Multiple analytical perspectives of the Eleme Anterior-Perfective[1]

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Abstract

There is increasing recognition in typology that linguistic categories are language-specific and not universal, increasing the need for explicitness in language descriptions. In light of this development, I argue in this paper that pre-existing labels and descriptions for a set of subject-marking TAM prefixes in Eleme do not adequately characterise the distribution and use of these forms, which is conditioned by the complex interaction of person and number features, Aktionsart, epistemic modality and information structure. In response to the challenges raised by these data, I argue that when multiple analytical perspectives are required to understand the function of a grammatical form, fine-grained quantitative analyses with description give a complex but useful basis on which to compare languages.

Keywords: tense, aspect, modality, categories, discourse.

1. Introduction

There is increasing recognition in typology that linguistic categories are language-specific not universal (e.g. Croft 2001, Haspelmath 2007) and that the linguistic categories posited in a description are language-specific descriptive categories (cf. Haspelmath 2008). One way of indicating this viewpoint in descriptions is to use upper case labels such as English Past or Eleme Continuous to distinguish language-specific uses of these terms from some universal notion of 'past' or 'continuous'. Given that, in principle, we are free to label a category with any language-specific term deemed appropriate, there is an onus on the language documenter to increase the transparency of the descriptive content of such terms, and not to assume the existence of pre-established categories (e.g. from the Latin tradition). Along with the augmented need for detail and clarity in language descriptions, the realization that categories are language-specific calls for a new honesty in assessing the scientific credentials of the methodologies typologists use in the pursuit of comparing grammatical categories cross-linguistically. In this paper I explore the consequences of Haspelmath's (2007) proposal that 'pre-established categories don't exist' in relation a set of verbal prefixes in Eleme (Ogonoid, Niger-Congo) that have proven 'difficult' to label transparently using traditional terminology. I demonstrate that if we rely on pre-conceived ideas about the properties pre-existing labels are assumed to have, previous analyses of this set of verbal prefixes based on evidence from elicited utterances - and even spontaneous data taken from discourse - do not correctly characterise their use. To understand their nature it is necessary to collate evidence on their *distribution* from discourse data (i.e. not just using spontaneous examples, but spontaneous examples in context). I argue that multiple analytical perspectives are required to adequately describe any grammatical

form that conflates or challenges pre-established grammatical categories. More specifically, I argue that when multiple analytical perspectives are required to understand the function of a grammatical form, fine-grained quantitative distributional analyses with description give a complex but potentially useful basis on which to compare languages. Access to data of this kind thus raises new challenges for how typologists might compare languages when a language-specific category can only be analysed successfully from multiple perspectives.

The paper begins with a brief introduction to Eleme and an outline of the problem for language description (§2); this is followed by an exploration of the TAM characteristics of the Eleme prefixes in question (§3) and a detailed examination of their subject marking properties with a high frequency verb in traditional narrative discourse (§4). The paper concludes with a summary (§5).

2. Background

Eleme is an Ogonoid (Benue-Congo, Niger-Congo) language spoken in Rivers State in south-eastern Nigeria. It is characterised typologically by nominative-accusative alignment, SVO word order and a rich verbal morphology including several productive reduplication strategies. Eleme also makes extensive use of lexical and grammatical tone. Multiple paradigms of participant reference affixes are evident in the language, including one set of subject-indexing prefixes that exhibit a range of semantic properties associated with TAM categories. This set of prefixes, exemplified in Table 1, has previously been described as marking the 'Definite Past' (Wolff 1964: 47, Williamson 1973: 10, Obele 1998: 212), with temporal characteristics taken to be primary in the attribution of a category label. For instance, Wolff (1964: 47) states "The Eleme prefix *a-* or *wa-* indicates recent past, but the form is also used in answer to the question 'do/did you…', hence perhaps the best gloss for the Eleme construction is 'do/did…'.". Similarly, Williamson (1973: 10) only briefly describes the use of this form, by mentioning that "This verb form is used in reply to the question 'Did you…'" Williamson contrasts the use of the Definite Past with the Simple Past (1973: 10), which is called the Aorist by Wolff (1964: 46), and referred to as the Perfective in the present study (§3). Obele (1998: 211-212) uses the same terminology as Williamson (1973) but does not discuss the use of either the Definite Past or the Simple Past in terms of their semantics or usage. Since the use of these forms is not explained any further, the reader must assume the properties of a pre-established category since otherwise constraints on the use of these forms remain opaque.

Table 1. Category X prefixes

	SINGULAR	PLURAL
1st	*ma-*	*wa-*
2nd	*wa-*	*wa-*
3rd	*a-*	*ba-/a-(…-ri)*

In this paper I challenge the appropriateness of the label 'Definite Past' in terms of its descriptive adequacy, but also explore the notion of how much information – and

what type of information – is needed to characterise a category that is associated with a number of different meanings. First, I review the decisions made in the nomenclature of this 'difficult' category and therefore, for impartiality and clarity, I refer to them as Category X prefixes for the time being.

The Category X prefixes append directly to the verb root and are characterised by the phonological shape (*C)a-*. The first-person singular (*ma-*) and the third-person singular and plural (*a-* and *ba-*) are each uniquely distinguished in form while a typologically unusual conflation exists of the second-person marker with the first-person plural form *wa-*. The Category X prefixes typically occur alongside a restricted set of the Default Subject prefixes presented in Table 2 and, in the case of the second-person plural and third-person plural subjects, a set of subject suffixes, as in Table 3. The subject suffixes are not part of a discontinuous morpheme but rather have distinct distributional properties (Bond, to appear).

Table 2. Default subject prefixes

	SINGULAR	PLURAL
1ˢᵗ	*m̀-/ǹ-/ŋ̀-/ỳ*	*rɛ̃-/nɛ-*
2ⁿᵈ	*ò-/ɔ̀-*	*ò-/ɔ̀-*
3ʳᵈ	*è-/ɛ̀-*	*è-/ɛ̀-*

Table 3. Subject suffixes

	SINGULAR	PLURAL
1ˢᵗ		
2ⁿᵈ	*-∅*	*-i*
3ʳᵈ	*-∅*	*-ri*

The paradigm in (1) exemplifies the distribution of the Category X prefixes with the verb *ʔà* 'leave'.[2]

(1) a. *ma-ʔà*
     1SG.X-leave
     'I left.'

     b. *nɛ-wa-ʔà*
     1PL-X-leave
     'We left.'

     c. *ɔ̀-wa-ʔà-∅*
     2-X-leave-SG
     'You (SG) left.'

     d. *ɔ̀-wa-ʔà-i*
     2-X-leave-2PL
     'You (PL) left.'

     e. *a-ʔà*
     3.X-leave
     'He left.'

     f. *ba-ʔà*
     3PL.X-leave
     'They left.'

g. *a-ʔà-ri*
3.X-leave-3PL
'They left.'

While previously described in terms of their temporal characteristics, spontaneous speech data reveal that constructions containing the Category X prefixes have a default reading of past time reference only if the predicate is not stative (2). In particular, if we take a fairly uncontroversial conception of what 'past' tense refers to, such as Bybee, Perkins and Pagliuca's (1994: 316) definition that "the situation occurred before the moment of speech", the implication of the use of this particular term for a category (rather than 'non-future' for example) is that it is not used for present or future situations. However, if the predicate is a stative one, as in (3), there is a present time reading, whereby the situation occurs simultaneously with the moment of speech and not before it (as the label 'past' suggests).

(2)   *ɔ̀wá   ɔ̀kɔ̃́   a-sii   ǹkél-ɔ̃̀nʷĩ̃-yɔ̀*
       wife   spirit   3.X-catch   small-child-SPF
       'The spirit woman caught the boy.'

(3)   *m̀fĩfɛ̃́   a-bitá   ɔ́ʔɔ̃̀ni*
       mosquito   3.X-be.many   here
       'There are many mosquitoes here.'

Conversely, perfective events in the past do not require a Category X affix, as in (4), suggesting that past time reference is simply a default characteristic of the form.

(4)   *m̀gbaa   sii-ra   ǹna   dʒuɑ̃́*
       dog   catch-AGAIN   animals   bring
       'Dog caught animals again (and) returned (with them).'

The type of contrast evident in these examples indicates that without further justification, a tense-based characterisation of the function of these affixes is misleading. In the discussion that follows, I show that the distribution of these prefixes is conditioned by the complex interaction of person and number features, Aktionsart, epistemic modality and information structure, challenging the usefulness of the labels applied to these forms in previous descriptions, but also raising more general concerns about the comparability of language-specific categories cross-linguistically.

3. A paradigm-by-paradigm approach

In Bond (2006a) it is argued that the morphologically unmarked default category in Eleme, referred to as the Perfective, is used in opposition to a number of morphologically marked aspectual/modal categories rather than absolute tenses. Perfectives mark a situation as temporally bounded, with the narration of events among

the typical functions of forms identified as perfective cross-linguistically. In narrative discourse, categories identified as 'perfective' tend to encode what Hopper (1979) calls foreground, while other categories – particularly those identified as imperfective – are used to encode the background. Foreground concerns "the parts of the narrative which relate events belonging to the skeletal structure of the discourse" (Hopper 1979:213), while background concerns supportive material that does not narrate the main events of the discourse.

In order to illustrate the relationship between foreground/background and aspect in Eleme, consider the personal narrative in (5). In personal narratives (where one of the main protagonists is the speaker), constructions that foreground information are commonly marked for subject using the default subject prefixes but are otherwise morphologically unmarked for aspect or tense.

(5)   a. *ba-dʒú   tʃulá-mi   tí-ga-dʒí   ɔtɔɔ   nè*
            3PL.X-come   meet-1SG   when.1SG-CONT-climb   house   give

            ɔtɔɔ   èbo   ɔ́ʔɔ̃̀   nɛ   ǹ-tɔ̃-i
            house   top   place   REL   1SG-stay-PRTCL

            'They came and met me when I was climbing the stairs to the place that I lived.'

    b. *wɛ   wí-mi   wí-mi   kɔ   ń-titá-i*
            and   call-O1SG   call-O1SG   COMP   1SG.HORT-come.down-PRTCL

            And called to me, called to me that I should come down.'

    c. *wì̃-kpè   ǹnʷɛ   dʒú   tʃulá-ba   dʒú   ɛkɛ*
            and.1SG-return   back   come   meet-3PL   come   under

            'And I came back down and met them.'

    d. *kí-ri-kɔ   ǹ-tɔ̃   ɔ́ʔɔ̃̀ni   sé*
            PROX-3PL-say   1SG-stay   here   Q

            'Then they said do I live here?'

Foregrounded events in this sequence are first indicated in (5a) with the verbs *dʒú* 'come' and *tʃulá* 'meet'. Note that the first of the verb stems in this Serial Verb Construction is marked with the Category X prefix *ba-* and not the third-person plural Default Subject affix complex *è-...-ri*. Participant reference marking aside, the subsequent verb forms used for the main sequence of events are morphologically unmarked. They are *wí* 'call' in (5b), and *kpè (ǹnʷɛ)* 'return', *dʒú* 'come' and *tʃulá* 'meet' in (5c). Semantically, the unmarked forms have a default reading of perfective aspect and a secondary implication of past time reference. Finally, *kɔ* 'say' in (5d) is also part of the foreground, but differs from the other foregrounded examples in that it is marked with the Proximative prefix *kí-*. This marker explicitly indicates the immediacy of the event in relation to the preceding one.

These forms used for foregrounding contrast with verb forms used for background information, which are encoded using a variety of other constructions. For instance, in (5a), some background information is indicated by a Continuous verb form. This clause is the only one that chronologically overlaps (i.e. is not sequential) with a foregrounded event in this sequence. It describes a situation necessary for understanding later foregrounded events, namely, why the protagonist was called to (i.e. because he was going up the stairs, in a direction away from the person calling out) and why he had to come down (because he was going upstairs and was therefore above the level of the caller). The relative clause in (5a) also provides background information necessary for understanding why the protagonist is asked if he lives in the house, but it is not part of the main sequence of events. The subsequent events are all sequential.

Despite the fact that all of the narrative (i.e. Perfective) verbs have past time reference in (5), there are a number of reasons why constructions of this type are best described in terms of perfective aspect and not past tense. Firstly, in Eleme, constructions containing a verb stem that is not marked by tense/aspect morphology contrast with constructions that are marked for imperfectivity using a Habitual aspect suffix or a Continuous aspect prefix They do not contrast with constructions marked with present, future, or non-past tense. Secondly, the verb root has the same form and tone in both imperfective and perfective constructions, indicating that the only difference between an imperfective construction and a perfective construction is the presence of an aspectual affix (for a fuller account of this point see the arguments presented in Bond 2006a).

While constructions with morphologically unmarked verb stems are characterised as Perfective, achieving an adequate characterization of the Category X prefixes is much more complex. From a typological perspective, Category X has some of the characteristics of what Bybee, Perkins and Pagliuca (1994: 78-81) call an 'old anterior' - a category which is proposed to occupy some part of the middle ground on a grammaticalization chain between markers of anteriority at one end and markers of perfectivity at the other. While perfectives are used in the narration of events, anteriors (commonly referred to as 'perfects') mark a past situation as relevant to a situation at a reference time. Anteriors are used in narratives much more selectively than perfectives. The Eleme Anterior construction contains an Anterior auxiliary *bere* as well as a Category X prefix (6b), revealing a possible connection between the two in terms of meaning.

(6)   a. *ɔ̀nʷí   Ø-dɔ́*   b. *ɔ̀nʷí   a-bere   dɔ*
          child   3-fall   child   3.X-ANT   fall

          'The child fell.'   'The child has   fallen.'

Old anteriors typically express one or more of the following meanings: resultative, completive, non-anterior past or perfective, ongoing states, commencing states or evidentiality. Of these, the Category X prefixes occur with resultant states, ongoing states, non-anterior perfectives and arguably indicate epistemic modality bearing some similarity to evidentiality in a broad sense, as discussed below.

As well as general states of the type expressed by verbs such as *ɲá* 'know' and *gbo* 'have' which are always inflected with a Category X prefix in affirmative constructions,

states that have arisen as the result of an action are also marked by the Category X prefixes. For instance, in (7a) the attention of the construction is the door being open rather than the action of the door opening. In (7b), where a Category X prefix is used alongside the Anterior auxiliary *bere* the action described is relevant to the present state, for instance if the door has just blown open in the wind.

(7)   a. *ɔ̀tɔ́ɔ̀   a-kùsa*   b. *ɔ̀tɔ́ɔ̀   a-bere   kùsa*
           house   3.X-be.open   house   3.X-ANT   be.open
           'The door is open.'   'The door has opened.'

While states are most commonly expressed by constructions containing a stative verb marked with a Category X prefix, there is some variation in how events are encoded. When compared paradigmatically, the difference in meaning between Perfective and Category X marked events is subtle, but can be considered, in essence, to be a modal distinction that is rooted in the degree of epistemic authority a speaker has for the information conveyed. For instance, (6a) makes no comment about the evidence on which the assertion is made, whereas (8) indicates that the speaker is basing his judgments on some form of evidence, e.g. it would be appropriate if the speaker had witnessed the child fall.

(8)   *ɔ̀nʷí   a-dɔ̀*
        child   3.X-fall
        'The child did fall.'

The Category X prefix does not indicate the source of the evidence. It is therefore not an evidential in the narrow sense of the term (L. Anderson 1986, Lazard 2001) since it does not grammatically encode the origin of the information. More specifically, the Category X prefixes are not used to distinguish between direct/indirect evidence, or between personal/inferential (mediative) evidence in the way that anteriors are used in some systems of evidentiality. The most common situation cross-linguistically appears to be that anteriors with evidential uses are employed to express that the evidence the speaker has for the situation described is either indirect (i.e. reported or inferred), as in Turkish (Friedman 1999), or that it is mediated (reported), as in Latvian (Plungian 2001). In Eleme, the Category X prefixes are used to indicate the speaker's attitude towards the reliability of the information provided, and not its source. For this reason, confirmative uses of the Category X prefixes, as in (8), are best seen as markers of both aspect and epistemic modality (cf. Friedman (1999) who uses the term 'status' as a cover term for the opposition between confirmative and non-confirmative constructions across languages). What seems to link together the semantics of the various constructions in which Category X is used is not a temporal facet but rather the degree of relevance that a speaker attributes to the information conveyed – information for which there is good or recently experienced evidence being encoded in the same way. Category X prefixes occur in constructions that have some of the characteristics and uses associated with anteriors and some associated with perfectives. Given the apparent similarities with both anterior constructions and perfective constructions, I decided to label these forms Eleme Anterior-Perfectives (Bond 2006a). The term Anterior-

Perfective is coined to represent a category in Eleme that does not fit easily within the bounds of traditional terminology for grammatical categories, partly because the (language-specific) labels 'Anterior' and 'Perfective' are used more appropriately for other constructions in the language. Taking the stance that categories are language-specific means that we could just as well retain the name Category X for this paradigm of forms, because the use of a label with semantic association is simply a helpful mnemonic.

At what point then is a language-specific category adequately described to be useful to a typologist? Arguably, given the multiplicity of uses of the Anterior-Perfective prefixes, we still don't have an adequate characterisation of this language-specific category because it has been characterised in a paradigmatic way, on the assumption that its primary use is that of a conflation of TAM categories. In the next section, I argue that fine-grained quantifiable evidence from frequency counts quickly reveals that an alternative less-intuitive analysis for the Eleme Anterior-Perfective is required.

4. Quantitative analysis

Corpus studies are well known for returning insightful results regarding phenomena that are otherwise undetected or misanalysed. This is particularly the case when the distribution of a form is not directly perceivable without quantitative analyses. Well-known studies of this type include Du Bois's (1987) study into the discourse basis for ergativity, Fox and Thompson's (1990) study of relative clauses in information flow and Bickel's (2003) typological investigation of referential density.

In order to test the paradigm-centric analysis of the contrast between the use of the zero-marked perfective verb stems and the use of the Anterior-Perfective prefixes, a small corpus of Eleme traditional narratives was examined for the distribution and frequency of subject-indexing verbal affixes. The stance taken here is that valid linguistic analyses concerning language use should stand up to being tested by frequency counts in a spontaneous speech corpus and thus corpus analysis is an appropriate tool for checking the suitability of a linguistic description.[3] This paper reports preliminary analyses with a single lexical verb.

The frequency counts that form the basis for the observations in this paper come from a genre-stratified corpus of seven narratives told in a naturalistic setting in which each speaker had an audience of at least three people. The texts were chosen for inclusion in the corpus on the basis of (i) similarity of discourse style, (ii) spontaneity of speech, (iii) detailed level of analysis working directly with language consultants on the translations.

Table 4 details the number of verbs identified in each text in the corpus. For the purpose of the study a verb must be able to be the lexical head of a predicate without additional support material. Thus, while serial verb constructions containing two verbs count as two items in the frequency count, auxiliary verb constructions containing an auxiliary and a lexical verb count as only one verb. This is because auxiliaries in Eleme cannot form a predicate without a lexical verb, but lexical verbs can form a predicate without an auxiliary. Verbs that are morphologically marked for dependency on another verb are likewise not counted in the frequency count since they are always dependent on some other lexical verb acting as the head of the predicate. For a more detailed

exposition of the characteristics of verbs in Eleme, see Bond (2006a: 44-52). Within the corpus, a total of 779 verbs were counted that did not exhibit signs of morphological dependency.[4]

Table 4. Verb count within narrative discourse corpus

	TEXT NAME	NO. OF VERBS
1	Dog and his master	172
2	The child and the witch	144
3	Land story	135
4	Tortoise's belly	124
5	The rat baby	104
6	The flower pickers	65
7	Wuwu and the banana	40
	TOTAL	779

A total of 35 different subject-indexing strategies were identified within the corpus. This included five different zero strategies because in some cases, the selection of a particular TAM marker excluded the possibility of subjects with certain person or number features. For instance, a verb with the Continuous prefix *ka-* but no further subject marking morphology (i.e. the last case default marker for this category) excluded the possibility of a first-person singular subject (which would be marked with *ga-)* or a third-person plural subject (which would have the form *ka-ra-).* Across the corpus only three types of subject indexing strategy were found in every text: zero-marking (i.e. bare stems) with third-person singular subjects, Continuous-marked stems (*ka-*) with third-person singular subjects, and Anterior-Perfective marked stems (*a-*) with third-person singular subjects.

Table 5. Ten most frequent lexical verbs across the narrative corpus

VERB	FREQUENCY	NO. OF TEXTS
kɔ 'say'	62	7
tʃú 'take'	49	7
sí 'go'	41	6
ná 'do'	37	6
gwɑ̃́ 'reach'	32	7
mɔ̀ 'see'	32	7
ʔà 'leave'	22	7
tʃa 'run'	19	5
dʒú 'come'	16	7
ɲá 'know'	17	4
sii 'catch'	16	4

Of the 779 verbs identified in the corpus, frequency counts were taken of each lexical item in order to identify those verbs for which the most convincing generalisations could be made. The ten most frequent lexical verbs are listed in Table 5. Of these ten verbs, only six were found in all seven texts, with *kɔ* 'say' found in all texts at high frequency due to the genre of the corpus. The only subject indexing strategy found with all of the high frequency words was the Anterior-Perfective *a-* and perfective stems with no overt marking, i.e. zero-marking. While high frequency verbs are well known for acquiring special grammatical functions and thus exhibiting specialised behaviour, in a relatively small corpus such as the one under discussion here, they are the only tokens with the high enough frequency to yield meaningful results. Furthermore, in an adequate account of the Anterior-Perfective category, it is not sufficient to consider the use of the prefixes in terms of generality (e.g. it behaves like X with most types of verb) without considering frequency (e.g. it occurs most frequently in X type constructions).

Focusing on the highest frequency verb 'say', all uses of the verb in the corpus with a third-person singular logical subject were investigated, resulting in a reduced total of 59 instances (out of 62) in total; of these, 29 instances (49%) were marked with the third-person Anterior-Perfective prefix while the remaining 30 verb stems (51%) were not morphologically marked for person or number. Of the stems marked with the Anterior-Perfective prefix, 9 (15% of all instances) were also preceded directly by an NP subject, while a comparable 8 unmarked stems (14% of all instances) were preceded by an NP subject, as indicated in Figure 1.

Figure 1. Distribution of Anterior-Perfective and zero marking subject strategies with 59 tokens of the verb *kɔ* 'say' with third-person singular subjects.
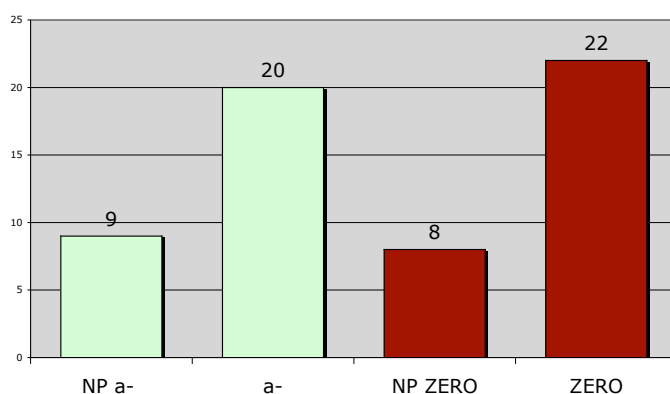
Within the 59 tokens, which have been controlled for speech genre, spontaneity, audience setting, verb type, person and number of subject, the degree of variation within the corpus for this verb is surprising. Given that *kɔ* 'say' is used in traditional narrative discourse to report the speech of others with omnipresent authority, the epistemic quality of the verb should not be expected to vary quite so much. Certainly, variation in the degree of epistemic authority the speaker has for each *kɔ* construction does not vary in the translations into English or perceivably in the structure of the story, suggesting this is not the motivation for the alternation. In order to pursue this issue, I investigated

four variables relating to discourse structure and the specific distributional properties of the verb *kɔ* 'say', namely:

1. Whether the speech introduced was direct or indirect.
2. Whether the subject referent for the token verb is different from the subject referent of the preceding verb (i.e. there is a *switch* of reference) or whether it is the same (i.e. there is *continuity* of reference).
3. Whether the speech predicate was preceded by another speech predicate or a non-speech predicate.
4. Whether the verb was the first verb in a predicate (V1) or a subsequent verb (V2).

Of these three variables only the final three revealed any correlations with the presence or absence of an NP subject and/or whether the token is a bare stem or marked with the Anterior-Perfective prefix *a-*, as detailed in Tables 6 and 7.

Table 6. Correlations between three variables of discourse structure (NP subject).

NP a-	SWITCH	CONTINUITY
SPEECH PREDICATE PRECEDES	2	0
NON-SPEECH PREDICATE PRECEDES	7	0

NP zero	SWITCH	CONTINUITY
SPEECH PREDICATE PRECEDES	3	0
NON-SPEECH PREDICATE PRECEDES	5	0

Table 7. Correlations between three variables of discourse structure (no NP subject).

a-	SWITCH	CONTINUITY
SPEECH PREDICATE PRECEDES	8	0
NON-SPEECH PREDICATE PRECEDES	2	10

zero	SWITCH		CONTINUITY	
	V1	V2	V1	V2
SPEECH PREDICATE PRECEDES	3[*]	0	0	2[†]
NON-SPEECH PREDICATE PRECEDES	2[**]	0	10	5[†]

[*] In all cases the answer is a response to a question or recognition of a statement.
[**] Switch in subject but continuity of discourse topic; the preceding subject referent could not be interpreted as the subject referent of *kɔ* 'say' due to animacy constraints.
[†] Perhaps better analysed as a complementizer.

The figures in Table 6 indicate that when an NP subject precedes *kɔ* 'say' this is a consistent signal that there is a switch in the subject referent from the previous clause. The data in Table 7 suggest that when there is no subject NP a more complex situation prevails. If the token verb is marked by the Anterior-Perfective prefix and a speech predicate precedes the clause containing the token, there is always a switch in the reference of the subject. For instance, in the following example, a speech predicate (9a) precedes the token verb in (9b). The use of the Anterior-Perfective prefix in the second speech predicate indicates that the two speech verbs have different subject referents.

(9)   a. *a-kɔ*   *é-ká-sí-ri*   *mèti* *n-ɔ̀nɛ*   *ké-yɛ*
           3.AP-say 3-HORT-go-NEG lest   one-person slaughter-O3SG
           'She said he shouldn't go lest someone slaughters him.'

      b. *a-kɔ*   *mè*   *ka-sí-ye*
           3.AP-say COMP CONT-go-LOG
           'He said that he will go.'

In contrast, when a non-speech predicate precedes a speech predicate headed by *kɔ* 'say' marked with *a-*, the prediction is that there will be continuity of reference, i.e. both predicate subjects have the same referent, as in (10), where the subject referents of *sii* 'catch' and *kɔ* 'say' are the same.

(10)   a. *ɔ̀w-ɔ̀k-a-sii-ye*   *kwí*
           woman-spirit-3.AP-catch-O3SG   grabbing.noise
           'The spirit woman grabbed him.'

      b. *a-kɔ*   *b-ò-ʔer-ɔ̃ni*   *d-èsúri*
           3.AP-say COP-2-stay-here eat-water.yam.porridge
           ǹt-ò-ʔà-ra   *ǹdʒɛ*
           when-2-leave-AGAIN   NEG.LOC
           'She said "Since you stayed here and ate this porridge the time for you to leave will not come".'

While the data is not exceptionless in this respect, variation of this kind should not be considered unusual since speakers make choices about reference, rather than follow hard and fast rules.

When the verb *kɔ* 'say' is a bare stem there is typically continuity of reference for the subject of the token verb from the preceding verb. The examples in (11) and (12) typify this type of construction in the corpus, in which the action of the preceding verb is a 'preparatory action' for the speech that follows (or is concurrent with the action of the subject marked verb).

(11)　*émérɛ̃̀ a-kpa ènu kɔ kárá b-ɔ̀nɛ rɛ*
chief　3.AP-beat thing say just COP-person REL

　　　ke a-má ɔ̃̀nʷĩ á-bira m̀mú bira ɔ̃̀nʷĩ-ye
PRTCL 3.AP-give.birth child 3.HORT-bathe water bathe child-3SG.POSS

'The chief announced that anybody who gives birth to a child should bathe her baby.'

(12)　*a-tʃú ògɛ-yɛ kɔ àkà dʒú ǹnʷɛ*
3.AP-take machet-3SG.POSS say mother come behind

'He took his machete (and) said mother should follow behind.'

In the two instances detailed in Table 7 where the token in question is preceded by a non-speech predicate, there is a switch in the reference but no overt marking of a pronominal form, the subject referent of the speech predicate is the topic, and the logical subject of the intervening preceding predicates could not be the speaker of the following speech since they are inanimates.

　　For instance, the examples in (13) come from a story in which a small child goes searching for a fire, which he forgets about when he is fed water yam porridge by a spirit woman. The topic of the discourse is *ǹkéle ɔ̃̀nʷĩ* [ǹkɔ́l-ɔ̃̀nʷĩ] 'the small child', which is followed by predicates that have *m̀pʲo* [m̀pe, m̀pʲo] 'heart' and *ǹsɑ̃́* 'fire' as their logical subjects. However, the topic is interpreted as the subject referent of the uninflected verb in the relative clause, and not *ǹsɑ̃́* 'fire' (i.e. the subject of the preceding clause), indicating that this is a case of topic continuity.

(13)　a. *ǹkɔ́l-ɔ̃̀nʷĩ, m̀pe a-ʔoro*
　　　　small-child heart 3.AP-white

　　　　'The child, he was happy (lit. The child, his heart was white/pure).'

　　b. *ǹsɑ̃́ kí-tã m̀pʲo, ǹsɑ̃́ rɛ kɔ ka-sí ʔɔ́-m-èsaa*
　　　　fire PROX-desire heart fire REL say CONT-go roast-INS-yam

　　　　kí-tã m̀pʲo
　　　　PROX-desire heart

　　　　'The fire was forgotten, the fire that he said he would go (and) roast the yams with was forgotten.'

There are some instances in the corpus where the verb is the second speech verb or verb of communication in a sequence, in which case it may be better analysed as a complementizer. This is the stance taken in (5b), and in similar examples in Bond (2006a, 2006b), since in examples like these, *kɔ̀* has a perceptibly low tone and occupies a position consistent with another complementizer *mè*. For instance, in (9b), the lexical verb *kɔ* is followed by *mɛ* (a complementizer that is never a verb), while in (14), *biná* 'ask' is followed by *kɔ̀*. Conceivably, however, these could also be analysed as concurrent activities in a Serial Verb Construction in a similar way to those in (11).

(14)   *a-biná   kɔ̀   àwiá   be   tʃá   wɔ?*
        3.AP-ask say/COMP sibling COP   walk how
        'He asked 'How did your sister walk?'

The factors that underlie the distribution of NPs with and without the Anterior-Perfective prefix is less discernable from the available data about *kɔ* 'say' than the factors influencing the distribution of the prefixes when no NP subject precedes the token verb. However, there is some evidence to suggest that the use of the Anterior-Perfective prefixes with an NP subject may be conditioned by definiteness/specificity. For instance, in the corpus verbs with indefinite NP subjects marked with *ǹnɛ* 'one' (11 in total) are never accompanied by Anterior-Perfective marking, and neither are those NPs which are morphologically indicated as being a highly specific identifiable referent, marked by the second position enclitic *=yo* (10 in total), suggesting that when NPs are morphologically marked in terms of their definiteness/specificity the Anterior-Perfective prefix is not used. This is an avenue that requires further investigation, across all verbs in the corpus. However, what I do not assume here is that the factors that influence the selection of the Anterior-Perfective prefix *a-* when an NP is present are necessarily identical to those that select *a-* when an NP subject is not present.

While the data provided here are somewhat impressionistic given the factors that interact with the selection of the Anterior-Perfective prefixes, they do indicate that reference tracking is a key feature of the prefixes, which have different distributional behaviour to verbs that are zero marked. Future work in this domain will involve extending the analyses across all the verbs within the corpus, and then across different genres of speech in order to consolidate or refute the observations made here as applicable across a wide spectrum of verbs.

5. Conclusions

Even the most earnest attempts to provide an accurate characterisation of a 'difficult' language-specific category are dogged by the absence of discourse-based distributional analyses because of the multiplicitous nature of factors affecting the use of forms. Such is the case in providing an adequate analysis of the Eleme Anterior-Perfective prefixes, which until now have been discussed in terms of their temporal characteristics, but not their referential characteristics.

The generalizations I make here hold for predicates containing the verb *kɔ,* within traditional narrative discourse. This is because the sample I have used is genre-specific, and the distribution pertains to the use of the third-person singular Anterior-Perfective prefix *a-* with only one lexical verb. Since not all members of a putative paradigm behave in the same way, one should not assume that the same characteristics hold for the first and second-person forms (or indeed the third-person plural forms), for which there is currently little data.

While paradigm-by-paradigm analyses of other verbs suggest that the distinction between the use of *a-* vs. zero-marking may be conditioned by the quality of evidence a speaker has for a proposition, this is not what underlies the use of *a-* vs. zero marking in the data investigated from this small corpus. Confirmative and anterior-like uses of

constructions containing the prefixes are neutralized in narrative discourse, where the story teller is an omni-present authority and thus all speech has the same evidential or 'status' properties. The data presented here suggests:

1. The presence or absence of an NP is an important factor in determining the referent of the subject marking prefix *a-*.
2. A token verb may be zero marked for subject and not directly preceded by an NP if the action of the preceding verb is either preparatory for or concurrent with the action of the token verb.
3. If a non-speech predicate precedes a token of *kɔ* marked with *a-* it will typically indicate continuity of reference, but if a non-speech predicate precedes it will trigger a switch in reference.
4. Selection of the Anterior-Perfective prefixes may be linked to definiteness/specificity or the morphological marking of such nominal categories.
5. In narrative discourse, recent past-ness is not an important characteristic of the meaning expressed by constructions containing the Anterior-Perfective prefix *a-*, nor can its presence be attributed to answering the question, 'What did he do?' since all perfectives answer this question in the narrative.

I argue that multiple analytical perspectives such as those examined in this paper are required to adequately describe any grammatical form that conflates or challenges pre-established grammatical categories. More specifically, when the function of a grammatical form is unclear, fine-grained quantitative distributional analyses with description give a complex but useful way to pursue analyses. Access to data of this kind raises new challenges for how typologists might compare languages when semantic characterizations are not adequate or not possible, or only relevant in certain discourse contexts. It is only by examining data in a fine-grained way (e.g. at the level of one lexical verb) that we begin to perceive the types of information that would otherwise go unnoticed using a non-quantifiable, non-discourse based model of data analysis.

Notes

2. The abbreviations used throughout this paper are: 1 = first-person, 2 = second-person, 3 = third-person, ANT = anterior, AP = anterior-perfective, COMP = complementizer, CONT = continuous, COP = copula, HORT = hortative, INS = instrumental, LOC = locative, LOG = logophor, NEG = negative, O = object, PL = plural, POSS = possessive, PROX = proximative, PRCLT = particle, Q = question particle, REL = relativizer, SG = singular, SPF = specific, X = category x (i.e. anterior-perfectives). Examples are presented in a phonemic orthography consistent with the IPA, with the exception of <r> used for [ɹ] and <y> used for [j].

3. There is of course a distinction between how speakers actually use language and their metalinguistic understanding of it, for instance the forms and structures that speakers use may not correspond directly to the types of grammaticality judgments they make. Each perspective on language use has its place in linguistics but this paper concerns how language is used in context.

4. This included the locative verb *do* 'be located' and the copula *be* which exhibit some of the properties of verbs, but have restricted potential in terms of their inflectional characteristics. While included in the total count of 779 verbs (amounting to 32 tokens and 34 tokens respectively), they do not ever occur with the Anterior-Perfective prefixes (or many other types of TAM and person/number marking) and are thus excluded from consideration on these grounds.

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