2) becomes productive around the age of 2;7–2;8 and *-cskA* (DIM1) appears in Panna's speech only at the end of the investigated period.

Regarding the time course, the situation is different in Miki's data. His developmental staircase is represented in Figure 5.

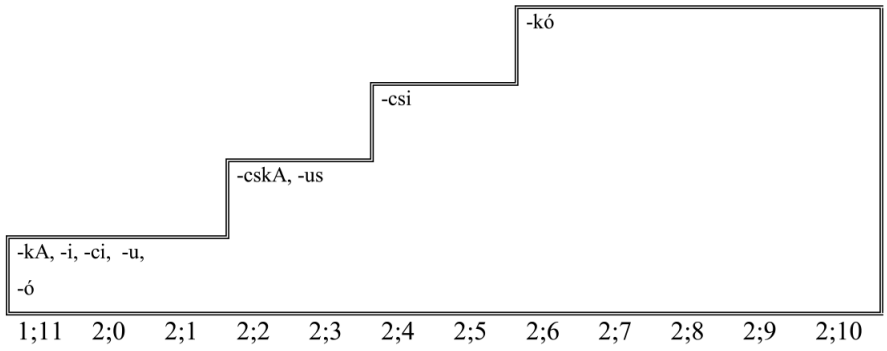

Figure 5. Miki's developmental staircase of diminutives: onset time for each particular suffix

Miki uses three diminutive suffixes (DIM2, DIM3, 4, and DIM6) in at least four different word types already during the first recordings. DIM1 emerges much earlier than in Panna's speech, at the age of 2;2, and subsequently he uses it in many different word types.

Although the two children approached diminutive formation in their own ways, some common features can be detected. Most interesting is perhaps that grammatical productivity did not exert a noticeable effect on their production: both of them started with some unproductive suffixes such as *-u* and *-ó* and with the productive *-kA* and the semi-productive *-i*, whereas the grammatically most productive *-cskA* was produced significantly later.

3.4 Emergence of diminutives and their simplex counterparts

Savickienė et al. (in press) argue that the acquisition of diminutives might simplify the nominal declensional system and thus facilitate its acquisition. Is it possible to detect some facilitating effect of change of noun class due to diminutivization on the acquisition of noun suffixation in our data? Different kinds of predictions follow from this structural possibility.

First, if it can be proved that, compared with a base-line, children prefer to shift to diminutive in case they are more transparent and/or productive than their respective base nouns, then we would prove: a) that children do differentiate between words belonging to productive versus unproductive, and transparent versus opaque declensional paradigms, and b) that children prefer the forms for which noun declension is simpler. This could be a prerequisite of the putative bootstrapping process, and as such it could be a marker of the facilitative effect of diminutivization on acquisition of noun declension. Indeed, an analysis of the data presented on tables 9 and 10 below and showed by Savickienė et al. (in press) proves that children prefer diminutives as predicted. Thus, similar to the Croatian and Lithuanian data (see in this volume),

they showed via a chi-square test that Panna relied significantly more on diminutives when the corresponding base nouns was less productive or less transparent. In our interpretation these results show that children are sensitive to the categories of productivity and transparency, and differentiate between them, quite like naturalist grammar predicts. Nevertheless, note that these figures only indirectly hint to the possible facilitative effect of diminutivization on acquisition by identifying one of its necessary precondition, but do not prove it.

In our view, there is a second, and more direct control of the relevant bootstrapping hypothesis: if some facilitative effect of diminutives on noun declension existed, noun suffixation would appear earlier on diminutivized nouns than on their simplex counterparts. In the remainder of this section we will deal with this possibility.

The following table shows the emergence of diminutives and their simplex counterparts with token numbers in Panna's data. First suffixed forms of diminutives and base nouns together with token numbers are included as well.

Panna's data contains 17 diminutive–simplex oppositions. In 8 cases neither the simplex nor the diminutive suffixed form could be detected during the investigated period. The remaining 9 pairs show the following distribution: simplex suffixed forms emerge earlier than diminutive suffixed forms in 5 cases, diminutive suffixed forms emerge earlier than simplex suffixed forms in the case of 3 nouns, and both suffixed forms emerge at the same time in the case of one noun. The age of emergence of suffixed forms is affected by token frequency in the input: in most cases the more frequent counterpart is the earlier one to be inflected.

In Panna's data there are only four nouns that are represented in both the nominative singular and a suffixed form of simplex and diminutive (*apa – apuka, maci –macika, kicsi – kicsike, egér – egérke*), thus, it is difficult to draw reliable conclusions on the effect of productivity and transparency in the time course of acquisition.

The following table shows the emergence of diminutives and their simplex counterparts with token numbers in Miki's data. First suffixed forms of diminutives and simplex base nouns together with token numbers are included as well.

Miki's data contains 37 diminutive–simplex oppositions. In 7 cases neither the simplex nor the diminutive suffixed form emerges during the investigated period. The remaining 30 pairs show the following distribution: simplex suffixed form emerges earlier than the diminutive suffixed form in 18 cases, the diminutive suffixed form emerges earlier than the simplex suffixed form in the case of 7 nouns and both suffixed forms emerge at the same time in the case of 3 nouns. Similarly to the findings on Panna's data, it holds true for Miki's data as well that in most cases the more frequent counterpart is the earlier one to be inflected.

Table 9. Emergence of diminutives and their simplex counterparts in Panna's data

DIM Nom. Sg. form	Age	Decl. class	SIMPL Nom. Sg.	Age	Decl. class	DIM suffixed forms	Age	SIMPL suffixed forms	Age
Panka (208)	2;1	4	Panna (51)	2;1	4	–		Pannának:DAT (1)	2;9
Panni (3)	2;1	1	Panna (51)	2;1	4	–		–	
apu (14)	2;1	1	apa 'father' (316)	2;0	4	–		apáé:POSS (3)	2;2
Peti (5)	2;1	1	Péter (53)	2;2	2	–		–	
Nagypapi (2)	2;1	1	nagypapa 'grandpa' (5)	2;1	4	–		–	
anyu (12)	2;2	1	anya 'mother' (23)	2;1	4	anyunak: DAT (2)	2;7	–	
Tündi (1)	2;2	1	Tünde (45)	2;1	4	–		–	
Anyuka (10)	2;5	4	anya 'mother' (23)	2;1	4	anyukája: Px (5) (7)	2;8	–	
husi (1)	2;5	1	hús 'meat' (5)	2;1	2	–		–	
apuka (2)	2;6	4	apa 'father' (316)	2;0	4	apukát: ACC (1)	2;6	apáé:POSS (3)	2;2
macika (1)	2;7	4	maci 'teddy-bear' (68)	2;1	1	macikához: ALLAT (1)	2;9	macit:ACC (2)	2;1
Nyuszika (–)		4	nyuszi 'bunny' (14)	2;4	1	nyuszikám:Px (2)	2;8	nyuszit:ACC (2)	2;8
Sanyika (1)	2;8	4	Sanyi (4)	2;1	1	–		–	
kicsike (2)	2;9	4	kicsi 'little' (8)	2;2	1	kicsikét: ACC (2)	2;9	kicsit:ACC (2)	2;6
egérke (3)	2;9	4	egér 'mouse' (2)	2;5	7	egérkék: PLNOM (5)	2;8	egeret:ACC (1)	2;9
Bodorka (1)	2;9	4	Bodor (21)	2;2	2	–		–	
Napocska (1)	2;10	4	nap 'sun' (10)	2;1	3	–		–	

Table 10. Emergence of diminutives and their simplex counterparts in Miki's data

DIM Nom. Sg. Form	Age	Decl class	SIMPL Nom. Sg. form	Age	Decl class	DIM suffixed forms	**Age**	**SIMPL suffixed forms**	**Age**
anyu (242)	1;11	1	anya 'mother'(90)	2;1	4	anyut:ACC (4)	2;2	anyának:DAT (1)	2;2
anyuci (32)	1;11	1	anya 'mother'(90)	2;1	4	anyucit:ACC (1)	2;6	anyának:DAT (1)	2;2
Apu (29)	1;11	1	apa 'father' (6)	2;6	4	apuhoz:ALL (5)	2;3	–	
apuci (4)	1;11	1	apa 'father' (6)	2;6	4	–		–	
Mikici (24)	1;11	1	Miki (56)	1;11	1	–		Mikit:ACC (2)	2;2
Linci (6)	1;11	1	Lőrinc (2)	2;2	3	–		–	
cumika (2)	1;11	4	cumi 'pacifier' (18)	1;11	1	cumikát:ACC (1)	2;3	cumit:ACC (5)	2;2
kicsike (1)	1;11	4	kicsi 'small/little' (24)	2;2	1	–		kicsivel:INSTR (2)	2;2
poci (1)	1;11	1	pocak 'tummy' (1)	2;9	3	–		–	
vödörke (1)	1;11	4	vödör 'bucket' (1)	1;11	6	–		–	
Orsici (1)	1;11	1	Orsi (18)	1;11	1	–		Orsival:COM (10)	2;4
motorka (2)	1;11	4	motor 'motorcycle' (12)	1;11	2	–		motorral: INSTR (24)	2;0
macika (3)	2;0	4	maci 'teddybear' (26)	1;11	1	macikát:ACC (3)	2;3	macira: SUBLAT (14)	2;2
bilike (1)	2;0	4	bili 'potty' (1)	2;3	1	bilikébe:ILL (1)	2;1	bilibe:ILL (4)	2;2
süti (1)	2;1	1	sütemény 'cake' (1)	2;7	2	sütit:ACC (3)	2;1	–	
hamika (1)	2;1	4	hami 'food' (6)	1;11	1	–		hamit:ACC (5)	2;1
Mókuska (1)	2;1	4	mókus 'squirrel' (2)	2;1	2	–		–	
Lovacska (11)	2;2	4	ló 'horse' (3)	2;7	8	lovacskát:ACC (7)	2;2	lóra:SUBLAT (1)	2;7
anyuka (1)	2;2	4	anya 'mother' (90)	2;1	4	anyukája:Px (13)	2;2	anyának:DAT (1)	2;2
apuka (–)		4	apa 'father' (6)	2;6	4	apukája:Px (4)	2;2	–	
kutyus (6)	2;2	2	kutya 'dog' (6)	2;4	4	kutyust:ACC (1)	2;10	kutyát:ACC (1)	2;2
Napocska (2)	2;2	4	nap 'sun' (1)	2;7	3	–		–	
picike (1)	2;3	4	pici 'small/little' (24)	2;4	1	picikét:ACC (1)	2;3	picit:ACC (12)	2;1

halacska (1)	2;3	4	hal 'fish' (1)	2;4	5	–		halak:Pl.NOM (3)	2;2
mozdonyka (1)	2;3	4	mozdony 'locomotive' (1)	2;3	2	–		mozdonyt:ACC (1)	2;3
bábuka (6)	2;3	4	bábu 'piece (in game)' (7)	1;11	1	–		bábuk:Pl.NOM (5)	2;3
pulcsika (1)	2;4	4	pulcsi 'pullover' (2)	2;4	1	–		–	
nyuszika (3)	2;5	4	nyuszi 'bunny' (19)	2;5	1	nyuszikát:ACC (1)	2;6	nyuszit:ACC (7)	2;5
Anyucika (2)	2;5	4	anya 'mother' (90)	2;1	4	–		anyának:DAT (1)	2;2
házikó (4)	2;6	1	ház 'house' (3)	1;11	5	házikóban: INESS (8)	2;6	házban:INESS (5)	2;6
ágyikó (1)	2;6	1	ágy 'bed' (7)	2;3	5	ágyikómba: Px:ILL (3)	2;6	ágyra:SUBLAT (6)	2;3
madárka (1)	2;6	4	madár 'bird' (1)	2;6	7	–		madárnak (1)	2;11
Tamáska (1)	2;7	4	Tamás (9)	1;11	2	–		–	
Tomi (2)	2;8	1	Tamás (9)	1;11	2	Tomim:Px (2)	2;8	–	
Tesi (–)		1	testvér 'sibling' (–)		2	tesije:Px (1)	2;8	testvére:Px (1)	2;9
Orsika (1)	2;9	4	Orsi (18)	1;11	1	–		Orsival:COM (10)	2;4
gazdi (3)	2;10	1	gazda 'owner' (1)	2;5	4	gazdinak:DAT (1)	2;10	gazdájuk:Px (1)	2;5

3.5. Formal productivity

In the following we are going to discuss some phenomena that can indicate whether diminutive formation is productive in the two investigated children.

Although in Panna's data there are relatively few diminutives and she forms diminutives only from a small number of base nouns, around the age of 2;8 there are signs of diminutive formation being productive. The example below is a back-formation:

(4) *MOT: Hát az állatok nem szeretik, ha az emberek fogdossák őket, csak a házi+állatok, mert azok már megszokták szegények.
%eng: well, animals do not like when people keep touching them, only domestic animals, because they are used to it.
*PAN: őzikék is.
%eng: deers-DIM as well.
*MOT: őzikék se házi+állatok.
%eng: deers-DIM are not domestic animals either.

*PAN: Házi+állatok, házi+*őzi*.
%eng: domestic animals, domestic deer-DIM.
*MOT: Házi+őzike nincsen.
%eng: there is no domestic deer-DIM
(2;8)

Őz 'deer' is not used with only the suffix *-i* in adult language, its normative diminutive form is the double diminutive *őzike.* In the example above Panna deletes one diminutive suffix (*-kA*), thus producing a word that does not exist in adult language. This happens at the same age when other diminutives formed by *-kA* together with their corresponding base nouns appear in her data, so the use of this form might be productive.

It should be mentioned as well, that for Panna it was apparently impossible to produce diminutives formed by *-kA* or *-cskA* earlier. Possibly since words derived by them consist of at least three syllables, by concentrating on the stressed beginning of the word, she had problems with pronouncing words longer than two syllables. Miki, on the other hand, produced three-syllable words already in the first recording.

Miki diminutivizes many different words. This would indicate that his diminutive formation can be productive. Overgeneralization has not appeared in Miki's data, although the diminutive suffix *-ci* was more frequently used during the first recordings than it is usual in everyday speech. However, it can be characteristic of the whole family. It seems that Miki uses this suffix productively:

(5) a. *MOM: vagy miki?
%eng: or Miki-DIM?
*MIK: mik*ici*.
%eng: Mikici-DIM-DIM.
(1;11)

b. *MOM: biztos orsi csönget vagy levi.
%eng: it must be Orsi-DIM or Levi-DIM who is ringing.
*MIK: le*ici*-DIM-DIM?
%eng: leici-DIM-DIM.
*MOM: levici-DIM-DIM.
%eng: levici-DIM-DIM.
(1;11)

These examples above show another phenomenon as well, namely the variation between simple and combined hypocoristics, which also proves that diminutive formation is productive in his case.

3.6. Semantic and pragmatic aspects of diminutive acquisition

In contrasting environments both Miki and his mother use collocations of attributive adjectives and noun simplicia. There is no example in the data for using only a diminutive and its simplex counterpart for expressing difference in size.

In Panna's case collocations of the adjectives small/big with nouns are especially interesting, since they occur relatively early in the data (at the age of 2;1).

(6) a. *PAN: nem *pici baba na [=nagy] ba [= baba]*.
%eng: (looking at a picture) not a small baby, big baby.
(2;1)

b. *PET: és evőeszközt adsz a csacsinak?
%eng: are you giving cutlery to the donkey?
*PAN: hm pa *nan [= nagy] ka [= kanál] pici ka [= kanál], nan [= nagy] ka [= kanál] pici ka [= kanál], nan [= nagy] ka [= kanál] pici ka [= kanál] na [=nagy] ka [= kanál] na [=nagy] ka [= kanál]*.
%eng: big spoon small spoon big spoon small spoon big spoon small spoon big spoon big spoon
(2;1)

Examples like these show that Panna has already captured the semantic meaning of smallness, although the diminutive suffix *-kA* appears in her data months later, around the age of 2;8. At this time she starts to apply *-kA* to different types of words, but her basic strategy for expressing smallness remains the use of collocations. It seems that the meaning of the suffix *-kA* is rather additional, it alone cannot carry the semantic meaning of smallness.

(7) a. *PAN: A nagy+*fiúknak # nad [: nagy] áduk [: ágyuk]* van.
%eng: big boys have big bed.
a few lines below
*PET: és a # *kis+fiúknak* milyen ágya van?
%eng: and small boys, what kind of bed do they have?
*PAN: *Kicsike*.
%eng: small-DIM.
(2;9)

b. *PET: Menjünk sétálni?
%eng: shall we go for a walk?
*PAN: Igen, látogatóba a *kis macikához*.
%eng: yes, let us visit the small/little teddy-bear-DIM.
(2;9)

In spite of the small number of diminutives in Panna's data, the example below shows that she has understood one important pragmatic aspect of diminutives. She is expressing her affection for bunnies. Her utterances can be interpreted as a modest request as well.

(8) *PAN: Ott, *szejetném [: szeretném] nusikám [: nyuszikám] lenne*, de szejetném [: szeretném].
%eng: there, I would like if I had a bunny-DIM:POSS, I would like it so much.
*MOT: De szeretnéd?
%eng: you would like it so much?
*PAN: *Ananos [: aranyos] nyuszikák*!
%eng: sweet bunnies-DIM!
(2;8)

In Panna's input usually both the semantic and the pragmatic meaning of diminutives are present: they are used because adults are talking to a child and at the same time they denote smallness as well. Diminutives occur in typical lexico-semantic groups in their speech: body parts, toys, animals and food.

It is very difficult to decide whether Miki acquires any semantic or pragmatic meaning of the diminutives during the studied period. We assume that this is due to the fact that his mother is not completely consequent in this aspect either. She often uses the diminutive form immediately after the simple base noun, denoting the same object and without any noticeable pragmatic difference between the two speech events.

(9) *MOM: hol is van még *macika*?
%eng: where were some more teddy-bears-DIM?
*MOM: Miki, lehet, hogy nincs több *maci*?
%eng: Miki, is it possible that there are no more teddy-bears?
(2;5)

This is characteristic also for Miki's use of diminutives:

(10) *MIK: ho(l) van a # *bábu*?
%eng: where is the piece (in a game)?
*MIK: itt van a *bábuka*.
%eng: here the piece-DIM is.
(2;3)

And a bit later during the same recording:

(11) *MIK: nem *bábut* kéjtem [=? kértem].
%eng: I didn't ask for a piece.
*MIK: ho(l) van a *bábuka*?
%eng: where is the piece-DIM?
(2;3)

However, some collocations of the adjective *kis* 'small' and a diminutive occur in Miki's data, around the same time when he starts using the collocations of the adjective small/big and a simplex noun for expressing difference in size. This indicates that Miki has some sense of the semantic meaning of diminutives.

(12) *MIK: abba(n) ilyen kis házikó.
%eng: in that kind of small house-DIM
*MOM: na és hol lakjon a madár?
%eng: and where should the bird live?
*MIK: madár?
%eng: the bird?
*MIK: a *kis madájka* [=? madárka]?
%eng: the small bird-DIM?
(2;6)

The lexico-semantic groups of toys, food and animals occur relatively frequently as diminutives both in the input and in Miki's speech, the group of body parts and pieces of clothing only in the input.

4. Summary and conclusions

The major and rather descriptive aim of our research has been to describe how often and how early Hungarian children use diminutive forms. Thus, we investigated the occurrence of diminutives in Hungarian children's speech. The two children in the study used markedly different amounts of diminutives during the investigated period: somewhat more than 4 percent of all the words Miki used were diminutives, while Panna used half as many, roughly 2 percent. The productive suffixes (*-kA* and *-cskA*) were much more frequent in our data than the same suffixes in the "adult use" derived from the Hungarian National Corpus. Thus, the general wisdom that child-directed speech and the corresponding child speech contain more diminutives than other language use is supported by our data and seems valid for Hungarian.

Not only the frequency, but also the onset time of diminutive use was also markedly different for the two investigated children. One of them, Miki used all types of diminutives (i.e. hypocoristics, intermediate forms, lexicalized forms and real diminutives as well) from 1;11, from the first recorded sessions onwards. At the same time the other child, Panna started with hypocoristics at 2;0 which was followed by intermediate forms, lexicalized forms and real diminutives somewhat later, at 2;1. From the pattern of onset time for different diminutive endings we can propose the following tentative developmental scenario: The grammatically productive *-kA* and the semi-productive *-i*, are among the first diminutive suffixes acquired by Hungarian children. They are produced at the same time as *-u* and *-ó*, the two earliest unproductive diminutive suf-

fixes. Interestingly, *-cskA*, which is considered as the most productive diminutive suffix, is acquired relatively late, apparently due to phonological difficulty.

Our data on the possible promoting effect of change of noun class due to diminutivization on the acquisition of noun suffixation is not decisive. If there is such an effect, it is not robust enough, at least in Hungarian. Nevertheless, the bootstrapping hypothesis is not falsified by our data. Naturally, diminutivization is not a necessary condition for mastering noun declension. Indeed, according to our data noun declension is frequently performed earlier on simplex than on its diminutivized counterparts.

In Hungarian, as in other languages, there are two major functional characterizations of diminutives: semantic and pragmatic. On the semantic level, diminutives may convey the proposition of „smallness". Our data shows, that both of the investigated children do have the corresponding big-small distinction, though they realize it by adjectives. At the same time, according to our data, Hungarian children between 2 to 3 years of age do not use diminutives for the same purposes, i.e. for expressing "smallness". It is highly possible that the semantic value of "small" for diminutives is secondary, and acquired later than three years of age by Hungarian children.

On the pragmatic level, in our understanding, diminutives serve to realize the speaker's evaluative stance toward the diminutivized entity by a linguistic device. In other terms we consider diminutives as emotives, which are modulating and not specifying the relevant emotional evaluation. This position is based on a social constructionist account on emotions.

In our understanding the primary function of diminutives is that of illocutory devices for positive emotion modulation. We can offer a speculative scenario on the transition from mere pragmatic to the semantic role of diminutive suffixes. Thus, if children are valued positively in a culture, and caretakers are striving for creating positive environment for their children in and through language as well, the relatively high frequency of diminutives in their child-directed speech should not be surprising. Insofar positively valued people, namely our children are small, the property of being kind to us and the property of smallness are co-extensive. What is more, this fact may serve as a bridge to create from the pragmatic value of positive evaluation the meaning of smallness in its neutral sense. Furthermore, at least in our cultures, children are surrounded by a "mini-world" which consisting of toys specifically created for children. This fact also can promote the relevant transition from the function of positive evaluation to the denotation of neutral size.

Be that as it may, the collocations we documented may serve as proper environment for diminutives in gaining the lexical meaning of "smallness". Further research relying on data from older children could certainly clarify these issues.

Some segments of the analysed conversations may very well be interpreted as children's realization of pragmatic function through diminutive use. Nevertheless, our data do not entitle us to claim that children between the ages of 2 to 3 do use diminutives for this purpose. Indeed, in a parallel case study on the lexical level of realizing emotions it was found that the first use of an emotion word with the function of the

general marking of "good" versus "bad" characteristics of an event appeared only at age 3. "It seems that only after mastering the good (-bad) evaluation the possible emotional stances are further differentiated... GEN [genuine] use appears somewhat later (3;2.27)" (Bodor 2004: 125). It seems to us, that for some reason, children between the ages of 2 to 3 do not have the pragmatic competence (or perhaps the social right?) to evaluate and mark linguistically by diminutive use the relevant aspects of the situations on their own.

Appendix

Table 11. Panna's use of different types of diminutive suffixes in time

Age of Child	DIM1= cskA	DIM2= kA	DIM3,4= i	DIM5= csi	DIM6= ci	DIM7= u	**DIM8= us**	**DIM9= ó**	**DIM10= (i)kó**
2;0	0	0	+/– (*)	0	0	0	0	0	0
2;1	0	+/– (*)	+	0	0	+/– (*)	0	+/– (*)	0
2;2	0	+/– (*)	+	0	0	+/– (*)	0	0	0
2;3	0	+/– (*)	+	0	0	+/– (*)	0	0	0
2;4	0	+/– (*)	+/–	0	0	+/– (*)	+/–	0	0
2;5	0	+/– (*)	+	+/– (*)	0	+/– (*)	0	+/– (*)	0
2;6	0	+/– (*)	0	0	0	+/– (*)	0	0	0
2;7	0	+/–	+/– (*)	0	0	+/– (*)	0	0	0
2;8	0	+	+	0	0	+/– (*)	0	0	0
2;9	0	+	+/–	0	0	+/– (*)	0	0	0
2;10	+/–	+/–	+/–	0	0	+/– (*)	0	+/– (*)	0

o: no use
+: use
+/–: only one to three types of words are used with the suffix
(*): only hypocoristics and/or intermediate forms are suffixed

Table 12. Miki's use of different types of diminutive suffixes in time

Age of Child	DIM1= cskA	DIM2= kA	DIM3,4= i	DIM5= csi	DIM6= ci	DIM7 = u	**DIM8= us**	**DIM9 = ó**	**DIM10= (i)kó**
1;11	0	+	+	0	+ (*)	+/– (*)	0	+/–	0
2;00	0	+/–	+/–	0	+ (*)	+/– (*)	0	0	0
2;1	0	+	+	0	+ (*)	+/– (*)	0	0	0
2;2	+/–	+/– (*)	+	0	+ (*)	+/– (*)	+/–	0	0
2;3	+	+	+	0	+ (*)	+/– (*)	0	0	0
2;4	0	+/–	+	+/–	+ (*)	+/– (*)	+/–	+/–	0
2;5	+/–	+	+	0	+ (*)	+/– (*)	+/–	+/–	0
2;6	0	+/–	+	0	+ (*)	+/– (*)	+/–	0	+/–
2;7	0	+/–	+	0	+ (*)	+/– (*)	0	0	+/–
2;8	0	+	+	0	+/–	+/– (*)	+/–	0	+/–
2;9	+/–	+	+	0	0	+/– (*)	+/–	0	0
2;10	+/–	+/–	+	+/– (*)	+/–	+/–	+/–	0	0
2;11	+/–	+/–	+/–	0	0	+/– (*)	+/–	0	+/–

o: no use
+: use
+/–: only one to three types of words are used with the suffix
(*): only hypocoristics and/or intermediate forms are suffixed

List of abbreviations

Acc. Accusative
Adess. Adessive
Allat. Allative
Com. Comitative
Dat. Dative
Ill. Illative
Iness. Inessive
Instr. Instrumental
Nom. Nominative
Pl. Plural
Px. Possessive Suffix on the possessed
Poss. Possessive Marker on the possessor
Sublat. Sublative

Notes

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2. For a more detailed exposition of such naturalist concepts as transparency see the Introduction of the present volume.

3. *-kA = -ka* or *-ke*; *-cskA = -cska* or *-cske* according to palatovelar vowel harmony. In Hungarian most suffixes have a palatal and a velar variant form and their use depends on the quality of the vowels in the stem.

4. A few words about Hungarian pronounciation: Accent above the vowel means that the vowel is long. Consonants: *cs* [tʃ]: voiceless alveopalatal affricate, *ny* [nj]:voiced palatalized nasal, *ty* [tj]: voiceless palatalized plosive, *sz* [s]: voiceless alveolar fricative, s [ʃ]: voiceless alveolapalatal fricative.

5. On the concepts of explicit and primary performatives see Austin (1962/1973).

6. Emotions considered as specific enthymemic judgements are detailed in Harré (1993).

7. For this observation we are thankful to Ferenc Kiefer.

8. These data were collected by Péter Bodor from his first daughter. Despite various attempts, the transcription and coding were not assisted financially by any Hungarian agencies. However, the presentation of our preliminary findings at the annual meetings of the Pre- and Protomorphology Project headed by W. Dressler, were supported by the Austrian Academy of Sciences. Anna Stibrányi, Éva Suba and Virág Barcza transcribed most of the recordings.

9. These data were transcribed and coded with financial assistance from the Child Language Strand, Study Centre on Language Contact, Netherlands Institute for Advanced Study (Co-ordinator: Annick De Houwer). The Hungarian members instrumental in transcription were Anna Babarczy and Szilvia Papp.

10. The relevant aspects of transcriptions are in italics.

11. The source of these statistics is the Hungarian National Corpus (http://corpus.nytud.hu/mnsz), a corpus of present-day standard Hungarian, which contains 153.7 millions words and represents different written text types, inter alia literature, scientific texts and discussions of an internet portal. There is information available from the HNC on the frequency of use of diminutives derived by -kA and -cskA, but not on the other types.

12. For Miki r=0,55, while for Panna r=0,46.

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