5. DECLENSION OF NOUNS

5.1. Declensional Classes of Noun in Modern Lithuanian

5.1.1. Lithuanian noun inflection has not been the subject of recent studies. There is no fixed classification for Lithuanian noun classes. The main grammars and other studies neither agree on the number of classes nor on the criteria to be used for establishing these classes. There are five classes of nouns in Standard Modern Lithuanian (SML): *(i)a, (i)u, (i)o, ė* and *i*. Grouping of nouns into these classes is determined by the inflectional stem of the noun. The class that a noun belongs to is brought out by characteristic endings in the nominative singular, and especially in the dative plural. Within each class it is possible to distinguish a set of specific endings which fall under different paradigms, the total number of which is twelve (cf. Ambrazas et al. 1997). It should be noted in this connection that classification of nouns into the five classes according to the inflectional stem as proposed in *A grammar of modern Lithuanian* corresponds to the traditional classes usually referred to by numbers. The system of paradigms can thus be treated as a more convenient method used for displaying the distribution of nouns according to gender distinctions.

5.1.2. In this study we will introduce a classification of noun classes which differs from the traditional one (cf. 5.1.1) and assume Dressler's following concepts and definitions (Dressler et al. 1996, Dressler & Thornton 1996):

A) An (inflectional) paradigm comprises all inflectional forms of one word or of one base (word, stem, root).

B) Sets of paradigms are classes. The differentiation is hierarchical: macroclass and its successive subset classes: class, (sub)subclass, microclass.

C) An inflectional microclass is the smallest subset of an inflectional class above the paradigm, definable as the set of paradigms which share exactly the same morphological generalisations. An isolated paradigm does not form a microclass of its own but is considered a satellite to the most similar microclss.

D) An inflectional macroclass is the highest, most general type of class, which comprises several classes or microclasses. Its nucleus is a productive class (or microclass or subclass).

E) Inflectional productivity is the capability of using rules with new words.

5.1.3. According to the definitions above we have established macroclasses and microclasses of modern Lithuanian.

Nominal macroclasses are defined by gender: I – Macroclass Masculine, II – Macroclass Feminine. I Macroclass Masculine: 1) productive microclasses: 1 A (Sg. Nom. *-as*, *Tom-as,* Sg. Voc *-ai*, *Tom-ai*), 1 B (Sg. Nom. *-as*, *Tom-uk-as,* Sg. Voc. *-Ø*, *Tom-uk*) and 3 (Sg. Nom. *-is*, *brol-is,* Sg. Gen. *-o*, *brol-io* 'brother') microclasses; 2) unproductive microclasses: 2 A (Sg. Nom. *-ias*, *kel-ias,* Sg. Loc. *-yje, kel-yje* 'road'), 2 B (Sg. Nom. *-as*, *vėj-as*, Sg. Loc. *-uje/-yje* 'wind'), 4 (Sg. Nom. *-us*, *sūn-us,* Pl. Nom. *-ūs, sūn-ūs* 'son'), 5 (Sg. Nom. *-ius, televizor-ius,* Pl. Nom. *-iai, televizor-iai* 'TV set'), 6 (Sg. Non. *-is, dantis,* Sg. Dat. *-iui, danč-iui* 'tooth'), 7 (Sg. Nom. *-uo, šuo* 'dog') microclasses. II Macroclass Feminine: 1) productive microclasses: 1 (Sg. Nom. *-a, mam-a* 'mother'), 3 (Sg. Nom. *-ė*, *gėl-ė* 'flower') microclasses, b) unproductive microclasses: 2 (Sg. Nom. *-ia, vyšn-ia* 'cherry') 4 (Sg. Nom. *-is, pil-is,* Sg. Dat. *-iai*, *pil-iai* 'castle'), 5 (Sg. Nom. *-uo, sesuo* 'sister') microclasses (see Table 5.1).

Table 5.1: Noun classes with examples

Macroclass	Microclass	Thematic vowel	Gender	Ending of Sg. Nom.	Example
I	1 (product.)	(i)a	masc.	-as	vyras 'man'
	2 (unproduct.)	(i)a	masc.	-ias	kelias 'road'
	3 (product.)	(i)a	masc.	-is, -ys	peilis 'knife'
	4 (unproduct.)	(i)u	masc.	-us	medus 'honey'
	5 (unproduct.)	(i)u	masc.	-ius	televizorius 'TV set'
	6 (unproduct.)	i	masc.	-is	dantis 'tooth'
	7 (unproduct.)	i	masc.	-uo	vanduo 'water'
II	1 (product.)	(i)o	femin.	-a	ranka 'hand'
	2 (unproduct.)	(i)o	femin.	-ia	vyšnia 'cherry'
	3 (product.)	ė	femin.	-ė	bitė 'bee'
	4 (unproduct.)	i	femin.	-is	žuvis 'fish'
	(isolated p.)	i	femin.	-uo, -ė	sesuo 'sister'

5.2. The Development of Declension Classes in Rūta's Speech

5.2.1. As claimed in Dressler et al. (1996: 10): 'Children tend to follow a "top-down development" from the more general to the more specific: they may generalise the most general or productive allomorph and

use it like a superstable marker (often called inflectional imperialism, cf. Slobin 1968). More specifically, they may start to produce predominately only items of the most productive microclass of the most general macroclass. Only afterwards they start to distinguish macroclasses and later on, in a hierarchically descendent manner, classes, subclasses and microclasses'.

5.2.2. A close analysis of the processes involved in the acquisition of inflectional case endings gives enough evidence for positing some important generalisations with respect to the problems involved.

Chapter 4 of this study has shown that Rūta begins to distinguish different case endings in a very early phase, especially with the beginning of protomorphology. It was pointed out that in the period from 1;7 to 1;10 the nominative case, or rather the pre-morpheme -a, appears instead of the accusative, genitive, dative, or other case endings. The substitution of one case by another occurs only very rarely in later phases and is mostly limited to syntactically complicated structures, such as negation (cf. 4.5.3.2). In this latter case the genitive of negation, which is a grammatical norm in Lithuanian, is substituted by the nominative or the accusative case.

It could be claimed then that Rūta acquires the meanings of different cases gradually, that is, basic meanings are captured at an earlier phase, while peripheral meanings are acquired later.

5.2.3. According to child language research (Slobin 1968), children commonly mix the endings of one particular case. This is due to the assumption that it is difficult to acquire an array of endings which are characteristic of a particular class, as well as a consistent use of these endings (e.g., for I.1[20], Nom. -as, Gen. -o, Dat. -ui, Acc. -ą, etc.). Morphological acquisition of inflectional endings is a complicated issue; therefore, it can take quite a while to acquire them properly.

If a child mixes case endings up, one inflectional pattern may substitute all others. This kind of phenomenon was termed 'inflectional imperialism' (Slobin 1968) and has been first noted for Russian (Gvozdev 1949, Ceytlin 1988). In the data provided by Rūta the endings of the nominative case -as, -is, -a are used interchangeably. Thus preference for one particular ending can not be established. The data provide a very limited number of instances when case endings of one class are substituted by the endings of the same case of a different class. The most

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[20] I.1 means that the noun belong to microclass 1 within macroclass I. The other example, e.g., II.3 (microclass 3 within macroclass II).

common examples of this kind are limited to the occurrence of the
nominative singular endings *-as/-is/-us/-a/-ė*, the accusative *-ą/-į*, and the
dative endings *-ai/-ui*; several examples from other cases are attested as
well (cf. 4.5.1, 4.5.2, 4.5.4).

Therefore, also the Lithuanian data do not support the 'inflectional
imperialism' hypothesis. Since the mixing of different endings of one
case is attested in several languages, Stephany (1997b) believes that the
term 'inflectional regionalism' would be more suitable to refer to this
kind of phenomenon. This kind of 'regionalism' in Rūta's speech is
manifested when characteristic endings of the nominative, accusative and
dative cases are mixed within microclasses I.1, I.3, I.4 and microclass
II.1.

Most commonly, however, the mixing of case endings appears
within microclass I.1. Endings of this particular microclass are sometimes
substituted even to feminine nouns, as shown in *nuokatai* (*nuotraukos*)
'photos', where Pl. Nom. *-ai* appears instead of the grammatical *-os*, or
the Pl. Acc. *-us* in *masinus* instead of the correct *-as* in *mašinas* 'cars'.
By analogy, the endings characteristic of feminine microclasses appear
with masculine nouns, as in the following: Sg. Dat. *-ai, mesiukai* instead
of *meškiukui* 'bear:DIM', or Sg. Nom. *-ė, suostė* instead of the gram-
matical *sostas* 'throne'. Thus, the macroclass changes occurred in the
direction from the predominantly masculine, i.e., macroclass I, to the
predominantly feminine, i.e., macroclass II.

Most probably, the substitution of grammatically correct endings
with other endings is determined by the frequency and productivity that
a particular ending appears in an actual use. According to our data, nouns
of the microclass I.1 are the most frequent and productive in Rūta's
speech (Table 5.2 below).

The first point that deserves to be mentioned is the distribution of
microclasses. It is clearly seen that from the existing microclasses only
several occur quite frequently, namely, microclasses I.1, I.3 and micro-
classes II.1, II.3 (see Tables 5.2 and 5.3). This tendency is manifested
throughout the period of observation. Within this particular group micro-
classes I.1 and II.3 should be noted due to the high frequency of occur-
rence: they appear three times more often than microclasses I.3 and II.1.
The pattern of this occurrence is very similar in both Rūta's and her
Mother' speech.

Nouns which belong to other microclasses occur very rarely. Nouns
of microclasses I.5 and II.2 are used not often, but have a slightly higher
frequency of occurrence as compared to those of I.2, I.4, I.6 and I.7.

Nouns of isolated paradigm were not attested at all in the period of observation. One reason for this could be the use of diminutives (ch. 2); those belong to microclasses I.1, I.3 and II.3. When diminutives are used instead of basic noun forms, there is a switch from one microclass to another, e.g., *šuo* 'dog' (I.7), as compared to *šuniukas* 'dog:DIM', (I.1); *sesuo* 'sister' (II.5), as opposed to *sesutė* 'sister:DIM' (II.3). The most frequent is the diminutive switch to I.1 or II.3. (see Tables 5.2 and 5.3).

The comparison of Rūta's and her mother's data show that nouns of microclass I.1 have a higher frequency of occurrence in the Mother's speech, that is, 3887 tokens as opposed to Rūta's 3434 tokens. The same applies to the use of nouns which belong to II.1: the numbers are 1278 tokens (Mother) versus 1018 tokens (Rūta). It is noteworthy that Mother uses II.3 nouns more often (5555 vs. 3621). This is caused by a frequent repetition of the girl's name (1202 tokens). Both Rūta and her mother show the same tendency while using microclasse I.3 and II.1 nouns.

According to frequency of occurrence, it is quite easy to pair micro-classes in terms of their masculine and feminine distinction: microclass-es I.1 and II.3, microclasses I.3 and II.1, microclasses I.5 and II.2.

5.2.4. Let us turn now to the discussion of those microclasses which appear in Rūta's and her mother's speech quite rarely.

Mother has used 12 nouns of microclass II.4, the most frequent of which are *akis* 'eye', *ausis* 'ear', *nosis* 'nose', *žuvis* 'fish', *naktis* 'night', *dalis* 'part', *pilis* 'castle', *grindys* 'floor', and *sultys* 'juice'. All these nouns appear in Rūta's speech as well. However, nouns denoting body parts were most often used as diminutives; due to this the total number of microclass II.3 nouns has increased.

The nouns of microclass I.4 *alus* 'beer', *cukrus* 'sugar', *dangus* 'sky', *lietus* 'rain', and *vidus* 'inside' are attested in both Rūta's and Mother's speech, but with a rather low frequency of appearance, i.e., 22 tokens (Rūta) versus 30 tokens (Mother).

Microclass I.7 nouns are just three, i.e., *ruduo* 'autumn', and *vanduo* 'water' and *šuo* 'dog', with 15 tokens of *vanduo* 'water' in Mother's speech and 7 tokens in Rūta's. Only the girl produced *šuo* 'dog' once; there is no doubt that the word has been previously used by Mother as well, although it is not found in the recordings. The diminutive form of the noun *šuo* 'dog' appears in Rūta's speech extremely frequently – the total number of tokens is 280. It is noteworthy too that *vanduo* 'water' is used as diminutive more often than as a basic form.

Microclass I.2 nouns, such as *kelias* 'road', *radijas* 'radio', *svečias* 'guest', *vairuotojas* 'driver', and *vėjas* 'wind', appear 20 times in Mother's

Table 5.2: The distribution of tokens (numbers and %) in Rūta's speech (1;7-2;5)

Macro-classes	Micro-classes	1;7	1;8	1;9	1;10	1;11	2;0	2;1	2;2	2;3	2;4	2;5	Total
I	1	6	71	289	517	311	283	323	474	394	437	329	3434
		14,3%	21,6%	29,4%	44,7%	37,2%	28,5%	32,8%	42,8%	34,4%	37,6%	35,0%	35,5%
	2	0	0	4	0	0	3	0	0	1	1	0	9
		0,0%	0,0%	0,4%	0,0%	0,0%	0,3%	0,0%	0,0%	0,1%	0,1%	0,0%	0,1%
	3	2	63	94	127	75	157	158	99	170	155	133	1233
		4,8%	19,1%	9,6%	11,0%	9,0%	15,8%	16,0%	8,9%	14,8%	13,4%	14,2%	12,7%
	4	0	0	0	2	1	0	1	0	2	9	7	22
		0,0%	0,0%	0,0%	0,2%	0,1%	0,0%	0,1%	0,0%	0,2%	0,8%	0,7%	0,2%
	5	0	10	18	20	28	15	14	26	23	18	15	187
		0,0%	3,0%	1,8%	1,7%	3,4%	1,5%	1,4%	2,3%	2,0%	1,6%	1,6%	1,9%
	6	0	0	0	0	0	0	0	0	0	0	0	0
		0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	7	0	0	0	0	0	0	0	0	8	1	1	10
		0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,7%	0,1%	0,1%	0,1%
II	1	3	63	194	99	77	73	83	80	85	143	118	1018
		7,1%	19,1%	19,8%	8,6%	9,2%	7,3%	8,4%	7,2%	7,4%	12,3%	12,6%	10,5%
	2	1	10	16	11	8	25	5	2	1	2	7	88
		2,4%	3,0%	1,6%	1,0%	1,0%	2,5%	0,5%	0,2%	0,1%	0,2%	0,7%	0,9%
	3	30	103	362	373	335	436	399	423	451	387	322	3621
		71,4%	31,3%	36,9%	32,2%	40,1%	43,9%	40,5%	38,2%	39,4%	33,3%	34,3%	37,4%
	4	0	9	5	8	0	2	2	4	10	8	7	55
		0,0%	2,7%	0,5%	0,7%	0,0%	0,2%	0,2%	0,4%	0,9%	0,7%	0,7%	0,6%
	5	0	0	0	0	0	0	0	0	0	0	0	0
		0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Total		42	329	982	1157	835	994	985	1108	1145	1161	939	9677

Table 5.3: The distribution of tokens (numbers and %) in Mother's speech (1;7-2;5)

Macro-classes	Micro-classes	1;7	1;8	1;9	1;10	1;11	2;0	2;1	2;2	2;3	2;4	2;5	Total
I	1	55	219	545	766	278	378	261	369	374	340	302	3887
		22,5%	24,3%	28,3%	37,2%	30,9%	28,3%	26,4%	32,7%	30,9%	33,2%	27,7%	30,3%
	2	0	2	5	2	0	4	0	2	3	2	0	20
		0,0%	0,2%	0,3%	0,1%	0,0%	0,3%	0,0%	0,2%	0,2%	0,2%	0,0%	0,2%
	3	42	133	195	245	141	165	139	133	147	132	133	1605
		17,2%	14,8%	10,1%	11,9%	15,6%	12,3%	14,0%	11,8%	12,2%	12,9%	12,2%	12,5%
	4	0	0	0	5	3	2	3	4	5	4	4	30
		0,0%	0,0%	0,0%	0,2%	0,3%	0,1%	0,3%	0,4%	0,4%	0,4%	0,4%	0,2%
	5	3	14	58	43	15	15	14	14	14	11	7	208
		1,2%	1,6%	3,0%	2,1%	1,7%	1,1%	1,4%	1,2%	1,2%	1,1%	0,6%	1,6%
	6	0	0	0	1	1	1	0	0	0	0	0	3
		0,0%	0,0%	0,0%	0,0%	0,1%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	7	0	0	3	3	0	2	1	0	4	4	1	18
		0,0%	0,0%	0,2%	0,1%	0,0%	0,1%	0,1%	0,0%	0,3%	0,4%	0,1%	0,1%
II	1	5	74	261	231	80	114	87	68	107	138	113	1278
		2,0%	8,2%	13,6%	11,2%	8,9%	8,5%	8,8%	6,0%	8,9%	13,5%	10,4%	10,0%
	2	0	9	14	21	9	12	6	6	5	6	6	94
		0,0%	1,0%	0,7%	1,0%	1,0%	0,9%	0,6%	0,5%	0,4%	0,6%	0,5%	0,7%
	3	137	438	834	719	374	632	468	524	536	380	513	5555
		56,1%	48,6%	43,3%	34,9%	41,5%	47,3%	47,3%	46,5%	44,3%	37,1%	47,0%	43,4%
	4	2	12	11	25	0	12	11	7	14	8	12	114
		0,8%	1,3%	0,6%	1,2%	0,0%	0,9%	1,1%	0,6%	1,2%	0,8%	1,1%	0,9%
	5	0	0	0	0	0	0	0	0	0	0	0	0
		0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Total		244	901	1926	2061	901	1337	990	1127	1209	1025	1091	12812

speech. Rūta, on the other hand, uttered only one word, *vėjas* 'wind', three times. Other microclass I.2 nouns appeared even less frequently.

Only 2 microclass I.6 nouns were attested in Mother's data: *dantis* 'tooth' (2 tokens) and *debesis* 'cloud' (1 token), but not in Rūta's.

We rarely find indeclinable nouns. These are borrowings from other languages, such as *kivi* 'kiwi fruit', *taksi* 'taxi', *Lego, Bembo*, or *Rikiki* (i.e., extragrammatical names). In adult usage, however, these words are sometimes inflected according to declension rules, e.g., *važiuosiu su taksu* (taksas:MASC:NOM:SG) 'I am going to take a taxi:MASC:INS: SG' has microclass I.1 endings, *pirkau kyvių* (kyvis:MASC:NOM:SG) 'I bought some kiwi-fruit:MASC:GEN:PL' takes microclass I.3 endings, etc. The name of the game *Lego* appears quite often in both Rūta's (67 tokens) and Mother's speech (42 tokens). The girl sometimes uses the word *Lego* as a declinable noun, marking it with the Nom. ending *-as*, as in *Legas* (I.1) or *-us*, as in *Legus* (I.4).

5.2.5. After a brief review of the infrequent microclasses, let us turn our attention to microclasses with a higher frequency of occurrence.

Microclass I.1 encompasses masculine nouns. Rūta uses microclass I.1 nouns much more frequent (see Tables 5.2, 5.3). This is caused by her preference for diminutives, especially with the suffix *-(i)uk-as* (2.3). Moreover, when a new masculine noun appears in the girl's lexicon, she substitutes a masculine nominative ending *-as* with the other endings very often (1;9, 1;11). Such forms are not grammatically correct, as the noun *keninas* (*kiaušinis*) 'egg' (1;9) shows.

In our opinion, the productivity of microclass I.1 nouns is also the cause of the phenomenon of 'occasionalisms'. This term applies to those words which have been created to suit a particular situation and appeared only once or twice. It is difficult to predict what in fact such words in Rūta's speech actually mean – they are often just 'word play'. However, according to their form, they resemble microclass I.1 nouns ending in *-as,* e.g., *lydas, maniutas, padegas, patiokas, tepanas, tikas* (all of these are non-meaningful invented words). This particular group includes 44 noun types (132 tokens). As we can see from the Table 5.4 these words dominate in the early protomorphology (1;9, 1;10) and may indicate creative use of analogy.

Table 5.4: The frequency of distribution of non-meaningful forms in Rūta's speech (1;7-2;5)

1;7	1;8	1;9	1;10	1;11	2;0	2;1	2;2	2;3	2;4	2;5	Total
4	3	27	27	9	14	2	14	11	18	3	132

It could be concluded, then, that microclass I.1 dominates in cases where the choice of case inflection does not conform to grammatical norms. It is noteworthy that a non-standard ending is chosen only from those paradigmatic endings which are characteristic of one particular grammatical case, i.e., the nominative (basic citation form). The nominative singular ending *-as* (I.1) was used by Rūta to form nouns of other microclasses as well. Examples are: microclass I.3 nouns *keninas* (*kiaušinis*)*, kamilas* (*kiaušinis*)*, kiausinas* (*kiaušinis*) 'egg' used at the age of 1;9-2;0 and *telilas* (*katinėlis*) 'cat:DIM' used at 1;9. Microclass I.5 noun *televizorius* appeared as microclass I.1 noun *tezezizas* 'TV set' (2;4) and indeclinable *Lego* appeared as microclass I.1 noun *Legas* (2;5).

Rūta used microclass II.2 ending *-(i)as* instead of microclass I.5 *-ius*, e.g., *Pulias, Polias* (*Paulius*) (1;9).

The examples of substituting other case endings (not just the nominative), belonging to the other microclasses, with the respective endings of the microclass I.1 is attested in Rūta's speech as well. Thus the accusative singular ending *-ą* (I.1) occurs within microclass I.3 nouns: *kamą* (*kamuolį*) 'ball' (1;9), *kateniną* (*saldainį*) 'candy' (1;9), *kaniną* (*kiaušinį*) 'egg' (1;9), *tininą* (*židinį*) 'fire-place' (2;0), *pasiną* (*piešinį*) 'drawing' (2;5), *smėlią, mėlią* (*smėlį*) 'sand' (1;8, 1;9). Another example is microclass I.4 noun: *dangą* (*dangų*) 'sky' (2;4). The tendency to generalise the nominative case ending is more noticeable up to the age of 1;11, whereas the same tendency with respect to the accusative case is noticed till 2;3.

The only one instance of substituting the locative ending of microclass I.3 noun with the locative microclass I.1 ending *-e*, *kame* (*kambaryje*) 'in the room' is observed at 1;9. It seems that the microclass I.1 locative ending *-e* (as compared to the microclass I.3 locative ending *-yje*) was used because of its shorter form and a more frequent occurrence (examples are: *lauke* 'outside', *sode* 'in the garden', *kaime* 'in the countryside'). Rūta has also used the genitive case with *-(i)o* instead of the expected microclass I.5 form *-(i)aus* in such examples as *balio* (*baliaus*) 'party' and *poko* (*popieriaus*) 'paper' (2;0). However, the reverse process was also attested. Instead of the expected grammatical genitive case form *-o*, the form *-aus* was used in *akaus* (*rakto*) 'key' (1;9). Other irregularities include the use of *-o* instead of the correct microclass II.1 feminine genitive singular *-os*, as in *kavo* (*kavos*) 'coffee' (1;8).

The data include some instances where microclass I.1 plural endings occur instead of the expected grammatical forms of other microclasses. Such examples are: *nuokatai* (*nuotraukos*) 'photos' (microclass II.1 noun) (2;3), *siukai* (*cukrus*) 'sugar', microclass I.4 noun (these are in-

stances of the nominative plural); *masinus* (*mašinas*) 'cars' (microclass II.1, the accusative plural) (1;11), *Legų* genitive plural instead of indeclinable *Lego* (2;4).

Rūta's data show ovegeneralised patterns of other microclasses as well. Such examples include the substitution of the nominative singular ending -*as* (I.1) and -*ius* (I.5) with the microclass I.3 ending -*is*: *patetis* (*paveikslas*) 'picture' (1;9), *balionis* (*balionas*) 'balloon' (1;10); *aturis* (*lėktuvas*) 'plane' (2;2), *sostis* (*sostas*) 'throne' (2;2), *odis* (*uodas*) 'gnat' (2;3); *Pulis, Palis* (*Paulius*) (1;10, 2;0). The inflectional ending -*as* (I.1) was more frequently used in substitution of other endings until 2;0, while the microclass I.3 ending -*is* substituted -*as* up to 2;3 (see Table 5.5); it has to be noted, however, that these cases were extremely rare. There is no evidence showing that the microclass I.3 endings of other cases would be used as substitutions.

Table 5.5: The distribution of substitution of -as and other endings in Rūta's speech (1;7-2;5)

	1;7	1;8	1;9	1;10	1;11	2;0	2;1	2;2	2;3	2;4	2;5	Total
-as instead of X[21]	-	2	8	3	14	3	2	-	-	2	2	36
X instead of -as	-	1	4	9	9	8	7	14	16	2	2	72

The characteristic endings of microclass II.1 nouns often appear instead of microclass II.3 endings. Thus, the nominative singular ending -*ė* is substituted with -*a*, as in *apyna* (*apyrankė*) 'bracelet' (1;9, 2;0), *netyta* (*nosinytė*) 'handkerchief:DIM' (1;9), *eika* (*sraigė*) 'snail', *apa* (*lapė*) 'fox', *skyba* (*skrybėlė*) 'hat', *teletyna* (*patalynė*) 'bed-linen' (1;10), *Beba* (*Barbė*) 'Barbie', *gekyka* (*gerklytė*) 'throat:DIM' (2;2).

Rūta's data presented examples where the nominative singular ending -*ė* (II.3) was used to form new words (occasionalisms). Thus 23 noun types (34 tokens) were created, such as *aulytė* (2;0), *batutė* (1;9), *setelė* (2;3), *bukanelė* (2;3), etc. The morphological form of new invented words actually imitates diminutives, thus they belong to microclass II.3. Forms that resemble other microclasses were not attested.

It is not difficult to explain why 'occasionalisms' appear as microclass I.1, II.3 or II.3 nouns: the process is related to the exceptional frequency and productivity of these microclasses. Since nouns of these particular microclasses are very frequent in Mother's speech, the girl

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[21] The substitution of other microclasses by I.1 endings (first row) and the substitution of microclass I.1 endings by others (second row). X represents 'others'.

naturally chooses the paradigmatic endings that are most transparent and frequent.

The adduced examples allow us to make a generalisation to the effect that Rūta, while using an ungrammatical form of a particular noun, would in most cases interpret it as belonging to microclass I.1, I.3 (masculine gender) or microclass II.1 (feminine gender). The dominance of the two masculine microclasses of nouns (this is especially true of microclass I.1) is further explained by the frequency and productivity of the microclass. On the other hand, the most productive and frequent microclass of feminine nouns is microclass II.3. It would therefore be to the point to ask the following: why is it that nouns of microclass II.3 get microclass II.1 endings? One possible way to explain this phenomenon could be as follows. Microclass II.1 is, most probably, the most salient phonologically, and this is due to the sound /a/, which is correctly produced by children already in an early phase. The microclass II.1 nominative singular *-a* and the accusative singular *-ą* substitute the nouns of microclass II.3, as in *apyna* (*apyrankė*) 'bracelet', *skyba* (*skrybėlė*) 'hat', *gekyka* (*gerklytė*) 'throat:DIM'.

Substitution of microclass II.3 endings with the respective microclass II.1 endings was observed in plural forms as well. Thus the nominative ending *-(i)os* appears instead of the expected *-ės*, as in *dėmos* (*dėmės*) 'spots' (1;11), *tiutios* (*šiukšlės*) 'garbage' (1;9). The noun *šiukšlės* 'garbage' was also used with the nominative plural ending, characteristic of microclass II.4 (with the ending *-ys*), in the form of *siutys* 'juice'.

5.2.6. Up to this point we have mainly discussed examples where a masculine noun case ending was substituted with the ending of another masculine noun belonging to a different microclass but in the same case, as in *kamilas* (I.1) instead of *kiaušinis* 'egg' (I.3). The same applies to microclasses of feminine nouns. It is important to stress that in all relevant examples it is the microclass that is changed, and not the gender of the noun. However, there are several cases where masculine nouns were inflected with feminine endings, as in *bapė* (*balionas*) 'balloon' (2;0), *vezimėlė* (*vežimėlis*) 'pram:DIM'' (2;3), *sosta, suostė* (*sostas*) 'throne' (2;1, 2;3). The reverse occurs as well, i.e., masculine endings occur with feminine nouns: *nuokatas, nuokatai* (*nuotrauka, nuotraukos*) 'photo, photos' (2;3), *masinus* (*mašinas*) 'cars' (1;11). Such instances, however, are not numerous. This evidence supports our claim that gender is not important for the constitution of the system of declension classes. Gender assignment is only prototypical for certain microclasses and for the two macroclasses.

A different explanation is needed for Rūta's use of the dative singular ending *-ai* for masculines. This is a characteristic dative case ending of microclass II.1 feminine nouns (e.g., *mamai, rankai, Rūtai*). The dative singular ending *-ai* was used with microclass I.1 nouns throughout the period of observation (also including 2;6). The ending is frequent both at an early as well as the final phase, that is, up to two and a half years. The grammatical masculine dative singular ending *-ui* occurs side by side with the ungrammatical *-ai* (starting at 1;10 until 2;5); what is more, the latter is more frequent, e.g., *Linai* (*Linui*) (1;11), *Pauliukai* (*Pauliukui*) (1;10, 1;11, 2;0, 2;4), *matiukai* (*meškiukui*), 'teddy-bear:DIM' (1;11), *suniukai* (*šuniukui*) 'dog:DIM' (2;1), *kengariukai* (*kengūriukui*) 'kangaroo:DIM' (2;2, 2;3, 2;5), *uodai* (*uodui*) 'gnat' (2;3) (cf. 4.5.4.3).

It was noted in the chapter on cases (cf. 4.5.4) that it was at a rather early phase that Rūta started to use the dative case to express the indirect object. Grammatically correct forms were used just with such feminine endings as *-ai* (II.1) or *-ei* (II.3), as in *mamai* 'for Mother', *Ūtytei* (*Rūtytei*) 'for Rūta:DIM' at 1;9 onwards. During the 1;8-1;10 period the dative of masculine nouns was used with the premorpheme *-a*, e.g., *Pauliuka* (*Pauliukui*). It is only from 1;10 onwards (see Table 5.6) that the correct ending *-ui* appears (2 tokens at 1;10 and 6 tokens at 1;11); however, the ungrammatical ending *-ai* appears alongside, too (4 tokens at 1;10 and 9 tokens at 1;11). It deserves to be mentioned that the ungrammatical ending *-ai* is more frequent than the grammatical *-ui* during the period of observation. Such instances include *matiukai* (2 tokens) – *metiukui* (1 token) (*meškiukui*) 'teddy-bear:DIM'; *Pauliukai* (7 tokens) – *Pauliukui* (4 tokens) (1;11); *Pauliukai* (2 tokens) (2;0); *kengariukai* (3) – *kengujukui* (1); *mesiukai* (3) – *meskiui* (1) (2;2); *kengariukai* (3) – *kengūriukui* (2); *uodai* (1), *beniukai* (1) – *beniukui* (1), *Paliukai* (1) (2;3); *mesiukai* (12) – *meskiukui* (2), *kengajukai* (4) – *kengariukui* (1), *Pauliukai* (1) – *Pauliukui* (3) (2;4); *kengajukai* (3), *leliukai* (1) – *leliukui* (1), *meškiukai* (6) – *meškiukui* (2) (2;5).

Table 5.6: The distribution of correct and incorrect dative forms (tokens) in Rūta's speech (1;7-2;6)

	1;7	1;8	1;9	1;10	1;11	2;0	2;1	2;2	2;3	2;4	2;5	2;6
-ui	-	-	-	2	6	3	5	3	4	7	2	3
-ai	-	-	-	4	9	3	1	1	3	1	2	-

As can be seen from the above, the ungrammatical microclass I.1 dative forms with *-ai* appear in Rūta's speech up to the age of 2;6. A microclass I.3 dative ending, on the other hand, occurs in its correct

grammatical form *-ui*, as in *seniui* 'old man' (3 tokens) (2;4) and in *seneliui* 'grandfather' (1 token) (2;5).

Recordings of Rūta's speech are coded until the period of 2;6. The 2;6 period data show that Rūta has used 3 nouns of masculine gender and all of them were marked correctly for the dative case with the ending *-ui*: *meškiukui, seneliui, šuniukui*. It would not be too early to claim that Rūta has acquired the correct masculine dative *-ui* marking at this period – three spontaneous examples with different words are enough for this kind of generalisation.

5.2.7. We are, at this point, confronted with the following question: why is it that a child finds it difficult to use a grammatically correct morpheme to mark a specific category? Moreover, this is the only instance where Rūta has mixed the grammatical and ungrammatical endings (i.e., the allomorph of a different microclass) for so long. We believe that this phenomenon should not be entirely related to the microclass II.1 dative ending *-ai*. Frequency counts showed that the occurrence of microclass II.1 nouns in the dative in Rūta's and Mother's speech are quite low. However, the microclass II.3 dative form *-ei* does not differ phonologically from *-(i)ai*; this latter ending is extremely frequent in the data. It could be posited, then, that the common feminine dative singular form *-(i)ai*, in its palatalised and non-palatalised variants, was interpreted as marking masculine nouns as well due to its high frequency of occurrence. It stands to reason that Rūta acquires morphological markers which are used by her mother much quicker than others. Let us therefore consider more closely the dominant tendencies of the dative usage in Mother's speech. The token frequency count of the use of the dative singular forms yielded the following results: 363 occurrences of feminine nouns (microclasses II.1 and II.3); masculine nouns belonging to microclass I.1 and I.3 appeared in 150 tokens; in other words, their occurrence is lower by a half. The tendencies in Rūta's speech are very similar: 229 tokens of the feminine dative as opposed to 127 tokens of the masculine dative forms. It is very important to note, that as many as 70 instances within these 127 occurrences are examples with this wrong ending *-ai*. In view of this, it could be claimed that the appearance of the masculine dative inflection *-ai* was influenced by the frequent usage of the respective feminine form. In addition, the relation between Nom. *-as* and incorrect Dat. *-ai* is more transparent than the relation between *-as* and correct *-ui*.

It should be added that not only frequency plays very important role, but again */a/*, as in the nominative *-as* versus the dative *-ai* is more transparent than versus *-ui*.

5.2.8. Our analysis of case marking in different classes in Rūta's and Mother's speech allows the following conclusions:

1. The most frequent microclasses that appear in Rūta's and Mother's speech are microclass 1 and 3 (macroclass I) and microclass 1 and 3 (macroclass II). This is due to the frequent use of diminutive noun forms which basically belong to microclasses I.1, I.3 and II.3 (cf. 5.2.3).

2. Microclass of a higher frequency of occurrence (i.e., microclass I.1, I.3 and II.1, II.3) are also most productive. This claim is supported by the 'occasionalisms' in Rūta's speech (cf. 5.2.5).

3. Infrequent classes appear very rarely (less than 1% of occurrence). Thus Rūta, while employing only several microclasses, simplifies and avoids an excessive use of different endings. In other words, she over-extends initial morphological system (cf. 5.2.4).

4. First only productive microclasses are acquired. Nouns which belong to unproductive microclasses are few and apparently rote-learned.

5. Rūta's data support the hypothesis that children acquire different case forms earlier than characteristic endings of different classes. As was shown above, Rūta chooses a correct case, but may use the ending of non-appropriate class (cf. 5.2.6, 5.2.7).

6. Rūta's speech does not provide any evidence in favour of the dominance of one particular class (the so-called phenomenon of 'inflectional imperialism'), i.e., mixing of case endings. This phenomenon favours frequently used microclasses, especially I.1, I.3 and II.1 (cf. 5.2.5).