The 'absolute' or -ca/-sa verb extension in two Daju languages: Shatt Damam (Sudan) and Daju Sila (Chad)

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1 Introduction

The Daju languages are spoken in central Africa and cover parts of Chad, Sudan and South Sudan. Some of them (Lagowa, Laggori, Shatt) are more precisely located in the region of the Nuba Mountains (see MAP 1, p. 310). According to Greenberg (1963), the whole group belongs to the Eastern Sudanic branch of his Nilo-Saharan phylum.

Most, if not all, Daju languages are characterised by extension markers of the form -ca/-sa; these are obviously cognates and share a common involvement in the argument structure of the verb predicate. Beyond this common aspect however, the behaviour and values of the -ca/-sa forms show, in different languages, marked dissimilarities that clearly support the idea of a historical contrast between 'Eastern' and 'Western' Daju languages previously established on the evidence of noun morphology.

The aim of this paper is to analyse the properties of the *-ca/-sa* verb extension in 'Eastern' versus 'Western' languages. SECTION 2 will first comment on this historical contrast. SECTION 3 summarises the main verbal conjugations. SECTION 4 gives an overview of the verbal paradigms and extensions throughout the Daju languages and comments on the label 'absolute'. SECTIONS 5 and 6 concern Shatt Damam and Laggori, two 'Eastern' languages, respectively, while SECTIONS 7 and 8 address two 'Western' languages, Daju Sila and Daju Eref. SECTION 9 summarises the preceding sections in a diachronic perspective. Finally, the conclusion (SECTION 10) reviews two earlier works in the light of the present results.¹

the valuable comments they made on the form and the content of an earlier version of this paper.

¹ I am particularly indebted to both Gertrud Schneider-Blum and Mary Chambers for

In general, the emphasis is on Shatt Damam and Daju Sila data collected by myself on the occasion of two unplanned fieldworks without any further follow-up.²

2 'Eastern' vs. 'Western' Daju

The distinction between 'Eastern' (Shatt and Liguri – or Laggori) and 'Western' Daju (Lagowa, Baygo, Nyalgulgule and other languages towards the West; see MAP 1) was first introduced by Stevenson (1956-57: (40)112; see also Tucker & Bryan 1966: 231), who essentially relied on differences in the noun morphology.³



MAP 1: Daju languages: approximate location

² 'Western' Daju Sila (N'Djaména/Abéché, Chad, 1995) and 'Eastern' Shatt Damam (Khartoum, Sudan, 2008). The improvised conditions of these two fieldwork periods explain the limited and incomplete nature of the data. I hereby express my gratitude to the people who assisted me in this research: Messrs Hassan Yacine, Mahamat Annour, Ousman Abd-el-Kerim (in N'Djaména), Youssouf Souleyman, Zakaria Adam and Ahmat Djime (in Abéché) for Daju Sila, and Messrs Saddam Abu Kalam Saleh Belendiya and Ibrahim 'Alleel Djeyli Kaafi for Shatt Damam (in Khartoum).

³ The 'Eastern/Western' distinction was later confirmed by lexicostatistics (Thelwall 1981a, 1981b).

	'Eastern' Daju			'Western' Daju					
	LAGGORI	SHATT D	AMAM	(SIMPLE > MODIFIED)	LAGOWA	Nyala	SILA	Eref	ENGL. GLOSS
SG/PL	ux, wuxe	ùx	>	ùx }	wure, worre	wəre	wùrè	ùré	'woman,
	/ uxi, uxu	/ ùxù	>	/ ùxú ggì	/ wuruke	/ (bonje)	/ wúrgè	/ úrgé	wife'
SG/PL	au	òw∕ òttà		óo dì / òttá gì	ote / 'ottake	ode	òdè / òttígè	òdé / óttìgé	'place'
SG	maalasə	màlàs	>	/ màlás tì	malashte	malaſte		màlástè	'spear'
SG/PL	moxta	mòxtà	>	mòxtá n i	mortane	murtane	múrtè(-ne)	múrtìné	'horse'
	/ moxtu	/ mòxtù	>	/ mòxtú ggì	/ mortuke	/ murtuge	/ mùrtìgé	/ mòrtígè	

TABLE 1: Daju nouns compared (source: Boyeldieu 2009)

	'Easter	n' Daju	'Western' Daju		
	Laggorí	SHATT D.	SILA	Eref	
Absolute	IPF -ccV- / PF -sV-	IPF <i>-ca-</i> / PF <i>-sa-</i>	IPF -ca- / PF -sa-	IPF <i>-ca-</i> / PF <i>-sa-</i>	
Intensive	-t-	-TV-	-TV-	<i>-d-</i>	
Medio-passive	-ní	SG - wa / PL -n-	SG - <i>wa</i> / PL - <i>in</i> -	Middle voice -(u)wa- / Reflexive -n-	
Factitive			SG - <i>nni</i> / PL - <i>nnVh</i> -		
Semelfactive			IPF - <i>Tas</i> - / PF - <i>as</i> -	IPF - <i>dAs</i> - / PF - <i>As</i> -	
Transitive (?)	- <i>dìŋ</i> (PF only)	IPF - <i>dìŋ</i> / PF - <i>ìŋ</i> *			
Benefactive	-nès				
Causative	-tə				
Ventive	-en				
Andative	-es				

TABLE 3: Daju languages: verbal extensions compared (source: Boyeldieu & Manfredi 2014)

- N.B. i.) Extensions may be more or less lexicalised, according to their identity and according to the language.
 - ii.) At least intensive + absolute and intensive + medio-passive may combine, in these orders.

^{*}Limited examples; IPF $-di\eta$ = intensive + transitive?

Evidence is briefly illustrated in TABLE 1 (p. 311): Shatt Damam systematically displays two complementary forms of the noun. The simple form is used when the noun is not modified by any grammatical, lexical or clausal (relative) element. This simple form is similar to the only form observed in Laggori. On the other hand, the modified form integrates a former, now stacked agreement (originally sg. -ni, -i, -Si, or -Ti vs. pl. -Ki), playing the role of a connective in the context of a complex noun phrase. Now, this modified form is similar to the only forms, syntactically modified or not, that are observed in the 'Western' languages, such as Lagowa, Nyala, Sila and Eref. In other words, the latter have commonly innovated in generalising a noun form that is restricted to specific syntactic contexts in the 'Eastern' language, Shatt Damam.⁴

3 Daju verbal conjugations

Simple verb conjugations (i.e., excluding auxiliary or external markers) are summarised in TABLE 2. The main conjugations are represented by imperfective and perfective; these two paradigms will be retained here for illustration purposes, occasionally completed by imperative forms.

'Easter	rn' Daju	'Western' Daju		
LAGGORI	SHATT D.	SILA	Eref	
Imperfective	Imperfective	Imperfective	Form I	
Perfective	Perfective	Perfective	Form II	
		Prospective		
	Optative	Necessary	Intentional	
Imperative	Imperative	Imperative	Imperative	

TABLE 2: Simple verb conjugations (source: Boyeldieu & Manfredi 2014)

4 Daju verbal extensions and the absolute form

TABLE 3 (p. 311) gives an overview of the verbal extensions that can be observed in a sample of representative Daju languages. While some of them are restricted to certain (groups of) languages, intensive, absolute and medio-passive are common to all of them and may be assigned to a historical system common to all Daju languages.

⁴ According to Stevenson (1964: 97), Liguri requires 'concord markers' similar to those of Shatt (Tebaldia). However, Alamin (2006: 21-23) does not say anything concerning such markers in Laggori. For the time being, the actual behaviour of Liguri/Laggori remains dubious.

While the present paper deals primarily with the absolute forms, intensive forms, which are in various ways connected with the former, will also be considered. The term 'intensive' usually refers to the process (repetitive, frequentative) or to the participants (plurality of subjects or objects).

Lastly, the general label 'absolute' was adopted in Boyeldieu & Manfredi (2014) on the basis of this extension's frequent interaction with the argument structure of the verbal predicate. However, as already mentioned above, the behaviour of the so-called absolute varies greatly according to languages and calls for a more detailed analysis that precisely constitutes the aim of this paper.

5 Shatt Damam ('Eastern' Daju)

5.1 Morphology

In Shatt Damam, the absolute extension appears under the complementary forms -c-/a and -c-/e in the imperfective, -s-/a, -s-/e and -z-/e in the perfective and -si and -si in the imperative (TABLES 4-6 and examples 1-5).

	IMPERFECTIVE (-INTS?)	IMPERFECTIVE-ABS	PERFECTIVE	PERFECTIVE -ABS
SN/PN	ggáwè	ggáwà- cà	ggàw	ggáw- zà
S1	àŋgáwè	àŋgáwà- cà	káŋgàw	kàŋgáw- zà
S2	ŋgáwè	ŋgáwà- cà	kíŋgàw	kɨŋgáw- zà
S3M	mɨggáwè	m ì ggáwà- cà	m í ggàw	m ì ggáw- zà
S3F	c ì ggáwè	c ì ggáwà- cà	c í ggàw	c ì ggáw- zà
S3N	ŋɨggáwè	ŋɨggáwà- cà	ŋɨggàw	n ì ggáw- zà
P1EXCL	àŋgáwè- d -ìk	àŋgáwè- c -ìk	kàŋgáw-ìk	kàŋgáw- z -ìk
P1INCL	ggáwè- d -ìk	ggáwè- c -ìk	gáw-ìk	gáw- z -ìk
P2	ŋgáwà- d -àŋ	ŋgáwà- c -àŋ	kɨŋgáw-àŋ	kɨŋgáw- z -àŋ
Р3	s ì ggáwè	s ì ggáwà- cà	siggàw	s ì ggáw- zà
	IMPERATIVE	Imperative- <i>abs</i>		
S2	gáwà	gáw- zì		
P1	àŋgáwà	àŋgáw- zì		
P2	ŋgáwà	ŋgáw- zì (ŋ̀gáw- zi ?)		

TABLE 4: Shatt Damam gàw 'to throw'

	IMPERFECTIVE	IMPERFECTIVE	PERFECTIVE	PERFECTIVE
	(-INTS?)	-ABS		-ABS
SN/PN	pàxè	pàxá -cà	kàbàx	kàbáx- sà
S1	àbáxè	àbáxà -cà	kàbàx	kàbáx- sà
S2	báxè	báxà- cà	k ì bàx	kìbáx- sà
S3M	mɨbáxè	m ì báxà -cà	máábàx	mààbáx -sà
S3F	cɨbáxè	c ì báxà -cà	cáábàx	cààbáx- sà
S3N	ŋɨbáxè	ŋɨbáxà -cà	náábàx	ŋààbáx -sà
P1EXCL	àbáxè- d -ìk	àbáxè -c -ìk	kàbáx-ìk	kàbáx- s -ìk
P1INCL	pàxé- d -ìk	pàxé- c -ìk	k ì báx-ìk	k ì báx- s -ìk
P2	báxà- d -àŋ	báxà- c -àŋ	kɨbáx-àŋ	k ì báx- s -àŋ
P3	słbáxè	sɨbáxà- cà	sáábàx	sààbáx- sà
	IMPERATIVE	Imperative- <i>ABS</i>		
S2	pàxà	pàx- sì		
P1	àbáxà	àbáx- sì		
P2	báxà	báx- sì		

TABLE 5: Shatt Damam pàxàt 'to kill'

Concerning the 'bare' imperfective paradigm, it should be noted that the plural forms P1EXCL, P1INCL and P2 necessarily integrate an element -d- that looks like an intensive marker -d-. The truth of this is difficult to demonstrate since there is otherwise no clear instance of a full intensive paradigm in the imperfective, a combination that seems to be extremely rare, if not excluded.⁵ However, it should be emphasised that this presumed -d- extension is not preserved in the absolute paradigm, where it is replaced by the absolute marker -c- (TABLES 4 and 5).

TABLE 6 shows that, in the perfective at least, the two extensions intensive and absolute may combine, in this order. In that particular case, however, the absolute marker does not appear as -s-/a, -z-/a but as -c-/a, like in the imperfective (see also ex. (1b) and (2b)).

 $^{^{\}rm 5}$ A similar situation can be observed in Daju Sila (SECTION 7.1).

	IMPERFECTIVE	(IPF <i>INTS</i> ?)	IPF <i>ABS</i>	(IPF <i>INTS-ABS</i> ?)
SN/PN	làŋè		làŋá- cà	
S1	àláŋè	0		
S3M	mɨláŋè	?	mɨláŋà- cà	(mɨláŋ- dì-cà ?) ⁶
P3	sìláŋè			
	PERFECTIVE	PERFECTIVE	PERFECTIVE	Perfective- <i>ints</i>
		-INTS	-ABS	-ABS
SN/PN	kàlàŋ	kàláŋ- dɨ	kàláŋ- zà	kàláŋ- dì-cà
S1	kàlàŋ	kàláŋ- dɨ	kàláŋ- zà	kàláŋ- dì-cà
S3M	máálàŋ	mààláŋ- dɨ	mààláŋ- zà	mààláŋ- dì-cà
P3	sáálàŋ		sààláŋ- zà	sààláŋ- dì-cà
	IMPERATIVE	IMPERATIVE	IMPERATIVE	Imperative- <i>ints</i>
		-INTS	-ABS	-ABS
S2	làŋà		láŋ- zì	
P1	àláŋà	?	àláŋ- zì	?
P2	láŋà		lǎŋ- zì	

TABLE 6: Shatt Damam lànàt 'to sing'

5.2 Property

As shown in examples (1)-(5), the absolute verb form is limited to transitive verbs and strictly incompatible with an overt direct object of the verbal predicate.⁷

Shatt D. wòràt 'sweep'

- (1) a. *càwór-ti bà*S3F.PF.sweep-INTS house

 'she has swept the house'
 - b. *càwór-ti-cà*S3F.PF.sweep-**INTS-ABS**'she has swept'

⁶ Both the form and its presence in an imperfective paradigm are uncertain.

⁷ As illustrated below, examples of the incompatibility with an object have been explicitly given for nouns only. However, the data also show no example of a personal pronoun as object of an absolute verb form.

c. *càwór-tɨ-cà bà

*S3F.PF.sweep-INTS.ABS house

'she has swept the house'

Shatt D. nànàt 'buy'

- (2) a. kɨŋàn gɨl kɨréŋ
 S2.buy.PF eggs how_many?
 'how many eggs did you (sg.) buy?'
 - b. wèdè nán-zì (~ nàn-dí-ci)
 S2.go.IMP S2.buy.IMP-ABS S2.buy.IMP-INTS-ABS
 'go buy (things), go shopping!'

Shatt D. dêèt 'suck (up), suckle'

- (3) a. pɨxɨ piíbì-ndɨŋ dèè mmèm child child-ACT S3.IPF.suckle milk 'the baby is suckling the milk'
 - b. pɨxɨ piíbì-ndɨŋ dèè kɨdic child child-ACT S3.IPF.suckle breast 'the baby is suckling (at) the breast'
 - c. $p \neq x \neq p \leq b \leq c \neq c$ child child-ACT S3.IPF.suckle-ABS 'the baby is suckling'

Shatt D. zì6 'sow in holes'

- (4) a. mɨgɨzibɨ kùn S3M.PF.sow sorghum 'he sowed/has sown the sorghum (in holes)'
 - b. *mɨgɨzɨɓ-sè*S3M.PF.sow-**ABS**'he sowed/has sown (in holes)'

Shatt D. binàt 'sit on (egg), brood'

(5) a. kùxúk-àndɨŋ bɨŋò gɨl
hen-ACT IPF.brood eggs
'the hen is sitting on/is brooding on eggs'

- b. kùxúk-àndìŋ bìŋá-cà hen-ACT IPF.brood-ABS 'the hen is sitting on (eggs)/is brooding'
- c. kùxùk kàôɨŋ gɨl
 hen PF.brood eggs
 'the hen has sat on/has brooded on eggs'
- d. kùxùk kà6íŋ-zà
 hen PF.brood-ABS
 'the hen has sat on (eggs)/has brooded'

6 Laggori ('Eastern' Daju)

As a complement to the situation of Shatt Damam, let us now mention observations made by two authors concerning another 'Eastern' Daju language, Laggori.

As illustrated in TABLE 7, Alamin (2013: 12-16) distinguishes four aspects in the Laggori verb. Three of them have complementary markers according to the transitive/intransitive nature of the verb:

	TRANSITIVE	Intransitive
IMPERFECTIVE	<i>-e</i>	-i
PERFECTIVE	-diŋ	<i>-za</i>
HABITUAL	<i>-i/y</i>	-ca
PROGRESSIVE		-0

TABLE 7: Laggori verb aspects (after Alamin 2013)

For his part, Manfredi (ms.) comments on some of the same suffixes in the following way:

- Imperfective: "[...] the suffix $-ccV(-cc\grave{a}, -cc\grave{i}, -cc\grave{o})$ [...] seems to mark an 'absolute' [...] state of imperfective verbs lacking of an overt object argument in contrast with unmarked imperfective verbs entailing an overt object argument."
- Perfective: "The role of the suffixes -sV[-sa, -za, -si] and -ding is still unclear to me, but they are surely related to some form of transitivity/argument marking. [...] It should be remarked that -sV marked verbs are relatively rare and they occur only without overt object [...]. -ding, on its part, often occurs before pronominal objects [...]."

Beyond the way they may organise or comment on the facts, both sources confirm the crucial link that has been established between the Laggori markers -ca/-sa/-za and the absence of an overt object of the verb predicate.

In addition, the above suspected incompatibility between imperfective and intensive seems to be confirmed by the way Alamin (2013: 20) comments on what she calls a 'pluractional' form: "The pluractional in Laggori is expressed by the infix /-t/and it mainly concentrates on the repetition of an action. It occurs between the verb root and the perfective aspect marker [...]."

7 Daju Sila ('Western' Daju)

7.1 Morphology

As illustrated in TABLES 8-9, what I preferably call a *-ca/-sa* extension in the case of Daju Sila is realised as *-c-/a/i/e* in the imperfective, and as *-sa/i* in the perfective.⁹

Note that, just as in Shatt Damam (SECTION 5.1, TABLES 4-5), the bare imperfective forms P1D.EXCL, P1INCL and P2 integrate a likely extension -d-/i/e that might represent the trace of a former intensive marker, although the free intensive forms seem (today at least) to be limited to the perfective aspect (TABLES 9-10 and 13).

TABLES 9-10 also show, in all plural forms of the perfective, a situation of double suffixation by -ca/-sa that is realised as si-c-/i/e, possibly varying with si-s-/i/e. This combination also affects the imperative P2 in TABLE 10.

	IMPERFECTIVE	IMPERFECTIVE	PERFECTIVE	IMPERATIVE
	(- <i>INTS</i> ?)	-ca/-sa		(-ca/-sa?)
S1	ànóórò	ànóórò- cá	kànóórì	_
S2	ìnóórò	ìnóórò- cá	kìnóórì	òòrá
S3/SN	òòró	òòrà -cá	kònòòrì	_
P1D.EXCL	òòrí- dì	òòrí- cì	kònòòrì	_
P1INCL	òòrí- dé	òòrí- cé	kònòòré	_
P2	ìnóórì -d -áŋ	ìnóórì- c -áŋ	kìnóóràŋ	òòrì- c -ìnná
P3/PN	òòrâ	òòrì- c -íŋ	kònòòrâ	_

TABLE 8: Daju Sila òòràkè 'to see'

⁸ Manfredi (ms.), on his side, does not mention any kind of intensive or pluractional verb form.

⁹ The situation of the imperative is not clear: S2 is apparently -sà (TABLES 9-10) or -c-àt (TABLE 13!?), and P2 -c-ìnná (TABLES 8-9 and 13).

	IMPERFECTIVE	IPF <i>ca/-sa</i>	PF <i>ca/-sa</i>	PF <i>INTS</i>
			(+-ca/-sa?)	
S1		àláŋà- cá	kàláŋ- sà	kàláŋ- dì
S2		ìláŋà- cá	kìláŋ- sà	kìláŋ- dì
S3/SN	làŋé	làŋà- cá	kàlàŋ- sà	kàlàŋ- dí
P1D.EXCL		làŋí- cì	kàlàŋ- sí-cì	kàláŋ- dì
P1INCL		làŋí- cé	kàlàŋ- sí-cé	kàláŋ- dé
P2		ìláŋì- c -áŋ	kìláŋ- sì-c -áŋ	kìláŋ- d -àŋ
P3/PN		làŋì -c -íŋ	kàlàŋ -sì-c -íŋ	kàlàŋ- dà
	IMPERATIVE- <i>ca</i>	/-sa		
S2	làŋ- sà			
P2	làŋì -c -ìnná			

TABLE 9: Daju Sila lànàkè 'to sing'

	IMPERFECTIVE	IPF <i>ca/-sa</i>	Perfective- <i>ca/-sa</i>	PERFECTIVE
			(+- ca/-sa ?)	-INTS
S1		ásàà- cá	kàsáy -sà	kàsáy- dì
S2		ísàà -cá	kìsáy -sà	kìsáy -dì
S3/SN	sàyé	sàà- cá	kàsày- sà	kàsày- dí
P1D.EXCL		sáá -cì	kàsày- sí-cì ~ kàsày- sí-sì	kàsáy- dì
P1INCL		sáá -cé	kàsày- sí-cé ~ kàsày- sí-sé	kàsáy- dé
P2		ísàà -c -áŋ	kìsáy- sì-c- áŋ ~ kìsáy- sì-s- áŋ	kìsáy- d -áŋ
P3/PN		sàà -c -íŋ	kàsày- sì-c -íŋ ~ kàsày- sì-s -íŋ	kàsày- dà
	IMPERATIVE- <i>ca</i>	/-sa (+-ca/-s	(a ?)	
S2	sày- sà			
P2	sày- sí-c -ìnà ~ s	ày- sí-s -ìnà		

TABLE 10: Daju Sila sààkè ~ sàygè 'to creep (plant); to graze (cattle)'

Furthermore, a similar *-ca/-sa* marking of all plural forms may be observed in imperfective paradigms in which singular forms are unmarked (TABLE 11).

As shown in TABLE 12, this marking tends to replace the (intensive?) extension -d-/i/e that is usually displayed in P1D.EXCL, P1INCL and P2 (e.g., in TABLES 8 and 14: dèlèkè, gèfèkè).

	IPF.(- <i>ca/-sa</i>)	IPF. -ca/-sa	PERFECTIVE	IMPERATIVE
S1	àndágè		kàndág	_
S2	ìndágè		kìndág	ndàgà
S3/SN	ndàgé	ndàgà- cá	kàndàg	_
P1D.EXCL	ndàgí- cì		kándágì	_
P1INCL	ndàgí- cé		kàndàgé	_
P2	ìndágì- c -áŋ		kìndágàŋ	ndágánà
P3/PN	ndàgì- c -íŋ	ndàgì- c -íŋ	kàndàkkà	_

TABLE 11: Daju Sila ndàgàkè 'to chop'

	Imperfective(-ca/-sa)	PERFECTIVE	IMPERATIVE
S1	àbárrè	kàbárrì	_
S2	ìbárrè	kìbárrì	bàrrá
S3/SN	bàrré	kàbàrrì	_
P1D.EXCL	bàrrí- cì (*bàrrí- dì)	kàbàrrì	_
P1INCL	bàrrí- cé (*bàrrí- dé)	kàbàrré	_
P2	ìbárrì- c -áŋ (*ìbárrì- d -áŋ)	kìbárràŋ	bàrrìnà
P3/PN	bàrrì- c -íŋ	kàbàrrâ	_

TABLE 12: Daju Sila bàrràkè 'spend the evening'

Finally, the intensive and -ca/-sa may combine, in this order. As in Shatt Damam (TABLE 6 and examples (1b) and (2b)), the perfective -ca/-sa is realised as -c-/a/i/e in this particular case:

	'to season'		'to lie'	
	IPF.(<i>-INTS</i> ?)	(*IPF <i>INTS</i> ?)	IPF. <i>-ca/-sa</i>	(*IPF <i>INTS -ca/-sa</i> ?)
S1	àbálgè		à6álgà -cá	
S2	ìbálgè		ì6álgà- cá	
S3/SN	<i>6àlgé</i>		6àlgà- cá	
P1D.EXCL	bàlgí- đì	*?	6àlgí- cì	*?
Plincl	bàlgí- dé		6àlgí- cé	
P2	ìbàlgí- d -àŋ		ì6álgì- c -áŋ	
P3/PN	<i>6àlgâ</i>		6àlgì- c -íŋ	
	·	·		TO BE CONTINUED

	PF.	PF <i>INTS</i>	PF. -ca/-sa	Pf <i>INTS-ca/-sa</i>		
(-ca/-sa?)						
S1	kà6álgì	kàɓálgì- dì		kà6álgì- dì-cá		
S2	kìbálgì			kìbálgì -dì-cá		
S3/SN	kà6àlgí	kà6àlgí- dì		kà6àlgí- dì-cá		
P1D.EXCL	kà6álgì		?	kà6àlgí- dí-cì		
P1INCL	kà6álgé			kà6àlgí- dí-cé		
P2	kìbálgàŋ			kì6álgì -dì-cá- ŋ		
P3/PN	kà6àlgâ	kàbàlgí- dì-c -íŋ		kàbàlgí- dì-c -íŋ		
		(~ <i>kà6àlgí-dà</i> ?)				
	IMPERATIVE	IMPERATIVE	IMPERATIVE	IMPERATIVE		
		-	-ca/-sa	-INTS-ca/-sa		
		INTS				
S2	<i>6àlgá</i>	?	6àlgà- c -àt	?		
P2	<i>6álgánà</i>		6àlgì- c -ìnná			

TABLE 13: Daju Sila bàlgàkè 'to season (dish); lie, tell a lie'

7.2 Properties

- i.) The -ca/-sa verb forms are clearly incompatible with a personal object index on the verbal predicate (6)-(8):
 - D. Sila màjàkè 'be jealous (of)'
- (6) a. *céé màjá-cè* she S3.IPF.be_jealous-her 'she envies her, she is jealous of her'
 - b. céé màjà-cá
 she S3.IPF.be_jealous-ca/-sa
 'she is jealous (in general), she behaves jealously'
 - c. *céé màjà-cá-cè *she S3.IPF.be_jealous-ca/-sa-her 'she is jealous of her'
 - D. Sila dìgàkè 'strike'
- (7) a. sáá dìgâ-má they P3.IPF.strike-him 'they strike him'

- b. sáá dìgì-c-íŋ they P3.IPF.strike-ca/-sa 'they are striking'
- c. *sáá dìgì-c-íŋ-mà
 *they P3.IPF.strike-ca/-sa-him
 'they are striking him'
- D. Sila *bànàkè* 'call'
- (8) a. *bàŋà-kóskà*S2.IMP.call-us[EXCL]
 'call us (excl.)!'
 - b. **6àŋ-sà-kóskà**S2.IMP.call-*ca/-sa*-us[EXCL]
 'call us (excl.)!'
 - D. Sila wànàkè 'pass, surpass'
- (9) a. *kàwàŋ-ànàŋ* s3.PF.surpass-me 'he has surpassed me'
 - b. *kàwàŋ-s-ànàŋ *S3.PF.surpass-ca/-sa-me 'he has surpassed me'
- ii.) However, they may appear in the presence of a lexical object ((10)-(16), no example for perfective -sa, which is statistically rare; see SECTION 9.2):
- D. Sila ùùdúygè 'plant, transplant'

 (10) máá àngààl-ètkè úúdùy-**cá**he cassava-PL S3.IPF.plant-*ca/-sa*'he is planting cassava plants' (Ndj.)¹⁰
- D. Sila *wààkè ~wàygè* 'cultivate'

 (11) *máá wàà-cá kùṇjè*he S3.IPF.cultivate-*ca/-sa* millet-PL

 'he is cultivating millet'

 $^{^{10}}$ The abbreviation 'Ndj.' indicates data collected in N'Djaména (see fn. 2 above) that generally reflect an SOV order with lexical objects.

- D. Sila *bònàkè* 'sit on (egg), brood'
- (12) ùkúrg-ánà (wàlàà-gè) bònà-**cá**hen-DEF (egg-PL) S3.IPF.sit_on-*ca/-sa*'the hen is brooding/sitting on eggs'
 - D. Sila wènèkè 'look for'
- (13) máá wèné (~ wènè-cá) fùgùdú-mà he S3.IPF.look_for S3.IPF.look_for-ca/-sa knife-his 'he is looking for his knife'
 - D. Sila àskàkè 'tie'
- (14) wúr-g-énà èwéégè àskâ (~àskì-c-íŋ) woman-PL-DEF wood.PL P3.IPF.tie P3.IPF.tie-ca/-sa 'the women are tying the firewood' (Ndj.)
 - D. Sila dìgàkè 'strike'
- (15) *máá cáácè dìgá* (~ *dìgà-cá*)
 he child S3.IPF.strike S3.IPF.strike-*ca/-sa*'he is striking the child'
 - D. Sila *dèlèkè* 'fall (down); set up (trap)'
- (16) a. *máá* dèlé (~ dèlè-**cá**) ibìríw-nè he S3.IPF.set S3.IPF.set-*ca/-sa* trap-SG 'he is setting a trap'
 - b. sáá dèlâ ìbìríw-nè they P3.IPF.set trap-SG 'they are setting a trap'
 - c. sáá dèlì-**c**-íŋ ìbìrìw-gè they P3.IPF.set-ca/-sa trap-PL 'they are setting traps'
- iii.) In contrast with the virtual, potential (?) or near future values of the bare imperfective, several occurrences highlight the progressive, durative or habitual values resulting from the extension -ca:11

¹¹ In short pages devoted to Dar Sila Daju, Jungraithmayr (1981) identifies a verbal extension *-aca* with 'habit[u]ative-extratemporal value', e.g., *lag-* 'lay (eggs)' > *lag-aca* 'lay (eggs) habitually', *ciŋ* 'hear' > *ciŋ-aca* ['hear habitually'].

D. Sila mììkè 'pound'

(17) a. $miy\acute{e}$ b. $miì-c\acute{a}$ S3.IPF.pound-ca/-sa 's/he knows how to pound' 's/he is pounding'

D. Sila dààkè 'wash'

(18) a. dâàyé b. dâà-cá
S3.IPF.wash
's/he will wash'
Sb. dâà-cá
S3.IPF.wash-ca/-sa
's/he is washing'

D. Sila wàpàkè 'dance, play'

(19) cóók-ánà wànì-c-íŋ children-DEF P3.IPF.play-ca/-sa 'the children are playing/having fun'

D. Sila làŋàkè 'sing'

(20) máá kàl wèèdé làŋà-**cá**he when S3.IPF.walk S3.IPF.sing-*ca/-sa*'when he walks, he sings/he is singing while walking'

D. Sila sùŋàkè 'sleep'

(21) kìng-ánà kì wíídè sùŋì-c-íŋ
people-DEF in night P3.IPF.sleep-ca/-sa
'people sleep during the night'

D. Sila yèrèkè 'think'

- (22) *máá fáábà wàlá lègé yèrè-cá* he thing NEG S3.IPF.say S3.IPF.think-*ca/-sa* 'he does not say anything, he is thinking'
- iv.) Finally, -ca tends to function as a complementary partner of -INTS in two aspects:
 - As is also the case for a suspected former extension *-INTS*, *-ca* is often involved in the expression of the subject index plural forms of the 'bare' Imperfective paradigm (TABLES 11-12 above, and TABLE 14 below: *dèlèkè*, *gèfèkè*).
 - The association Imperfective -*ca* / Perfective -*INTS* is characteristic of certain semantic specialisations in verbs as illustrated below (citation of S3 / P3 forms):

Infinitive	Imperfective(- <i>ca</i>)	Perfective(- <i>ints</i>)	ENGLISH GLOSS
	6àlgé 6àlgâ	kàbàlgí / kàbàlgâ	'season (dish)'
6àlgàkè	6àlgà- cá / 6àlgì- c -íŋ	kà6àlgí- dì / kà6àlgí- dì-c -íŋ (~ kà6àlgí- dà ?)	'lie, tell a lie'
dègèkè	dègé dègâ	kèdèg kèdèkkà	'kick; chew (tobacco); become sour'
	dègè- cá / dègì- c -íŋ	kèdèk-tf / kèdèk-tà	'clean the cotton (with bow)'
dèlèkè	dèlé / dèlì-c-íŋ	kèdèl kèdèlà	'fall (down); set (sun)'
	dèlè- cá / dèlì- c -íŋ	kèdèl- dí / kèdèl- dà	'set up (a trap)'
	gèfé gèfì- c -íŋ	kègèf/ kègèfà	'hatch'
gèfèkè	gèfé, gèfà -cá / gèfì -c -íŋ	kègèf- tí / kègèf- tà	'bark, peel'
jègèkè	jègé jègâ	kèjèg / kèjèkkà	'reach with stone or weapon'
Jegene	jègè- cá / jègì- c -íŋ	kèjèk- tí / kèjèk- tà	'sharpen by beating'

TABLE 14: Imperfective -ca / Perfective -INTS: lexical specialisation (Daju Sila)

8 Daju Eref ('western' Daju)

Palayer (2011: 79-166) gives a detailed study of the verb system in Daju Eref and shows, in particular, the nearly unique way each verb may assemble its own forms out of a great variety of simple/derived bases, modalities and voices.

Concerning the extensions $-c\hat{a}$ and $-s\hat{a}$, the author makes the following comments:

- -cà may be suffixed to imperfective (*Form I*) root bases or to imperfective and perfective (*Form II*) bases already derived with -d, -t or -dd (the equivalent of -*INTS* in Sila). In the latter case, they are mostly restricted to plural verb forms, with a possible distributive value ('they do/did separately/independently') (Palayer 2011: 91-94).

- -sà is restricted to the perfective (*Form II*) and similar forms like the imperative (2011: 95-97).
- The -cà form may exist without an existing or employed corresponding -sà form (2011: 95).¹²
- Some verbs may have an imperfective or a perfective appearing only with this type of suffix (i.e., no bare form is attested) (2011: 97).
- *-ca/-sa* forms appearing alone (i.e., without *-d/-dd* as noted above) may be semantically equivalent to the bare forms, but in some cases they seem to indicate a 'non-instantaneous process'. They may also express different semantic values of the verb (2011: 97).

As for the -d, -t and -dd extensions, their compatibility with the imperfective (Palayer's *Form I*) seems to be highly restricted. They may appear when combined with following $-c\hat{a}$ (2011: 111-112), but they are otherwise absent from the derived bases illustrating the imperfective (2011: 103-105).

In general, these remarks are very similar to the situation that has been observed in Daju Sila. However, I could not find any information concerning the compatibility/incompatibility of -cà/-sà with personal object pronouns.

9 Historical perspective

9.1 Antipassive function

The specific marking of transitive verbs used without an expressed object is usually known as antipassive, a notion that was first formulated in the case of ergative languages. Polinsky (2017: Abstract) defines it as follows:

'Antipassives' are constructions in which the logical object of a transitive (two-place) predicate is not realized as a direct object, but instead appears as a non-core argument or left unexpressed (but presupposed). [...] The antipassive is not limited to ergative languages, although it may be more noticeable under ergative configuration.

In this sense, the absolute form in both Shatt Damam and Laggori clearly has an antipassive function.

In Daju Sila however, this property is limited to the specific case of personal object indices, a situation that I would rather consider as a vestigial one. Indeed, the combinatory abilities of verbs with the closed category of object indices

¹² "La forme en **-cà** peut exister sans qu'existe ou soit utilisée la forme en **-sà** [...]." Although this is not explicitly expressed, the remark seems to imply that the latter (*Form II* = Perfective) is less frequent than the former (*Form I* = Imperfective).

seem to me less free than those with lexical objects, and consequently more likely to represent a conservative than an innovative structure.

In a paper devoted to the antipassive in Bantu languages, Bostoen et al. (2015) develop the idea that, in these languages, the antipassive usually results from reciprocal/associative constructions:

The antipassive always emerged as a specific reading of a marker more commonly used to express reciprocity and associativity. It most probably did so independently in different Bantu languages. It is the underlying notion of 'plurality of participants', or even more generally 'plurality of relations', of which the Proto-Bantu reciprocal/associative extension -anis a carrier, which has led to the convergent arising of the antipassive meaning. (2015: 766)

In the present case, there is clearly no indication that a 'reciprocal' value might have been the source of the current antipassive of 'Eastern' Daju languages. Rather, 'Western' Daju languages developed, among others, an 'associative' value of the *-ca* form that is used for marking the plural subject indexes of the imperfective aspect (see SECTION 7.2, (iv)).

9.2 Decrease of the 'Western' perfective -sa

Without losing sight of the limited and uneven representativeness of the data recorded in Shatt Damam and Daju Sila (see fn. 2 above), the statistical evaluations displayed in TABLE 15 above concerning the respective frequencies of absolute and *-ca/-sa* forms in either language nevertheless reveal a significant contrast.

Shatt Damam		Daju Sila			
Total of verbs	206	Total of verbs	291		
Verbs + ABS	38	Verbs + -ca/-sa	114	/out of:	
IPF. & PF. +	25	IPF. & PF. +	10	whole paradigm	6
ABS	25	IPF. & PF. + -ca/-sa	10	pl. subj. only	4
IPF. only + ABS	7	IPF. only +	101	whole paradigm	61
		IPF. only + -ca/-sa	101	pl. subj. only	40
PF. only + ABS	(PF. only +	2	whole paradigm	2
	6	PF. only + -ca/-sa	3	pl. subj. only	1

TABLE 15: Absolute (Shatt Damam) and -ca/-sa (Daju-Sila) verb forms: lexical frequencies

N.B. Daju Sila -ca/-sa extensions limited to plural subjects are counted separately (see SECTION 7.2, (iv) above)

More precisely, this contrast may be detailed as follows:

- i.) In Shatt Damam, less than a fifth (38/206) of all verbs may, somehow or other, combine with an absolute extension, while in Daju Sila the proportion of verbs that may exhibit a -ca/-sa suffix rises to more than a third (114/291).
- ii.) In Shatt Damam, more than half (25/38) of the verbs that may appear in the absolute form do so in both the imperfective and the perfective, the rest being more or less equally divided between the imperfective (7/38) or the perfective (6/38) only. In Daju Sila, less than a tenth (10/114) of the verbs that may combine with -ca/-sa suffixes do so in both the imperfective and the perfective but the greatest number of them (101/114) do so in the imperfective only, while instances of -ca/-sa suffixation in the perfective only are extremely limited (3/114).

In other words, from Shatt Damam to Daju Sila the representation of absolute(-like) extensions in the imperfective is markedly increasing while it is drastically reducing in the perfective.

Let us remind ourselves here of the rarity of perfective absolute -sV as noted by Manfredi (ms.) in the 'Eastern' language Laggori (see SECTION 6 above). It is not clear whether this scarcity is itself the result of a decrease and, if so, whether we are dealing here with the same historical reduction as for 'western' languages or, rather, with an independent and distinct development.

9.3 Towards a 'Western' complementarity of -ca/-sa and intensive

Considering, in Daju Sila and, to some extent, Daju Eref, a) the generally marginal status of the *-INTS* extension in the imperfective aspect (SECTION 7.1), compensated by b) the strong concentration of the *-ca/-sa* extension in the same imperfective (SECTION 7.1), c) the innovative use of *-ca/-sa* instead of *-INTS* markers for characterising the plural forms of the 'bare' imperfective (TABLES 11-12 and SECTION 7.1), and finally the imperfective *-ca /* Perfective *-INTS* coupling of some semantically specialised verb forms (TABLE 14), there appears to be, in the 'Western' languages, a marked trend towards a complementary distribution of the *-ca* extension in the imperfective with the *-INTS* extension in the perfective. Indeed, their respective values of 'durative/habitual' or 'plural subject' (imperfective) and 'intensive' (perfective) come together under the general label 'associative' that Bostoen et al. (2015) consider to be the source of the Bantu antipassive (see SECTION 9.1).

9.4 Summary

However, if the semantic affinity 'associative'/'antipassive' is relevant here, in the present case I would rather consider that the antipassive prevailed in an earlier system that later developed towards associative values in the 'western' languages. I mentioned above (SECTION 9.1) that such a historical perspective is more likely if we consider the incompatibility of *-ca/-sa* markers with object indexes in Daju Sila. I would argue that the 'Western' marginal status of perfective *-ca/-sa* as well as the partial complementarity between *-ca/-sa* and *-INTS* are themselves more reconcilable with a diachronic scenario that treats them as resulting from a prior antipassive function than the reverse.

If we agree with this view, the historical perspective on the Daju absolute and -ca/-sa extensions can be summarised as in FIGURE 1:

- i.) Shatt Damam is, in this respect, the best representative of a common system: the absolute form always has an antipassive function and its application is shared by both imperfective and perfective in a balanced way.
- ii.) Within the 'Eastern' languages no significant change can be identified except a likely decrease in usage of the Laggori perfective absolute -sa, of which we do not know whether it is correlated with the similar development observed in the 'Western' languages.
- iii.) The 'Western' languages Daju Sila and Daju Eref are jointly undergoing more noticeable changes: while -ca/-sa markers preserve a residual function of antipassive in the restricted case of object indexes, their frequency increases with a frequent value of durative/habitual in the imperfective aspect, and conversely decreases drastically in the perfective aspect. Correlatively, the imperfective -ca forms progressively enter into complementary distribution with the Perfective extended by -INTS.

If the label 'absolute' – and even more 'antipassive' – is no longer appropriate for the 'Western' languages, it is not obvious how to characterise an extension that takes on such varied functions. 'Progressive', 'durative' or 'habitual' would probably approach the most relevant labels for most cases but these still do not account properly for the plural subject indices nor for the few cases of semantic specialisation (TABLE 14). In this respect it would be interesting to get an idea of the speakers' feeling concerning the unity of the different -ca/-sa marker instances.

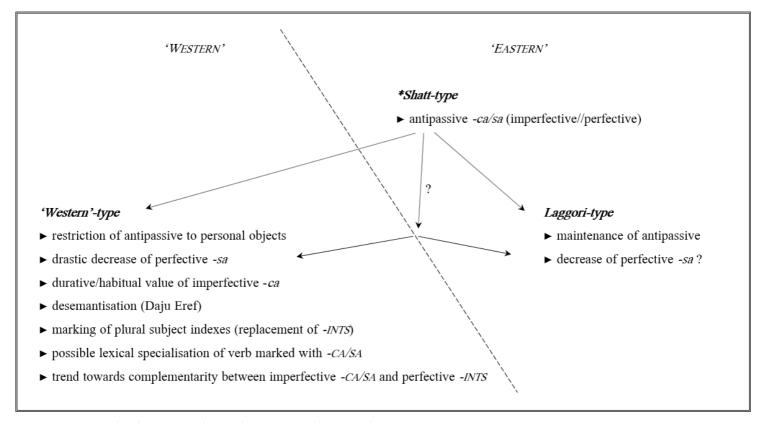


FIGURE 1: Daju absolute or -ca/-sa verb extension: historical perspective

10 Final thoughts

As a conclusion I would like to review two previous works in the light of the present paper.

a.) A few years ago Boyeldieu & Manfredi (2014) evaluated the relevance of the Daju verb regarding the 'Western'/'Eastern' Daju languages distinction previously based on noun morphology (SECTION 2). To the question "Does the verbal morphology support the distinction 'Western'/'Eastern' Daju?'', the authors answered in a negative way: "No, but transition from 'Proto-Eastern Daju' to Laggorí has been perturbed in a marked way: Laggorí as a high-contact Daju variety."

When looking back at the arguments called upon to justify this conclusion, it appears to me that they were foremost concerned with the morphological marking of the subject indexes in both the imperfective and perfective aspects. Indeed, the prefixes and suffixes used to express the 'person' display, in their form as well as in their structure, an overall similarity that does not indicate any clear contrast.

However, the status and functioning of the absolute or *-ca/-sa* extensions that have been shown in the present paper obviously require the earlier judgement to be seriously qualified: in this respect Shatt Damam and Laggori, on the one hand, and Daju Sila and Daju Eref on the other, contrast in an undisputable way. And, again, the 'Eastern' languages prove to represent the most conservative ones on this particular point.

b.) More recently, antipassive constructions were selected in the programme of the French-Sudanese project PICS *Les langues du Soudan : à la croisée des aires et types linguistiques / The languages of the Sudan: a typological and areal crossroad* (CNRS/ University of Khartoum, PIs Nicolas Quint & Abeer Bashir Trefi, 2019-2021).¹³

The aim of the project was to identify features that could be considered as characteristic of a 'Sudanese' linguistic area. Provided that the present historical interpretation of the data is correct, the antipassive function would have been preserved in Sudan only – or more precisely in the Kordofan region? – while it was seriously altered in the 'Western' languages Daju Sila and Daju Eref.

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¹³ https://sudanlinguisticarea.huma-num.fr/index.html

Abbreviations

* not attested, ungrammatical

ABS absolute
ACT actualiser
DEF definite
EXCL exclusive
IMP imperative
INTS intensive
IPF, IPF. imperfective

Ndj. data recorded in N'Djaména (Chad)

NEG negation

P1 first person plural P1D first person plural dual

P1D.EXCL first person plural dual/exclusive
P1EXCL first person plural exclusive
P1INCL first person plural inclusive

P2 second person plural

PF. perfective
PL, pl. plural
PN plural noun

S1 first person singular S2, S2 second person singular S3 third person singular

S3F third person singular feminine S3M third person singular masculine S3N third person singular neuter

SG, sg. singular SN singular noun

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