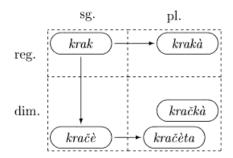
# On Diminutive Plurals and Plural Diminutives\*

Ivan A Derzhanski
Bulgarian Academy of Sciences
iad@math.bas.bg

The present book may not be snapped up by a public mistakenly eager for the latest contribution to number theory. But if a few stray mathematicians read it, I hope they will find that the linguistic number systems analysed here show the elegance and complexity they are accustomed to in their area of enquiry. – Greville G. Corbett, *Number* 

### 'What is the singular of kračkà?'

A mathematician of my acquaintance asked this question of another in the course of a long train journey that I chanced to be sharing with them. I was too tired to join the conversation at the time, but the matter rested in my mind.



The word in question means 'little legs/feet', and it has, in fact, no apparent singular correlate. In this it differs from  $kra\check{c}\check{e}ta$ , the plural form of  $kra\check{c}\check{e}$ , which is a diminutive derived from krak 'leg/foot'. In most contexts the two are freely interchangeable. The form  $kra\check{c}\check{e}ta$  is more common except in the context of cooking, where  $kra\check{c}k\grave{a}$  is used as the technically correct term for trotters of pork or lamb. On the other hand,  $kra\check{c}k\grave{a}$  does not cooccur easily with cardinal numerals, so if one is present,  $kra\check{c}\check{e}ta$  is preferred even in that sense: tja nosi 4 [...]  $kra\check{c}eta$  ot  $svin\check{c}e$  (HS) 'she is carrying four pig's legs'. In other words,  $kra\check{c}k\grave{a}$  acts as a collective plural and  $kra\check{c}e$  as the corresponding singulative.

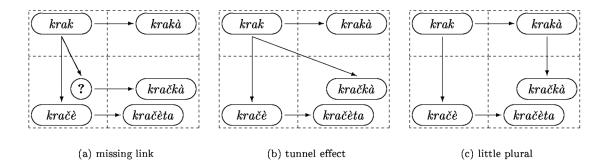
The figure doesn't try to show the full array of diminutives and plural forms, and it is conceivable that  $kra\check{c}k\grave{a}$  is the plural, or more likely the erstwhile dual, of another diminutive of krak, whose singular is perhaps unattested (the circle with the question mark in the diagram labelled 'missing link' on the next page). If so, we are dealing

G. Booij, E. Guevara, A. Ralli, S. Sgroi & S. Scalise (eds.), Morphology and Linguistic Typology, On-line Proceedings of the Fourth Mediterranean Morphology Meeting (MMM4) Catania 21-23 September 2003, University of Bologna, 2005. URL <a href="http://morbo.lingue.unibo.it/mmm/">http://morbo.lingue.unibo.it/mmm/</a>

<sup>\*</sup> My main sources of data are Arnott (1995) (Fula), Elanskaja (1980) (Coptic), Green Www (Dakelh), Hemon (1995) (Breton), Koval' (1997) (Fula), Leont'ev (1974) (Asmat), Maslova (2002) (Kolyma Yukaghir), Sova (1989) (Bantu), Stump (2001) (Southern Barasano, Yiddish), Sylestine et al. (1993) (Alabama), Volodin (1976) (Itelmen), Wolgemuth (2002) (Isthmus Nahuatl), Wright (1981) (Classical Arabic). The authors of Bulgarian texts identified by their initials are Kiril Hristov, Hristo Smirnenski and Peyo Yavorov.

This possibility was suggested to me by Vladimir Plungian (p.c.).

with a highly abnormal development. The Proto-Slavic diminutive suffix \*-ik- yields Old Bulgarian -ic- (owing to the Third Palatalisation), Modern Bulgarian -ec, in all forms of masculine nouns. A case in point is kračèc, a rare hypocoristic derivative of krak, which is singulare tantum, like most diminutives in -ec. If this existed in Old Bulgarian, it must have had the form \*kračici in the singular and \*kračica in the dual, the latter being close to both kračkà and kračicà (another plurale tantum diminutive of krak, an obsolete one), but still significantly different from both.



Dictionary entries for *kračkà* label it as 'dim. pl. of *krak*' or 'pl., dim. of *krakà*'. Taken literally, the former implies that the two operators, derivation of a diminutive and inflexion for plural number, are applied cumulatively, in a single morphological process ('tunnel effect'), whereas the latter suggests that *kračkà* is not the outcome of the pluralisation of a diminutive noun, but is itself a diminutive derived from a plural noun form ('little plural'). Either way imaginary (and aberrant) forms are eschewed, but an unusual mechanism is assumed.

This makes three hypotheses. The uncountability of the term can't help us to choose among them, because they all correlate with it. The plurals of non-human masculine nouns don't normally cooccur with cardinal numerals, as those nouns have corresponding count forms, whose purpose is to do exactly that (cf.  $dva_M kràk-a_{CT}$  'two legs, two feet'). On the other hand, a noun that has no singular form is *plurale tantum*, and by virtue of that fact uncountable.

At this point it is expedient to ask two questions:

What other lexical items in Bulgarian behave in similar ways (that is, what other *pluralia tantum* diminutives are there, and if they have synonyms that do have singular correlates, are there any more or less consistent differences in usage as between *kračkà* and *kračèta*)?

What will a search for comparable phenomena elsewhere yield?

# 1. The Bulgarian Data

Bulgarian is a highly fusional language, in which a word form's morpheme structure can be controversial. For most categories of stems from which diminutives can be formed it has a variety of diminutive suffixes, some with a marked preference for a certain denotative (undersize entity, young of a species) or connotative (hypocoristic, pejorative) interpretation. Diminutivisation may preserve gender, or it may involve conversion from masculine or feminine to neuter gender. Some suffixes permit the further formation of secondary and even tertiary diminutives: *momà* f. 'lass, maiden' >

mom-ic-a f. dto. (a rare hypocoristic diminutive)  $> mom-i\check{c}-e$  n. 'girl'  $> mom-i\check{c}-e-nc-e$  n. 'little girl'.

The words from which *pluralia tantum* diminutives are derived fall into the following groups, which shall be considered in order:

- masculine and neuter nouns with irregularly formed plurals;<sup>2</sup>
- other masculine nouns with regularly formed plurals, almost all of which fall into two semantically motivated subgroups (*viz.*, edible stuffs and kinds of footwear);
- *pluralia tantum* nouns, also including some semantically motivated subgroups (e.g., kinds of legwear);
- numerals.

### 1.1 Masculine Nouns

As I said in the Introduction, the plurals of non-human masculine nouns don't cooccur with cardinal numerals or with  $k \delta l k o$  'how many?'. However, the diminutives formed from them, which correspond to no singular or count forms, are not countable either.

There are four masculine nouns in the language with plurals (erstwhile duals or collectives) in  $-\dot{a}$ ; three of them have corresponding diminutive plurals (1–3). (The fourth one is gospodin 'gentleman, mister', pl. gospoda, from which no diminutives are derived, evidently for semantic reasons.)

The noun čovèk 'person, human being' (4) is exceptional in having three plural forms. The regular plural čovèci is used seldom, and only in the sense 'human beings par excellence' (as in the adage xora mnogo, no čoveci malko '[the] people [are] many, but [the] human beings [of any virtue are] few) or occasionally 'humans as opposed to other sentient beings' in fictional settings (as Rudyard Kipling uses the English plural men in The Jungle Books, where there are numerous non-human species of people<sup>3</sup>). One of the suppletive plural forms, ljùde, is antiquated (and stylistically marked). The commonly used plural is xòra, from which the diminutive xòrica 'poor, harmless people' is derived. Since the hypocoristic diminutive čovèčec 'poor, harmless person' has no regular plural, it effectively forms a suppletive paradigm with xòrica.

The noun *bodìl* (5) means 'thorn' in the sense of either 'thistle' or 'prickle', but the two meanings are differentiated in the plural, and from *bodlì* 'prickles' a diminutive can be formed. Depending on how one looks at it, *bodìl* : *bodlì* can be considered as one of the two instances of fleeting *i* in Bulgarian (the other one is in the numeral *edìn* : *edn* 'one') or a case of partial suppletion. (Diachronically the latter is correct: originally 'prickle' was *bodèl*, but as that word went out of use, *bodìl* took over both its meaning and its regularly formed plural).

As I said above, hypocoristic diminutives in -ec don't usually have plural forms. But in some speakers' usage some of those that are formed from monosyllabic nouns do (6). The plural diminutive form grošòvce is more readily used metaphorically for 'little money, small change' than literally for '(dear) little piastres', though the latter may also have been likely whilst the piastre was in circulation. There is a theory that the

Indeed, the more unlike a plural form something is, the more likely it is to manifest behaviour not normally associated with plural forms, such as feeding derivation.

Tsvetan Stoyanov aptly renders *men* as *čoveci* in his partial Bulgarian translation of *The Jungle Books* (1967).

morpheme *-ovce* is composed nonlinearly from the diminutive suffix *-ec* and the plural ending *-ove*.<sup>4</sup>

Diminutive plurals (nearly always in -ki) are also derived from masculine nouns with regular plurals (in -i). Some of these are names of edibles<sup>5</sup>: domàt 'tomato' (7), kartòf 'potato', mòrkov 'carrot', badèm 'almond', lèšnik 'hazelnut', òrex 'walnut', føstók 'peanut'; also makaròn 'strand of macaroni', where the singular form is a backformation from the collective makaròni (originally a plurale tantum). Others are kinds of footwear: botùš 'boot' (8), nalóm 'patten', čoràp 'sock, stocking'. The plural of čèxøl 'slipper (without back)' (9), namely čèxli, forms the diminutive čèxlički. In all cases there is a plural diminutive as well, e. g., domàtčeta 'little tomatoes', which tends to describe the size of the individual vegetables, as opposed to domàtki, which conveys the speaker's attitude to a salad of them perhaps; such differences in the likely interpretation obtain throughout.

Two names of body parts, one paired (10), the other one plural (11), also belong here; the latter also has the diminutive plural form  $z\emptyset bici$ , but that one hardly ever occurs except in poetry: da bjaxa margar  $m\emptyset nista$  tvoite beli  $z\emptyset bici$  (PY) 'would that thy (dear) white teeth were pearl beads'.

	sg.	dim.	pl. dim.	pl.	dim. pl.	
1	krak	kračè	kračèta	krakà	kračkà,	leg, foot
					kračicà	
2	rog	rògče	rògčeta	rògòve		horn
	rog	rogce	rogceiu	rogà	rogcà	110111
3	nòmer	nòmerče	nòmerčeta	nomerà	nomercà	(ordinal) number
4	čovèk	čovèče	čovèčeta	čovèci		person, human being
4	cover	čovèčec		xòra	xòrica	person, numan being
5	bodìl	bodìlče	bodìlčeta	bodìli		thorn, thistle
3	Doan	boance	Doanceia	bodlì	bodlìčki	thorn, prickle
6	anoš.	gròšec		grošòve	grošòvce	piastre, obsolete Lv
U	groš	gròšče	gròščeta			0.20 coin
7	domàt	domàtče	domàtčeta	domàti	domàtki	tomato
8	botùš	botùšče	botùščeta	botùši	botùški	boot
9	čèxøl	čèxølče	čèxølčeta	čèxli	čèxlički	slipper
10	mustàk	mustàče	mustàčeta	mustàci	mustàčki	moustache
11	zøb	zǿbče	zǿbčeta	zǿbi	zǿbki	tooth
11	200	2Ø0Ce	zøbceia	zøbì	zøbìci	tootii
12	okò	očè	očèta	očì	očìci	eye
13	uxò	ušè	ušèta	ušì	ušìci	ear
14	detè	detènce	?detènca	decà	dečìca	child
15	nèšto	nèštičko		neštà	nešticà	(some)thing

<sup>&</sup>lt;sup>4</sup> 'It can be said that the diminutive marker is inserted into the plural marker in these rare forms' (Maslov 1981: 137). Historically the *ov* in both *-ove* and *-ovce* is a vestige of the fact that in Proto-Slavic *u*-stems ended in *-aŭ* before vowel-initial suffixes and endings.

Note that *kračkà* 'trotters of pork or lamb' is one also.

### 1.2 Neuter Nouns

The diminutives formed from the plurals of neuter nouns are countable (that is, they can cooccur with cardinal numerals), but it is difficult to draw any conclusions from this, due to the scanty number of nouns involved.

There are two neuter nouns with plurals (erstwhile duals) in -i (12–13). The hypocoristic forms *očici* and *ušici* are rare, though they do occur, esp. in poetry: *da bjaxa ogøn elmazi tvoite černi očici* (PY) 'would that thy (dear) black eyes were fiery diamonds'. However, the secondary diminutive *očički* is common enough.

The noun detè 'child' (14) was originally a singulative (dætę from the collective dætǐ 'children'). Its partially suppletive plural decà is a contraction of Old Bulgarian dætĭca, attested in the thirteenth century (Mirčev 1963: 57). The regular plural diminutive detènca is very rare, so for most practical purposes detènce and dečica form a (partially) suppletive paradigm. Of some interest is the expression màmino detènce 'Mummy's little child; mother's darling, milksop, mollycoddle', whose plural is mamini dečica in the literal sense and mamini detenca in the idiomatic one; the derivation through deca 'children', which mollycoddles are not almost by definition, would be inappropriate.

The indefinite pronoun  $n\grave{e}sto$  'something' ( $< n\alpha$ - 'some-' +  $\check{s}to$  'what') has been degrammaticalised to mean 'thing' (15) and inflects as a noun when so used. As such it forms the plural  $ne\check{s}t\grave{a}$  'things, stuff', whence the diminutive  $ne\check{s}tic\grave{a}$ . The singular  $ne\check{s}tic\grave{e}$ , as in tam ni  $edni\check{c}ko$   $ne\check{s}tice$  ne sveti (KH) 'there [sc. in the skies] not a single (little) thing is shining', is quite rare, and is as likely to be a back-formation of  $ne\check{s}tic\grave{a}$  as a diminutive of  $n\grave{e}\check{s}to$ . The singulare tantum form  $n\grave{e}\check{s}ti\check{c}ko$  'little something' is an adjectival diminutive, and more readily used as a pronoun than as a noun.

### 1.3 Pluralia Tantum

Semantically speaking, the relatively restricted class of *pluralia tantum* nouns in Bulgarian presents no surprises, compared to other languages. It includes the names of numerous kinds of legwear (16–18; also *potùri* 'breeches', *šalvàri* 'shalwars', *šòrti* 'shorts' etc.) as well as the word *obùšta* 'footwear, shoes' (19), twosome tools (20–22) and mass terms (23). There are also names of mountains, diseases, festivals and financial terms, but those are outside our present scope, as they form no diminutives.

The language finds such nouns an inconvenience and strives to eliminate them, either by back-forming singulars from them, with the same meaning or a different one, or, when the phonological shape permits it, by reinterpreting them as singulars (the modest size of the nominal paradigm, given the loss of case marking, makes this a good deal easier than it is in other Slavic languages). Examples of the former scenario are nòžica 'scissors' from nòžici dto., pantalòn 'trousers' from pantalòni dto. and očilò 'spectacle lens' from očilà 'spectacles'. The latter accounts for vratà 'gate; door' (24), kolà 'waggon, ox-cart; car' (25) and ustà 'lips, mouth' (26), originally pluralia tantum after the manner of plural neuters, but currently feminine nouns with plurals in -ì. (In the glosses of the three words the semicolons separate the older meanings from the newer ones.) However, their old diminutives have not been so reinterpreted; rather, they have been superseded by new ones, with the suffix -ìc(a).

The cardinal numerals from two onwards, general and masculine personal, constitute a special class of *pluralia tantum* words. A few of them have diminutive forms (27–31).

	pl.	dim. pl.			pl.	dim. pl.	
16	gàšti	gaštèta,	pant(ie)s	24	vratà	vratcà	gate
		gàštički					
17	pantalòni	pantalònki	trousers	25	kolà	kolcà	ox-cart
18	plùvki	plùvčici	swimming	26	ustà	ust(i)cà, ustènca	mouth
			trunks				
19	obùšta	obuštèta	shoes,	27	dve	dvèčki, dvènki	2 (gen.f./n.)
			footwear				
20	klèštì	klèštìčki	pincers	28	tri	trìčki, trìnki	3 (general)
21	nòžici	nòžički	scissors	29	čètiri	čètirki	4 (general)
22	očilà	očilcà	spectacles	30	dvàma	dvàmca, dvàmka	2 (m. pers.)
23	trìci	trìčki	bran	31	dvamìna	dvamìnka	2 (m. pers.)

#### 1.4 Patterns

Three of the most opaque plural nouns and the masculine personal numerals form their diminutives as singular feminine nouns do, except that they have no secondary diminutives (there are such words as  $k\acute{\phi}\check{s}ti\check{c}ka$ ,  $rek\grave{i}\check{c}ka$ ,  $\check{z}ivin\check{c}\hat{i}ca$ , but no  $*x\grave{o}ri\check{c}ka$  etc.), and the nouns that  $krak\grave{a}$  patterns with are all formed from adjectives by the suffix  $-in(\grave{a})$ .

	reg.	dim.			reg.	dim.	
m. pl.	xòr-a	xòr-ic-a	people	f.	kǿšt-a	kǿšt-ic-a	house
n n1	dec-à	deč-ìc-a	children	f.	ovc-à	ovč-ìc-a	sheep, ewe
n. pl.	аес-а	aec-ic-a	children	1.	rek-à	reč-ìc-a	river
m. pl.	krak-à	krač-k-à	legs, feet	f.	živin-à	živin-k-à	live being,
							animal
num	dvàm-a	dvàm-k-a	two	£	žìl-a	žìl-k-a	tendon,
num.	dvam-ìn-a	dvam-ìn-k-a	(people)	1.	Z11-a	Z11-K-A	vein

Now  $x \partial r a$  is a loan from Greek, where  $\chi \omega \rho \alpha$  is the citation (singular) form of a feminine noun meaning 'country, nation',  $d \dot{e} c a$  'children' can behave as a singular feminine noun in Serbo-Croat, and -in(a) in dvamina etc. is a derivational (usually augmentative) suffix. This puts the erstwhile dual  $krak \dot{a}$  with the associated diminutive  $krak \dot{a}$  in unusual company.

Most other diminutive plurals have the form of plural diminutives, except that they have no corresponding singular forms. They can be divided into four groups.

\_

The final -ma in dvàma etc. is also in origin an Old Bulgarian dual ending, but of the dative and instrumental cases. With the disintegration of the case system it ceased being associated with any particular syntactic functions, then was copied from 'two' to several higher numerals.

	reg.	dim.	redim.	
f. sg.	žìl-a	žìl-k-a	žìl-č-ic-a	tendon, vein
f. pl.	žìl-i	žìl-k-i	žìl-č-ic-i	
m. pl.	zǿb-i	zǿb-k-i		teeth
pl. t.	pantalòn-i	pantalòn-k-i		trousers
pl. t.		plùv-k-i	plùv-č-ic-i	swimming trunks
num.	čètir-i	čètir-k-i		four
	reg.	dim.	redim.	
f. sg.	dàrb-a	dàrb-ic-a	dàrb-ič-k-a	talent
f. pl.	dàrb-i	dàrb-ic-i	dàrb-ič-k-i	
m. pl.	čexl-i		čexl-ič-k-i	slippers
pl. t.		nòž-ic-i	nòž-ič-k-i	scissors
pl. t.	gàšt-i		gàšt-ič-k-i	pant(ie)s
pl. t.	klèšt-i		klèšt-ič-k-i	pincers
	reg.	dim.	redim.	
f. sg.	glav-à	glav-ìc-a	glav-ìč-k-a	head
f. pl.	glav-ì	glav-ìc-i	glav-ìč-k-i	
m. pl.	zøb-ì	zøb-ìc-i		teeth
m. pl.	bodl-ì		bodl-ìč-k-i	prickles
n. pl.	oč-ì	oč-ìc-i	oč-ìč-k-i	eyes
pl. t.		tr-ìc-i	tr-ìč-k-i	bran
num.	tr-i		tr-ìč-k-i	three
pl. t.	klešt-ì		klešt-ìč-k-i	pincers

The first and largest group is composed of those that look like plurals of feminine diminutives formed from feminine nouns. The various types are illustrated in the table; they employ the suffixes -k(a), unstressed and stressed -ic(a) and their combinations  $-[k>\tilde{c}]-ic(a)$  and  $-i[c>\tilde{c}]-k(a)$ . The inclusion of the numeral tri 'three' is provisional; I shall return to this point later.

In fact some of the corresponding singular forms do exist. Compare bonbòn 'sweet, candy', whose extant (though dated) alternative form bonbòna (with the same plural form bonbòni) and its diminutive bonbònka might explain the plural diminutive bonbònki even in the speech of those who don't use the two feminine singulars, to pantòf 'slipper (with back)', which lacks the first of the two 'intermediate' forms, and to botùš 'boot', which lacks both.

m.	f.	dim. f.	dim. pl.	
bonbòn	bonbon-a	bonbòn-k-a	bonbòn-k-i	sweet, candy
pantòf		pantòf-k-a	pantòf-k-i	slipper
botùš			botùš-k-i	boot

The second group is made up of the diminutive derivative of the *plurale tantum* noun *gàšti* 'pant(ie)s', which has the form of the plural of a neuter diminutive derived from a feminine noun, and of *obùšta* 'footwear, shoes', which is exceptional in that the diminutive is related to the base as the plural of the neuter diminutive is to the singular of the feminine noun from which it is derived.

	reg.		dim.	redim.	
f. sg.	kǿšt-a	n. sg.	køšt-è	køšt-è-nc-e	house
f. pl.	kǿšt-i	n. pl.	køšt-è-ta	køšt-è-nc-a	
pl. t.	obùšt-a		obušt-è-ta	obušt-è-nc-a	footwear, shoes
pl. t.	gàšt-i		gašt-è-ta	gašt-è-nc-a	pant(ie)s

The diminutive plurals in the third group are shaped as plurals of neuter diminutives formed from neuter nouns. The unusual case is that of the masculine personal numerals: the words they pattern with have more than two syllables, whereas *dvàma* 'two (people)' and *trìma* 'three (people)' contain precisely two each.

	reg.	dim.			reg.	dim.	
n. sg.	mjàst-o	mest-ènc-e	place	n. sg.	kopìt-o	kopìt-c-e	hoof
n. pl.	mest-à	mest-ènc-a		n. pl.	kopìt-a	kopìt-c-a	
pl. t.	ust-à	ust-ènc-a	mouth	num.	dvàm-a	dvàm-c-a	two (people)
	reg.	dim.			reg.	dim.	
n. sg.	per-ò	per-c-è	feather	n. sg.	lic-è	lič-ic-è	face
n. pl.	per-à	per-c-à		n. pl.	lic-à	lič-ic-à	
m. pl.	rog-à	rog-c-à	horn	m. pl.	krak-à	krač-ic-à	legs, feet
m. pl.	nomer-à	nomer-c-à	numbers	n. pl.	nešt-à	nešt-ic-à	things
pl. t.	očil-à	očil-c-à	spectacles	pl. t.	ust-à	ust-ic-à	mouth
pl. t.	vrat-à	vrat-c-à	gate				
pl. t.	kol-à	kol-c-à	cart				

The diminutive plurals or plural diminutives in *-ovce* constitute a class of their own

The last case to consider is that of the cardinal numeral *dve* 'two' (feminine or neuter) with its diminutives *dvèčki* and *dvènki*, where the initial vowel of the diminutive suffix -*ičk*- or -*ink*- (an uncommon suffix generally restricted to adjectives) is missing, as though it has been reanalysed as something other than part of the suffix—and in this case the only other thing it could be a part of is an inflected stem *preceding* the suffix. The same analysis can arguably be applied to the diminutives of *tri* 'three', as an alternative to the classification proposed above.

# 2. The Crosslinguistic Situation

This section reports the results of my search of the world's languages for diminutive plural forms that are not obtained by pluralisation of diminutives.

# 2.1 Missing Links

I don't have many examples of missing link derivations. My best example is from Polish. In that language diminutives in -e, pl. -et-a, and singulatives/rediminutives -qt-k-o, pl. -qt-k-a, are formed from names of animal species and a few ethnic and racial groups (and then denote young animals and children, respectively) as well as some

There are exact parallels in Ukrainian and Belorussian (but not Russian).

other words for live beings (e.g., wnuk 'grandson', wnucz-ę 'grandchild'; zwierz 'beast', zwierz-ę 'animal'). However, the plural form in -ęt-a (with no corresponding rediminutive) is used as a plurale tantum diminutive of the names of some body parts (oko 'eye', ręka 'arm, hand', noga 'leg, foot', colloquially a few other body part and paired clothing items as well), especially when referring to a child's or a woman's eyes or limbs, and only in the literal (anatomical) sense, never for any metaphorical meanings that the base noun or other diminutives may have.

		reg.	dim.	dim.	redim.
	sg.	kot	kot-ek	koci-ę	koci-ąt-k-o
	pl.	kot-y	kot-k-i	koci-ęt-a	koci-ąt-k-a
		cat	little cat	kitten	little kitten
	sg.	ok-o	ocz-k-o		
	pl.	1. <i>ocz-y</i> , 2. <i>ok-a</i>	1. <i>ocz-k-i</i> , 2. <i>ocz-k-a</i>	ocz-ęt-a	
Polish		1. eye; 2. cell (of			
Po		net)			
	sg.	ręk-a	rącz-k-a		
	pl.	ręc-e	rącz-k-i	rącz-ęt-a	
		arm, hand	1. little arm, hand; 2. handle		
	pl.	<i>but-y</i> shoes	but-k-i	buci-ęt-a	
	pl.		<i>port-k-i</i> pants	porci-ęt-a	
EF .	sg.		tao-tz <u>i</u> n	tao-l <u>i</u> n	
 png	pl.		tao-tzi-tz <u>i</u> n	tao-li-l <u>i</u> n	
Nahuatl			little girl		
sn	sg.	chacalin	chacal-tz <u>i</u> n		
Isthmus	pl.	chacalimej	chacal-tzi-tz <u>i</u> n	chacal-li-l <u>i</u> n	
		prawn	little prawn		

The addition of the data from Isthmus Nahuatl (Uto-Aztecan) is provisional: there is the form *chacalin* 'prawn(s)', which can be considered a variant of *chacalin* or a diminutive; in the latter case *chacal-li-lin* would not appear to be a missing link derivation. (The diminutive suffix *-lin* occurs only in a few nouns; beside *tao-lin* 'little girl' there are *choo-lin* and *huen-lin* 'little boy', all *diminutiva tantum*.)

### 2.2 Tunnel Effects

It is rare for a language to express diminution and plurality cumulatively, but it does happen. In Fula (Atlantic-Congo), as well as Swahili and many other Bantu languages, number marking can't be separated from the formation of evaluatives, which is done by conversion, so that the forms in the four positions in the paradigm are equally distant from one another. Anderson's (1985: 177) statement made in regard to Fula: 'This process is (in principle given – semantic limitations) completely productive, and its full integration into the noun-class system [...] makes its inflectional status clear' is applicable to the Bantu languages as well.

In Asmat (Trans-New Guinea) regular nouns do not distinguish number (*pok* 'thing, things'), as is generally the case in the Papuan languages, but the diminutive markers express singularity (*mu* 'water', *mu-nakap* 'a little water') or plurality.

Diminutives can be formed from phrases as well as words, which Leont'ev 1974: 65 brings up as evidence of their non-derivational status (*amas* 'sago', *amas nec* 'raw sago', *amas nét-nakap* 'some raw sago').

	reg.	pl.	dim.	dim. pl.	
Fula	wur-o	gur-e	gur-el	ngur-on	compound
Swahili	m-nyama	wa-nyama	ki-nyama	vi-nyama	animal
Asmat	pok		pok-nakap	pok-nakas	thing

### 2.3 Little Plurals

The idea that *kračkà* and some of the other *pluralia tantum* diminutives in Bulgarian are derived from plural forms is in line with the peculiarities of their semantics and usage. It is, however, at variance with Greenberg's Universal 28: 'If both the derivation and inflection follow the root, or they both precede the root, the derivation is always between the root and the inflection' (Greenberg 1966: 93). By extension, all derivation ought to take place before the word can be inflected.

Croft (1990: 176) comments:

Derivational morphology alters the lexical meaning of the root, sometimes drastically, whereas inflectional morphology only adds semantic properties or embeds the concept denoted by the root into the larger linguistic context.

The formulation allows for exceptions if a token derivational process does not alter the lexical meaning. This is arguably the case with the formation of connotational (as opposed to denotational) evaluatives: the size of an entity is a more substantial property than its quantity, but the latter is, in turn, more stable than the speaker's attitude. Thus it is to be expected that evaluatives will time and again give occasion for digressions from the universal, as indeed they do.

In the course of his discussion of the Nootka (Wakashan) stem *inikw-ihl-'minih¹-'is²-* 'little² fire-s¹ in the house, burn plurally¹ and slightly² in the house' Sapir (1921: 104–105) comments:

the plural element precedes the diminutive in Nootka [...], which at once reveals the important fact that the plural concept is not as abstractly, as relationally, felt as in English [...]; and may not the Nootka diminutive have a slenderer, a more elusive content than our *-let* or *-ling* or the German *-chen* or *-lein*?<sup>8</sup>

The question is asked on behalf of the reader, but the author agrees, in a footnote:

The Nootka diminutive is doubtless more of a feeling-element, an element of nuance. This is shown by the fact that it may be used with verbs as well as with nouns. In

<sup>-</sup>

It is remarkable that Nootka is here contrasted to German, whose diminutive markers share at least one prominent feature with the Nootka one, that of being able to stand closer to the periphery of the word form than the plural marker (cf. Subsection 2.4). Besides, the German diminutives surely 'have a slenderer, more elusive content' (that is, are more readily used to impart the speaker's attitude) than the English ones have.

speaking to a child, one is likely to add the diminutive to any word in the sentence, regardless of whether there is an inherent diminutive meaning in the word or not.<sup>9</sup>

In other words, in Nootka it is not the case that diminutive formation and pluralisation are ordered as instances of derivation and inflexion, respectively. Sapir also makes the point that in Nootka 'neither the plural nor the diminutive affix corresponds to anything else in the sentence', which might have argued for their derivational character.

The same morpheme order is also obligatory in Dakelh, also known as Carrier (Athabaskan), and in Southern Barasano (Tukanoan): evaluative (diminutive and augmentative) markers are located closer to the periphery than number markers. This is what Stump (2001: 98f) calls head marking, not an uncommon phenomenon on a global scale, though most often observed in compounding or derivation by means of word-like affixes (that is, such as retain their adverbial, pronominal etc. character to a greater or lesser extent), and, as he acknowledges (p. 283, n. 6), seldom where an inflexional marker ends up linearly between the root and a derivational formative, as in this case.

In Kolyma Yukaghir (Paleo-Siberian) the diminutive marker -die/-tie follows the plural marker -p(ul)/-pe. Maslova (2000: 91) calls this relative order of the two markers a 'noteworthy distributional feature'. She also notes that in many cases the diminutive is used to express affection, so that, if the intended meaning is 'little', forms of the verb juko:- 'be little' are used in conjunction with diminutive marking. There is also a diminutive form of the negative pronoun n'e-leme 'nothing' which has 'emphatic impact': n'e-leme-die 'nothing at all' (p. 92; cf. Bulgarian ništičko, diminutive of ništo 'nothing' < ni- 'no-' + što 'what'). A further use of the diminutive marker is to merely make recent Russian loans 'more Yukaghir-like', as in Russian ŝuka 'pike' > Yukaghir šu:ka:-die 'pike', and in this case the plural marker follows the diminutive one (p. XXIV). Thus the relative position of the two markers is influenced by the function of the diminutive.

Classical Arabic<sup>10</sup> is another language in which the use of the diminutive is by no means restricted to size.<sup>11</sup> Its nominal morphology is notorious for its large variety of plural formations, with many nouns exhibiting alternative plurals. Diminutive plurals are derived from the four 'broken' (transfixal) plurals which, when they are not the only plural form of a noun, have a paucal interpretation (being used with numerals in the range 3–10, etc.).<sup>12</sup> None of the other plurals are diminutivised; however, singular diminutives can form 'sound' (suffixal) plurals. Remarkably, Brockelmann (1985: 100) states that both plural diminutives (*sunayyāt* "Ge. ein Paar Jährchen", 'a few years', from *sunayya*, diminutive of *sana* 'year') and diminutive plurals (*nusayya* "Ge. ein Paar Weiber", 'a few women', from *niswa*, suppletive paucal plural of *imra'a* 'woman') can

And also, as he attests elsewhere (Sapir 1915), in speaking about children or speaking to or about people with various bodily deformities or disabilities. Another similar suffix, namely -aq, is used when addressing or discussing excessively tall or overweight people. Clearly any denotational interpretation is out of the question.

I thank Ali Idrissi for drawing my attention to this language and Tat'jana Frolova for providing excerpts from Wright (1981).
Witness its formation from the language and Tat'jana Frolova for providing excerpts from Wright (1981).

Witness its formation from the demonstrative pronoun  $\delta \bar{a}$  'this', dim.  $\delta ayy\bar{a}$ , and Wright's (1981: 167) testimony that diminutives 'cannot be formed from nouns which have already the measure of a diminutive, as  $\hat{g}umayl$  "a kind of a small bird", kumayt "a bay horse", implying that from all others they can.

Since the exponent of the diminutive is also a transfix, the vowels of the paucal plural are lost; however, the prefix 'a- in those forms that have it contributes an additional radical consonant, and the ending -a is retained.

express the same meaning as paucal plurals. This is an uncommon case of a reference grammar calling attention to what is beyond doubt a common phenomenon (cf. Bulgarian *godinki* 'little years', obviously used, like German *Jährchen*, only for pragmatic impact), but one that is seldom brought up, <sup>13</sup> conceivably because the paucal plural is not a self-sustained category in most languages.

This subsection started with a generalisation based on an intuition formulated in Croft (1990). To my knowledge, the closest thing to a counterexample to that is found in Itelmen (Chukotko-Kamchatkan), in whose noun the number marker (a suffix of order 13 in Volodin 1976's model) is located farther from the root than any of the several unproductive pejorative or hypocoristic diminutive suffixes (order 3), but closer to the root than the productive denotational diminutive suffix  $-c[(a)\chi]$  (order 14) and the pejorative augmentative suffix -aj (order 15). (The two derivational processes can take place together:  $qo\hat{w}$ - $sk'ele_{PEJ}$ - $c\chi_{DIM}$  'little good-for-nothing deer skin jacket', pl.  $qo\hat{w}$ - $sk'ele_{PEJ}$ - $c\chi_{DIM}$ .)

Although the central meaning of the diminutive in  $-c[(a)\chi]$  is stated to be smallness, words such as  $lacca\chi$  'little sun' (cf. lac 'sun'),  $ju\acute{n}juc\chi$  'whale' (lit. 'little whale', but the non-diminutive noun \* $ju\acute{n}ju\acute{n}$  is never used),  $qis\chi ca\chi$  'sky' (lit. 'little sky') show that there is more to it than meets the eye. (Volodin 1976: 133 attributes the high productivity of the diminutive to the speakers' desire to lessen at least the perceived size of large objects in their environment.)

In Alabama (Muskogean) the diminutive suffix -(o)s(i) (which can be repeated to form secondary diminutives: poskòosi 'child, baby', poskòososi 'infant') and the plural marker for human nouns -ha can occur in either order (a kind of variation seldom seen in the morphology in any language). Admittedly pluralisation and diminutivisation are not quite on a par, since only the former can correlate with something else in the sentence (to wit, the plural distributive form of the verb, marked by ho-, if the term is its subject). However, neither the noun suffix -ha nor the verb prefix ho- are obligatory, and their co-occurrence hardly constitutes agreement.

\_

In Jurafsky (1996) it is only cursorily alluded to, and illustrated by Zulu pl. *amazwi* 'words', pl. dim. *amazwana* 'a few words', cf. the corresponding sg. *i(li)zwi* 'voice; order, command; word', dim. *i(li)zwana* 'word'.

	reg.	dim.	pl. dim.	pl.	dim. pl.	
Nootka	inikw-ihl-	inikw-ihl-'is-		inikw-ihl-'	inikw-ihl-'m	fire in the
				minih-	inih-'is-	house
Dakelh	lhi	lhi-yaz		lhi-ke	lhi-ke-yaz	dog
South. Bar.	wi	wi-aka		wi-ri	wi-ri-aka	house
	terike	terike-die		terike-pul	terike-p-tie	wife, old
Kol. Yuk.						woman
Koi. i uk.	(Russian)	šu:ka:-die	šuke-die-pe			pike
	ŝuka					
	bayt	buyayt	buyayt-āt	buyūt		house
	bayt	buyayt		'abyāt	'ubayyāt	verse
Class. Ar.	fatä	futayy	futayy-ūn	fity-ān	futayy-a	young man
Class. Al.				(usual)		
				fity-a		
				(paucal)		
Itelmen	quwa	quwa-cχ	quwa-sk'el-7	quwa-7n	quwa-7ń-c	trousers
		quwa-sk'el				
Alabama	(posko-)	poskò-osi	poskò-osi-ha	poskoo-ha	poskoo-ha-s	child
					i	

### 2.4 Double Plurals

In some languages evaluatives are pluralised twice, both before and after the derivation. In Breton diminutive plurals are formed by adding the diminutive suffix -ig followed by  $-o\dot{u}$ , a productive plural ending characteristic of inanimate nouns<sup>14</sup>, to the plural form of the noun, whether the formation of the latter is productive, unproductive or suppletive. A similar situation obtains in Yiddish, where plurals are by and large formed as in German, although nouns of Hebrew origin retain the plural forms they have in the source language, which are suppletive from the point of view of Yiddish. The diminutive suffix is -l(e) (cf. German -lein); diminutive plurals also acquire the ending -ex of unknown origin, perhaps another diminutive suffix (cf. German -chen).

Another parallel, if only a superficial one, is found in many Bantu languages (the examples in the table are from Lamba and Mabiha), where there are different diminutive markers for the two numbers, but the original class and number marker is retained (in a reduced form or in its entirety), effectively becoming part of the stem of the diminutive noun, so that the latter has different stems for the two numbers.<sup>15</sup>

In Isthmus Nahuatl this affects one noun, -piltzin 'son, daughter' (never used without a possessive prefix). This word is also unusual in that it has a diminutive suffix in the singular even without diminutive semantics, though this is not so in the plural.

Note that inanimacy is correlated with diminutivity in Breton as the feminine and especially the neuter gender are in Bulgarian.

This is potentially an unstable situation. In some other languages of the same family the singular prefix is retained within the forms of the diminutive noun for both numbers, so the double number marking is eliminated, and the plural diminutive correlates only with the corresponding singular, cf. Nsenga *mu-ntu* 'person', pl. *ŵa-ntu*, but dim. *ka-mu-ntu*, pl. dim. *tu-mu-ntu*. A similar development takes place occasionally in Fula as well, cf. *kor-do* 'slave girl', pl. *hor-be*, but dim. *kor-d-el*, pl. dim. *kor-d-on*.

The German form *Kinderchen* 'little children' is a classic example of a diminutive plural derivation, though there is a case for considering it a double plural  $(Kind-er_{PL}-chen-\theta_{PL.NOM})$ , gen.  $Kind-er_{PL}-chen-\theta_{PL.GEN}$ , cf. sg.  $Kind-chen-\theta_{SG.NOM}$ , gen.  $Kind-chen-s_{SG.NOM})$ . Although the contrary is stated sometimes in the literature (e. g., Bauer 1983: 26), in contemporary German such diminutive plurals in *-er-chen* and *-er-lein* can be formed (without necessarily being very common) from many nouns that pluralise by *-er*, neuter as well as masculine. Some of these nouns have another plural form as well. One such word is *Wort* 'word', pl. *Worte* (mostly collective) or *Wörter* (mostly distributive), dim. *Wörterchen*.

The availability of the plurals in -er for subsequent morphological processes has parallels elsewhere in the languages that constitute German's close kin, where they acquire further plural marking (cf. Middle English child-er, Modern English child-r-en, African American Vernacular English child-r-en-s > chilluns). In Dutch the old plurals of such words, reinterpreted as uninflected stems, give rise not only to new plural forms, but also to alternative diminutive plurals, used side by side with the ones obtained by pluralisation of the diminutives. In a sense what has happened here is just the opposite to what we saw in the Bulgarian diminutive plurals in -ovce as per fn. 4: there a part of one form of the stem has been reinterpreted as a part of a compound ending, whereas in Dutch an ending has been reinterpreted as part of an allomorph of the stem.

Many speakers perceive no semantic difference between *kindjes* and *kindertjes*; there is, however, a tendency for the former to be preferred as an individualising plural, esp. when talking of someone's offspring, and for the latter to be interpreted as a collective form, a fact arguably related to its derivation from a plural.<sup>17</sup> An unusually complex case is that of the noun *kleed* 'cloth, (rarely) garment'. This word has three plural forms: *kleden* 'cloths', *klederen* 'garments' (an archaic or elevated form) and *kleren* 'clothes' (etymologically a syncopated version of the former, but now effectively a *plurale tantum* lexeme). The diminutive plural *kleertjes* corresponds to *kleren*; the plural diminutive *kleedjes*, to *kleden*.

A remarkable situation arises in Portuguese, where evaluatives formed by /z/-initial suffixes (diminutive -zinh- or -zit-, augmentative -zão) from nouns and adjectives whose stem undergoes one of several kinds of morphophonological change before plural -s (also /z/) have alternative plural forms in which the same changes take place before the evaluative suffix. In light of the existence of corresponding /z/-less evaluative suffixes in the language (diminutive -inh- and -it-, augmentative -ão) it is tempting to think that the standard orthography is misleading, and that the /z/ in florezinhas is neither the /z/ (written z) of -zinh- nor 'a formative which does not realise a morpheme' (as according to Bauer 1983: 26), but the /z/ (written s) of flores.

It is noteworthy that the masculine nouns involved tend to be animate (*Geist* 'ghost', *Gott* 'god', *Mann* 'man', *Wurm* 'worm'). This suggests that the language sees in these forms a remedy for the conflict between animacy and the number syncretism that is characteristic of diminutives in all cases except the genitive. Another kind of remedy is explored with overt double plurals such as *Kinderchens* and *Kinderleins* (much less often formed from other nouns); a further one with *Fräulein* 'young lady, miss' (formally a diminutive from *Frau* 'lady, woman', pl. *Frauen*), which forms in the colloquial language the plural *Fräuleins*, being thus the only noun with a diminutive suffix to get the plural ending -s in the absence of another plural marker.

<sup>&#</sup>x27;Since the word is derived from a diminutive and has no singular, it refers to a group (e.g., a class in kindergarten)' (Alexander Lubotsky, p.c.).

	reg.	dim.	pl. dim.	pl.	dim. pl.	
	bag	bag-ig		bag-où	bag-où-ig-où	boat
Breton	merc'h	merc'h-ig		merc'h-ed	merc'h-ed-ig-où	daughter
Dicton						girl
	den	den-ig		tud	tud-ig-où	person
Yiddish	xet	xet-l		xatoim	xatoim-l-ex	sin
Tiddisii	kind	kind-l		kind-er	kind-er-l-ex	child
Lamba	umu-si	ka-mu-si		imi-si	tu-mi-si	village
Mabiha	mu-uto	ka-mu-uto		mi-uto	tu-mi-uto	river
Isth.	-pil-	-pil-tz <u>i</u> n		-pil-ohu <u>a</u> n	-pil-ohu <u>a</u> n-tzi-tz <u>i</u> n	child
Nahuatl						
German	Kind	Kind-chen	Kind-chen	Kind-er	Kind-er-chen-(s)	child
	kind	kind-je	kind-je-s	kind-er-en	kind-er-tje-s	child
Dutch		kleed-je	kleed-je-s	kled-en		cloth
Dutch	kleed	кіеей-је	kieea-je-s	kled-er-en		garment
				kler-en	kleer-tje-s	clothes
Portuguese	flor	flor-zinha	flor-zinha-s	flor-es	flor-ez-inha-s	flower
Italian	bracci-o	bracc-in-o	bracc-in-i	bracc-i		arm
				bracci-a	bracc-in-e	
Egyptian	šm(э)	šт-€э	šm-€э.w	šт(э).w	šm(э).w-€э.w	stranger
> Coptic		šımmo	šımmōou		šımmoi	

In Italian<sup>18</sup> there is a group of nouns which are masculine (and have the ending -o) in the singular, but can be pluralised into either gender, typically with a differentiation in the meaning: the masculine plural (ending -i) may have an abstract, figurative or idiomatic sense and the feminine (ending -a or, more rarely, -e) a concrete (frequently anatomical) one, or the former may be distributive and the latter collective. An example is braccio 1. (pl. braccia or occasionally bracce) 'arm (of human body)', 2. (pl. bracci) 'arm (of chair), protruding part of a building etc.'. The plural form of the diminutive derivative braccino, namely braccini (m.), can have both meanings, as Merlini-Barbaresi (2004) attests. There is also a diminutive formed, in her analysis, from the feminine plural: it is braccine, which can be considered a double plural (once pluralised by the conversion to feminine gender and once by the regular ending -e). <sup>19</sup>

In Coptic some descendants of Egyptian noun-adjective compounds with  $\epsilon 9$  'great' in second position (in effect, augmentatives, though not all of them have recognisable augmentative semantics) have two different plural forms. An example is  $\underline{smmo}$  'stranger' (from Egyptian  $\underline{sm-\epsilon} 9 = \underline{*semeo} > \underline{*semmo}$ ), plural  $\underline{smmo}$ ou [-o:w] or  $\underline{smmo}$  [-oj]. Elanskaja (1980: 100f) argues that the Egyptian prototype of  $\underline{smmo}$ ou is a plural form treated as a unit, whereas in the prototype of  $\underline{smmo}$  both the noun and the adjective are pluralised: the former is descended from  $\underline{sm-\epsilon} . w = \underline{*semmo} . w = \underline{*se$ 

The plural form *braccina* (also f.), though judged incorrect, also occurs in contemporary usage.

1

<sup>&</sup>lt;sup>18</sup> I am indebted to Franz Rainer for bringing the facts of this language to my attention and for providing the relevant passage from Merlini-Barbaresi (2004).

virtue of that are more archaic'. Already in Ancient Egyptian, that is, the lexicalisation of a compound such as  $\check{s}m-\check{e}\ni$  would have made the plural form  $\check{s}m-\check{e}\ni.w$  more common and  $\check{s}m.w-\check{e}\ni.w$  less so. This example is particularly interesting in that it lets us trace the making of an evaluative along with the variation in its plural form, which is why I am taking the liberty of including it here, although it is not about diminutives.

#### 3. Conclusions

The languages in which parallels can be found to the several unusual diminutive plural formations in Bulgarian are not very many, but neither are they trivially few. There may be only one or two such forms (as in Isthmus Nahuatl), or this may be the general rule (as in Nootka); however, in the languages that are between these extremes the lexical items involved tend to form morphologically or semantically delineated classes (Portuguese is an example of the former, Polish of the latter, and Bulgarian of both).

The opposition between the distributive interpretation of plural diminutives and the collective interpretation of diminutive plurals (cf. especially the comments to examples (1, 6, 7, 14, 17), as well as the Dutch, Polish and Yukaghir evidence), though rarely sharp, is also revealing. It supports the idea that these enigmatic forms are indeed connotational diminutives formed from plurals, which contrast with plurals formed from primarily denotational diminutives. This ambivalent interpretation of the diminutive, a derivational category, arguably leads to the apparent conflict with Greenberg's Universal 28.

#### References

Anderson, S.A (1985), *Inflectional Morphology*, in T. Shopen (ed.), *Language Typology and Syntactic Description*, Vol. III, 150–201.

Arnott, D.W (1995), *Fula*, in W. Bright (ed. in chief), *International Encyclopedia of Linguistics*, New York, Oxford, Oxford University Press, 2, 31–37.

Bauer, L. (1983), English Word-Formation, Cambridge, Cambridge University Press.

Brockelmann, C. (1985), Arabische Grammatik, Leipzig, VEB Verlag Enzyklopädie.

Croft, W. (1990), Typology and Universals., Cambridge, Cambridge University Press.

Elanskaja, A.I. (1980), Složnye suŝestvitel'nye s komponentom & na koptskoj stadii drevneegipetskogo jazyka, in I.S. Kacnel'son (ed.), Drevnij Vostok: Sbornik 2, Moscow, Nauka, 98–104.

Green, J. (www), *Plurals of Nouns: Nak'albun/Dzinghubun Dialect*, The Yinka Déné Language Institute, Electronic publication: http://www.ydli.org/dakinfo/plnonak.htm.

Greenberg, J.H. (1966), Language Universals, with Special Reference to Feature Hierarchies, Janua Linguarum, Series Minor, 59, The Hague, Mouton.

Hemon, R. (1995), Breton Grammar, Dublin, Everson Gunn Teoranta.

Jurafsky, D. (1996), Universal Tendencies in the Semantics of the Diminutive, "Language" 72.3, 533–578.

Koval', A.I. (1997), *Imennye kategorii v pular-ful'ful'de*, in V.A. Vinogradov (ed.), *Osnovy afrikanskogo jazykoznanija*. *Imennye kategorii*, Moscow, Aspekt press, 92–220.

Leont'ev, A.A. (1974), Papuasskie jazyki, Moscow, Nauka.

Maslov, Y.S. (1981), Grammatika bolgarskogo jazyka, Moscow, Vysshaja shkola.

Maslova, E.Y. (2000), A Grammar of Kolyma Yukaghir, Mouton de Gruyter.

Remarkably, all types of diminutive plurals (missing link, tunnel effect, little plural and double plural derivations) behave alike in this respect.

#### On Diminutive Plurals and Plural Diminutives

- Merlini-Barbaresi, L. (2004), *Alterazione*, Chapter 5.1.1.7 in M. Grossmann & F. Rainer (eds.), *La formazione delle parole in italiano*, Tübingen, Niemeyer.
- Mirčev, K.S. (1963), Istoričeska gramatika na bølgarskija ezik, Sofia, Nauka i izkustvo.
- Sapir, E. (1915), *Abnormal Types of Speech in Nootka*, Canada Department of Mines Geological Survey, Memoir 62, Anthropological Series No. 5. Ottawa: Government Printing Bureau.
- Sapir, E. (1921), *Language: An Introduction to the Study of Speech*, New York, Harcourt, Brace and Company.
- Sova, L.Z. (1989), Sinxronija i diaxronija jazykov bantu, in A.V. Desnickaja (ed.), Aktual'nye voprosy sravnitel'nogo jazykoznanija, Leningrad, Nauka, 203–238.
- Stump, G.T. (2001), *Inflectional Morphology: A Theory of Paradigm Structure*, Cambridge, Cambridge University Press.
- Sylestine, C., H.K. Hardy & T. Montler (1993), *Dictionary of the Alabama Language*, Austin, University of Texas Press. (http://www.ling.unt.edu/~montler/Alabama/Dictionary).
- Volodin, A.P. (1976), *Itel'menskij jazyk*, Leningrad, Nauka.
- Wolgemuth, C. (2002), *Gramática náhuatl (mela'tájt<u>ol</u>) de los municipios de Mecayapan y Tatahuicapan de Juárez*, Veracruz, Instituto lingüístico de verano. An electronic edition is available: http://www.sil.org/mexico/nahuatl/istmo/G020a-DiccNahIst-NAU.htm.
- Wright, W. (1981), A Grammar of the Arabic Language, Beirut, Librairie du Liban.