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On the development of two progressive constructions in Ụ̲t-Ma'in

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Abstract: Ụ̲t-Ma'in (Kainji, Benue-Congo), spoken in northwestern Nigeria, has two morphosyntactically distinct progressive constructions – the Intransitive Progressive Construction and the Transitive Progressive Construction. This paper presents the synchronic structure of each construction, proposed historical sources of the distinct morphological pieces, and a comparison of the Ụ̲t-Ma'in Progressive Constructions with cognate elements from four Kainji language clusters. No single source component has grammaticalized to mark progressive aspect in Ụ̲t-Ma'in. Rather, the combination of several elements created the progressive. Formal changes in several morphosyntactic elements within each of the constructions provide evidence that originally nominalized verb forms are gradually becoming less noun-like and more verb-like. These developments are examples of constructionalization, as the Progressive Constructions exist as new form-meaning pairs distinct from the source. These formal changes also show signs of adjustment, whereby a construction moves toward isomorphism, that is, a one-to-one correspondence between form and meaning. Specifically, various stages of morphological loss are evident in particular lexemes when used in Ụ̲t-Ma'in Progressive Constructions, gradually spreading throughout the lexicon.

Keywords: constructionalization, adjustment, nominalization, progressive, Northwest Kainji languages

1 Introduction

This study looks at Progressive Constructions in Ụ̲t-Ma'in [ISO 639–3 gel], a Northwest Kainji (Benue-Congo, Niger-Congo), language of Nigeria (Gerhardt 1989; Williamson and Blench 2000).[1] We look at two sub-constructions: the

1 See Blench (2018: 1) for further discussion of the classification of Kainji languages within [East] Benue-Congo.

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Intransitive Progressive Construction (hereafter IntransProgCxn) and the Transitive Progressive Construction (hereafter TransProgCxn)[2] – each with complex morphosyntactic patterns, and each providing evidence for the source of the synchronic morphology.[3] Both progressive constructions rely on the morphosyntax of the same source frame construction – the Predicate Nominal Construction (hereafter PredNomCxn). The two progressive constructions remain distinct in regards to the number of arguments of the verb and the morphology that occurs. The morphological complexity of the Ụt-Ma'in noun class system holds the key to understanding the distinct elements of the two progressive constructions: formal differences between them are found in the morphological composition of the NP predicate (i.e. the second NP in the PredNomCxn structure [NP cop NP]). Formal changes from the source elements are responsible for the constructionalization of these new form-meaning pairs in the sense of Traugott and Trousdale (2013: 1). The two Ụt-Ma'in Progressive Constructions discussed in this paper encode progressive aspect, indicating an incomplete action that may be construed as either present time or past time (Comrie 1976: 35).

No single source component has grammaticalized to mark progressive aspect in Ụt-Ma'in. Rather, the combination of several morphosyntactic elements came together to create the progressive. This is reminiscent of Comrie's (1976: 39) discussion of the English Progressive in that the *-ing* form that is central to the English Progressive Construction only yields the progressive meaning when it occurs with the *be* auxiliary. Indeed, the entire construction is the unit "to which grammaticalization properly applies" (Himmelmann 2004: 31).

The remainder of Section 1 introduces basic elements of the Ụt-Ma'in language and the synchronic morphosyntax of the two Ụt-Ma'in progressive constructions. We turn to discuss source elements in Section 2, internal reconstruction supported by comparative evidence in Section 3, evidence for reanalysis in Section 4, and conclusions in Section 5.

2 Capitalized labels indicate a language specific construction, e.g. Intransitive Progressive Construction; lowercase use of the same terms may be used as useful cross-linguistic categories following Croft (2001: 51).

3 This study came about as the result of working with narrative texts supplemented by elicited data. The majority of data available is of the Ụt-Ma'Rọr variety (see Regnier 2003 for lexicostatistical relatedness), although data is presented from other Ụt-Ma'in varieties as relevant. Data used in this study comes from 12 months of fieldwork conducted by the author between 2005 and 2017.

1.1 Overview of Ụt-Ma'in grammar

In order to situate the progressive constructions within the larger grammatical system of Ụt-Ma'in, we now turn to a brief introduction of noun class morphology, constituent order, morphosyntactic properties of subjects and objects, and verbal morphology.

Ụt-Ma'in is a noun class language in which elements within a noun phrase show concord or agreement with the head noun (Gerhardt 1989; Smith 2007); in this paper I exclusively use the term "agreement". Notably, there is no argument agreement marking on the verb for any clause type.

The Ụt-Ma'in noun class system has fourteen distinct morphosyntactic patterns (Table 1) involving both prefixes and suffixes for nouns and agreement targets as described in Smith (2007: 26).[4] The progressive constructions make use of noun prefixes and agreement prefixes as we described in Section 1.2. The class labels (expressed by numerals) used when glossing examples throughout this paper follow Blench (2018).[5] It is important to note that the form of an agreement affix need not be the same as the form of the affix on the head noun itself.[6]

Figure 1 schematizes the distribution of the class markers from Table 1 on nouns and a subset of modifiers found within the NP. The vowel quality and tone of the C and AG forms vary by construction.

The assignment of a noun to a noun class is not completely arbitrary, as there is evidence of active semantic assignment of loan words (Paterson 2012). Singular and plural noun classes pair together for particular lexemes, and this is precisely the organization that shows the greatest semantic cohesion (e.g. 1/2 used for humans). Table 2 lists the semantic generalizations for each singular/plural pairing indicated by SMALL CAPS in the Semantics column. In some cases, the few attested examples in a particular pairing are represented by glosses rather than a generalization or characteristic. For example, a member of the

4 Smith (2007) counts thirteen distinct patterns. Blench (2018) adds the fourteenth pattern, 2B, that was only mentioned as an aside in Smith (2007). The null Ø symbol indicates no morphological expression for that noun class. No tone is indicated in Table 1 because tone is construction specific.

5 Numbering reflects the Bantu numbering tradition, in that odd numbers indicate singular forms and even numbers indicate plurals (cf. discussion of the Bleek-Meinhof numbering system in Welmers 1973: 163). Note that Ụt-Ma'in though distantly related to Bantu languages is not a Bantu language.

6 Noun class marking and agreement marking for certain classes have distinct forms; therefore, I maintain a terminological distinction between agreement marking (glossed as AG with a noun class label, e.g. *d-* 'AG5-') and noun class marking on a noun (glossed as C with a noun class label, e.g. *r-* 'C5-').

Table 1: Noun class morphological system (Smith 2007: 100).

Class Label	Plurality	Noun Prefixes	Noun Suffixes	Agreement Prefix (AG)	Agreement Suffixes (AG)	Pronoun
1	SG	*u-*	*-Ø*	*u-/w-/Ø-*	*-wa*	*wa*
1B	SG	*Ø-*	*-Ø*	*u-/w-/Ø-*	*-wa*	*wa*
2	PL	*Ø-*	*-Ø*	*Ø-*	*-ɛ*	*ɛ*
2B	PL	*Ø-*	*(-nɛ)*	*Ø-*	*-ɛ*	*ɛ*
3	SG	*u-*	*-u*	*u-/Ø-*	*-ɔ*	*ɔ*
3B	SG	*Ø-*	*-Ø*	*u-/Ø-*	*-ɔ*	*ɔ*
4	PL	*s-*	*-s*	*s-*	*-sɛ*	*sɛ*
5	SG	*r-*	*-d*	*d-*	*-dɛ*	*dɛ*
6	PL	*t-*	*-t*	*t-*	*-tɔ*	*tɔ*
6B	MASS/DIM PL	*m-*	*-m*	*m-*	*-mɔ*	*mɔ*
7	SG	*u-*	*-j*	*j-*	*-ja*	*ja*
7B	SG	*Ø-*	*-j*	*j-*	*-ja*	*ja*
DIM	SG	*i-*	*??*	*i-*	*-i*	*i*
AUG	PL	*a-*	*??*	*a-*	*-a*	*a*

MODIFIER TYPE	N FORM	POSTN MODIFIER FORM
Quantifier/Numeral	C-N	AG-NP_{QUANT}
Associative Phrase	N	AG-ASSOCP
Adjective	N-C	ADJ-AG
Definite Marker	N-C	AG.DEF
Demonstrative	N-C	AG-DEM
Relative Clause	N	AG=RELCL

Figure 1: Prefixal and suffixal class marking by constituent within the NP.

Table 2: Semantic tendencies of noun classes in Ụt-Ma'in.

Noun Class	Noun Affixes	Object Pronouns	Semantics		# in 2007 wordlist	# Loans in 2007 wordlist
1B/2	*wa-/a-*	*wá/ɛ́*	HUMAN	AGENT NOMINALIZATIONS	29	–
1/2B	*ū-/Ø-*	*wá/ɛ́*		'barren woman', 'fool'	2	–
1/6	*ū-/t-*	*wá/tɔ́*		'grandchild'	–	1
1B/6	*Ø-/t-*	*wá/tɔ́*		HUMANS	6	–
3/2	*ū-/Ø-*	*ɔ́/ɛ́*		'giant'	1	–
7B/2B	*Ø-/Ø-*	*já/ɛ́*		HUMANS	4	–
7/2B	*ū-/-nɛ*	*já/ɛ́*		'prostitute', 'witch'	2	–
5/2	*r-/ Ø-*	*dɛ́/ɛ́*	ANIMATE	'puff adder'	1	–
7/2	*ū-/Ø-*	*já/ɛ́*		ANIMALS, FRUITS, CROPS	77	6
3/6	*ū-/t-*	*ɔ́/tɔ́*	INANIMATE, SHAPE	inanimate, kinship terms	61	3
3B/6	*Ø-/t-*	*ɔ́/tɔ́*		'entrance hut'/'fish trap'	2	–
3/4	*ū-/s-*	*ɔ́/sɛ́*		INANIMATE and/or LONG	10	2
3B/4	*Ø-/s-*	*ɔ́/sɛ́*		'heart'/'dream'/'island'	3	–
5/6	*r-/t-*	*dɛ́/tɔ́*		INANIMATE and/or ROUND	139	8
5/4	*r-/s-*	*dɛ́/sɛ́*		'thatch'/'arrow'	2	–
7/4	*ū-/s-*	*já/sɛ́*		NON-FOOD PLANTS and/or LONG	72	11
7/6	*ū-/t-*	*já/tɔ́*		'feather'/'iron'/'baby sling'	4	4
3/AUG	*ū-/ā-*	*ɔ́/á*	SIZE	AUGMENTATIVE	4	–
DIM/4	*ī-/s-*	*í/sɛ́*		'argument'	1	–
DIM/6 M	*ī-/m-*	*í/mɔ́*		DIMINUTIVE	6	–
2	*Ø-*	*ɛ́*	NON-COUNT, MASS	'beer', 'money', 'beach'	3	–
3	*ū-*	*ɔ́*		SEASONS, DIRECTIONS, PROPERTIES	19	2
4	*s-*	*sɛ́*		SPEECH ACTS	19	–
5	*r-*	*dɛ́*		EMOTIONS, BOUNDARIES, AGE	25	1
6	*t-*	*tɔ́*		NON-COUNT NOUNS	40	–
6B	*m-*	*mɔ́*		MASS NOUNS, LIQUIDS, POWDERS	78	–
7	*ū-*	*já*		'eczema'	1	–

pairing 5/6 has high likelihood of being INANIMATE and ROUND, but the pairing 5/2 contains only one item 'puff adder'. Individual lexeme examples are in 'single quotes' in the Semantics column. Class labels, noun affixes and pronouns are included in the first three columns to align the sematic information with the noun class forms given in Table 1. General distributions are indicated in the final two columns: number of pairs in Smith (2007) wordlist and number of borrowed words in Smith (2007) wordlist.

Ụt-Ma'in shows nominative-accusative alignment. This difference is evident in overt morphosyntactic properties such as word order and locus of noun class marking. The prevalent word order is SV in intransitive clauses and AVO in transitive clauses, (1–3). When S or A is expressed by a pronoun, a mid-tone subject pronoun must be used (1–2). When an unmodified noun functions as S or A, like *tʃāmpā-jə̀* 'man-C7' in (3), noun class marking is suffixed to the noun stem[7]; 1SG personal pronoun and class marked pronoun objects have a high tone. All other pronoun objects have a mid tone. Subject and object forms are summarized and illustrated in Table 3. Basic clause negation is accomplished by a clause final negator enclitic *=da* 'NEG' as in (4).

(1) S V
wā *már-g* *(gjə̄p)*
C1.3SG.SBJ die-PST yesterday
'He died (yesterday).'[8]

(2) A V O A V O
a. *nā* *hɔ́-g* *ū-g^{w}ā:r* b. *nā* *hɔ́-g* *já*
NPERS.SBJ kill-PST C7.OBJ-goat NPERS.SBJ kill-PST C7.OBJ
'Someone killed the goat.' 'Someone killed it.'

(3) A V O_{RECIP} O_{THM}
tʃāmpā-jə̀ *jā-:g* *wə́n* *ə̄r-gá*
man-C7.SBJ give-PST 3SG.OBJ C5.OBJ-cooked.grain
'A man gave him food.'

(4) A V O_{RECIP} O_{THM} NEG
rə̄-ə̀ *já-:g* *bə̄* *ə̄t-tʃàn* ***dà***
god-C3 give-PST 2SG C6-feather NEG
'creator did not give you feathers'

7 These constrastive noun forms show evidence of a marked-nominative system case-function as defined by König (2008: 9), as the nominative form is the functionally marked and most restricted form. The accusative prefix marked form is the citation form and has a much broader functional range. Although not within the scope of this paper, note that the morphologically marked NOM/ACC pattern is neutralized when a noun phrase contains modifiers and if certain personal pronouns occur.

8 Tone is indicated in all examples by diacritics for three tone levels as shown here with the vowel <o>: high tone <ó>, mid tone <ō>, and low tone <ò>.

Table 3: NOM/ACC alignment versus neutral alignment.

			Subject Form		Object Form	
Nom/Acc Alignment	Unmodified N		*tʃāmpá-jə̀* man-C7		*ū-gʷā:r* C7-goat	
	1SG pronouns		*ə̄m*	'1SG.SBJ'	*mɛ́*	'1SG.OBJ'
	Class Marked Pronouns	C1	wā	'C1.SBJ'	wá	'C1.OBJ'
		C2	*ɛ̄*	'C2.SBJ'	*ɛ́*	'C2.OBJ'
		C3	*ɔ̄*	'C3.SBJ'	*ɔ́*	'C3.OBJ'
		C4	*sɛ̄*	'C4.SBJ'	*sɛ́*	'C4.OBJ'
		C5	*dɛ̄*	'C5.SBJ'	*dɛ́*	'C5.OBJ'
		C6	*tɔ̄*	'C6.SBJ'	*tɔ́*	'C6.OBJ'
		C6B	*mɔ̄*	'C6B.SBJ'	*mɔ́*	'C6B.OBJ'
		C7	*jā*	'C7.SBJ'	*já*	'C7.OBJ'
		CAug	*ā*	'CAug.SBJ'	*á*	'CAug.OBJ'
		CDim	*ī*	'CDim.SBJ'	*í*	'CDim.OBJ'
Neutral Alignment	Personal pronouns			*īn*		'1PL.INCL'
				īt		'1PL.EXCL'
				bɔ̄		'2SG'
				nɔ̄		'2PL'
				wə̄n		'3SG'
				ə̄n		'3PL'
	Modified NP		*tʃāmpá-ú=já* man-C7=C7.DEF 'that man'			

The Ụt-Ma'in verb itself is never marked for agreement with the noun class of its nominal arguments, as seen in (5) where the verb *fāk* 'call.PST' does not show agreement with the noun class of either the CLASS 1 subject or the CLASS 6 object. This contrasts starkly with certain other Niger-Congo (especially Bantu) noun class languages such as Swahili (Welmers 1973: 171; cf. also the discussion in Corbett 1991: 43), which often obligatorily mark the noun class of arguments on the verb. Even the closely related Kainji language, Cicipu, marks subject agreement on the verb (McGill 2009: 292 and 341).

(5) A V O
[fàrə̀k-Ø ūn-wā] *fāk* *[nɛ̄t-ə̄t* *tɔ́* *t-bɛ̄:t]*
king-C1 DEM-AG1 call.PST person-C6 C6.DEF C6-all
'This king called all of the people.'

Ụt-Ma'in verb stems only occur with noun class affixes when nominalized. Nominalized verbs in Ụt-Ma'in may occur with either prefixed or suffixed noun class elements like other nouns, depending on the particular construction in which they are found (Smith 2007). In every case, the noun class marking on the nominalized verb is not related in any way to the arguments of the verb. Noun class marking is lexically specified for every nominalized verb and is not conditioned by any phonological, morphological, or syntactic property.[9]

Verbal suffixes indicate past (e.g. (1)) and perfect; verbal enclitics indicate spatial deixis and/or focus constructions; auxiliary constructions indicate other TAM categories including progressive, future, deontic, and inchoative. A summary of verbal constructions is available in Paterson (2015: 225–234).

Verbs in Ụt-Ma'in on the whole are quite flexible in terms of transitivity. Throughout this study, I use the shorthand "intransitive" or "INTR" to indicate that a clause is syntactically intransitive, i.e. there is no expressed object. If I intend to discuss the semantic intransitivity, I state that explicitly. Similarly, I use "transitive" or "TRAN" as shorthand for syntactically transitive, i.e. there is an expressed object. In basic clauses certain verbs require an overt expressed object or a "definite null" (Fillmore 1986: 96) that can be retrieved from the surrounding context or discourse. However, in the progressive constructions many semantically transitive verb roots no longer require the expressed or retrievable object when in nominalized form.

In the next section we look at two Ụt-Ma'in Progressive Constructions – the Intransitive Progressive and the Transitive Progressive, and how they differ from the clauses that we have already seen.

1.2 Ụt-Ma'in Progressive Constructions

The key indicators of the Progressive in Ụt-Ma'in are the progressive auxiliary followed by the main verb, and the morphology on the verb phrase (VP). In this section I describe the most morphologically complex forms of the Progressive. In Section 4 instances of reduced morphological marking are discussed. In the most complex IntransProgCxn, the main verb occurs with one of five prefixes, all with mid tone. In the most complex TransProgCxn, the main verb does not combine with a prefix; rather, the post-verbal object occurs with one of two prefixes, both with low tone.

9 Regarding assignment of nominalized verbs to classes, class 4 is used for verbs referring to speech acts ('say, call, greet, pray,' etc.), but there is no other yet-identified semantic basis for the assignment of nominalized verbs to classes (cf. Section 2.2 and Paterson 2012: 255).

1.2.1 Intransitive (IntransProgCxn)

The Ụt-Ma'in IntransProgCxn consists of the following elements: a subject and the auxiliary verb *ɔ́* 'PROG' followed by the main semantic verb. The word order and subject marking in the Progressive construction are identical to other main clause syntax, i.e. constituent order is SV, and subject pronoun/noun forms are used. In the Intransitive Progressive, PAST TENSE may be suffixed to the auxiliary, as can be seen by comparing (6) and (7). This is different from the structure of non-progressive constructions, where the tense is suffixed to the main verb (cf., *már-g* 'die-PST' in (1)).

(6) S AUX V
wā *ɔ́-g* *ə̄t-màr*
C1.3SG.SBJ PROG-PST C6-die
'He was dying.'

(7) *wā* *ɔ́* *ə̄t-màr*
C1.3SG.SBJ PROG C6-die
'He is dying.'

In an IntransProgCxn, a prefix occurs on the main verb. For instance, in both (6) and (7), the root *màr* 'die' occurs with the *ə̄t-* prefix, identical to the noun class 6 prefix from Table 1.[10] Five prefixes are attested in the IntransProgCxn: *ū-*, *s-*, *r-*, *t-* and *m-*. These are shown in (8), and correspond to class prefixes from classes 3, 4, 5, 6 and 6B.[11]

(8) a. *wā* *ɔ́-g* *ū-swá:t*
C1.3SG.SBJ PROG-PST C3-fast
'He was fasting (from food).'
b. *wā* *ɔ́-g* *ə̄s-və̄k*
C1.3SG.SBJ PROG-PST C4-greet
'He was greeting.'
c. *wā* *ɔ́-g* *ə̄r-ʃə̄ʔə̄t*
C1.3SG.SBJ PROG-PST C5-sit
'He was sitting.'

10 Grammatical tone is phonetically realized on the epenthetic mid-central vowel [ə] when an affix underlyingly consists of a single consonant. The epenthetic vowel occurs often to ease pronunciation of two adjacent consonants.

11 Additional functions of these nominalized forms is discussed in § 3.2.2.

d. *wā* *ɔ́-g* *ə̄t-swà*
C1.3SG.SBJ PROG-PST C6-drink
'He was drinking.'
e. *wā* *ɔ́-g* *ə̄m-hā*
C1.3SG.SBJ PROG-PST C6B-walk
'He was walking.'

Some roots, like *hɔ̀g* 'hear' in (9) and (10), can occur in the IntransProgCxn with either of two prefixes without a change of meaning. As these are elicited examples, we cannot ascertain from the context the possibility that there is subtle semantic differences based on the prefix chosen. In cases where a verb root can combine with more than one prefix, one of the two prefixes always corresponds to class 6 *ə̄t-*, seen in (10). Not all lexical verb roots have such flexibility.

(9) *wā* *ɔ́-g* *ə̄m-hɔ̀g*
C1.3SG.SBJ PROG-PST C6B-hear
'He was hearing'

(10) *wā* *ɔ́-g* *ə̄t-hɔ̀g*
C1.3SG.SBJ PROG-PST C6-hear
'He was hearing'

It is important to note that, while these clauses have no expressed object, they are not necessarily semantically intransitive. For example, in (8b), (8d), (9), and (10), there may be notional patients, addressees, etc. of the verbs, but they are not expressed. In the next section, we see how an object NP is overtly expressed using the TransProgCxn.

1.2.2 Transitive (TransProgCxn)

In the Ụt-Ma'in IntransProgCxn, semantically bivalent verbs still express only one argument (11); i.e. there is no overt lexical NP for the "greetee" of the verb form *ə̄s-və̄k* 'C4-greet'. In contrast, in (12) the semantically bivalent root 'greet' participates in a TransProgCxn with an overtly expressed object NP *ū-nɛ̄ŋgɛ̄n* 'C7-old.man'.

The grammar of the TransProgCxn differs from that of the IntransProgCxn, though subject properties are the same as other clause types, and the progressive auxiliary *ɔ́* carries any tense marking suffixed to the auxiliary. However, in contrast

with the IntransProgCxn as in (11), there is no prefix on the main verb *vɔ̄k* 'greet', seen in (12). Additionally, in (12) an *s-* prefix and a low tone precede the object NP and cliticize to the object.

(11) S Aux s-V
ɔ̄m *ɔ́-g* *ɔ̄s-vɔ̄k*
1SG.SBJ PROG-PST C4-greet
'I was greeting.'

(12) A Aux V s-`=O
ɔ̄m *ɔ́* *vɔ̄k* *s-`=u-nɛ̄ŋgɛ̄n*
1SG.SBJ PROG greet AG4-OBJ=C7-old.man
'I am greeting the old man.'

One of two low-tone prefixes can occur on the post-verbal object NP in the TransProgCxn. These are *s-* as in (12) and *d-* (13). In (13), the *d-* and low tone are cliticized to the mid-tone object pronoun *wɔ́n* '3SG.HUM.OBJ'.

(13) A Aux V d-`=O
wā *ɔ́* *gwɔ̄* *d-ɔ̀=wɔ̄n*
C1.SBJ PROG rescue AG5-OBJ=3SG.HUM.OBJ
'He is rescuing him.'

The choice of *s-* vs. *d-* in the TransProgCxns seems lexically specified on a verb-by-verb basis. That is, the prefix is related to the lexical noun class assignment of the particular verb used in the TransProgCxn, and they are glossed in that way here – AG4 for class 4 agreement. Crucially, the choice between *s-* and *d-* is not dependent on the lexical noun class of the object noun but rather on the lexical noun class of the nominalized verb. If the lexical classification of the nominalized verb is class 4, the pre-object prefix is *s-*. If the lexical classification of the nominalized verb is anything other than class 4, the prefix is *d-*. The distribution of prefixes on nominalized verbs is discussed further in Section 2.2, Smith (2007: 66), and Paterson (2012: 255–256).

1.3 Negative progressive constructions

To form a Negative Intransitive Progressive Construction (NegIntrProgCxn), the negative auxiliary *zá* occurs place of the *ɔ́* 'PROG'. This occurs immediately between the S/A argument and the nominalized main sematic predicate. To

illustrate, in (14) the NegIntrProgCxn is in bold and the two negator elements are underlined. The semantically main predicate is of citation class 6b, marked *m-há* 'C6B-go'. The co-occurrence of two negative markers can be explained from the source of the clause: it contains the nominal negator *zá* 'NEG' because the predicate is in nominal form; and it contains the clausal negator *=da* 'NEG' because the entire structure is clausal (cf. (4)).

(14)

		S=NEG	C-V=NEG
wá?-ɬ=rò	zɘ̄	ɘ̄***m***=***zá***	***m-há*=*dà***
child-C1=3SG.POSS	say	1SG.SBJ=NEG	6B-go=NEG

'His child said, "I am not going."

The Negative TransProgCxn is formed in the same way, with the negative auxiliary preceding the V and the clausal negator enclitic occurring in clause final position.

1.4 Overview of the rest of the paper

Considering that language is a historically evolved system, we now ask several questions. Why is there such a diversity in the grammar of these two Progressive constructions? Why do main verbs carry a prefix in the Intransitive but post-verbal object NPs carry a prefix in the Transitive? And what is the source of the low tone in the TransProgCxn? I answer these questions by appealing to likely source constructions and diachronic mechanisms that have led to two morphologically complex and distinct synchronic Progressive Constructions.

Figure 2 summarizes the morphologically complex Ụt-Ma'in Progressive Constructions we have seen in Section 1.2 including the five mid-tone prefixes that occur on the main verb in the IntransProgCxn and the two low-tone prefixes that occur on the post-verbal object NP in the TransProgCxn. Three additional, morphologically reduced, lexically specified forms are included and bolded. We will return to these forms in the discussion of reanalysis in Section 4.

Sections 2 and 3.1 treat the source components that have given rise to these two synchronic Progressive Constructions, and Section 3.2 presents comparative evidence of the source components from four Kainji language clusters. Section 4 discusses changes to morphological marking following the reanalysis of the nominalized sources as new finite verbs and the constructionalization of the synchronic Progressives in Ụt-Ma'in. The final Section 5 discusses the relevance of this diachronic development for the fields of historical syntax, diachronic typology, and the description of Kainji languages.

ansitive Progressive	S	ɔ́-TNS	*ū*-V	
	S	ɔ́-TNS	*ə̄s*-V	
	S	ɔ́-TNS	*ə̄r*-V	
	S	ɔ́-TNS	*ə̄t*-V	
	S	ɔ́-TNS	*ə̄m*-V	
	S	**ɔ́-TNS**	**V**	
Transitive Progressive	S	ɔ́-TNS	V	*d* - ˋ = O
	S	ɔ́-TNS	V	*s* - ˋ = O
	S	**ɔ́-TNS**	**V**	**ˋ = O**
	S	**ɔ́-TNS**	**V**	**O**

Figure 2: Schematic of the progressive constructions in Ụt-Ma'in.

2 The elements of the source constructions

In this section, I present the Ụt-Ma'in source constructions, which all exist synchronically. I posit that the IntransProgCxn has as its source the PredNomCxn with a Nominalized Verb as the Predicate NP. In order to include the object of a nominalized verb as part of the predicate NP, speakers expressed the erstwhile object in an NP-internal Associative Construction (hereafter AssocCxn). This yielded the TransProgCxn (cf. Section 2.3).

2.1 Copula ɔ́ and the PredNomCxn

A structural comparison between the Predicate Nominal source construction and the Intransitive Progressive is modeled in Figure 3, where we see that they are

PREDNOMCXN	NP	ɔ́-(TNS)	NP
INTRANSPROGCXN	S	ɔ́-(TNS)	V_{NMLZ}

Figure 3: Structure of the predicate nominal and intransitive progressive.

virtually the same construction. The PREDNOMCXN is composed of two NPs "linked" together by the copula *ɔ́* that may be marked for tense with the verbal suffix *-ːg* 'PST'. The first NP of the PREDNOMCXN has the morphosyntactic characteristics of the subject in other clauses (cf. Section 1.1). The second NP has the morphosyntactic characteristics of an object in other clauses.

As summarized in Figure 4, the copula *ɔ́* is used in the PREDNOMCXN for the functions of IDENTIFICATION (Overall et al. 2018: 4; cf. equative in Payne 1997: 114), ATTRIBUTION (Payne 1997: 111ff, which includes both temporary and permanent properties), and LOCATION (Overall et al. 2018: 4; Payne 1997: 111).[12] In Figure 3, NP_{EQUIV} indicates an equivalent noun in an Identification Construction, NP_{MOD} indicates a modifier noun in an Attributive Predication Construction, and NP_{LOC} indicates a locative noun in the Predicate Nominal Locative Construction.

Identification	NP	ɔ́-(TNS)	NP_{EQUIV}
Attributive Predication	NP	ɔ́-(TNS)	NP_{MOD}
Location	NP	ɔ́-(TNS)	NP_{LOC}

Figure 4: Summary of functions of PREDNOMCXN.

We first look at the PREDNOMCXN that equates the concepts expressed by two nouns or NPs. Example (15) shows a PREDNOMCXN used for identification. On the left side of the copula *ɔ́* is the 3SG pronoun *wɔ̄n*; on the right is the noun *ū-dárídàŋ* 'spider'. The PREDNOMCXN used in (16) equates the referent of the noun *ràndí-m-ɔ̀* 'spider.web-C6B-SBJ' with the referent of the NP *fɔ̀n-ū=rí* 'my road'.

12 In Ụt-Ma'in, proper inclusion (Payne 1997: 114) or Categorization (Overall et al. 2018: 4) may be expressed by a distinct nonverbal clause construction in which the copula *ɔ́* is not used. In terms of the diachronic typology presented in Overall et al. (2018: 25), this is unexpected. Overall et al. (2018)'s identification function and location function exist at opposite ends of the development spectrum, each often acting as the source for various other functional constructions. This is also unexpected.

(15) *wɔ̄n ɔ́ ū-dárídàŋ*
3SG.SBJ COP C7-spider
'He is spider.'

(16) *ɔ́dàʔɔ̄ ràndí-mɔ̀ ɔ́ fɔ̀n-ū=rí*
now spider.web-C6B.SBJ COP road-C7=1SG.POSS
'Now spider web is my road.'

To form an Attributive Predicate, one need only use a descriptive noun as the predicate (17).[13] Similarly, to form a PREDNOMCXN with a locative interpretation, one need only use a noun expressing a semantic location following the copular verb *ɔ́*. In (18), the noun *ū-bù* 'C3-house' is interpreted as the location of the speaker.[14] In (19), the NP *ísɔ̀rdù* 'eye of well' is interpreted as the location of the lizard.

(17) *káʔát-ɔ́t=rí ɔ́ m-dʒīgɔ̄n*
shoe-C6=1SG.POSS COP C6B-dirtyness
'My shoes are dirty.'

(18) *ɔ̄m ɔ́ ū-bù*
1SG.SBJ COP C3-house
'I am at home.'

(19) *gɔ̀-jɔ̀ ɔ́ ísɔ̀rdù, jā hɛ̄ɛ̄g ɔ́-mɛ́ dùdɔ̀mbɔ̄*
lizard-C7.SBJ COP eye.of.well C7.SBJ fall.PST LOC-inside well.of.water
'Lizard is at the door of the well; it fell inside the well of water.'[15]

These locative constructions are less frequent than locative predication constructions involving a prepositional phrase expressing location. For instance, in (20) the overt locative preposition *ɔ́-dɔ́m* 'LOC-top' follows the copula and precedes the noun *ɔ̄r-fàrɔ̀k* 'C5-throne'.

13 Adjectives are a separate word class (Smith 2007: 86).

14 This clause was provided as an explanation of location when, for example, asking via phone where a person is currently located; that is, the listener would not have visual reference to the speaker's location.

15 Text is converted from the orthography to the IPA-based writing system used in this paper.

(20) *fàrɘ̀k-Ø ɔ́ [ɘ́-dɔ́m ɘ̄r-fàrɘ̀k]*
chief-C1.SBJ COP LOC-top C5-throne
'A chief is on a throne'

Overt locative markers like *ɘ́-* are not used in the Ụt-Ma'in Progressive Constructions but are used in the progressive constructions of closely related languages. We will take up the discussion of overt locative marking across Kainji languages in Section 3.2.

Negative copular construction uses the negative copula *zá*. The source of *zá* 'NEG.COP' is likely the nominal negator zá 'no', shown in (21).

(21) *zá=ʔ-tʃán*
NEG=C6-feather
'featherless'

The *zá* 'NEG.COP' is used in place of the *ɔ́* 'COP' to negate a copular clause. The NP that precedes the negative copula has the same subject properties we have seen with copular constructions. In (22), the subject pronoun *ɘ̄m* '1SG.SBJ' is cliticized to the negative copula. The semantically main predicate is the class marked indefinite pronoun *ɔ̀-kɘ̄n* 'C3-there' which translates in other non-negative contexts as 'something'. When it co-occurs with the negative copula, then *ɔ̀-kɘ̄n* translates as 'nothing'. Here we know that the negation is on the clause level (i.e. is negating the predication, and not just an NP) for two reasons: the use of the subject form pronoun preceding the *zá* and the co-occurring use of the clausal negator *=da*.

(22) *ɘ̄m=zá ɔ̀-kɘ̄n=dà.*
1SG.SBJ=NEG.COP C3-there=NEG
'I am nothing.'

In the next section we take up nominalized verb forms that serve as intransitive predicates following the progressive auxiliary.

2.2 Nominalized verbs

In this section we survey the form and uses of nominalized verbs that also occur in the IntransProgCxn. Nominalization is accomplished by means of noun class marking on verb roots. Such nominalized verbs have been found in five of the fourteen noun classes, as in Table 4. Of the 349 action nominals presented in Smith (2007), 241 are in class 6, with the remainder distributed among the other four

Table 4: Agreement class forms for Ụt-Ma'in nominalized verbs.

Class Label	Noun Affixes	Agreement Pronouns	# Nouns in 2007 wordlist	# Nominalized Verbs in 2007 wordlist	Examples
3	*ū-*	*ɔ́*	19	**26**	*ū-swáːt* 'fasting'; *ū-hʲūw* 'stealing'
4	*ɵ̄s-*	*sɛ́*	19	**26**	*ɵ̄s-dòròg* 'thinking'; *ɵ̄s-fág* 'calling'
5	*ɵ̄r-*	*dɛ́*	25	**46**	*ɵ̄r-fátɛ̀* 'sliding'; *ɵ̄t-èŋk* 'losing'
6	*ɵ̄t-*	*tɔ́*	40	**241**	*ɵ̄t-mjɔ̀g* 'twisting'; *ɵ̄t-dɔ̀st* 'picking up'
6B	*ɵ̄m-*	*mɔ́*	78	**25**	*ɵ̄m-hóg* 'hearing'; *ɵ̄m-zàp* 'shivering'

noun classes. It is interesting to note that noun classes that do not function as nominalizers are used either for human/animate categorization (classes 1, 2 and 7) or specific size categorization (classes DIM and AUG).

Ụt-Ma'in nominalized verbs may be used as the arguments of finite verbs (23) where *tɔ́m* 'to hoe'[16] occurs with a noun class 5 prefix as *ɵ̄r-tɔ́m* (C5-hoe) 'to hoe' as a reference to the activity of hoeing. This nominalized verb then serves as the object of the verb *nák* 'knew'.

(23) *wɵ̄n* *nák* *ɵ̄r-tɔ́m* *sók*
3SG.SBJ know.PST C5-hoe(v.) well
'He knew hoeing well.'

Nominalized verbs may be used as modifiers of other nouns. In (24) the nominalized verb *ɵ̄r-ʃɵ̄ʔɵ̄t* 'C5-sitting' is used as the attributive modifier following the head noun 'place'.

(24) *bé* *t-ɔ̀=r* *ʃɵ̄ʔɵ̄t* *ɔ́* *mɛ́n* *ū-tát*
place AG6-ASSOC=C5 sit COP stomach C3-many
'Places for sitting are many within (the banquet hall).'
(citation: *ɵ̄t-bé* 'C6-places' /'places' and *ɵ̄r-ʃɵ̄ʔɵ̄t* 'C5-sit' /'sitting')

16 Although the English translation 'hoe' is ambiguous, the root *tɔ́m* indicates the action *hoe* (v). In (23), I have included (v.) in the English gloss of *ɵ̄r-tɔ́m* to help differentiate action from implement and to make clear that this is a nominalized verb.

Nominalized verbs may be used as adverbial modifiers to entire clauses. In (25) the nominalized verb *ɔ̄t-rɛ̀* 'C6-eating' describes the event of leaving, that is 'they left while at the same time eating (fruit).'

(25) *ɛ̄* *ārɔ́k* *ɔ̄t-rɛ̀*
C2.SBJ leave C6-eat
'They left eating'[17]

In summary, a verb root is nominalized by means of one of five noun class prefixes, after which it may serve as an argument of a main clause verb, modifier of another noun, or as an adverbial modifier of an entire clause. These are activity nominalizations. None of these nominalizations are event nominalizations (e.g. to talk > a talk) or object nominalization (e.g. to drink > a drink). These nominalized verb forms are the origin of the prefixes in the IntransProgCxn.

2.3 The Associative Construction (AssocCxn)

This section presents the morphology of the Ụt-Ma'in AssocCxn in order to understand the morphology of the TransProgCxn. The term "associative" was coined by Welmers (1963: 432, 1973: 275). Other terms for this construction within Niger-Congo include "genitive," "connective," and "connexive" (see Welmers 1973; Van de Velde 2013: 217).

The AssocCxn is used primarily for modification of a head noun within an NP and it "associates" the meaning of a modifier NP to a head noun. This section concludes with details regarding the use of nominalized verbs with the AssocCxn: the associated noun may encode a noun modifier, a goal complement, or a notional object.[18] When we see this associative structure in the TransProgCxn (cf. the structure presented in Section 1.2.2), it marks the "association" of the object to the erstwhile nominalized verb.

In the AssocCxn, a head noun occurs first, followed by a low tone and then a modifier NP; this low tone is the Associative Marker. At this point it may be helpful to more explicitly define four particular terms, and provide an example of each in (26) below:

17 A bare verb can have a past interpretation from the dicourse context; see Paterson (2015).
18 The term "notional object" is used to mean the item that could be coded as the object of the verb when the verb is in a not nominalized context.

- Associative Marker (hereafter AssocMkr): a low-tone, often supported by a mid-central vowel, i.e. ə̀ 'ASSOC';
- Associative Complex (hereafter AssocCmplx): the AssocMkr plus any class marking that cliticizes to it, i.e. *t*-ə̀-*m* 'AG6-ASSOC-C6B';
- Associative Phrase (hereafter AssocP): the AssocCmplx and the modifier-NP which follows, i.e. *t*-ə̀-*m wə́r* 'AG6-ASSOC-C6B length'.
- Associative Construction (AssocCxn): a head noun modified by an AssocP, i.e. *rān t*-ə̀-*m wə́r* 'leaf AG6-ASSOC-C6B length'

In the AssocCxn, the noun class of the head noun is only apparent via an agreement prefix on the AssocMkr.[19] Examples (26) and (27) illustrate the AssocCxn within NPs that serve as the subjects of a main verb, where the same root *rān* 'leaf' occurs as the head noun of the subject NP. The exact meaning of the phrase ('long leaves' versus 'soup leaves') can only be interpreted by the noun class marked by the agreement prefix on the AssocP and the lexical value of the modifying noun.

(26) *rān* *t*-ə̀=*m* *wə́r* *hɛ̄ːg*
leaf **AG6**-ASSOC=C6B length fall.PST
'long leaves fell' (Lit: 'leaves of length fell')
(citation: ***ə̄t-rān* 'C6-leaf'/'leaves'** and *ə̄m-wə́r* 'C6B-length')

(27) *rān* *s*-ə̀=*s* *tʃwā* *hɛ̄ːg*
leaf **AG4**-ASSOC=C4 soup fall.PST
'soup leaves fell' (Lit: 'cooked leaves of soup fell')
(citation: ***ə̄s-rān* 'C4-leaf'/'cooked leaves'** and *ə̄s-tʃʷā* 'C4-soup')

The AssocCmplxs in (26) and (27) are spoken as separate phonological words, characteristic of careful speech. Sometimes, the AssocCmplx cliticizes to the head noun root (28), separating the class marker of the modifier noun from the modifier noun root. Here the noun class 7 agreement prefix is consonantal, but the noun class marker of the modifier noun is the vowel *u*, bearing the low tone of the AssocMkr.

19 Recall from Table 1 that noun class marking and agreement marking for certain classes have distinct forms. In the AssocCmplx, both an agreement affix and a noun class affix occur: agreement marking is prefixed to the AssocMkr (identifying the noun class of the head noun); while the final element of the AssocCmplx is the inherent noun class marker of the following modifying noun that (often not always) cliticizes to AssocMkr.

(28) *wà-kʊ̀n nēt wā wʊ̀ gágʊ́n* [*nētá=j-ˋ–u íbò*]
C1-certain person C1.D C1.REL married [woman=AG7-ASSOC=C1 Igbo.person]
'... a certain person who married an Igbo woman'

However, the ASSOCCMPLX may also cliticize to another element of the NP, see (30). There is variation from speaker to speaker and even between utterances by the same speaker.

Table 5 presents all attested class combinations in the ASSOCCMPLX found in Ụt-Ma'in NOUN + NOUN ASSOCCXNs. All blank cells below involve a C1 or C2 noun and indicate that an ASSOCCXN has not been encountered for that combination of classes in the spontaneous data available. Possession is indicated by a separate construction, and this may be why exclusively human-referent C1 nouns are rarely used in the modifying position within the ASSOCCXN.

Table 5: Attested forms of the ASSOCCMPLX.[a]

		NOUN CLASS OF MODIFIER NOUN							
		C1	C2	C3	C4	C5	C6	C6B	C7
NOUN CLASS OF HEAD NOUN	C1								
	C2				*Ø-ʊ̀=s*	*Ø-ʊ̀=r*	*Ø-ʊ̀=t*	*Ø-ʊ̀-m*	*Ø-ˋ=u*
	C3		*Ø-ʊ̀=Ø*	*Ø-ˋ-u*	*Ø-ʊ̀=s*	*Ø-ʊ̀=r*	*Ø-ʊ̀=t*	*Ø-ʊ̀-m*	*Ø-ˋ=u*
	C4		*s-ʊ̀=Ø*	*s-ˋ-u*	*s-ʊ̀=s*	*s-ʊ̀=r*	*s-ʊ̀=t*	*s-ʊ̀-m*	*s-ˋ=u*
	C5		*d-ʊ̀=Ø*	*d-ˋ-u*	*d-ʊ̀=s*	*d-ʊ̀=r*	*d-ʊ̀=t*	*d-ʊ̀-m*	*d-ˋ=u*
	C6		*t-ʊ̀=Ø*	*t-ˋ-u*	*t-ʊ̀=s*	*t-ʊ̀=r*	*t-ʊ̀=t*	*t-ʊ̀-m*	*t-ˋ=u*
	C6B		*m-ʊ̀=Ø*	*m-ˋ-u*	*m-ʊ̀=s*	*m-ʊ̀=r*	*m-ʊ̀=t*	*m-ʊ̀-m*	*m-ˋ=u*
	C7	*j-ˋ=u*	*j-ʊ̀=Ø*	*j-ˋ-u*	*j-ʊ̀=s*	*j-ʊ̀=r*	*j-ʊ̀=t*	*j-ʊ̀-m*	*j-ˋ=u*

[a]Table 4 displays the morphological components of ASSOCCMPLX; it does not intend to indicate whether the complex stands alone phonologically as a well-formed word; sometimes ASSOCCMPLXs cliticize to one of the noun roots, as seen in (28) and (30).

Nominalized verbs may be modified by an ASSOCP. In example (29), the verb root *vʊ̄k* 'greet' serves as the head of the NP *vʊ̄k sʊ̀s ūt* 'greeting of old' that is the main clause subject. The root *vʊ̄k* is described as 'old' by the descriptive noun

s-ūt. We know the phrase containing *vɔ̄k* 'greet' is nominal because there is class agreement marking that occurs on the AssocCmplx that follows it.

(29) *vɔ̄k s-ɔ̀=s ūt zá t-barɔ̄m dà.*
greet AG4-ASSOC-C4 old NEG.COP FUT-change NEG
'The greeting of old will not change.'

In (30) we see the verb root *ha* 'go' followed by a goal complement. This phrase is marked with the class 6B agreement form *m-*, which cliticizes to the goal complement of the verb *ha* 'go'. The entire nominal phrase *hā m-`-u-tɔ́l:ɔ̀* is the object of the main verb *zɔ̄ŋtɛ̀* 'prepare.PRF'.

(30) *tʃāmpájɔ̀ zɔ̄ŋtɛ̀ [hā m-`=u-tɔ́l:ɔ̀]*
man.C7.SBJ prepare.PRF [go AG6B-ASSOC-C3-market]
'The man prepared market-going.' (citation: *ɔ̄m-hā* 'C6B-going' and *ū-tɔ́l:ɔ̀* 'C3-market')
Free English translation: 'The man prepared to/for going to market.'

In contrast to (30), example (31) shows how a goal argument is expressed within a locative phrase when *ha* 'go' is a finite main verb in a clause.[20]

(31) *hɔ̄:b-ɔ̄t=rī **[hā-:g** ɔ́ tūl:ɔ̀-ʔù māhūtā]*
friend-C6=1SG.POSS [go-PST LOC market-C3 Mahuta.town.POSS]
'My friend went to Mahuta's market'

In the NP of (32), the nominalized head is *nɔ́m* 'do'; it's shown with its notional object *rɛ́n* 'trap'; the AssocCmplx *dɔ̀t* 'AG5.ASSOC.C6' occurs between the two noun roots.

(32) *nɔ́m d-ɔ̀=t rɛ́n*
do AG5-ASSOC-C6 trap
'setting of traps' (citation: *ɔ̄r-nɔ́m* 'C5-doing' and *ɔ̄t-rɛ́n* 'C6 -trap')

Table 6 shows all the noun class combinations that are expected in the AssocCmplx when the head noun is a nominalized verb. This is necessarily a

20 Note that the class 3 noun *tūl:ɔ̀* 'market' is unmodified in (30) but modified by a possessor 'Mahuta' in (31). The location of this inherent class marker depends on the NP structure (Smith 2007). Vowel quality and tone was also different between these two utterances of the first vowel of the root, [ɔ́] in (30) and [ū] in (31). This may be a phonetically downstepped H tone following the H of the preceding LOCATIVE.

Table 6: AssocCmplx forms expected with nominalized verb head.

		Noun Class of Second Noun						
		2	3	4	5	6	6b	7
Noun Class of Head	3	*Ø-ə̀=Ø*	*Ø-ˋ=u*	*Ø-ə̀=s*	*Ø-ə̀=r*	*Ø-ə̀=t*	*Ø-ə̀=m*	*Ø-ˋ=u*
	4	*s-ə̀=Ø*	*s-ˋ=u*	*s-ə̀=s*	*s-ə̀=r*	*s-ə̀=t*	*s-ə̀=m*	*s-ˋ=u*
	5	*d-ə̀=Ø*	*d-ˋ=u*	*d-ə̀=s*	*d-ə̀=r*	*d-ə̀=t*	*d-ə̀=m*	*d-ˋ=u*
	6	*t-ə̀=Ø*	*t-ˋ=u*	*t-ə̀=s*	*t-ə̀=r*	*t-ə̀=t*	*t-ə̀=m*	*t-ˋ=u*
	6b	*m-ə̀=Ø*	*m-ˋ=u*	*m-ə̀=s*	*m-ə̀=r*	*m-ə̀=t*	*m-ə̀=m*	*m-ˋ=u*

subset of the forms from Table 5, since only five noun classes participate in nominalization of verbs.

In summary, the AssocCxn is used to "associate" the meaning of a modifier NP to a head noun. If the first noun is a nominalized verb, the association can be between a modifier (29), goal complement (30) or a notional object (32) and its HEAD; these functions are summarized in Figure 5.

Type of Nominal Head	**[AssocP]**
N_{HEAD}	[C-ASSOC=C N_{MOD}]
$V_{NMLZ:HEAD}$	[C-ASSOC=C N_{MOD}]
$V_{NMLZ:HEAD}$	[C-ASSOC=C N_{GOAL}]
$V_{NMLZ:HEAD}$	[C-ASSOC=C N_{OBJ}]

Figure 5: AssocCxn with N vs. V_{NMLZ} as head.

As we discuss in Section 3, the AssocCxn is the source of the distinctive object marking in the TransProgCxn.

3 Reconstruction

In Section 3.1 I assemble the source components together for the Ụt-Ma'in IntransProgCxn and TransProgCxn. In Section 3.2 I survey the limited data available to discuss parallel sources and constructions from across the Kainji languages.

3.1 Internal Reconstruction

Based on the constructions just presented, the synchronic IntransProgCxn seems to be comprised of the basic PredNomCxn, into which a nominalized verb is inserted as the nominal predicate. From these source elements, we have almost all of the grammar of the Intransitive Progressive: the order of SUBJECT/PREDICATE in the IntransProgCxn is preserved from the PredNomCxn, along with the subject properties of the first NP, the verb *ɔ́* 'COP', and a slot for a nominal following the copula. Later in Section 4.1, using a few specific verbs, we explore the few changes from the grammar of the sources that have yielded the synchronic IntransProgCxn.

Figure 6 displays the structure of the two source components and the synchronic IntransProgCxn that is clearly a combination of two more basic elements. The NegPredNomCxn and the NegIntransProgCxn also parallel in their structure using the double negation pattern, as shown in Figure 7.

Source	PredNomCxn	NP	ɔ́	NP
Source	Nominalized Verb			C-V_{NMLZ}
	IntransProgCxn	S	ɔ́	C-V_{NMLZ}

Figure 6: Schematic of the intransitive progressive.

Source	NegPredNomCxn	NP	zá	NP	=da
Source	Nominalized Verb			C-V_{NMLZ}	
	NegIntransProgCxn	**S**	**zá**	**C-V_{NMLZ}**	=da

Figure 7: Schematic of the negative intransitive progressive.

In the synchronic TransProgCxn, the object NP of the main verb is marked in the same way that a modifying descriptive noun is marked when it "agrees" with the head noun in an AssocCxn. This explains why objects in the Transitive Progressive occur with prefixed noun class agreement marking and a low tone, from the AssocMkr. This also explains why the Transitive

Progressive verb does not take a prefix like the Intransitive, as any time an AssocCxn is used as a modifying phrase, the noun class of the head noun is marked on the AssocMkr and not on the head noun itself; in this configuration, the AssocCmplx often cliticizes to the modifying noun. Figure 8 displays the two source components and the synchronic TransProgCxn that is a combination of these two more basic elements. The TransProgCxn and the AssocCxn do not occur with the prefixed class marker on the head N/V. The ag marking on the AssocP is the only indication of the nominal status and noun class of the head. The NegPredNomCxn and the NegTransProgCxn also parallel in their structure using the double negation pattern, as shown in Figure 9.

Source	PredNomCxn	NP	ɔ́	NP
Source	AssocCxn			N_{HEAD} [AG-ASSOC=C -N_{MOD}]
	TransProgCxn	S	ɔ́	V_{HEAD} [AG-ASSOC=C -N_{OBJ}]

Figure 8: Schematic of the transitive progressive.

Source	NegPredNomCxn	NP	zá	NP	=da
Source	AssocCxn			N_{HEAD} [AG-ASSOC=C -N_{MOD}]	
	NegTransProgCxn	S	zá	V_{HEAD} [AG-ASSOC=C -N_{OBJ}]	=da

Figure 9: Schematic of the negative transitive progressive.

Because the two synchronic Ụt-Ma'in Progressive Constructions have distinct constructional forms, we should address whether there might be more than one source construction, (cf. the multiple source constructions argued for in Van de Velde et al. 2013: 473). The PredNomCxn [NP cop NP] is evidently the shared diachronic source for both Ụt-Ma'in Progressive Constructions, as both intransitive and transitive involve the copula. That is, at the macro-level of the clause structure, there must be a single shared source construction from which each transitivity-based subconstruction has developed. However, at the more micro-level of the structure following the copula, differences have arisen. It is the morphological complexity of how the Ụt-Ma'in noun class system behaves itself within NPs that holds the key

to understanding the distinct modern forms of the two Progressive constructions: the Intransitive has a nominalized verb-as-head with no dependent, and the Transitive has a nominalized verb-as-head with its dependent expressed in an AssocCxn. In sum, it is simpler to embrace an analysis that recognizes the nature of noun class marking in simple versus modified NPs rather than proposing separate sources for the TransProgCxn and the IntransProgCxn.

We have identified the source grammar of the Progressive Constructions, but there remains a question of directionality. Clearly the clause and phrase level constituents are cognate between the PredNomCxn and both Progressives; however, a logical possibility is that the various Ụt-Ma'in PredNomCxn developed from the Ụt-Ma'in Progressive instead of vice-versa. Though it is a logical possibility, it is not a reasonable analysis given cross-linguistic evidence. To my knowledge, there are no attested cases cross-linguistically of predicate nominals developing from progressives. In contrast, Bybee et al. (1994: 130) report that, overwhelmingly, progressive structures emerge from locative constructions, and Heine et al. (1991) report the locative as a source for the progressive in over 100 African languages. Heine (1994: 269) further attests that a Location Schema "X is at Y" very commonly develops into a schema of "X is doing Y". Another schema he mentions is the equative/identificational pattern of "X is Y" becoming "X is doing Y". Ụt-Ma'in uses the same syntax for both proposition types: identification and location. From the Ụt-Ma'in case alone we cannot argue as to which of the PredNomCxns (Identification or Locative) was clearly and only the source. I take the position that the Ụt-Ma'in Progressive developed from the PredNomCxn, without specifying the Identification or Locative function as the source. In the next section, we see some data from other Kainji languages.

3.2 Comparative evidence across Kainji

In this section, we look at evidence from four clusters of related languages for each component of the Ụt-Ma'in Progressive Construction: the copular verb *ɔ́*, nominalization prefixes from the noun class system, and associative constructions. Locative markers are present in other Kainji progressive constructions, so a comparison of these forms is presented, even though the locative is not used in the synchronic Ụt-Ma'in Progressive.

As we saw in Section 2, each element of the modern Ụt-Ma'in Progressive Constructions is identifiable in some other synchronic construction within Ụt-Ma'in. This is also supported by parallel forms and structures throughout Kainji languages, although I do not attempt to reconstruct a Proto-Kainji Progressive Construction. Regular sound correspondences are not yet established for Kainji languages, and it is beyond the scope of this paper to address that here.

I present in this section similar-looking forms that have similar functions, knowing that superficial similarities are not proof of cognate forms. See Watters (2018: 9–12) and Blench (2018) for some recent work on reconstructing nominal affixes. However, as Kainji languages are underdescribed and some of the data presented here comes from unpublished manuscripts, I see value in showing the similarities across the four Kainji clusters presented here.

Figure 10 displays a map of Nigeria and approximate locations for each of the seven proposed Kainji language clusters (McGill and Blench 2012: 91).

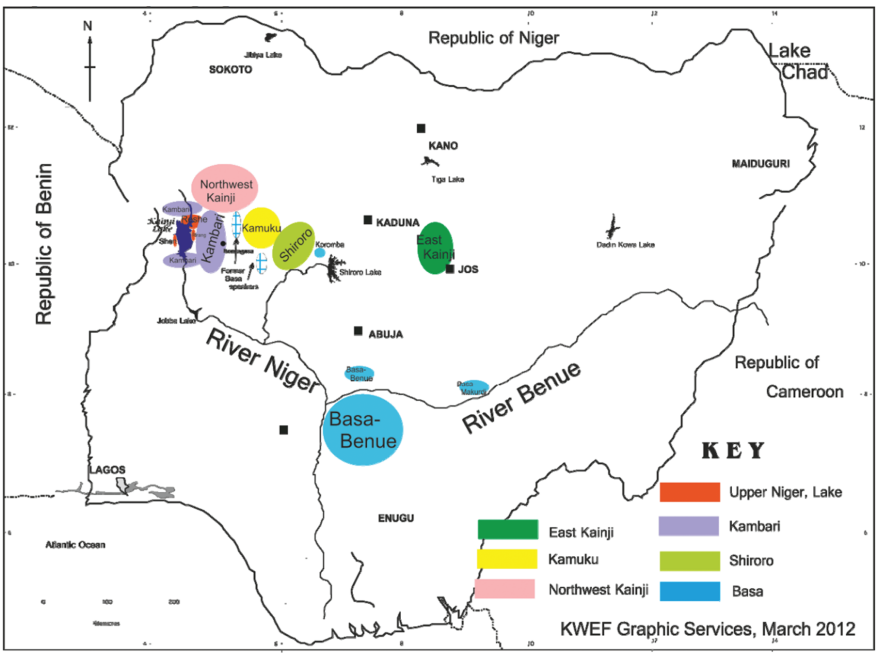

Figure 10: Map of Kainji language clusters (McGill and Blench 2012: 91).

Cognate components to the relevant Ụt-Ma'in elements are found in various published and unpublished manuscripts, within constructions called "progressive," "continuative," "verbal noun" constructions and various "nonverbal predicate" constructions. Data presented below are from four Kainji clusters: Northwest (to which Ụt-Ma'in belongs); Kambari (which geographically boarders the Northwest cluster); Kamuku; and Shiroro. These are listed below with each cluster name followed by language autonym/Hausa exonym, [ISO code], and in parentheses the sources consulted for each language variety.

- **Northwest**: *Ụt-Ma'in* [gel] (Two dialects: *Ụt-Ma'Rọr/Fakanci* and *Ụt-Ma'Jụụr/Gelanci*) (Smith 2007; Paterson 2012, Paterson 2015; and my field notes); *C'Lela/Dakkakanci* [dri] (Dettweiler 2015; Rowbory 2009); and *Ụt-Hun/Dukanci* [uth] (Bendor-Samuel et al. 1973; Heath and Heath 2002).
- **Kambari**: *Cicipu/W. Acipa* [awc] (McGill 2009; see McGill and Blench 2012: 99) for grouping with Kambari languages), *Cishingini/Salka* [tsw] (Crozier 1984; Stark 2010); *Tsɨwənci/Agwara* [asg] (Mierau 1967 discussed in Crozier 1984; Stark 2010); and *Tsɨgaushi/Auna* [kdl] (Stark 2010).
- **Kamuku**: *Cạhungwạryạ/Hungwere* [nat] (Davey 2011).
- **Shiroro**: *Tạrin/Pangu* [png] (MacDonell 2007).

Figure 11 is a provisional and tentative sub-classification of Kainji languages as presented in McGill and Blench (2012). Kainji language cluster nodes discussed here are boxed; individual language names from the bulleted list above are underlined. Note that the individual Kambari languages are clustered in East and West groups under the Kambari group in Figure 11.

3.2.1 Copular verbs

We first discuss cognate copular and Progressive Auxiliary elements. The Ụt-Ma'in Progressive Auxiliary *ɔ́* is transparently from the Ụt-Ma'in copula *ɔ́* used in the PredNomCxn (cf. Section 2.1). Within the Northwest language cluster, C'Lela has the locative copula *èlːó)*, which is used in the Predicate Locative construction in tandem with a general locative preposition *ɔ́n*.[21] These two elements are also present in the C'Lela Progressive Constructions, both intransitive and transitive (cf. Table 11 and Table 12). Another Northwest Kainji language, Ụt-Hun, uses a Progressive Auxiliary of the form *rò*; the southern-most Ụt-Ma'in variety, Jụụr, which borders the Ụt-Hun area, is reported to use the form *rɔ́* as the Progressive Auxiliary. Other possible cognate forms of the Ụt-Ma'in Progressive Auxiliary *ɔ́* are shown in Table 7.

3.2.2 Nominalization prefixes

Now we turn to the nominalization prefixes that are a subset of noun class prefixes in each language throughout the Kainji language clusters. In Ụt-Ma'in there is evidence of five noun class prefixes being used for nominalization and as a categorization

21 C'Lela [tʃəlela] has a dedicated equative copula *í*; it is not thought to be formally related to the locative copula *èlːó* 'be.at'.

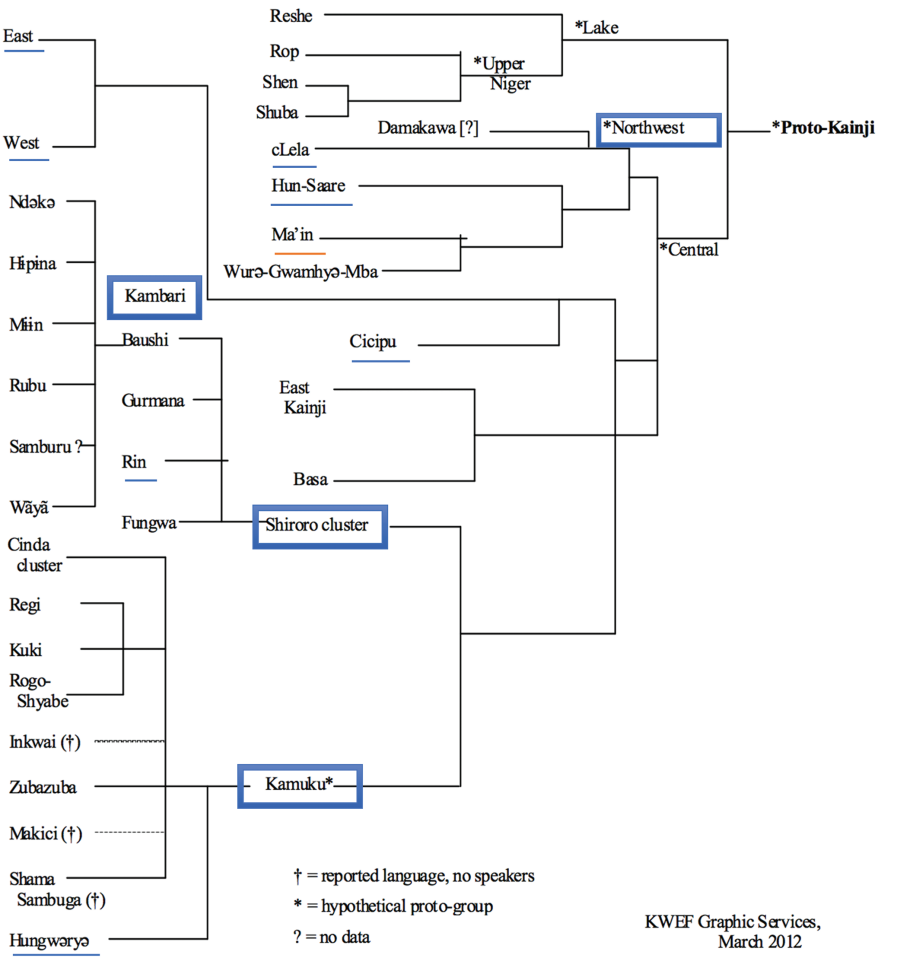

Figure 11: Sub-classification of Kainji languages (McGill and Blench 2012: 95).

mechanism for verb roots. No other Kainji language is known to use the same five prefixes. However, most Kainji languages for which we have data use more than one noun class prefix in nominalization. Cə̲hungwə̲rya̲ (Kamuku, Kainji) is reported to use at least eight prefixes.[22] The nominalization prefixes mentioned in the consulted descriptions (sometimes called class markers on verbal nouns) are in Table 8.

22 Table 8 includes only the six segmentally distinct prefixes; additional distinctions are reported to be tonal, although Davey (2011: 10) does not tease apart the tonal variance and recommends further research on the role of tone relative to nominal prefixes.

Table 7: Verbs (possibly) cognate with Ụt-Ma'in ɔ́ across Kainji language clusters.

Language Cluster	ISO 639–3 language code, autonym/exonym		Verb Form	Used with Nominal Predicate
Northwest	gel	Ụt-Ma'in – Rọr/Fakanci	***ɔ́***	Yes
	gel	Ụt-Ma'in – Jụụr/Gelanci	***rɔ́***	Yes
	dri	C'Lela/Dakkakanci	***èl:(ó)***	Yes
	uth	Ụt-Hun/Dukanci	***rò***	Yes
Kambari	awc	Cicipu/W Acipa	***jó***	Yes
	tsw	Cishingini/Salka	***l:ɔ́***	Unknown
Kamuku	nat	Cạhungwạryạ/Hungwere	***jów(à)***	Yes
Shiroro	png	Tạrin/Pangu	***njɛ***	Yes

The first language row gives the five Ụt-Ma'in prefixes; the columns are arranged to group prefix forms in other languages that are identical or potentially cognate to the relevant Ụt-Ma'in items.[23] The reader should be warned that in the absence of description of the noun class systems of all of these languages, the fact that prefixes are the same forms cannot alone be considered good evidence that they are from the same historical class. No such claim is made here; only that several Kainji languages use more than one noun class prefix for nominalization.

3.2.3 Locative prepositions

Ụt-Ma'in has a general locative preposition ɔ́ and a verbal enclitic =ɔ̄*n*, which indicates that an event occurred at some faraway location (Paterson 2015: 232). Neither of these forms occurs in either synchronic Ụt-Ma'in Progressive

23 For example, Ụt-Ma'in *t-* and C'Lela *tʃ-* are thought to be cognate and are even present in the language names in the orthographic forms <Ụt-> and <C'>.

Table 8: Nominalization prefixes across Kainji language clusters.

Language Cluster	ISO 639–3 language code, autonym/exonym		Nominalizer Prefixes from Noun Class System						
Northwest	gel	Ụt-Ma'in/Fakanci	***u-***	***s-***	***r-***	***t-***	***m-***		
	dri	C'Lela/Dakkakanci	***u-***		***r-***	***tʃ-***	***m-***		
	uth	Ụt-Hun/Dukanci		***s-***			***m-***		
Kambari	awc	Cicipu/W Acipa	***u-***				***má-***		
	asg	Tsɨwənci/Agwara	***kù-***						
	kdl	Tsɨgaushi/Auna	***ù-***						
	tsw	Cishingini/Salka				***tsɨ̀-***[a]			
Kamuku	nat	Cạhungwạryạ/Hungwere				***tʃi-/ tʃə-***	***ma-/ mə-***	***bi-***	***i-***
Shiroro	png	Tạrin/Pangu	***u-***						***i-***

[a]The nominalizer prefix ***tsɨ̀-*** is used exclusively for HABITUAL meaning (Crozier 1984: 161–162).

Construction. However, closely related C'Lela uses the locative *ɔ́n* in the progressive (Dettweiler 2015: 53; 82); Ụt-Hun uses the locative *ɔ́n* combined with an *ɔ́* auxiliary in the Definite Future Auxiliary Construction (Bendor-Samuel et al. 1973: 102). This is distinct from the Ụt-Hun Progressive, but parallel in form to the Ụt-Ma'in Progressive. Other Kainji locatives are laid out in Table 9.

3.2.4 Associative constructions

The Ụt-Ma'in Transitive Progressive makes use of the Associative Construction (AssocCxn), and the latter is widespread across Kainji. The low tone that is characteristic of the Ụt-Ma'in Associative is present in only one other Kainji language, Cạhungwạryạ (Kamuku, Kainji). Table 10 presents the schematized noun-phrase-internal associative constructions, as found across the language clusters. All but one of the languages in this comparative Kainji data have an agreement prefix (AG) as a crucial element of the AssocCmplx. Notably, Ụt-

Table 9: Locative markers across Kainji language clusters.

Language Cluster	ISO 639–3 language code, autonym/ exonym		Locative Form	Used in the synchronic progressive
Northwest	gel	Ụt-Ma'in/Fakanci	***ɔ́n***	X
	dri	C'Lela/Dakkakanci	***ɔ́n***	☑
	uth	Ụt-Hun/Dukanci	***ɔ́n***	X
Kambari	awc	Cicipu/W Acipa	***á-***	☑
	asg	Tsɨwənci/Agwara	***à***	☑
Kamuku	nat	Cạhungwạryạ	***nə̀***	☑
Shiroro	png	Tạrin/Pangu	***nə̀***	☑

Ma'in (Rọr) is the only language variety that does not use the initial noun prefix in the AssocCxn (see Table 10). It is an optional component for Ụt-Ma'in (Jụụr) and C'Lela. It is required for all other Kainji languages for which there is data.

3.2.5 Progressive constructions

It is possible that a Progressive Construction of the sort explored here may not reconstruct to Proto-Kainji. However, we can see that the particular elements of the modern Ụt-Ma'in Progressives are also central to parallel constructions in other Kainji languages. Table 11 presents IntransProgCxns as documented for eight different language varieties across four Kainji language clusters; Table 11 does the same for the Transitive Progressive in seven Kainji varieties. The shaded cells indicate the lack of a particular element for the given languages. For example, Ụt-Ma'in has no locative marker, but five other Kainji varieties use an overt locative immediately following the Progressive Auxiliary in both the Intransitive and the Transitive.

In the next section, I show that the reanalysis of the Ụt-Ma'in source constructions has led to changes in the grammar of erstwhile source constructions. These changes strongly indicate that a source has been reanalyzed into separate and distinct constructions (Timberlake 1977: 142).

Table 10: Associative constructions across Kainji language clusters.

Cluster	ISO 639–3 language code, autonym/ exonym		Noun Prefix	Head Noun	Agreement Prefix	Assoc Mrk	Modifier NP
Northwest	gel	Ụt-Ma'in – Rọr/ Fakanci		N_{HEAD}	AG-	ə̀	NP_{MOD}
	gel	Ụt-Ma'in – Jụụ̱r/ Gelanci	(C-)	N_{HEAD}	AG-	ə̀=	NP_{MOD}
	dri	C'Lela/Dakkakanci	(C-)	N_{HEAD}	AG-	(ə́*n*)=	NP_{MOD}
Kambari	awc	Cicipu/W Acipa	C-	N_{HEAD}	AG-		NP_{MOD}
Kamuku	nat	Cạhungwạryạ/ Hungwere	C-	N_{HEAD}	AG-	`(low tone)	NP_{MOD}
Shiroro	png	Tạrin/Pangu	C-	N_{HEAD}		ná	NP_{MOD}

4 Evidence of reanalysis within Ụt-Ma'in

In the Ụt-Ma'in Progressive, we are not confronted with a case of reanalysis of function or meaning alone; there are structural changes that show the Ụt-Ma'in Progressives are something unique and new. In this section, I present evidence of reanalysis, the "actualization" of a new structure (1977: 142). The developments are examples of "constructionalization" as the Progressive Constructions exist as new form-meaning pairs, distinct from their Predicate Nominal source (Traugott and Trousdale 2013). The formal changes also show signs of adjustment (Heine and Reh 1984; Heine 1993), whereby a construction moves toward isomorphism, that is, a new one-to-one correspondence between form and meaning. As we see below, the changes are not yet fully systematic, but rather we encounter a system in the midst of transition. Specifically, various morphological losses appear to be occurring in a gradual wave throughout the lexicon, affecting particular lexemes uniquely when they are used in Progressive constructions.

In Section 3.1, I argued that the modern Ụt-Ma'in Intransitive Progressive has the PredNomCxn and Nominalized Verbs as its two source components.

Table 11: Intransitive progressive constructions across Kainji language clusters.

Language Cluster	ISO 639–3 language code, autonym/ exonym		Subject	Aux	Loc	Class Marker	Verb Stem
Northwest	gel	U̱t-Ma'in – Ro̱r/ Fakanci	S	*ɔ́*		c-	V
	gel	U̱t-Ma'in – Ju̱u̱r/ Gelanci	S	*rɔ́*		c-	V
	dri	C'Lela/Dakkakanci	S	*ʔèl(:ó)*	*(ś)n=*	c-	V
	uth	U̱t-Hun/Dukanci	S	*rò*		c-	V
Kambari	awc	Cicipu/W Acipa	S	*jó*	*á=*	c-	V
	asg	Tsɨwənci/Agwara	S	*ĭ*	*à*	c-	V
Kamuku	nat	Ca̱hungwa̱rya̱/ Hungwere	S	*jów(à)*	*nà*	c-	V
Shiroro	png	Ta̱rin/Pangu	S	*njɛ*	*nə*		V

Each of these subcomponents is independently attested synchronically. No change in morphosyntax is required. A Nominalized Verb is simply put in place of the predicate nominal. However, the morphosyntax of some verbs in the Progressive no longer follows the expected behavior of nominalized verbs: certain verbs in the Intransitive have lost the nominalizing noun class prefix, and certain verbs in the Transitive Progressive no longer use the expected noun class agreement marking on the AssocCxn. These changes are evidence of reanalysis of PredNomCxn and actualization of the Progressive Constructions, such that modern speakers view these as verbal clauses.

4.1 Loss of nominalizing prefix

In the Intransitive Progressive there are instances of erstwhile nominalized main verb roots occurring without a class prefix. In this section, I trace steps in the loss of the prefix. First, we have seen that a nominalized verb can function in a fully nominal role. In the Intransitive Progressive in (33) the root *ʃʊ̄ʔʊ̄t* occurs with the

class 5 prefix *r-*, cf. (24). However, in (34) the same root occurs without a noun class marker – even though it is the main lexical predicate in the Intransitive Progressive.

(33) *ēkēn ɔ́ r-ʃʊ̄ʔʊ̄t ʊ́ rɔ̄rʊ̄lːɛ́*
C2.some PROG C5-sit LOC mountain.C5.DEM
'Some people are living on that mountain.'

(34) *wā ɔ́ ʃʊ̄ʔʊ̄t*
1SG.SBJ PROG sit
'He is sitting.'

Other verbs also show loss of the prefix in the Intransitive Progressive. By comparing (35) and (36) we see that the root 'roam' can lose the class prefix when it participates in the Intransitive Progressive. In (35) *rílːg* 'roam' occurs as a nominalized verb complement to the verb *hʊ́* 'go' with the same meaning 'roam' with the class 6 *t-* prefix. However, in (36), it occurs in the IntransProgCxn with no prefix. The loss of nominal morphology on the erstwhile nominalized verbs in the IntransProgCxn seems to be an ongoing process, in that it does not occur across all verb roots and probably not for all speakers.[24]

(35) *wā hʊ́ ʊ̄t-rílːg ʊ́ bɛ́=dʊ̀ zá m-bʊ́*
1SG.SBJ go.IR C6-roam LOC place=C5.REL NEG.COP C6B-water
'He goes roaming in the place that there is no water.'

(36) *wā ɔ́ rílːg ʊ́-dàʔ-ɔ́ r-sō*
1SG.SBJ PROG roam LOC-time-C3.DEF C5-nakedness
'He is roaming now, naked.'

Regardless of the reason that the prefixes do not occur, the loss of the prefix shows that there is a shift in the grammar, demonstrating that reanalysis has occurred. This is no longer just a nominalized phrase following a copula. It is a verbal phrase with morphosyntax distinct from its NP source. In particular, the verb *ɔ́* no longer requires overt class (or nominalization) marking of a nominal complement in all instances where there is progressive meaning, unlike the required presence of the class prefix on the second NP of the PredNomCxn (cf. Section 2.1).

24 In the text from which (35) is taken, two of six IntransProgCxns occur with no nominal prefix. It seems that the occurrence of a noun class prefix is related to the particular verb used. Further research might reveal that absence of prefixes in this construction also reflects things like speaker's stylistic choice, etc.

As another evidence of the reanalysis, at least one root has been identified exhibiting PREDNOMCXN(Locative) semantics with the noun class 3 prefix, but intransitive progressive semantics with the noun class 6 prefix.[25]

(37) *ə̄m ɔ́ ū-mà*
1SG.SBJ COP C3-build
'I am (at a) building.' (i.e. 'building' is a physical object)

(38) *ə̄m ɔ́ ə̄t-mà*
1SG.SBJ PROG C6-build
'I am building.' (i.e. 'building' is an activity)

These examples show that one variant of the synchronic Intransitive Progressive structure is no longer identical to its source construction. In the next two sections, we move on to discuss changes in the semantics of the ASSOCCXN that are crucial to understanding the limitations on its function in the Progressive (Section 4.2) and the ASSOCCXN's role marking the object of a TRANSPROGCXN (Section 4.3).

4.2 Conventionalization of the ASSOCCXN

Another evidence of reanalysis is in constraints on the semantics of the ASSOCCXN when it is within the TRANSPROGCXN. In Section 2.3 we saw that in nominalized contexts the ASSOCCXN could be used to express a goal complement of a nominalized verb (cf. (30)). This is not true in the progressive. Instead, to express a goal complements in the Progressive, speakers must use the morphosyntax of finite main clauses. In (39) and (40), the goal argument *ū-tə́l:ə̀* 'C3-market' of the verb *hā* 'go' is in a locative phrase marked by the high-tone locative preposition *ə́* 'LOC'.

(39) *wā ɔ́ m-hā ə́ ū-tə́l:ə̀*
C1.3SG.SBJ PROG C6B-go LOC C3-market
'He is going to the market.'

(40) *hə̄:b-ə̄t=rī hā-:g ə́ tūl:ə̀-ù māhūtā*
friend-C6=1sg.poss go-PST LOC market-C3 Mahuta.town.POSS
'My friend went to the Mahuta market'[26]

25 The typical members of noun class 3 are inanimate or specifically large objects. Class 6 is used for many plural forms and many nominalized verbs (cf. Table 2).
26 See note regarding forms of 'market' on page 15.

In the TRANSPROGCXN, the ASSOCCXN is used only to express the object of the lexically main verb. The ASSOCCXN in the TRANSPROGCXN has specialized and become restricted in function to the point that we might consider the ASSOC as developing into an object marker. In the next section, we turn to the changes in the agreement marking in the ASSOCCXN when it is used in the TRANSPROGCXN.

4.3 Changes in agreement marking

In this section, we discuss changes in the agreement marking on the object of a TRANSPROGCXN. The changes provide evidence that we are no longer dealing with only a nominalized verb phrase. The formal changes hint that the originally nominalized verb forms are gradually becoming less noun-like and more verb-like. These examples come primarily from texts and have not as of yet been cross-checked with addition speakers as to "grammaticality"; however, all texts were transcribed and translated by native-speakers who were not the original storytellers. Further, I have confirmed the transcriptions with the original audio files. So although, the variations discussed below have come from individual speakers they are communicative and interpretable.

Only two of five possible noun class agreement markers are used in ASSOCCXNs within the TRANSPROGCXN. Further, several verbs are attested without triggering agreement marking on the ASSOCMKR, and at least one verb does not trigger use of the ASSOCCXN at all before the object noun. Recall that nominal modifiers in an Ụt-Ma'in NP canonically occur in the ASSOCCXN which requires agreement with the head noun. In the TRANSPROGCXN, however, the agreement patterns are no longer the same as those found in modified NPs elsewhere in the grammar.

In the TRANSPROGCXN the ASSOCCXN only occurs with class 4 or class 5 agreement, regardless of the noun class of the phrasal head (which in this case is a nominalized verb).[27] Objects in the TRANSPROGCXN occur with a *d-* noun class 5 agreement marker, or *s-* noun class 4 agreement marker. Within the Transitive Progressive, class 4 *s-* agreement has only been attested with verbs that have a class 4 citation form (cf. Section 1.2.2); however, the class 5 agreement marker *d-* has been found on verbs that have a citation form in classes 3, 5, 6, and 6B.

27 Only one class 6 verb *tf*^{w}*àn* 'love' is attested to use class 6 agreement marking in the TRANSPROGCXN. However, it also can occur with its object in a possessive construction rather than the associative construction. It is perhaps the most noun-like in this regard of all verbs as-of-yet-attested in the TRANSPROGCXN.

For example, in (41) the verb root *gáp* 'slap' is used in an IntransProgCxn, with no overtly expressed object. Notice that *gáp* 'slap' takes the class 3 nominalizing prefix *ū-*; the citation form of 'slap' has been given by speakers as either *ū-gáp* 'C3-slap' or *ȳt-gáp* 'C6-slap'. Now consider (42), where *gáp* 'slap' occurs in a TransProgCxn with an overtly expressed object argument. This example is taken from the summary section of a folk narrative where the various animals are rejoicing at the end of the events of the story. Here, some (animals) are slapping their ears as an indication of applause. The prefixed noun class marker cross-referencing the nominalized verb 'slap' in the AssocCmplx is class 5 *d-* (i.e. *d-ə̀-t* 'C5-ASSOC-C6'), and not the "expected" class 3 *u-* that occurs in (41).[28]

(41) *ɛ̀-kʰɛ̄n ɔ́ ū-gáp*
C2-some PROG C3-slap
'Some are slapping.'

(42) *ɛ̀-kʰɛ̄n ɔ́ gáp d-ə̀-t tɔ́*
C2-some PROG slap AG5-ASSOC-C6 ear
'Some are slapping their ears.'

Let us also consider the root *hɔ́g* 'hear'. This verb is attested with two distinct noun class prefixes in the IntransProgCxn, namely class 6B *ȳm-hɔ̀g* and class 6 *ȳt-hɔ̀g*, see (9) and (10). No apparent change in meaning is determined by the variation in class prefix.[29] However, when the verb root 'hear' occurs in the TransProgCxn in (43), neither the class 6B *m-* agreement prefix nor the class 6 *t-* prefix occurs. Rather, class 5 *d-* occurs.

(43) *wā ɔ́-g hɔ̀g=d-ə̀=m-ɛ́ʔ*
C1.3SG.SBJ PROG-PST hear=AG5-ASSOC=6B-shame
'He was hearing shame/He was ashamed.'

Verb roots such as 'slap' and 'hear' combine with a restricted set of noun class prefixes in the IntransProgCxn, but trigger an even smaller set of noun class agreement morphology (i.e. noun class 5) in the TransProgCxn.

This change in agreement marking is unique to the TransProgCxn. Other auxiliary constructions have not triggered reduced class agreement like this.

28 Agreement marking on an AssocCmplx with a head noun of class 3 has an *u-* prefix or a null prefix (cf. Table 1).

29 As this is the only instance of the root *hɔ̀g* in a TransProgCxn in my current data, additional investigation may reveal that a semantic shift is occuring with a shift in noun class.

Indeed, in other nominalized contexts, the agreement class marking on the AssocCxn is just like that found with noun roots. For instance, (45) contains a transitive Future Obligation Auxiliary Construction, the "object" of the nominalized semantically main verb is "associated" to the head, i.e. the nominalized verb, by means of the AssocCxn. However, when expressing future obligation, class 6 agreement is also used; this parallels in every way the structure we saw for nouns in 2.3. In (44) the agreement prefix *t-* corresponds to the class of the nominalized verb 'eating'. However, in the Progressive, the class 5 *d-* prefix occurs (45).[30]

(44) *ə̄m* *dɛ́ʔtɛ́* *rɛ̄* *t-ə̀=r-gá* *ūsōt*
1SG.SBJ FUT.OBL eat AG6-ASSOC-C5-cooked.grain tomorrow
'I must eat cooked grain tomorrow.' (citation: *ə̄t-rɛ̀* 'C6-eating')

(45) *wā* *ɔ́* *rɛ̄* *d-ə̀=r-gá*
C1.SBJ PROG eat AG5-ASSOC-C5-cooked.grain
'He is eating cooked grain.'

Class 5 *d-* has come to be the most frequently used marker in the TransProgCxn, regardless of what class the same event-encoding lexeme would occur within the IntransProgCxn. Because of the strong semantic tendencies within the Ụt-Ma'in noun class system (cf. Table 2), we might expect that the shift to class 5 marking in the TransProgCxn would have some semantic impetus. However, there is no known reason why nominalized verbs in the TransProgCxn have shifted to class 5. This is an area for future investigation. I refer the reader to the wordlist in the appendix of Smith (2007) that contains many nominalized verb forms.

In summary, the shaded cells in Table 13 indicate the class 4 and 5 agreement forms that are the only ones used in the AssocCxn within the TransProgCxn, this is a subset of those forms used with a nominalized verb as head in various nominalized contexts (cf. Table 6).

Throughout the preceding examples we have seen that agreement markers in the AssocCmplx, within the TransProgCxn, do not (necessarily) reflect the lexical classification of the nominalized transitive verb. It could be argued that the class 5 agreement marker *d-* is developing into some other function, such as progressive marker or an object marker within the TransProgCxn.

30 In some instances the deontic construction does demonstrate a shift in noun class agreement marking similar to what we have noted for the Transitive Progressive, e.g. in one utterance the verb 'do' shows class 6 *t-* marking but in another construction 'do' occurs with class 5 *d-* agreement marking.

A few verbs show no agreement marking at all on the AssocMkr in the TransProgCxn. As the agreement prefix is normally the only indication of nominalization by loss of agreement marking for certain verbs, the construction is also losing evidence that the verb form ever was nominalized. In (46), IntransProgCxns and TransProgCxns are contrasted for three verbs: *zɔ̀ŋg* 'prepare', *wàr* 'tell', and *dʒā:s* 'wash'. All three intransitive clauses have a noun class marker prefix; however, in the transitive clauses, no agreement marking occurs on the AssocCmplx. Instead, only the low-tone AssocMkr on the epenthetic vowel ɘ precedes the object. The occurrence of the *d-* or *s-* prefix would be expected given the preponderance of its existence in other TransProgCxns. Here also note that the non-occurrence of an agreement marker is not related to any morphological property of the object: it happens with objects with an overt noun class prefix (46a), no overt prefix (46c), nor a pronoun object form (46b).

(46)

a.

Sbj	Aux	V_{NMZD}	Subject	Aux	V	Assoc	Object
wā	*ɔ́*	*t-zɔ̀ŋg*	*wā*	*ɔ́*	*zɔ̀ŋg*	*ɘ̀*	*t-tʃwɘ̄*
C1.Sbj	Prog	C6-prepare	C1.Sbj	Prog	prepare	Assoc	C6-loads
'He is preparing (himself/ dressing)'			'He is preparing the loads (travel bags)'				

b.

Sbj	Aux	V_{NMZD}	Subject	Aux	V	Assoc	Object
wā	*ɔ́*	*t-wàr*	*wā*	*ɔ́*	*wàr*	*ɘ̀*	*wá*
C1.Sbj	Prog	C6-tell	C1.Sbj	Prog	tell	Assoc	C1.Obj
'He is telling'			'He is telling him'				

c.

Sbj	Aux	V_{NMZD}	Subject	Aux	V	Assoc	Object
wā	*ɔ́*	*m-dʒā:s*	*wā*	*ɔ́*	*dʒā:s*	*ɘ̀*	*Ø-hjɘ̄*
C1.Sbj	Prog	C6B-wash	C1.Sbj	Prog	wash	Assoc	C2-guinea.corn
'He is washing'			'He is washing the guinea corn'				

The loss of morphological marking parallels the ongoing change we see in the IntransProgCxn, namely the loss of nominal prefixal morphology of the "nominalized" main verb. In (46) the AssocMkr is still used, but it is no longer marked for agreement.

A possible further step in reanalysis may be the loss of the AssocP all together. With the borrowed root *kārɘ̀ntɛ̄* 'read' (<Hausa *karanta*) in (47), there is no indication that the AssocCxn occurs at all.[31] Because the only instance of this loss is with a borrowed word, we cannot rule out the fact that this may be

31 The fact that verb is vowel final, unlike the three examples in (46), may be obscuring the occurrence of the AssocMkr.

the borrowing of the verb and structure of the verb phrase, i.e. the Hausa construction would be V + Object without any intervening morphology.

(47)	SUBJECT	AUX	V_{NMZD}	SUBJECT	AUX	V	ASSOC	OBJECT
	wā	*ɔ́*	*m-kārɔ̀ntɛ̄*	*wā*	*ɔ́*	*kārɔ̀ntɛ̄*	*Ø*	*ū-rān*
	C1.SBJ	PROG	C6B-read	C1.SBJ	PROG	read	ASSOC	C3-paper
	'He is reading'			'He is reading a paper'				

Changes in agreement marking are found only in the Progressive and are not attested in other nominalized verb contexts. Even though the shift in agreement marking is apparently proceeding lexical item by lexical item, all change is in one direction, toward reducing the nominal properties of the construction. As the nominal agreement marking disappears, the forms are less identifiable as nominal and the resultant form of the primary lexical predicate is indistinguishable from a verb. This is certainly the case of *kārɔ́ntɛ̄* 'read' in (47).

The changes in the TRANSPROGCXN are summarized in Figure 12. The progression of changes are: (i) nominalized verbs in classes 3, 6, and 6B shift to class 5[32]; (ii) a few verbs lose agreement marking altogether; (iii) one verb loses the ASSOCMKR as well. The TRANSPROGCXN is clearly developing away from the ASSOCCXN source. As the agreement forms are dropped in the intransitive and even the ASSOCCMPLX is dropped in the transitive, it leaves only the progressive auxiliary as the one unified indicator of the Progressive.

	INHERENT AGREEMENT PREFIX	CLASS 5 AGREEMENT PREFIX	ASSOCIATIVE MARKER
Class 4 verbs	✓	*	✓
Class 5 verbs	✓	✓	✓
Most verbs from classes 3, 6, and 6B	*	✓	✓
Some verbs from classes 3, 6, and 6B	*	*	✓
At least one Class 6B verb	*	*	*

Figure 12: Progression of change in agreement marking in the Ụt-Ma'in TRANSPROGCXN.

32 Referencing Table 4 only the 26 class 4 verbs and the 46 class 5 verbs still take the agreement marking of their inherent class marker; the other 292 verbs represented there show a shift in agreement marking when/if expressing an object in the TRANSPROGCXN).

In sum, the primary lexical predicates in the PROGCXNS are gradually becoming less like the word class of nouns (nominalized verbs) that was their origin, and more like the word class of regular verbs (reminiscent of the Tạrin/Pangu construction in Table 12). The Ụt-Ma'in evidence does not reveal systematic changes across the board that apply to all PROGCXNS, or even to all TRANSPROGCXNS. Rather, these changes constitute an example of gradual adjustment (Heine and Reh 1984: 97; Heine 1993: 122), whereby a construction moves toward isomorphism, a one-to-one correspondence between form and meaning, in this case as the changes gradually move through the lexicon. As remnants of nominal morphology are used less and less, the copula-turned-progressive-auxiliary remains the only indicator of progressive aspect.

Table 12: Transitive progressive constructions across Kainji language clusters.

Cluster	ISO 639–3 language code, autonym/ exonym		SBJ	AUX	LOC	CLASS MARKER	VERB STEM	AGREEMENT MARKER	ASSOC MRK	OBJ
Northwest	gel	Ụt-Ma'in – Rɔr/ Fakanci	S	*ɔ́*			V	AG-	*ə̀*	O
	gel	Ụt-Ma'in – Jiir/ Gelanci	S	*rɔ́*		C-	V	AG-	*ə̀*	O
	dri	C'Lela/ Dakkakanci	S	*ɔ̀èl (ːɔ́)*	*(ə́) n=*		V	AG-	*(ə́n)*	O
Kambari	awc	Cicipu/W Acipa	S	*jó*	*(á=)*	C-	V	AG-		O
	asg	Tsɨwənci/ Agwara	S	*ĭ*	*à*	C-	V			O
Kamuku	nat	Cạhungwạryạ/ Hungwere	S	*jów (à)*	*nə̀*	C-	V	AG-		O
Shiroro	png	Tạrin/Pangu	S	*njɛ*	*nə*		V			O

5 Conclusions

This paper has described the morphosyntax of the Intransitive and Transitive Ụt-Ma'in Progressive Constructions (Section 1.2), identified source components for

Table 13: AssocCmplx forms of the TransProgCxn.

		Noun Class of Second Noun					
Noun Class of Head		3	4	5	6	6B	7
	3	*Ø-ˋ=u*	*Ø-ə̀=s*	*Ø-ə̀=r*	*Ø-ə̀=t*	*Ø-ə̀=m*	*Ø-ˋ=u*
	4	*s-ˋ=u*	*s-ə̀=s*	*s-ə̀=r*	*s-ə̀=t*	*s-ə̀=m*	*s-ˋ=u*
	5	*d-ˋ=u*	*d-ə̀=s*	*d-ə̀=r*	*d-ə̀=t*	*d-ə̀=m*	*d-ˋ=u*
	6	*t-ˋ=u*	*t-ə̀=s*	*t-ə̀=r*	*t-ə̀=t*	*t-ə̀=m*	*t-ˋ=u*
	6B	*m-ˋ=u*	*m-ə̀=s*	*m-ə̀=r*	*m-ə̀=t*	*m-ə̀=m*	*m-ˋ=u*

each construction (Section 2), assembled these source components for an internal reconstruction (Section 3.1), surveyed parallel constructions from other Kainji languages (Section 3.2; cf. Table 11 and Table 12), and dealt with changes attested for specific verbs when they occur in the Progressive (Section 4; cf. Figure 12). Because of the complexity of Ụt-Ma'in NP morphology, it is easy to see the cognate elements of the Ụt-Ma'in Progressive Constructions in other Kainji languages.

In addition to Ụt-Ma'in internal evidence, we have seen that related Kainji languages show fairly parallel developments and yet have distinctly unique and morphologically complex patterns (cf. Table 11 and Table 12). These patterns are particularly apparent in the forms of the noun class affixes that occur in Progressive Constructions throughout the Kainji language clusters (see Table 8).There is no doubt more to be learned from Kainji languages as data of this detail is only available for few of the approximately 60 Kainji language varieties (Watters 2018; Blench 2018; McGill and Blench 2012).

The Ụt-Ma'in Progressive Constructions may give us one more example of a locative source of a progressive (Bybee et al. 1994; Heine 1994). However, this is not the grammaticalization of a lexical element into a marker of progressive. In fact, I contend that it is not grammaticalization, in the narrow sense, at all. Except for the very end state where there is only *ɔ́* (attested only in a few examples with a few verbs), there is no one morphological marker of progressive in Ụt-Ma'in. Rather, the entire construction communicates the meaning of Progressive: the various parts from the various sources as we have discussed here.

This study has shown that it is futile to address auxiliary constructions in Kainji languages without understanding their nominal sources and the noun

class systems. Without a clear understanding of the nominal and NP systems, we cannot begin to understand the emerging tense and aspect constructions that have nominal phrases as their source. Further, the nature of nominal negation, used in clauses like Ụt-Ma'in Progressive Constructions, factors into the occurrence of so-called double negation marking (Beyer 2009: 205) on the clause and seems to enlighten us as to its source.

Abbreviations

1	1st person
3	3rd person
A	agent-like argument
AG	agreement marker
ASSOC	associative marker
AUX	auxilliary
C	class marker
COP	copula
CXN	construction
D	definite
DEF	definite
DEM	demonstrative
DIM	diminuative
FOC	focus
FUT	future
HUM	human
IR	irrealis
LOC	locative marker
NEG	negative
NP	noun phrase
NPERS	non-personal
NMLZ	nominalized
O	object argument
OBJ	object form
OBL	obligation
POSS	possessive
PRF	perfect tense
PROG	progressive aspect
PST	past
RECIP	recipient
REL	relative marker
S	single argument
SG	singular
SBJ	subject
THM	theme

TNS	tense
V	verb
VP	verb phrase

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