Intra-paradigmatic variation in Eleme verbal agreement

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Abstract

Mismatches in the morphosyntactic features of controllers and targets in the Eleme (Ogonoid, Niger-Congo) participant reference system allow for a subject agreement paradigm in which the person of the grammatical subject is indicated by a verbal prefix, while plural number is marked by a suffix on different targets – either lexical verbs or auxiliaries – based on the person value of the controller. I examine the distribution of Eleme 'Default Subject' agreement affixes and the intra-paradigmatic asymmetry found between second-person plural and third-person plural subjects in Auxiliary Verb Constructions (AVC) and Serial Verb Constructions (SVC). I argue that the criteria by which the various agreement affixes select an appropriate morphological host can be modelled in terms of agreement prerequisites even when distributional variation is paradigm internal.

1. INTRODUCTION[1]

In Eleme, an Ogonoid (Benue-Congo, Niger-Congo) language of southeastern Nigeria, the principles underlying the morphosyntactic distribution of affixes indexing subject are highly complex and idiosyncratic. Perhaps the most intriguing of these idiosyncrasies concerns the different positions occupied by suffixes marking second-person and third-person plural subjects in Auxiliary Verb Constructions (AVC) and Serial Verb Constructions (SVC). A typical example of an AVC paradigm in the language finds a second-person plural subject marked by a suffix *-i* on the lexical verb (1a), while in a comparable construction with a third-person plural subject, the suffix *-ri* is found on the auxiliary (1b).[2] In both cases, the person of the subject is also indicated as a prefix on the auxiliary, in this case the Anterior auxiliary *bere*. Only second-person plural and third-person plural subjects are indexed by agreement suffixes in Eleme.[3]

(1) (a) ***ò-****bere* *kɛ-a-****i*** *mbó*
2-ANT slaughter-HAB-**2PL** goat
'You (PL) used to slaughter goats.'

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[2] Unless otherwise indicated, all Eleme data comes from fieldwork conducted between February 2003 and March 2006. The abbreviations used throughout this paper are: 1 = first-person, 2 = second-person, 3 = third-person, ANT = anterior, APPL = applicative, AUX = auxiliary, BEN = benefactive, CONT = continuous, COP = copula, DEM = demonstrative, DEP = dependent, EXST = existential form, HAB = habitual, IMP = imperative, INDIC = indicative, INS = instrumental, LOC = locative, NEG = negative, O = object, OM = object marker, PAST = past, PER = persistence, PL = plural, PROX = proximative, PRT = particle, REL = relativizer, SG = singular, SM = subject marker. Examples are presented in a phonemic orthography consistent with the IPA, with the exception of <r> used for [ɪ] and <y> used for [j]. Eleme has three tones, high (marked with an acute accent), mid (unmarked) and low (marked with a grave accent). When vowel elision processes characteristic of the speech obscure the underling segmentation represented in the glosses, an additional second line of text has been added for the sake of clarity.

[3] This is discussed further in §3 and §4.

(b) ***è-bere-ri*** *kɛ-a* *m̀bó*
3-ANT-**3PL** slaughter-HAB goat
'They used to slaughter goats.'

Contrastively, in SVCs, both second-person plural and third-person plural are marked as suffixes on the first verb in the sequence, while subsequent verbs are only marked for agreement if the subject is second-person plural (2a). In these examples, the person of the subject is also indicated as a prefix on the first lexical verb in the construction.

(2) (a) *ò-sí-**i*** *fó-**i*** *ǹdʒa*
2-go-**2PL** plant-**2PL** food
'You (PL) went to plant food.'

(b) *è-sí-**ri*** *fó* *ǹdʒa*
3-go-**3PL** plant food
'They went to plant food.'

This asymmetric system of participant reference marking is unlike more typical agreement systems in that it is characterised by INTRA-PARADIGMATIC VARIATION (i.e. paradigm internal variation) in the distribution of agreement suffixes and the rules that underlie their realisation.[4] Since this variation occurs across a person distinction, it is partly determined by the person FEATURES involved in the agreement relation within a particular syntactic environment or DOMAIN. However, because the distribution of the suffixes also varies depending on the construction type, this lack of uniformity is also conditioned by what can be a TARGET for agreement (i.e. the element that has its form determined by the agreement relation). The intra-paradigmatic variation of interest here concerns the target or host of agreement morphology. In this sense, it is only the second-person plural and third-person plural forms that are affected by intra-paradigmatic variation.

CONTROLLERS of agreement (i.e. elements that determine agreement) are typically either a clause internal NP or a discourse determined argument. In CANONICAL AGREEMENT (Corbett 2003, 2006) features shared by the controller and target have matching values and agreement occurs within a local domain. In both (1) and (2) the controllers of agreement are absent from the clause and the domain is non-local; overt subject NPs or independent pronouns are incompatible with the subject prefixes in such clauses. In (2a) the targets of agreement are the lexical verbs *sí* 'go' and *fó* 'plant' while in (2b) the target is the first of these verbs only. In (1) a different situation holds in terms of the distribution of the suffixes: second-person plural is marked only on the lexical verb (i.e. the lexical verb is a target and the auxiliary is not) and third-person

[4] The term 'asymmetry' is used in this paper in a non-technical sense. In contrast, Corbett (2006) uses it in reference to the logical asymmetry between the controller (i.e. the element that determines the agreement) and target whereby the target has its form determined by the controller, but not the other way around. See Corbett (2006: 19-21) for discussion of why a logically asymmetric agreement relation is more canonical than a symmetric one.

plural is marked only on the auxiliary verb (i.e. the auxiliary is a target and the lexical verb is not). These examples indicate that the features of interest in this agreement relation are PERSON and NUMBER because the morphological form of the target varies on this basis. However, these examples also demonstrate that the CATEGORY and SYNTACTIC POSTION of the target are also important factors in explaining this asymmetry.

In this paper, I argue that despite the complexities of the Eleme participant reference system, intra-paradigmatic asymmetry between the distribution of the subject suffixes can be adequately explained in terms of differing AGREEMENT PREREQUISITES. Agreement prerequisites are those properties of a controller-target relationship that must be met in order for agreement to occur (cf. Corbett 2006). In relation to *-i* and *-ri*, FEATURAL PREREQUISITES account for the limitation of the suffixes to second-person and third-person plural controllers, while CATEGORICAL PREREQUISITES account for the differences in the type of target selected. I discuss these concepts in more detail in §5. Therein I show that categorical prerequisites must be interpreted broadly in agreement systems involving clitic-like formatives in order to account for the syntax-dependent properties of such markers (§4.2).

In the discussion that follows I first give an overview of the participant reference system in Eleme (§2). I then introduce some important concepts in determining agreement relationships and discuss the nature of controllers, targets and domains in Eleme (§3). Next, I demonstrate how prerequisites and can be used to account for the unusual properties of this agreement relation (§4).

Since structurally asymmetric paradigms of this kind are at least uncommon and perhaps typologically very rare, a satisfactory explanation for the distribution of subject agreement morphology in Eleme must also account for the circumstances in which such a system is possible. As a secondary aim of this paper, I provide a historical explanation for the structural asymmetries encountered in the Default Subject agreement paradigm (§5). I argue that the facts surrounding the distribution of participant reference affixes in Eleme are a consequence of historical changes not found in the most closely related languages and propose a 'historical layer' analysis to account for the differences between these languages using data from not only Eleme, but also from other members of the Ogonoid family.

2. PARTICIPANT REFERENCE IN ELEME

Grammatical relations in Eleme exhibit the morphosyntactic properties of a nominative/accusative system. In particular, they may be identified by unmarked SVO constituent order, subject prefixes, subject suffixes and object

suffixes.[5] There are six independent pronouns that can be assigned different case roles and they are therefore not restricted to functioning as subject pronouns (see Bond 2006a).[6] The full paradigm is given in Table 1. and sentences exemplifying their usage are provided in §3.

	SINGULAR	PLURAL
1ST	*àmi*	*èbai*
2ND	*à?ò*	*òba(u)*
3RD	*àŋɛ̀*	*àbà*

Table 1.
Independent pronouns

Dependent person/number forms in Eleme are multitudinous. Discussion here will be restricted to the distribution of the most pervasive forms described as 'Default' Subject affixes.[7] The label 'Default' is favoured because while these affixes are used in the majority of verbal paradigms in Eleme, they need to be distinguished from other types of bound subject marking in the language.[8] When a verb stem is marked only with the affixes belonging to this paradigm there is a default reading of perfective aspect and past time reference. However, they are also found in Habitual, Continuous, and Proximative constructions amongst others, where overt TAM morphology indicates that the perfective reading no longer holds. Given the correct TAM and discourse conditions, the verb stem is marked by both subject prefixes and subject suffixes simultaneously.

[5] Gender is not marked morphologically in Eleme. In this paper, where the gender of the participants is irrelevant, 's/he' or 'him/her' will be used in the English translations.

[6] Following Siewierska (2004: 17), morphological and prosodic independence are taken to be characteristic properties of independent pronoun. They are typically separate words that may take primary stress (cf. English unstressed pronouns which are used anaphorically). In contrast, dependent person markers typically exhibit decreased morphological independence and phonological substance in comparison to independent forms.

[7] Capitalised terms refer to language specific categories (see Haspelmath 2007: 125 for discussion and references).

[8] Other agreement paradigms in the language are referred to as the 'Anterior-Perfective prefixes' and the 'High Tone prefixes' (Bond 2006, 2009). Fraser & Corbett (1997) distinguish two uses of the term 'default' in the literature and conclude that 'normal case defaults' are the general cases that apply normally, while 'exceptional' case defaults are used only as a last resort. The former is concerned with typicality, while the latter is concerned with exceptionality. The language specific category 'Default Subject', as used in this paper, refers to normal case defaults. See Corbett (2006: 147–151) for discussion.

In Default Subject paradigm, prefixes have low tone, with the exception of first-person plural, which has mid tone (Table 2).[9] The vocalic quality of each prefix is constrained by vowel harmony with the initial vowel of the stem, or, in the case of a nasal prefix, by the initial consonant. Vowel harmony does not †††persist across word boundaries in Eleme (Bond 2006a: 62-6). The second-person and third-person prefixes have the form *ò-/è-* before stems beginning with Set A vowels /e i ĩ o u ũ/ and *ɔ̀-/ɛ̀-* before stems beginning with Set B vowels /a ã ɛ ɛ̃ ɔ ɔ̃/.[10] The form of the first-person singular prefix is conditioned by the initial consonant of the verb stem (*m̀-* before bilabial consonants, *ŋ̀-* before a velar plosive, *ŋ̀m̀-* before a labial-velar and *ǹ-* elsewhere). Some free variation exists in the form of the first-person plural prefix, which may be realised either as *nɛ-* or more commonly as *rɛ̃-*. This form is not subject to vowel harmony; it is invariably realised as a nasal vowel and is therefore an open vowel regardless of the succeeding stem.

	SINGULAR	PLURAL
1ST	*m̀-/ǹ-/ŋ̀-/ŋ̀m̀-*	*rɛ̃-/nɛ-*
2ND	*ò-/ɔ̀-*	*ò-/ɔ̀-...-i*
3RD	*è-/ɛ̀-*	*è-/ɛ̀-...-ri*

Table 2.
Default Subject affixes

The prefixes are characterised by syncretism across the number feature for both second-person and third-person.[11] Plurals with syncretic prefixes are distinguished from their singular counterparts by way of suffixes indexing the person and number of the subject while first-person singular and plural subjects are individuated by distinct prefixes and are not indexed by a suffix. In this sense, they are different from both each other and from the second-person and third-person forms, as illustrated in (3).

[9] One reason for describing these person/number markers as bound forms is that they exhibit phonological integration with their host or occur closer to the verb root than prefixes that exhibit such properties.

[10] Following Clements (2000: 135–8), the label ±ATR is avoided here in the absence of a detailed investigation of the articulatory mechanism employed in making this distinction.

[11] For historical evidence for describing this a syncretic system, see §5.1.

(3) (a) ***ǹ-****ʔerá*
1SG-stop
'I stopped.'

(b) ***rɛ̃́-****ʔerá*
1PL-stop
'We stopped.'

(c) ***ò-****ʔerá*
2-stop
'You (SG) stopped.'

(d) ***ò-****ʔerá-****i***
2-stop-**2PL**
'You (PL) stopped.'

(e) ***è-****ʔerá*
3-stop
'S/he stopped.'

(f) ***è-****ʔerá-****ri***
3-stop-**3PL**
'They stopped.'

Syncretism across the number distinction for second-person and third-person results in a mismatch of features between the prefixes and suffixes. For instance, in (3d) the prefix has the feature *2* [PERSON] while the suffix has the features *2* [PERSON] and *plural* [NUMBER].[12] This mismatch appear to be an important part of this relationship in that without specifying covert features for the *ò-* prefix, it suggests the controller of agreement (i.e. the element that determines agreement) lies outside the local clausal domain. Similar feature mismatches apply with third-person plural subjects. In (3f) the prefix bears the feature *3* [PERSON] while the suffix has the features *3* [PERSON] and *plural* [NUMBER]. While on the surface it may seem as though *-ri* can be further decomposed into *-i* (with only the number feature PLURAL) plus some other morph with the shape *-r* (with its own separate set of features), such a decomposition does not capture regularities that extend beyond the atomic values presented and ignores the distributional differences highlighted in (1) and (2). Furthermore, data such as those in (4) further rule out the possibility that *-r* is an epenthetic (with *-i* as the underlying plural suffix) or that *-ri* is an allomorph of *-i*.[13] When attached to identical mono-moraic verb roots, the second-person plural suffix *-i* syllabifies with the preceding root resulting in a CVV syllable, as in (4a), while given the identical environment, the third-person plural suffix *-ri* forms a disyllabic verb stem, as in (4b).

[12] Historical evidence presented in §5.1 suggests that *-i* derived from a second-person plural object pronoun; the synchronic viewpoint concerning the featural properties of *-i* adopted here is thus consistent with this possible origin.

[13] In attempting to justify a decompositional analysis of [r], an anonymous reviewer suggests that *-ri* may be decomposed into a marker of plurality, *-i,* plus an epenthetic consonant [r]. Phonological evidence from Gokana, one of Eleme's close relatives, concerning epenthesis with the use of the second-person plural suffix suggests this may be a plausible historical analysis (see §5.1) yet synchronically, this is clearly not the case.

(4) (a) *òbau* *sí-i-ba*
2PL hold-2PL-O3PL
'You (PL) held them.'

(b) *àbà* *sí-ri-mi*
3PL hold-3PL-O1SG
'They held me.'

These data show that [r] is a genuine onset of the affix since the phonological environment in which the suffixes occur is identical. These examples also demonstrate that the suffixes appear independently of the subject prefixes and are thus not part of a discontinuous morpheme. Given the distributional properties of *-i* and *-ri* (first outlined in §1 and elaborated in §3 and §4), and their independence from the subject prefixes, it seems clear that, on some level, both person and number features play a role in conditioning the appearance of these morphemes.

3. INTRA-PARADIGMATIC VARIATION IN MONO-VERBAL CLAUSES

Empirical studies into the form and function of bound participant reference markers have revealed that such elements frequently evolve from independent pronouns, more specifically, those that have a co-referential relationship with a NP in topic function (Givón 1976, Bresnan & Mchombo 1987). Consequently, Givón (1976: 151) claims that agreement and pronominalization (i.e. pronominal incorporation) are essentially the same continuous phenomenon, and that the two cannot be divided diachronically or, most often, synchronically on principled grounds (cf. Barlow 1992, Evans 1999, Corbett 2003, and Mithun 2003 amongst others). This assertion has been challenged by Bresnan & Mchombo (1987) who propose that a difference can be discerned between GRAMMATICAL AGREEMENT and ANAPHORIC AGREEMENT. They claim that bound participant reference markers are characterised by exhibiting one of these agreement types depending on whether they function as verbal arguments or not. For instance, in grammatical agreement, the verbal affix expresses the person, number and gender class (where applicable) of a distinct argument. In this type of agreement the verbal affix is itself not an argument of the verb, which must be expressed elsewhere in the clause. Conversely, in anaphoric agreement (called PRONOMINAL AGREEMENT by Bickel and Nichols (2007: 232) the verbal affix is an incorporated pronominal argument of the verb. In this latter type of agreement, the verbal affix may be co-referential with a NP that has a non-argument function such as a topic or focus of the clause or discourse structure.

For the most part, subject-marking affixes in Eleme exhibit anaphoric agreement with disparities between the anaphoric and grammatical status of agreement markers dependent on the person features involved. However, examples from Eleme and elsewhere demonstrate that the behaviour of agreement marking on targets may differ based on the structural properties of a construction and the participant types involved in the agreement relation.

Other recent discussions of heuristics and behavioural properties of bound pronominals and (grammatical) agreement affixes such as Evans (1999), Corbett (2003) and Mithun (2003) concern their case roles, referentiality, descriptive content and the balance of information between controllers and targets, in addition to the distributional properties discussed here. Given the overall complexity of the Eleme participant reference system (see Bond 2006a for details) a detailed exploration of these additional parameters awaits future research.

In the following discussion the distribution of pronominal forms is exemplified in terms of a clear distinction between the marking of first-person, second-person and third-person subjects to fully demonstrate the disparate nature of the default agreement paradigm. The data in this section concerns the distribution of the Default Subject affixes in mono-verbal clauses. AVCs and SVCs are examined in §4.

3.1 First-person prefixes

Both of the first-person prefixes may occur without an independent pronoun, as first seen in (3). In constructions containing the first-person singular independent pronoun *àmi*, default subject prefixes are also usually present, as exemplified in (5a). However, it is also grammatical for the first-person singular default subject prefix to be absent if the independent pronoun is employed (5b).

(5) (a) *àmi* ***ǹ***-*ʔerá*
1SG **1SG**-stop
'I stopped.'

(b) *àmi* *ʔerá*
1SG stop
'I stopped.'

In contrast, no such variation is evident with first-person plural subjects. If the first-person plural independent pronoun is employed, then the relevant default subject prefix is obligatory. Thus, while (6a) is attested, the construction in (6b) is impermissible, thus demonstrating different constraints across the number distinction for first-person agreement relations.[14]

[14] The first-person plural prefix in Eleme does not appear to have a clear cognate form in the described Ogonoid languages. While the other default subject prefixes show similarities to independent pronouns in the western Ogonoid languages Kana and Gokana (§5), the historical development of the *rɛ̃-* prefix is less transparent. Lutz Marten (personal communication) suggests that the 1PL prefix *rɛ̃-* and the 3PL suffix *-ri* may have a shared origin. However, there is not sufficient synchronic evidence or historical data to pursue this line of thought further at present. For the time being however, it is pertinent to note that, alongside pragmatic factors, the difference in distribution between the first-person plural prefix and the other default subject prefixes likely reflects its different origin and subsequent development.

(6) (a) *èbai* ***rɛ̃-ʔerá***
1PL **1PL**-stop
'We stopped.'

(b) **èbai ʔerá*
1PL stop
Intended: 'We stopped.'

Text counts suggest that use of the first-person plural independent pronoun *èbai* is restricted. For instance, in a personal narrative containing 18 uses of a first-person plural referent as the subject of the clause, only two employed the independent pronoun *èbai* and the remaining 16 instances comprised *rɛ̃-* alone. Both sentences in the text *èbai* involved coordination of the pronoun with a NP. In (7), *èbai* is conjoined with *òkű́kʷe* 'Igbo people' .

(7) *sé* ***òkű́kʷe*** ***bãrá́*** ***èbai*** *rɛ̃-dárá*
if **people.Igbo** **and** **1PL** 1PL-separate
'If the Igbos and us separate...'

These data suggest that *rɛ̃-* is typically used anaphorically and that *èbai* has a restricted function, of which one use is in coordination.

3.2 Second-person affixes

Recall from the examples in (3c) and (3d) that second-person singular is indicated by a subject prefix alone, namely *ɔ̀-/ò-*, while second-person plural employs the same subject prefix together with a subject suffix, *-i*. In this section I demonstrate that the second-person prefix has properties of anaphoric agreement, while the second-person plural suffix has properties of grammatical agreement.[15]

Evidence that *ɔ̀-/ò-* and *-i* do not constitute parts of a discontinuous morpheme can be seen in constructions where independent pronouns are present but the default subject prefixes are not. For example, in (8), there are no subject prefixes; the independent pronouns function as subjects. In the presence of the independent pronoun, no additional morphology is necessary on the verb with a second-person singular subject, illustrated in (8a). The examples in (8b) and (8c) show that, with a second-person plural independent pronoun as subject, the grammatical agreement suffix is not obligatory,

[15] An alternative analysis in which *-i* is proposed to be an anaphoric pronoun seems undesirable. One consequence would be that constructions where both *-i* and *òbau* were present would not be expected to be permissible unless the independent pronoun were functioning as a topic rather than subject since the verb's need for a subject would already be satisfied by *-i*. How this suffix interacts with topicalized subjects remains an issue for future research.

although grammaticality judgements indicate omission of the second-person plural suffix is dispreferred. This cannot be the case with the second-person prefix rather than an independent pronoun since the interpretation would be that there is a singular subject, as in (8d).

(8) (a) *àʔò ʔerá*
2SG stop
'You (SG) stopped.'

(b) *òbau ʔerá-**i***
2PL stop-**2PL**
'You (PL) stopped.'

(c) *ʔòbau ʔerá*
2PL stop
'You (PL) stopped.'

(d) *ò-ʔerá*
2-stop
'You (SG) stopped.'

One important asymmetrical aspect of this agreement system is a mismatch between the features of the subject prefix *ò-/ò-* and the *-i* suffix; the subject prefix indicates second-person and is unspecified for number, while the suffix indicates second-person and plurality. Despite bearing the same features as the independent pronoun, it is not possible for the second-person plural subject suffix *-i* to function as a marker of anaphoric agreement; it must be accompanied by an anaphoric pronoun (either independent or bound). This is supported by the ungrammaticality of (9a). In contrast, the imperative in (9b) is permissible, and yet lacks a second-person prefix; in Siewierska's (2004) terms it lacks an overt controller.

(9) (a) **ʔerá-**i***
stop-**2PL**
Intended: 'You (PL) stopped.'

(b) *ʔérá-**i***
stop.IMP-**2PL**
'Stop (PL)!'

While it is common cross-linguistically for imperatives to occur without a pronominal subject, agreement categories such as person and number are frequently retained in such constructions, even when the pronominal subject is not (Birjulin & Xrakovskij 2001: 29). This is the case with the Eleme examples in (9b) and (10), The absence of an overt subject prefix in such constructions indicates that there is a difference in the grammatical function of the prefix and suffix.

(10) (a) *ʤù*
come
'Come (SG)!'

(b) *ʤù-**i***
come-**2PL**
'Come (PL)!

The possible absence of an overt subject pronoun or prefix in such constructions falls out from the fact that arguments must be overtly realized in

the form of NPs or anaphoric agreement markers in declaratives, but not in imperatives.

In existing data, there are no examples of spontaneous speech in which the second-person independent pronouns are accompanied by the second-person default subject prefix, suggesting that the prefix functions as an argument. For instance, in a collection of three procedural texts, containing 81 clauses, second person singular subjects account for 55 of the clausal subjects. Of these, only two involve the independent pronoun and neither of these examples have the independent pronoun and the subject prefix. Second-person plural subjects were not present in this informal sample.

3.3 Third-person affixes

Turning now to third-person subjects, the examples given in (3e) and (3f) exhibit a superficially similar pattern to the one found in (3c) and (3d) for the second-person. In the preceding discussion it was argued that the second-person plural subject suffix *-i* may only be involved in grammatical agreement. In the discussion that follows, it is argued that the third-person plural subject suffix *-ri* may be involved in both grammatical and anaphoric agreement.

The examination of texts reveals that reference to a third-person plural subject is often restricted to the presence of the subject suffix only, as in (11), which is an example of anaphoric agreement. This example also corroborates the assertion made in §2, that the *-ri* suffix functionally marks both third-person and plurality, in the absence of the third-person prefix *è-*, an independent pronoun or a NP in subject function.[16]

(11) *ʔerá-**ri**=rṹ* *ègba-i-ye* *ba*
stop-**3PL**=APPL stomach-PRT-3SG.POSS tear
'They started tearing his stomach.'
(lit. 'They stopped with his stomach and tore it.')

To clarify this point, a further example of *-ri* indicating anaphoric agreement is provided in (12a). Recall that a comparable construction with a second-person plural subject indicated by *-i* alone is ungrammatical, as illustrated in (12b).

[16] This does not rule out the fact that a unification approach may be the best way to account for the displacement of grammatical information in Eleme. See Shieber (1986) for an introduction.

(12) (a) *ʔerá-**ri***
stop-**3PL**
'They stopped.'

(b) **ʔerá-**i***
stop-**2PL**
Intended: 'You (PL) stopped.'

The data in (11) and (12) demonstrate that *-ri* can be used without other morphology to make reference to a controller in a non-local domain. When a third-person plural subject NP is present, the *-ri* suffix is obligatory. In (13), the subject suffix exhibits properties of grammatical agreement. Note also that in this example, as in (11) and (12), the third-person prefix *è-* is absent, showing that different co-occurrence constraints apply to the third-person prefix *è-* and the third-person plural suffix *-ri* than to the second person affixes.

(13) *òkʷ-ò-be* *fé-**ri*** *ɔnɛ* *ò-dʒi*
òku ò-be fé-**ri** ɔnɛ ò-dʒi
people REL-fight kill-**3PL** person REL-steal
'The soldiers killed a thief.'

The examples in (14) and (15) illustrate the distribution of third-person subject affixes in relation to independent pronouns and NPs. In (14a), repeated from (2a), the subject of the verb is the NP *ɔ̃nʷĭ* 'child'. In (14b), repeated from (2b), it is third-person singular pronoun *àŋè*. In both instances there is an absence of verbal morphology indexing the subject.

(14) (a) *ɔ̃nʷĭ* *dʒú*
child come
'The child came.'

(b) *àŋè* *dʒú*
3SG came
'He [the child] came.'

Compare these examples with those in (15) in which the subject is plural and the *-ri* suffix is obligatory. Note that as in the examples in (14), no third-person subject prefix is present suggesting that the prefix and the NP are in complimentary distribution.

(15) (a) *àbà ʔerá-**ri***
3PL stop-**3PL**
'They stopped.'

(b) *ɔ̃nʷĭ* *bãrɑ́* *àkà* *ʔerá-**ri***
child and mother stop-**3PL**
'The child and mother stopped.'

Counterpart constructions, in which subject prefixes are present, are provided in (16) and (17). Speakers rate the constructions of this type as highly dispreferred. As with second person plural subjects, the co-occurrence of third-person independent pronouns with the subject prefixes is unattested with any type of stem in spontaneous speech. The co-occurrence of NPs and *è-/ɛ̀-* is not attested with the Perfective stems illustrated below).[17] This suggests that constructions below are either infelicitous or have a restricted distribution and pragmatic function that relies on a specific discourse context.

(16) (a) ?/**àŋɛ̀ **è-**ʔerá*
3SG **3**-stop
Intended: 'He stopped.'

(b) ?/**ɔ̀nʷɨ̌ **è-**ʔerá*
child **3**-stop
Intended: 'The child stopped.'

(17) (a) ?/**àbà **è-**ʔerá-**ri***
3PL **3**-stop-**3PL**
Intended: 'They stopped.'

(b) ?/**ɔ̀nʷɨ̌ bãrɑ̃́ àkà **è-**ʔerá-**ri***
child and mother **3**-stop-**3PL**
Intended: 'The child and mother stopped.'

These examples demonstrate that there is a great deal of variation within the paradigm. In particular, the distribution of the second-person plural suffix is vastly different from the third-person plural suffix, as first demonstrated in (1). Some further variation will be encountered in §4.

3.4 Summary

The examples provided in this section show that the properties of Default Subject affixes in Eleme differ significantly depending on the person and number of the argument that is indexed, as summarised in Table 3.

[17] The co-occurrence of NP subjects with the Anterior-Perfective paradigm is examined from multiple perspectives in Bond (2009).

DEFAULT SUBJECT AFFIX		PERMITS OVERT CONTROLLER	REQUIRED BY OVERT CONTROLLER	REQUIRES PRONOMINAL IN SUBJECT POSITION
1SG	*m̀-/ǹ-/ŋ̀-/ŋ̀m̀-*	✓	✗	✗
1PL	*rɛ̃-/nɛ-*	✓	✓	✗
2	*ò-/ɔ̀-*	✗	✗	✗
3	*è-/ɛ̀-*	✗/?	✗	✗
2PL	*-i*	✓	✓/?	✓
3PL	*-ri*	✓	✓	✗

Table 3.
Distribution of the Default Subject prefixes in Perfective declaratives

The distribution of the second-person and third-person prefixes with independent pronouns and NP subjects demonstrates that these prefixes do not allow the presence of an overt controller, while the first-person prefixes and the default subject suffixes do. In particular, the distribution of the second-person prefixes suggest that they always show anaphoric agreement. The first-person plural prefix is always obligatory and thus both permits the presence of an overt controller and is required when an overt controller is present. These distribution characteristics contrast those of the first-person singular prefix, the second prefix and the third person prefix, which can be omitted in the presence of an independent pronoun. None of the subject prefixes require an independent pronoun in subject argument position

The subject suffixes vary in terms of their obligatoriness: at least the third-person plural suffix *-ri* is obligatory in the presence of a overt controller, while *-i* may be omitted in the presence of an independent pronoun bearing the same features. This is not the case when the prefix *ò-/ɔ̀-* is in subject argument position since this would result in the interpretation that the subject is singular, not plural. Conversely, none of the Default Subject prefixes require a pronominal element in subject argument position (either because they are themselves in that position or because the argument is covert). The suffixes differ in that the second-person plural form *-i* requires a pronominal element to be in subject position (either an independent pronoun or pronominal agreement prefix) while the third-person plural form *-ri* does not. Table 3 demonstrates that only third-person plural *-ri* and first-person plural *rɛ̃-/nɛ-* share exactly the same distributional patterns in terms of their co-occurrence with controllers in Perfective constructions, although one is a prefix and the other a suffix.

It is argued in the following section that while there are differences in the features of the independent pronouns and bound forms, it is exactly these differences which allow for structural asymmetries in SVCs and AVCs.

4. INTRA-PARADIGMATIC PREREQUISITES

Multiple exponence of the type seen in the Eleme Default Subject marking paradigm varies in obligatoriness based on the person and number of the argument. The term 'intra-paradigmatic' is used here to indicate that prerequisites delimit a situation in which morphologically comparable forms in *the same paradigm* behave in disparate ways (§4.1). In the case of the Eleme default subject paradigm, the use of the second-person plural suffix can be accounted for using the usual descriptive mechanisms available from the literature on agreement – namely FEATURAL and CATEGORICAL PREREQUISITES, which are based at the level of morphology. In contrast, use of the third-person plural suffix requires prerequisites that reference the higher level of syntax (§4.2).

4.1 Intraparadigmatic variation across SVCs and AVCs.

In Eleme Serial Verb Constructions (SVCs), the second-person plural suffix *-i* is found repeatedly attached to each verb stem in the construction, as in (18a) and (19a), while the third-person plural suffix is restricted to the first verbal element in a construction, as in (18b) and (19b).[18]

(18) (a) *ò-sí-**i*** *fó-**i*** *ǹdʒa*
2-go-**2PL** plant-**2PL** food
'You (PL) went to plant food.'

(b) *è-sí-**ri*** *fó* *ǹdʒa*
3-go-**3PL** plant food
'They went to plant food.'

(19) (a) *ò-dʒú-**i*** *ná-**i*** *ǹtitó*
2-come-**2PL** do-**2PL** work
'You (PL) came to do work.'

(b) *è-dʒú-**ri*** *ná* *ǹtitó*
3-come-**3PL** do work
'They came to do work.'

The same distribution of the suffixes occurs when the controller of agreement is present in the form of an independent pronoun, as in (20).

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[18] Unlike the English translations, there is no evidence to suggest the verbs in the purposive examples in (18) and (19) belong to separate clauses, and they meet the criteria for (Eleme) SVCs. If they were to be considered separate clauses, then we would still need to account for the intriguing distribution of *-i* on lexical verbs in conjoined/sequential clauses and why *-ri* only occurs on the first clause of a conjoined/sequential structure only, whilst accounting for the *same* distribution of the affixes in mono-clausal structures like the textbook SVCs in (28).

(20) (a) *òbau tʃú-**i** ǹsã nɔ nè-**i**-e*
2PL take-**2PL** book DEM give-**2PL**-O3SG
'You (PL) delivered the books to him.'

(b) *àbà tʃú-**ri** ǹsã nɔ nè-ɛ*
3PL take-**3PL** book DEM give-O3SG
'They delivered the books to him.'

Eleme SVCs are characterised by the following properties:

(i) They consist of a single clause with a shared subject, but not necessarily a shared object;
(ii) Aspect and mood are shared across the clause (whether overtly marked or default); in SVCs verbs cannot be interpreted as having different aspect or mood;
(iii) There are no markers of coordination or dependence between the verbs;
(iv) There is no marking of a clause boundary between the verbs;
(v) Verbs in serialisation are conceived of as expressing aspects of a single event or a chain of closely related sub-events.

The intra-paradigmatic asymmetries found in SVCs are also present in construction types that contain dependent verb forms, distinguished here as Dependent Verb Constructions. These verbs exhibit the same behaviour as other lexical verbs in terms of the Default Subject suffixes. Consider (21a) and (22a), in which the second-person plural subject suffix *-i* occurs on both the finite lexical verb in the construction and the following dependent verb form, i.e. *e-gbòì* in (21a) and *e-maa* in (22a). In the second example in each pair, the third-person plural subject suffix is not attached to the dependent verb form. However, just as in SVCs, *-ri* is attached to the locative verb *do* in (21b) and *bó* 'tie' in (22b). While both of these verbs have auxiliary like functions, they are different from genuine Eleme auxiliaries in that they may also occur as the only lexical verb in a construction.

(21) (a) *ò-do-**i**=rṹ e-gbòì-**i** ètʃṹ*
2-LOC-**2PL**=APPL DEP-stitch-**2PL** clothes
'You (PL) are stitching clothes.'

(b) *è-do-**ri**=r-é-gbòì* *ètʃű́*
è-do-**ri**=rű́ e-gbòì ètʃű́
3-LOC-**3PL**=APPL DEP-stitch clothes
'They are stitching clothes'

(22) (a) *ò-bó-**i**=rű́ e-maa-**i*** *àdádʒi* *ɔ̀nɛnɛ*
2-tie-**2PL**=APPL DEP-bring-**2PL** Adaji gift
'You (PL) should bring Adaji a gift.'

(b) *è-bó-**ri**=rű́ e-maa* *àdádʒi* *ɔ̀nɛnɛ*
3-tie-**3PL**=APPL DEP-bring Adaji gift
'They should bring Adaji a gift.'

Constructions such as these are similar to SVCs in that they demonstrate the same distribution of the plural suffixes across verb stems, yet they differ in that the second linear verb is morphologically marked as being dependent and less finite than the first. In the following two sections it is shown that (in terms of the use of the default plural suffixes) the same agreement prerequisites and apply to finite serialized verbs also apply to non-finite serialized verbs, thus making any further distinction between Serial Verb Constructions and Dependent Verb Constructions unnecessary here.

An explanation to account for this difference in distribution needs to identify those properties of agreement that influence the selection of targets for agreement and those that are responsible for other asymmetries in the language. The pattern of agreement marking found in SVCs exhibits a striking contrast with the distribution of second-person plural and third-person plural subject suffixes in Eleme evident in Auxiliary Verb Constructions (AVCs). In such constructions one finds the second-person plural suffix attached to the lexical verb (LEXV), but the third-person plural suffix bound to an auxiliary (AUXV). The most frequently occurring construction type featuring this pattern involves the Anterior auxiliary *bere*, which is described in more detail in Bond (2006a: 229-36). The examples in (23), repeated here from (1), which contain both the Anterior auxiliary and the Habitual suffix *-a*, illustrate this asymmetry clearly. The second-person plural suffix follows the lexical-verb stem in (23a), which is also marked for Habitual Aspect. In contrast, the third-person plural suffix is attached to *bere* in (23b) and the lexical verb is unmarked for subject. The subject prefix is found on the auxiliary in both examples, demonstrating that unlike the subject suffixes, the prefixes have an invariable position in relation to the verbal complex, comprising auxiliaries and lexical verbs.

(23) (a) *ò-bere* *kɛ-a-**i*** *m̀bó*
2-ANT slaughter-HAB-**2PL** goat
'You (PL) used to slaughter goats.'

(b) *è-bere-**ri*** *kɛ-a* *m̀bó*
3-ANT-**3PL** slaughter-HAB goat
'They used to slaughter goats.'

The constructions in (23) differ from the SVCs exemplified in (18) and (19) in that while each of the lexical verbs in the SVCs may each be used independently in the predication of an action, *bere* may not occur independently of a lexical verb. This is a defining characteristic of auxiliaries in Eleme. The same pattern of participant reference marking is also evident in a range of verbal constructions that contain auxiliaries expressing meanings that correspond to adverbial notions in other languages (see Anderson 2006 for discussion of the adverbial functions of auxiliaries). For instance, in (24a) the subject prefix is bound to the auxiliary *ʔɔtɔ*, (which - while construction specific in terms of its semantic interpretation - provides an intensifying/inceptive meaning here), and the grammatical agreement marker *-i* is attached to the lexical verb *ʧá* 'run'. In (24b) *ʔɔtɔ* is inflected with all of the participant reference marking in the clause.

(24) (a) *ɔ̀-ʔɔtɔ* *ʧá-**i*** *ɛpɔ́*
2-AUX run-**2PL** afraid
'You (PL) became very afraid.'

(b) *ɛ̀-ʔɔtɔ-**ri*** *ʧá* *ɛpɔ́*
3-AUX-**3PL** run afraid
'They became very afraid.'

Other 'adverbial type' auxiliaries that behave in this way included *kárá* 'merely, just' and *tere* 'again'. Auxiliaries from verbal sources with which the Default Subject suffixes have the same distribution are discussed in §5.2.

4.2 Prerequisites for agreement

For an agreement relationship to occur, one obvious prerequisite is that the target has the means (i.e. the morphology) to realize the agreement features (Corbett 2006: 78). These prerequisites include restrictions on which features are involved in agreement and the categorical or inherent lexical properties (such as GENDER) of appropriate targets. In Eleme, the presence of agreement suffixes when an agreement domain has a second-person plural or third-person plural subject controller (but not otherwise) demonstrates that certain FEATURAL PREREQUISITES need to be met for the agreement patterns of interest to occur here. These are:

NUMBER: *plural*
PERSON: *2, 3*

Similarly, because agreement is dependent on the presence of a suitable target, it is necessary to specify some categorical prerequisites as well. However, the categorical prerequisites for agreement are only relevant providing the featural prerequisites are met. This is because the different values for the feature PERSON involve different categorical prerequisites. The second-person plural suffix *-i* is realised on all lexical verbs (LEXV), both finite and dependent, but not on auxiliary verbs (AUXV). The categorical prerequisites for agreement with second-person plural subjects is:

CATEGORY: *LEXV*

Therefore, if the featural prerequisites of plural number and second-person are met and the categorical prerequisite of LEXV is met, agreement occurs. This accounts for why in SVCs with second-person plural controllers all LEXVS are targets for agreement, while examples like (25) are ungrammatical (i.e. the AUXV is not an available target for second-person plural controllers, while the LEXV should agree, but doesn't).

(25) AUXV = target, LEXV ≠ target
*ò-beré-**i** kɛ-a mbó*
2-ANT-**2PL** slaughter-HAB goat
Intended: 'You (PL) used to slaughter goats.'

In contrast, third-person plural suffix *-ri* is always realised on auxiliaries and only sometimes on lexical verbs. If the featural prerequisites of plural number and third-person are met, agreement will occur on the AUXV in AVCs. This accounts for why the example in (26a) is grammatical (i.e. the AUXV is a target for agreement) and (partially) for why (26b) is not (i.e. the AUXV is not a target for agreement).

(26) (a) AUXV = target, LEXV ≠ target
*è-beré-**ri** kɛ-a mbó*
3-ANT-**3PL** slaughter-HAB goat
'They used to slaughter goats.'

(b) AUXV ≠ target, LEXV = target
è-beré kɛ-a-ri** mbó*
3-ANT slaughter-HAB-**3PL** goat
Intended: 'They used to slaughter goats.'

Given that third-person plural may be marked on both AUXVs and LEXVs in Eleme, it is necessary to modify the categorical prerequisites for agreement with third-person plural controllers. However, if we simply widened the featural prerequisites of LEXV targets to include controllers with the features *third-person* and *plural* we would still end up with constructions that are ungrammatical, such as those in (27), whereby the suffixes indexing subject are positioned incorrectly in the clause. (27a) is ungrammatical because the both LEXVs in the construction are targets for agreement, cf. (19b). (27b) is ungrammatical because both the AUXV and LEXV are targets for agreement, cf. (23b).

(27) (a) LEXV1 = target, LEXV2 = target
*è-dʒú-**ri** ná-**ri** ǹtitó*
3-come-**3PL** do-**3PL** work
'Intended: They came to do work.'

(b) AUXV = target, LEXV = target
*è-beré-**ri** kɛ-a-**ri** mbó*
3-ANT-**3PL** slaughter-HAB-**3PL** goat
Intended: 'They used to slaughter goats.'

These data demonstrate that there may be only one target for third-person plural agreement per clausal domain. Furthermore, the ungrammaticality of constructions such as (26b) indicate that this must be the first available target in the clause, cf. (23b). It follows therefore, that the third-person plural suffix *-ri* is not sensitive to purely lexical categorical constraints. Unlike the second-person plural suffix, the third-person plural suffix is attracted to a well-defined position in a syntactic construction, not a morphological one. The third-person plural 'suffix' *-ri* is clitic-like in that it likes to be in the second position in the verb phrase, regardless of the type of host it attaches to. This suggests the position of *-ri* is determined by a Wackernagel positioning rule within the domain of the VP, assuming that the VP includes both auxiliaries and lexical verbs in AVCs and all lexical verbs in SVCs.

Following the observations of Klavans (1980, 1985) and S. R. Anderson (1992), the clitic must be located in reference to the first, last or head element of that phrasal domain and to either precede (PROCLITIC) or follow (ENCLITIC) the reference point (see also Bickel and Nichols (2007) for examples and discussion). If we assume that the proclitic/enclitic distinction is part of the morphological means a language has to express agreement (just as the suffix/affix distinction is), then the clitic domain and reference point are the key dimensions required as part of the categorical prerequisites for agreement.

CATEGORY: Domain: VP
Host: First element

This prerequisite ensures that if an auxiliary is present and is thus the first element within the clitic's domain, a subsequent lexical verb cannot also be a target for agreement. It permits grammatical constructions like (26a) and disallows constructions such as those in (27) in which there is more than one target for agreement. It also permits constructions like (28b) in which the first (linear) verb in a serial verb construction is a target for agreement, but subsequent verbs are not. In contrast, (28a) is not affected by these constraints.

(28) (a) LEXV1 = target, LEXV2 = target
*òbau tʃú-**i** ǹsã nɔ nè-**i**-e*
2PL take-**2PL** book DEM give-**2PL**-O3SG
'You (PL) delivered the books to him.'

(b) LEXV1 = target, LEXV2 ≠ target
*àbà tʃú-**ri** ǹsã nɔ nè-ɛ*
3PL take-**3PL** book DEM give-O3SG
'They delivered the books to him.

The prerequisite also accounts for why there is only one instance of the third-person plural suffix (i.e. on the LEXV1 target) in (29a) and rules out the dependent verb (LEXV2) as a target in (29b).

(29) (a) LEXV1 = target, LEXV2 ≠ target
*è-do-**ri**=r-é-gbòì ètʃṹ́*
è-do-**ri**=rṹ́ e-gbòì ètʃṹ́
3-LOC-**3PL**=APPL DEP-stitch clothes
'They are stitching clothes.'

(b) LEXV1 = target, LEXV2 = target
è-do-ri**=r-é-gbòì-**ri** ètʃṹ́*
è-do-**ri**=rṹ́ e-gbòì-**ri** ètʃṹ́
3-LOC-**3PL**=APPL DEP-stitch-**3PL** clothes
Intended: 'They are stitching clothes.'

This prerequisite also rules out the ungrammatical constructions in (30) in which agreement is found on the second verb, but not the first.

(30) (a) LEXV1 ≠ target, LEXV2 = target
è-dʒú ná-ri** ǹtitó*
3-come do-**3PL** work
Intended: 'They came to do work.'

(b) LEXV1 ≠ target, LEXV2 = target

*è-do=r-é-gbòì-**ri** èʧű́

è-do=rű́ é-gbòì-**ri** èʧű́

3-LOC=APPL DEP-stich-**3PL** clothes

Intended: 'They are stitching clothes.'

The second-person plural suffix *-i* is much more selective about the type of host it will attach to than the third-plural form. Therefore, while the second-person plural suffix *-i* is used across multiple agreement targets because there may be multiple LEXVS within a VP, the third-person plural suffix is only marked once per clause, because there will only be one VP per clause. This analysis also sheds some light on why adverbial-type auxiliaries in Eleme receive inflection, if we assume it is by virtue of being the first element in the VP and not because they are necessarily the head of the VP.

The effects of the combination of prerequisites upon the use of *-i* and *-ri* demonstrate how by stipulating particular constraints it is possible to neatly account for why agreement does not occur in certain environments. In providing an explanation for this unusual distribution of person/number marking morphemes, and more importantly, for why it does not occur more often in language, it seems reasonable to look at the non-canonical aspects of these agreement patterns, namely the prerequisites affecting clitic placement. The agreement morpheme for third-person singular exhibits characteristics consistent with less canonical instances of agreement: *-ri* is less like the best instances of affixal, inflectional morphology than *-i*. (cf. Corbett 2006: 27). Arguably, *-ri* is more like a pronoun in its distribution in that it may only occur once per clause, i.e. it is constrained by a condition on its unique representation within a clause by the categorical prerequisite proposed above

Given the apparent rarity of this type of system – in which a seemingly uniform paradigm is characterised by variation in term of targets for agreement - the parameters that allow such a system to develop remain unclear. Although clitics as agreement markers are common place, no parallels of this unusual intra-paradigmatic asymmetry are found in the overview literature such as Corbett (2006) and Siewierska (2004), which typically deal with difficult and exceptional patterns of agreement or person marking. Given that in some languages pronominal paradigms are restricted to first-person and second-person forms, without third-person forms or the pronominal paradigm contains third-person forms that are recent additions (see Cysouw 2003, Bhat 2004 for examples), the distributional asymmetry encountered here should not be surprising. It is tempting to assume these asymmetries are permitted as a function of a discourse property of the controller. A strong hypothesis to this affect would claim that agreement asymmetries of this kind are not predicted to occur across grammatical categories such as number (e.g. where singular is overtly marked on one target, and plural is marked on another), but rather only

across those distinction closely associated with discourse/pragmatic context, in this case, the distinction between person.

5. Intraparadigmatic variation in a historical perspective

In this section I argue that the intra-paradigmatic asymmetries evident in Eleme can be best understood in the context of their diachronic development. Evidence is offered that suggests that the second-person plural suffix *-i* developed at an earlier stage in the history of the Ogonoid languages than the third-person subject suffix *-ri*. In the absence of historical records, the proposal presented here represents a plausible hypothesis that is based on the synchronic language facts of both Eleme and the other Ogonoid languages (§5.1). This is followed by an in-depth look at the distribution of the default subject suffixes in Eleme periphrastic constructions from a diachronic perspective (§5.2) in order to formulate an account for the asymmetries encountered in the Eleme default subject paradigm.

5.1 Participant reference marking in the Ogonoid languages

The Ogonoid family comprises five languages: Eleme and Baan, referred to here as the western Ogonoid languages, and Tai, Kana (Khana) and Gokana, referred to here as the eastern Ogonoid languages.[19] In order to understand the distribution of the default subject *suffixes* in Eleme, it is helpful to consider first the diachronic development of default subject *prefixes* within the Ogonoid family as a whole. Historically, the default subject prefixes in Eleme are likely to have developed from previously independent pronouns occupying a pre-verbal position. This hypothesis is supported by the form of non-emphatic independent pronouns in Kana (31), similar pronominal forms in Gokana (32), and a partial paradigm available for Tai. No data is available for Baan. The forms in these two paradigms share a number of phonological similarities with the default subject prefixes in Eleme set out in Table 2. The relationship between Eleme first-person plural prefix *rɛ̃-/nɛ-* and the comparable forms in Kana *ìì* and Gokana *eè* is less clear than for the other person/number distinctions given below. This suggests that it has possibly developed independently in Eleme or had been lost from the sister languages.

[19] For arguments concerning the internal classification of these languages see Williamson (1985), Williamson & Blench (2000) and Bond & Anderson (2006). This family is often referred to by the name *Ogoni* or *Kegboid*. See Bond (2006) for discussion of why *Ogonoid* is favoured here.

(31) Kana (Ikoro 1996: 118)

	SG	PL
1	m̀m̀	ì̀
2	ɔ̀ɔ̀/ò̀ò̀	bù̀ì
3	ɛ̀ɛ̀	àbà

(32) Gokana (Hyman & Comrie 1981: 20–3)

	SG	PL
1	m̀m̀	eè
2	oò	oò
3	aè	baè

The similarity between the independent pronouns in Kana and Gokana and the bound subject forms in Eleme suggests a common origin for these forms. Of particular interest here, however, are the differences between the second-person and third-person forms in Kana and Gokana and the comparable markers in Eleme. For instance, in Gokana second-person singular and second-person plural subjects are both marked by the same independent pronoun *oò*, as indicated in the paradigm in (32). Recall that in Eleme the default second-person subject prefixes exhibit a similar conflation marked using *ò-/ɔ̀-,* where the exact form is subject to harmony. In Gokana, as in Eleme, the number distinction between second-person singular and plural is maintained by the use of the suffix *-i(i)* marking the plural forms, as exemplified in (33). The length of the vowel in the stem determines the vowel length of the suffix. An epenthetic consonant is required to break up sequences of three or more vowels, and has the form [r] after a sequence of two oral vowels, as in (33b) and [n] after a sequence of two nasal vowels, as in (33c) (Hyman & Comrie 1981: 34, 35).

(33) Gokana (Hyman & Comrie 1981: 35)

(a) *oò sa-**i***
2 chose-2**PL**
'You (PL) chose (it).'

(b) *oò sii-**rii***
2 caught-2**PL**
'You (PL) caught (it).'

(c) *oò* *dɔ̃ɔ̃-**nii***
2 divided-2**PL**
'You (PL) divided (it).'

While there are clear similarities between the second-person plural suffixes in the two languages, epenthetic consonants are not used in this environment in Eleme and the length of the second-person plural suffix does not vary according to the stem to which it is attached. However, in Gokana, as in Eleme, the second-person plural suffix is iterated across all available targets in SVCs. In (34), the second-person plural suffix is attached to both the lexical verb stems in the construction, but the subject pronoun *oò* only occurs once.[20]

(34) Gokana (Roberts 1985: 263)
oò *tu-**i*** *gíma* *kpɔɔ-ma-**i*** *nɔm*
2.PAST take-**2PL** knife cut-INS-**2PL** animal
'You (PL) cut the meat with a knife.'

Kana, conversely, does not employ a second-person plural suffix. However, this does not result in syncretism in the person paradigm since the subject pronouns for second-person in Kana, namely *ɔ̀ɔ̀/òò* for second-person singular and *bùì* for second-person plural, are not homophonous. The similarities in second-person plural marking between Eleme and Gokana suggest that the development of *-i* in the Ogonoid family may have occurred before these two varieties became distinct languages. Through applying structural and phonological evidence used to argue that the logophoric suffix in Gokana derived from a third-person singular object pronoun, to the second-person plural suffix, Hyman & Comrie (1981: 35) conclude that in Gokana the second-person plural suffix is derived from a second-person plural object pronoun *i*, exemplified in (35).

(35) Gokana (Hyman & Comrie 1981: 35)
(a) *eè* *sà* ***i***
1PL chose **O2PL**
'We chose you (PL).'

[20] The interlinear gloss in (34) was altered to illustrate that *-ma* is an instrumental suffix in Gokana. See Wolff (1964: 51) for some examples of the cognate instrumental suffix in Eleme and Kana.

(b) *eè síí* ***i***
1PL caught **O2PL**
'We caught you (PL).'

(c) *eè dɔ́ɔ́* ***i***
1PL divided **O2PL**
'We divided you (PL).'

Eleme has a similar bound object pronoun with the form *-ii* used for first-person plural and second-person plural objects, and under certain conditions (i.e. in constructions containing the locative-applicative clitic *=rṹ*) second-person singular objects too. A typical example with only a plural interpretation of the object suffix is provided in (36).

(36) *mgbau* *dṹ**-ii***
dog bite-**O1PL/O2PL**
'A dog bit us/you (PL).'

Wolff (1964: 45) claims that there is 'complete uniformity' with regard to the presence of a first-person plural/second-person plural object pronoun in Eleme, Kana and Gokana with the shape *i*. The present analysis differs for Eleme in that the bound form is a long vowel.

While it is tempting to assume the analysis by Hyman & Comrie (1981) extends to Eleme, this appears to be a potentially uncommon pattern of genesis for subject agreement markers. Since the phonological evidence used by Hyman & Comrie (1981) is specific to Gokana, and not easily applicable in Eleme (e.g. because it partly concerns the use of epenthetics that do not occur under similar conditions in Eleme) it is not possible at this stage to provide any additional support in favour of extending or validating their proposal.

While Eleme and Gokana show some similarity in that they both employ a second-person plural suffix as part of their participant reference systems, Eleme differs from both Kana and Gokana in the marking of third-person arguments. As indicated in the paradigms in (31) and (32), Kana and Gokana have distinct independent singular and plural third-person forms and no additional morphology is employed to mark the number of the subject. In Eleme the default third-person subject prefixes are conflated as *è-/ɛ̀-*, and third-person plural is distinguished from the singular by the suffix *-ri*. This contrasts with the form *àbà* in Kana (Ikoro 1996: 118), *baè* in Gokana (Hyman & Comrie 1981: 20-3), and *ʔabà* in Tai (Nwí-Bàrì 2002: 1), which are cognates of the Eleme independent pronoun *àbà*. Since it does not appear to be attested in either Kana, Gokana or indeed Tai, the third-person plural

suffix *-ri* may well be an independent development in Eleme, or at least in the western Ogonoid languages.

A summary of the differences between the cognate subject marking forms in Kana, Gokana and Eleme is provided in Table 4.

As noted above, third-person plural forms involving a voiced bilabial plosive and a low vowel are attested in all of the eastern Ogonoid languages. In Eleme, a range of third-person plural forms with a similar shape exist, including the third-person plural independent pronoun *àbà,* the third-person plural anterior-perfective prefix *ba-*, the object suffix *-ba*. Given this evidence, it seems unlikely that *-ri* derived from a third-person plural object suffix. In fact, *-ri* occurs in complementary distribution with the third-person plural logophor *-ba* (Bond 2006b), which is probably derived from a reflex of the object suffix *-ba* in an analogous way to the third-person singular logophor (and possibly the second-person plural suffix) in Gokana, given this is a common pathway for the development of logophors (Hyman & Comrie 1981: 35).

	Kana	**Gokana**	**Eleme**
Syncretism in the 2nd person subject paradigm	✗	✓	✓
2nd person plural suffix	✗	✓	✓
Syncretism in the 3rd person subject paradigm	✗	✗	✓
3rd person plural suffix	✗	✗	✓

Table 4.
Properties of cognate subject marking forms in Kana, Gokana and Eleme

While cognates of *àbà* and *-i* are found in both branches of the Ogonoid group proposed by Williamson & Blench (2000), *-ri* is not attested in the available sources on the eastern Ogonoid languages. If *-ri* were hypothesised to be a remnant from Proto-Ogonoid one would have to propose that it was lost in the other Ogonoid languages and retained in Eleme. However, there are a number of reasons to believe that this is not the case. They concern the distribution and function of the *-ri* suffix in relation to the distribution and function of the *-i* suffix.

5.2 Historical asymmetries between -i and *-ri*

Evidence from the pronominal and agreement systems of the other described Ogonoid languages suggests that while *-i* is shared by at least one other member of the family, *-ri* is unattested elsewhere, suggesting it may be an innovation in Eleme. The auxiliaries with which the third-person plural subject suffix is found in Eleme do not appear to have cognates in the other described Ogonoid languages. This suggests that these auxiliaries were not auxiliaries in the protolanguage and that they are likely to be more recent innovations. I argue here that the distribution of *-i* and *-ri* corroborate this analysis in that *-ri* may occur on auxiliaries while *-i* may not.

Constructions involving auxiliaries express grammatical notions periphrastically. While it is not always the case that periphrastic expression of a category is a more recent development than morphological expression, literature on the historical development of language reveals that through the process of grammaticalization a periphrastic expression of a category is often reduced to a morphological one (see Hopper & Traugott 2003, Harris & Campbell 1995 amongst others). A number of aspect markers in Eleme have derived historically from auxiliary verb constructions. At least one of these – the Continuous Aspect prefix *ka-* (and its variants) has cognate forms in the other Ogonoid languages. The Proximative Aspect prefix *ki-* has a similar phonological shape and distribution to the Continuous prefix *ka-* and they are treated as a parallel development here.

For the most part Continuous and Proximative constructions behave in a manner consistent with Perfective constructions in terms of the distribution of the Default Subject prefixes. For instance, in (37a) the second-person prefix with the harmonic shape *ɔ̀-* precedes the verb stem, while the second-person plural suffix follows the stem. Similarly in (37b) the same distributional properties persist, but this time the second-person prefix has the harmonic shape *ò-*. For all other persons except third-person plural, the default subject prefixes are used in the regular way outlined in §2 and §3.

(37) (a) *ɔ̀-ka-dʒɔ́-**i*** *ɔ̀dʒɔ*
2-CONT-swim-2PL swim
'You (PL) are swimming (a swim).'

(b) *ò-kí-dʒɔ́-**i*** *ɔ̀dʒɔ*
2-PROX-swim-2PL swim
'You (PL) are about to swim (a swim).'

In (37) the location of the second-person plural subject suffix *-i* in relation to the verb root is consistent with examples throughout this paper. However, in Continuous and Proximative Constructions that have a third-person plural

subject, the relevant agreement marker *precedes* rather than follows the lexical verb root. For example, the third-person plural agreement marker has the form *-ra* in the Continuous construction in (38a), and *-ri* in the Proximative construction in (38b), exhibiting vocalic properties harmonic with the aspectual morphemes.[21] In each case the *-rV* formative precedes the lexical verb root *dʒɔ̀* 'swim', with which if forms a phonological word.

(38) (a) *ka-**ra**-dʒɔ̀dʒɔ*
ka-**ra**-dʒɔ́ ɔ̀dʒɔ
CONT-**3PL**-swim swim
'They are swimming (a swim).'

(b) *kí-**ri**-dʒɔ̀dʒɔ*
kí-**ri**-dʒɔ́ ɔ̀dʒɔ
PROX-**3PL**-swim swim
'They are about to swim (a swim).'

At first sight, the location of the third-person plural subject suffix in (36a) and (36b) is significantly different from the examples presented so far in that it *precedes* rather than *follows* the lexical verb root. This appears to be inconsistent with the claims that the *-ri* (and the variant *-ra*) is a suffix. However, comparison of the distribution of the affixes in (36) and (37) with those in (23) and (24) suggests they may have an analogous structure: in both sets examples, the second-person plural suffix *-i* consistently attaches to the lexical verb root; similarly in both sets of examples, the third-person plural suffix *-rV* precedes the lexical verb and follows some other element that contributes grammatical meaning to the verb phrase. These parallels suggest that the constructions in (36) and (37) developed historically from a periphrastic structure similar to that evident in those constructions containing auxiliaries. Forms cognate with *ka-* are clearly attested in at least Tai and arguably so in both Kana and Gokana (Bond 2006a: 210-216, Bond and Anderson 2006: 20). Eleme and Tai employ near-identical forms to express ongoing dynamic situations. The Tai construction consists of a subject NP or pronoun, an invariant auxiliary *ga* indicating Progressive Aspect and a lexical

[21] The examples provided in this paper do not reflect Eleme orthography, but rather represent a phonemic transcription of the language. Notably, this has repercussions for the examples in (36) where the final vowel of the verb stem *dʒɔ́* 'swim' is deleted under a process of elision (see Bond 2006:72-8 for details). The examples in (37a) and (21a) illustrate a pertinent contrast with those in (36a) and (21a) respectively because while this sort of elision is possible when the subject is third-person plural, it isn't when the agreement morphology is second-person plural *-i* due to the syllabification constraints Eleme exhibits.

verb. In contrast with Eleme, third-person plural subjects do not require additional person/number agreement, as demonstrated in (39) and (40).

(39) Tai (Nwí Bàrì 2002:20, 22, 42)

(a) *à ga lu*
3SG PROG come
'He is coming.'

(b) *bà ga lu*
3PL PROG come
'They are coming.'

(c) *m̀ ga si*
1SG PROG go
'I am going.'

(d) *boo ga dɔ̀ɔ̀*
rain PROG fall
'Rain is falling.'

(40) (a) *è-ka-dʒú*
3-CONT-come
'He is coming.'

(b) *ka-ra-dʒú*
CONT-3PL-come
'They are coming.'

(c) ŋ̀-ga-sí
1SG-CONT-go
'I am going.'

(d) àkára ka-dɔ̀
rain CONT-fall
'Rain is falling.'

These striking similarities suggest that parallels between the form and function of *ga-/ka-* in these languages may be attributable to Proto-Ogonoid.

Inspection of earlier data from Wolff (1964:47) suggests that in Eleme *ka-* also previously had the shape **ga.* For instance, compare the example from Wolff in (41), where the pronoun *ɔ̀* is not bound to the verb stem, with the contemporary example in (42), where the pronoun is bound to the stem.

(41) Eleme (Wolff 1964:47)
ɔ̀ gá-bá-í ǹna
2 PROG-eat.flesh-2PL meat
'You (PL) are eating meat.'

(42) *ɔ̀-ka-bá-i ǹna*
2-CONT-eat.flesh-2PL meat
'You (PL) are eating meat.'

Note that in this environment the voiced velar plosive appears to have become voiceless.[22] Since fortitions of this kind seem unlikely in this

[22] An interlinear gloss has been added to the example from Wolff in (41), since none were provided in the original. The use of the label PROG reflects the terminology he uses to refer to

environment, this development is treated with some caution and in the absence of additional evidence to support this change, no explanation is offered here.

The data provided above suggest that the Continuous construction in Eleme once comprised a progressive auxiliary with the form **ga/ka* that underwent further grammaticalization to become a prefix on the verb. If at this stage third-person plural subject agreement were marked on the auxiliary in the form of a suffix (as seen synchronically throughout the language), this would account for the distribution of the third-person plural subject marker *ra-* between the (once auxiliary) **ga* and the lexical verb root in Eleme continuous constructions.

Some supplementary evidence exists to suggest that cognate progressives also exist in both Kana and Gokana. For example, to mark progressive aspect in Gokana the form *gé-* with the variant *é-* is used. According to Wolff (1964:46), the *é-* is most likely to occur after a preceding vowel. Compare the forms in (45). Note that when the progressive marker is preceded by a nasal the voiced velar plosive is retained, as in (45a), whereas between vowels it may be absent, as in (45b). This is not a requisite of this phonological distribution however, as (45c) indicates.

(43) Gokana (Wolff 1964:46)

(a) *ǹ gé-dú*
1SG PROG-come
'I am coming.'

b. *à é-dú*
3SG PROG-come
'He is coming.'

(c) *ò gé-ba nɔm*
2SG PROG-eat meat
'You (SG) are eating meat.'

Despite the differences in vowel quality between *ga-/ka-* and *ge-/e-,* the distribution and function of the Progressive/Continuous markers in Eleme, Tai and Gokana suggest that these forms have a shared origin. While independent internal evidence to support this vocalic change is currently unavailable, data from Kana suggest that the loss of the initial voiced velar plosive in certain instances of the progressive form in Gokana is an intermediary stage between

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this construction type. He comments that "The meaning of the Eleme construction seems to be not only progressive but also specifically present" (Wolff 1964:46). It is not clear from this comment or from the examples provided whether this refers to a restriction of the progressive to the present tense or that the progressive in Eleme had developed the broader characteristics associated with the present tense. See Bybee, Perkins and Pagliuca (1994) for discussion of the similarities between present tense and imperfectivity. It was demonstrated in the preceding discussion that *ka-* is synchronically compatible with past, present and future time reference.

the situation seen in Tai (and Eleme) and that seen in Kana, where loss of **g* is proposed to have occurred in all environments:

(44) Kana (Ikoro 1996:165)
aa yìi fá
PROG enter vehicle
'He is entering into a vehicle.'

According to Ikoro (1996:165), progressive aspect in Kana is indicated by an "invariable unbound morpheme *aa*", as shown in (11). However, in past tense constructions, Ikoro describes the progressive form as bound. This contrasts with his analysis of the same form in the present tense. Contrastively, in an earlier description of this construction type in Kana, Wolff (1964:46) analyses the progressive marker as bound in the present tense, as illustrated in (45a). Compare these examples with the past tense marked counterpart from Ikoro (1996:174) in (45b).

(45) Kana (Wolff 1964:46, Ikoro 1996:174)

(a) *áá-lu*
PROG-come
'He is coming.'

(b) *aa-weè lu*
PROG-PAST come
'He was coming.'

Assuming *áá-/aa-* is cognate with *ka-/ga* in Eleme and Tai, it differs in that it has lost the initial velar plosive and is less clearly segmentable (if at all) from the subject agreement markers. Despite similarities in the use of a morpheme indicating dynamic ongoing events, apart from Eleme, none of these languages employ *rV* as a third-person plural marker.

Support for this hypothesis also comes from the form and distribution of the *-ri* in Proximatives formed with the *kí-* prefix. Data from the other Ogonoid languages suggest that *kí-* in Eleme may have developed from a verb expressing movement away from a deictic centre. For instance, Tai has the *verb kìì* 'go away, depart' (Nwí Bàrì 2002:33), and Ikoro (1996:370) identifies an identical form meaning 'go' in Kana. Brosnahan (1967:48) also lists several similar forms in Gokana with a range of related uses. These are *kil gbãn-deè* 'go up', *kil kɛ̃* 'go down' and *kìì á-kɛ̃* 'return'. It is proposed here that these forms in the eastern Ogonoid languages are possibly cognate with the Proximative aspect marker in Eleme. Heine and Kuteva (2002) assert that proximative aspect markers may develop from a number of different sources. These include constructions expressing desire (to do something) containing verbs like 'want' and 'love' (Heine and Kuteva 2002:207, 311-3), and constructions containing locative elements expressing concepts like 'near' or 'close to' (Heine and Kuteva 2002:214-5) and – most importantly for the

current analysis – constructions including verbs expressing movement in a particular direction such as 'come to' (Heine and Kuteva 2002:78). It is not known if this verb (or indeed a related form derived from the same source) is used to indicate the imminence of an action in the other languages in the Ogonoid family. However, it is pertinent to note that Eleme does not have a lexical form *kí* with the meaning 'go' or similar. This fits in with the criteria used to distinguish AVCs and SVCs in Eleme – namely that auxiliaries cannot be used as the only verb in a predicate – and neither *ka* or *kí* are.

In accounting for this problem, the same prerequisites can be applied to account for the placement of the underlying *-ri* clitic in Proximative and Continuous constructions if *ka* and *kí* are considered to be grammatical words, and thus syntactically the first possible host in the VP.

5.3 Summary

The arguments presented so far for the innovation of the third-person plural suffix in Eleme have focussed on the distribution of third-person plural *-ri* in comparison with second person-plural *-i*. However, the function of these suffixes also gives credence to the hypothesis that *-ri* is a later historical development. It was argued in §4 that *-i* is always used for grammatical agreement and never for anaphoric agreement. Although *-ri* is also used in grammatical agreement, it differs from *-i* in that it does not require an overt controller or pronominal agreement prefix. This difference is consistent with other claims made here, since a path proposed to be common for the development of agreement markers is from independent pronoun, to dependent anaphoric pronoun, to grammatical agreement (see Givón 1976, Ariel 2000, and Siewierska 2004 for discussion). This is the argument proposed by Hyman & Comrie for the second-person plural suffix in Gokana, albeit from the less orthodox origins of an object pronoun rather than a subject pronoun.

The difference in the form, distribution and use of the second-person plural and third-person plural subject suffixes suggests that while they may be both used for grammatical agreement, they developed not in tandem, but rather at separate stages in the development of Eleme and the development of the Ogonoid family as a whole.

6. Conclusion

In this paper I have demonstrated that the typologically unusual distribution of person and number suffixes referencing subject in Eleme can be successfully modelled using a number of mechanisms employed to explicate the properties of agreement. The differences encountered have been considered in terms of

the featural and categorical prerequisites for agreement. Differences in the distribution of *-i* and *-ri* have also been considered in terms of the type of agreement relation they are involved in.

		-i	*-ri*
Participant type:		addressee	non-participant
Agreement prerequisites:			
Featural:	NUMBER	PL	PL
	PERSON	2	3
Categorical:		LEXV	FIRST HOST IN VP
Agreement type:		grammatical	grammatical
Pronominal/NP required in subject argument position		yes	no
Proposed historical layer:		earlier	later

Table 5.
Summary of properties of the Default Subject agreement suffixes

As a secondary goal of their paper, and the relative historical development of the two suffixes have also been explored. The different properties of *-i* and *-ri* are summarized in Table 5.

One important property of the use of the suffixes, which governs their distribution in discourse, concerns their participant roles they index in the speech act. The second-person plural suffix *-i* indexes a speech act participant (i.e. the addressee), while the third-person plural suffix *-ri* indexes a non-speech act participant. The featural prerequisites required for the use of the default subject suffixes are PERSON and NUMBER. In both cases the value of the NUMBER feature must be *plural*. The suffixes differ in that the value of the PERSON feature correlates with a difference in form and the categorical prerequisites of the suffix. The second-person plural *-i* selects targets that belong to the category LEXV, and occurs on all LEXVs in a clause. The third-person plural marker *-ri* selects the first available host in the VP and thus occurs only once.

This intra-paradigmatic variation aligns with the type of agreement relations *-i* and *-ri* are involved in, in that the grammatical agreement properties of *-i* are restricted to second-person while the ambiguous agreement properties of *-ri* align with third person. The distribution of the default subject affixes in relation to independent pronouns differs according to the person/number properties of the relevant argument. In particular, the default subject suffixes are disparate in their behaviour. In terms of the relationship between

grammatical agreement and pronominal function, the second-person plural suffix is best characterised as a grammatical agreement marker; the third-person plural subject marker, while also involved in grammatical agreement, does not exhibit the same constraint son having an overt pronominal or NP in subject position.

I have also shown that the differences observed in the behaviour of the two suffixes correspond to synchronic data that suggests *-ri* developed later than *-i* in the history of the Ogonoid family. This comparative approach helps to account for different prerequisites and conditions on the distribution of the second-person plural and third-person plural suffixes in AVCs and SVCs. The categorical prerequisites that apply for agreement with second-person plural controllers in the earlier historical layer are purely lexical in nature, whereas the later historical layer, which involves agreement with third-person plural controllers, also requires reference to a categorical domain i.e. the VP and a reference point within that domain. This suggests that categorical prerequisites that align with less grammaticalized structures than those which can be modelled in terms of lexical categorical prerequisites alone.

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