Person Marking in South-West Mande Languages: a Tentative Reconstruction[1]

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The article presents a brief comparative analysis of systems of person marking in the six languages of the South-Western group of the Mande family and a tentative reconstruction of the proto-language person markers. The paper includes data from the newly-discovered Zialo language recorded in 2010 by the Russian linguistic expedition to West Africa.

Keywords: personal pronouns, person marking, comparative analysis, reconstruction, Mande languages, Niger-Congo languages

0. Introduction

The general idea of the present paper is to conduct an analysis of the systems of person marking in the South-Western Mande (further referred to as SWM) languages and to deliver a tentative reconstruction of the original Proto-SWM system. So far, no attempt of such a reconstruction has been published.

The area populated by speakers of SWM languages lies in the savanna and rainforest zones of West Africa. The group encompasses the following languages:

1. Bandi (French *bandi*) is spoken by about 100 thousand people (2001) in Lofa county in the northern part of Liberia. Bandi is rather homogeneous: the only variety with significant phonological peculiarities is the dialect of Yawiazu.

2. Kpelle (or Kpese, French *guerzé*) is in use by nearly 800 thousand speakers equally distributed between Guinea (N'Zérékoré province) and northern Liberia. There are about a dozen of dialects of Kpelle that vary greatly: the common distinction is drawn between the Guinean and Liberian dialect clusters.

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3. Loko is spoken by about 140 thousand people (2006) in the northern part of Sierra Leone. There are two main dialects: Logo and Landogo.

4. The language of Looma (Loma, Lorma, Loghoma, French *toma*) is spread in south-eastern regions of Guinea and the adjacent counties of Liberia, with about 300 thousand speakers. Both the Looma themselves and scholars identify ten or more dialectal groups with considerable differences.

5. Mende (French *mendé*) is the largest language of Sierra Leone: no less than 1,5 million speakers (2006). It covers the south-western half of the country's territory. A tiny group of the Mende lives in northern Liberia. Four or five dialects of the language are mutually intelligible.

6. The language of Zialo was discovered and recorded by the Russian Linguistic Expedition to West Africa in January-February 2010. According to my estimates, Zialo is spoken by nearly 25 thousand people residing in several dozen villages in the western part of the Guinean province of N'Zérékoré (the prefecture of Macenta). Earlier, Zialo was briefly mentioned in a few missionary papers as one of the northern dialects of Looma, but its analysis has shown systematic differences between the two languages both in phonology and morphosyntax. The lexicon of Zialo is closer to the languages of Bandi and Mende. The first complex grammar description of Zialo is currently in press [Babaev, in press].

The genetic relation between the SWM languages noted already by Koelle [1854] is a matter of general consensus among contemporary scholars. The genetic tree of the group, compiled by Dwyer [2005] and mostly confirmed by the lexicostatistical data [Vydrin 2009], is given on Diagram 1.

Diagram 1
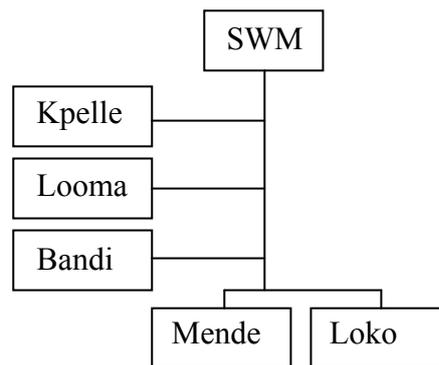
To date, there has been no systematic research on the reconstruction of the grammatical system of the SWM proto-language, including the system of person marking. Significant steps towards such a reconstruction were made by Vydrin [2006a] who analysed the plurality markers, initial consonants and the system of consonant alternations in the SWM languages. A comparative tonology of the languages of the group was proposed by Dwyer [1973] who also touched upon the

tonology of possession marking. In general, however, despite a lot of descriptions of systems of person marking in particular SWM languages, the proto-language system is still a gap to be filled.

The present paper is based on synchronic grammatical descriptions and manuals of the SWM languages. Data and examples for the language of Bandi are given according to the grammar sketch by Heydorn [1940/41], manuscripts by Kovac [1978] and Rodewald [1985], the thesis and draft Bandi-English dictionary by Grossmann [Grossmann 1992; Grossmann & al. 1991], and a brief anonymous grammar description compiled in the late 20th century and marked in references as [Bandi, ms.]. The data on Kpelle are taken from two grammars [Casthelain 1952; Lassort 1952] and one manual [Thach & Dwyer 1981], the grammar sketch of the Liberian variety of the language [Leidenfrost & McKay 2005], articles and handouts produced by my colleague Maria Konoshenko on the Guinean dialects of Kpelle [2008, 2009]. The Loko forms are borrowed from two most thorough descriptions to date [Innes 1964; Kimball 1983] and a brief sketch by Morozova [2006]. The literature on Mende includes grammars by Aginsky [1935] and Sengova [1981], learning manuals by Spears [1967] and Innes [1971], as well as the description by Migeod [1908]. The Looma data are extracted from papers by Sadler [1949/2006, 1951] and Heydorn [1971] on the Liberian dialects, and works by Vydrin [1987], Wilhoit [1999] and Daria Mishchenko [2009, 2010] on the Guinean varieties of the language. Some data were found in Dwyer's comparative tonology paper [1973]. The forms and examples on Zialo are given according to the records and notes I gathered during the 2010 fieldtrip to Guinea.

Valentin Vydrin's article on the reconstruction of personal pronouns in South Mande languages [Vydrin 2006b] turned out to be of great help as the methodological blueprint for compiling and analysing the data of this paper.

The present research is constructed according to the syntagmatic principle of description: from form to meaning. It is divided into sections, describing successively the systems of person marking in each of the six languages of the SWM group. The last, seventh section demonstrates the conclusions on the reconstruction of the proto-language system. Personal pronouns and other person markers of each of the languages are listed in paradigms (traditionally called "series") according to their semantics. These series are named and posited in a uniform order, identically for all the tongues so that the imperative series (IMP) of Bandi corresponds to the IMP series of all other languages and the reconstructed IMP series of the proto-language.

It is worth mentioning that the complex analysis of person markers presumes the unification of all of their morphosyntactic types into a single picture. According to this, four types of person markers can be identified:

1. Proper personal pronouns, i.e. autonomous units possessing all properties of syntactically independent lexemes and capable of serving, specifically but not exclusively, as subjects of the clause.

2. Predicative person markers (PPMs, also called "pronominal markers" [Creissels 2005]), i.e. non-autonomous clitic morphemes expressing the agreement between the subject and the predicate of the clause in person and number, but not capable of substituting the subject noun phrase. The diversity of PPMs in the SWM languages is explained by their fusion with various non-personal predicative markers bearing aspectual, temporal, modal and polarity meanings. The clause with a subject NP requires the obligatory presence of the 3sg. PPM, which is traditionally called the recapitulative marker.

3. Bound person markers (BPMs), i.e. inseparable prefixes with the meanings of person and number participating in a variety of finite constructions and mostly having non-subject meanings (direct object, possessor, argument of a postposition, etc.).

4. Inflected quotative markers (or "indexes"), diachronically derived from fusion between the PPM and a verb of speech with varying degrees of grammaticalisation. Quotative markers are primarily utilised to introduce indirect speech, but may have some other functions.

The series of person markers which are observed in all or most of the languages of the group and originate from the respective series of proto-language person markers, are given in the charts across this paper in the following sequence:

BAS   basic series of PPMs;
DEP   dependent clause series of PPMs;
IPFV   imperfective series of PPMs;
FOC   focalised series of personal pronouns;
COM   comitative / instrumental series of personal pronouns;
CONJ   conjunctive series of personal pronouns;
PF   polyfunctional series of BPMs;
POSS   possessive series of BPMs;
CNTR   contracted indirect object series of personal pronouns;
COND   conditional series of PPMs;
IMP   imperative series of PPMs;
NEG1   negative series of PPMs (1);
NEG2   negative series of PPMs (2);
PROG   progressive series of PPMs;
QUOT   inflected quotative markers.

The names under which the series are listed above and will be described below do not precisely reflect the whole variety of meanings they may express in particular

languages. In naming them, I mostly follow the tradition of the Mande linguistic literature. For instance, the basic series of PPMs reflects the set of person markers which accompanies the aorist, preterite, resultative and other meanings of the verb referring mostly to the past action, and the factative aspect which Welmers [1973: 343] considered the most unmarked form of the verb. Since most of the PPM series resulted from a recent fusion with some TA clitic markers, the basic series does not show traces of such fusion and is usually called basic because of that. The particular meanings of each series are given in each of the sections of the paper.

Some other series, not included in the list but witnessed in certain languages, do not seem to be reconstructible for the proto-language. Such series are described for each of the languages separately.

A brief note on the systems of phonology of the SWM languages is probably in order. The system of vocalism for all the six languages of the group follows the pattern below, consisting of seven short oral vowels:

$$i \qquad\qquad u$$
$$e \qquad\quad o$$
$$\varepsilon \quad\;\; \mathcal{o}$$
$$a$$

This inventory is supplemented by the long vowels which are marked by doubling the respective short one: *aa, ee, εε, ii, oo, ɔɔ, uu*. The status of nasal vowels *ã, ẽ, ɛ̃, ĩ, õ, ɔ̃, ũ* is less clear and varies across the group; long nasal vowels are very rarely encountered and are not relevant for the person marking systems. Nasal vowels mostly serve as positional allophones of their oral equivalents, and either do not possess an independent phonemic status or are found in a limited number of lexemes - mostly auxiliary ones. The language of Zialo is probably the only member of the group where nasal vowels are clearly phonemic.

The syllabic nasal phoneme *ŋ should be reconstructed for the Proto-SWM language [Welmers 1973] even though it has not been preserved anywhere but in Kpelle. Its reflexes are still clearly seen in all the languages of the group and exert great influence on the morphonology. The syllabic nasal phoneme will be marked in reconstructed forms throughout this paper, its reflexes may be given in brackets where necessary for the understanding of the structure of a construction or phrase.

The inventory of consonants, unifying orthographies used for descriptions of the SWM languages in various sources, is listed in Chart 1.

Chart 1. South-Western Mande consonants

		labial	labio-dental	dental	palatal	velar	velar labialised	laryngeal	labio-velar
obstruent	voiced	b		d	j	g	gw		gb
	unvoiced	p		t	c	k	kw		kp
	implosive	ɓ		ɗ					
	prenasalised	mb		nd	ɲj	ŋg	ŋgw		ŋgb
frica-tive	voiced		ʋ v	z		ɣ			
	unvoiced		f	s				h	
sonant	non-nasal			l / r	y				w
	nasal	m w̃		n	ɲ ỹ	ŋ		h̃	ŋw

The system of initial consonant alternations (or "mutations") is a common trait of all the SWM languages. These alternations take place in certain morphosyntactic positions and cause the substitution of a "strong" initial consonant by its "weak" counterpart. In particular, "strong" variants are preserved at the beginning of the word or morpheme in case they are preceded by the reflex of the proto-language syllabic nasal phoneme *ŋ, while "weak" variants follow the preceding vowel.

Tone plays a vital role in the description of the systems of person markers in SWM. All the languages of the group except Kpelle possess two level tones: high (marked by an acute: á) and low (marked by a gravis: à). The tonological phenomenon of downstep is signified by a stroke preceding a high-tone vowel (ˈá). The rising and alling contour tones of Mende and Kpelle are marked by a circumflex (â) and a haček (ǎ), respectively. The tone is marked on every vowel except when it is not identified in the source.

For the description of aspectual, temporal and modal meanings of PPMs and finite verb constructions in general, I use the terms proposed by Plungian [2000] and Testelets [2001], as well as a few typological surveys on African languages, including [Welmers 1973] and [Plungian 2003]. Some of the terms are specified in footnotes across the text.

The category of person is represented by three grammemes in SWM. The markers of the 3rd person, whatever their origins, synchronically represent an integral part of the system of person markers, as opposed to the situation in many other languages of the Niger-Congo macrofamily.

The category of number contains two or three grammemes including the dual number in Zialo and some dialects of Looma. PPMs of the imperative series demonstrate the dual / plural opposition in all six languages of the group. Person markers in Bandi, Loko, Zialo, Looma, and Guinean Kpelle use the category of clusivity.

1. Bandi

The person markers of Bandi are summarised in Chart 2. Certain forms vary in tone representation and vowel length: this may be explained both by dialectal diversity and elementary inaccuracy of the records. Such variants are separated by commas; the optional vowel length is marked by an additional vowel letter in brackets. The slash sign divides morphonologically conditioned variants. Suprasegmental morphemes (high tone, low tone) are shown as the null phoneme with a respective tone mark.

Chart 2. Bandi person markers

	1sg.	2sg.	3sg.	1pl. incl.	1pl.excl.	2pl.	3pl.
BAS	ŋgí	yí	ì / ŋgì	mù, mò	nì	wú	tì
DEP	ŋgí	yí	í / ŋgí	mù, mò	nì	wú	tí
IPFV	ŋgá(à)	yá(à)	á(à) / ŋgà	má(à)	ná(à)	wá(à)	tá(à)
FOC	ɲá	yá	àá / ŋgàá, làá²	mùyà, mùà, mìá	nìá	wúyá, wúá, wá	tìá
COM	ŋgé	íyè/íyé	là, lá	mùyè, múyé	nìyè, níyé	wúyè, wúyé	tìyè, tíyé
CONJ	-	-	-	màá, má	nàá, ná	wá(á)	tà(á)
PF	ǿ-	í-	ø̀-	mù- / mú-	nì- / ní-	wú-	tì- / tí-
POSS	ní-	í-	ŋgì-	mù-	nì-	wú-	tì-
CNTR					niyɛ		tiyɛ
COND	ŋgɔ́(ɔ)	yɔ́(ɔ)	ɔ́ɔ̀, ɔ̀ɔ / ŋgɔ̀ɔ	mɔ́(ɔ)	nɔ́(ɔ)	wɔ́(ɔ)	tɔ̀(ɔ)
IMP	-	ø	-	mu (du.), àmu (pl.)	-	à	-
NEG1	ŋgáá	yáá, yàa	àà / ŋgàà, láà	màà	nàá	wáá, wàa	tàà
NEG2	ŋgɛ́í	yɛ́í	ɛ̀ì / ŋgɛ̀ì	mɔ̀ì, mɛ́i	nɛ̀í, nɛ́i	wɛ̀ì, wɛ́i	tɛ̀ì
PROG	ɲáŋgà	yáyà, yaa	áà / ŋgaa	mámá, maa	náná, naa	wáwá, waa	tátá, taa
QUOT	ŋgɛ̀	yɛ	ɛ		nɛ	wɛ	tɛ
HAB	ŋgɔ́ɔ̀	yɔ́ɔ̀	ɔ́ɔ̀	mɔ́ɔ̀	nɔ́ɔ̀	wɔ́ɔ̀	tɔ́ɔ̀

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² It seems that Bandi *la, làá* found in some sources (cf. Heydorn 1940/41: 189]) actually refers to the COM series rather than the focalised series.

Note. The initial prenasalised *ŋg-* of the 3sg. appears as a recapitulative marker only, under the influence of the final *-ŋ* of the preceding subject NP:

(1) *ɲàhá   áà   lì*
    REF\woman   3SG.IPFV   go

'(Some) woman will go', but

(2) *màsà(*ŋ)   ŋgáá   lì*
    REF\chief   3SG.IPFV   go

'(Some) chief will go' [Rodewald 1989: 29].

The chart summarising the basic predicative constructions using PPMs of each of the given series is given below, with the subsequent phrasal examples. *V* marks the predicate.

Chart 3. Functions of Bandi pronominal markers

Series	Construction	Meanings	Examples
BAS	**BAS V-*ní***	preterite	(7) - (8)
	BAS V-*a / -ŋga*	completive	
	BAS V-*i*	aorist	
	BAS V-*ŋgɔ́*	perfect	
DEP	**DEP V**	factative[3], optative, debitive[4] in a dependent (mostly relative) clause	
IPFV	**IPFV V**	progressive, habitual, prospective, also in dependent clauses of time and condition referring to the past tense	(1) - (3)
FOC	**FOC *(lɔ)***	contrastive focus	(4) - (5)
	FOC *lɔ(a)* V	progressive, predictive	
	FOC *lɔ* V.STAT-*ní*	stative	
COM	**V *ŋgáà* COM**	indirect object with the comitative meaning; in 3sg. *ŋgáà* is omitted	(6) - (8)
	CONJ COM*(-ní)*	the second conjunct of a coordinative construction; plural forms add the associative plural marker -*ni*	
CONJ	**CONJ COM*(-ní)***	the first conjunct of a coordinative construction	(8)

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[3] Hereinafter the term "factative" refers to "the most obvious fact about the verb in question, which in the case of active verbs is that the action was observed or took place, but for stative verbs is that the situation obtains at present", [Welmers 1973: 346-347].

[4] The debitive mood expresses the necessity of an action, often enforced by some incentive, e.g., *I should go to school.*

Series	Construction	Meanings	Examples
PF	**S PF-V(-TA)**	direct object of a bivalent verb	(9), (13), (15)
	PF-V.QUAL-*ŋgɔ́ lɛ̀*	argument of a qualitative verb	
	PF-NP.REL	possessor of a relative noun	
	PF-PP	argument of a postposition	
POSS	**POSS-NP**	possessor of free nouns[5] and nouns denoting kinship terms	(10)
CNTR	**V CNTR**	indirect object with the benefactive meaning (fusion with the postposition *mbɛ* 'for')	(11)
COND	**COND V**	irrealis: modal meanings of unreal condition, debitive, intentional prospective	(12)
IMP	**IMP V**	imperative / hortative	(13)
NEG1	**NEG1 V**	negation of the basic series, prohibitive	(14)
	NEG V.STAT-*ni*	negation with stative verbs	
NEG2	**NEG2 V**	negation of the imperfective series and the unreal condition clauses	(15)
PROG	**PROG V** **PROG *va* V-*ma***	progressive, inchoative	(16)
QUOT	**QUOT CL**	introduces indirect speech	(17)
HAB	**HAB V**	habitualis in the past	(18)

(3) *tàá   kpɔ́-ŋgì   lò   náà*
     3PL.IPFV   REF\scaffold-DEF   build   now
'They are building a scaffold now' [Grossmann 1992: 23].

(4) *yá   lɔ̀   hèì-ní*
     2SG.FOC   COP   sit-STAT
'You are sitting' [Bandi, ms.: II, 10].

(5) *ɲá   ŋgí   (ˋ)-tɔ-a*
     1SG.FOC   1SG.BAS   3SG.PF-see-COMPL
'It was me who saw this' [Heydorn 1940/41: 190].

(6) *ŋgàlà   ndó-ŋgɔ́   lè   ŋgáà   íyé*
     REF\god   love-QUAL   COP   with   2SG.COM

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[5] Nouns in SWM languages belong to one of two classes: free and relative. Relative nouns denote objects that have an obligatory possessor: body parts, kinship terms, physiological liquids. A SWM language speaker cannot say 'hand' without indicating whose hand it is. All other nouns are called free (e.g., 'house', 'water', 'day').

'God loves you' [Rodewald 1985: 11].

(7) ŋgí (`)-kɔ̀lɔ́ là
    1SG.BAS 3SG.PF-know 3SG.COM

'I know this from him' (lit. 'with him') [Bandi, ms.: I, 20].

(8) ŋgí lìì-ŋgɔ́ táa h̃u nàá tiyé-ni
    1SG.BAS go-PERF REF\town in 1PL.EXCL.CONJ 3PL.COM-PL

'I went to the town with them' (lit. 'I went to the town, me and them') [Heydorn 1940/41].

(9) í-lùkpú-ŋgɔ́ lè
    2SG.PF-be.short-QUAL COP

'You are short' [Bandi, ms.: II, 17].

(10) ní-vélè̀-í
    1SG.POSS-house-DEF

'My house' [Bandi, ms.: I, 20].

(11) nìkà-í lɔ̀ ŋgéá
    REF\cow-DEF COP 1SG.CNTR

'I have a cow' [Bandi, ms.: II, 18].

(12) ŋgɔ i-lɔ lina
    1SG.COND 2SG.PF-see tomorrow

'I am going to see you tomorrow' [Heydorn 1940/41: 200].

(13) à tì-loli!
    2PL.IMP 3PL.PF-call

'Call them!' [Heydorn 1940/41: 201].

(14) àà lìì-má
    3SG.NEG1 go-IPFV

'He is not going' [Rodewald 1985: 17].

(15) kɔ̀-í éì tí-gúlà
    REF\war-DEF 3SG.NEG2 3PL.PF-destroy

'The war could not destroy them' [Grossmann 1992: 24].

(16) ɲáŋgà và lì-má
    1SG.PROG come go-IPFV

'I am leaving' [Bandi, ms.: II, 10].

(17) ŋgɛ̀ (`)-má bá
    1SG.QUOT 3SG.PF-PP нет

'I told him "no"' [Bandi, ms.: II, 19].

(18) bàndì-á-ì kpélèè tɔ́ɔ̀ nìkà lèí-ŋgì hòù
    REF\Bandi-PL-DEF all 3PL.HAB REF\cow black-DEF catch

'All the Bandi used to catch black cows [for sacrifice]' [Grossmann 1992: 22].

2. Mende

Chart 4 represents the inventory of person markers in Mende.

Chart 4. Mende pronominal markers

	1sg.	2sg.	3sg.	1pl.	2pl.	3pl.
BAS	ŋgí	bí	ì	mú	wú	tí
DEP	ŋgí	bí	í	mú	wú	tí
IPFV	ŋgá	bá	à	má, múá	wá, wúá	tá
FOC	ɲá, ŋgí(á)	bíá	tá	mùá, múá, màá	wùá, wúá, waa	tìá, tíá, tàá
CONJ	ŋgé(é)	bíé	ŋgìé (anim.), là (inanim.)	mùé(-nì)	wùé(-nì)	tìé(-nì)
PF	ɲá-	bí-	ŋgì- / ŋgí- (anim.), ∂- (inanim.)	mù- / mú-	wù- / wú-	tì- / tí-
POSS	ɲá-	bí-	ŋgì-	mù-	wù-	tì-
CNTR	-	bíέ, bɛ	ŋgìέ, ŋguέ	mùέ	wùέ	tìέ
COND	ŋgàá	bàá	àá	màá	wàá	tàá
IMP	-	ø	-	mù (du.), àmù (pl.)	à	-
NEG1	ŋgîì	bîì	ì(ì)	múì, múù	wúì, wúù	tîì
NEG2	ŋgέὲ	bέὲ	ὲ(ὲ)	múὲ, mέὲ	wúὲ, wέὲ	tέὲ
QUOT	ŋgê	bê	yὲ, ɛɛ	mê, múὲ	wê	tê

Note. The QUOT series is witnessed in the Ko dialect; in Kpa, the quotative predicator is used instead, accompanied by the basic PPM: *ŋgí yέ* 'I said' [Aginsky 1935: 75-76].

Chart 5. Functions of Mende pronominal markers

Series	Construction	Meanings	Examples
BAS	BAS V-*ní (lɔ̀)*	punctive aorist	(19)
	BAS V-*á / -ŋgá*	resultative	
	BAS V-*i (lɔ̀)*	perfect (with dynamic verbs), durative (with stative verbs)	
	BAS V-*mà lɔ̀*	prospective	
	BAS *(yɛ) lɔ̀*	in presentative existential clauses	
	BAS V *lɔ̀*	stative with verbs of intellectual state	
DEP	DEP V	factative and modal meanings in a dependent clause	(20)

Series	Construction	Meanings	Examples
IPFV	IPFV V *lɔ̀*	prospective, habitualis, modal meanings referring to the future tense: desiderative, optative, debitive	(21), (22)
FOC	FOC *(lɔ̀)*	contrastive focus, emphasis, also in existential clauses of identification	(20), (22)
	FOC *lɔ̀* V *ma*	durative, progressive, habitualis	
	FOC *lɔ̀* V.STAT-*ní*	stative	
	FOC CONJ*(-nì)*	the first pronominal conjunct of a coordinative construction	
CONJ	V *à* CONJ	indirect object with comitative / instrumental meanings; preposition *à* is omitted in 3sg.	(23), (24)
	FOC CONJ*(-nì)*	the first pronominal conjunct of a coordinative construction; plural forms add the associative plurality marker -*ni*	
PF	S PF-V(-TA)	direct object of a bivalent verb	(21), (25)
	PF-V.QUAL-*ŋgɔ́ (lè)*	subject of a qualitative verb; passive subject of a dynamic verb	
	PF-NP.REL	possessor of relative nouns (family terms, body parts, physiological liquids)	
	PF-PP	argument of a postposition	
POSS	POSS-NP	possessor of free nouns	
CNTR	V CNTR	indirect object with the benefactive meaning (fusion with the postposition *mbɛ* 'for')	(26)
COND	COND V	irrealis: the unreal condition in the future, negation in a dependent clause, prohibitive	(27)
IMP	IMP V	imperative / hortative in 1du. and 1pl.	(24), (28)
NEG1	NEG1 *(yà)* V-*ni*	negation of the basic series meanings (except prospective)	(29)
	NEG1 V *mà*	negation of prospective and habitualis	
	NEG1 V	negation with stative verbs of intellectual or emotional condition (e.g. *kɔɔ* 'know')	
NEG2	NEG2 V	negation of aspectual and modal meanings referring to the future tense	(30)
QUOT	QUOT CL	introduces indirect speech	(31)

(19) *ŋgí* *(`)-tɔ̀-nì* *gbéŋgí* *lɔ̀*
    1SG.BAS   3SG.PF.INANIM-see-AOR yesterday COP
'I saw him yesterday' [Innes 1971: 132].

(20) *ɲá* *ló-ŋgɔ̀* *Kpàná í* *lì* *tè-í* *hù*
    1SG.FOC love-QUAL Kpana 3SG.DEP go REF\town-DEF in
'I want Kpana to go to the town' [Innes 1971: 123].

(21) *ŋgá* *(`)-píé* *lɔ̀* *fóló* *gbí* *mà*
    1SG.IPFV 3SG.PF-do COP REF\day every IPFV
'I do it every day' [Innes 1971: 150].

(22) *ɲá* *lɔ̀* *va* *mà*
    1SG.FOC COP come IPFV
'I am coming' [Migeod 1908: 70].

(23) *lí* *à* *tìé*
    go with 3PL.CONJ
'Take them out' [Aginsky 1935: 25].

(24) *wàá* *tìé-nì* *à* *li* *mia*
    2PL.FOC 3PL.CONJ-PL 2PL.IMP идти туда
'You (pl.) and them, go there' [Migeod 1908: 70-71].

(25) *ɲá-kèɲa* *lɔ́* *(`)-mɛ́* *mà*
    1SG.PF-uncle COP 3SG.PF.INANIM-eat IPFV
'My maternal uncle is eating it' [Spears 1967a: 334].

(26) *pɛ́nɛ̀* *vè* *mùɛ́*
    REF\penny give 1PL.CNTR
'Give us a penny' [Innes 1971: 119].

(27) *ɲáà* *yèngè má kɔ̀ɔ́* *ŋgàá* *hǎ* *à* *ndɔ̀lɛ́*
    1SG.FOC work IPFV in.order 1SG.COND die with REF\hunger
'I work in order not to die of hunger' [Innes 1971: 123].

(28) *àmú* *(`)-péè*
    1PL.INCL.IMP 3SG.PF-do
'Let us all do it' [Spears 1967: 483].

(29) *tɛ́* *tàá* *kpɛ́kpɛ́* *tíì* *lɔ̀-nì* *ɲɔ́ùɲɔ́ù*
    REF\hen 3PL.FOC REF\cockroach 3PL.NEG1 love-STAT each.other
'The hen and the cockroach do not like each other' [Innes 1971: 188].

(30) *ŋgéè* *ná* *wíé* *síná*
    1SG.NEG2 that do tomorrow
'I will not do it tomorrow' [Innes 1971: 151].

(31) *ŋgí* *(`)-ndéì* *lɔ̀* *ŋgì-má* *ŋgê* *í*
    1SG.BAS 3SG.PF-say COP 3SG.PF.ANIM-PP 1SG.QUOT 3SG.DEP

wá

come

'I told him to come' [Innes 1971: 139].

3. Loko

The paradigms of person markers of Loko are given in Chart 6:

Chart 6. Loko pronominal markers

	1sg.	2sg.	3sg.	1pl. incl.	1pl. excl.	2pl.	3pl.
BAS	ŋgí	bí	ì	mí	ní	wú	tí
DEP	ŋgí	bí	í	mí	ní	wú	tí
IPFV	ŋgáá	báá	áá	màá	nàá	wáá	tàá
FOC1	ɲá(á)	bíá(á)	àlá(á)	mùá(á)	nùá(á)	wùá(á)	tùá(á)
FOC2	ɲɛ́ɛ̀	bíɛ́ɛ̀	àlɛ́ɛ̀	mùɛ́ɛ̀	nùɛ́ɛ̀	wùɛ́ɛ̀	tùɛ́ɛ̀
COM	ŋgé(é)	bíé(é)	ŋgee / là	mùé(é)	nùé(é)	wue(e)	tùé(é)
CONJ	-	-	-	mɛɛ	nɛɛ	wɛɛ	tɛɛ
PF1	ǿ-	bí	ø̀-	mì, mù	nì	wú	tì
PF2	ɲá-	bí-	àlá-	mì-, mú- / mù-	ní- / nì-	wú-	tí- / tì-
POSS	ní-	bí-	ŋgì- / ŋgí-	mì-, mù- / mú-	nì-	wú-	tì- / tí-
CNTR	ɲɛ́ɛ́	bíɛ́ɛ́	-		nùɛ́ɛ́	wúɛ́ɛ́	tùɛ́ɛ́
IMP	-	ø	-	mí (du.), àmí (pl.)	-	à	àtí
NEG1	ŋgɛ̀ɛ́	bɛ̀ɛ́	ɛ̀ɛ́	mɛ̀ɛ́	nɛ̀ɛ́	wɛ̀ɛ́	tɛ̀ɛ́
NEG2	ŋgáí	báí	àì	màí	nàí	wàí	tàí
NEG3	ŋge	be	e	me	ne	we	te
QUOT	ŋgɛ́ɛ́		ɛ̀gɛ́			wɛ́ɛ́	tɛ̀ɛ́
PUNC	ŋgéé	béé	éé	méé	néé	wéé	téé
RES	ŋgóó	bóó	òó	mòó	nòó	wóó	tòó
PROSP	ŋgɔ́ɔ́	bɔ́ɔ́	ɔ̀ɔ́	mɔ̀ɔ́	nɔ̀ɔ́	wɔ́ɔ́	tɔ̀ɔ́

Note. The 3sg. marker of the comitative series *ŋgee* has only been attested in [Innes 1964].

Chart 7 Functions of Loko pronominal markers

Series	Construction	Meanings	Examples
BAS	**BAS V*(-í / -ní)***	preterite	(32), (34)
	BAS V*-ní-á*		
	BAS V*-a/-ŋga*	resultative	
	BAS V*-í/-ní -ɔ́*	past perfect	

Series	Construction	Meanings	Examples
	BAS *bá* V *(-a/-na)*	conjunctive mood	
	ká BAS V *-a/-ŋga*	aorist	
	kà BAS V	imperfect	
DEP	DEP V	factative, debitive, possibilitive[6] in a relative clause	
IPFV	IPFV V *(-a/-na)*	progressive, habitual, also prospective, possibilitive and predictive[7] in a dependent clause	(33)
	kà IPFV V	debitive	
FOC1	FOC1 *(lɔ̀)* V *-í/-ni*	stative	(34)
	FOC1 *(lɔ̀)*	subject of an existential clause	
	CONJ FOC-*o*	the second pronominal conjunct of a coordinative construction	
FOC2	FOC2	subject of an existential clause: a contamination of PPMs of the FOC1 series with the verb *nwὲ* 'be'	
COM	V *ŋgàà / àà* COM	indirect object with the comitative / instrumental preposition *ŋgàà* (omitted in the 3sg.)	(35)
CONJ	CONJ FOC-*o*	the first pronominal conjunct of a coordinative construction	(36)
PF1	S PF-V(-TA)	indirect object of a bivalent verb	(37)
	PF-V.QUAL-*ŋgɔ́*	subject of a dynamic verb in the present tense of the passive voice	
	PF-V.QUAL-*ŋgɔ́ɔ́*	subject of a dynamic verb in the past tense of the passive voice	
	PF-V.QUAL-*ɔ́*	argument of a qualitative verb in the present tense	
	PF-V.QUAL-*ɔ́ɔ́*	argument of a qualitative verb in the past tense	
	PF-N.REL	possessor of the relative nouns (except 1sg.)	
	V PF-PP	argument of a postposition	
PF2		duplicates most functions of the PF series (except marking the inanimate direct object)	

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[6] The possibilitive mood expresses the potential ability to perform an action, e.g., *I can swim.*

[7] The predictive mood indicates the future action or state which does not depend on the will of the speaker, with a general degree of improbability.

Series	Construction	Meanings	Examples
POSS	***POSS-N.AUT***	possessor of free nouns	(38), (39)
CNTR	***V CNTR***	indirect object with the benefactive meaning (fusion with the postposition *mbɛ* 'for')	(39)
IMP	***IMP V-a/-na***	imperative / hortative	
NEG1	***NEG1 V***	prohibitive, negation of the DEP series	(40)
NEG2	***NEG2 V(-TA)***	negation of the basic and imperfective series	(37), (42)
	NEG2 lè V	negation of imperfect	
	NEG2 b V	negation of irrealis meanings in a conjunctive clause	
	NEG2 ba V	negation of real condition in a conjunctive clause	
	NEG2 lè	negation of an existential phrase	
NEG3	***NEG3***	negation of an existential phrase: merger of the NEG2 series of PPMs and the existential verb *le*	
QUOT	***QUOT CL***	introduces indirect speech	(43)
PUNC	***PUNC V(-a/-na)***	punctive (with a time indication or a postpositive phrase), also aorist in temporal clauses	(44)
RES	***RES V-a/ŋga***	resultative	(41)
	RES V-aa	resultative in a conditional clause	
PROSP	***PROSP V***	prospective in a dependent clause	(39), (43)
	PROSP V-a/-na	prospective in the main clause	
	PROSP g V(-a/-na)	negation of prospective	
	PROSP b V-a/-na	irrealis	

(32) *ká   tí   hélé   lɔ́-à*
      AOR   3PL.BAS   REF\elephant   see-RES
'They saw an elephant' [Kimball 1983: 47].

(33) *Alɛ̀ɛ̀nì   lɔ́   áá   kpààlì   bélé*
      Allen   COP   3SG.IPFV   REF\writing   do
'Allen is writing now' [Kimball 1983: 45].

(34) *ɲá   nwè   ŋgí   (ˋ)-ˈpélé-ní*
      1SG.FOC   COP   1SG.BAS   3SG.PF-do-PRET
'It's me who did it' [Kimball 1983: 36, 39].

(35) *ɲá-lo-ŋgɔ*　　　　　*à　bíé*　　　*Mɛli*
　　　1SG.PF-love-QUAL　c　2SG.COM　Mary
'I love you, Mary' [Innes 1964: 135].

(36) *mɛɛ*　　　　　　*tùá-o*
　　　1PL.INCL.CONJ　3PL.FOC-CONJ
'We with them' [Morozova 2006: 24].

(37) *ŋgáí*　　　　*lɛ*　　*àlá-lɔ́-í*
　　　1SG.NEG2　COP　3SG.PF-see-PRET
'I did not see him' [Kimball 1983: 58].

(38) *ní-bɛ́rɛ̀-ná*
　　　1SG.POSS-house-DEF
'My house' [Innes 1964: 135].

(39) *ŋgɔ́ɔ́*　　　　　*nì-ɲãhalou-na*　　　　　　　　　*he-a*　　　*bíɛ́ɛ́*
　　　1SG.PROSP　1PL.EXCL.POSS-daughter-DEF　give-PROSP　2SG.CNTR
'I will give my daughter to you' [Морозова 2006: 25].

(40) *tɛ̀ɛ́*　　　*mbá-ná*　　　*nwɛ̀*
　　　3PL.NEG1　REF\rice-DEF　eat
'Let them not eat rice' [Kimball 1983: 59].

(41) *ŋgóó*　　　*mbá-ná*　　　*nwà28sía-á*
　　　1SG.RES　REF\rice-DEF　sell-PERF
'I have sold the rice' [Kimball 1983: 51].

(42) *ŋgáí*　　　　*lè*　　*mbá*　　　*nwɛ́*
　　　1SG.NEG2　NEG　REF\rice　eat
'I did not eat rice' [Kimball 1983: 58].

(43) *tɛ̀ɛ́*　　　*nɔ̀ɔ́*　　　　　　*bɛ̀ɛ̀la-a*　　　*lian*
　　　3PL.QUOT　1PL.EXCL.PROSP　return-PROSP　tomorrow
'They said: "We will come back tomorrow"' [Kimball 1983: 70].

(44) *ŋgéé*　　　*lì*　*ɲɛlɛ-na*　　　　*h̃u*
　　　1SG.PUNC　go　REF\house-DEF　in
'I went to the house' [Морозова 2006: 24].

4. Kpelle

　　　The dialectal diversity of Kpelle should be taken into consideration when examining the system of person marking, since the forms may vary considerably. Forms of Guinean dialects are given in italic in Chart 8. All examples following the chart have an indication of the dialect group they represent.

Chart 8. Kpelle pronominal markers

	1sg.	2sg.	3sg.	1pl. incl.	1pl. excl.	2pl.	3pl.
BAS	ŋá, *ŋé*	í, *é*	è	*gù, gǔ*	kú	ká	dí, *dǐ*
DEP	ŋá, *ŋé*	í, *é*	é	*gù, gǔ*	kú	ká	dí, *dǐ*
IPFV	ŋā	ɓā, yā	ā	*guā*	kwā, *kūā*	kā	dā
FOC	ɲá(ā), *ɲã*	yá, ɓía, *yɛ*	ɲàā, là, *ya*	*guo*	kūá, kúā, *kuo*	káā	dīā, *die*
CONJ	ŋà	ɓà, yà	à	*guà, gwà*	kwà, *kua*	kà	dà
PF	Ń-	í-, *é-*	∅-	*gò-, gù-*	kú-, kó-	ká-	dí-, ddí-, *dì-, dè-*
POSS	ŋá-, a-, *ŋɔ́-, ŋé-*	í-, *é-, yɛ-*	ŋɔ̀-, ŋà-, *ŋè-*	*gù-, guo-*	kú-, *kuo-*	ká-	dí-, ddí-, *die-, diɛ-, dia-*
CONTR1	mâ	yâ	mà	*gùô*	kûā, *kúô*	kâā	dîā, *die*
CONTR2	mî	yɛ̂	mì, mɛ̀		kûɛ̄	kâā	dîɛ̄, *dǐɛ̂*
COND1	ŋà, *ŋàà*	ɓà, yà, *yàà*	à	*guà, gwà*	kwà, *kua*	kà	dà
COND2	ŋâī	îī	èī		kûī	kâī	dîī
IMP	-	ø, yē, ɓē, *ɓè*	è	*gu, kagu*	kú	kā, *kà*	*dǐ*
QUOT	ɲɛ̄ɛ̄, *gɛ̂*	íyɛ̀ɛ̄, ɓīyɛ̀ɛ̄, *yɛ̂*	ɲ̀ɛ̄ɛ̄, *yɛ̀*	*gùò*	*kúô*	*káà, ka*	dīyɛ̄ɛ̄, dīyɛ̀ɛ̄, *dìè*
HAB	*ŋǎ*	*yǎ*	*ǎ*	*gwǎ*	*kwǎ*	*kǎ*	*dǎ*
STAT	ŋā(ā)	ɓā(ā), yā(ā)	ā(ā)		kwā(ā)	kā(ā)	dā(ā)
RES	ŋāâ, ŋàá	ɓāâ, yàá	āâ, àá	gwàá	kwāâ, kwàá	kāâ, kàá	dāâ, dàá

Notes.

1. Verbal negation in Kpelle is built with the help of clitical predicative formants, whose agreement with the verb is expressed by means of prefixed person markers of the PF series. In a number of TA constructions, negative markers have contaminated with other predicative markers:

dí-fé lònō-ī 'they are not counting';

kú-fã kpèlɛ̄ɛ̄wōō ɓò 'we do not speak Kpelle' [Thach & Dwyer 1981: 82, 87].

The discussion on whether the negative markers form separate series of person markers in the present-day language is still open. However, though important, this discussion is not relevant to the reconstruction of the Proto-SWM person marking system and therefore goes beyond the scope of this paper.

2. In the Guinean dialects, the middle vowel *ə* is attested. Since it is an allophone of *e*, both sounds will be marked hereinafter as *e*.

3. The 3sg. marker of the focalised series *là* is only used in the comitative / instrumental construction with an inanimate indirect object.

4. Pronouns of the focalised paradigm must have phonetically coincided with the originally different comitative series.

Chart 9. Functions of Kpelle pronominal markers

Series	Construction	Meanings	Examples
BAS	**BAS V**	preterite	(45), (46)
DEP	**DEP V**	factative and debitive in a relative clause	(46), (49)
IPFV	**IPFV V**	habitualis	(47), (49)
	IPFV V-*i*	progressive, possibilitive	
	IPFV *li-i* **V**-*i*	prospective	
FOC	**FOC**	subject of an existential phrase	(48), (49)
	FOC-*ŋ*	contrastive focus, emphasis of the subject	
	V *à* **FOC**	indirect object with the comitative / instrumental prefix *à* (omitted in the 3sg. before *là*)	
	CONJ FOC(-*nī*)	the second pronominal conjunct of a coordinative construction, plural markers add the suffix of definite plurality	
CONJ	**CONJ FOC**(-*nī*)	the first pronominal conjunct of a coordinative construction	(50)
PF	**S PF-V**(-TA)	direct object of a bivalent verb	(46), (51)
	PF-V.STAT-*i*	subject of a stative verb	
	V PF-PP	argument of a postposition	
	PF-N.REL	possessor of relative nouns	
	PF-*pɔ̀* **N.AUT**	in certain dialects, possessor of free nouns	
POSS	**POSS**(-*ŋɔ̀*)-**N.AUT**	in Liberian dialects, possessor of free nouns	
CONTR1	**V CONTR1**	indirect object with the locative meaning (fusion with the postposition *mà* 'on'	(52)

Series	Construction	Meanings	Examples
CONTR2	V CONTR2	indirect object with the benefactive meaning (fusion with the postposition *mì* 'for'	(53)
COND1	COND1 V	conditional mood	(54)
	COND1 *là/wàlā* V	negation of the conditional mood	
COND2	COND2 V	irrealis (usually in the past)	(55)
IMP	IMP V	imperative / hortative	(57)
QUOT	QUOT CL	introduces indirect speech, also marks constructions with verbs of wish, intention, sense perception, unsuccessful attempt	(56)
HAB	HAB V	in Guinean dialects: habitualis	
STAT	STAT V-*i/-ni*	stative (merger of the IPFV series and the copula)	
RES	RES V	resultative of a telic process	(51)

(45) *núū   náāŋ dí   pá*
　　 REF\person four 3PL.BAS come
(Liberian) 'Four people came' [Leidenfrost & McKay 2005: 66].

(46) *è   pà   é   lónō   í-pɔ́*
　　 3SG.BAS come 3SG.DEP talk   2SG.PF-to
(Liberian) 'He came to talk to you' [Leidenfrost & McKay 2005: 79].

(47) *dā   kpɛ̀lēē   wōō   ɓò*
　　 3PL.IPFV REF\Kpelle language speak
(Liberian) 'They can speak Kpelle' [Thach & Dwyer 1981: 86].

(48) *é   wéí   é   ɓéláá   yá; ɲáá-ŋ*
　　 2SG.BAS EMPH   2SG.BAS REF\sheep buy 1SG.FOC-CNT

ŋé   ɓòlŭ   yá
1SG.BAS REF\goat buy
(Guinean) 'You bought a sheep, and I bought a goat' [Konoshenko 2009].

(49) *ŋā   ŋwɛ̂lī-ī   í   lí   à   ɲáā*
　　 1SG.IPFV want-STAT 2SG.DEP go   with 1SG.FOC
(Liberian) 'I want you take me along' [Leidenfrost & McKay 2005: 55].

(50) *dà   dīā-nī   dā   bérē-ī   tɔ̂ɔ̂-ī*
　　 3PL.CONJ 3PL.FOC-PL 3PL.IPFV REF\house-DEF build-PROG
(Liberian) 'They are building a house with them' [Leidenfrost & McKay 2005: 55].

(51) *ŋàá   Pépèè wɔ̀   ɓéláá káá*
　　 1SG.RES Pepe POSS sheep see

(Guinean) 'I have seen Pepe's sheep' [Konoshenko 2009].

(52) è   (`)-mò   nú-à-ī   dîā
     3SG.BAS 3SG.PF-say person-PL-DEF 3PL.CONTR1

(Liberian) 'He told this to the people' [Thach & Dwyer 1981: 59].

(53) è   (`)-gὲ   mî
     3SG.BAS 3SG.PF-do 1SG.CONTR2

(Liberian) 'He did it for me' [Leidenfrost & McKay 2005: 54].

(54) à   wàlā kpálà
     3SG.COND1 NEG   dry

(Liberian) 'If it does not dry' [Thach & Dwyer 1981: 91].

(55) gáàloŋ   èì   kὲ   ɓέ,   èì
     REF\chief.DEF 3SG.COND2 be   here 3SG.COND2

tôŋ   pù (´)-máà
REF\law put 1SG.PF-on

(Liberian) 'If the chief were here he would have punished me' [Leidenfrost & McKay 2005: 77].

(56) gε   kεli   ŋe   to
     1SG.QUOT hardly 1SG.DEP fall

(Guinean) 'I hardly fell down' [Casthelain 1952: 45].

(57) *kagu li* (Guinean) 'Let us all go!' [Casthelain 1952: 78].

5. Zialo

Chart 10. Zialo pronominal markers

	1sg.	2sg.	3sg.	1du. incl.	1pl. incl.	1pl. excl.	2pl.	3pl.
BAS	gè	yè	é, gé	mó	àmó	né	wò	té
DEP	gè	yè	è	mó	àmó	né	wò	té
IPFV	nằgá	yá	á	mámá	ámámá	nàná	wá	tátá
FOC	ɲà	yà	á / éyà	móyá	àmóyá	néyá	wà, wòyà	tíyá
COM	gè	yè	á, lá	mòyè	àmòyè	nèyè	wòyè	tìyè
PF	ø̀-	ì-	ǿ-	mó-	àmó-	né-	wò-	tí-
POSS	nè-	ì-	gé-, gí-	mó-	àmó-	né-	wò-	tí-
CNTR	gèyà	èyà	géyà	móyá	àmóyá	néyà	wòyá	tíyá
COND	nằgá	néyá	nà	nàmá	ànàmá	nàná	nàwá	nàtá
IMP	-	ø	-	mó	àmó		á, wà	
PROH	-	yà	-	mà	àmà	nà	àwà	-
NEG1	gὲy	yὲy	έy, géy	mέy, móy	àmέy, àmɔ́y	néy	wὲy	tέy

	1sg.	2sg.	3sg.	1du. incl.	1pl. incl.	1pl. excl.	2pl.	3pl.
NEG2	(nè)gὲyè	(n)ὲyè	(n)ɛ́yè	(nà)mɔ́yè	(nà)néyè	à(nà)mɔ́yè	(nà)wὲyè	(nà)tɛ́y
EMPH	ɲàyɛ́y (-gì)	yàyɛ́y (-gì)	ɛ́yáy (-gì)	móyáy (-gì), mɛ́y(-gì)	àmóyáy (-gì)	néyáʔy (-gì), néy(-gì)	wὲy(-gì)	tíyáy (-gì)
IRR	gà	yà	á, gá	má	àmá	ná	wà	tá

Notes.

1. The 3sg. markers *gé* (BAS), *gá* (IRR) and *géy* (NEG1) are used as recapitulative person markers following the subject NP with a final *-ŋ: masa(*-ŋ) gá lì* 'a king will go'.

2. The series of irrealis diachronically corresponds to the IPFV series of the other SWM languages.

3. Two forms of the 3sg. of the comitative series are synonymic, though the *lá* form is used much more often. The other form *á* seems to be borrowed from the FOC series.

Chart 11. Functions of Zialo pronominal markers

Series	Construction	Meanings	Examples
BAS	BAS V	factative with verbs of emotional and intellectual state, phasal verbs, and the quotative predicator *kɛ́* 'say'	(58)
	BAS V-*ní*	preterite	
	BAS V-*gɔ̀*	aorist	
	BAS V-*a*	resultative aspect, passive voice	
	BAS *ya* V	habitualis	
	BAS V.STAT-*ní*	stative	
DEP	DEP V	factative in a relative clause	
IRR	IRR V	prospective in relative and conditional clauses	(68)
	IRR *wɔ̀* V	prospective	
	IRR *wɔ̀ va* V = *mà*	debitive, optative	
	IRR bé V*(-ní)*	unreal condition	
	IRR lá V(-TA)	negation of the basic and progressive series	
	IRR *lá* V-*ní*	negation of stative and passive constructions	
	IRR *li ya* V	negation of habitualis	
FOC	FOC CL	contrastive focus	(59)
	FOC V.EXI	subject of the existential clause in the present tense	
	FOC *tɔ̀* V.STAT-*ní*	stative	

Series	Construction	Meanings	Examples
	FOC ɔɔ FOC ɔɔ	coordinative pronominal construction	
COM	V gà COM	indirect object with the comitative / instrumental prefix *gà* (omitted in the 3sg.)	(60)
	V.EXI gà COM	presentative in an existential clause	
PF	S PF-V(-TA)	direct object of a bivalent verb	(61)
	PF-V.QUAL-*a*	argument of a qualitative verb	
	V PF-PP	argument of a postposition	
	PF-N.REL	possessor of a relative noun	
POSS	POSS-N	possessor of an free noun	(61), (68)
CNTR	V CNTR	indirect object (merger of the PF marker, the noun *gèyà* 'palm, hand' and the locative postposition *yà* 'at, to')	(62)
COND	COND V	conditional mood	(63)
IMP	IMP V	imperative / hortative	
NEG1	NEG1 V	negation of the IRR series	(65)
	NEG1 *wɔ* V		
NEG2	NEG2 V	negation of conditional mood	(65)
PROH	PROH *lá* V	prohibitive	(64)
EMPH	EMPH CL	emphasis of the subject	(66)
PROG	PROG V	progressive, inchoative	(63), (67)
	PROG *ya* V	habitual	
	PROG *va* V = *mà*	intentional prospective	

(58) gè méyá̌-gì ɣéyá-gɔ̀ bě̌gì
  1SG.BAS REF\banana-DEF buy-AOR yesterday
'I bought the bananas yesterday'.

(59) ɲà ɔ́ɔ̀ wà ɔ́ɔ̀, àmó   váá-gɔ̀
  1SG.FOC CONJ 2PL.FOC CONJ 1PL.INCL.BAS come-AOR
'Me and you (pl.), we came'.

(60) gè vàà-gɔ̀ gà wòyè
  1SG.BAS come-AOR c 2PL.COM
'I brought you (pl.)' (lit. 'I came with you').

(61) nè-kɛ́ɛ́ɣɛ̀   lɔ́ é ì-lɔ̀-gɔ̀
  1SG.POSS-father COP 3SG.BAS 2SG.PF-see-AOR
'It was my father who saw you'.

(62) dápá-y   mùnɔ̀ vè gèyà

REF\bag-DEF   yonder   give   1SG.CNTR

'Give me that bag over there'.

(63) *néyà*   *ɓɔ̀ɣɔ̀*   *zàɣà* *yà*   *ɲáw̃á-y*   *lɔ̀*

   2SG.COND   REFL   hurt   2SG.PROG   REF\blood-DEF   see

'If you hurt yourself, you will see the blood'.

(64) *àmà*   *lá*   *(ˋ)-tévé*

   1PL.INCL.PROH   NEG   3SG.PF-cut

'Let us not cut it!'

(65) *nèyè*   *ɣɛ́* *ɓɔ̀ɣɔ̀* *zàɣà-ní*   *yèy*   *ɲáw̃á*   *lɔ̀*

   2SG.NEG2   be   REFL   hurt-PRET   2SG.NEG1   REF\blood   see

'If you don't hurt yourself, you will see no blood'.

(66) *ɲàyɛ́y-gì*   *nɛ̀gá*   *lì*

   1SG.EMPH-DEF   1SG.PROG   go

'It is me, I go'.

(67) *tátá*   *lì*   *làkɔ́lì-y*   *zù*

   3SG.PROG   go   school-DEF   в

'They are leaving for school'.

(68) *gà*   *wɔ̀*   *nè-jè-y*   *nɛ́nɛ́*

   1SG.IRR   PROSP   1SG.POSS-mother-DEF   visit

'I will visit my mom'.

6. Looma

The system of person marking of Looma is characterised by significant dialectal diversity. To unify the data from all the dialects whose descriptions are available, forms of Chart 12 are marked by different font styles: data from the northern (Guinean) dialects are given in italic, forms of central and southern dialects are written in regular font. Forms common for both dialectal groups are marked in bold.

Chart 12. Looma pronominal markers

	1sg.	2sg.	3sg.	1du. incl.	1pl. incl.	1pl. excl.	2pl.	3pl.
BAS	**gè**	**è**	**ɛ́**	**dé**	*àdé*	gé, *gí*	wò, *wɔ̀*	té, tí
IPFV	gà(a), *nà(à)*	yà(a), jà, *dà(à)*	tɔ́, tówà(à), *tɔ́ɣà, tɔ́á, tɔ́wà, túa;* **á, ɣá**	dá(a), *dà*	*àdá(á),* adà	gá(á), *gà*	wà(à), wá, àwà, *wùa*	tá(á), *tà*

	1sg.	2sg.	3sg.	1du. incl.	1pl. incl.	1pl. excl.	2pl.	3pl.
FOC1	**nà**	*dà*, jà	tɔ́, tóá	**dá,** *déyá*	*àdá, adeya*	**gá,** *gíyá*	*wà*, woá	**tíá,** *tá*
FOC2	*nõ̃, nɔ̃̀*	*dõ̃, dɔ̃̀*	*tõ̃, tɔ̃́*	*dõ̃, dɔ̃́*	*àdõ̃, àdɔ̃́*	*gõ̃, gɔ̃́*	*wõ̃, wɔ̃́*	*tõ̃, tɔ̃́*
FOC3	nàì, *ney*	yàì, *dey*	núì, *tey*	dáì(tìɛ̀), *dey*	-	gáì(tìɛ̀), *gey*	wàì(tìɛ̀), *wey*	táì(tìɛ̀), *tey*
COM	zè, zù	dè, je, yè	**dá**, lá, *là*, tɔ̃́	*dí(y)é*, díɛ, dîɛ	*àdí(y)é*	*gí(y)é*, gíɛ, gîɛ	we/wó(y)é, wìɛ	*tí(y)é*, tíɛ, tîɛ
CONJ	*nà*	*dà*	*tá*	*dá*	*àdá*	*gá*	*wà*	*tíá*
PF	**ø̀-**	**è-**	**ø̃́-**	**dé-**, dí-	*àdé-*	**gé-**, gí-	**wò-**, à-	**té-**, tí-
POSS1	**nà-**, nɛ̀-	yà-, jà-, yè-, *dà-*	**ná-**, nɛ́-	**dá-**, dé-	*àdá-*	**gá-**, gé-	**wà-**, à-, wù-, wùa-, gbà-	**tá-**, té-
POSS2	*nɔ̀nɔ́*, nɔ̀dɔ̀	*dɔ̀nɔ́*, jɔ̀dɔ̀	*nónɔ́*, nɔ́dɔ́	*dɔ́nɔ̀*, dɔ́dɔ̀	*àdɔ́nɔ̀*, àdɔ́dɔ̀	*gónɔ̀*, gɔ̀dɔ̀	*wɔ̀nɔ́*, wɔ̀dɔ̀	*tɔ́nɔ̀*, tɔ́dɔ̀
CNTR	**zè(e)à**	**è(y)à**	**zé(e)á**	**dé(y)á**	*àdéyá*	géa, *gíyá*	woea, *wèa*, *wòyà*	tea, *tí(y)á*
COND1	gɔ̀	ɔ̀	ɔ́	dɔ́	-	gɔ́	wɔ̀, à	tɔ́
COND2	*nà*	*dà*	*á*	*dá*	*àdá*	*gá*	*wà*	*tá*
IMP	-	**ø**	*é*	**dé**	**àdé**	-	**á**	*tí*
NEG	gɛ̀	ɛ̀	ɛ́	dé	ádé	gé	(á)wɛ̀, wɔ̀	té
PROG	*naga, nã̀ga,* gaŋga, gaga	jaŋga, yaga, *dàga, dada*	tɔɣaga, *tóága,* tɔɣana	*dada, dága*	*àdága*	*gága*	*wawa, wàga*	*tata, táága*
QUOT	gìɛ	yìɛ, yè	yíɛ, yé	díɛ, dìɛ	-	gíɛ, gìɛ	wìɛ	tíɛ, tìɛ

Note. The 3sg. marker of the basic series *gé* is only used in the recapitulative position following the subject NP with a final **-ŋ*.

The Chart 13 represents dialectal forms in more detail. Each form in this Chart is supplemented by the indication of the dialect according to the following list of abbreviations. The evidence from Gizima, Buluyema and Ziema (Ziama) dialects is taken from Wesley Sadler's works who did not mark dialectal origin of his data. Therefore, all of Sadler's forms are marked by the same abbreviation. Unmarked forms are widespread in most of the dialects. The list of dialects and sources is given below the Chart 13.

Series	1sg.	2sg.	3sg.	1du. incl.	1pl. incl.	1pl. excl.	2pl.	3pl.
BAS	gè	è	é	dé	KLB àdé	gé, KLB gí	wò, L wɔ̀	té, KB tí, L té / ti
IPFV	gà(a), KLB nà	yà(a), KW jà, LB dà	tówàà, K tóɣà, BWG tóá, L tɔ́wà, N túa, S tɔ́, V yá/yé/tówà/tù	dá(a), L dà	KB àdá(á), L adà	gá(á), L gà	wà(à), V àwà, G wá, N wùa	tá(á), L tà
FOC1	nà	LB dà, W jà	tɔ́, WB tóá	dá	KLB àdá	gá, B gá/gíyá	LB wà, W woá	tíá, B tá
FOC2	L nõõ, B nɔ̃́	L dõõ, B dɔ̃́	L tõõ, B tɔ̃́	L dõõ, B dɔ̃́	L adõõ, B àdɔ̃́	L gõõ, B gɔ̃́	L wõõ, B wɔ̃́	L tõõ, B tɔ̃́
FOC3	S nàì, L ney	S yàì, L dey	S núì, L tey	S dáì(tiè), L dey		S gáì(tiè), L gey	wàì(tiè), L wey	táì(tiè), L tey
COM	KLB zè, SV zù	LB dè, K je S yè	S là, K da, B tɔ̃́	LB díé, K diye, G díɛ́, S díɛ̀	B àdíé, K adiye	LB gíé, K giye, G gíɛ́, S gíɛ̀	LB we, wóé, K woye, S wìɛ̀	LB tíé, K tiye, G tíɛ́, S tíɛ̀
CONJ	B nà	B dà	B tá	B dá	B àdá	B gá	B wà	B tíá
PF	ø̀	è	ǿ	dé, G dé/dí	KLB àdé	gé, KB gí, G gé/gí	wò, V à	té, KGLB tí
POSS1	nà, VG nɛ̀	yà, KW jà, GVZz yè, LB dà	ná, VG nɛ́	dá, V dé	KLB àdá	gá, V gé	wà, V à, N wùa/gbà, Zo wù	tá, V té
POSS2	LB nɔ̀nɔ̀, Z nɔ̀dɔ̀	LB dɔ́nɔ̀, Z jɔ̀dɔ̀	LB nɔ́nɔ́, Z nɔ́dɔ́	LB dɔ́nɔ̀, Z dɔ́dɔ̀	Z àdɔ́dɔ̀, B àdɔ́nɔ̀	LB gɔ́nɔ̀, Z gɔ̀dɔ̀	LB wɔ̀nɔ́, Z wɔ̀dɔ̀	LB tɔ́nɔ̀, Z tɔ́dɔ̀

Series	1sg.	2sg.	3sg.	1du. incl.	1pl. incl.	1pl. excl.	2pl.	3pl.
CNTR	WLB zèà, S zèèà	W èya LB èà	WL zéá, S zééá	LW déa, B déyá	B àdéyá	W géa, LB gíyá	W woea, L wèa, B wòyà	W tea, L tía, B tíyá, S téyá
COND1	S gò	S ò	S ó	S dó		S gó	S wò, V à	GS tó
COND2	B nà	B dà	B á	B dá	B àdá	B gá	B wà	B tá
IMP		ø	B é	B dé	B àdé		á	B tí
NEG	WDS gɛ̀	WDS ɛ̀	WDS ɛ́	WDS dɛ́	S ádɛ́	WDS gɛ́	D wɛ̀, S áwɛ̀, W wɔ̀	WDS tɛ́
PROG	L naga, W gaŋga, D gaga, B nãga	L da da, W jaŋga, D yaga, B dàga	L t ɣa na, G t ɣaga, D tata, B tóága	L dada, B dága	B àdága	BL gága	L wawa, B wàga	LD tata, B táága
QUOT	GS gìɛ	G yìɛ, S yè	G yíɛ, S yé	G díɛ, S dìɛ		G gíɛ, S gìɛ	S wìɛ	G tíɛ, S tìɛ

Northern group (Guinea):

B   Woi-Balagha [Mishchenko 2009, 2010]

K   Koimei [Wilhoit 1999]

L   Lulama [Prost 1967]

N   Ninibu (one of dialects of the Lulama cluster) [Vydrin 1987]

Central-Southern group (Guinea and Liberia):

D   Bode (Bunde, Gbunde) [Heydorn 1971; Dwyer 1973]

G   Gizima [Heydorn 1971; Prost 1967; Koly 1970]

S   Gizima, Buluyema, Ziema [Sadler 1949/2006, 1951]

V   Vekema [Vydrin 1987]

W   Wubomai [Heydorn 1971]

Z   Ziema (Ziama, Siɛma) [Heydorn 1971; Vydrin 1987]

Zz   Zorzor [Heydorn 1971].

Chart 14. Functions of Looma pronominal markers

Series	Construction	Meanings	Examples
BAS	**BAS V**	factative (mostly in dependent clauses), some modal meanings	(71), (81)
	BAS V.DYN-*ní*	aorist	
	BAS V.STAT-*ní*	stative	
	BAS V-*á/-gá*	resultative	
	BAS i V-*ní*	past perfect	
	BAS *ɣɛ-ní* V-*zu*	imperfect	
	BAS *la* V(-TA)	negation of the basic series (in northern dialects)	
IPFV	**IPFV V-*zu*** **IPFV *ɣa* V-*zu***	progressive, also prospective (in some dialects)	(69), (70)
	IPFV *sa* V-*zu*	progressive (dialect of Gizima)	
	IPFV V	prospective	
	IPFV V-*ní*	stative / durative	
	IPFV *da* V	habitual	
FOC1	**FOC1 CL**	assertive focus	(71)
	FOC1 V.EXI	subject of an existential clause in the present tense	
	FOC1 *ɣɛ-ní* V.EXI	subject of an existential clause in the past tense	
FOC2	**FOC2 CL**	contrastive focus	(72)
FOC3	**FOC3 CL**	assertive focus (series FOC1 merged with a determination marker)	

Series	Construction	Meanings	Examples
COM	V *gà* COM	indirect object with the comitative / instrumental meaning; preposition *gà* is omitted in 3sg.	(73)
	V.EXI *gà* COM	presentative / equative in an existential clause	
CONJ	CONJ *wó* CONJ *wó*	constituents of a pronominal coordinative group	(74)
PF	S PF-V(-TA)	direct object of a bivalent verb	(72)
	PF-V.QUAL-*(a)vè*	argument of a qualitative verb	
	V PF-PP	argument of a postposition	
	PF-N.REL	posessor of a relative noun	
POSS1	POSS1-N	possessor of an free noun	
POSS2	POSS2(-DEF)	possessive pronoun in a predicative position	(75)
CNTR	V CNTR	indirect object (merger of the PF marker, the noun **zéé* 'palm, hand' and the locative postposition *yà* 'at, to')	(76)
COND1	COND1 V	unreal condition (central and southern dialects); past habitual (Liberian dialects)	(77)
COND2	COND2 V	conditional mood (Woi-Balagha dialect)	(78)
IMP	IMP V	imperative / hortative	
NEG	NEG *lɛ* V(-TA)	negation of BAS, COND1 series	(79)
	NEG *lɛ* V-*a*	negation of the imperfective series	
PROG	PROG V	progressive, inchoative	(80)
QUOT	QUOT V QUOT CL	predicators with verbs of speech, sense perception, wish, and in a dependent clause (central and southern dialects)	(81)

(69) *to   γa   seγe   vɛlɛ-zu*
      3SG.IPFV   IPFV   REF\cloth   weave-PROG
'He is weaving clothes' [Heydorn 1971: 93].

(70) *nà   da   kale-y   ɓɛ*
      1SG.IPFV   HAB   REF\fish-DEF   chase
'I usually fish' [Prost 1967: 65].

(71) *tó   ɓóγɔ̀-ì   é   vá-nì*
      3PL.FOC1   self-DEF   3SG.BAS   come-AOR
'He himself came' [Mishchenko 2010].

(72) *nõõ*   *(ˋ)-kpàle-ave,*   *dõõ*   *è-lowo-gave*
      1SG.FOC2   1SG.PF-work-QUAL   2SG.FOC2   2SG.PF-rest-QUAL

'I worked, and you had rest' [Prost 1967: 41].

(73) *tɔ́*   *tîî*   *γèè-zu*   *lá*
      3SG.IPFV   REF\work   do-PROG   3SG.COM

'He is working with it' [Sadler 1949/2006: 84].

(74) *nà*   *wó*   *tá*   *wó*   *gé*   *vaa-ni*
      1SG.CONJ   CONJ   3SG.CONJ   CONJ   1PL.EXCL.BAS   come-AOR

'Me and them, we came' [Mishchenko, p.c.].

(75) *gɔnɔ-y*   *γa*   *kpala-gi*
      1PL.EXCL.POSS2-DEF   COP   REF\field-DEF

'This field is ours' [Prost 1967: 49].

(76) *so-y*   *γa*   *zèa*
      REF\horse-DEF   COP   1SG.CNTR

'I have a horse' [Prost 1967: 52-53].

(77) *gɔ*   *li*   *kɛ*   *ga*   *zeeɓɛ́-zu*
      1SG.COND1   go   but   1SG.IPFV   be.sick-PROG

'I would have gone, but I am sick' [Sadler 1949/2006: 59].

(78) *nì* *á*   *dɔ́*   *zúnú* *zɔ̀lɔ̀-nà*   *tóá*
      if   3SG.COND2   REF\child   man   give.birth-IRR   3SG.IPFV

dásé   *pè*   *gà*   *Zèzé*
3SG.PF\name   put   with   Zeze

'If she gives birth to a son, she will name him Zeze' [Mishchenko 2010].

(79) *gɛ̀*   *lɛ̀*   *Mambuu* *loli-ni*
      1SG.NEG   NEG   Mambu   call-AOR

'I did not call Mambu' [Heydorn 1971: 90].

(80) *naga*   *kale-y*   *ɓɛ*
      1SG.PROG   REF\fish-DEF   chase

'I am fishing' [Prost 1967: 66].

(81) *yiɛ*   *wɛ́lɛ̀* *té*   *vá*
      2SG.QUOT   look   3SG.BAS   come

'You are looking at them coming' [Sadler 1951].

7. Discussion

1. The analysis of the systems of person marking in the SWM languages allows to conclude that the proto-language, as well as all the contemporary languages of the group, utilised a number of series of PPMs which marked both person / number and

tense / aspect / modality meanings, as well as polarity. All PPMs result from a fusion between person markers and various non-personal clitical predicative markers.

A comparison of data from the six languages surveyed above reveals the following invariant meanings of these series of person markers.

Chart 15. Series of personal markers in SWM languages

Series	Invariant meanings	Languages
BAS	factative, TA meanings referring to the past tense	all
DEP	factative and modal meanings in a relative clause	Bandi, Mende, Loko, Kpelle
IPFV	imperfective cluster: progressive, prospective, habitualis	all
FOC	focalised subject, subject of an existential clause	all
COM	indirect object with a preposition (comitative / instrumental)	Bandi, Mende, Loko, Zialo, Looma
CONJ	pronominal conjuncts in a coordinative group	Bandi, Mende, Loko, Kpelle, Looma
PF	direct object, inalienable possession, argument of a qualitative verb, argument of a postposition	all
POSS	alienable possession	all
CNTR	indirect object (fusion of person markers with benefactive and directive postpositions)	all
COND	conjunctive and conditional moods	all
IMP	imperative mood	all
NEG1	negation in the past tense	Bandi, Mende, Loko, Zialo
NEG2	negation in the prospective aspect	Bandi, Mende, Loko, Zialo, Looma
PROG	progressive / inchoative	Bandi, Zialo, Looma
QUOT	quotative markers	Bandi, Mende, Loko, Kpelle, Looma

2. The grammeme of the dual number is reconstructed from the imperative series only. Its generalisation onto all the other series occurred independently in Zialo and northern dialects of Looma.

3. The category of clusivity is witnessed in all SWM languages but Mende. However, while the exclusive forms of the 1pl. in Bandi, Loko and Zialo are cognates, they are not genetically related to the Kpelle form *gu* and Looma *dé*.

Most probably, Looma has used the 1sg. marker *gè* to mark the 1st pl. exclusive meaning, using the high tone as a differentiating sign, borrowed from the neighbouring 1st pl. inclusive marker. The Kpelle inclusive markers *gu / gwa* seem to be portmanteau forms that have emerged as the result of fusion between the 1sg. polyfunctional marker **ŋ́-* and the unmarked 1st plural form *kú / kwá*. Both processes proposed here have broad typological parallels in the languages of Africa [Babaev 2008], cf. the Susu personal pronoun paradigm in point 5 below. It can be concluded, therefore, that the category of clusivity is a heterogenous innovation in all SWM languages.

4. The issue of the origins of the peculiar 1-2pl. markers in Kpelle (with the initial *k*-) deserves separate research. The forms of the 2pl. may result from the expansion of the proto-language marker of the imperative mood **kà* whose reflexes are seen in the 2pl. imperative markers *à* (Bandi, Mende, Loko) and *á* (Looma, Zialo). The same marker was obviously used as an element of the compound 1pl. inclusive marker *à-mo / à-mu* (Bandi, Zialo), *à-dé* (Looma). The direct cognate of these forms is the Guinean Kpelle 1st incl. marker *kà-gu* [Casthelain 1952: 78]. The chain of these regular correspondences in the paradigm of imperative PPMs may be summarised in the following chart:

Chart 16. 1 and 2 pers. non-singular markers

	1 du. incl.	1 pl. incl.	2pl.
Bandi	*mu*	*àmu*	*à*
Mende	*mù*	*àmù*	*à*
Loko	*mí*	*àmí*	*à*
Zialo	*mó*	*àmó*	*á*
Looma	*dé*	*àdé*	*á*
Kpelle	*gu*	*kàgu*	*kā, kà*

Moreover, the correspondence between the initial *k*- in Kpelle and *ɣ- / ø-* in other SWM languages is observed in a few other auxiliary morphemes: cf. the copula **ka > Kpelle *ká*, Looma *ɣa / a*, Bandi *a*. It may be considered a reliable hypothesis that the 2pl. marker **ka* (with different tonemes for different series) in Kpelle is the reflex of a proto-language morpheme. The form may well be traced back to a deeper level, cf. Soninke *xa* (2pl.) [Diagana 1990], etc.

Its retention and expansion to other series of person markers could occur not only by analogy, but rather under the influence by the neighbouring languages of the South Mande group (SM), where *kà* is reconstructed for the proto-language as the 2pl. pronoun of most series [Vydrin 2006b]. It should be noted that Kpelle is the only SWM language which borders the area populated by the SM language speakers, and it must have acquired a number of language elements through contact.

The 1pl. marker *kú / kwV* in Kpelle may also represent the result of an areal influence from the SM languages: the 1pl. pronoun in Proto-SM is reconstructed as *kū̄* 'we (incl.)'. This form, again, can be proposed for an earlier stage of prehistory of the Mande family: cf. Jalonke *n-xo* (1pl. incl.) vs. *n* (1sg.) [Lüpke 2005: 106].

To conclude, the areal influence of the SM languages on the system of person marking in Kpelle could appear as the reason for preserving and expanding the usage of two archaic forms of the paradigm, one of which (2pl. *kà*) has reliable correspondences across SWM.

5. Lexical (underlying) tones of the basic paradigms of person markers in Proto-SWM can be reconstructed as follows.

Chart 17. Tones of SWM person markers

Language	1sg.	2sg.	3sg.	1pl. incl.	1pl. excl.	2pl.	3pl.
Bandi	H	H	L	L	L	H	L
Mende	H	H	L	H	-	H	H
Loko	H	H	L	?	?	?	?
Kpelle	H	H	L	L	H	H	H/L
Zialo	L	L	H	H	H	L	H
Looma	L	L	H	H	H	L	H
Proto-SWM	**H**	**H**	**L**	**L**	**L**	**H**	**L**

The tones of Looma and Zialo consistently demonstrate the phenomenon of tonal inversion postulated by Dwyer [1973]. Correspondence with the tonal patterns of other West Mande languages can serve as additional support, cf. the paradigm of personal pronouns in Soso [Touré 2004: 57]:

Chart 18. Soso personal pronouns

1sg.	2sg.	3sg.	1pl. incl.	1pl. excl.	2pl.	3pl.
ń	*í*	*à*	*wǒn*	*mùxú*	*wó*	*è*

6. The basic series of person markers must represent contraction with a zero or suprasegmental [Vydrin 1987] predicative formant. Their reconstruction for Proto-SWM is given together with a comparison with the Proto-SM forms [Vydrin 2006b]:

Chart 19. Proto-SWM and Proto-SM basic series

BAS			
person/number	Forms witnessed	Proto-SWM	Proto-SM
1sg.	gé, gè, ŋá, ŋgí	*ŋé	*N̄
2sg.	(y)í, è / bí, ɓí	*í / *é	*ī / *ē
3sg.	ì, è, é	*ì / *è	*è
1pl. incl.	mó, mí, mù / gú / dé	*mù	*kō / *kū̄
1pl. excl.	nì, ní, né / gí, gé / kú	-	*yī / *ō̄
2pl.	wó, wò, wú / ká	*wó	*kā
3pl.	té, tí, dí	*tì / *tè	*wò

1sg.   The correspondence between *ŋg-* in Bandi/Mende and *g-* in Zialo/Looma is regular, cf. Bandi *ŋgala* vs. Zialo, Looma *gàlá* 'god', etc.

2sg.   Two forms are reconstructed: Bandi, Zialo and Looma show *í / *é, Loko and Mende demonstrate *bí, Kpelle uses both. The former marker has wide genetic parallels across the Mande family: it is found in Ligbi, Jula, Soninke, Bambara, Vai, Jalonke etc. The same forms are reconstructed for Proto-SM, allowing to regard them as Proto-Mande. The pronominal root *bí / *ɓí also has some corresponding forms in SM, but only in the paradigms of independent (focalised) and imperative pronouns. I will touch upon this issue in more detail further below.

3sg.   Though the vowel varies across the group, one may compare *ì with the nominal marker *-ì which is reconstructed for Proto-SWM [Vydrin 2006a]. Typologically, their genetic relation looks quite reliable; cf. the direct correspondence between the 3pl. person marker *tì and the determinative plurality suffix *-tì.

1pl.incl. Looma *dé* is an innovation, developed by analogy with the 2sg. *dà*: since the inclusive form literally means 'me and you', *dà* may be regarded as a merger of the 1sg. marker *ŋ-* 'me' and the 2sg. *dà* 'you'. See the discussion on the Kpelle forms above. The data from Bandi, Mende, Loko and Zialo could seem insufficient for reconstructing *mù* for Proto-SWM, if not for some external comparative data: cf. Vai 1pl. *mu* [Heydorn 1970/71], Soso *mù-xú* [Touré 2004: 57], etc. The Loko form *mí* is dialectal. When the innovative category of clusivity appeared, *mù* became fixed in the inclusive slot, while

the exclusive ones were formed on the basis of the 1sg. markers: a typologically widespread process in languages of Africa and beyond.

1pl.excl. The common form may only be reconstructed for the proto-language of Bandi-Loko-Mende-Zialo; it later eroded in Mende (see the discussion on the reduction of morphology of Mende in [Dwyer 2005]).

2pl. The narrowing of the vowel *wó > wú* must have occurred in Bandi, Mende and Loko by analogy with the 1pl. incl. form *mù*. Zialo and Looma have preserved the original vocalism, as confirmed by the external data: Vai *wo*, Soso *wó* etc. The Kpelle form *ká*, again, has been generalized from the imperative series under the influence of SM.

3pl. The voicing of the dental phoneme in Kpelle seems weird: Welmers [1962] explained it by the preceding *ŋ*, though with an unclear meaning. The narrow vocalism of *tì* is more preferable for the reconstruction than *tè* since the former corresponds with the determinated plurality affix. Both of them must have originated from a demonstrative pronoun [Vydrin 2006a: 169-170], cf. Kpelle *tí*, Looma *tey* 'that'.

The 3sg. marker of the dependent series *é* is distinguished by its high tone: other constituents of this series are identical to their counterparts in the basic series. However, this difference is found in all languages of the group but Looma, and in Zialo its tone is logically inverted. Thus, the dependent paradigm of person markers should be reconstructed for Proto-SWM. The absence of this series in Looma can be tentatively explained by the presence of the identical low-tone marker of the 2sg. *è* which could prevent the emergence of homonymy.

Chart 20. Proto-SWM Dependent series

IPFV		
person/number	Forms witnessed	Proto-SWM
1sg.	ŋgáa, ŋàá, gàa / nà	*ń-áà
2sg.	yáa, dà, jà, yà / báa, ɓa	*yáà < *í-áà
3sg.	á, à(a), ŋgá / tɔ́(ɣà), tɔ́wà	*ŋ̀-àà
1pl. incl.	mà(a), má / dá / gua, gwa	*màà
1pl. excl.	ná(a) / gá(a) / kwàá, kwa	-
2pl.	wáà, wà(a) / kàá	*wáà
3pl.	táà / dàá	*tàà

7. It has long been argued that the imperfective series resulted from the merger with the predicative clitic (or copula, as it is usually called) *ka / *ɣa > a*, cf. in Looma:

(82) *Folomo γà   kale-y   ɓɛ-zu*
      Folomo COP   REF\fish-DEF   chase-PROG
'Folomo is fishing' [Prost 1967: 40, 66].

The long vowel of the imperfective markers in Looma, Bandi, Loko and Guinean Kpelle confirms this prehistoric fusion: **wó γà > *wáà* 2PL.IPFV. Von Heydorn's [1940/41: 199] idea on the origin of this series from a contamination with the verb *pa* 'come' does not seem to be supported by any substantial evidence.

1sg.   The Looma form *nà / gà* could result from the fusion **ŋ̀-γà.*

2sg.   The dentalisation of the glide in Looma dialects (*y- > j- > d-*) goes from south to north. Loko and Mende have generalized forms with the initial **ɓ-* (see the corresponding discussion in the comments to the focalised series below).

3sg.   The forms *tɔ́, tɔ́γà* etc. in Looma have deictic origins: cf. the demonstratives in *tɔ-* 'that' [Prost 1967: 27].

Chart 21. Proto-SWM focalized pronouns (compared with Proto-SM)

FOC			
person/number	Forms witnessed	Proto-SWM	Proto-SM
1sg.	ɲá, ɲà, nà	*ɲá < *ŋ-yá	*mā
2sg.	ɓíá, ɓía / dà, jà, yà, yá	*í-yá / *ɓí-yá	*yī / *ɓī
3sg.	à, á / àlá, lɔ̀, lɔ́, tɔ́ / ɲàa	*à	*yè
1pl. incl.	mùa, móyá / dá / guo	*mù-yà	*kō / *kū
1pl. excl.	nùá, néyá / gá, gíyá / kúa, kuo		*yī / *ō
2pl.	wùá, wòyà, wà, woá / káa	*wó-yá	*kā
3pl.	tìá, tùá, tíá, tíyá, dia	*tì-yà	*wò

8. The series of focalised pronouns emerged from the combination of person markers with the focus particle **yá* which is still preserved in Zialo [Babaev, in press]. Typologically, such a development would not seem unusual, cf. Vai *mu* 'we' (PPM), *mu-wa* 'we' (focalised pronoun with the focus marker attached) [Heydorn 1970/71: 161]. In Zialo and Bandi, the intervocalic glide **-y-* is preserved.

1sg.   The initial palatal phoneme reflects the development from **ŋ̀-yá.* In Looma, the form *nà* is the result of dentalisation.

2sg.   The proto-form **ɓí-yá,* reconstructed on the basis of Kpelle, Mende and Loko, deserves a special note. In Proto-SM, pronouns **ɓè / *ɓī* are reconstructed for sets of syntactically independent pronouns. The imperative marker is in fact a focalised pronoun which emphasises the

original zero marker of the imperative mood [Vydrin 2006b]. In Proto-SWM, the counter-opposition between the 2sg. PPM **í* / **é* and the focalised pronoun **ɓí* was eliminated: the former was completely lost in Mende-Loko, while being unified for all paradigms in Bandi-Zialo-Looma. Data from both SM languages and beyond[8] allows to consider **ɓí* as a retention of a proto-language independent pronoun, but not as an areal or group innovation.

3sg.   The person marker precedes copula *tɔ* / *lɔ*. Its genesis from the verb **tɔ* 'see' is an idea to be further investigated.

Chart 22. Proto-SWM comitative pronouns

COM		
person/number	Forms witnessed	Proto-SWM
1sg.	ŋgé(é), gè, zè	*ŋ-ye
2sg.	íyé, dè, yè / bíé	*í-ye
3sg.	lá, là / ŋgíé / á / nɔ̀	*là
1pl. incl.	mùyè, mùé, mòyè / díé	*mù-ye
1pl. excl.	nìyè, nùé, nèyè, gíé	-
2pl.	wúyè, wùé, wòyè, wóé	*wó-ye
3pl.	tìyè, tìé, tùé, tíé	*tì-ye

9. The decomposition of this series of markers gives us *-(y)e*, an element with a "weak" initial consonant (data for reconstructing its "strong" counterpart is insufficient).

1sg.   The regular dentalisation happened in Looma: **ŋ-ye* > **nje* > **ze*. Cf. the correspondence of Bandi *njowo* vs. Looma *zowo* 'cassava', Bandi *njɛ* vs. Looma *zɛ, ziɛ* 'water', etc.

3sg.   The 3sg. marker **là* 'with him/her' is, in fact, by origin a locative postposition **dà*, which had already occupied this slot of the paradigm in the proto-language. In a number of languages (Mende, Loko) the reflexes of **là* only mark the inanimate (or non-human) object, while nouns denoting human beings use innovative forms either borrowed from the focalised pronoun paradigm or created by analogy with the other markers of the COM series.

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[8] Cf. **bə* 'thou' in Proto-Ubangian [Moniño 1988: 143]; **bɪ* / **fɪ* 'thou' is reconstructed for Proto-Gur [Manessy 1975: 175]; most probably, they are related to Proto-Benue-Kwa **we* [Babaev 2010a, 2010b].

Chart 23. Proto-SWM conjunctive pronouns

CONJ		
person/number	Forms witnessed	Proto-SWM
1 pl.	má, màá, mɛɛ / dá / kwà	*mà
2 pl.	wá, wáá, wá, wɛɛ / kà	*wá
3 pl.	tà, tàá, tɛɛ / dà	*tà

10. Specific attention should be drawn to the pronominal coordinative construction in SWM. The model of its formation is uniform in all the languages of the group, except Zialo: two pronominal conjuncts constituting a coordinative group belong to different series of personal pronouns. Conjunct-1 can only be plural, and expresses number / person meanings of the whole group in aggregate, while conjunct-2 may be modified by the marker of associative plurality *-ni which, in its turn, expresses the plurality of conjunct-1 exclusively. Cf. the examples from Bandi:

(83) *má   wúyé   máá   lì*
     1PL.INCL.CONJ   2PL.COM   1PL.INCL.IPFV   go

'Me and you, we will go', but

(84) *má   wúyé-ní   máá   lì*
     1PL.INCL.CONJ   2PL.COM   1PL.INCL.IPFV   go

'We and you, we will go' [Bandi, ms.: I, 20].

The sequence of the two conjuncts in this construction is also strict: the first of them represents the "higher" participant according to Silverstein's hierarchy of locutors: "1st - 2nd - 3rd".

The first conjunct is usually expressed by the CONJ series, the second one - by the COM series. The original phonetic similarity between the pronouns of the conjunctive and focalised series has apparently led to their combination into one paradigm, but their semantic differentiation on the proto-language level is doubtless.

Chart 24. Proto-SWM polyfunctional personal markers

PF			
person/number	attested forms	Proto-SWM	Proto-SM
1sg.	ǿ-, ɞ̀-, Ń-	*ŋ́-	*N̄
2sg.	bí- / í-, ì-, è-	*í-	*ī̀ / *ē̄
3sg.	ǿ-, ɞ̀-	*ŋ̀-	*à

11. The suprasegmental polyfunctional markers of the 1sg and 3sg. (Chart 24; plural forms fully coincide with the basic series of PPMs and are not repeated here)

were correctly reconstructed by Welmers [1973] and Dwyer [1974]. The Mende-Loko form *bí-* is obviously the result of levelling I discussed above in point 8.

Chart 25. Proto-SWM possessive markers

POSS			
person/number	attested forms	Proto-SWM	Proto-Central SWM[9] [Dwyer 1973: 235-237]
1sg.	ní-, né-, nè-, nà / ŋá-, ŋɔ́-	*ŋ́í- / *ŋ́é-	*ní-
2sg.	í-, ì-, é- / bí- / dà-, jà-, yà-	*í- < *íí-	*bí-
3sg.	ŋgì-, gé-, ná, ŋɔ̀-	*ŋ̀ì-	*ngìí-

12. The markers of alienable possession have obviously contaminated with a vocal formant of unclear origin, which Dwyer reconstructed as *-I* based on the data from Bandi, Loko and Mende. I would tend to give at least two variants for the proto-language form of the 1sg. The reasons for reconstructing the 2sg. form *i-* are given in point 6 above. In the 1sg. and 3sg., Kpelle uses a combination of polyfunctional markers with a possessive marker *wɔ*, hence the 1sg. *ŋ́ɔ* < *ŋ́-wɔ*.

It would be tempting to interpret the Looma markers of the 1sg. and 3sg. as requiring a subsequent polyfunctional marker: indeed, they cause the appearance of a "strong" consonant in the following noun:

(85) *zúnù-ì   ná   (ˊ)ʔ-kɔ́lɔ̀-ì*
      man-DEF   3SG.POSS   3SG.PF?-book-DEF

'The book of the man' [Sadler 1949/2006: 74].

In this case, the possessive markers should be explained as borrowed from the focalised pronoun paradigm. However, the data for supporting this idea are scarce.

3pl.   The Kpelle form *ddí* is given by Dwyer [1973] for Liberian dialects and is explained as originating from *ǹ-tí*. No support for such an etymology is found in other SWM languages, nor are there any other examples of geminates encountered in Kpelle.

13. The CNTR series is an old merger of person markers of the PF series with postpositions of benefactive / directive / locative semantics. A general tendency towards the forming of such inflected postpositions is widespread in the whole of West Africa, but I have no evidence to postulate a Proto-SWM archetype for any of them, since they are definitely heterogeneous, even though Mende-Loko-Bandi have

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[9] The term "Central SWM" is understood by David Dwyer as the SWM proto-language after the separation of Kpelle [Dwyer 1973: 4].

a common CNTR paradigm with the postposition *mbɛ* 'for', and Looma-Zialo demonstrate a common form with **yà* 'to, at'.

Chart 26. Proto-SWM imperative markers (compared with proto-SM)

IMP			
person/number	attested forms	Proto-SWM	Proto-SM
2sg.	ø / ye / ɓe	*ø	*ɓè
1du. incl.	mù, mú / dé / ku	*mù	*kò / *kʋ̀
1pl. incl.	àmù, àmú / àdé / kagu	*kàmù	-
2pl.	à, á / kà	*kà	*kà

14. The imperative PPMs can be reconstructed for the 2sg., 2pl. and 1du. - 1pl. slots of the paradigm.

2sg.   The zero marker is a reliable reconstruction that has extremely frequent typological parallels in the world's languages. Any segmental forms used in certain languages of the group are in fact focalised pronouns used to emphasise the incentive of the imperative mood, cf. English *Now you go!*

1pl.   All the languages demonstrate a juxtaposition of the 2pl.+1du. forms (lit. 'we with you'). The grounds for reconstructing **mù* are given in point 6 above.

2pl.   The reconstruction of **kà* is based on the ideas proposed in point 4 above.

Chart 27. Proto-SWM negative series

NEG2		
person/number	attested forms	Proto-SWM
1sg.	ŋgɛ́í, ŋgɛ́ɛ̀, ŋgɛ̀ɛ́, gɛ̀y, gɛ̀	*ŋ́-ɛ̀ɛ
2sg.	yɛ́í, yɛ̀y, ɛ̀ / ɓɛ́ɛ̀, ɓɛ̀ɛ́	*yɛ́ɛ̀ < *í-ɛ̀ɛ
3sg.	ɛ̀ì, ŋgɛ̀ì, ɛ̀ɛ̀, ɛ̀ɛ́, ɛ́y, ɛ́	*ŋ̀-ɛ̀ɛ́
1 pl. incl.	mɛ́í, múɛ̀, mɛ̀ɛ́, mɛ́y / dɛ́	*mù-ɛ̀ɛ́
2pl.	wɛ́í, wúɛ̀, wɛ̀ɛ́, wɛ̀y, wɛ̀	*wó-ɛ̀ɛ
3pl.	tɛ̀ì, tɛ́ɛ̀, tɛ̀ɛ́, tɛ́y, tɛ́	*tì-ɛ̀ɛ́

15. The negative series is a merger with the negation marker **ɛɛ*, which is usually regarded as a phonetic development of the "weak" form of the negative copula **t / lɛ*, witnessed in Looma, Mende, and Loko (cf. also Zialo *ta / la*). The distribution of reflexes in most languages of the group allows to project it to the proto-languge level.

16. The progressive series (PROG) is a common innovation in Bandi-Zialo-Looma: person markers here have merged with the adverb *na* 'now'.

17. The quotative series is diachronically a contamination with the polysemic verb *kɛ* 'be, do, say'. The quotative markers deserve specific attention because of their unique ability to agree with the subject in person and number. The typology of quotative markers (or "quotative indexes") was proposed by Güldemann [2008], who divided them into four groups according to the degree of morphologisation. According to this classification, quotative verbs are autonomous word forms possessing all syntactic properties of a normal predicate, but serving exclusively to introduce indirect speech, e.g. in Bandi:

(86) *ì*   **γɛ-a**   *(ˋ)-ma*   *(ˊ)-tókó*   *lɔ*   *(ˋ)-mbu*
       3SG.BAS   say-COMPL   3SG.PF-PP   1SG.PF-hand   COP   1SG.PF-under
'He told him: "I agree"' [Grossmann 1992: 161].

The second group, the quotative predicators, lose many of their original predicative properties (e.g., they are not modified by PPMs) and can be alternatively called "defective verbs" [Güldemann 2008:15]. This stage of grammaticalisation is found in Zialo:

(87) *té*   *γɛ́*   *gílè-y*   *sìnɛ̀-y*   *é*   *lɔ̀vè-gɔ̀*   *γálè?*
       3PL.BAS   QUOT   REF\dog-DEF   this-DEF   3SG.BAS   pass-AOR   how
'They said: "How did that dog pass?"'

Almost completely morphologised auxiliary morphemes are quotative markers and complementisers, in Güldemann's terms. They act as invariable discourse morphemes marking any indirect speech and having no lexical meaning. Complementisers are conjunctions introducing subordinate clauses compared to English *he said **that***. Inflected quotative markers which still preserve some predicative properties are observed in Bandi, Mende, Loko and Looma, while Kpelle demonstrates the last stage of their grammaticalisation into discourse particles.

Idiatov [2009; 2010] demonstrated the areal character of quotative markers in West Mande languages. This phenomenon encompasses all SWM languages as well.

8. Conclusion

The aggregate chart 28 summarises the proposed reconstructions for person markers in the Proto-SWM language.

Chart 28. Proto-SWM personal markers

Series	1sg.	2sg.	3sg.	1pl.	2pl.	3pl.
Basic	*ŋ́é	*í / *é	*ì / *è	*mù	*wó	*tì
Dependent	*ŋ́é	*í / *é	*í / *é	*mù	*wó	*tì
Imperfective	*ŋàá	*yáà	*ŋ̀àà	*màà	*wáà	*tàà
Focalised	*ɲá	*íyá / *ɓíyá	*à	*mùyà	*wóyá	*tìyà
Comitative / Instrumental	*ŋ́-yé	*íyé	*lá	*mùyè	*wóyè	*tìyè
Conjunctive	-	-	-	*mà	*wá	*tà
Polyfunctional	*ŋ́-	*í-	*ŋ̀-	*mù-	*wó-	*tì-
Possessive	*ŋ́í- / *ŋ́é-	*í-	*ŋ̀ì-	*mù-	*wó-	*tì-
Imperative	-	*ø	-	*mù (du.) *kàmù (pl.)	*kà	-
Negative	*ŋ́ɛ̀ɛ́	*yɛ́ɛ̀	*ŋ̀ɛ̀ɛ́	*mùɛ̀ɛ́	*wóɛ̀ɛ̀	*tìɛ̀ɛ́

Despite the necessity to reconstruct a solid number of series of person markers for the Proto-SWM level, it is easy to see that many of them are in fact derivatives, formed through fusion with predicative formants and other auxiliary morphemes. Further comparative analysis and the reconstruction of a higher level proto-language system are, therefore, quite possible and should attract the future attention of scholars.

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Abbreviations

anim., ANIM	*animate noun*	IPFV	*imperfective aspect / series*
AOR	*aorist*	IRR	*irrealis*
AUT	*free noun*	NEG	*negative marker / series*
BAS	*basic series*	NP	*noun phrase*
BPM	*bound person marker*	PERF	*perfect*
CL	*clause*	PF	*polyfunctional series*
CNT	*contrastive focus*	pl., PL	*plural number*
CNTR	*contractive pronoun*	POSS	*possessive marker*
COM	*comitative series*	PP	*postposition*
COMPL	*completive aspect*	PPM	*predicative person marker*
COND	*conditional mood / series*	PRET	*preterite*
CONJ	*conjunctive series*	PROG	*progressive aspect / series*
COP	*copula*	PROSP	*prospective aspect*
DEF	*definiteness marker*	PUNC	*punctive aspect*
DEP	*dependent series*	QUAL	*qualitative*
du., DU	*dual number*	QUOT	*quotative marker*
DYN	*dynamic verb*	REL	*relative noun*
EMPH	*emphatic marker / series*	RES	*resultative aspect*
excl., EXCL	*exclusive*	S	*subject*
EXI	*existential verb*	sg., SG	*singular number*
FOC	*focalised series*	SM	*South Mande languages*
HAB	*habitualis*	STAT	*stative*
IMP	*imperative mood*	SWM	*South-West Mande languages*
inanim., INANIM	*inanimate noun*	TA	*tense / aspect*
incl., INCL	*inclusive*	V	*predicate*
IPF	*imperfect*		