

## Central Delta languages: An overview<sup>1</sup>

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### Abstract

This paper presents an overview of the phonology, morphology and syntax of Central Delta languages. It also provides information on the geo-linguistic, demographic and sociolinguistic situation of these languages. It notes that Central Delta languages have a 20-vowel system, which divides into two sets of 10 vowels distinguished by pharyngeal size. The consonant systems of these languages range between 22 and 27, showing alternation between some pairs of consonants. Central Delta languages are noted to be rich in nominal and verbal morphologies, showing evidence of prefixal noun classification and morphological marking of nominal and verbal categories. The pronominal systems of these languages make a three-way number-person-case distinction with some of them formally distinguishing between inclusive and exclusive in their first-person plural forms. Common syntactic features observed in these languages include subject–object–verb basic word order and serial verb constructions. The paper highlights the fact that mother-tongue speakers of Central Delta languages also speak one or more other languages and that the daily exposure of Central Delta languages and their speakers to more powerful languages around them makes them endangered. Furthermore, the paper recommends that a survey be undertaken to determine the level of endangerment of Central Delta languages.

**Keywords:** Nigeria, Central Delta languages, nominal and verbal systems, morphology, language endangerment

### 1. Introduction

This paper aims at presenting an overview of the phonology, morphology and syntax of Central Delta languages, including some information on the geo-linguistic, demographic and sociolinguistic situation of these languages. It is divided into six sections. Section 1 introduces the aim of the study and presents geo-linguistic and demographic information and the sources of data. In section 2, information on the linguistic classification and sociolinguistic situation of Central Delta languages is provided. The phonological,

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morphological and syntactic overviews of these languages are respectively presented in sections 3 to 5, while the conclusion is presented in section 6.

In general, outside of the pedagogical materials published by the Rivers State Readers Project<sup>2</sup> in and about some of these languages, there is a dearth of literature in and about Central Delta languages in comparison with neighbouring languages, such as Degema (a Delta Edoid language), Kalabari (an Eastern Ijo language) and Izon (a Central Ijo language). For a partial listing<sup>3</sup> of the literature available in and about Central Delta languages, see Table 1.

The earliest comparative study (mainly lexical comparison) of Central Delta languages is probably Wolff (1959, 1969), in which he lumps Abuan, Oduval and Ogbia into what he refers to as “Abuan – Central branch of Niger-Congo”. Adoki (2002) describes the sound system of Abuan, Ezech (2008, 2016) deals with the nominal and verbal morphology of Abuan, while Woodman (1983) is on affixation in Abuan. Comson (1987) is a detailed description of the phonology of Oduval. Alex (1989) is the major unpublished comparative study dealing with the reconstruction of the segmental phonology of Proto-Central Delta. Other studies are Faraclas (1989), which is also comparative in nature but looks at a larger group, namely Cross River,<sup>4</sup> and highlights some of the features that are common to the group as a whole. Blench (2008) represents a broader attempt to gather the scattered data on the Cross River languages, including Central Delta languages (Blench 2008:iii), even though sections on the phonology, morphology and syntax of Central Delta languages are virtually empty in his documentation.

Although the present study, like Alex (1989), Blench (2008), Faraclas (1989) and Wolff (1959, 1969), is a comparative attempt of some sort, it presents a synchronic analysis of this group of languages, like Adoki (2002), Blench (2008), Comson (1987), Ezech (2008, 2016), Faraclas (1989), Wolff (1959, 1969) and Woodman (1983).

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<sup>2</sup> The Rivers Readers Project was a project undertaken from the late 1960s to the late 1970s by the Rivers Readers Committee in collaboration with the then Rivers State Government with the aim of designing orthographies, primers and other pedagogical materials for use in schools in the various communities in the old Rivers State, which included communities in the present Bayelsa State of Nigeria. The Rivers Readers Committee was chaired by Professor Ebiegeberi J. Alagoa. Other members of the committee were late Professor Kay Williamson and Professor Otonti A. Nduka and members of the various local language committees. The Rivers Readers Project was reintroduced in 2008 as the Rivers State Readers Project by the Rivers State Government with Dr Tony Enyia as the executive secretary/chief executive officer.

<sup>3</sup> There may be materials in and/or about these languages that are either inaccessible or unavailable to the researcher.

<sup>4</sup> The Central Delta languages are classified as a subgroup of Cross River (cf. Faraclas 1989, Williamson 1989b and Williamson and Blench 2000). However, recently Connell, Villa and Nara (2015) and Connell (2016) have posited that these languages do not belong to Cross River but comprise a group that is older than Bantoid Cross and coordinate with Jukunoid, Platoid, etc. within the East Benue-Congo sub-family.

**Table 1: A partial listing of literature available on Central Delta languages<sup>5</sup>**

Language name	Available literature
<b>Abua</b>	Adoki (2002); Blench (2008); Ezech (2008, 2016); Gardner (1973, 1980); Gardner and Gardner (1966, 1971, 1973); Gardner Azugha, Moopho and Ofori (1972); Hargrove (2009); Kari and Joshua (2011); Joshua (2006); Omu (1993); Otto (2000); United Bible Society (1974, 1978); Wolff (1959, 1969); Woodman (1983); Woy (1985)
<b>Ođual</b>	Abigo and Gardner (1974); Abigo, Gardner and Gardner (1975); Blench (2008); Comson (1987); Gardner, Gardner and Abigo (1974); Gardner (1975); (Kari (2007a, 2007b, 2009, 2011); Madumere (2006); Wolff (1959, 1969)
<b>Kugbo</b>	Blench (2008)
<b>Aḃureni (Mini)</b>	-- <sup>6</sup>
<b>Ọgbiḃa</b>	Blench (2008); Isukul (1986, 2002, 2007); Williamson (1970, 1972); Wolff (1959, 1969)
<b>Ogbrọṇuagum</b>	Alex (1987, 1989); Kari (2000)
<b>Obulom</b>	Blench (2008); Ngeripaka (2000)
<b>Ọchichḃi<sup>7</sup></b>	Achonwa (1981)
<b>Ogbogolo</b>	Francstan (1995); Olibie (1994)

The data for the present study were collected from some of the accessible previous works on Central Delta languages. Data were mainly obtained from Alex (1989), Francstan (1995), Gardner et al. (1974), Isukul (2007), Kari (2000, 2007a, 2007b, 2009), Kari and Joshua (2011), Lewis, Simmons and Fennig (2016), Ngeripaka (2000) and Olibie (1994). The Central Delta languages on or about which linguistic research materials were available for this study are Abuan, Ođual (Saka), Ọgbiḃa (Ọgbinya), Ogbrọṇuagum (Bukuma), Obulom (Abuloma), and Ogbogolo (Obogolo). Due to a lack of research materials or adequate research materials at the time of writing this paper, Kugbo, Aḃureni (Mini) and Ọchichḃi are excluded from the discussion in the core areas of linguistics. Also due to a lack of adequate research materials and data, it is not possible to provide illustrative examples from all the languages surveyed to support some of the generalisations that are made in the paper. Needless to say, further data are needed on these languages.

In Table 2, we present the only data available to us on Ọchichḃi from Ndimele (2003:13) in which numerals 1-5 in this moribund language are compared with those of other Central Delta languages.

<sup>5</sup> See also the Open Language Archives Community (OLAC) at <http://www.language-archives.org/language/>.

<sup>6</sup> There are no data available on Aḃureni.

<sup>7</sup> We are aware of the existence of a manuscript on Ọchichḃi (Achonwa 1981), which no doubt is a valuable research material on this moribund language, but we do not as yet have access to it in part or in whole. The pieces of information and limited data we have on Ọchichḃi in this paper are from secondary sources, Ndimele (personal communication) and Ndimele (2003), which compare numerals 1-5 in Ọchichḃi with those of Echie, Abuan, and Obulom, establishing that Ọchichḃi is genetically related to Central Delta languages rather than to Echie, an Igboid lect (see Table 2). According to Ndimele, personal communication, “Bro Achonwa was the first to report about the existence of Ọchichḃi in Etche. He collected a basic wordlist of 100 items with an introductory note in a manually-typed manuscript. It was in his note that he mentioned the relationship of Ọchichḃi with Echie and Obulom”. Also as Blench (2008:3) remarks, “from the few words collected Ọchichḃi appears to be related to Obulom, a Central Delta language in turn related to Abua”.



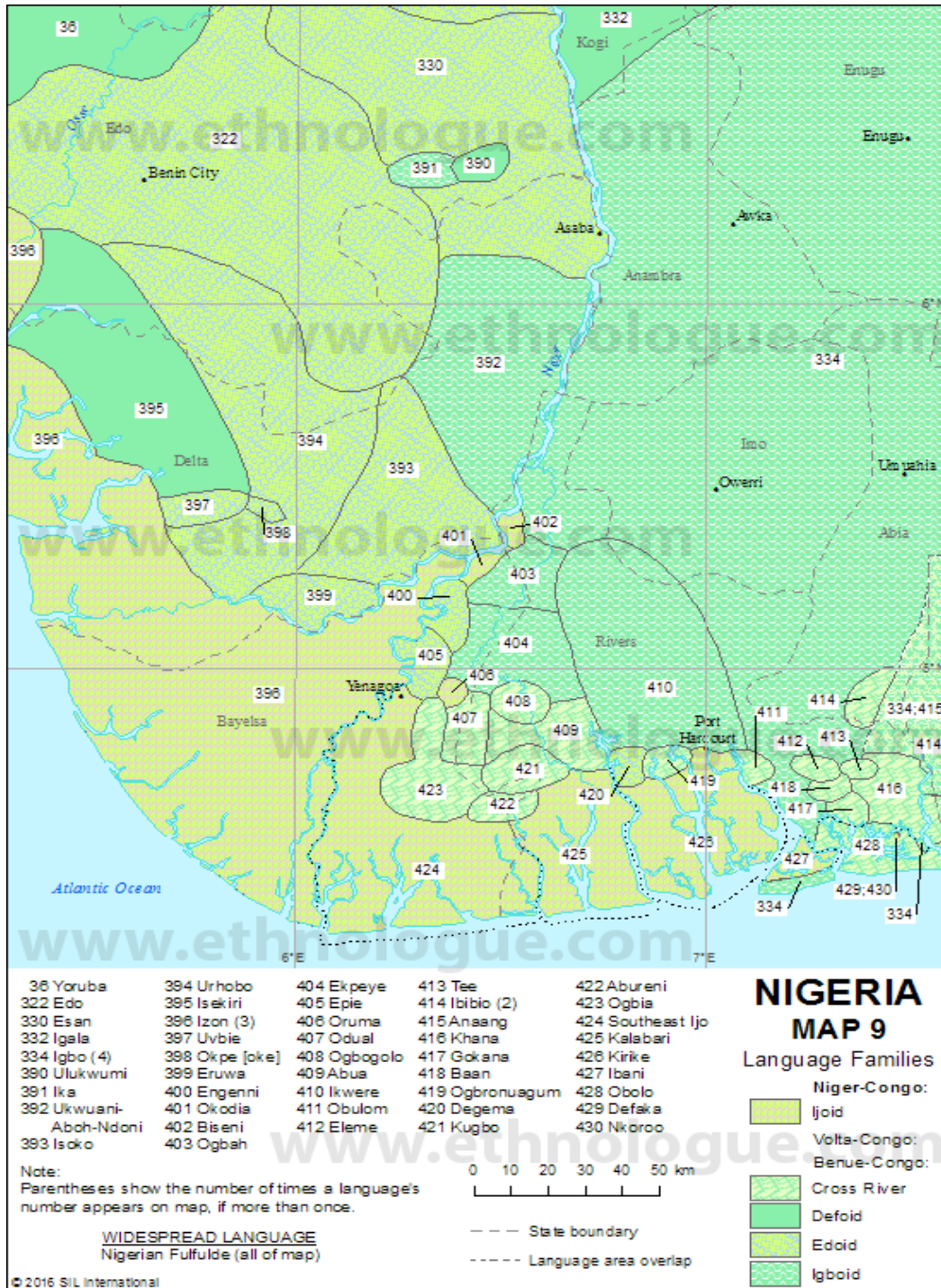


Figure 1: Map showing the geographical location of Central Delta languages (Lewis et al. 2016).<sup>10</sup>

<sup>10</sup> The locations of Central Delta languages in Figure 1 are assigned the following numbers: Abua (409), Abureni (422), Kugbo (421), Obulom (411), Ochichi (not on the map), Odual (407), Ogbia (423), Ogbronuagum (419), Ogbogolo (408).

## 2. Background

The Central Delta languages are a subgroup of East Benue-Congo within the Niger-Congo phylum (cf. Williamson 1989a, Williamson and Blench 2000). They are spoken in the Niger Delta of southern Nigeria in enclaves largely surrounded by speakers of Ijoid languages, such as Kalabari, Kiriķe (Okrika) Nembe, Izon and Biseni. Thus, speakers of Central Delta languages speak one or more other languages in addition to their mother tongues. For instance, speakers of Ogbr̄on̄agum are bilingual in Ogbr̄on̄agum and Kalabari, a neighbouring Eastern Ijo language. Obulom speakers are bilingual in Obulom and Okrika, a neighbouring Eastern Ijo language. The Kugbo people speak Kugbo and Nembe, an Eastern Ijo language, in addition to Odūal and Ogbija (Kolo Creek). In addition to the neighbouring languages spoken by mother tongue speakers of Central Delta languages, younger generations of speakers also speak English and Nigerian Pidgin, which has a much wider currency and is a language of preference among young people.

The linguistic situation in the Delta area, where Central Delta languages are spoken, is such that these languages are exposed daily to the influence of politically and economically more powerful Ijo and other languages that exert pressure on them, thus putting them on the list of endangered languages. Ochiķi, a moribund Central Delta language spoken by the people of Ikwerrengwo and Umuebulu in the Etche Local Government Area of Rivers State and in some parts of Abia State of Nigeria, is a case in point (Ndimele, Kari and Ayuwo 2009:74). Ochiķi speakers have been completely swallowed up by the language and culture of the Etche people, who are speakers of Echie, an Igboïd lect (cf. Ndimele 2003). This is the fate that awaits smaller Central Delta languages in the foreseeable future. Having said this, it is recommended that a survey be undertaken to assess or determine the degree of endangerment of Central Delta languages.

## 3. Phonological overview of Central Delta languages

In what follows, we examine aspects of the phonology of Central Delta languages, such as vowels and consonant systems, syllable and morpheme structures, and tonal systems, highlighting the features that are common to these languages.

### 3.1 Vowels

The Central Delta languages on which data are available for the present study operate a 10 single-vowel /i, ɪ, e, ɛ, a, ə, ɔ, o, ʊ, u/ and a 10 double-vowel /ii, ɪɪ, ee, ɛɛ, aa, əə, ɔɔ, oo, ʊʊ, uu/ system, totalling 20 vowels (cf. Abuan: Gardner 1980, Kari and Joshua 2011; Obulom: Ngeripaka 2000; Odūal: Kari 2009, 2011; Ogbija: Isukul 2007; Ogbogolo: Olibie 1994, Francstan 1995; and Ogbr̄on̄agum: Alex 1987, Kari 2000). In these languages, there is a contrast between short and long vowels /i : ii, ɪ : ɪɪ, e : ee, ɛ : ɛɛ, a : aa, ə : əə, ɔ : ɔɔ, o : oo, ʊ : ʊʊ, u : uu/. There are also sequences of vowels (identical and non-identical) in these languages. Inherently nasalised vowels are not attested in Central Delta languages. Nasalised vowels are phonetic, as they are only found in the environment of nasal consonants (cf. Faraclas 1989:388). Table 4 shows the contrasts that exist between long and short vowels in the two Central Delta languages of Abuan and Odūal.

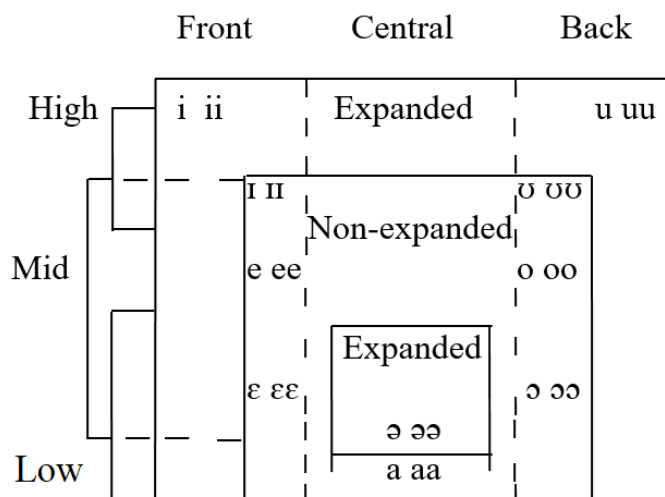
**Table 4: Long and short vowel contrasts in Central Delta languages**

Abuan (Kari and Joshua 2011:5)			Oḍual (Kari 2011:92f)		
i and ii	<i>kík</i>	“resemble”	i and ii	<i>ìbí</i>	“sequins”
	<i>kííy</i>	“kill”		<i>ìbí</i>	“good”
ɪ and ɪɪ	<i>mín</i>	“swallow”	ɪ and ɪɪ	<i>íyór</i>	“saliva”
	<i>míín</i>	“see”		<i>íí<sup>+</sup>yó</i>	“grass”
e and ee	<i>èkú</i>	“spoon”	e and ee	<i>ègí</i>	“(of things) many”
	<i>éékù</i>	“bottle”		<i>èégì</i>	“knee”
ɛ and ɛɛ	<i>ḍḍlèm</i>	“Creator”	ɛ and ɛɛ	<i>èbá</i>	“bag”
	<i>ḍlèèm</i>	“beard”		<i>èé<sup>+</sup>bá</i>	“hand, foot”
ə and əə	<i>ɲám</i>	“wink”	ə and əə	<i>àḷgó</i>	“leaf”
	<i>ɲàḍəm</i>	“nostalgia”		<i>àḷgó</i>	“namesake”
a and aa	<i>ókàm</i>	“thatch”	a and aa	<i>álágbá</i>	“flag”
	<i>òkààm</i>	“maker”		<i>àláá<sup>+</sup>gbá</i>	“gun”
o and oo	<i>òlòy</i>	“law”	o and oo	<i>òló</i>	“is not”
	<i>òòlòy</i>	“wave”		<i>òò<sup>+</sup>ló</i>	“berry”
ɔ and ɔɔ	<i>ḍlèèm</i>	“beard”	ɔ and ɔɔ	<i>ḍgá</i>	“egg”
	<i>ḍḍlèm</i>	“Creator”		<i>ḍḍgá</i>	“shrimp”
u and uu	<i>òkú</i>	“contribution”	u and uu	<i>úbá</i>	“shade”
	<i>òòkùùy</i>	“wind”		<i>ùú<sup>+</sup>tá</i>	“(of weather) cold”
ʊ and ʊʊ	<i>ìnón</i>	“birds”	ʊ and ʊʊ	<i>ḍḍ<sup>+</sup>nó</i>	“water pot”
	<i>nòòn</i>	“quickly”		<i>ḍnòór</i>	“dry season”

Vowel harmony is present in all Central Delta languages (see Table 4). The vowel harmony found in these languages is the type known as advanced tongue root [ATR]<sup>11</sup>, where the size of the pharynx plays a crucial role in distinguishing the vowels. Based on the size of the pharynx, a distinction is made between advanced tongue root [+ATR] vowels (vowels made with the root of the tongue pushed forward with a simultaneous lowering of the larynx) and non-advanced tongue root [-ATR] vowels (vowels made with the root of the tongue pulled backwards with a simultaneous raising of the larynx). The [+ATR] vowels are /i, ii, e, ee, ə, əə, o, oo, u, uu/, while the [-ATR] vowels are /ɪ, ɪɪ, ɛ, ɛɛ, a, aa, ɔ, ɔɔ, ʊ, ʊʊ/. The [±ATR] harmony that occurs in these languages is feature-driven, as the [±ATR] feature of vowels of the base spreads on to prefixes and suffixes that attach to the base, causing them to harmonise with the base. The [±ATR] contrast is carried over to the length contrast in these languages, i.e. short and long vowels show vowel harmony. In most cases, vowels from opposing sets do not co-occur in simple words. Compound and (recently) borrowed words are exceptions to the pervasive vowel harmony rule, as [+ATR] and [-ATR] vowels are found to co-occur in such

<sup>11</sup> Abbreviations used in this paper are: 1SG = first-person singular, 2SG = second-person singular, 3SG = third-person singular, 1PL = first-person plural, 2PL = second-person plural, 3PL = third-person plural, 1SGS = first-person singular subject, 3SGS = third-person singular subject, aff = affix(es), ATR = advanced tongue root, C = consonant, CM = concord marker, DEF = definite article, DIST = distal, emph. = emphatic, excl./EXCL = exclusive, FACT = factitive, fut. = future, incept. = inceptive, incl./INCL. = inclusive, IPA = International Phonetic Alphabet, NP = noun phrase, num. = number, O = object, oblig. = obligative, OFOC = object focus marker, OM = object marker, PAST = past, PERF = perfect, pers. = person, pl = plural, PN = personal name, poten. = potential, pref = prefix, pres/PRES. = present, prog/PROG. = progressive, pron. = pronoun, PROX = proximal, Q = question, SG = singular, SUBJ.PREF. = subject prefix, SVC = serial verb construction, V = vowel, verb.

words. In Oduál, there are a few words (*àlàkè* “leg”, *óbéβ* “cultivate”), most of which contain the vowel /E/, in which there is co-occurrence of both [+ATR] and [-ATR] vowels so that there is no vowel harmony (Gardner et al. 1974:9; Gardner 1975:15; Kari 2009:5).



**Figure 2: Phonemic vowel inventory of Central Delta languages<sup>12</sup>**

### 3.2 Consonants

The number of consonants in Central Delta languages ranges from 22 in Obulom (Ngeripaka 2000) to 27 in Ogbogolo (Olibie 1994; Francstan 1995). Oduál and Ogbija have 24 consonants each (Gardner et al. 1974; Comson 1987; Isukul 2007), Ogbronuagum has 25 (Kari 2000), while Abuan has 26 (Kari and Joshua 2011). The following is an inventory of consonants in the Central Delta languages for which data is available for this study: /m, n, ɲ, ŋ, ŋm, ŋ<sup>w</sup>, p, b, t, d, k, g, kp, gb, ɸ, β, f, v, s, z, ʃ, ʒ, h, ħ, l, j, w/.

**Table 5: Phonemic consonant inventory of Central Delta languages**

Place of articulation ⇒ Manner of articulation ↓	Bilabial	Labio-dental	Alveolar	Palatal/ Velar	Velar	Labial- velar	Labialised- Velar/Glottal
<b>S</b> Nasal	m		n	ɲ	ŋ	ŋm	ŋ <sup>w</sup>
<b>T</b> Plosive	p b		t d		k g	kp gb	
<b>O</b>							
<b>P</b> Implosive	ɸ		ɖ				
<b>S</b> Trill/Roll			r				
Africate			dʒ				
<b>FRICATIVE</b>	ɸ β	f v	s z	ʃ	ʒ		h (ħ)
<b>APPROXIMANT</b>			l	j		w	

<sup>12</sup> Figure 2, adapted from Kari (2000:3), illustrates the ATR type of vowel harmony in Central Delta languages. The large box represents an expanded pharynx [+ATR], while the small box represents a non-expanded pharynx [-ATR]. The smaller box, which also represents an expanded pharynx [+ATR], is placed inside the small box to show the symmetrical arrangement of the vowels. The vertical broken lines demarcate front, central and back vowels.



From the total number of consonants listed against each of the six languages mentioned above (Abuan, Obulom, Oḍual, Ogbija, Ogbogolo and Ogbr̩ṇuagum), it is obvious that not one of the Central Delta languages has all consonants in the inventory. In this regard, Abuan has all consonants except /ŋʷ, ɸ, z, ʃ, h, ħ/; Obulom has all consonants except /ŋ, ŋm, ŋʷ, ɸ, v, z, ʃ, ʎ, ħ/; Oḍual has all consonants except /ŋm, dʒ, ɸ, ʃ, h, ħ/; Ogbija has all consonants except /ŋm, ɸ, ʃ, h, ħ/; Ogbogolo has all consonants except /ŋm, ŋʷ, h, ħ/; and Ogbr̩ṇuagum has all consonants except /ŋm, ɸ, β, z, ʃ, h/.

An interesting feature of Central Delta languages, as far as consonant systems are concerned, is the alternation between some of the consonants. There are different inventories for stem-initial as opposed to stem-medial/final consonants. Such inventories for stem-initial vs. stem-final consonants are not found in Obulom and Ogbija, at least not in the data obtained from the source materials on these languages. The alternations between some of these consonants are noted in Abuan (Gardner 1980:xf.), Ogbr̩ṇuagum (Alex 1987:66; Kari 2000:28f.) and in Oḍual (Madumere 2006:47ff; Kari 2009:10ff.). In Ogbr̩ṇuagum and Oḍual, alternations are observed to occur in words between the pairs of consonants [t] and [r] and [k] and [ʎ], depending on their position in the words in which they occur. It is observed that the consonants [t] and [k] occur word-initially in imperatives in Ogbr̩ṇuagum and Oḍual. However, when these consonants occur intervocally, i.e. when they are preceded by the infinitive vowel prefix, [t] becomes [r] and [k] becomes [ʎ] in both languages. As in Ogbr̩ṇuagum and Oḍual, alternations are observed to occur in words in Abuan between the following pairs of consonants: [t] and [r] and [k] and [ʎ]. Alternations also occur between [p] and [w] in Ogbr̩ṇuagum and between [p] and [β] in and Oḍual:

(1) **Abuan**

Alternation between [t] and [r]  
*àbìdí kò-tú* “they will come” ~ *àbìdí mó-rúù* “they have come”

Alternation between [k] and [ʎ]  
*jóór kà-kí* “we will go” ~ *jóór mɔ-ʎì* “we have gone”

(2) **Oḍual**

Alternation between [p] and [β]  
*pùrɔ́* “stink” ~ *óβúrɔ́* “to stink”

Alternation between [t] and [r]  
*tùʎéél* “return” ~ *óruʎéél* “to return”

Alternation between [k] and [ʎ]  
*kíràán* “turn around” ~ *óʎíráán* “to turn around”

(3) **Ogbr̩ṇuagum**

Alternation between [p] and [w]  
*pàrà* “reply” ~ *àríwáàrà* “to reply”

Alternation between [t] and [r]			
<i>tèlè</i>	“walk”	~	<i>àrírèlè</i> “to walk”
Alternation between [k] and [ɣ]			
<i>kìlè</i>	“do”	~	<i>àrɪɣùlè</i> “to do”

However, exceptions occur between these alternating pairs of consonants in Oḍual (Kari 2009:10f) and Ogrɔ̀nɔ̀gum (Kari 2000:28f) respectively. In Oḍual, exceptions are found to exist between the pairs [p] and [β], [t] and [r], and [k] and [ɣ], as illustrated in (4), (5) and (6), respectively.

(4)	<i>pùú</i>	“surpass”	~	<i>ópú</i>	“to surpass”
	<i>pìpìíβ</i>	“lick”	~	<i>ópííβ</i>	“to lick”
	<i>pèél</i>	“jump”	~	<i>ópéél</i>	“to jump”
(5)	<i>tò̀nmàán</i>	“follow”	~	<i>ótó̀nmán</i>	“to follow”
	<i>tò̀tò́á</i>	“remember”	~	<i>ótótó́á</i>	“to remember”
	<i>tò́yá</i>	“learn”	~	<i>ótó́yá</i>	“to learn”
(6)	<i>kùl̀á̀n</i>	“touch (with hand)”	~	<i>ókùl̀á̀n</i>	“to touch (with hand)”
	<i>kòó</i>	“pluck (fruit)”	~	<i>ókó</i>	“to pluck (fruit)”
	<i>kàá</i>	“carve (wood)”	~	<i>óká</i>	“to carve (wood)”
	<i>kòtò̀n</i>	“untie”	~	<i>ókòtò̀n</i>	“to untie”

Similarly, in Ogrɔ̀nɔ̀gum, exceptions are found between the pairs [t] and [r], [p] and [w], and [k] and [ɣ], as illustrated in (7), (8) and (9), respectively.

(7)	<i>tòm</i>	“follow”	~	<i>àrɪ-tò̀m</i>	“to follow”
	<i>tòwá</i>	“learn”	~	<i>àrɪ-tò̀wà</i>	“to learn”
(8)	<i>pù̀rù</i>	“ask (question)”	~	<i>àrɪ-pù̀rù</i>	“to ask (question)”
	<i>pò̀m</i>	“cover (pot)”	~	<i>àrɪ-pò̀m</i>	“to cover (pot)”
(9)	<i>kùtò</i>	“pierce (ear)! ”	~	<i>àrɪ-kù̀tò</i>	“to pierce (ear)! ”
	<i>kò</i>	“build”	~	<i>àrɪ-kò̀</i>	“to build”

### 3.3 Syllable/morpheme structures

Alex (1989) shows that Central Delta languages have three basic syllable types: V, CV and CVC. A syllable of the type VC is also attested (see Kari 2009). A V syllable type consist of a vowel only, a CV type consists of a consonant and a following vowel, a CVC type consists of two consonants with an intervening vowel, while a VC type consists of a vowel and a following consonant. Syllabic nasals are attested in languages such as Abuan, Oḍual and Ogrɔ̀nɔ̀gum. Consonant clusters of the type CCV are attested, but these are surface structures that result from the deletion of an intervening vowel.

Noun prefixes in Central Delta languages predominantly have V(V)-, VC- and VCV(V)- forms. Longer forms, such as VCVmu- and VCVrU-<sup>13</sup>, are also attested in Oḍual, but these occur only in the plural (see Table 6). Verbal suffixes are basically -V, -VC, -CV, -VCV and -CVC forms (see Table 17).

**Table 6: The structure of noun prefixes in Central Delta languages**

Prefixes	Abuan (Gardner 1980)	Oḍual (Kari 2006, 2009)	Ogbrɔ̃nɔ̃agum (Kari 2000)
V(V)-	ò-wòl “leg” òò-kpò “bone”	à-dèvə “bees (swarm of)” àà-bàdì “iguana”	è-kpé “he-goat”
VCV(V)-	àró-yó “penises” àrúú-kùm “knees”	àrə-dèvə “bees (swarms of)” àrúú-dūúm “bushes”	àrù-gùnù “bellies”
VC-	– <sup>14</sup>	–	àw-rówrì “men”
VCVmu-	–	àsòmò-γèél “a kind of basket fish trap”	–
VCVrU-	àbùrù-dè “father”	àbòrò-màràní “sisters”	–

### 3.4 Tone

Alex (1989:24) remarks that “all Central Delta lects operate a basic two-tone system”. These tones are low tone, which is marked with a grave accent ( ` ), and high tone, which is marked with an acute accent ( ´ ). There is also a downstep phenomenon in these languages. The downstep is marked with a small arrow pointing downwards ( † ) between two high-toned syllables. Apart from the syllabic nasal, tone in these languages is anchored on vowels. Table 7 shows these tones and downstep as found in Abuan, Oḍual and Ogbrɔ̃nɔ̃agum.

**Table 7: Tones in Central Delta languages**

Abuan (Kari and Joshua 2011:8)		Oḍual (Kari 2009: 9, 12)		Ogbrɔ̃nɔ̃agum (Kari 2000:9)	
òlòm	“husband”	ózu	“to pour”	égù	“fear”
òlò†m	“to bite”	òzu	“skin”	ègù	“louse”
ólóm	“paddle”	òó†bó	“bark of tree”	òní†ní	“one”

Like in lexical items, tone can distinguish grammatical constructions in Central Delta languages. In Oḍual, for instance, tone is found to distinguish between statements and questions (Kari 2009:12), as shown in (10):

- (10) a.   òdí   nə-kòdĩ.  
          3SGS   3SG.PRES PROG-sleep  
          “He is sleeping.”

<sup>13</sup> C and V represent underspecified consonant and vowel, respectively.

<sup>14</sup> An en-dash “–” indicates that noun prefixes with the structure in question are not attested in the language.

- (b) *òdí nà-kòdí.*  
 3SGS 3SG.PRES PROG.Q-sleep  
 “Is he sleeping?”

#### 4. Morphological overview of Central Delta languages

This section discusses the nominal and verbal systems of Central Delta languages. In particular, it looks at noun classification; concordial relationships; case marking; pronominal systems; and verb morphology, especially the marking of grammatical categories and verbal extensions.

##### 4.1 Nominal morphology

Central Delta languages show evidence of noun classification. Nominal morphology in these languages is characterised by the presence of prefixes. Nouns consist of a stem and a prefix, which in most cases agrees with the vowels of the stem in  $\pm$ ATR. Plural formation is essentially by a replacement of a singular marking prefix with a plural marking prefix. There are singular, plural and single class-marking prefixes, which do not have any plural counterparts. Single class-marking prefixes are associated with non-count nouns. The prefixes are of different shapes and lengths. They are semantically determined and form the basis for the classification of nouns in these languages into genders. The semantic content of these genders includes human, lower animals, plants/plant parts, artefacts, parts of the body, human relationships and non-count. Nominal prefixes in Ọgbija and Ogbogolo are mostly single vowels. It is only what Isukul (2007:141) calls the “generalised plural prefix marker that has the shape **ArA-**. The shape of the generalised plural prefix marker in Ọgbija looks more like those of many of the prefixes in other Central Delta languages like Abuan, Obulom, Ođual and Ogbrọnuagum, which have canonical V(V) and VCV(V) shapes.

Suffixation is not common in non-derived nouns. Evidence of suffixation is attested in derived forms, such as gerunds, in Ogbogolo and Ọgbija (Olibie 1994; Francstan 1995; Isukul 2007), as illustrated in section 4.5. Interfixation is rare but found in derived nouns in Ogbogolo (Francstan 1995) and Ọgbija (Isukul 2007). According to Isukul (2007:93), “many of the nominals derived from the interfixation of **-mA-** stand for occupation or profession”, as seen in (11) taken from Isukul (2007:93):

(11)	<i>ògbèβ</i>	<i>éđiàn</i>	>	<i>ògbèβmàèđiàn</i> (sg)	“farmer/cultivator”
	to grow	food		<i>ìgbèβmàèđiàn</i> (pl)	“farmers/cultivators”
	<i>ɔgbàl</i>	<i>énam</i>	>	<i>ɔgbàlmàènam</i> (sg)	“shepherd”
	to rear	beasts		<i>ègbàlmàènam</i> (pl)	“shepherds”
	<i>ògù</i>	<i>iréren</i>	>	<i>ògùmàíréren</i> (sg)	“wood cutter”
	to cut	trees		<i>ìgùmàíréren</i> (pl)	“wood cutters”
	<i>ògìy</i>	<i>ínà</i>	>	<i>ògìymàìnà</i> (sg)	“fisherman”
	to kill	fish		<i>ìgìymàìnà</i> (pl)	“fishermen”

Languages such as Abuan, Ođual, Ọgbija, Ogbogolo and Ogbrọnuagum show that demonstratives, adjectives, and modifier nominals have number-marking prefixes whereby in many cases the forms **o-/oo-** and **ɔ-/ɔɔ-** and **i-/ii-** and **ɪ-/ɪɪ-**, depending on the  $\pm$ ATR of the vowels of the stem, are used to mark singular and plural, respectively. Table 8 shows the

forms of demonstratives, adjectives and nominal modifiers in the Central Delta languages of Oḍual and Ogbr̄on̄uagum.

**Table 8a: Demonstratives**

Ogbr̄on̄uagum (Kari 2000:19)		Oḍual (Kari 2009:28)	
òḍdì	“this”	òòḃó	“this”
èédì	“these”	òpó	“that”
òpò	“that”	ìḃá	“these”
pèédì	“those”	ìpá	“those”

**Table 8b: Adjectives and modifier nominals**

Adjectives: Ogbr̄on̄uagum (Kari 2000:22)		Modifier nominals: Oḍual (Kari 2009:38)	
òḃlìḃî/ìḃlìḃî	“black”	òḃilé/ìḃilé	“one that is black”
òḃlàḃáà/ìḃlàḃáà	“white”	òḃáál/ìḃáál	“one that is white”
òḡḃóóná/ìḡḃóóná	“big”	òḡḃàḃá/ìḡḃàḃá	“one that is big/large”
òḍùúḍù/ìḍùúḍù	“small”	òḃám/ìḃám	“one that is small”

#### 4.2 Concordial relationship

There are some instances of limited concordial agreement in which number-marking prefixes of demonstratives, adjectives, and modifier nominals have a phonological shape that is similar or identical to noun prefixes in Central Delta languages (see Gardner 1980; Olibie 1994; Kari 2000, 2009; Isukul 2007). This concordial relationship is purely in respect to number-marking and not in terms of noun classes (cf. Swahili, Lyons 1968:285). For example, the form of the demonstrative *ḍdì* (“this”) in Ogbr̄on̄uagum does not vary irrespective of the gender to which the noun it is used with belongs (e.g. *áárì* “woman” + *ḍdì* “this” > *á<sup>+</sup>-rí ḍ-dì* “this woman” : *à-dírì* “book” + *ḍ-dì* “this” > *à-dírì ḍ-dì* “this book”). This is unlike in Bantu languages such as Swahili (Lyons 1968: 285), where in many cases modifiers change their prefixes to reflect the class of the noun (e.g. *wa-tu* “people” + *wa-zuri* “beautiful” + *wa-le* “those” > *wa-tu wa-zuri wa-le* “those beautiful people”; *m-ti* “tree” + *mi-zuri* “beautiful” + *i-le* “those” > *m-ti mi-zuri i-le* “those beautiful trees”). In Swahili, the adjective and the demonstrative have the prefix *wa-*, because the noun *wa-tu* (“people”) belongs to the human class, whereas with nouns that belong to the class of trees or plants such as *m-ti* (“tree”), the prefixes of the adjective and demonstrative become *mi-* and *i-*, respectively.

The existence of concordial relationships in Central Delta languages in terms of noun classes, if any, is limited and without general applicability. Table 9 shows the concordial relationship between nouns and modifiers in Oḍual and Ogbr̄on̄uagum

**Table 9: Concordial relationship between nouns and modifiers**

Adjectives: Ogbɔnɔgum (Kari 2000:43f)			Modifier nominals: Oɖual (Kari 2009:28)	
<i>á<sup>+</sup>ri</i>	<i>ɔ̀dì</i>	“this woman”	<i>òtù</i> <i>òóβó</i>	“this house”
woman	this		house SG.PROX	
<i>àwá<sup>+</sup>ri</i>	<i>é̀dì</i>	“these women”	<i>à̀rùtù</i> <i>ííβà</i>	“these houses”
women	these		houses PL.PROX	
<i>ò̀móóm</i>	<i>à̀làsì</i>	“a new bag”	<i>òtù</i> <i>ópó</i>	“that house”
new	bag		house SG.PROX	
<i>ò̀gbóónà</i>	<i>órè̀n</i>	“a big tree”	<i>à̀rùtù</i> <i>ípá</i>	“those houses”
big	tree		houses PL.DIST	

### 4.3 Case marking

Case marking in nouns is not a general feature of Central Delta languages. However, in Oɖual, nouns are morphologically marked for accusative and locative cases. It is noted that direct object noun phrases are preceded by the accusative case marker **m-**, as in (12a), while those indicating location, as in (12b), are preceded by the locative case marker **t-**. Similarly, in Ogbɔ̀, noun phrases functioning as sentential objects are marked for accusative case. The form of the accusative case marker, which precedes the object in Ogbɔ̀, is identified as **-m-** in Isukul (1986) and later as **mA-** in Isukul (2007). The form **mA-** harmonises in  $\pm$ ATR with the vowels of the following object, as in (13):

(12) a. *à̀àmì* *ú-γàá* *m-óβéréér.*  
 I 1SG.PAST-buy OM-book  
 “I bought a book” (Oɖual: Kari 2009:16)

b. *à̀àmì* *ú-rùú* *mò-γèèl* *t-ó<sup>+</sup>tú.*  
 I 1SG.PAST-want INF-go LOC-house  
 “I wanted to go home” (Oɖual: Kari 2009:16)

(13) a. *nwá* *nááfél* *mà-à̀náné?*  
 you look.PRES OM-who  
 “You’re looking for who?” (Ogbɔ̀: Isukul 2007:123)

b. *nwá* *nááfél* *mà-è̀nìè?*  
 you want.PRES OM-how many  
 “You want how many?” (Ogbɔ̀: Isukul 2007:123)

### 4.4 Pronouns

The pronominal systems of Central Delta languages make a three-way distinction in person, number and case. Person distinctions are first, second and third. In terms of number, the languages distinguish between singular and plural. The case distinctions in pronouns are subject, object and possessive. There is no biological or gender distinction in the pronominal systems of these languages, as a look at the personal pronominal systems of Abuan, Oɖual and Ogbɔ̀ in Table 10 shows. A noteworthy feature of some Central Delta languages with regard to their pronominal systems is the presence of inclusive and exclusive pronouns. The

inclusive-exclusive distinction is overtly expressed in the forms of the first-person plural personal pronouns. According to Givón (1984:354), this distinction “...pertains to the hearer’s inclusion in or exclusion from, the referential scope of ‘we’. ‘We-INCL’ is thus “we, including you”, and ‘we-EXCL’ is thus “we, excluding you””. The reason for the overt distinction in the forms of the first-person plural pronouns is well expressed by Givón (1984). In his view, “...inclusion/exclusion are not directly predictable from the speaker and hearer, they are potentially ambiguous in the speech situation, and it is thus only natural that they may require overt specification (‘marking’)” (Givón 1984:355).

Central Delta languages that morphologically mark the inclusive-exclusive distinction in the forms of first-person plural personal pronouns are Abuan (Gardner 1980) and Oḍual (Kari 2007b, 2009), as seen in Table 10.

**Table 10: Personal pronouns in Abuan, Oḍual and Ogbija**

Num/ pers.	Subject				Object				Possessive			
	Abuan	Oḍual	Ogbija	Gloss	Abuan	Oḍual	Ogbija	Gloss	Abuan	Oḍual	Ogbija	Gloss
1sg	<i>mí</i>	<i>áámí</i>	<i>àmì</i>	“I”	<i>ímì</i>	<i>áámí</i>	<i>mààmì</i>	“me”	<i>àmì</i>	<i>áámí</i>	<i>dáámí</i>	“my”
2sg	<i>ná</i>	<i>á<sup>+</sup>ná</i>	<i>ànwá</i>	“you”	<i>ínà</i>	<i>á<sup>+</sup>ná</i>	<i>màànwá</i>	“you”	<i>ànà</i>	<i>ónú<sup>+</sup>má</i>	<i>dáájóm</i>	“your”
3sg	<i>ḍdí<sup>15</sup></i>	<i>òdí</i>	<i>ènà</i>	“s/he /it”	<i>ḍdí</i>	<i>òdí</i>	<i>màènà</i>	“her/him /it”	<i>ḍdì</i>	<i>ódí</i>	<i>dáájó</i>	“her/his /its”
1pl	<sup>-16</sup>	-	<i>ìjàr</i>	“we”	-	-	<i>màìjàr</i>	“us”	-	-	<i>dáájár</i>	“our”
1pl (incl.)	<i>jírà</i>	<i>èzírá</i>	--	“we”	<i>jírà</i>	<i>èzírá</i>	--	“us”	<i>àjírà</i>	<i>ézi<sup>+</sup>rá</i>	--	“our”
1pl (excl.)	<i>jóóor</i>	<i>ézáár</i>	--	“we”	<i>íjòòr</i>	<i>ézáár</i>	--	“us”	<i>àjòòr</i>	<i>ézáár</i>	--	“our”
2pl	<i>ḡínà</i>	<i>èèná</i>	<i>ìḡìn</i>	“you”	<i>ḡínà</i>	<i>èèná</i>	<i>màìḡìn</i>	“you”	<i>àḡìnà</i>	<i>èé<sup>+</sup>ná</i>	<i>dáájín</i>	“your”
3pl	<i>àbídí</i>	<i>èèdí</i>	<i>àwà</i>	“they”	<i>bídí</i>	<i>èèdí</i>	<i>màèwà</i>	“them”	<i>àbìdì</i>	<i>èèdí</i>	<i>dááwá</i>	“their”

#### 4.5 Verbal morphology

Like nominal morphology, Central Delta languages are rich in verbal morphology. Grammatical categories such as person, number, tense, aspect and negation are to a large extent morphologically marked. Faraclas (1989:391) remarks that “verbs in Central Delta languages are inflected primarily via a system of prefixes”. It is interesting to note that some of the inflectional markers in these languages, like Oḍual, are not strictly prefixes but discontinuous morphemes. Negative-marking, in some cases, is a combination of prefixes and lexical items (see Kari 2009). The affixes that mark these grammatical categories in most cases harmonise in  $\pm$ ATR with the vowels of the stem to which they attach. In general, it is observed that segmental (affixes and lexical items) and non-segmental (tone) morphemes combine to express not only person, but also number, tense, aspect, negation and modality.

<sup>15</sup> Third-person singular and plural forms as listed under Abuan in Table 10 are those used to refer to human beings. Gardner (1980:ix) remarks that “a non-human singular pronoun, *edí*, and non-human plural pronoun, *idí*, occur very infrequently”.

<sup>16</sup> A single dash in Table 10 “-” indicates that Abuan and Oḍual do not have first-person plural forms of pronouns that do not make inclusive and exclusive distinctions, while double dashes “--” indicate that Ogbija (Isukul 2007) does not make inclusive and exclusive distinctions in first-person plural pronouns.

Verbs consist of a stem to which one or more inflectional affixes can be attached. Phonologically, the verb stem begins with a consonant. Verbal derivation yielding infinitives, imperatives and gerunds is through affixation. In Ođual, Ogbija, Ogbogolo and Ogbɔnɔagum, for instance, infinitives are formed by prefixation. Gerunds are formed by suffixation in Ogbija and Ogbogolo but by circumfixation in Ođual.

**Table 11a: Verbal derivatives**

Derivative	Abuan	Ođual	Ogbija
<b>Infinitive</b>	<i>lóm</i> “bite” > <i>ò-ló<sup>+</sup>m</i> “to bite”	<i>télé</i> “walk” > <i>ó-rélé</i> “to walk”	<i>gír</i> “work” > <i>ò-gír</i> “to work”
<b>Gerund</b>	<i>sá</i> “cook” > <i>à-sá-yán</i> “cooking”	<i>sàá</i> “cook” > <i>à-sà-à-j</i> “cooking”	<i>ò-mèn</i> “to fall” > <i>ò-mèn-èkù</i> “falling”
<b>Imperative</b>	<i>sá</i> (sg) > <i>í-sà-yàn</i> “cook! (pl.)” <i>ká-sá</i> “don’t cook! (sg)” ~ <i>kí-sá</i> “don’t cook! (pl)” <sup>17</sup>	<i>kéél</i> “go” > <i>í-kéél</i> “go!” <i>ù-yèél-yà</i> “don’t go! (sg)” ~ <i>ì-yèél-yà</i> “don’t go! (pl)”	<i>sà</i> “cook!” <i>kà-sá</i> “don’t cook! (sg)” ~ <i>à-nì-kà-sá</i> “don’t cook! (pl)”
<b>Agentives</b>	- <sup>18</sup>	<i>tàám</i> “send” > <i>ó-tám-àáy</i> “sender” <i>ò-ááy</i> “build” > <i>ó-ò-ááy-ááy</i> “builder” <i>kìil</i> “run” > <i>òkìil ikìil</i> “runner”	<i>ò-rùòm</i> “to send” ~ <i>ò-rùòm-àdòm</i> “sender”

**Table 11b: Verbal derivatives**

Derivative	Ogbonɔagum	Ogbogolo
<b>Infinitive</b>	<i>nì</i> “defecate” ~ <i>à-rí-nì</i> “to defecate”	<i>rò</i> “dwell” ~ <i>à-ró</i> “to dwell”
<b>Gerund</b>	<i>sòwù</i> “cut” ~ <i>à-rí-sòwù</i> “cutting”	<i>à-ròà</i> “to learn” ~ <i>à-ròà-nì</i> “learning” <sup>19</sup>
<b>Imperative</b>	<i>nà</i> (sg) ~ <i>í-nà</i> “give! (pl)”	<i>gbé</i> “grind” ~ <i>à-gbéé</i> “grind!”
<b>Agentives</b>	<i>sòwù</i> “cut” ~ <i>áméè rà-sòwù</i> “cutter” (lit. cutting person) <i>sòwù</i> “cut” ~ <i>àwéè rà-sòwù</i> “cutters” (lit. cutting people) <i>sòwù</i> “cut” ~ <i>ó<sup>+</sup>lé rà-sòwù</i> “cutter” (lit. cutting thing) <i>sòwù</i> “cut” ~ <i>í<sup>+</sup>lé rà-sòwù</i> “cutter” (lit. cutting things)	<i>á-wòlì</i> “to sell” ~ <i>òní-á-wòlì</i> “seller”

Two types of imperative constructions exist in Ođual: the positive imperative and negative imperative. In positive imperative constructions involving a singular subject, verbs are in their citation forms. However, in the plural the verb stem is preceded by a high-toned number-person-marking prefix **Í-**, which agrees with the stem vowels in ±ATR. In negative imperative constructions, the subjects are clearly marked for number and person by different low-tone prefixes attached to the verb stem. The number-person-marking prefix attached to the verb stem in the negative imperative singular is **Û-**, while the prefix **Í-** is attached to the verb stem in the negative imperative plural (see Kari 2009:61f.), as Table 11a shows.

Negative imperatives in Abuan are marked by two prefixes – a singular marking prefix **kÁ-** and a plural marking prefix **kÍ-**, as shown in Table 11a.

In Ođual, agentives are derived by circumfixation and reduplication. Two forms of the circumfix **I- ... -VVj** and **O- ... -VVj** are used in the derivation. Verb stems that end with a vowel take **I- ... -VVj**, while those that end with a consonant take **O- ... -VVj**, as shown in Table 11a (see also Kari 2009:41f.). Agentive nominals in Ogbɔnɔagum have a verb stem

<sup>17</sup> I am grateful to Pamela Umor, a native speaker of Abuan, for providing relevant data on Abuan.

<sup>18</sup> In Abuan, agentives are not morphologically derived, but are expressed using periphrastic expressions (Pamela Umor, personal communication).

<sup>19</sup> Francstan (1995:41) notes that “in Ogbogolo, the gerund is irregular in its formation. A variety of morphemes are affixed to the root of the verb”.



preceded by an **rV** morpheme, which in turn is preceded by a noun. The noun is *àméè* (“person”) for singular and *àwéè* (“people”) for plural when the agent is human but *ǝ̀lé* (“thing”) for singular and *ǝ̀lé* (“things”) for plural when the agent is an instrument (see Kari 2000:30), as shown in Table 11b.

In the following tables, i.e. Tables 12-16, we present forms of affixes attached to verbs to express the inflectional categories of person, number, tense, aspect, negation and modality in Ođual and Ogbrɔ̀nuagum.<sup>20</sup>

**Table 12: Forms of verb affixes marking non-past in positive constructions in Ođual**

Num./pers.	Simple present (with)		Pres. prog.	Pres. perf.	Fut.	Potential		Optative		Conditional	
	<i>dí</i> “be”	other verbs				V1 aff.	V2 aff.	V1 aff.	V2 aff.	V1 aff.	V2 aff.
1sg	Ō-	nÁ-...-VÁ	nÁ-	nÁÁ-	tÁ-	tÁ-...-nÍ	Á-	nÁ-	mŌ-	À-	tÁ-...-nÍ
2sg	Ō-	nÁ-...-VÁ	nÁ-	nÁÁ-	tÁ-	tÁ-...-nÍ	Á-	nÁ-	mŌ-	À-	tÁ-...-nÍ
3sg	Ō-	nÁ-...-VÁ	nÁ-	nÁÁ-	tÁ-	tÁ-...-nÍ	Á-	nÁ-	mŌ-	À-	tÁ-...-nÍ
1pl (incl.)	Ū-	nŌ-...-VÁ	nŌ-	nŌŌ-	tŌ-	tŌ-...-nÍ	Ō-	nŌ-	mŌ-	Ō-	tŌ-...-nÍ
1pl (excl.)	Ū-	nŌ-...-VÁ	nŌ-	nŌŌ-	tŌ-	tŌ-...-nÍ	Ō-	nŌ-	mŌ-	Ō-	tŌ-...-nÍ
2pl	Ï-	nĒ-...-VÁ	nĒ-	nĒĒ-	tĒ-	tĒ-...-nÍ	Ē-	nĒ-	mŌ-	Ē-	tĒ-...-nÍ
3pl	Ï-	nĒ-...-VÁ	nĒ-	nĒĒ-	tĒ-	tĒ-...-nÍ	Ē-	nĒ-	mŌ-	Ē-	tĒ-...-nÍ

**Table 13: Forms of verb affixes marking past in positive constructions in Ođual**

Num/pers.	Past (with)	Past		Past prog.		Potential		Optative	
	<i>rǝ̀l</i> form of <i>dí</i> “be”	Emph pref.	Non-emph pref.	V1 aff.	V2 pref.	V1 aff.	V2 pref.	V1 pref.	V2 pref.+pl
1sg	À-...-VÀ	Ū-	À-	ŪŪ-...-VÀ	mŌ-	kŪ-...-nÍ	À-	Ū-	mò- <sup>21</sup>
2sg	À-...-VÀ	Ū-	À-	ŪŪ-...-VÀ	mŌ-	kŪ-...-nÍ	À-	Ū-	mò-
3sg	À-...-VÀ	Á-	À-	ÁÁ-...-VÀ	mŌ-	kŪ-...-nÍ	À-	Á-	mò-
1pl (incl.)	Ō-...-VÀ	Ū-	Ō-	ŪŪ-...-VÀ	mŌ-	kŪ-...-nÍ	À-	Ū-	mò-...ÈYŪ
1pl (excl.)	Ō-...-VÀ	Ū-	Ō-	ŪŪ-...-VÀ	mŌ-	kŪ-...-nÍ	À-	Ū-	mò-...ÈYŪ
2pl	È-...-VÀ	Í-	È-	ÎÎ-...-VÀ	mŌ-	kÍ-...-nÍ	È-	Í-	mò-...ÈYŪ
3pl	È-...-VÀ	Í-	È-	ÎÎ-...-VÀ	mŌ-	kÍ-...-nÍ	È-	Í-	mò-...ÈYŪ

**Table 14: Forms of negative-marking verb affixes/morphemes in Ođual**

Num/pers.	Present progressive/past/future		Present perfective	
	Prefix	Post-verbal lexical item	Prefix	Post-verbal lexical item
1sg	Ū-	Ciò	dŌ-	Ciò
2sg	Ō-	Ciò	dŌ	Ciò
3sg	Ō-	Ciò	dŌ	Ciò
1pl (incl.)	Ū-	Ciò	dŌ	Ciò
1pl (excl.)	Ū-	Ciò	dŌ	Ciò
2pl	Ï-	Ciò	dŌ	Ciò
3pl	Ï-	Ciò	dŌ	Ciò

<sup>20</sup> A detailed description of the affixes presented in Tables 12-16 can be found in Kari (2000, 2009).

<sup>21</sup> The form of V2 prefix is actually **mò-**, not **m-** as listed by Kari (2009:59).

**Table 15: Forms of verb affixes marking non-past in positive constructions in Ogbroņugum**

Num./pers.	Lexical subject pronoun	Proclitic	Factative (with)				Pres. prog.	Pres. perf.	Fut.	Poten./oblig.	Opt.	Incep.
			<i>dí</i> “be”	<i>mó</i> “have”	other verbs <sup>22</sup>	other verbs <sup>23</sup>						
1sg	<i>àámí</i>	Ń	mÁ-	mÁ-	mÁ~KÁ	jĚĚ-	rÁ-	KÁ-	TÁ-	dÁ-	rÁ-	KÁ- <sup>24</sup>
2sg	<i>já</i>	Í	jÁ-	mÁ-	mÁ~KÁ	jĚĚ-	rÁ-	KÁ-	TÁ-	dÁ-	rÁ-	KÁ-
3sg	<i>jó</i>	Ø	Á-	mÁ-	mÁ~KÁ	jĚĚ-	rÁ-	KÁ-	TÁ-	dÁ-	rÁ-	KÁ-
1pl	<i>àjó</i>	Ō	Á-	mÁ-	mÁ~KÁ	jĚĚ-	rÁ-	KÁ-	TÁ-	dÁ-	rÁ-	KÁ-
2pl	<i>èní</i>	Ě	Á-	mÁ-	mÁ~KÁ	jĚĚ-	rÁ-	KÁ-	TÁ-	dÁ-	rÁ-	KÁ-
3pl	<i>àbá</i>	Ø	Á-	mÁ-	mÁ~KÁ	jĚĚ-	rÁ-	KÁ-	TÁ-	dÁ-	rÁ-	KÁ-

**Table 16: Forms of negative-marking verb affixes/morphemes in Ogbroņugum**

Num./pers.	Lexical subject pronoun	Proclitic	Factative/prog./perf./fut./poten./oblig./opt.	Pres. prog.	Pres. perf./inceptive
1sg	<i>àámí</i>	Ń	Ń-	Ń-	Ń-dÁ-
2sg	<i>já</i>	jÁ	Ø	Ø	Ń-dÁ-
3sg	<i>jó</i>	Á	Ø	Ø	Ń-dÁ-
1pl	<i>àjó</i>	ŌjÍ	Ø	Ø	Ń-dÁ-
2pl	<i>èní</i>	ĚjÍ	Ø	Ø	Ń-dÁ-
3pl	<i>àbá</i>	Ū	Ø	Ø	Ń-dÁ-

#### 4.6 Verb extensions

Verbs in Central Delta languages may also take, in addition to inflectional affixes, one or more extensional suffixes or verbal extensions. In most cases, extensional suffixes harmonise with the vowels of the verb stem in  $\pm$ ATR. These suffixes do not alter the lexical category of the verbs to which they attach. Instead, they modify the lexical meaning as well as change the valency of such verbs. The variety of meanings expressed by these suffixes include causative, reflexive, reciprocal, iterative, benefactive, associative, initiative, instrumental, accompaniment and directive. These suffixes are attested in Abuan (Gardner 1980), Obulom (Ngeripaka 2000), Ogbija (Isukul 2007) and Ogbogolo (Olibie 1994).

Table 17 shows that no given Central Delta language has all the verb extensions listed herein. For instance, in Abuan, only six (causative, reflexive, benefactive, associative, instrumental and accompaniment) out of the 10 extensions listed above are attested. The iterative, reciprocal, initiative and directive are not attested in Abuan. In Obulom, only two (iterative and associative) extensions are attested; the others are not. Likewise, in Ogbija only two (reciprocal and initiative) extensions are attested; the others are not. Similarly, in Ogbogolo only two (instrumental and directive) extensions are attested; the others are not.

<sup>22</sup> These are forms that occur with dynamic verbs without obligatory, lexical/non-clitic forms of subject pronouns.

<sup>23</sup> These are forms that occur with dynamic verbs with obligatory, lexical/non-clitic forms of subject pronouns.

<sup>24</sup> See Kari (2000) for a discussion of the underlying forms of these affixes in Ogbroņugum.



- (15) **S**                      **V**                                      **O**                                      (Ogbija: Isukul 2007:147)  
*Apuru*                      *ná-á-fêl*                                      *màèdiàn.*  
 PN                                      SG-SUBJ.PREF-want                                      food  
 “Apuru wanted food”
- (16) **S**                      **V**                                      **O**                                      (Ogbogolo: Olibie 1994:56)  
*mì*                      *ná-ádé*                                      *édià.*<sup>28</sup>  
 I                                      CM-eat food  
 “I am eating food”
- (17) **S**                                      **V**                                      **O**                                      (Ogbrõṅugum: Kari 2000:42)  
*òlèmáàdì*                                      *má-sá*                                      *ámómbò*                      *à.*  
 PN                                      3SG.FACT-cook                                      soup                                      DEF  
 “Olemaadi cooked the soup”

However, there are deviations from the basic SVO word order, as found in cleft constructions in which the logical object is preposed. In such constructions, the verb comes last, as examples from Abuan (18), Oḍual (19) and Ogbrõṅugum (20) show:

- (18) a.                      *mí*                      *à-miìn*                                      *óḡn*                      *βó.*<sup>29</sup>  
 I                                      PAST-see                                      boy                                      the  
 “I saw a boy.” (Abuan)
- b.                      *óḡn*                      *βó*                      *kèdí*                                      *mí*                      *à-miìn.*  
 boy                                      the                                      CLEFT                                      I                                      PAST-see  
 “It was the boy I saw.”
- (19) a.                      *èdìyótù*                                      *à-miìn*                                      *á†ábádí.*  
 PN                                      PAST-see                                      iguana  
 “Edighotu saw an iguana.” (Oḍual)
- b.                      *àbàdì*                                      *βó*                                      *èdìyótù*                                      *à-miìn.*  
 iguana                                      CLEFT                                      PN                                      PAST-see  
 “It was an iguana Edighotu saw.”
- (20) a.                      *èyólú*                      *á*                                      *ká-rààlò*                                      *óḡó*                                      *á.*  
 goat                      DEF                                      FACT-chew                                      vegetables                                      DEF  
 “The goat ate the vegetables.” (Ogbrõṅugum)
- b.                      *ó†wó*                      *óḡó*                                      *á*                                      *nó*                      *é†yólú*                                      *á*                                      *á-rààlò.*  
 it be                      vegetables                                      DEF                                      OFOC                      goat                                      DEF                                      FACT-chew  
 “It was the vegetables that the goat ate.”

<sup>28</sup> Olibie and Francstan orthographic transcription are rendered in this paper in symbols that have IPA values.

<sup>29</sup> I am thankful to Pamela Umor and Isaiah Edighotu for data showing deviations from the basic SVO word order in Abuan and Oḍual, respectively.

It is observed in these languages that different morphemes feature as markers of cleft constructions. In Abuan, the cleft marker is *kèdí*, in Oḍual the morpheme is *βó*, while in Oḡbr̄ṅṅagum *ɔ̄wó* serves as the cleft marker.

In noun phrase (NP) constructions, such as noun + article, noun + possessive, noun + interrogative pronoun, noun + modifier nominal, and noun + demonstrative, word order appears to be uniformly consistent in Central Delta languages. In many cases, modifiers that precede and follow the head noun appear to be the same in these languages. It is observed that the definite article and demonstratives, for instance, follow the noun in Oḍual, Oḡb̄īa, Oḡbogolo<sup>30</sup> and Oḡbr̄ṅṅagum, while adjectives/modifier nominals, quantifiers, and interrogatives precede the noun in Oḍual, Oḡb̄īa, Oḡbogolo and Oḡbr̄ṅṅagum:

- |  |   |
|--|---|
| (21) <i>énà à</i><br>fish DEF<br>“the fish”<br>(Oḡbr̄ṅṅagum: Kari 2000:43)               | (22) <i>òtù àφà</i><br>house the<br>“the house”<br>(Oḡbogolo: Olibie 1994:17b)            |
| (23) <i>òtù òóβó</i><br>house this<br>“this house”<br>(Oḍual: Kari 2009:28)              | (24) <i>òlòβiri βá</i><br>man that<br>“the man”<br>(Oḡb̄īa: Isukul 2007:115)             |
| (25) <i>òkàrə ààj</i><br>which person<br>“which person”<br>(Oḍual: Kari 2009:32)         | (26) <i>àkéré éréremú</i><br>which tree<br>“which tree?”<br>(Oḡbogolo: Francstan 1995:35) |
| (27) <i>ògbàrà àbákò</i><br>small chair<br>“a small chair”<br>(Oḡb̄īa: Isukul 2007:148) | (28) <i>ògbóóná órèṅ</i><br>big tree<br>“a big tree”<br>(Oḡbr̄ṅṅagum: Kari 2000:23)       |
| (29) <i>ònón ótù</i><br>this house<br>“this house”<br>(Oḡb̄īa: Isukul 2007:147)         | (30) <i>òmáná àdìdì</i><br>this rope<br>“this rope”<br>(Oḡbogolo: Olibie 1994:37)         |

## 5.2 Serial verb constructions

Serial verbs are common in Central Delta languages. These verbs, which are linked without any overt connective morpheme, share a common surface subject and one or more tense, aspect and polarity markers. Among the semantic notions expressed by serial verbs in these languages are sequential (31), locative (32), comparative (33), and benefactive (34) (cf. Olibie 1994:55; Kari 2000:48, 2009:74):

<sup>30</sup> Oḡb̄īa and Oḡbogolo behave differently in respect to the demonstrative-noun relationship. In these languages, the demonstrative precedes the noun.

- (31) *ààmì ó-yì ú-Yà m-èná.*  
 1SGS 1SG.PST-go 1SG.PAST-buy OM-fish  
 “I went and bought fish.” (Oḍual: Kari 2009:74)
- (32) *ó<sup>+</sup>dó nà ádí ná ágí òlògì òtù.*  
 Odo CM enter CM go inside house  
 “Odo entered into the house.” (Ogbogolo: Olibie 1994:55)
- (33) *àmón am á-nìè á-tè àmón wód.*  
 child my 1SG.FACT-be beautiful 1SG.FACT-be more than child yours  
 “My child is more beautiful than yours.” (Ogbrõṇuagum: Kari 2000:48)
- (34) *ààmí ñ-gá-<sup>+</sup>γó dírí à ñ-gá-ná à.*  
 I 1SG-PERF-buy book DEF 1SG-PERF-give him/her  
 “I bought a book for him/her.” (Ogbrõṇuagum: Kari 2000:48)

SVCs in Central Delta languages belong to the type that Williamson (1989a) calls “concordial’ SVC. Each verb refers to the subject by means of a concordial marker or pronoun (Williamson 1989a:30), as seen in the Oḍual (31), Ogbogolo (32) and Ogbrõṇuagum (33) and (34). See also Kari (2003) for a similar discussion.

## 6. Conclusion

In this paper, we have provided phonological, morphological and syntactic overviews of Central Delta languages, including aspects of the geo- and sociolinguistic situation of these languages. We noted that Central Delta languages have a 20-vowel system, which divides into two sets of 10 vowels distinguished by the size of the pharynx. We also noted that the consonant systems of these languages range between 22 and 27, showing alternation between some pairs of consonants, such as [t] and [r], [k] and [γ], [p] and [w], and [p] and [β], determined by whether such consonants occur word-initially or intervocally in imperatives and infinitives. Furthermore, we noted that Central Delta languages are generally rich in nominal and verbal morphologies, showing evidence of prefixal noun classification, and that the morphological marking of grammatical categories such as person, number, tense, aspect and negation is by means of discontinuous morphemes in some cases. The personal pronominal systems of these languages make a three-way number-person-case distinction, with some of them (Abuan and Oḍual) formally distinguishing between inclusive and exclusive in their first-person plural forms. Some common syntactic features observed in these languages are subject–object–verb basic word order with similar patterns of modification in nominal and verbal phrases, as well as serial verb constructions. Finally, we highlighted the fact that mother-tongue speakers of Central Delta languages also speak one or more other languages and that the daily exposure of these languages and their speakers to more powerful languages around them makes them endangered. We recommended that a survey be undertaken to assess or determine the degree of endangerment of Central Delta languages.

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