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

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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 (Map 1). According to Greenberg (1963) the whole group belongs to the *Eastern Sudanic* branch of his Nilo-Saharan phylum.

[Map 1 somewhere here]

Most, if not all, Daju languages are characterised by extension markers of a *-ca/sa* type that are obviously cognates and share a common involvement in the argument structure of the verb predicate. Behind this common aspect however, the behaviour and values of the *-ca/sa* forms show, according to 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’ and ‘western’ languages respectively. Section 1 will first comment on this historical contrast. Section 2 summarises the main verbal conjugations. Section 3 gives an overview of the verbal paradigms and extensions throughout the Daju languages and comments on the label *Absolute*. Sections 4 and 5 respectively concern Shatt Damam and Laggori, two ‘eastern’ languages, while Sections 6 and 7 address two ‘western’ languages, Daju Sila and Daju Eref. Section 8 summarises the preceding sections in a diachronic perspective. Finally, the conclusion (Section 9) reviews two earlier works in the light of the present results.

In general, emphasis is on Shatt Damam and Daju Sila data collected by myself on the occasion of two unplanned fieldworks without any follow-up.¹

1. ‘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; also source of Tucker & Bryan 1966: 231), who essentially relied on differences in the noun morphology.² Evidence is briefly illustrated in Table 1: 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

¹ ‘Western’ Daju Sila (N’Djaména/Abéché, Chad, 1995) and ‘eastern’ Shatt Damam (Khartoum, Sudan, 2008). The improvised conditions of these two fieldworks explain the limited and incomplete nature of the data. I hereby express my gratitude to the different 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.

² The ‘eastern/western’ distinction was later confirmed by lexicostatistics (Thelwall 1981a, 1981b).

(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.³

[Table 1 somewhere here]

2. Daju verbal conjugations

Simple verb conjugations (i.e. excluding auxiliary or external marker) are summarised in Table 2. The main conjugations are represented by Imperfective and Perfective respectively, the two paradigms that will be retained here for illustrations, occasionally completed by Imperative forms.

<i>‘Eastern’ Daju</i>		<i>‘Western’ Daju</i>	
Laggori	Shatt D.	Sila	Eref
Imperfective	Imperfectif	Imperfectif	Forme I
Perfective	Perfectif	Perfectif	Forme II
	Optatif	Prospectif	Intentionnel
Imperative	Impératif	Impératif	Impératif

Table 2. Simple verb conjugations (*Source*: Boyeldieu & Manfredi 2014)

3. Daju verbal extensions and the Absolute form

Table 3 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, common Daju system.

[Table 3 somewhere here]

If the present paper deals primarily with the Absolute forms, Intensive forms, which are in different ways connected with the former, will also be considered. The term ‘Intensive’ may usually refer to the process (repetitive, frequentative) or to the participants (plurality of subjects or objects).

Lastly the general label *Absolute* had been 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.

4. Shatt Damam (‘eastern’ Daju)

4.1. Morphology

³ According to Stevenson (1964: 97), Liguri requires ‘concord markers’ similar to those of Shatt (Tebaldia). However, Alamin Mubarak (2006: 21-23) does not say anything concerning such markers in Laggori. For the time being, the actual behaviour of Liguri/Laggori then remains dubious.

In Shatt Damam, the Absolute extension appears under the complementary forms *-c(-/a)* or *-c(-/e)* in the Imperfective, *-s(-/a)*, *-z(-/a)*, *-s(-/e)*, *-z(-/e)* in the Perfective and *-si*, *-zi* in the Imperative (Tables 4-6 and examples 1-5 below).

Concerning the ‘bare’ Imperfective paradigm, it should be noted that the plural forms P1e, P1i, and P2 necessarily integrate an element *-d-* that looks like an Intensive marker *-d-*. This matter of fact 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.⁴ However, it should be emphasized that this presumed *-d-* extension is not preserved in the Absolute paradigm where it is *replaced* by the Absolute marker *-c-* (Tables 4-5 below).

	Imperfective (/INTS ?)	Imperfective-ABS	Perfective	Perfective-ABS
SN/PN	ggáwè	ggáwà- <i>cà</i>	ggàw	ggáw- <i>zà</i>
S1	àngáwè	àngáwà- <i>cà</i>	kàngàw	kàngáw- <i>zà</i>
S2	ngáwè	ngáwà- <i>cà</i>	kìngàw	kìngáw- <i>zà</i>
S3m	mìggáwè	mìggáwà- <i>cà</i>	mìggàw	mìggáw- <i>zà</i>
S3f	cìggáwè	cìggáwà- <i>cà</i>	cìggàw	cìggáw- <i>zà</i>
S3n	ɲìggáwè	ɲìggáwà- <i>cà</i>	ɲìggàw	ɲìggáw- <i>zà</i>
P1e	àngáwè- <i>d</i> -ik	àngáwè- <i>c</i> -ik	kàngáw-ik	kàngáw- <i>z</i> -ik
P1i	ggáwè- <i>d</i> -ik	ggáwè- <i>c</i> -ik	gáw-ik	gáw- <i>z</i> -ik
P2	ngáwà- <i>d</i> -àŋ	ngáwà- <i>c</i> -àŋ	kìngáw-àŋ	kìngáw- <i>z</i> -àŋ
P3	sìggáwè	sìggáwà- <i>cà</i>	sìggàw	sìggáw- <i>zà</i>
	Imperative	Imperative-ABS		
S2	gáwà	gáw- <i>zì</i>		
P1	àngáwà	àngáw- <i>zì</i>		
P2	ngáwà	ngáw- <i>zì</i> (ngáw- <i>zì</i> ?)		

Table 4. Shatt Damam *gàw* ‘to throw’

	Imperfective (/INTS ?)	Imperfective-ABS	Perfective	Perfective-ABS
SN/PN	pàxè	pàxà- <i>cà</i>	kàbàx	kàbàx- <i>sà</i>
S1	àbàxè	àbàxà- <i>cà</i>	kàbàx	kàbàx- <i>sà</i>
S2	bàxè	bàxà- <i>cà</i>	kìbàx	kìbàx- <i>sà</i>
S3m	mìbàxè	mìbàxà- <i>cà</i>	máábàx	màábàx- <i>sà</i>
S3f	cìbàxè	cìbàxà- <i>cà</i>	cáábàx	càábàx- <i>sà</i>
S3n	ɲìbàxè	ɲìbàxà- <i>cà</i>	ɲáábàx	ɲàábàx- <i>sà</i>
P1e	àbàxè- <i>d</i> -ik	àbàxè- <i>c</i> -ik	kàbàx-ik	kàbàx- <i>s</i> -ik
P1i	pàxè- <i>d</i> -ik	pàxè- <i>c</i> -ik	kìbàx-ik	kìbàx- <i>s</i> -ik
P2	bàxà- <i>d</i> -àŋ	bàxà- <i>c</i> -àŋ	kìbàx-àŋ	kìbàx- <i>s</i> -àŋ
P3	sìbàxè	sìbàxà- <i>cà</i>	sáábàx	sàábàx- <i>sà</i>
	Imperative	Imperative-ABS		
S2	pàxà	pàx- <i>sì</i>		
P1	àbàxà	àbàx- <i>sì</i>		
P2	bàxà	bàx- <i>sì</i>		

⁴ A similar situation can be observed in Daju Sila (Section 6.1 below).

- 3a píxì pííbì-ndìḡ dēè mmèm Shatt D. *dēèt* ‘suck (up), suckle’
 child child-ACT S3.IPF.suckle milk
 ‘the baby is suckling the milk’
- 3b píxì pííbì-ndìḡ dēè kídic
 child child-ACT S3.IPF.suckle breast
 ‘the baby is suckling (at) the breast’
- 3c píxì pííbì-ndìḡ dēé-cè
 child child-ACT S3.IPF.suckle-ABS
 ‘the baby is suckling’
- 4a mìgìzìbì kùḡ Shatt D. *zìb* ‘sow in holes’
 S3M.PF.sow sorghum
 ‘he sowed/has sown the sorghum (in holes)’
- 4b mìgìzìb-sè
 S3M.PF.sow-ABS
 ‘he sowed/has sown (in holes)’
- 5a kùxúk-àndìḡ bìḡò gìl Shatt D. *bìḡàt* ‘sit on (egg), brood’
 hen-ACT IPF.brood eggs
 ‘the hen is sitting on/is brooding eggs’
- 5b kùxúk-àndìḡ bìḡá-cà
 hen-ACT IPF.brood-ABS
 ‘the hen is sitting on (eggs)/is brooding’
- 5c kùxúk kàbìḡ gìl
 hen PF.brood eggs
 ‘the hen has sat on/has brooded eggs’
- 5d kùxúk kàbìḡ-zà
 hen PF.brood-ABS
 ‘the hen has sat on (eggs)/has brooded’

5. 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 Mubarak (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	-e	-i
Perfective	-diḡ	-za
Habitual	-i/y	-ca
Progressive	-o	

Table 7. Laggori verb aspects (*After* Alamin Mubarak 2013)

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

– *Imperfective*: “[...] the suffix **-ccv** (-ccà, -cci, -ccà) [...] 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 [...].”

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

In addition, the above suspected incompatibility between Imperfective and Intensive seems to be confirmed by the way Alamin Mubarak (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

6. Daju Sila (‘western’ Daju)

6.1. Morphology

As illustrated in Tables 8-9, what I preferably call a **-CA/SA** extension in the case of Daju Sila is complementarily realised as **-c(a/i)** in the Imperfective, and as **-sa/i** in the Perfective.⁸

Note that, just as in Shatt Damam above (Section 4.1, Tables 4-5), the ‘bare’ Imperfective forms P1d/e, P1i, and P2 integrate a likely extension **-di/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 below).

	Imperfective (/INTS ?)	Imperfective-CA/SA	Perfective	Imperative (/CA/SA ?)
S1	ànoóro	ànoóro- cá	kánoóri	–
S2	inoóro	inoóro- cá	kinóóri	òorá
S3/SN	òoro	òora- cá	kònòori	–
P1d/e	òorí- dì	òorí- cì	kònòori	–
P1i	òorí- dé	òorí- cé	kònòoré	–
P2	inoóri- d-àŋ	inoóri- c-àŋ	kinóoràŋ	òorì- c-ìnná
P3/PN	òorâ	òorì- c-íŋ	kònòorâ	–

Table 8. Daju Sila *òòràkè* ‘to see’

	Imperfective	Ipf.-CA/SA	Pf.-CA/SA (/CA/SA ?)	Pf.-INTS
S1		àláŋà- cá	kàláŋ- sà	kàláŋ- dì
S2		iláŋà- cá	kiláŋ- sà	kiláŋ- dì
S3/SN	làŋé	làŋà- cá	kàlàŋ- sà	kàlàŋ- dì
P1d/e		làŋí- cì	kàlàŋ- sí-cì	kàlàŋ- dì
P1i		làŋí- cé	kàlàŋ- sí-cé	kàlàŋ- dé
P2		iláŋí- c-àŋ	kiláŋ- sì-c-àŋ	kiláŋ- d-àŋ

⁷ Manfredi (unpubl.), on his side, does not mention any kind of intensive or pluractional verb form.

⁸ 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, 13).

P3/PN		lànì- c -íṅ	kàlànṅ- sì-c -íṅ	kàlànṅ- dà
	Imperative- CA/SA			
S2	lànṅ- sà			
P2	lànì- c -inná			

Table 9. Daju Sila *lànàkè* ‘to sing’

Tables 9-10 also show, in all plural forms of the Perfective, a situation of double suffixation by **-CA/SA** that is realised as **-sì-cì/e/-**, possibly varying with **-sì-sì/e/-**. This combination affects also the Imperative P2 in Table 10.

	Imperfective	Ipf.- CA/SA	Perfective- CA/SA (/-CA/SA ?)	Perfective- INTS
S1		ásàà- cá	kàsáy- sà	kàsáy- dì
S2		ísàà- cá	kìsáy- sà	kìsáy- dì
S3/SN	sàyé	sàà- cá	kàsáy- sà	kàsáy- dí
P1d/e		sáá- cì	kàsáy- sì-cì ~ kàsáy- sì-sì	kàsáy- dì
P1i		sáá- cé	kàsáy- sì-cé ~ kàsáy- sì-sé	kàsáy- dé
P2		ísàà- c-ánṅ	kìsáy- sì-c-ánṅ ~ kìsáy- sì-s-ánṅ	kìsáy- d-ánṅ
P3/PN		sàà- c-íṅ	kàsáy- sì-c-íṅ ~ kàsáy- sì-s-íṅ	kàsáy- dà
	Imperative- CA/SA (/-CA/SA ?)			
S2	sày- sà			
P2	sày- sì-c -inà ~ sày- sì-s -inà			

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).

	Ipf. (-CA/SA)	Ipf.- CA/SA	Perfective	Imperative
S1	àndágè		kàndág	–
S2	ìndágè		kìndág	ndàgà
S3/SN	ndágé	ndàgà- cá	kàndág	–
P1d/e	ndàgí- cì		kàndáḡì	–
P1i	ndàgí- cé		kàndágé	–
P2	ìndáḡì- c-ánṅ		kìndáḡàṅ	ndàḡàṅ
P3/PN	ndàḡì- c-íṅ	ndàḡì- c-íṅ	kàndàkkà	–

Table 11. Daju Sila *ndàgàkè* ‘to chop’

As shown in Table 12 this marking tends to replace the (Intensive?) extension **-dì/e/-** that is usually displayed in P1d/e, P1i, and P2 (e.g. in Table 8 above or Table 14 below: *dèlèkè*, *gèfèkè*).

	Imperfective (-CA/SA)	Perfective	Imperative
S1	àbàrrè	kàbàrrì	–
S2	ìbàrrè	kìbàrrì	bàrrá
S3/SN	bàrré	kàbàrrì	–

P1d/e	bàrrí- <i>c</i> ì (*bàrrí- <i>d</i> ì)	kàbàrrì	–
P1i	bàrrí- <i>c</i> é (*bàrrí- <i>d</i> é)	kàbàrré	–
P2	ibàrrí- <i>c</i> -àṅ (*ibàrrí- <i>d</i> -àṅ)	kibàrràṅ	bàrrìnà
P3/PN	bàrrí- <i>c</i> -ìṅ	kàbàrrâ	–

Table 12. Daju Sila *bàrràkè* ‘spend the evening’

Finally Intensive and *-CA/SA* may combine, in this order. As in Shatt Damam (Table 6 and examples 1b and 2b above), the Perfective *-CA/SA* is realised as *-c(a/i)* in this particular case:

	‘to season’		‘to lie’	
	Ipf. (/INTS ?)	(*Ipf.-INTS ?)	Ipf.-CA/SA	(*Ipf.-INTS-CA/SA ?)
S1	àbàlgè		àbàlgà- <i>cá</i>	
S2	ìbàlgè		ìbàlgà- <i>cá</i>	
S3/SN	ḡàlgé		ḡàlgà- <i>cá</i>	
P1d/e	ḡàlgí- <i>d</i> ì	*?	ḡàlgí- <i>c</i> ì	*?
P1i	ḡàlgí- <i>d</i> é		ḡàlgí- <i>c</i> é	
P2	ìḡàlgí- <i>d</i> -àṅ		ìḡàlgí- <i>c</i> -àṅ	
P3/PN	ḡàlgâ		ḡàlgí- <i>c</i> -ìṅ	
	Pf.	Pf.-INTS (/CA/SA ?)	Pf.-CA/SA	Pf.-INTS-CA/SA
S1	kàbàlgì	kàbàlgí- <i>d</i> ì		kàbàlgí- <i>d</i> ì- <i>cá</i>
S2	kìbàlgì			kìbàlgí- <i>d</i> ì- <i>cá</i>
S3/SN	kàbàlgí	kàbàlgí- <i>d</i> ì		kàbàlgí- <i>d</i> ì- <i>cá</i>
P1d/e	kàbàlgì		?	kàbàlgí- <i>d</i> ì- <i>c</i> ì
P1i	kàbàlgé			kàbàlgí- <i>d</i> ì- <i>c</i> é
P2	kìbàlgàṅ			kìbàlgí- <i>d</i> ì- <i>cá</i> -ṅ
P3/PN	kàbàlgâ	kàbàlgí- <i>d</i> ì- <i>c</i> -ìṅ (~ kàbàlgí- <i>d</i> â ?)		kàbàlgí- <i>d</i> ì- <i>c</i> -ìṅ
	Imperative	Imperative-INTS	Imperative-CA/SA	Imperative-INTS-CA/SA
S2	ḡàlgâ	?	ḡàlgà- <i>c</i> -àt	?
P2	ḡàlgànà		ḡàlgí- <i>c</i> -innâ	

Table 13. Daju Sila *ḡàlgàkè* ‘to season (dish); lie, tell a lie’

6.2. Properties

i.) The *-CA/SA* verb forms are clearly incompatible with a personal object index to the verbal predicate (6-8):

- 6a cée màjà-cè D. Sila *màjàkè* ‘be jealous (of)’
she S3.IPF.be_jealous-her
‘she envies her, she is jealous of her’
- 6b cée màjà-*cá*
she S3.IPF.be_jealous-CA/SA
‘she is jealous (in general), she behaves jealously’

- 6c *céé màjà-**cá**-cè
*she S3.IPF.be_jealous-CA/SA-her
- 7a sáá digâ-má D. Sila *digàkè* ‘strike’
they P3.IPF.strike-him
‘they strike him’
- 7b sáá dìgì-c-íṅ
they P3.IPF.strike-CA/SA
‘they are striking’
- 7c *sáá dìgì-c-íṅ-mà
*they P3.IPF.strike-CA/SA-him
- 8a ɓàṅà-kóskà D. Sila *ɓàṅàkè* ‘call’
S2.IMP.call-us[excl.]
‘call us (excl.)!’
- 8b *ɓàṅ-**sà**-kóskà
*S2.IMP.call-CA/SA- us[excl.]
- 9a kàwàṅ-àṅàṅ D. Sila *wàṅàkè* ‘pass, surpass’
S3.PF.surpass-me
‘he has surpassed me’
- 9b *kàwàṅ-s-àṅàṅ
*S3.PF.surpass-CA/SA-me
- ii.) However, they may appear in presence of a lexical object (10-16, no example for Perfective -SA, statistically rare, see below):
- 10 máá àṅgààl-ètkè úúdù-y-**cá** D. Sila *ùúdùyè* ‘plant, transplant’
S3 cassava-PL S3.IPF.plant-CA/SA
‘he is planting cassava plants’ (Ndj.)⁹
- 11 máá wàà-**cá** kùṅjè D. Sila *wààkè ~wàyè* ‘cultivate’
S3 S3.IPF.cultivate-CA/SA millet-PL
‘he is cultivating millet’
- 12 ùkúrg-ánà (wàlàà-gè) ɓòṅà-**cá** D. Sila *ɓòṅàkè* ‘sit on (egg), brood’
hen-DEF (egg-PL) S3.IPF.sit_on-CA/SA
‘the hen is brooding/sitting on eggs’
- 13 máá wèṅé (~ wèṅè-**cá**) fùgùdú-mà D. Sila *wèṅèkè* ‘look for’
S3 S3.IPF.look_for S3.IPF.look_for-CA/SA knife-his
‘he is looking for his knife’
- 14 wúr-g-énà èwéégè àskâ (~ àskì-**c-íṅ**) D. Sila *àskàkè* ‘tie’
woman-PL-DEF wood.PL P3.IPF.tie P3.IPF.tie-CA/SA
‘the women are tying the firewood’ (Ndj.)

⁹ The mention (Ndj.) indicates data collected in N’Djaména (footnote 1 above) that preferably reflect an SOV order.

- 15 máá cáácè digá (~ digà-*cá*) D. Sila *digàkè* ‘strike’
 he child S3.IPF.strike S3.IPF.strike-CA/SA
 ‘he is striking the child’
- 16a máá dèlé (~ dèlè-*cá*) ìbìrìw-nè D. Sila *dèlèkè* ‘fall (down); set up (trap)’
 S3 S3.IPF.set S3.IPF.set-CA/SA trap-SG
 ‘he is setting a trap’
- 16b sáá dèlâ ìbìrìw-nè
 P3 P3.IPF.set trap-SG
 ‘they are setting a trap’
- 16c sáá dèlì-*c-ín* ìbìrìw-gè
 P3 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*:¹⁰

- 17 m̀iyé mì-*cá* D. Sila *m̀ìkè* ‘pound’
 S3.IPF.pound S3.IPF.pound-CA/SA
 ‘s/he knows how to pound’ ‘s/he is pounding’
- 18 d̀ààyé d̀à-*cá* D. Sila *d̀ààkè* ‘wash’
 S3.IPF.wash S3.IPF.wash-CA/SA
 ‘s/he will wash’ ‘s/he is washing’
- 19 cóók-ánà wà̀nì-*c-ín* D. Sila *wà̀nàkè* ‘dance, play’
 children-DEF P3.IPF.play-CA/SA
 ‘the children are playing/having fun’
- 20 máá kàl wèèdé lànà-*cá* D. Sila *lànàkè* ‘sing’
 he when S3.IPF.walk S3.IPF.sing-CA/SA
 ‘when he walks, he sings/he is singing while walking’
- 21 k̀ìng-ánà k̀ì wíídè sùn-*c-ín* D. Sila *sùnàkè* ‘sleep’
 people-DEF in night P3.IPF.sleep-CA/SA
 ‘people sleep during the night’
- 22 máá fáábà wàlá lègé yèrè-*cá* D. Sila *yèrèkè* ‘think’
 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* under 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*).

¹⁰ In short pages devoted to Dar Sila Daju, Jungrathmayr (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’].

– the association Imperfective *-CA* / Perfective *-INTS* is characteristic of certain semantic specialisations in verbs as illustrated below (citation of S3 / P3 forms):

(Daju Sila)

Infinitive	Imperfective (<i>-CA</i>)	Perfective (<i>-INTS</i>)	
bàlgàkè	bàlgé / bàlgâ	kàbàlgí / kàbàlgâ	‘season (dish)’
	bàlgà- <i>cá</i> / bàlgì- <i>c-ín</i>	kàbàlgí- <i>dí</i> / kàbàlgí- <i>dí-c-ín</i> (~ kàbàlgí- <i>dà</i> ?)	‘lie, tell a lie’
dègèkè	dègé / dègâ	kèdèg / kèdèkkâ	‘kick; chew (tobacco); become sour’
	dègè- <i>cá</i> / dègì- <i>c-ín</i>	kèdèk- <i>tí</i> / kèdèk- <i>tâ</i>	‘clean the cotton (with bow)’
dèlèkè	dèlé / dèlì- <i>c-ín</i>	kèdèl / kèdèlà	‘fall (down); set (sun)’
	dèlè- <i>cá</i> / dèlì- <i>c-ín</i>	kèdèl- <i>dí</i> / kèdèl- <i>dâ</i>	‘set up (a trap)’
gèjèkè	gèjé / gèjì- <i>c-ín</i>	kègèj / kègèjà	‘hatch’
	gèjé, gèjà- <i>cá</i> / gèjì- <i>c-ín</i>	kègèj- <i>tí</i> / kègèj- <i>tâ</i>	‘bark, peel’
jègèkè	jègé / jègâ	kèjèg / kèjèkkâ	‘reach with stone or weapon’
	jègè- <i>cá</i> / jègì- <i>c-ín</i>	kèjèk- <i>tí</i> / kèjèk- <i>tâ</i>	‘sharpen by beating’

Table 14. Imperfective *-CA* / Perfective *-INTS*: lexical specialisation

7. 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 *-cà* and *-sà*, the author makes the following comments:

- *-cà* may be suffixed to Imperfective (*Forme I*) root bases or to Imperfective and Perfective (*Forme II*) bases already derived with *-d*, *-t*, *-dd* (the equivalent of Sila’s *-INTS*). In the latter case, they are mostly restricted to plural verb forms, with a possible distributive value (‘they do/did separately/independently’). [2011: 91-94]
- *-sà* is restricted to the Perfective (*Forme II*) and similar forms like the Imperative. [2011: 95-97]
- The *-cà* form may exist without an existing or employed corresponding *-sà* form.¹¹ [2011: 95]
- 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 also may express different semantic values of the verb. [2011: 97]

As for the *-d*, *-t*, *-dd* extensions, their compatibility with the Imperfective (Palayer’s *Forme I*) seems to be highly restricted. They may appear when combined with following *-cà* (2011: 111-112) but they are otherwise absent from the derived bases illustrating the Imperfective (2011: 103-105).

¹¹ “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 (*Forme II* = Perfective) is less frequent than the former (*Forme I* = Imperfective).

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.

8. Historical perspective

8.1. Antipassive function

The specific marking of transitive verbs used without an expressed object is usually known as *antipassivity*, a notion that was first formulated in the case of ergative languages. Polinsky (2017) 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 of both Shatt Damam and Laggori has clearly, and strictly speaking, an antipassive function.

In Daju Sila however, this property is limited to the specific case of personal object indices, a situation that I would consider as historically resulting from the former, rather than the reverse. Indeed the combinatory abilities of verbs with the close category of object indices 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 & 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 *-an-* is 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 (Section 6.2/iv.) above).

8.2. Decrease of ‘western’ Perfective *-SA*

Without losing sight of the limited and uneven representativeness of the data recorded in Shatt Damam and Daju Sila (footnote 1 above), the statistical evaluations displayed in Table 15 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 + <i>ABS</i>	38	Verbs + <i>-CA/SA</i>	114
Ipf. & Pf. + <i>ABS</i>	25	Ipf. & Pf. + <i>-CA/SA</i>	10
Ipf. only + <i>ABS</i>	7	Ipf. only + <i>-CA/SA</i>	101
		whole	6
		pl. subj. only	4
		whole	61

			pl. subj. only	40	
Pf. only + ABS	6	Pf. only + -CA/SA	3	whole	2
				pl. subj. only	1

N.B. Daju Sila -CA/SA extensions limited to plural subjects are counted separately

Table 15. Absolute (Shatt Damam) and -CA/SA (Daju-Sila) verb forms: lexical frequencies

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 a 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 Imperfective (7/38) or 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 Imperfective and Perfective but the greatest number of them (101/114) do so in the Imperfective only while instances of a -CA/SA suffixation in the Perfective only are extremely limited (3/114).

In other words, from Shatt Damam to Daju Sila the representativeness of Absolute(-like) extensions in the Imperfective is markedly increasing while it is drastically reduced in the Perfective.

Let us remind here the rarity of Perfective Absolute -sv noted by Manfredi (unpubl.) in the ‘eastern’ language Laggori (Section 4b above). It is not clear whether this scarcity is itself the result of a decrease and, if so, whether we have to deal here with the same historical reduction as for ‘western’ languages or, rather, with an independent and distinct development.

8.3. 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 6.1) compensated by b) the strong concentration of the -CA/SA extension in the same Imperfective (Section 6.1), 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 6.1), 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 value of ‘durative/habitual’ or ‘plural subject’ (Imperfective) and ‘intensive’ (Perfective) come together under the general label ‘associative’ that Bostoen & al. (2015) consider to be the source of the Bantu antipassive (see above).

8.4. Summary

However, if the semantic affinity ‘associative’/‘antipassive’ is relevant to me, 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 8.1) that such a historical perspective is more likely if we consider the incompatibility of -CA/SA markers with object indexes in Daju Sila. I will 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 treat them as resulting from a prior function of antipassive than the reverse.

If we agree with this view, the historical perspective on the Daju Absolute and -CA/SA extensions would be summarised as in Table 16 below:

[Table 16 somewhere here]

i.) Shatt Damam is, under this respect, the best representative of a common system: the Absolute form has always 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 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.) ‘Western’ languages Daju Sila and Daju Eref jointly undergo 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 in complementary distribution with the Perfective extended by *-INTS*.

If the label *absolute* – and even more *antipassive* – is not any more appropriate for ‘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 label for most cases but it still does 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.

9. Conclusion

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 1). 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 Laggori has been perturbed in a marked way: Laggori as a high-contact Daju variety.”

When looking back at the arguments called upon to justify this conclusion, it appears to me that they foremost concerned 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 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 one side and Daju Sila and Daju Eref on the other side 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 have been selected in the program of the French-Sudanese 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, Resp. Nicolas Quint & Abeer Bashir Trefi, 2019-2021, <https://sudanlinguisticarea.humanum.fr/index.html>).

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.

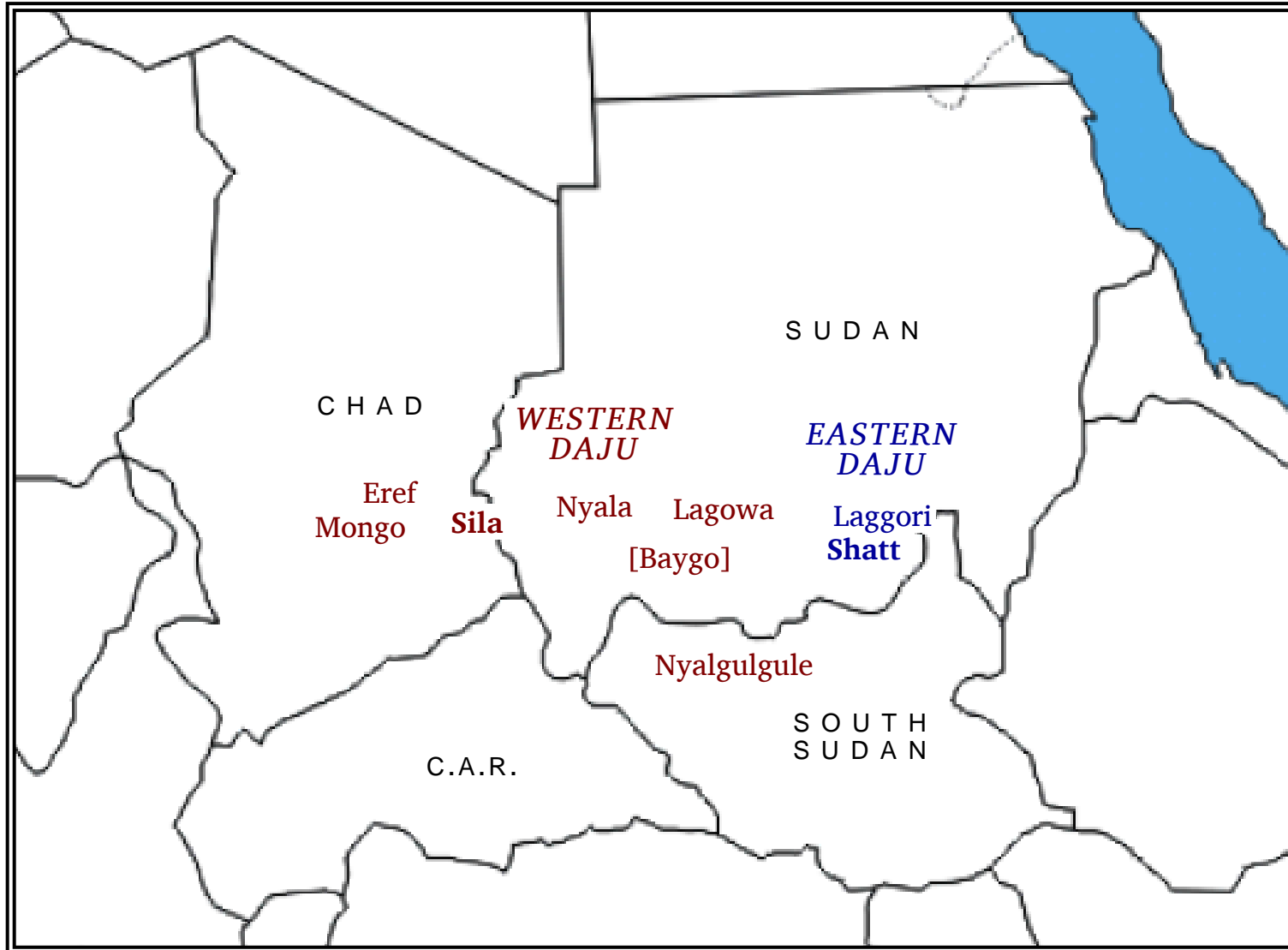
Symbols, glosses and abbreviations

*	not attested, ungrammatical	P1e, P1E	1 st person plural exclusive
ABS	Absolute	P1i, P1I	1 st person plural inclusive
ACT	Actualiser	P2, P2	2 ^d person plural
-CA/SA	-ca/-sa forms	PF, Pf.	Perfective
DEF	definite	PL	plural
IMP	Imperative	S2, S2	2 ^d person singular
INTS	Intensive	S3, s3	3 ^d person singular
IPF, Ipf.	Imperfective	S3f, S3F	3 ^d person singular feminine
Ndj.	data recorded in N'Djaména (Chad)	S3m, S3M	3 ^d person singular masculine
NEG	negation	S3n, S3N	3 ^d person singular neuter
P1, P1	1 st person plural	SG	singular
p1d, P1D	1 st person plural dual	SN	singular noun
P1d/e, P1D/E	1 st person plural dual/exclusive	SP	plural noun

References

- Alamin Mubarak, Suzan. 2006. An Initial Description of Laggori Noun Morphology and Noun Phrase. *Insights into Nilo-Saharan Language, History and Culture. Proceedings of the 9th Nilo-Saharan Linguistics Colloquium* (A. Abu-Manga, L. Gilley and A. Storch eds), Köln, R. Köppe Verlag (Nilo-Saharan 23), 9-25.
- . 2013. Verbs in Laggori. In T. Schadeberg & R. Blench (eds.), *Nuba Mountain Language Studies*. Köln: Rüdiger Köppe Verlag. 451-466.
- Bostoen, Koen, Sebastian Dom & Guillaume Segerer. 2015. The antipassive in Bantu. *Linguistics* 53 (4), pp.731-772.
https://www.researchgate.net/publication/282628956_The_antipassive_in_Bantu
- Boyeldieu, Pascal. 2009. The modified form of Shatt Damam nouns and its Daju cognates, *Afrika und Übersee*, 90, 9-84. <https://shs.hal.science/halshs-00348145>
- Boyeldieu Pascal & Stefano Manfredi. 2014. Daju verbal morphology with special focus on Laggori and Shatt Damam. *Nuba Mountain Languages Conference*, Aug. 2014, Paris, France.
- Greenberg, Joseph H., 1963, Languages of Africa, *International Journal of American Linguistics*, 29, 1, part II. [2nd ed.: 1966, *The Languages of Africa*, Indiana University, Bloomington, La Haye, Mouton]
- Jungrathmayr, Herrmann. 1981. Le Daju de Dar Sila (Waday, Tchad). In *Les langues dans le monde ancien et moderne* (dir. J. Perrot), 1^{re}-2^e parties (Afrique subsaharienne-Pidgins et créoles). Paris : CNRS. p. 277-281.
- Manfredi, Stefano. Unpubl. *Laggori verbal morphology - General remarks*. Fieldnotes Sudan 2006-2010. 9 p.
- Palayer, Pierre. 2011. *Grammaire du dadjo d'Eref (Tchad)*. Paris: Peeters (A&L 13).
- . 2017. *Dictionnaire du dadjo d'Eref (Tchad)*. Paris: Peeters (A&L 18).
- Polinsky, Maria. 2017. 'Antipassive'. In Jessica Coon, Diane Massam, and Lisa Demena Travis (eds), *The Oxford Handbook of Ergativity*. Oxford Handbooks. (online edn, Oxford Academic, 10 Aug. 2017: <https://doi.org/10.1093/oxfordhb/9780198739371.013.13>).
- Stevenson, Roland C. (1956/57). A survey of the phonetics and grammatical structure of the Nuba mountain languages, with particular reference to Otoro, Katcha and Nyimang ; parts 1-2. *Afrika und Übersee* 40., pp. 73-84, 93-115.
- . 1964. Linguistic research in the Nuba Mountains–II. *Sudan Notes and Records* 45, pp. 79-102.
- Thelwall, Robin. 1981a. Systematic Phonetics, Lexicostatistics and Lexical Reconstruction. Ph. D dissertation, University of Ulster.

- . 1981b. Lexicostatistical Subgrouping and Reconstruction of the Daju Group. In T. Schadeberg & L. Bender (eds.), *Nilo-Saharan: Proceedings of the First Nilo-Saharan Linguistics Colloquium, Leiden, September 8–10, 1980*. Foris: Dordrecht 1981. 167-184
- Tucker Archibald N. & Margaret A. Bryan, 1956. *The Non-Bantu Languages of North-Eastern Africa* (with a Supplement on *The Non-Bantu languages of Southern Africa* by E.O.J. Westphal), London-New York-Cape Town, OUP for IAI.
- . 1966. *Linguistic Analyses, The Non-Bantu Languages of North-Eastern Africa*. London-New York-Cape Town, OUP for IAI.



Based on a map of Africa from: <http://d-maps.com/index.php?lang=fr>

Map 1. Daju languages: approximate location

	Laggori	'Eastern' Daju		Lagowa	'Western' Daju		Eref	
		Shatt Damam <i>simple</i> >	<i>modified</i>		Nyala	Sila		
<i>sg.</i> <i>/ pl.</i>	ux, wuxe / uxi, uxu	ùx > / ùxù >	ùxì / ùxúggì	wure, worre / wuruke	wəre / (boŋje)	wùrè / wúrgè	ùré / úrgé	'woman, wife'
<i>sg.</i> <i>/ pl.</i>	au	òw > / òttà >	óodì / òttággì	ote / 'ottake	ode	òdè / òttígè	òdé / óttìgé	'place'
<i>sg.</i>	maalasə	màlàs >	/ málástì	malashte	malaʃte		málástè	'spear'
<i>sg.</i> <i>/ pl.</i>	moxta / moxtu	mòxtà > / mòxtù >	mòxtáni / mòxtúggì	mortane / mortuke	murtane / murtuge	múrtè(-ne) / mùrtìgé	múrtiné / mòrtìgè	'horse'

Table 1. Daju nouns compared (*Source*: Boyeldieu 2009)

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

*Limited examples; IPF **-dìŋ** = Intensive+Transitive?

N.B. 1. Extensions may be more or less lexicalized, according to their identity and according to the language.

2. At least Intensive+Absolute and Intensive+Medio-passive may combine, in these orders.

Table 3. Daju languages: verbal extensions compared (*Source*: Boyeldieu & Manfredi 2014)

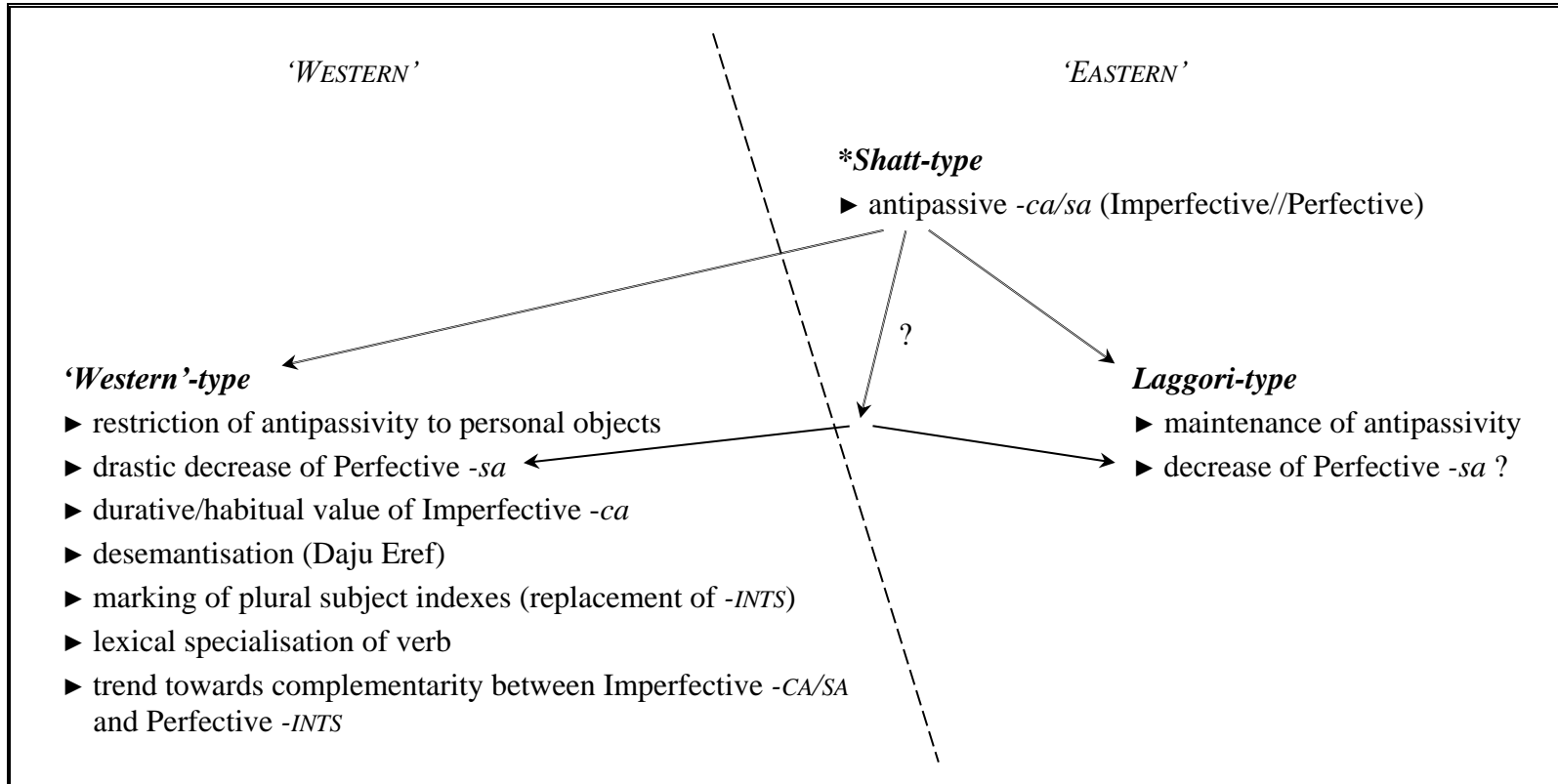


Table 16. Daju Absolute or *-CA/SA* verb extension: historical perspective