History of the Ancient Near East / Monographs – X

CAMSEMUD 2007

PROCEEDINGS OF THE 13TH ITALIAN MEETING OF AFRO-ASIATIC LINGUISTICS

Held in Udine, May 21st–24th, 2007

Edited by

FREDERICK MARIO FALES & GIULIA FRANCESCA GRASSI

S.A.R.G.O.N. Editrice e Libreria
Padova 2010

HANE / M – Vol. X

History of the Ancient Near East / Monographs

Editor-in-Chief: Frederick Mario Fales

Editor: Giovanni B. Lanfranchi

ISBN 978-88-95672-05-2
4227-204540

© S.A.R.G.O.N. Editrice e Libreria
Via Induno 18B I-35134 Padova
SAR.GON@libero.it
I edizione: Padova, aprile 2010
Proprietà letteraria riservata

Distributed by:
Eisenbrauns, Winona Lake, Indiana 46590-0275 USA
http://www.eisenbrauns.com

Stampa a cura di / Printed by:
Centro Copia Stecchini – Via S. Sofia 58 – I-35121, Padova

S.A.R.G.O.N. Editrice e Libreria
Padova 2010

TABLE OF CONTENTS

F.M. Fales – G.F. Grassi, *Foreword* v

I. SAILING FROM THE ADRIATIC TO ASIA/AFRICA AND BACK
G.F. Grassi, *Semitic Onomastics in Roman Aquileia* 1
F. Aspesi, *A margine del sostrato linguistico "labirintico" egeo-cananaico* 33
F. Israel, *Alpha, beta ... tra storia–archeologia e fonetica, tra sintassi ed epigrafia* 39
E. Braida, *Il Romanzo del saggio Ahiqar: una proposta stemmatica* 49
F.A. Pennacchietti, *Il tortuoso percorso dell'antroponimo Asia tra omofoni e sviste* 65
G. Cifoletti, *Venezia e l'espansione dell'italiano in Oriente: problemi connessi con la storia della lingua franca del Mediterraneo* 69

II. GENERAL AND COMPARATIVE AFROASIATIC LINGUISTICS
G. Del Olmo Lete, *Phonetic Distribution in Semitic Binary Articulation Bases* 79
M. Franci, *Estensione della radice nella comparazione egitto-semitica* 87
P. Marrassini, *South Semitic Again* 103
G. Hudson, *Klimov's Active-language Characteristics in Ethiopian Semitic* 111
O. Kapeliuk, *Some Common Innovations in Neo-Semitic* 123
H. Jungraithmayr, *Mubi and Semitic — Striking Parallels* 133
A. Zaborski, *'Afar-Saho and the Position of Cushitic within Hamitosemitic/ Afroasiatic* 139
V. Blažek, *On Application of Glottochronology to South Berber (Tuareg) Languages* 149
A. Mettouchi, D. Caubet, M. Vanhove, M. Tosco, Bernard Comrie, Sh. Izreʾel, CORPAFROAS. *A Corpus for Spoken Afroasiatic Languages: Morphosyntactic and Prosodic Analysis* 177

III. NORTHWEST SEMITIC
A. Gianto, *Guessing, Doubting, and Northwest Semitic* YAQTUL-U 181
F.M. Fales, *New Light on Assyro-Aramaic Interference: The Assur Ostracon* 189
A. Faraj, *An Incantation Bowl of Biblical Verses and a Syriac Incantation Bowl for the Protection of a House* 205
I. Zatelli, *Performative Utterances in the Later Phase of Ancient Hebrew: the Case of Ben Sira'* 213

S. Destefanis, *I Proverbi di Ahiqar nella versione neoaramaica di Rubeyl Muhattas. Un'analisi comparativa delle sue fonti* 221
R. Kim, *Towards a Historical Phonology of Modern Aramaic: The Relative Chronology of Ṭuroyo Sound Changes* 229

IV. EGYPTIAN
H. Satzinger, *Scratchy Sounds Getting Smooth: the Egyptian Velar Fricatives and Their Palatalization* 239
G. Takács, *The Etymology of Egyptian* √mȝʕ 247
F. Contardi, *Egyptian Terms Used to Indicate the Act of Reading: An Investigation about the Act of Reading in the Egyptian Society* 261
A. Roccati, *Sono dei Re quelli specificati per nome* (*ḥqȝw pw mtrw rnw*) 271

V. ARABIC
A.Gr. Belova, *Études étymologiques du lexique arabe préislamique: correspondances sémitiques et le cas de la spécification* 275
J. Lentin, *Sur quelques préformantes utilisées dans la morphogénèse de la racine: l'exemple de l'arabe* 281
A. Mengozzi, *The History of Garshuni as a Writing System: Evidence from the Rabbula Codex* 297
R. Contini, *Travel Literature as a Linguistic Source: Another Look at Doughty's Najdi Arabic Glossary*..... 305
W.C. Young, T. Rockwood, *Explaining Variation in Demonstrative Morphology and Syntax in Peninsular Colloquial Arabic: An Argument Based on Anaphoric and Exophoric Reference* 315
J. Guardi, *Il* ʿāmil *nella linguistica araba moderna* 339
B. Airò, *Aspetti e tendenze degli studi di linguistica araba in Tunisia (1985–2005)* 349

VI. CHADIC
O. Stolbova, *Chadic Lateral Fricatives (Reconstruction and Parallels in Semitic, Cushitic and Egyptian)* 355
R. Leger, A. Suzzi Valli, *The Lexeme "eye" in Chadic Reconsidered* 369
S. Baldi, R. Leger, *North versus South. Typological Features of Southern Bole-Tangale Languages* 375

VII. CUSHITIC
M. Tosco, *Semelfactive Verbs, Plurative Nouns: On Number in Gawwada (Cushitic)*..... 385

VIII. BERBER
V. Brugnatelli, *Problème de la négation en berbère: à propos de l'origine d'*ulac, ula, ula d 401

SEMELFACTIVE VERBS, PLURATIVE NOUNS: ON NUMBER IN GAWWADA (CUSHITIC)

Mauro Tosco

to the memory of Alan, friend and colleague

1. Introduction: the language and the speakers [1]

Gawwada (/kawwaɗa/) is a member of the so-called Dullay dialect cluster and is spoken in South-West Ethiopia (in administrative terms, a part of the "Southern Nations, Nationalities, and Peoples Region;" the region was known until 1991 as "Gamu Gofa"). The area lies at about 1,600-1,700 meters upon the sea level.

According to current classification, Dullay is a direct offspring of East Cushitic. Within Dullay one may distinguish a Western and an Eastern group of dialects; the former is basically made up of Ts'amakko and Gawwada, and, geographically, spans the two banks of the Weyt'o river; the Eastern dialects occupy the highlands to the east and north of Gawwada; Harso, Dobaze, and the other dialects studied in Amborn, Minker, and Sasse (1980) are representative of the Eastern group. Intercomprehensibility between the Eastern and Western group is high, and Dullay may probably be regarded as a dialect chain; Gawwada speakers have no trouble speaking with Ts'amakko, while they claim to have some problems understanding the Eastern varieties.

The Dullay-speakers have no overall name for themselves, nor do they seem to recognize themselves as an ethnic or linguistic unit. The label "Dullay" was originally proposed by Amborn, Minker and Sasse (1980) and is simply the name of the river known in Amharic as Weyt'o, and which is

[1] The Gawwada data have been collected in Arba Minch and in Gawwada town in various periods of fieldwork starting in 2000. I gratefully acknowledge the financial support of the Università di Napoli "L'Orientale" for funding my research, and the assistance of the Institute of Ethiopian Studies at Addis Ababa University for the permission to carry on fieldwork in Ethiopia. This paper has been written at the Department of Linguistics of the Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany. The transcription is phonological and follows the I.P.A. conventions, except for /š/ = IPA /ʃ/, /c/ = IPA /ʧ/, and /y/ = IPA /j/. Phonological accent is marked with /´/ on the vowel or its first mora in long vowels.

perhaps the most salient geographic feature of the area (actually, the river divides the westernmost group, the Ts'amakko, from all the other Dullay-speaking groups). Dullay has gained wide acceptance in the literature and will be retained here, although it must be stressed that none of these denominations bears any meaning to the speakers themselves.

In this article, "Gawwada" is used for the dialect spoken in the town of Gawwada (approximately at 5°25' N, 37°14' E) and in the neighbouring villages. The town lies approximately 40 km.s (one hour drive) westwards of Konso town, and a dozen kilometers North of the main road leading from Konso to Jinka and the Omo valley.

In Ethiopia, "Gawwada" is officially used nowadays as a cover term for all the Dullay-speaking groups except the Ts'amakko, who live on the western bank of the Weyt'o river. The practice of labeling all the Dullay-speakers except the Ts'amakko as "Gawwada" is reflected, *e.g.*, in the 1994 Ethiopian Census (Federal Democratic Republic of Ethiopia 1998), according to which there were 32,636 "Gawwada". The census further counted 8,621 speakers of Ts'amakko, bringing the total number of the Dullay-speakers to approximately 42,000.

The Dullay varieties are not endangered. Bi- and multilingualism in Gawwada involves Konso and other Konsoid varieties, and, most of all, Amharic, longtime the official language of Ethiopia and still nowadays the working language of the federal government and of the "Southern Peoples, Nations, and Nationalities Region".

2. Gender and number in nouns

It seems possible and useful to describe Gawwada (and similar varieties; *cf.* Savà 2005 for Ts'amakko) on the basis of three genders and three numbers.

The three genders are:

— M(asculine),[2]
— F(eminine),
— PL(ural)

The three numbers are:

— basic (or Unmarked Count Form; *cf.* Hayward 1984),
— SING(ulative),
— PLUR(ative).

In other words, the following departures from traditional terminology are proposed:

- in Gawwada (and possibly in other varieties of Dullay and neighboring languages; *cf.* Savà 2007 on Ts'amakko), "Plural" acts as a nominal classification device and a lexical property of nouns, alongside the traditional genders Masculine and Feminine;
- number on nouns is rather part of derivational morphology, and involves a Singulative and a "Plurative" (the latter obviously calqued on the former, and following Savà 2005, 2007 for Ts'amakko) formed from a number-unmarked basic form.

2.1. Gender

Gender is a lexical property of nouns, and it is assigned only partially on semantic grounds. Essentially, most male animates (but there are exceptions) are assigned to the M gender in their basic (unmarked) number form. Many inanimates are likewise assigned to the M gender:

[2] The Appendix contains a full list of the abbreviations used in glosses.

šaamɓ-o "boy" (a countable noun referring to an animate male entity)	boy-M
loʔ-o "cow" (a countable noun referring to an animate female entity)	cow-M
ʕaɗ-o "cheek" (a countable noun referring to an inanimate entity)	cheek-M

Most female animates (again, with exceptions) and many inanimates are assigned to the F gender in their basic-number form:

šeet-te "girl" (a countable noun referring to an animate female entity)	girl-F
moor-e "market" (an inanimate count noun)	market-F
ceeq-te "blood" (an inanimate mass noun)	blood-F

Most mass nouns and many collective animates are assigned to the PL gender in their basic number form, alongside a sizable number of countable inanimate entities. As regards mass nouns, this is not really unexpected: *cf.* the word for "water", which is Plural in Gawwada (*ʕanɗ-e*), but also, just to mention two better-known East Cushtic languages, in Oromo (*bishaan*) and in Somali (*biyo*).[3]

ʔorh-e "milk" (a mass noun referring an inanimate entity)	milk-PL
hisk-e "women" (a collective noun referring a collection of countable animate entities)	woman-PL
ker-e "headrest" (a countable noun referring an inanimate entity)	headrest- PL

Formally, most nouns ending in *-o* in their basic form are Masculine, while most nouns ending in *-e* are either Feminine or Plural. Again, a few exceptions do occur. A minority of nouns, possibly most if not all of them loans, end in *-a* and are generally Masculine.

The syntactic grounds for the proposed threefold M/F/PL gender opposition are manifold:

— a subject noun commands agreement on the verb; for a third person subject the gender of the subject noun commands different endings on the verbal form in at least a subset of the paradigms, while in other paradigms the distinction is totally or partially neutralized (three gender-marking paradigms and one with partial neutralization are shown in the table below):

	Perfective pos.	Imperfective pos.	Perfective neg.	Imperfective neg.
M	*-i*	*-a*	*-ú*	*-í*
F	*-ti*	*-ay*	*-ú*	*-tí*
PL	*-e*	*-anki*	*-ónki*	*-é*

as seen in:

1.	*karm-o*	*ʔí=ašš-i*	"The lion went"
	lion-M	SPEC=go-PFV:3M	
2.	*moor-e*	*ʔí=hum-ti*	"market finished"
	market-F	SPEC=finish-PFV:3F	
3.	*ker-e*	*ʔí =konɗ-am-e*	"the headrest broke"
	headrest-PL	SPEC=break-PASS-PFV:3PL	

It will be noticed that the specific subject clitic of third person *ʔí=* is not gender-sensitive (for an analysis of subject clitics in Gawwada *cf.* Tosco 2007).

[3] The same root of Oromo *bishaan* and Somali *biyo* is attested in Gawwada (and in Dullay in general) as *piy-e*, but with the meaning "earth, ground, land".

— gender-sensitivity is also seen on adjectives as acting as noun modifiers or predicates:

4.	*qawh-o*	*piʕ-a*	"a white man"
	man-M	white-M	
5.	*šeet-te*	*heet'-ay*	"a nice girl"
	girl-F	nice-F	
6.	*miis-e*	*lahh-ooma*	"green leaves"
	leaf-PL	green-PL	

— one finds gender-sensitivity in the Connectors, too; these are elements which act as generic heads: *ħ-o* (CONN-M), *t-e* (CONN-F), *ħ-e* (CONN-PL) "the one (M, F, PL) which", as well as first elements in the Demonstratives and the Possessives:

7.	*šaamɓ-o*	*h-uusu*	"his son"
	boy-M	M-3SG:M:POSS-M	
8.	*ʕeemt-e*	*t-ayyu*	"my sheep (SG)"
	sheep-F	F-1SG:POSS	
9.	*minn-e*	*h-aah-u*	"your (M, SG) home"
	house-pl	PL-2SG:POSS-M[4]	

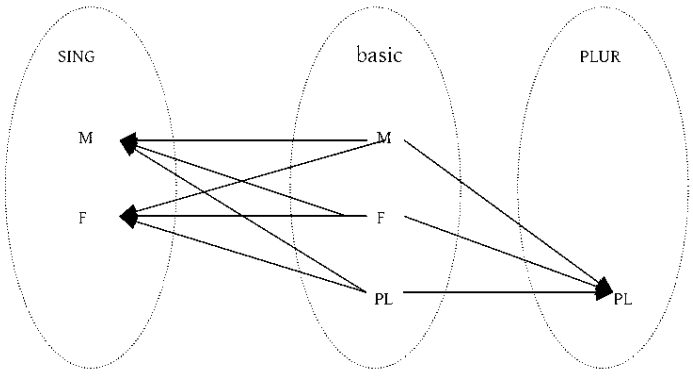
It will be noticed that in the Connectors the opposition between M and PL is neutralized (both being marked by *h- vs. t-* for the F).

2.2. Number

We have seen that basic number forms can be either M, F, or PL in gender. Gender-assignment is more restricted in number-derived forms:

— SING: {M, F}, *PL
— PLUR: *{M, F}, PL

Thus, Singulatives may be either Masculine or Feminine in gender, but never Plural; while Pluratives are always Plural. The interplay of gender and number in nouns is shown in the following scheme:



Gender and number derivations

[4] The final vowel of the Second person Singular possessives marks agreement with the possessor: *e.g.*, *minn-e h-aah-u* "your (M, SG) home" *vs. minn-e h-aah-i* "your (F, SG) home".

Ideally at least, number-derivation operates from the basic number form creating a Singulative and/or a Plural:

The Singulative affixes are:

SING: *{-Vtt{-o$_M$/-e$_F$}, -Vkk{-o$_M$}}*

where "V" is either /a/ or /i/ (the choice being apparently lexically determined); singulatives in *-Vkk-o* are apparently all Masculine. The result is a spray of forms as exemplified below:

-att-e:	*keeš-akk-o*	→	*keeš-att-e*	"old, elder"
	old-SING-M		old-SING-F	
-att-o:	*ħisk-e*	→	*ħisk-att-o*	"woman" (Masculine!)
	woman-PL		woman-SING-M	
-itt-e:	*ʕand-e*	→	*ʕand-itt-e*	"water"
	water-PL		water-SING-F	
-itt-o:	*ʔorr-e*	→	*ʔorr-itt-o*	"potter"
	potter-PL		potter-SING-M	
-akk-o:	*ʕalal-o*	→	*ʕalal-akk-o*	"dove"
	dove-M		dove-SING-M	
-ikk-o:	*kull-ikk-o*	→	*kull-add-e*	"cane rat"
	cane_rat-SING-M		cane_rat-PLUR-PL	

The Plurative affixes are more varied; a very limited number of irregular Pluratives also occurs. The most common Plurative markers are:

PLUR: *{-Vdd-e, ~C-e, -aam-e, -aan-e…}*

where "C" is a copy of the last stem consonant and "V" is again either /a/ or /i/)

-add-e:	*haarr-e*	→	*haarr-add-e*	"donkey"
	donkey-F		donkey-PLUR-PL	
-idd-e:	*karm-o*	→	*karm-idd-e*	"lion"
	lion-M		lion-PLUR-PL	
-C-e:	*ʕad-o*	→	*ʕad~d-e*	"cheek"
	cheek-M		cheek-PLUR-PL	
-aam-e:	*ɠurʕ-att-o*	→	*ɠurʕ-aam-e*	"black and white colobus"
	colobus- SING-M		colobus-PLUR-PL	
-aan-e:	*karʕ-itt-o*	→	*karʕ-aan-e*	"stomach"
	stomach-SING-M		stomach-PLUR-PL	

The use of *-C-e* is apparently limited to CVC-V nouns (in which final V is the gender marker, such as *ʕad-o* "cheek" above. The following example is apparently the only one in which the *~C-e* plurative is applied to a CVCC-V noun. In this case, as Gawwada does not allow three-consonants clusters, the copying of the last stem consonant does not apply: as a consequence, number is not formally marked:

~C-e:	*harɠ-o*	→	*harɠ-e*	"hand, arm"
	hand-M		hand[PLUR]-PL	

An example of irregular Plurative and apparently the only case of number-marking realized through stem-variation is:

loʔ- o	→	*leʔ-e*	"cow"
cow-M		cow\ PLUR-PL	

Finally, very few Pluratives expressed through stem-alternation are also found:

šaamɓ-o	→	*ɗeel-l-e*	"boy"
boy-M		boys-PLUR-PL	

2.3. The trouble with number

The present analysis, based upon the separate treatment of gender and number, and introducing the category of Plurative, allows a uniform treatment of the make-up of nouns, which can be represented as

{STEM} {± NUMBER} {GENDER}

In other words, a noun will be minimally composed of a stem and a gender marker, with the possibility of interposing a number marker between them.

A separate treatment of gender and number is also advisable in the light of the fact that gender markers are dropped in affixation, number markers are not. It has been seen that the gender marker of the basic form is dropped in number derivation. The same happens with the affixation of the Locative case-marker:

karm-o "lion"	→	*karm-ito*		
lion-M		lion-LOC:M		
ker-e "headrest"	→	*ker-aɗɗ-e*	→	*ker-aɗɗ-ete*
headrest-PL		headrest-PLUR-PL		headrest-PLUR-LOC:PL

There are nevertheless a number of problems which must be mentioned. Most of them have to do with the historical development of single words and irregular derivational paths.

A first trouble is given by the presence of historical gender markers which came to be "sandwiched" between stem and (vowel) gender marker. Unclear, for example, is the status of the inherited (Cushitic and even Afroasiatic) Feminine gender marker **-t-*, found in many Feminine words in Gawwada:

ʕeem-t-e "(one) sheep"

while historically we have to do here with a Feminine marker **-te, -t-* is not dropped in Gawwada during the affixation of a case-marker:

ʕeem-t-atte
sheep-??-LOC:F

while it is in number derivation:

ʕeem~m-e "sheep"
sheep~PLUR-PL

A possible solution is to consider *-t-* as irregularly marking the SING number, and *-e* as the regular F gender, *i.e.*:

ʕeem-t-e "(one) sheep"
sheep-SING-F

Other problems have to do with missing bits of derivation, *i.e.*, with the absence of at least one element in the theoretical triad "Basic → Singulative, Plurative". *Cf.*:

paš-o → *paš~š-e* "field/fields" (basic → PLUR; but a SING ***paš-itt-o*** has not been recorded)

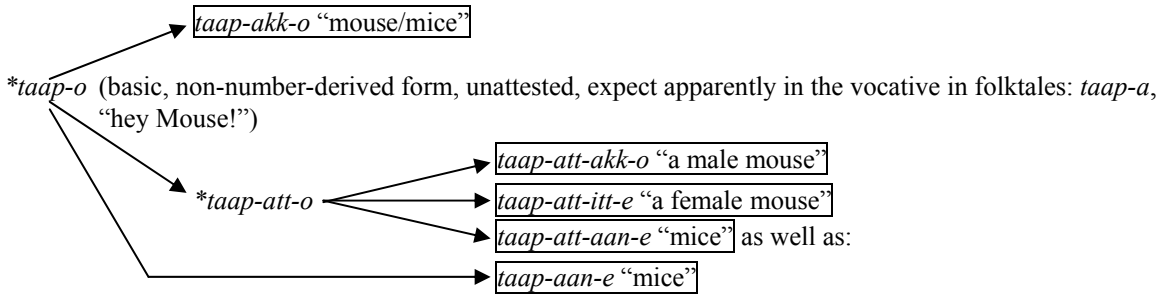
Very common and also much more interesting is the absence of a morphological basic form, whose role has been taken over most often by a historical Singulative, yielding a scheme which could be expressed as SING ↔ PLUR. *Cf.* again:

* basic *ʕeem-e* "sheep", but: SING:F *ʕeem-t-e* "(one) sheep" ↔ PLUR *ʕeem~m-e* "sheep" (coll.)

Quite widespread is also a double marking of the Singulative (due, again, to the historical infixation of different material), as exemplified by

cink-o "mosquitoes"	→	*cink-it-akk-o* "one mosquito"
mosquito-M		mosquito-SING-SING-M

All these complicating factors lead in a few cases to quite elaborate derivational paths. The following is a typical example:



Finally, the so-called "qualitative" (adjective-like) nouns are a subclass of nouns which have gender but not number variation (under our analysis). *Cf.*:

ʕarr-akk-o	*ʕarr-att-e*	*ʕarr-awh-e* "grey"
grey-SING-M	grey-SING-F	grey-SING-PL
soor-amp-akk-o	*soor-amp-att-e*	*soor-amp-awh-e* "sweet"
sweet-APPREC-SING-M	sweet-APPREC-SING-F	sweet-APPREC-SING-PL
karʕ-itt-ol-akk-o	*karʕ-itt-ol-att-e*	*karʕ-itt-ol-awh-e* "big-bellied"
stomach-SING-DEPREC–SING-M	stomach-SING-DEPREC–SING-F	stomach-SING-DEPREC-SING PL

It must nevertheless be stressed how the proposed analysis neatly accounts for the overwhelming majority of Gawwada nouns. As to the semantics of number marking, it will be the object of the next section.

2.4. On the semantics of number in nouns

It has been seen that number may affect nouns of all three genders, insofar as any noun may, at least in principle, occur in the unmarked number form, as well as in the Singulative and Plurative number forms. Moreover, in Gawwada (as much as elsewhere in Cushitic), both count and mass nouns pluralize, and using the same set of affixes. Obviously, the semantic import of the "plural" (the Plurative under the present analysis) on a count and a mass noun will be different. In short, the following generalizations may be made:

– with mass nouns SING and PLUR have a straightforward paucative and augmentative meaning, respectively:

ceeq-itt-e	←	*ceeq-te*	→	*ceeq-add-e* (also: *ceeq-q-e*)
blood-SING-F		blood-F		blood-PLUR-PL
"a bit of blood"		"blood"		"a large amount of blood"

– with countable (animates as well as inanimates) SING and PLUR stand for singular and plural, with the PLUR often implying an exaggerated or in any case notable number of the instances of the entity:

xaašarr-itt-e	←	*xaašarr-e*	→	*xaašarr-add-e*
francolin-SING-F		francolin-F		francolin-PLUR-PL
"one francolin"		"francolin", "francolins"		"(many) francolins"
ker-itt-e	←	*ker-e*	→	*ker-add-e*
headrest-SING-F		headrest-PL		headrest-PLUR-PL
"one headrest"		"headrest"		"(many) headrests"

On the other hand, the SING can also mark the natural gender in animates:

xar-itt-e	←	*xar-o*	→	*xar~r-e*
dog-SING-F		dog-M		dog~PLUR-PL
"a bitch"		"dog", "dogs", "a male dog"		"dogs"

and, sometimes, it acts as a marker of diminutive:

payš-itt-e	←	*payš-e*	→	*payš-add-e*
wound-SING-F		wound-F		wound-PLUR-PL
"a small wound"		"wound", "one wound"		"wounds"

It will be seen in the following sections that both the formal and the semantic aspects of number marking on nouns find a neat correspondence in the verbal morphology of the language, suggesting a parallel, convergent development. And it is to the expression of number in verbs (or, at least, to a subset of all the number-related features of the verb) that we turn in the next section.

3. Number in verbs

The category of number finds expression in many points of Gawwada verbal morphology. We will be concerned here with a few aspects of the expression of number in the rich derivational verbal system of the language.

We will therefore not take into consideration the subject-agreement phenomena involving the number of the subject, nor the number-related value of the two verbal classes of the language. Gawwada

verbs can be divided in two morphological classes on the basis of different allomorphs used in a subset of paradigms.[5] Although membership in Class 1. or 2. seems to be essentially lexically-driven, there are nevertheless a number of cases in which Class 2. verbs (altogether approximately one fifth of all verbal stems) involve a prolonged or repeated action, or still an action distributed over time and/or different objects. A few random examples of Class 2. verbs are:

hikk-a "to play" [6]
kayy-a "to stay, remain"
tul-a "to cough"

In particular, it seems possible to recognize a distributive meaning and the possibility to affect a plurality of objects as a specific ingredient of many Class 2. verbs. In a very few cases different membership for the same stem has been proposed precisely on the basis of a distributive value for the Class 2. member of a pair of verbs:

šoq (Cl. 1.) "to hit with a stick" (*obj.:* a person)'
vs.
šoq-a (Cl. 2) "to hit (*obj.:* cereals, in particular *teff*)"

As to derivation, it is a well-known fact that the Cushitic verb usually displays a robust inflectional system of derivations, encompassing at least a productive Causative and Middle (or Autobenefactive) extension, plus various denominal and deadjectival (Factitive, Inchoative..) derivational morphemes. In many languages one also finds a Passive, which has disappeared or has been lexicalized in other languages. Finally, many languages employ reduplication as a verbal derivational strategy, usually with iterative/intensive/distributive meaning.

Verbal derivation is specially rich and productive in the Dullay languages. In Gawwada, reduplication finds limited application only in nominal morphology (the reduplication of the last stem consonant has been mentioned in Section 2.2. above among the allomorphs of the Plurative), while is central to verbal morphology. Reduplication in Gawwada is always simple (*i.e.*, without phoneme changes/ additions; *cf.* Rubino 2005, 15), and, with the exception of the rarely used Distributive verbal derivation, is partial (*i.e.*, a part of the stem only is involved).

Reduplication has been found in the following derived stems:
– the Semelfactive (SEM);
– the Iterative (ITER);
– the Frequentative (FREQ).

The Frequentative extension will not been analysed in any detail here. It is apparently not productive and is rarely used; it formally involves the complete copying of the basic stem and is generally coupled with the Semelfactive extension (*cf.* below, Section 3.1.), while semantically it seems to associate the meanings of the Semelfactive and of the Iterative (*cf.* Section 3.2.), as in:

ʕuk- "to drink" → SEM: *ʕuk~k-* "to sip" → FREQ-SEM: *ʕuk~ʕuk-* "to sip repeatedly".

[5] These are the Imperative positive (IMP), the Perfective positive (PFV) and the Consecutive (CONS).

[6] As is common in Cushitic studies, verbs are quoted under the form of the Imperative singular positive. In a few cases we will nevertheless quote stems (signaled by final "–") when discussing the derivational processes of the language. The Imperative singular positive is usually identical to the stem. This also means that, while nouns are always vowel-ending in Gawwada, verbs can be, and generally are, consonant-ending in the Imperative singular positive. An exception are actually the Class 2. verbs in Gawwada, which in the Imperative singular positive have final *–a*. Thus, from the stem *cox–* "to milk" the Imperative *cox–a* is made.

3.1. The Semelfactive

The Dullay varieties are part of a small language area described by Sasse (1986) and made up of Dullay, the Konsoid varieties of East Cushitic (Konso, Diraasha or Gidole, and others), the Highland East Cushitic language Burji, and Omotic Zayse. Absence of voice opposition among plain (pulmonic) plosives is probably the most salient phonological feature of this "Southwest Ethiopian language area". Among the morphosyntactic features of this language area, one of the most interesting is the presence of a "Semelfactive" verbal extension.[7]

The Semelfactive is formally expressed through the reduplication of all the stem consonants except the first one:

$$C_1V(V)C_2(V)(V)(C_3) \rightarrow C_1V(V)C_2{\sim}C_2{\sim}(V)(V)(C_3{\sim}C_3)$$

A few examples are:

ʕuk- "to drink" → *ʕuk~k–*
(a monosyllabic stem: the second and last consonant is reduplicated)
lepuy- "to kick" → *lep~p~uy~y–*
(a bisyllabic stem: both the second and third consonants are reduplicated)
karsaɗ- "to collect" → *karsaɗ~ɗ–*

(a bisyllabic stem: as a cluster is already present in the basic stem and Gawwada does not allow clusters of more than two consonants, the last consonant of the stem only is reduplicated)

As no word may end in two consonants in Gawwada, a final /*i*/ is added, yielding $C_1V(V)C_2C_2$**i,** as seen for example in the following examples (the Imperative Positive Singular form will be used: as often is the Case in Cushitic, it is made up segmentally of the bare stem):

ʕuk "to drink" → *ʕuk~ki*
ɓoʔ "to boom, explode" → *ɓoʔ~ʔi*
cur "to throw away" → *cur~ri*
cox-a "to milk" → *cox~xi* "to milk one udder only"

3.2. The Iterative

The Semelfactive reduplication contrasts with the "full" reduplication used in the Iterative extension, and which is marked by the reduplication of the initial CV(V) string of the stem:

$$C_1V(V)C_2\ (V)(V)\ (C_3) \rightarrow C_1V(V)C_1V(V)C_2(V)(V)\ (C_3)$$

As seen in:

fìl- "comb" → *fi~fìl-*
(a CVC stem: the initial CV string is reduplicated)
keet- "be late" → *kee~keet-*
(a CVVC stem: the initial CVC string is reduplicated)
ʔood- "go down" → *ʔoo~ʔood-*
(a CVVC stem: *ʔood-* = *ʔood*)

[7] It is called "Singularitiv" by Sasse, who describes its meaning as showing "eine Handlung ein bestimmtes Mal ausführen" (Amborn – Minker – Sasse 1980, 117).

Both the Semelfactive and the Iterative extensions are formally iconic: the reduplication as used in Gawwada in order to express the Semelfactive may be considered iconic insofar it is less prominent and it is phonologically "lighter" then the reduplication pattern used in the Iterative: in the former single segments only are reduplicated instead of a full string (the initial one). Moreover, as a majority of verbal stems are monosyllabic, the Semelfactive generally involves the reduplication of a single segment.[8]

3.3. From morphology to semantics in verbal reduplication

When one turns from morphology to semantics, it soon becomes apparent that our labels of "Semelfactive" and "Iterative" (with initial capitals, as they represent specific morphological structures of Gawwada) have at least two quite different meanings, depending on the semantics of the basic stem. Only one of them corresponds more or less closely to a "semelfactive" and iterative" meaning, respectively.

Schematically:

a. Semelfactive:
– "diminutive" ("to do a less than normal amount of X")
– "semelfactive" ("to do X once")

As exemplified in:

ʕuk–	→	*ʕuk~k–*	*vs.*	*lepuy–*	→	*lep~p~uy~y–*
drink		sip		kick		give a kicking

b. Iterative:
– "augmentative" ("to do a more than normal amount of X")
– "iterative" ("to do X repeatedly")

As shown, using again the same verbs, in:

ʕuk–	→	*ʕu~ʕuk-*	*vs.*	*lepuy–*	→	*le~lep~p~uy~y-*
drink		chug		kick		keep on kicking

The picture is somewhat blurred by the existince of quite a good number of idiosyncratic, specialized meanings for the Singulative. The following are just a few examples out of a much longer list:

cox- "to milk" → *cox~x–* "to milk one teat only"
dîl- "to burn (tr.)" → *dîl~l–* "to brand an animal"
sor- "to run" → *sor~r–* "to jump"
t'iip- "to squeeze" → *t'iip~p–* "to squeeze the eyes"

An extreme example of idiosyncratic development is seen in the verb *far* "to die", for which the Semelfactive is used (together with the usual subject-marking affixes) with a plural subject:

10. *ʔorr-itt-o*	*ʔí=far-i*	"the potter died"
potter-SING-M	SPEC=die-PFV:3M	
11. *ʔorr-e*	*ʔí=far~r-e*	"the potters died"
potter-PL	SPEC=die~SEM-PFV:3PL	

[8] *Cf.* Kouwenberg – LaCharité (2005) for the iconicity of reduplication in the expression of, for example, the diminutive and other "reduced" meanings in creoles.

4. Bringing it all together

We have seen that count and mass nouns have different number values for each of the categories of Singulative *vs.* Plurative. In order to semantically grasp "number" in verbs, and give a unified account of number in nouns and verbs, the concept of "boundedness" must be taken into consideration. Boundedness may be defined as the property of having an inherent terminal point. If we accept Van Valin and LaPolla's (1997) partition of "state of affairs" into situations, events, processes, and actions, we may see that events (like *ɓoʔ* "to boom, explode") have an inherent terminal point, as do processes (such as *ɗoʕ* "to fall"), while situations (like *tardî* "to be tired") and actions (like *ʕuk* "to drink") do not. Of course, state of affairs which are bounded (events and processes) may be repeated, *iterated*, but each occurrence of the state of affair will still in itself be bounded, although 'the "macroevent" will appear to lack a terminal point' (Van Valin – LaPolla 1997, 83). By their being bounded, events and processes are telic verbs: they have a terminal point, and, parallely, situations and actions will be atelic.

Likewise, count nouns (such as *sint-e* "nose") are by definition *bounded* (Langacker 1990, 63): they designate a bounded region in some domain, which is most commonly a tridimentional space (for physical objects), but may also be time, color, or still a combination of domains. In Langacker's (1990, 69) definition, "a 'count noun' designates a region that is bounded within the scope of predication in its primary domain". Mass nouns (such as *ʕanɗ-e* "water"), on the contrary, are not specifically bounded: "count nouns specify bounding in their primary domain, while mass nouns lack this stipulation" (Langacker 1990, 70). Of course, mass nouns can still be bounded, for example through quantification, determination and derivational processes: the characterization of mass nouns as in principle unbounded "does not preclude the possibility of bounding for the designated region; bounding is just not specifically imposed by the nominal predication itself" (Langacker 1987, 204). In Gawwada, we would say that a mass noun in its basic, number-unmarked form can become countable through number derivation, as when we obtain *miil-itt-e* "a bit of fresh milk" from *miil-e* "fresh milk".

Taking into consideration the [±bounded] parameter, we can therefore propose the following broad semantic equivalences (expressed by "⇔"):

telic verbs ⇔ *count nouns*
atelic verbs ⇔ *mass nouns*

How does "number" affect nouns and verbs? It was seen above in Section 2.4. and 3.3. that both the nominal Singulative and the Plurative, as well as the verbal Semelfactive and Iterative cover a number of different semantic categories, and that their labels highlight just one element out of a more complex semantic relation. Let us review and summarize them:

Nouns:
palh-o "ostrich" ⟶ *n. unitatis: palh-itt-o* "one ostrich"
SING
ceeq-te "blood" ⟶ diminutive: *ceeq-itt-e* "a bit of blood"

karm-o "lion" ⟶ plural: *karm-iɗɗ-e* "many lions"
PLUR
miil-e "fresh milk" ⟶ augmentative: *miil-aɗɗ-e* "a lot of fresh milk"

Verbs:
tul-a "to cough" ⟶ semelfactive: *tul~li* "cough once"
SEM
ʕuk "drink" ⟶ diminutive: *ʕuk~ki* "drink a little bit, sip"

keeʕ "belch" ⟶ iterative: *kee~keeʕ* "keep on belching"
ITER
yiʔ-a "eat" ⟶ augmentative: *yi~yiʔ-a* "shovel food"

Leaving aside many details, the following picture emerges:

a. Nouns
Count nouns:
SING: "singular" ↔ PLUR = "plural"
(also gender marker and diminutive) (also exaggerated number)
Mass nouns:
SING: "paucative" ↔ PLUR = "augmentative"

b. Verbs
Telic verbs:
SEM = semelfactive ↔ ITER = iterative
("to do X once") ("to do X many times")
Atelic verbs:
SEM = diminutive ↔ ITER = augmentative
("to do a less-than-normal X") ("to do a more-than-normal X")

We are now in a position to bring together the pieces of our puzzle in the following table, where the tags code morphological categories, while material between quotation marks refers to semantic categories.[9]

– telic verb & SEM = "semelfactive" ⇔ count noun & SING = "*n. unitatis"*
– atelic verb & SEM = "diminutive" ⇔ mass noun & SING = "diminutive"
– telic verb & ITER = "iterative" ⇔ count noun & PLUR = "plural"
– atelic verb & ITER = "augmentative" ⇔ mass noun & PLUR = "augmentative"

It will be noticed that for the application of the category of number to atelic verbs and mass nouns the same semantic labels can easily be found, while no single label is identifiable for telic verbs and count nouns. In order to grasp the equivalence between count nouns and telic verbs on one hand, and mass nouns and atelic verbs on the other, and subsume "number" on both nouns and verbs under a single category, it is maybe useful to recur to the concept of *plexing*. Definable as "a quantity's state of articulation into equivalent elements" (Talmy 2000, 48), plexity is a wider notion that the traditional category of "number", and covers the traditional category of number in nouns as well as the number of occurrences of a state of affair. From this point of view, the basic operation performed on a nominal by the Singulative and by the Semelfactive on verbs is that of *uniplexing*. Correspondingly, both a Plurative and an Iterative perform on a noun and on a verb, respectively, an operation of *multiplexing* (Talmy 2000, 48 ff.). Schematically:

$\text{SING}_N \Leftrightarrow \text{SEM}_V$ = *uniplexing*
$\text{PLUR}_N \Leftrightarrow \text{ITER}_V$ = *multiplexing*

It is tempting, from a purely cognitive perspective, to assign both members of each pair the same label and gloss, and rename both SING and SEM something like UNPLX, and, correspondingly, to use MLTPLX in order to cover both PLUR and ITER. But it is also apparent that the Singulative and the Semelfactive on the one hand, and the Plurative and the Iterative on the other, although functionally similar, are ex-

[9] Along similar lines, Kouwenberg – LaCharité (2005) point to the different meanings of reduplication in creoles. The effects of reduplication on count vs. mass nouns is shown in, *e.g.*, Jamaican *mata-mata* "a lot of matter" (uncountable) *vs.* Sranan *saka-saka* "many bags" (countable). For verbs, the corresponding values are rather discontinuous and iterative, and are found in non-punctual *vs.* punctual verbs, respectively: Jamaican *luk-luk* "to keep looking" (non-punctual) *vs. tiif-tiif* "to steal repeatedly" (punctual).

pressed through quite different formal means. The most one will be able to say is that uniplexing has separate morphological expression in Gawwada as (among others) either Singulative or Semelfactive, and multiplexing as either Plurative or Iterative.

5. Conclusions

Caveat lector, there are a number of weaknesses and open issues in our proposed analysis. Apart from the specific complexities and, to a certain degree, downright irregularities of the Gawwada nominal and verbal morphology (to which mention has repeatedly been made above), there are at least two wide areas in the formal expression of "number" which need to be mentioned:

– first, the Plurative and, to a lesser degree, the Singulative are expressed through a wide array of different formal means; verbal reduplication acts instead in a remarkably regular and uniform way (as is generally the case of verbal morphology in Gawwada);
– second, there is no complete isomorphism between nouns and verbs, due to the manifold expressions of plurality in the latter — such as subject-agreement, Class 2. verbs, the Frequentative extension, and possibly other.

Still, the complexity and richness of the category of "number" in Gawwada are nothing short of spectacular. It has been seen that the development of Plurative in nouns parallels a specular development of Semelfactive in verbs. The end result of this development has been the isomorphism between nouns and verbs in the expression of number. Recalling that the Singulative for nouns and the Iterative for verbs are common in Cushitic, one gets the following developmental scheme:

	East Cushitic			*Gawwada*	
	Uniplexing	Multiplexing		Uniplexing	Multiplexing
"Things" (nouns)	✓	–	→	✓	✓
"Temporal Relations" (verbs)	–	✓	→	✓	✓

BIBLIOGRAPHY

H. Amborn, G. Minker, H.-J. Sasse 1980, *Das Dullay. Materialien zu einer ostkuschitischen Sprachgruppe,* Berlin 1980.

S. Kouwenberg, D. LaCharité 2005, "Less is more: Evidence from diminutive reduplication in Caribbean Creole languages", in B. Hurch (ed.), *Studies on Reduplication,* Berlin 2005, 533-545.

R.W. Langacker 1987, *Foundations of Cognitive Grammar. Volume 1: Theoretical Prerequisites,* Stanford, CA 1987.

——1990, *Concept, Image, and Symbol: The Cognitive Basis of Grammar,* Berlin 1990.

C. Rubino 2005, "Reduplication: form, function and distribution", in B. Hurch (ed.), *Studies on Reduplication,* Berlin 2005, 11-29.

H.-J. Sasse 1986, "A Southwest Ethiopian Language Area and Its Cultural Background", in J.A. Fishman, A. Tabouret-Keller, M. Clyne, Bh. Krishnamurti, M. Abdulaziz (eds.), *The Fergusonian Impact. Volume 1*, Berlin 1986, 327-342.

G. Savà 2005, *A Grammar of Ts'amakko*, Köln 2005.
——2007, "Interaction between gender and number in Cushitic: the case of Ts'amakko", in M. Cassarino, M. Moriggi (eds.), *Atti del XII Incontro Italiano di Linguistica Camito-Semitica (Afroasiatica). Ragusa, 6–9.6. 2005*, Soveria Mannelli (Cosenza) 2007, 203-212.
L. Talmy 2000, *Toward a Cognitive Semantics. Volume 1: Concept Structuring Systems,* Cambridge, Mass. 2000.
M. Tosco 2007, "Feature-geometry and diachrony: The development of the subject clitics in Cushitic and Romance", *Diachronica* 24/1 (2007), 119-153.
R.D. Jr. Van Valin, R.J. Lapolla 1997, *Syntax: Structure, Meaning and Function*, Cambridge 1997.

LIST OF THE TAGS USED IN GLOSSES

DEPREC	deprecative nominal derivational affix.
F	feminine gender.
FREQ	frequentative.
IMP	imperative verbal paradigm.
IPFV	imperfective verbal paradigm.
ITER	iterative verbal extension.
LOC	locative case.
M	masculine gender.
PASS	passive verbal extension.
PVF	perfective verbal paradigm.
PL	plural gender.
PLUR	plurative number.
POSS	possessive pronoun.
SEM	semelfactive verbal extension.
SG	singular.
SING	singulative number.
SPEC	specific (also used as a 3rd person subject clitic).
1, 2, 3	a. as part of a complex tag: 1st, 2nd, 3rd person; b. as a self-standing morpheme: 1st, 2nd person subject clitic.
–	morpheme boundary.
.	separates components of a complex morpheme.
=	clitic boundary.