Relative Clauses as Grammatical Nominalizations: Evidence from Akan Akua Campbell, University of Ghana

The structures that have been referred to as relative clauses in Akan (Niger Congo, Kwa) are re-examined in light of Shibatani (2009, 2019), which shows these structures formally to be nominalizations. It is shown that Akan "relative clauses" are nominalizations in modification use. "Headless relative clauses" are shown to be argument uses of nominalizations. Evidence adduced includes the occurrence of relative structures with determiners, internal syntactic changes such as the inability to take full NPs in relevant argument positions, and external syntactic properties of occurrence as subjects and objects in clauses. Forms traditionally classed as relativizers are shown to be nominalizers or nominalization markers. The polysemous nature of these markers is seen in their occurrence with "headless genitives", which are also shown to be nominalizations. The paper highlights the value of separating form from function in syntactic analyses.

Keywords: Akan, Kwa, relative clause, nominalization, genitive, modification, referring expression

1. Introduction

This paper looks at the manifestation of relative constructions in Akan (Niger-Congo, Kwa), and seeks to show that the structures that have hitherto been referred to as relative clauses are nominalizations which function as modifiers. These nominalizations have other functions in the grammar, such as genitivization and complementation, although this paper will be limited to an examination of relativization and genitivization. The observation that relative constructions are in fact nominalizations is important because it highlights the importance of separating form from function when doing linguistic analysis. Data from a few other Kwa languages is examined to show that this phenomenon might not be unique to Akan.

The paper is organised as follows: §2. is a general review of past work on relativization and its relation to nominalization. §2.1 reviews relative constructions in Akan, while §2.2 reviews relative constructions in Kwa generally. §3. to §3.2 explain the theoretical underpinnings of the nominalization approach to relative constructions and genitives. This leads up to a re-examination of data on relative constructions and genitives in some Kwa languages in §4. Having laid the theoretical foundations for the novel analysis, I investigate relative constructions and genitives in Akan in-depth in §5. to §5.2. §6. presents the summary and conclusion.

2. Relativization and nominalization

That relative clauses in some languages are nominalizations is not a recent discovery. Linguists working on language families such as Tibeto-Burman and Austronesian have pointed out the relationship between relativization, nominalization and genitivization and have sought synchronic

as well as diachronic explanations to account for these connections. Delancey (1986: 1) noted that in Lhasa Tibetan and Newari, "... relativization is simply one function of nominalization, i.e. "[that] relative clauses are simply dependent or appositive NPs." In the Newari examples in (1) and (2) below, the morpheme gu is a nominalizer.

- (1) ji-n> khun-a-gu
 I-ERG cook-PART-NOM
 'what I cooked', 'my cooking' (Delancey 1986: 2)
- (2) ji-nɔ khun-a-gu la I-ERG cook-PART-NOM meat 'the meat which I cooked' (Delancey 1986: 2)
- (3) ji-gu la 1-NOM meat 'my meat' (Delancey 1986: 2)

Similarly, for Chantyal (Tibeto-Burman, Bodish), Noonan (1997) finds that there is a nominalizing morpheme, *-wa* which occurs in several structures which all have different functions; verb complementation, purpose constructions and relative constructions being some of them. In (4) we see an argument use of the nominalization marked by *-wa*.

(4) pəri-wa gãra-wa mu study-NOM be-NOM good+PST 'Studying is good.' (Noonan 1997: 375)

(5) shows a -wa nominalization in a purpose construction while (6) shows it in a relative construction.

- (5) səŋlal-ma məə tara-wa-ri hya-i
 Sanglal-PL honey gather-NOM-LOC go-PERF
 'Sanglal and some others went to gather honey.' (Noonan 1997: 376)
- (6) gay-ye sya ca-wa mənchi cow-GEN meat eat-NOM person 'the person who is eating beef' (Noonan 1997: 376)

A more literal translation of (5) would be "Sanglal and some others went honey-gathering", while (6) would be "the beef-eating person". Noonan (1997) concludes that all these manifestations of *-wa* are just different functions being carried out by the same grammatical form i.e. nominalization. Indeed, Delancey (2002: 56) observes that the vast majority of Tibeto-Burman languages use nominalizations for relativization. The genitive function, although still quite common, is not as pervasive. Ouhalla (2004: 297), in an account of relative clauses in Arabic and

Amharic, concludes that they are determiner phrases (DPs); in other words, nominals. Nominalization as a means of relativization is especially well known for the Turkic and Carib families (Givón 2001: 26).

The Uto-Aztecan family is also famed for their use of nominalization structures for relativization.¹ This is seen in Toosarvandani (2011), as well as Thornes (2012) who examines the use of nominalization structures for relative constructions in Northern Pauite, an Uto-Aztecan language. Thornes (2012: 148) observes that in Northern Pauite, nominalizations used as relative clauses may be viewed as morpho-syntactically complex noun phrases. He proposes a historical developmental path in which the precursor of these nominalizations is a paratactic construction, a pathway that has been attested for Hebrew and other languages in Givón (2009). The Hebrew case will be examined in §5.1.

A formal likeness has also been observed between relative constructions and genitives in some languages. Aristar (1991) noticed this similarity in about twenty languages and posited that in at least two of the languages in his survey (Agaw and Iranian), both the genitive and "relative clause" constructions are descended from a common modifier construction type. He therefore proposed a similar developmental path for other languages with identical "relative clause" and genitive morphemes. Providing a detailed evolutionary path for relative constructions and formally similar structures will not be possible for Akan because of the lack of historical data, but it is hoped that comparison with other languages will highlight changes that have been made or are in progress, since different languages undergo change at different rates. Being able to compare nominalization structures and markers in a wide variety of languages will enable the establishment of a common or prevalent path of development in the use of such nominalization markers and will contribute to answering the historical question: "Which forms gave rise to which?".

Many authors who identify the relationship between nominalization and relativization analyse nominalization as simply a strategy for relative clause formation. But this view is problematic because of the incompatibility of the terms used. A nominalization cannot be a clause in the same context, just as a noun in some context cannot at the same time be a verb. For example, a derived noun such as (a) walk is not a verb. Shibatani (2009, 2019) is of the view that in these languages, there is no such thing as a relative clause. What have hitherto been described as relative clauses are in fact grammatical nominalizations being used in a modification function. They are neither clauses nor sentences as has been generally defined in the literature. For example, who I want in the English sentence I will marry who I want is a grammatical nominalization that functions as an argument. This same nominalization may also be used as a modifier to restrict the referent of a noun phrase in a sentence like The man who I want is already married. A parallel use in the lexical domain is the use of the noun wood as a modifier in wood stove. Shibatani's (2009, 2019) conclusions follow an extensive survey of relative constructions in Tibeto-Burman, Austronesian, Germanic, Mayan, Romance and other language families. He convincingly shows the nominalization analysis for relative constructions to be applicable to languages as diverse as German, K'ichee, Japanese, Spanish, Sasak and Tagalog, among others. The arguments for this analysis, as put forth by Shibatani (2009, 2019) will be discussed in more detail in §3. It involves a pivotal change in our understanding of the fundamental linguistic notions of clause, sentence and

¹ I am grateful to an anonymous reviewer for pointing this out to me.

nominalization that is rooted in their function and that eschews morphological considerations. Based on this, I make the claim that Akan relative clauses are also grammatical nominalizations in modification function, that Akan "headless relative clauses" are grammatical nominalizations in argument function, and that the Akan "headless genitive" is a different kind of grammatical nominalization (noun-based) that is being used as an argument.

2.1 Previous work on relative constructions in Akan

Most Akan scholars analyse Akan relative constructions as comprising a head NP (noun phrase) followed by a modifying clause which together form one complex NP (Saah 2010, Osam 1997). This complex NP is capable of performing the grammatical functions of subject or object. According to Saah (2010: 93), the beginning of the Akan relative clause is marked by a relative complementizer \dot{aa} , which is obligatory. Osam (1997: 258) terms this marker a relative subordinator and gives its form as a, a short vowel. One of the earliest grammars of Akan – Christaller (1881) – also designates the 'relative particle' as a short a. So do Fiedler and Schwarz (2005), but with a falling tone (\hat{a}), while Schachter (1973) and Welmers (1946) give its form as a long \dot{aa} . McCracken (2013) attempts to resolve the uncertainty surrounding the length of the vowel. Her phonetic analysis shows that the vowel is indeed long, although she maintains that the tone on the initial mora is mid - \bar{aa} . In this work, I follow Welmers (1946), Saah (2010), McCracken (2013) and others in representing the marker with a long vowel, \dot{aa} with a high-low tone pattern based primarily on auditory perception.

Saah (2010) notes that \dot{aa} follows the head NP and selects a sentence or clause as its complement. He finds that the end of the relative clause is almost always modified by a determiner, which he terms a clause final determiner (CD). See examples (7-9). This determiner may be the definite distal determiner no^2 or its proximal counterpart *yi*. Amfo and Fretheim (2005) are of the view that these are not determiners but rather dependent clause markers, as they occur in a host of other dependent constructions. McCracken (2013) observed that the prevalence of the clause final determiner may have been overstated. In a study that made use of naturally occurring data, she reports that only about half of relative clauses in the dataset were modified finally by *no*. The presence or absence of *no*, according to McCracken, was dependent on the animacy and definiteness of the head NP. Occurrence of *no* is dispreferred when the head noun is indefinite or non-human. While this may be interpreted to mean that definite head nouns favour *no*, her data shows that human head nouns do not necessarily favour *no*.

In Akan, resumptive pronouns are used to indicate the relativization site, except where the relativized NP is inanimate (Saah 2010: 98). Inanimate nouns are pronominalized with a null pronoun. Case recoverability is therefore largely achieved by pronoun retention. In (7) and (8), the relativized noun is the subject and its position in the relative construction is marked by the third person subject pronoun *2*. The subscript in the examples indicate co-referentiality between the head noun and the pronoun in the relative construction.

² The definite article/clausal determiner, *no* is homophonous with the third singular animate object pronoun, *no*.

- (7) o₁-wáré-e Aburi³ obáá; áà Kofi nó fi woman REL 3SG-marry-PST Kofi CD be.from Α. 'The woman who married Kofi is from Aburi.' (Saah 2010:92; my subscripts)
- (8) obáá_i áà _{Di}-túrú bá nó Takoradi ne te Τ. woman REL 3SG-carry 3SGPOSS child CD live 'The woman carrying her baby lives in Takoradi.' (Saah 2010: 98)

Similarly, the object relativized noun in (9) is marked in the relative clause by the third person animate object pronoun $n\delta$.

(9) obáá_i áà me-nim nó fi Takoradi noi Τ. woman 1SG-know 3SG come.from REL CD 'The woman whom I know comes from Takoradi.' (Saah 2010: 98)

Object pronouns for inanimates, however, are realised as null, as in (10).

(10)Ataadé_i áà Ama páme-e Øi nó yε dress Α. REL sew-PST CD be **3SG-INANIM** fε beautiful 'The dress that Ama sewed is beautiful.' (Saah 2010: 98; my subscripts)

In (11) below, the relativized NP is inanimate but is in subject position. This is marked in the relative construction by the third person inanimate subject pronoun ε -. The sentence literally translates: 'The dress that it is wearing Ama is beautiful'.

(11) [NPAtaadéi [áà [IPεi-hyέ Amma nó]NP] yε fε
 Dress REL 3SG-wear A. CD be beautiful
 'The dress that Ama is wearing is beautiful.' (Saah 2010: 98; my subcripts)

Saah also describes certain structures which he sees as resembling headless relative clauses. He characterizes these as "relative clauses without overt complementizers" (Saah 2010: 103). Examples are (12) and (13).

(12) **Nea** [ɔ-kɔ nsu] na ɔ-bɔ́ ahiná Person (that) 3SG-go water FOC 3SG-break.PRES pot '(The one) who fetches water breaks the pot.' (Saah 2010: 104)

³ Diacritics: [$\dot{}$]-high tone; [$\dot{}$]-low tone; [$\dot{}$] -rising tone; [$\dot{}$]-falling tone; [!]-tone on following syllable is downstepped.

(13)	Deε/nea	[wó-dé	má-a	mé]	nó]	sua
	Thing:that	2SG-take	give.PST	1SG	CD	be.small
	'What you ga	ve me is small.'	' (Saah 2010: 10	04)		

He postulates that the morphemes *nea* and *dee* are portmanteau morphemes composed of an antecedent NP and the relative complementizer, \dot{aa} . So *dee*, which is used in the Asante dialect, is a fusion of the morphemes $adee + \dot{aa} -$ 'thing + relative'; *nea*, which is used in the Akuapem⁴ dialect, is a fusion of *oni* + $\dot{aa} -$ 'one/person + relative'. Therefore, sentences such as (12) and (13) are actually relative clauses; they just happen to have their complementizers fused with the head noun as a result of grammaticalization. These complementizers cannot be followed by the relative complementizer, \dot{aa} (14):

(14)	*Deε/nea	áà	[wó-dé	má-a	mé]	nó]	sua
	Thing (that)	REL	2SG-take	give.PST	1SG	CD	be.small
	"What you ga						

I will show in this work, that both "relative clauses" with and without "overt complementizers" in Akan are not clauses but nominalizations being utilized for different functions: modification in the case of "relative clauses" with "overt complementizers", and argument function in the case of those without "overt complementizers". The markers that have variously been called relativizers, relative markers and complementizers will be reclassified as markers of nominalization.

2.2 Previous work on relative constructions in other Kwa languages

Among the 50 to 60 Kwa languages that exist, very little attention has been paid to the possibility that nominalizations may in fact be used for relativization. In the few studies that have been done on relativization, the relative constructions are generally analysed as clauses. One such study is a short one by Aboh (2010) which looks at these constructions in Kwa languages generally. Aboh (2010: 28) notes that relative constructions in Kwa are mostly restrictive and tend to follow the demonstrative, as the following example from Gungbe shows.

(15)	a.	Kòfí	wὲ	yí	[àsé	yù	àwè	éhè	[dě	mi	xò]	
		Kofi	FOC	take	cat	black	two	DEM	that _{[R}	EL]	1PL	buy
			lś	lέ]								
		DET	NUM									
		'Kofi r	eceivec	I these I	two bla	ck cats t	hat we	bought	.' (Abol	h 2010	:28)	

⁴ In current speech, both *dee* and *nea* are used in the Asante dialect as well.

However, in some languages such as Yoruba and Gungbe itself (15b), the relative construction can precede the demonstrative.

b.	ásé	yù	dě	mí	ćx	éhè	lś	lέ
	cat	black	REL	1PL	buy	DEM	DET	NUM
	'this bl	ack cats	s [sic] th	at we b	ought'	(Aboh	2010: 2	8)

Some Kwa languages also allow relative constructions whose noun heads do not take a determiner. In some languages such bare nouns are indefinite as well as non-specific while in others they are definite. The relative clause is therefore fully responsible for conveying the definiteness and specificity properties of the head noun. The following examples from Yoruba and Gungbe show this.

(16)	a. Yoruba	ère	ti	Kúnlé	ni
		statue	REL	Kunle	own
		'the sta	atue tha	at Kunle	e owns' (Aboh 2010: 28)
	b. Gungbe	òxwé	dě	Súrù	ćx
		house	REL	Suru	buy
		'the ho	ouse tha	nt Suru l	bought' (Aboh 2010: 28)

Another pervasive feature of Kwa relative constructions, according to Aboh (2010: 29), is that they occur between the head noun and a determiner, resulting in sequences which in English will be rendered as for example, '*cat that we bought the*'. Shibatani (2019) notes that this structure also occurs widely in Austronesian languages of Indonesia, e.g. Toba. It has been shown above that this is also the case with Akan, as it is with Gã (Campbell 2017).

Aboh discusses a sub-type of relative constructions he names factive relative clauses that are common in Kwa languages. These resemble relative constructions but have a factive interpretation. Aboh's use of the term 'factive' recalls factive predicates, such as *know* and *understand* whose complements constitute a presupposition of truth e.g. *I know that Jane is unhappy*. In the constructions described here as factive, however, a head noun is modified by a relative construction and this larger NP functions as the subject or object of a verb. Semantically, the subject of the main verb is not the head plus relative clause complex. Instead, the subject is a proposition whose arguments are the head noun and other nouns in the relative construction, and which semantically constitutes a truth presupposition. "Factive", as used here appears to be influenced by the truth presuppositional element inherent in these constructions and perhaps their translation into English with the nominal complement construction – *The fact that...*.

In Gungbe and other Kwa languages (e.g. Fongbe), the factive meaning arises when the head noun in what seems like a relative clause occurs with a determiner. Compare the following examples from Gungbe:

(17)	a.	àsé	yù	dĕ	mí	xò	éhè	15	lέ
		cat	black	REL	1PL	buy	DEM	DET	NUM

'The black cats that we bought.' (Aboh 2010: 29)

b. àsé yù lś lέ dě nyàn vέ ná Kofi mí Kofi cats black DET NUM that 1PL chase hurt for 'The fact that we chased those black cats hurt Kofi.' *'The black cats that we chased hurt Kofi.' (Aboh 2010: 29)

The following Gungbe example shows clearly that the factive clause is different semantically from the relative clause. Aboh explains that if (18) were assigned a relative clause reading the two clauses that make up the sentence will be contradictory i.e. it would mean that the soup that Kofi cooked was good and yet the same soup wasn't good.

(18)Núsónú lź dě Kòfí nyón àmón núsónúló kpàkpà dà soup DET that Kofi cook good but SOUD DET itself má nyźn NEG good 'The fact that Kofi cooked this soup was a good thing but the soup (itself) wasn't good [it didn't taste nice].' Collins (1994) in Aboh (2010: 30)

Aboh (2010: 30) suggests that these languages that have factive interpretations of relative clause-like structures "have a kind of event relativization where the event head (or maybe a cognate object denoting event) is being extracted". Aboh (2005: 283) concludes that factive clauses are truncated relative clauses.

Bámgbósé (1992) takes a different view on the analysis of this structure in Yoruba. He analyzes the relative clause-like structures that occur with a factive meaning as instances of nominalization. For the following examples from Bámgbósé (1992:88), no interlinear gloss was provided. However from the meanings of the sentences and the fact that Yoruba is mostly an SVO language, the following glosses are assumed: *ìlù* 'drum', *tí* 'REL', *ó* '3SG', and *ńlù* 'beat.PROG'.

- (19) a. ìlù tí ó ńlù'the drum that he is beating' (Bámgbósé 1992:88)
 - b. ìlù tí ó ńlù
 'the fact that he is beating a drum' (Bámgbósé 1992:88)

Unlike Gungbe, the relative meaning and the factive meaning are conveyed by the exact same structure. In Yoruba, the element that occurs before the relativizer *ti* may be a nominalized verb rather than a noun, as in (20) below. Verbs are nominalized by partial reduplication of the form *Ci-Verb*. So *wa* 'come' becomes *wiwa* 'coming' and *na* 'beat' becomes *nina* 'beating'.

(20) wíwá tí ó wá coming that he come

'the fact that he came' (Bámgbósé 1992: 91)

Bámgbósé's analysis seems to be based on the structural similarity between (20), containing the relativizer ti, and (21), which has a different marker and no head nominal but also has a factive meaning.

(21) pé ó wá
 that he come
 'the fact that he came' (Bámgbósé 1992: 91)

Though Bámgbósé does not mention it, this nominalization is capable of modifying a head, as in the following sentence:

(22)	Мо	gbo	irohin	pé	ole	ní	Ade
	1SG	hear	news	that	thief	be	Ade
	"I hea	rd the r	news tha	t Ade i	is a thie	f."	

The above exposition on factive relative clauses in Yoruba has shown that at least one other Kwa researcher has recognised the possibility of a relative construction being a nominalization. Bámgbósé however stops short of claiming that all relative clauses in Yoruba are nominalizations, limiting the analysis to only those with a factive interpretation. This begs explanation, as regardless of their semantic interpretation, all the relative clauses have the same structure.

Of particular importance to the goals of this paper is the observation made by Ajiboye (2005) that there is a similarity between the relative clause and the genitive in Yoruba. Compare (23a) and (23b).

- (23) a. ère ti Kúnlé
 statue C K.
 'statue of Kunle' (Ajiboye 2005: 90).
 - b. ère tí Kúnlé ni statue C K. owns 'the statue that Kunle owns' (Ajiboye 2005: 90)

The difference between genitive marker, ti (23a) and relative construction marker, ti (23b) is that the former has mid tone while the latter has high tone⁵. Ajiboye (2005) argues that ti (with mid tone) genitives are reduced relative clauses, while ti (with high tone) relatives are full relative clauses. In both the reduced relative clause and full relative clause, ti is a complementizer. He further states that in the reduced relative clause (genitive), the complementizer takes a verb phrase

⁵ In the tone-marking convention used by Ajiboye (2005), mid tones are left unmarked.

(VP) complement while in the full relative clause it takes an inflectional phrase $(IP)^6$ complement. Mid tone *ti* occurs in yet another related construction which Ajiboye describes as a 'possessive noun phrase with no possessum'. This is basically a possessive noun phrase (NP) whose possessum is not overtly realised but can be retrieved from discourse context (aka "headless genitive"), as shown below:

(24)	а.	Mo ^{1SG} "I saw	ri see Kunle's	[ti of 5." (Ajibo	Kúnlé] K. oye 200						
	b.	Mo 1SG ti of 'I saw	rí see Túndé T. the dre		ti of o but I d	Òjó O. didn't se	şùgbón but ee Tunde's owr	n 1SG n.' (Ajib	kò NEG Doye 200	rí see 05: 108)	pro

Ajiboye accounts for these genitives without possessums in the same way as those with possessums, that is, as reduced relative clauses. The difference is that in the former type the possessum is a null pronominal (pro). Therefore, in examples such as (24a) and (24b) above, *ti* is considered a complementizer.

In the next few sections, I lay out the rationale and evidence for a nominalization approach to relative constructions, after which I revisit the Kwa data and make a case for further investigation of the merits of a nominalization analysis.

3. Defining relative constructions

The analyses of the noun-modifying structures shown above as relative clauses by Saah (2010), Aboh (2010), Bámgbósé (1998), Ajiboye (2005) and others is in step with the consensus among most linguists. Andrews (2007: 175) for instance, defines a relative clause as "... a subordinate clause which delimits the reference of an NP by specifying the role of the referent of that NP in the situation described by the RC [relative clause]." Givón (2001: 175) states that relative clauses are "...clause-size modifiers embedded in the noun phrase." The relative clause then, according to Givón (2001: 175-176), is a proposition which codes a state or event and whose function is to act as an anaphoric foregrounding clue for some noun phrase (NP) referent which is accessible to the hearer's episodic memory but which is not currently activated. This is possible because the NP referent in question is involved in or acts as a participant in the event or state coded by the RC, and that event or state is readily accessible and activated in the hearer's episodic memory.

Fox and Thompson (1990), offer a discourse-centred analysis of relative clauses in English. Using conversational data, they discern systematic correspondences between head nouns and

⁶ In X-bar theory, an inflectional phrase is basically a sentence, and has as its head an inflectional category such as tense

relativized noun phrases. For example, that non-human subject heads tend to occur with object relativized NPs and that non-human object heads do not choose object relativized NPs. They account for these patterns by appealing to interactional factors relating to information flow such as the information status and grounding status of the referent, in addition to discourse-external factors such as humanness, definiteness and the function of the relative clause. Most relevant to the present paper is their position that some types of relative clauses assert new information (Fox Thompson 1990:306). This is contra Givón (2001) and Shibatani (2009, 2019) who maintain that relative clauses contain presuppositions. It is my position as well that relative constructions do not assert but presuppose. Fox and Thompson (1990) base their claim on the fact that many relative constructions contain main verbs that are semantically general, such as have or have got and whose object heads are non-human. These heads are then modified by a relative construction that characterises the head. One such example from Fox and Thompson (1990: 305) is They had one [that was a real cheapo thing]. Although the information in this relative construction may indeed be new, this does not automatically mean that it is the part of the sentence that carries the assertion. That function still rests with the main verb. Sentences like these have been labelled informative presuppositions (Prince 1978, Abbott 2008). As Abbot (2008: 532) argues, presuppositions do not necessarily equate to old information, just as assertions do not always constitute new information, but rather the coupling of presupposition with old information and assertion with new information can be seen as "at best only generalizations about what is perhaps the most frequent kind of case." Hence, it is possible for a presupposition to contain new information, but it still will not constitute an assertion.

Shibatani (2009) identifies some problems with the traditional definitions and characterisations of relative constructions. The first is the use of the terms "clause" and "sentence" to describe these structures. Shibatani (2009: 195) argues that so-called relative clauses cannot be considered clauses or sentences even if they are finite and contain all the arguments required by the grammar. In Shibatani (2019: 93), these clauses, sentences and nominalizations are defined functionally, in terms of the speech acts that they perform. Clauses predicate i.e. they ascribe a property to some noun phrase referent. Sentences have illocutionary force i.e. they assert, order, warn, promise or express the speaker's ideas, desires etc. Different sentence types have different illocutionary forces. Declarative sentences assert information, interrogative sentences seek information while imperative sentences give commands. So-called relative clauses neither predicate nor assert, but rather denote entities by presupposing a state of affairs characterizing the denoted entities. They are, therefore, nominalizations. In characterising the state of affairs, the properties and actions of the head noun may be anchored temporally and therefore tense markers (and other verbal markers) may be found. When subjected to the classic negation test, "relative clauses" are found to constitute presuppositions. In (25), negating the sentence does not negate the presupposition that John recommended something to me.

(25) I didn't read the book which John recommended. (Shibatani 2009: 195)

Givón (2001:176) also holds that relative constructions contain presuppositions and not assertions. He writes: "the speaker does not assert the proposition in the REL-clause, but rather *presupposes* it to be *known* or *familiar* to the hearer, thus *accessible* in the hearer's episodic memory of the

current text." However, per Shibatani (2009, 2019), denotation, predication and assertion are mutually exclusive functions of the different construction types of nominalizations, clauses and (declarative) sentences respectively. Therefore, the relative construction cannot be a sentence as it does not assert, and it is not a clause as its function is not to ascribe a relational property to an entity. Instead it evokes an entity denotation by presupposing its involvement in some event or presupposing its exhibition of some property. *who I love* in *The man who I love* evokes an entity who is the object of the speaker's affection. This entity evoked by the relative construction serves to restrict further the referent of *the man*.

In addition, Shibatani (2009: 166) maintains that it is not possible to embed a sentence into a smaller constituent such as a noun phrase, and that, in order for this to occur, the sentence must first be nominalized. His position, therefore, is that relative clauses are grammatical nominalizations formed from clauses, and it is this property that allows them to be subordinated or embedded. Grammatical nominalizations are essentially referring expressions, just as lexical nouns also have a referring function. In the next section, I explain further what grammatical nominalizations are and how they relate to "genitives", "headless relatives" and "headless genitives".

3.1 Types of nominalizations

Shibatani (2009, 2019) sets out a classification of nominalizations that incorporates grammatical nominalizations. The major types of nominalization are lexical nominalizations and grammatical nominalizations. Lexical nominalizations create nouns while grammatical nominalizations create referring expressions. Nouns denote or refer to specific entities or classes of entities. For example, in English, *boys* denotes the class of young, male humans while *the boy* refers to a specific instantiation of that class. The denotational boundaries of nouns are very narrowly defined. Grammatical nominalizations, on the other hand may denote a very wide range of entities. Although this range is narrowed down by a characterisation in terms of an event, it is much wider than that associated with a noun. For example, while the noun *money* refers to a specific entities, including *money*. This grammatical nominalization may be used as a modifier ("relative clause") where together with the head noun it serves to narrow down the set of referents of the head noun to one unique instantiation.

Each major type of nominalization may be further divided into two subtypes: argument nominalizations and event nominalizations. A lexical argument nominalization is a noun which refers to an entity and which is derived from another lexical item. Examples are *employer* and *employee*, derived from the verb *employ* or the noun *cook*, derived from the verb *cook*. The morphemes *-er* and *-ee* are nominalizers. A lexical event nominalization is a noun which refers to an event and which is derived from another lexical item e.g. *employment*, also derived from the verb *employ*. The derivation may also be a zero derivation, as in the derivation of *walk* (*n*.) from *walk* (*v*.). It is possible also, for lexical nominalizations to be derived from existing nouns e.g. *parenthood* from *parent*.

A verb-based (V-based) grammatical argument nominalization denotes an entity characterised in terms of its participation in an event e.g. *what Jane ate*. Verb-based grammatical

argument nominalizations often (but not always) contain a gap which corresponds to the grammatical relation of the entity referred to. For example, *what Jane ate* \emptyset is an object argument nominalization while *what* \emptyset *fell on me* is a subject argument nominalization. In some languages, e.g. those of the Austronesian family, there is special morphology on the verb to indicate the grammatical role of the argument nominalized. The referent of a grammatical argument nominalization is always made explicit in the linguistic or extra-linguistic discourse.

There are some grammatical argument nominalizations that are entirely noun-based. These nominalizations are derived from existing nominals, but they differ from lexical nominalizations derived from other nouns (the *parent-parenthood* type) by not having definite, explicit referents. Their referents are dependent on the discourse. It is these kinds of nominalizations that are found in genitive constructions in many languages e.g. the Japanese example below.

(26)	kore=wa	[boku]=no	hon	de,	are=wa	[otoosan]=no	da		
	this-TOP	I-NMZ	book	COP	that=TOP	father=NMZ	COP		
	'This is my book and that is the father's.' (Shibatani 2009: 191)								

In this example, the nominalizer, *no*, on *otoosan* 'father' marks it as an argument nominalization denoting an entity associated with the referent of the base nominal, *otoosan* 'father'. This entity can be recovered from the discourse as *hon* 'book'. This is an NP use. In *boku no hon* 'my book', the same nominalizer indicates an entity associated with the first person. This nominalization is used as a modifier to *hon* 'book', where it restricts the denotation of *hon* 'book' to that pertaining to *boku* 'I'. Nominalizations are either used for modification, where they occur with a nominal, or they are used as NPs/arguments. The modification use involves juxtaposition of the nominalization and the noun it modifies. This is what we see in *boku no hon* 'my book'.

These different types of nominalizations may be put to various uses/functions. What many see as relative clauses is simply the modification use of a verb-based argument nominalization. In *The watch that Jill bought is beautiful, that Jill bought* is simply an argument nominalization used to modify *the watch*. The function of the argument nominalization is to restrict the referent of *watch* to the one bought by Jill. In a similar vein, what many see as headless relative clauses are simply verb-based argument nominalizations in NP use or argument use, where they have a referring function e.g. *What I bought yesterday* refers to some entity, whose identity is or will be known from the discourse. In this analysis, a distinction is made between nominalization markers indicate an NP-use or argument use of a nominalization.

A grammatical event nominalization denotes an event, fact, or proposition which is characterised in terms of the state of affairs pertaining to the event itself. For example, *that John fell asleep* in *I can't believe that John fell asleep* denotes a fact. Grammatical event nominalizations are all verb-based. They may take on an NP use, as in *that he is clever* in *I know that he is clever*. In this case the referring expression is termed an object complement. Although Akan has event nominalizations, they fall outside the purview of this paper. Figure 1 below illustrates the different types of nominalizations per Shibatani (2009, 2019), while Figure 2 shows the uses of grammatical argument nominalizations.



Figure 2: Grammatical Argument Nominalizations and their uses

3.2 Finiteness and nominalization

According to Lehmann (1986) and Givón (2001), a clause may be nominalized to various degrees. This depends on how many verb or noun characteristics are displayed and how similar or dissimilar the grammatical nominalization is from an independent clause. In discussing the correlation between finiteness and nominalization, Givón (2001: 27) notes that the most finite constituents are the least nominalized and vice versa. This analysis, however, is not sound. Clauses and nominalizations perform different functions, so it is not the case that as a nominalization exhibits more and more finiteness features, it inches more and more towards clause-hood. One

problem some may have with reclassifying relative clauses as nominalizations is the fact that they contain finite verbs i.e. verbs which take tense, aspect and mood marking. However, as noted by Shibatani (2009: 193), finiteness is not a definitional feature of a sentence or clause. Therefore, there is no definitional correlation between finiteness and sentences and between non-finiteness and nominalizations. Since grammatical nominalizations denote an entity in terms of its involvement in some event, it is natural that the event be grounded temporally with markers of tense (Shibatani & bin Makhashen 2009: 29). This does not necessarily make the structure a clause or sentence. Clausehood is characterised by predication, which also may or may not involve TAM marking (as with verbless clauses). Sentencehood is defined not in terms of structure but in terms of the speech act performed. Grammatical nominalizations merely constitute a presupposition⁷ and their function is to denote. A nominalization may contain many formal features of finiteness but its function, by virtue of being a nominalization, is to denote. That is, its internal syntax may resemble that of a clause - with TAM markers and such, but its external syntax will be that of a nominalization; in that it functions as an argument or modifier. Such a nominalization has a referring or denotational function and is not a clause or sentence. The referring and denotational functions preclude predication and assertion.

In Gã, for example, there are lexical nominalizations with full tense, aspect and person markers which nevertheless have a denotational function and therefore, nominal status. Examples are given in (27) and (28). In the b) sentences, these nominalizations are used as arguments and few will analyse them as clauses or sentences despite the verbs or aspectual markers they contain. In addition, some take plural suffixes, e.g. *òjèŋmá!-í* [habanero.pepper-PL] 'habanero peppers'.

(27)	a. haban		'lavender, perfume' or 'a kind of aromatic, hot pepper;
		ò-jè	ŋmấ
		2SG-exit	sweet.smell
		'You smell go	od.' (Campbell 2017: 520)
	b.	òjèŋmấ	é-bù
		pepper.type	 PERF-be.plentiful
		'There is a glu	it of <i>òjèŋmấ</i> peppers.' (Campbell 2017: 522)
(28)	a.	àkèsháà	'an abrasive cleaning agent'
. ,		à-kè-shá-à	
		3.IMPERS-take	-scrub-нав
		'They use it fo	or scrubbing.'
	b.	Má-hé	àkèsháà
		1SG.FUT -buy	abrasive
		'I will buy an a	abrasive.'

⁷ See Givón (2001:176) for a discussion of relative clauses and their relation to presuppositions and assertion.

Conversely, some constructions with nominalizing or gerundive morphology may function as sentences and make assertions, as is shown in the Amharic example below from Evans (2010: 410). The response *hedo* to the interrogative constitutes an assertion and therefore a sentence, but it has a gerundive form (3rd singular masculine gerundive).

(29) käbbädä yät allä Kebbede where exist.3M.PFV '[W]here is Kebbede?'

> hed-o 'Why, he has already left.' (Lit. 'His having gone') (Evans 2010: 410)

My position is that category labels should be determined primarily by function, and not by morphological features or internal syntactic properties.

4. Critique of previous works on relative constructions

After laying out the evidence for a nominalization approach to genitives and relative clauses in some languages, we can turn our attention to the data from the Kwa languages examined earlier. In those works, relative constructions are analysed as clauses, and the particle that introduces them is called a relativizer or complementizer. This view is problematic for languages like Yoruba where the complementizer or relativizer *ti* is found in both the "relative clause" (23b) and genitive (24a). In an effort to account for the symmetry in marking in these semantically disparate constructions, Ajiboye (2005) analyzes genitives as instances of reduced relative clauses. I contend that this account deserves further inspection as the suggestion that the genitive is a clause is confounding since it does not predicate. That the relative and genitive constructions are related is apparent, based on synchronic morphological similarities and proven diachronic development in other languages with historical data. But one possibility that needs consideration is that this synchronic relationship could be one of nominalization. The alternative analysis of the Yoruba relative clause may be that *ti* is a nominalization marker which marks a verb-based argument nominalization that is being used as a modifier. In Ajiboye's reduced relative clause with a null possessum, e.g. ti Túndé in (24b), repeated here as (30), tí could be analysed as a nominalization marker which marks a noun-based (N-based) nominalization in NP use. This nominalization indicates an entity that has crucial relevance to the possessor and whose identity is recoverable from discourse. In this case, the entity is aso 'cloth'. In the first genitive in (30), aso tí Òjó 'Ojo's dress', the noun-based argument nominalization, tí Òjó, is being used to modify aso 'cloth', thereby restricting the referent of the denotation of *aso 'cloth'* to that pertaining to Ojo.

(30)Òjó Mo rí așọ ti şùgbón n kò rí pro ti cloth of О. but of 1SG see 1SG NEG see Túndé Τ. 'I saw the dress of Ojo but I didn't see Tunde's own.'

Regarding the Yoruba factive relative construction (31b), it is difficult to see why Bámgbósé analyzes it as a nominalization, yet he maintains that the exact same form in (31a) is a relative clause. The two forms differ semantically but they should receive the same structural analysis. I agree with Bámgbósé that the ti constituent in the factive clause is a nominalization but if this is the case then the one in the relative clause is likely also a nominalization.

- (31) a. ìlù tí ó ńlù'the drum that he is beating'
 - b. ìlù tí ó ńlù
 'the fact that he is beating a drum'

Saah's (2010) study on relative clauses in Akan also encounters a problem when he has to analyze structures like those in (12) and (13) as "relative clauses without overt complementizers" due to the occurrence of a marker that by many indications is developed from the relativizer \dot{aa} . These structures, however, do not fit the definitions of relative clauses given by these authors (e.g. lack of a head nominal in Akan), hence the need to posit exceptional features such as covert complementizers and reduction of structures. If the view proposed by Shibatani (2009) that the link between so-called headed relative clauses and headless relatives is that they are all nominalizations, then the data in Akan starts to become clearer and the need to resort to positing covert categories is obviated.

Saah's "relative clauses without complementizers" may instead be analyzed as nominalizations being used in a referential function. The forms *nea* and *dee* would therefore be nominalization markers. As nominalizations, they are able to occupy subject and object positions just as lexical nouns would. In (12) and (13) for example, they are subjects. Another reason why the "relative clause without overt complementizer" approach should be abandoned is that, although it is likely the case that the particles *nea* and *dee* are fused morphemes made up of *oni* 'one' + \dot{aa} 'REL' and *adee* 'thing'+ \dot{aa} 'REL' respectively, the grammaticalization process has proceeded so far that both *nea* and *dee* can now be used for both people and things, or both animates and inanimates. If speakers conceived of *nea* and *dee* as lexical items with the component meanings of 'person' and 'thing' respectively, then one would expect *nea* to be used only for animates or humans and *dee* only for inanimates or non-humans. This is obviously not the case, as (13) shows. Semantically therefore, it is irrelevant that they arose from the fusion of the two separate elements; synchronically they behave as single morphemes and have lost the semantic constraints that were probably associated with them in the past. In addition, they have also lost a significant amount of

phonetic material as would be expected of grammaticalized forms. In the case of *nea*, four syllables have been reduced to two, while with $de\varepsilon$ five syllables have been reduced to two. Indeed, it appears that in the case of $de\varepsilon$ the relativizer $\dot{a}\dot{a}$ is totally lost. Furthermore, their tonal patterns have been completely altered:

 $[\dot{o}ni] + [\dot{a}\dot{a}] \rightarrow [n\dot{a}\dot{a}]$ $[\dot{a}di\dot{\epsilon}] + [\dot{a}\dot{a}] \rightarrow [d\dot{a}\dot{\epsilon}]$

Therefore, *nea* and *dee* are not head nouns; they are grammatical markers.

While Shibatani (2019) shows that the nominalization account for relative clauses and genitives in many languages is supported by morphosyntactic evidence, it remains to be seen whether it is a universal phenomenon, applying to all or most languages. In Campbell (2017), it is shown that Gã, a Kwa language in contact with Akan, also has verb-based grammatical nominalization structures used for modification (relative clauses) and NPs (headless relatives), as well as noun-based grammatical argument nominalizations used as NPs (headless genitives). In what follows, I argue the same position for Akan relative constructions and genitives.

5. Argument nominalizations in Akan

In light of these facts about nominalization and the role they play in what have been described as relative clauses, the Akan data on relative constructions will be reanalyzed. It will be shown that Akan also makes use of grammatical argument nominalizations to modify nouns. Hence there are no relative clauses in Akan, just modification uses of verb-based argument nominalizations. Consider once again Saah's "relative clauses without overt complementizers" or what others would classify as "headless relative clauses". (13) is repeated here for convenience as (32a) and glossed to reflect the nominalization analysis. (32b) and (32c) also show such "headless relatives".

(32)	a.	[Deε/nea ΝΜ 'What you ga	wó-dé 2sG-take ve me is small.'	má-a give.pst (Saah 2010: 1	mé 1SG 104; my	nó] DEF glosses	sua be.small s and bracketing)		
	b.	Mè-ṁ-pź [dèɛ̀/n 1SG-NEG-like NM I don't like what you are doin		2SG-PROG-do DEF					
	C.	[Dèɛ̀/Nèà ʷM The one l real	mè-pé 1SG-like ly like is Kojo.	n'ǎ!séḿ 3SG.matter	pấấ] very.n	nuch	né be	Kòjó Kojo	

The position taken in this paper is that $de\varepsilon$ and *nea* mark the NP use of argument nominalizations and these argument nominalizations have a referring function. The particles are

not relative pronouns as Saah (2010: 104) states; they are nominalization markers. In many languages, argument nominalizations have a gap in one argument position which corresponds to the grammatical relation of the referent of the argument nominalization. In the Akan argument nominalization, all relevant argument positions must be filled, but the argument that is nominalized cannot occur as a full NP. Instead, it must be pronominalized. If this argument is an inanimate object, the pronoun is realised as zero or null. Many linguists use the terms subject relativization, object relativization etc. to describe relative constructions based on the grammatical relation of the relativized noun. But this gap has nothing to do with relativization per se; it is formed from the argument nominalizations, subject argument nominalizations etc. The following are some examples showing the different types of argument nominalizations in Akan (with the pronominalized argument in bold).

Subject argument nominalization:

(33)	a.	Mè-n-hù		dèɛ̀/nè	eà à- bó-à	ò	mààm	é		nó
		1SG-NEG-see		NM	3 sg -h	it-PST	woma	n		DEF
		'I didn't see t	see the one who hit the woman.'							
Objec	t argum	ent nominaliza	tion:							
	b.	Deε/nea	wó-dé 💋		Ø	má-a		mé	nó	
		NM	2SG-ta	ike	3SG.INAM.OBJ	give.P	ST	1SG	DEF	
		sua								
		be.small								
		'What you gave me is small.' (Saah 2010: 104; my glosses)								
Indire	ct argui	ment nominaliz	ation:							
	с.	Dèɛ̀/Nèà	Kòfí	bísá-à	nò	sìká	nó	dè		Kòjó

Dee/nea	KOII	DISd-d	no	SIKd	no	ue		којо
NM	Kofi	ask-PST him	money	/ DEF	be.call	ed	Којо	
'The one Kofi asked for money is called Kojo.'								

The analysis of these structures as relative clauses is inaccurate for a few other reasons. The so-called clauses or sentences are quite different from independent sentences. Their inability to take full NPs as arguments in all positions is one difference. In (34a) both arguments in the argument nominalization are full NPs, *Kofi* and *mààmé nó* 'the woman', making the sentence ungrammatical. However, an independent sentence will be able to occur with two full NPs as (34b) shows.

(34)	а.	*Mè-r̀ 1SG-NE		dèɛ̀/nèà NM	Kofi Kofi	bó-ò hit-PST	mààmé woman	nó DEF
	b.	Kòfí Kofi	bò-ò hit-PST	mààmé woman		nó DEF		

'Kofi hit the woman.'

Another crucial feature that distinguishes Akan argument nominalizations from ordinary independent sentences is the tone on the verb. Example (35a), which is the same form as the argument nominalization in (33a), is not grammatical, but (35b) is. The difference is that the tone on the verb $b\dot{2}$ 'hit' in (35a) is high while that in (35b) is low. This difference in the tone pattern of argument nominalizations in Akan was first observed and discussed in detail by Schachter and Fromkin (1968). They also observed parallel tonal changes in focus constructions as well as other subordinate constructions.

(35)	a.	*ò-bó-ò	mààmé	nó
		зsg-hit-рsт	woman	DEF
		'S/he hit the	woman.'	
	b.	ò-bò-ò	mààmé	nó
		3SG-hit-PST	woman	DEF
		'S/he hit the	woman.'	

Another sign of the nominalized nature of Saah's "relative clauses without overt complementizers" is that they are usually followed by a determiner e.g. $n\dot{o}$ 'DEF'. The importance of the determiner in argument nominalizations in Akan will be discussed in detail in §5.2. Also, the fact that these argument nominalizations can function in sentences as subject or object means that they exhibit one of the definitional features of nominalizations put forward by Givón (2001: 24). Further arguments against analysing $d\dot{e}\dot{\epsilon}$ and $n\dot{e}\dot{a}$ as relative pronouns is laid out in the following section, which looks at noun-based argument nominalizations, or genitives.

5.1 *The Akan genitive and its relationship to argument nominalization*

The morphological shape of the Akan genitive phrase provides some clues as to why the argument nominalizations just described cannot be considered relative clauses. It has been noted that in some languages, the relative construction and the genitive have the same morphological marking. At first glance, this seems not to be the case in Akan. The basic genitive phrase in Akan consists of juxtaposing possessor and possessum⁸. Example:

(36)	a.	Kòfí tí Kofi head 'Kofi's head'
	b.	m'èdúàné 1SG'food 'my food'

⁸ The possessed noun may undergo some tonal changes, but a discussion of this is beyond the scope of this paper.

However, so-called 'headless genitives', in which there is no possessed entity, are formed by the particles $d\dot{e}\dot{\epsilon}$ or $d\dot{e}\dot{a}$. The first of these particles is almost identical in form to the nominalization marker for NP use of argument nominalizations, with the important difference being that while the particle found in the genitive has low-high tone pattern $(d\dot{e}\dot{\epsilon})$, that in the verbbased argument nominalization has low-low tone pattern $(d\dot{e}\dot{\epsilon})$. The following expressions exemplify their use.

(37)	a.	Kòfí Kofi mé-dè 1sG-NM 'Kofi a	1			láné ss.food ite mine.'	ènà and	mé 1SG	ńsó too	mé-dí-ì 1SG-eat-PST
	b.	Àtààde dress	éé	nó DEF	yὲ be	mé-dèá 1SG-NM				

'The dress is mine.'

The two particles, $d\dot{e}\dot{\epsilon}$ and $d\dot{e}\dot{a}$, differ in semantics and syntactic distribution. $D\dot{e}\dot{\epsilon}$ is contrastive, in that, when it is used, there is a presupposition that there exists another referent in the linguistic or extra-linguistic context who is also a possessor of a member of the set of entities denoted by the possessed noun. This is the case in (37a) where $m\dot{e}d\dot{e}\dot{\epsilon}$ 'mine' is contrasted with *Kofi* $\dot{e}d\dot{u}\dot{a}n\dot{e}$ 'Kofi's food'. If no such presupposition exists in the discourse, then $d\dot{e}\dot{a}$ is used instead, as in (37b). Example (37b) is appropriate as an answer to the question of whom a particular dress belongs to, where there is no indication of the existence of another dress belonging to someone else. Examples (38) and (39) are ungrammatical because they each contain the nominalization marker that is incompatible with the discourse semantics of the sentences in which they occur.

- n'èdú!áné (38)*Kòfí dì-ì Ènà mé ńsó mé-dí-ì Kofi eat-PST 3SG.POSS.food and 1SG too 1SG-eat-PST mé-dèá 1SG-NM 'Kofi ate his food and I also ate mine.' *Àtààdéé (39) γÈ mé-dèέ nó dress DEF be 1SG-NM
 - 'The dress is mine.'

The particle $n\dot{e}\dot{a}$, which to some speakers is interchangeable with $d\dot{e}\dot{\epsilon}$ in argument nominalizations used as NPs, cannot occur in N-based nominalizations:

(40)n'èdú!áné *Kòfí dì-ì Ènà mé ńsó mé-dí-ì Kofi eat-PST 3SG'POSS.food and 1SG-eat-PST 1SG too mé-nèà 1SG-NM 'Kofi ate his food and I also ate mine.'

(41) *Àtààdéé nó yè mé-nèà dress DEF be 1SG-NM 'The dress is mine.'

The contrastive meaning of $d\dot{e}\dot{\epsilon}$ is seen in another kind of genitive construction specific to the Wassa dialect of Akan. Here, $d\dot{e}\dot{\epsilon}$ co-occurs with the juxtaposed possessor and possessum to indicate that the possessum is being contrasted with another one of the same ilk but with a different possessor. Example (42) illustrates this.

(42) Àkwàsí átá!ádeε dèé nó wò héné
 Akwasi dress NM DEF be.located QP
 'Where is Akwasi's dress?' (Example context: Kofi's dress has been found and speaker is inquiring about Akwasi's)

Dèá appears to be restricted to equational sentences such as (37b) and cannot occur in verbbased argument nominalizations. Example (43) is therefore ungrammatical.

(43)	*Mè-'n-hù	dèá	ò-bó-ò	mààmé	nó
	1SG-NEG-see	NM	3SG-hit-PST	woman	DEF
	'I didn't see the one				

If we are to follow Saah (2010) in analysing $d\hat{e}\hat{\epsilon}$ in V-based argument nominalizations in NP-use as relative pronouns composed of $\hat{a}d\hat{e}\hat{\epsilon}$ 'thing' and the particle ' $\hat{a}\hat{a}$ ', will we be able to apply the same analysis to $d\hat{e}\hat{\epsilon}$ in so-called "headless genitives"? If that was possible then the following sentence where a "headless relative clause" contains a "headless genitive" will be very complicated to analyze.

(44)	Fà	dèè	ὲ- γέ	mé-dèέ		nó	tó	ìkyέń
	take	NM	3SG.INAN-be	1SG-NM DEF	put	side		
'Put what is mine aside.'								

It would be very difficult indeed to analyze such Akan genitives without possesums as relative clauses of any kind, yet it is formed by a marker that is almost identical to that found in relative constructions. On the other hand, when both constructions are recognised as argument nominalizations the occurrence of $de\epsilon^9$ can be accounted for.

These genitive constructions without possessums are noun-based argument nominalizations. $D\dot{e}\dot{\epsilon}$, as well as $d\dot{e}\dot{a}$, are nominalization markers which indicate that the entire phrase denotes some entity associated with the referent of the base nominal, and whose referent is recoverable from the discourse context. It changes the referent of the base nominal much in the same way as suffixing *-hood* to *parent* results in a new noun, *parenthood*, with a different referent. In the case of the genitive, this associated with the referent coded by the first-person pronoun in *médèé* 'mine' can be deduced from the context to be *èdùàné* 'food'.

(45)	Kòfí	dì-ì	n'èdú!áné	ὲnà	mé	ńsó	mé-dí-ì		
	Kofi	eat-PST	3SG.POSS.food	and	1SG	too	1SG-eat-PST		
	mé-dé	èέ							
	1SG-NM								
	'Kofi a	ate his food a	and I also ate mine.'						

Further evidence that the nominalization marker, $d\dot{\epsilon}\epsilon$ is distinct from the lexical item $\dot{a}d\dot{\epsilon}\epsilon$ 'thing' is seen in possessive constructions where the possessum is $\dot{a}d\dot{\epsilon}\epsilon$ 'thing' (46a). In such constructions there is no contrastive element to the semantics of the possessive NP. So in (46a), there is no assumption that the referent of $m'\check{a}d\dot{\epsilon}\epsilon$ 'my thing' is one among multiple referents of the same type. On the other hand, use of the noun-based nominalization marked by $d\dot{\epsilon}\epsilon$ carries precisely this contrastive meaning. That is, (46b) implies that there are several other entities belonging to others, but the speaker wants the one associated with his or her own self.

(46)	a.	take	m'ǎdéź 1SG'thing ne my thing.'	má give	mè 1SG	
	b.		mé-dèć 1SG-NM ne mine.'	give	má 1SG	mè

The structural relationship between what is commonly known as headless genitives and headless relative clauses in Akan is therefore that of nominalization. The genitive is a noun-based argument nominalization while the "headless relative clause" is a verb-based argument nominalization. Both constructions are used as NPs to refer to entities in discourse.

The dearth of historical records on Akan does not allow us to investigate how this symmetry in marking came about. However, we may hypothesize, based on the path of

⁹ When *dee* appears in this work without any tone marks, it represents the general argument nominalization marker used to mark NP use. Its tone pattern varies depending on whether it marks a N-based argument nominalization ($d\dot{e}\dot{\epsilon}$) or a V-based argument nominalization ($d\dot{e}\dot{\epsilon}$).

development of nominalization markers in other languages, e.g. the Ryukyuan and other dialects of Japanese, that the noun-based nominalization occurred first (Shibatani p.c). According to Heine and Kuteva (2004: 296) the word for 'thing' is a very common source for the grammaticalization of possessive markers in many languages e.g. Japanese, Thai and Khmer. It may well be then, that Akan speakers employed $\partial d\dot{e}\dot{e}$ 'thing' (or whichever form it had at the time) to mark N-based nominalizations in NP use (possessives) and then extended this morpheme to marking V-based nominalizations in NP use as well.

In such languages the argument nominalization bearing the NP-use marker is then extended to modification uses, resulting in "relative clauses", which are nothing more than V-based argument nominalizations in modification use. This modification use of argument nominalization is found in use among a small minority of Akan speakers. Many speakers consider the following sentence in which the argument nominalization marked by $d\hat{e}\hat{\epsilon}$ is used to modify $p\hat{a}p\hat{a}$ $n\hat{o}$ 'the man' ungrammatical, and even those who use it admit that it is non-standard.

(47)	?Mè-hù-ù	pàpá	nó	dèè	ò-bá-à há	έnŕ!á	nó		
	1SG-see-PST	man	DEF	NM	3SG-come-PST here	e yesterday	DEF		
	'I saw the man who came here yesterday.'								

The fact that constructions such as (47) are considered non-standard suggests that the development of the V-based argument nominalization is proceeding in a parallel direction to that of the Japanese and Ryukyuan dialects. The modification use, which is developed last, is just beginning to appear among some Akan speakers, hence its non-standardness. This indicates a syntactic change in progress.

Hendery (2012: 59) remarks humorously that generic nouns such as words for 'thing', that mark headed relativizations just happen to be in the wrong place at the wrong time and get kidnapped into the relative clause. The situation in Akan appears less straightforward than that, since in this case it is likely, as suggested by Saah (2010), that it is not the original lexical item $\dot{a}d\dot{e}\dot{e}$ 'thing' that gets 'kidnapped' but an already grammaticalised form made up of a fusion of $\dot{a}d\dot{e}\dot{e}$ 'thing' and the original nominalizer $\dot{a}\dot{a}$. Indeed, Heine and Kuteva (2007: 230-231) report an identical path of development for "free relative clause" (headless relative clause) formation in Ewe (Niger-Congo, Kwa) where "free relatives" are marked by an article comprising a generic noun meaning 'thing', 'person', 'place' etc. and the relativizer *si*.

The modification use of the $d\dot{e}\dot{e}$ -marked argument nominalization probably starts out as a paratactic construction involving the head noun and the argument nominalization. A similar pathway is suggested by Givón (2009: 105-106) for colloquial Hebrew. Givón posits a development from a non-restrictive (parenthetical) relative clause to an embedded relative clause. According to him, the free relative construction marked by the demonstrative in (48b) occurs in a paratactic construction with the standard headed relative construction shown in (48a) to yield the non-restrictive relative construction in (48c).

Standard OBJ REL-clause

(48)	a.	Ha-'ish	she-pagash-ti	'oto	'etmol
		the-man	REL-met-1s	met	yesterday

'The man I met yesterday...' (Givón 2009: 105)

Standard headless OBJ REL-clause

b.	zé	she-pagash-ti	'oto	'etmol
	DEM	REL-met-1s	met	yesterday
	'The o	ne I met yester	(Givón 2009: 106)	

Standard non-restrictive OBJ REL-clause

с.	Ha-'ish	zé	she-pagash-ti	'oto	'etmol			
	the-man	DEM	REL-met-1s	met	yesterday			
	'The man, the	one I n	net yesterday	' (Givór	n 2009: 106)			
Non-standard	condensation t	o restric	tive OBJ REL-	clause				
d.	Ha-'ish	zé-she	-pagash-ti	'oto	'etmol			
	the-man	DEM-R	EL-met-1s	met	yesterday			
	'The man I met yesterday' (Givón 2009: 106)							

(49)	а.	Pàpá man 'the m	nó _{DEF} an I me	à NMLZ t yester	day'	mè-hy 1SG-me		nò him	énŕ!á yestero	day	nó DEF
	b.	DèÈ NM 'the or	mè-hy 1SG-me ne I met	eet	nó him day'	έnŕ!á yester	day	nó DEF			
	C.	Pàpá man 'the m	nó, _{DEF} an, the	dèÈ NM one l m	mè-hy 1SG-me iet yeste	eet	nó him ,	έnŕ!á yester	day	nó DEF	
	d.	?Pàpá	nó	dèè	mè-hy	íâ	nó	έnŕ!á		nó	

man DEF NM 1SG-meet him yesterday DEF 'the man that I met yesterday...'

(49c) and (49d) have the following structure, the difference being that the argument nominalization in (49c) is referential while that in (49d) is not:

[[Papa no]_{NP} [dèè mèhyíâ nò énŕ!á nó] _{NMLZ}]_{NP}

The construction in (49d), where an argument nominalization that has NP use is used to modify a noun, parallels constructions in other languages that have been analyzed as relative clauses. Sentence (2) above from Newari and (50a) and (50b) from Chinese are some examples. In (50a), the bracketed constituent is an argument nominalization in direct object position. In (50b), it is a modifier.

(50)	a.	nĭ	méi	yŏu	[wŏ	xĭhūan]	de
		you	not	have	I	like		NMZ
		'You d	on't ha	ve what	I like.'	Shibata	ni (200	9: 189)
	b.	you	not	have	I	like	NMZ	chènshān shirt (2009: 189)

Based on the crosslinguistic pattern observed by Aristar (1991), where genitive and relative constructions are marked identically, the connection established between possessive $d\dot{e}\dot{\epsilon}$ and "relative clause without complementizer" $d\dot{e}\dot{\epsilon}$, is not far-fetched in spite of their differing tones. While it is likely that the historical origin of these particles is exactly as Saah posits, it is untenable to apply such an analysis synchronically to possessive $d\dot{e}\dot{\epsilon}$. That native speakers are oblivious to the morphological make-up of these particles is evident in the interchangeablility of $d\dot{e}\dot{\epsilon}$ and $n\dot{e}\dot{a}$ for all nouns, even though the proposed etymology imposes animacy constraints. Saah's examples appear to suggest that while both $de\epsilon$ and $n\dot{e}\dot{a}$ may be used for non-humans as in (12). This is not so for many native speakers of Akan, who regularly produce utterances like that in (51) where $d\dot{e}\dot{\epsilon}$ refers to a human. There are, however, speakers for whom only $n\dot{e}\dot{a}$ will be acceptable in this sentence.

(51)	Mè-bá	né	nèà/dèÈ	ò-bá-à	há	nó
	1SG-child	be	NM	3SG-come-PST	here	DEF
	'My child is th	ne one v	who came here	e.'		

The patterns of acceptability suggest that the grammaticalization process is still on-going. A section of speakers still preserves the human/non-human distinction of the lexical items that gave rise to the particles, while for others this semantic distinction has been lost. Furthermore, these particles can be used even when the noun in question is an intangible entity, neither a person

nor a thing, as in (52) below. Although nominalization markers better reflect the roles of $d\hat{e}\hat{\epsilon}$ and $n\hat{e}\hat{a}$ across the various uses, in abandoning the term 'relative pronoun', the animacy requirements that inform the choice between $d\hat{e}\hat{\epsilon}$ and $n\hat{e}\hat{a}$ for some speakers is backgrounded. Despite this loss, the novel term brings the added value of making obvious the functional commonalities of the particles across the various structures.

(52)	Mè-pÈ	nèà/dèè	w'á-yέ	wò	tí	nó			
	1SG-like	NM	2SG.PERF-do	2SG	head	DEF			
	'I like what you've done to your hair.'								

In addition, it is possible in Akan to have a head noun which literally means 'thing' or 'person', as in the following two examples, the latter of which is taken from the Asante-Twi Bible:

(53)	Àdéé thing 'Here	nó _{DEF} is the tl	à NMZ hing tha	mè-tô 1SG-bu It I boug	IY-PST	nó DEF	níé here			
(54)	Na and wɔ be.loc 'And t	ated	n INDEF hว there	son the	a NMLZ re who		ome.from e of the Phari	Farisi-foo Pharisee-AG sees.'	no DEF	mu inside

In this section, it has been shown that in Akan, the particle $d\dot{e}\dot{\epsilon}$ in the genitive and $d\dot{e}\dot{\epsilon}$ in the "headless relative" both carry out the same function of marking NP use of nominalizations. The former is used for N-based argument nominalizations while the latter is used for V-based argument nominalizations. There appears to be a change in progress where the V-based argument nominalization is being employed to modify nouns, most likely via a paratactic route as has been reported by Givón (2009) for Hebrew. In the following section, the modification use of argument nominalizations will be examined.

5.2 Argument nominalizations in modification function (aka headed relative clauses)

By far the most frequently used and accepted marker of the modification use of V-based argument nominalizations is \dot{aa} .

(55)	Mè-hù-ù	pàpá	nó	áà	mààmé		nó	bź-żέ		
	1SG-see-PST	man	DEF	NMLZ	woman		DEF	hit-PST		
	'I saw the ma	n whom	n the wo	oman hi	it.'					
(56)	Mè-hù-ù	pàpá	bí		áà	ò-hγέ		!kyέ		
	1SG-see-PST	man	INDEF		NMLZ	3SG-we	ar	hat		
	'I saw a man who was wearing a hat.'									

Just as the argument nominalization marked by $d\dot{\epsilon}$ usually ends in a determiner, so too that marked by \dot{aa} also ends in a determiner. The final determiner may either be *no*, the distal definite article (distal demonstrative determiner in Amfo's (2007) terms), or *yi*, the proximal definite article (Amfo's proximal demonstrative determiner). So far, we have seen only examples of argument nominalizations bounded finally by the distal determiner, *no*. In (57) we see the use of the proximal demonstrative determiner, *yi*.

(57)	abofrá	i yi	áà	Kofi	re-soma	no	yi	ε-n-nyέ
	child	DEF	NMLZ	К.	PROG-send	3SG	DEF	3SG-NEG-be-good
	'This c	hild wh	om Kofi is send	ling (on	an errand) is n	ot good	l.' (Saal	h 2010:96; my glosses)

Amfo (2007: 146) states that *no*, in addition to its function as a definite article, is also used to mark dependent clauses, where it may occur in a relative clause, mark a clause as temporal, or mark a clause as a substitutive construction. Using Gundel et al's (1993) Givenness Hierarchy as a point of departure, the distal demonstrative determiner is said to code a noun phrase as 'uniquely identifiable' or 'familiar' in all its contexts of use. Its use as a spatial deictic indicating distance from the deictic centre depends on context. Its counterpart, *yi*, also carries out the same dependent clause functions but indicates proximity of the NP referent to the deictic centre. So, in (57) above, the use of *yi* indicates that the child is spatially close to the speech participants.

I take the use of a final determiner, be it distal or proximal, to be evidence that the relative clause is not a clause; its function is not to predicate, i.e., to attribute some property to an argument, but rather to evoke a discourse entity which is co-referential with the head nominal by characterising that entity's involvement in an event or activity that is familiar to the listener. Entity denotation is done via nominals or nominalization (here, nominalization), and this nominalization aids in the picking out of some referent from among the set of denotations encoded by the head nominal. This is a modification function, and the determiner after the argument nominalization indicates that the event that aids the addressee to pick out the specific referent has been nominalized.

The pronominal in the argument nominalization is co-referential with the argument that is nominalized. The particle $\dot{\alpha}\dot{\alpha}$ serves as a cue that what follows is a nominalization. The determiner at the end confirms that what precedes it is a nominal. It is not surprising, therefore, that where the argument nominalization occurs with a determiner, it should be identical to the determiner that modifies the head noun. This is because it is the same referent that is activated in the speaker's mind when both the head noun and the argument nominalization are produced together. The use of a determiner to signal some form of nominalization of a clause has been noted by Andrews (2007: 232). He observes that in Lakhota, the relative clause is marked by a determiner, which is indicative of nominal status.

My view about the final determiner differs from Saah's in another respect. While Saah believes that the determiner modifies the entire noun phrase complex including the head nominal, I believe that its scope is restricted to the argument nominalization only. This is for the simple reason that the head nominal often bears its own determiner. In addition, the argument nominalization marked by $d\hat{e}\hat{e}$ also ends in a determiner when it is used as an NP, indicating that

argument nominalizations by themselves are modified by a determiner in Akan. A structural analogy to the head noun and its modifying argument nominalization is the following paratactic construction:

(58) Shwè sàá pàpá nó, kèséé nó look that man DEF big DEF 'Look at that man, the big one.'

In (58), $k\dot{e}s\dot{e}\dot{e}$ 'big', which is an adjective (Cf. $p\dot{a}p\dot{a}$ $k\dot{e}s\dot{e}\dot{e}$ $n\dot{o}$ 'the big man'), takes on a referential function when it occurs with a determiner. The phrase $k\dot{e}s\dot{e}\dot{e}$ $n\dot{o}$ 'the big one' is a lexical argument nominalization that is juxtaposed with the sentence and serves to modify the referent of $p\dot{a}p\dot{a}$ $n\dot{o}$ 'the man'. In a similar way, the nominalization marked by $\dot{a}\dot{a}$ is a modification use of a grammatical argument nominalization. The difference is that (58) is an adjective-based lexical argument nominalization while the $\dot{a}\dot{a}$ -marked nominalization is a verb-based grammatical argument nominalization. Another important difference is the requirement that there be an intonational pause between the noun and the modifier in (58) whereas no such requirement exists for relative constructions. An anonymous reviewer wondered whether it was possible to have a noun with a determiner being restrictively modified by another noun with its own determiner. Such a noun phrase would present a structural parallel to relative constructions at the lexical level. Although this is not possible in Akan, it nevertheless does not indicate that it is not possible at the level of grammatical nominalizations.

Sometimes the argument nominalization marked by \dot{aa} occurs without any sort of determiner, as in (59a). This normally happens when the head noun takes the indefinite, specific determiner *bi*. The bare argument nominalization as it were is not unexpected since in Akan nominals do occur in bare form to indicate indefiniteness and non-specificity. Use of a final determiner when the head noun is modified by *bi* renders the utterance somewhere between unacceptable and marginally acceptable to native speakers, as (59b) illustrates.

(59)	a.	mààmé		bí		à		ò-tớỳ	àǹkàá	bà-à
	woma há here 'A cer				INDEF		here '	3SG-sellorange come		PST
				0 30113 0	langes	canici	iere.			
	b.	?mààmé woman	bí	INDEF	à	ò-tóỳ NMLZ	3SG-sel	àǹkàá nó/bí Iorange DEF/INI	DEF	
		bà-à come-PST 'A certain wor	há here man wh	o sells o	ranges	came h				

Another type of relative construction that disallows a final determiner is when there is extraposition, as in the following biblical text in (60a), taken from Saah (2010: 102). In this type the final determiner *cannot* occur with any degree of acceptability (60b).

(60)	a.	obarímá	bí	tená-a	ase	áà	ne	díń
		man	INDEF	sit-PST	under	NMLZ	3SG.POSS	name
		de	Nyamékyε					
		be.called	Ν.					
		'There lived a	man whose na	me was	Nyame	kye.' (S	aah 2010: 102)
	س				~~			

b.	*obarímá	i bí	tená-a	ase	áà	ne	díń
	man	INDEF	sit-PST	under	NMLZ	3SG.POSS	name
	de		Nyamékyɛ	no/bi			
	be.calle	d	N.	DEF/IND	DEF		
	'There l	ived a n	han whose nam	ne was N	Nyamek	xye.'	

It makes sense that when the head nominal is marked by *bi*, there is no determiner after the relative clause. Since the speaker is assuming the head nominal to be unknown to the listener, the modifying information is also not likely to be known by the listener. The use of bare nominals in this context is therefore fitting to mark the indefiniteness and non-specificity of the referent to the addressee.

McCracken's (2013) study of determiner use in relative constructions which was mentioned earlier in §2.1 focused on the definite article *no* and found that it was missing in about half of the relative constructions in her data. The presence or absence of *no* was dependent on the topic-worthiness of the head noun a well as the distance between the clause and the head noun. Relative constructions modifying highly topic-worthy (i.e. human, definite) head nouns tend to occur with *no* while relative constructions that are relatively distant from their head nouns tend not to occur with *no*.

In another kind of relative construction, there is no verb at all in the modifying constituent. Such constructions consist of a noun phrase made up of a possessor, possessum and an adjective or noun which modifies the possessum. The following example from Amfo (2007:145) illustrates this.

(61)	a.	Àbòfrá yí child PDD tèná-è	né CONJ	àberèwá old.lady	á REL	nè POSS	hó skin	hkòhkònéné algae	yí PDD
		stay-COMPL 'This child sta	yed wit	h this algae infe	ested ol	d lady.'	(Amfo	2007: 145)	

Although in (61a) \dot{a} is glossed as REL, implying that what follows it is a relative clause, it is clear that the phrase $n\dot{e} h\dot{o} h\dot{k}\dot{o}h\dot{e}h\dot{e}$ 'her algae-infested skin' is a noun phrase. The noun phrase marked by the nominalizer \dot{a} may be replaced by a grammatical argument nominalization as in (61b).

(61) Àbòfrá yí àberèwá *hkòhkònéné* b. né á nè hó yέ child old.lady skin PDD CONJ NMLZ POSS do algae ví tèná-è stay-PST PDD 'This child stayed with this algae infested old lady.'

The existence of constructions of the kind found in (61a) reinforces the point that $\dot{a}\dot{a}$ does not mark clauses.

Note that the V-based argument nominalization marked by $\dot{a}\dot{a}$ cannot be used as an NP. The following is ungrammatical:

(62)	*Mè-dè	bé-má	[áà	mè-pέ	n'ǎ!sɛ́m]
	1SG-take	FUT-give	NMLZ	1SG-like3SG.P	oss.matter
	'I'll give it to the one I like.'				

Lehmann (1986: 672) contrasts prenominal relative constructions with postnominal ones. He observes that prenominal relative clauses tend to be the most strongly nominalized, with features such as genitive-marked subjects, nominalising affixes and constraints on TAM marking. Such relative clauses behave just like attributes would in the language. Examples of languages with prenominal relative clauses are Turkish, Quechua and Dravidian. Givón (2001: 26) refers to such languages as extreme nominalising (embedding) languages and adds accusative marking of the entire clause to the list of features of nominalization. Postnominal relative clauses, on the other hand, tend to be weakly or moderately nominalized, displaying only one of the three features just mentioned or some other external syntactic nominal feature (Lehmann 1986). Internally they may possess all TAM marking abilities but lack an argument, or in the case of Akan lack the ability to take two full NPs. Based on these points of reference, Akan could be classified as a moderately nominalising language.

6. Summary and conclusion

It has been shown that so-called relative clauses in Akan are juxtapositions of a head nominal and a verb-based argument nominalization. Subject relativization is juxtaposition of a head nominal and a subject argument nominalization. Object relativization is juxtaposition of a head nominal and an object argument nominalization etc. These argument nominalizations are marked either by \dot{aa} or $de\dot{\epsilon}$. The use of the latter is restricted to a few speakers whose sociolinguistic characteristics are yet to be determined. "Relative clauses without overt complementizers" or "headless relatives", marked by $de\dot{\epsilon}$, have also been shown to be verb-based argument nominalizations being used as NPs. A similar marker, $de\dot{\epsilon}$ is employed to mark NP use of noun-based nominalizations, commonly known as "headless genitives".

In this paper I have given an account of relative constructions in Akan based on Shibatani (2009, 2019) that takes into account the function of these constructions, recognises the polysemous

nature of the particles involved and tries to give a unified formal and functional account of the structures and morphemes that exhibit formal similarities. It has been shown that the very term 'relative clause' is anomalous and that these constructions are nominalizations, as evidenced by their modification by a determiner. Another piece of evidence that the structures concerned are nominalizations is their ability to function as subjects and objects in sentences.

Perhaps one reason for the assumption that argument nominalizations such as those in Akan and English are clauses or sentences is the lack of a universally applicable definition of these common grammatical terms. Such a cross-linguistic characterisation has been given by Shibatani (2009, 2019) in terms of the functions of these constituents; the speech acts they perform. Clauses predicate and sentences perform speech acts such as assertion, questioning etc. None of these functions is performed by the grammatical nominalizations in Akan. On the other hand, what these nominalizations do is refer to or denote some entity or event by characterising it in terms of an event or state of affairs related to the entity or event. The presence of tense and aspect markers on the verbs in these nominalizations is not indicative that they are clauses or sentences. Nominalized clauses may bear full TAM marking, that is, they may contain finite verbs, because as Shibatani (2009: 195) notes, formal finiteness features do not necessarily mean that a construction can predicate or assert. Like all categories that are meant to be applied cross-linguistically, a functional definition is more useful than a formal one since form differs from language to language.

Analytically, what this nominalization account of relative clauses and genitives in Akan and other languages such as Ga reveals is that the salience of reference and denotation as a means of facilitating the expression of ideas or propositions in human language is much more important than has been recognised. While others have noticed and proffered explanations for the similarity in morphological marking across these different structures, their analysis has been based primarily on historical morpho-syntactic relationships and development of shared morphemes. While that is certainly significant, the nominalization analysis recognises a functional commonality among these constructions, that is, their use of larger grammatical structures for the functions of reference and modification. An analysis that views these as the differing syntactic structures of relative clauses and genitives misses this association.

The data in other Kwa languages await a more thorough analysis against the backdrop of what is known about nominalizations and their relationship with relativization and genitivization. This could potentially reveal previously overlooked functional relationships between formally similar structures and inform a better synchronic and diachronic view of relative constructions and their development. It was seen earlier in the paper that a final determiner seemed to be the norm in relative constructions in Kwa. And we have seen structures in Yoruba that look and function very much like nominalizations. The exotic-looking factive constructions of Yoruba and Gungbe are possibly event nominalizations, but this requires more investigation. It is hoped that this work has brought to the fore the significance of approaching syntactic analysis with an increased focus on function rather than form, and that it will encourage a re-examination of relative constructions in these and other languages.

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Abbreviations

1	first person	IP	inflectional phrase
2	second person	ITI	itive
3	third person	LOC	locative
AG	agentive	Μ	masculine
BGL	Bureau of Ghana Languages	NEG	negative
С	complementizer	NM	nominalization marker
CD	clause final determiner	NMLZ/NMZ	nominalizer
COMP	complementizer	NP	noun phrase
COMPL	completive	NUM	number
CP	complementizer phrase	OBJ	object
CTM	contrastive topic marker	PART	partitive
DEF	definite	PDD	proximal demonstrative determiner
DEM	demonstrative	PERF	perfect
DET	determiner	PFV	perfective
FOC	focus	PL	plural
GEN	genitive	POSS	possessive
ERG	ergative	PRES	present
FUT	future	PROG	progressive
HAB	habitual	PST	past
IMPERS	impersonal pronoun	REL	relativizer
INAN	inanimate	S	singular
INANIM	inanimate	SG	singular
INDEF	indefinite		

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