

LEXICAL AND CLAUSAL NOMINALIZATION IN ESAHIE: A DESCRIPTIVE ACCOUNT

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Abstract

This paper provides an overview of lexical and clausal nominalization in Esahie, a relatively under-described and undocumented Kwa language. We show that in Esahie, lexical nominalizations lose all verbal properties whilst clausal nominalizations retain certain verbal features. Overall, nominalization in Esahie is typically a case of lexical rather than clausal nominalization. Lexical nominalizations in Esahie may take the form of simple affixation, parasyntesis or compounding. We also provide further empirical support against Aronoff's (1976) Unitary Base Hypothesis and show that certain inflectional operators in Esahie belong to the group of *word-class-changing* inflectional markers (cf. Haspelmath 1996; Bauer 2004). Data used in this work emanates from a series of fieldworks conducted in the Western-North region of Ghana, and the argumentation approach adopted is descriptive.

Keywords: lexical nominalization, clausal nominalization, word-class-changing inflection, compounding, parasyntesis

1. Introduction¹

Although word formation in West African languages remains a fairly unexplored area, nominalization, as a word formation process, has received quite an appreciable attention. Various issues regarding the form and function of nominalizations in West African languages have been discussed from different empirical and theoretical perspectives, among others Akan (cf. Obeng-Gyasi 1981; Appah 2005; Kambon 2012; Adomako 2012), Ewe (cf. Ofori 2002; Ameka 2006), Lelemi (Boamah 2016), Wan (Nikitina 2009), Edo (cf. Adéníyì 2010), Tee (cf. Anyanwu and Omego 2015), Mabia (cf. Bodomo & Oostendorp 1993, Bodomo 2004, Hiraiwa & Bodomo 2008, Abubakari 2011; Bodomo et al. 2018).

Despite the considerable attention given to the subject in the literature, nominalization in Esahie has yet to be described. Indeed, the nominal morphology of Esahie in general, remains highly unexplored, hence, the need for the present work. This paper, therefore, seeks to describe and provide an overview of two types of nominalizations in Esahie, namely lexical and clausal nominalizations. Since the input for a nominalization operation may be either a lexical item or a clausal structure, our classification of nominalization into lexical and/or clausal, first considers the syntactic structure of the input (be it a word, a phrase, or a clause).

Our first goal is to define nominalization in Esahie based on the properties of the input element. Call this the 'input parameter'. To this extent, we examine the formal properties of the input and the syntactic scope of the nominalization operation. Beyond the input parameter, our treatment and classification of nominalizations also takes into account the internal syntax of the output, that is, whether the nominalization behaves like a noun/determiner phrase (NP/DP) or a verb/tense phrase (VP/TP or a clause). Call this the 'output parameter'. The second goal of this paper, therefore, is to ascertain the extent to which the internal syntax of Esahie nominalizations are NP-like, VP-like, like a hybrid category of both or like neither. The motivation for this second parameter is premised on the observation that nominalizations have been noted to occupy an intermediate position between verbal and nominal categories since

1 I would like to thank the Editor (and the editorial team) of JWAL as well as three anonymous reviewers for their insightful feedback on an earlier version of this paper that has impacted greatly on the paper. I am solely responsible for any remaining shortcomings.

they tend to exhibit syntactic characteristics of both clauses and underived NPs (cf. Comrie 1976, Koptjevskaja-Tamm 1993; 2003; 2005, Comrie and Thompson 2007). We hope to bring an Esahie (Kwa) perspective to this matter. Beyond formal properties, we also attempt to distinguish various categories of nominalizations based on the semantic properties of output nominalization.

Admittedly, our two-tiered classification of Esahie nominalizations, based on input vs. (internal syntax of) output parameters, has a potential of yielding conflicting classifications in some instances. This implies that, what might be classified based on the input unit as a case of clausal nominalization, might as well be classified as a case of lexical nominalization based on the internal syntax of the output nominalization. As we shall see (in section 4.1), this is particularly the case for *nominalized clauses* in Esahie, which would have been earlier analyzed as cases of lexical nominalizations. It is our hope, however, that this blend in classification will enhance our understanding of nominalization in Esahie.

The rest of the paper is organized as follows: Section 1.1 provides an overview of the grammar of Esahie whilst Section 2 discusses pertinent issues in the study of nominalization such as the trans-categorical status of nominalizations as well as the typology of nominalization operations. Section 3 is dedicated to discussing the form and function of various kinds of lexical nominalizations in Esahie including *personal and participant* nominalizations, *instrumental* nominalizations, *locative* nominalizations, *result* nominalizations, *reason* nominalizations, and *abstract* nominalizations. In Section 4, we discuss genitivization and relativization as instances of *clausal nominalization* in Esahie. We then introduce Ouhalla's (2004) relativizer typology and proceed to show how Esahie fits into this typology. A conclusion of the paper is provided in Section 5.

1.1. Some background/typological features of Esahie

Esahie (ISO 639-3: *sfiw*) is a Central-Tano (Niger-Congo/Kwa) language spoken by the Sehwi people who live in Ghana, and parts of the Ivory Coast. Alternatively referred to as Asahyue, Sanvi, Sefwi or Sehwi, Esahie is highly undocumented.

Like other Kwa languages (cf. Aboh and Essegbey 2010), Esahie is a strictly SVO language. In a simple transitive clause, the agent precedes the verb and the patient follows the verb. The subject of an intransitive clause also precedes the verb, as exemplified in (1).

- (1) a. *Ama po-le ataadeɛ ne*
 Ama wash-PAST dress DEF
 'Ama washed the dress.'
- b. *Ama sũ-ne*
 Ama cry-PAST
 'Ama cried.'

Esahie is isolating in terms of morphological typology (cf. Broohm 2017; Broohm and Rabanus 2018). As such, nouns are not marked for case, but only for number. Thus, grammatical relations are encoded structurally via constituent order as shown in examples (1 & 2).

- (2) a. *kyía a-hye e-bote* b. *ebote a-hye kyía*
 dog PERF-catch SG-rabbit rabbit PERF-catch dog
 'A dog has caught a rabbit' 'A rabbit has caught a dog'
- (Broohm & Rabanus 2018: 102)

Esahie is a tonal language with two basic contrastive tones: a high tone (relatively high pitch) marked with an acute accent, as in (*á*), and a low tone (relatively low pitch) marked with a grave accent, as in (*à*). Tone plays both grammatical and lexical roles in Esahie (cf. Frimpong 2009). This means that tone is used contrastively to bring about differences in meaning between two or more otherwise identical words. This explains why the form *bo* has two potential meanings, depending on the tone it bears. It can either be produced with a high pitch, as in (3a), or a low pitch, as in (3b), to convey different meanings. Similarly, depending on its tonal melody, the form *gye* has different meanings in (3c) and (3d). Thus, the meaning of a phonological word in Esahie is not only a function of the sound segments, but also of the pitch patterns associated with them.

- (3) a. *bó* 'to beat'
 b. *bò* 'buttocks'
 c. *gyé* 'to defecate'
 d. *gyè* 'tooth'

2. On Nominalization

Nominalization has generally been understood as the process of deriving nouns or nominal expressions (Comrie & Thompson 2007). The input for this kind of derivation ranges from lexical units like verbs (e.g. play > player) and adjectives (e.g. sad > sadness), to clausal units (e.g. transform the economy > (the) transformation of the economy). The former has been referred to as *lexical nominalization* and the latter as *clausal nominalization* (see section 2.1 for more on this distinction).

Cross-linguistically, the range of strategies and devices employed for the purposes of nominalization are numerous and varied. They include the attachment of a nominalizing derivational affix, modification via an article, the attachment of (nominal) inflectional affixes, the use of an *of*-phrase, as well as the use of a possessive construction (Comrie & Thompson 2007; Koptjevskaja-Tamm 1993, 2003; Malchukov 2006). Moreover, in languages with no dedicated nominalizer(s), other categories such as classifiers, demonstrative and definiteness markers, possessive pronouns and alignment morphology (i.e. case marking) may be employed to signal the nominal status of a word or construction. This raises an interesting question: should such noun phrase modifiers and markers be considered as nominalizers?

As earlier hinted, nominalizations tend to show (mixed) properties of both nominal and predicative (either verbal or adjectival) elements and consequently exhibit some form of ambivalence as far as categorial status is concerned (cf. Alexiadou and Rathert 2010, Roy and Soare 2011). To date, the trans-categorial status of nominalizations still presents an interesting challenge to standard syntactic and morphological theories.

In accounting for this ambivalence, linguists, syntacticians and morphologists especially, have been interested in questions and puzzles concerning the properties of nominalizations. These questions include, one, are nominalization patterns grammatical-role driven or thematic-role driven (cf. Rappaport 1983; Giorgi 1991; Hoekstra 1986; Rozwadowska 1988)? Two, what are the syntactic functions of nominalizations (cf. Lehmann 1984)? Three, what are the attested syntactic types of nominalizations based on argument structure and other diagnostics (cf. Grimshaw 1990; Rappaport Hovav and Levin 1992; Comrie and Thompson 2007)? Four, what are the types of arguments that can occur or must occur to evoke a particular reading, as well as the type of verbs that are allowed in one configuration or the other, among other things, and five, what are the attested syntactic types of nominalizations based on underlying syntactic structures and derivations (Alexiadou 2001; Harley 2009; Borer 2013)? Six, to what extent is the internal syntax of nominalizations either

NP/DP-like or VP/TP-like, a hybrid category or like neither (cf. Koptjevskaja-Tamm 1993/2005; Comrie 1976/2011; Bekaert and Enghels 2017)? The scope of the data available and the descriptive approach adopted in this work will not permit us to investigate all the issues raised. However, we hope to, at least, attempt to address questions two and six. Question six, for instance, relates to the second goal of the paper.

2.1. Lexical versus clausal nominalization

In most languages, lexical nominalization is usually a deverbalization process, since input elements for nominalization operations are typically verbs. Nouns and adjectives may also serve as input elements for (further) nominalization operations. The resultant nominal may simply name the activity or state designated by the lexical input or represent one of its arguments. One could, therefore, distinguish between several such nouns: names of activities or states (i.e. action nominals), on the one hand, and names of arguments (event participants, i.e. agentive nouns, instrumental nouns, manner nouns, locative nouns, result nouns, reason nouns, etc.), on the other hand (cf. Comrie and Thompson 2007). As we shall see (in Section 3), the difference between action nominals and event participant nominals is that the former typically retain some verbal or adjectival properties, whilst the latter “typically behave syntactically like other nouns in the language, bearing only morphological and (often unpredictable and idiosyncratic) semantic relations to the associated verb or adjective” (Comrie and Thompson 2007: 334). We do not discuss action nominalization here because it has been discussed elsewhere (cf. Broohm & Melloni *forthcoming*). Instead, our discussion of lexical nominalization will focus on names of event participants such as agentive nouns, instrumental nouns, manner nouns, locative nouns, result nouns, reason nouns, etc.).

As far as clause-based nominalizations are concerned, two distinct sets of nominalization constructions can be distinguished, namely “nominalized clauses” and “clausal nominalizations” (cf. Post 2011, Yap et. al 2011). The former displays the syntax of a noun phrase, and typically express event nominalizations, noun complements and relative clause constructions. The latter resemble predicative clauses in that they have the tendency to retain certain verbal features such as tense-aspect-mood marking. Clausal nominalizations frequently occur as subordinate clause constructions playing framing and backgrounding functions (Post 2011). As we shall see (in Section 4), clause-based nominalizations in Esahie typically resemble nominalized clauses.

In what follows, we discuss the form and function of lexical and clausal nominalizations in Esahie. We begin with lexical nominalizations (in Section 3) and proceed to discuss clausal nominalizations (in Section 4).

3. Lexical nominalization in Esahie

In this section, we discuss various semantic types of nominalizations whose input unit is a lexical item. Input elements for lexical nominalization operations in Esahie are typically verbs as in (6), but may also be nouns and adjectives, as in (7) and (28d), respectively. The classes of lexical nominalization discussed here include *personal/participant* nominalizations (section 3.1), *instrumental* nominalizations (section 3.2), *locative* nominalizations (section 3.3), *result* nominalization (section 3.4), *reason* nominalizations (section 3.5) and *abstract* nominalizations (section 3.6).

3.1. Personal/participant nominalization

Personal and participant nominalization is used as a cover term for all kinds of nominalizations, including nouns denoting agents, patients, themes, and inhabitants.

Following the traditional nomenclature (cf. Payne 1997; Appah 2003; Comrie and Thompson 2007; Bauer et al. 2013), we collectively refer to (and gloss) such nominalizations as P/P nominalizations (NMLZ_{P/P}). Agent and patient nominalizations appear to be the most typical cases of such nominalizations. This explains why some languages have productive processes whereby action and state verbs can be turned into nouns meaning ‘one who/which performs the action/state designated by the (input) verb’. We will refer to this process by the traditional label ‘agentive nominalization’ (cf. Kiparsky 2017; Bresnan & Mugane 2006) even though, strictly speaking, the noun need not be in an ‘agent’ relationship with the verb from which it is derived. In Ewe, for example, the suffix **-lá** derives nouns meaning ‘one which/who performs the action designated in the verb’ from both agentive and non-agentive verbs:

	<u>Input</u>	<u>Output</u>
(4) a.	xɔ ‘to get’	xɔ-lá get-NMLZ _{P/P} ‘redeemer/savior’
b.	ɔ ‘to love’	ɔ-lá love-NMLZ _{P/P} ‘lover’

(Ofori 2002: 185)

The Ewe suffix [-tʰ], on the other hand, attaches to nominal stems to derive nouns with the general meaning ‘one who exhibits or has the property designated in the noun.’ As shown in (5), nouns derived via this operator are not always agentive. Let us examine the following.

(5)	gà money	gà-tʰ money-NMLZ _{P/P} ‘rich person [lit. one who owns money]’
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(Ofori 2002: 183)

For the general derivation of deverbal nominalizations in Esahie, the suffixes [-niɛ] and [-foɛ], which roughly correspond to the English P/P nominalizers **-er**, **-ee**, **-ist**, **-ant** and the Ewe **-lá** and **-tʰ** nominalizers, are highly productive. The derivational operators [-niɛ] and [-foɛ] may attach to verbal stems, although they typically select nominal stems, and generally derive (P/P) nominalizations. These operators are inherently marked for number and constitute a singular-plural pair of operators. Hence, they are in a sort of morpho-syntactically conditioned complementary distribution (i.e. based on NUMBER). Whilst the operator **-niɛ** typically adds the ‘singular’ meaning to the form to which it attaches, **-foɛ**, on the other hand, typically adds a ‘plural’ meaning to the form to which it attaches. It is instructive to note, however, that while this number distinction is consistent across all uses of the singular suffix **-niɛ**, same cannot be said of the plural suffix **-foɛ**. As a result, the suffix **-foɛ** may also derive singular nouns in certain contexts.

For compounds and complex words in general, lexical bases are generally regarded in the literature as the selecting elements (i.e. heads). Selection controlled by the head has been labeled in the literature as *head selection*. Therefore, head selection invariably implies *lexical selection*. However, in word-syntactic (lexicalist) models, affixes have also been considered as heads, with a similar capacity for selection. In the literature, this has been labeled as *affixal selection* and has been acknowledged to account for the fact that the English prefix [in-] selects [+latinate] stems such as *inedible*, whilst the prefix [un-] selects [-latinate] bases such as *uneatable* (cf. Aronoff 1976; Bauer 1990). Unlike the English affixes [in-] and [un-], the Esahie operators [-niɛ] and [-foɛ], in terms of their selectional properties, appear to select the

same range of forms (i.e. nouns and verbs). An implication that follows from this is that one cannot predict which one of the operators attaches to one stem or the other. Their selection is based purely on the morpho-syntactic (i.e. number) context in which they are used. Let us consider the following examples.

	<u>Input</u>	<u>Output</u>
(6) a.	<i>ware</i> marry	<i>a-ware-niε</i> SG-marry-NMLZ _{P/P} 'one who is married/married person' ²
b.	<i>sũã</i> learn	<i>a-sũã-fuε</i> PL-learn-NMLZ _{P/P} 'students/disciples (one who learns)'
c.	<i>kyirε</i> teach	<i>kyirε-kyirε-niε</i> ³ RED ⁴ -teach-NMLZ _{P/P} 'teacher'
d.	<i>pata</i> 'to break a fight'	<i>pata-foε</i> break.a.fight-NMLZ _{P/P} 'one who intervenes to break a fight'

The examples in (6) are all instances of deverbal nominalizations derived via the attachment of the nominalizing suffixes,⁵ having the general meaning of 'one who performs/engages/is affected by the action designated by the verb' and, a few times, 'one who is in the state designated by the verb'. The forms in (6) constitute instances of 'agentive' nominalizations, in the sense indicated above. In (6b), for instance, the noun *asũãfuε* derives from the verb *sũã* 'to learn' through the attachment of the affix [-*fuε*] and has the meaning 'student/disciple (one who learns)'.

Given that the operators [-*niε*] and [-*foε*] can attach to both nominal and verbal stems, they constitute counterexamples to the *Unitary Base Hypothesis* (henceforth, UBH), which holds that "the syntacticosemantic specification of the base, though it may be more or less complex, is always unique. (cf. Aronoff 1976: 48). According to the Unitary Base Hypothesis [a] W[ord] F[ormation] R[ule] will never apply to either this or that" (Aronoff 1976: 48)." In essence, the UBH claims that we should never expect to find in a language a morpheme that attaches to bases of different syntactic categories. Put differently, the UBH stipulates that morphemes attach only to bases with a particular syntactic category, such that we should never expect to find in a language a morpheme that attaches to say both nouns and verbs or both verbs and adjectives. Hence, the nominalizing suffix [-*ness*] in English, for instance, is expected attach only to adjectival bases to derive nouns as *sadness* and *happiness* but not to nominal or verbal bases. Therefore, to the extent that the operators [-*niε*] and [-*foε*] in Esahie attach to both nominal and verbal bases, Aronoff's (1976) UBH does not hold for Esahie.

We now proceed to consider another kind of P/P nominalization. It is instructive to note that that most of the examples in (6) and those in (7) below appear to be borrowed from Akan.⁶ Unlike the examples in (6) whose inputs were verbs, the

2 The verb *marry* here is in its intransitive use, hence the possibility of dropping the internal argument.

3 The reduplication here appears to nominalize the verbal base.

4 Here, the meaning is sort of unaccusative since literally a cripple is one who is "broken" in the legs.

5 One may also argue the prefixes also play nominalizing roles but certainly does not contribute to the agentive meaning. This would also imply a pre-nominalization that turns the verbs into nominal bases.

6 The following are Esahie examples and the potential Akan source words.

<u>Akan</u>	<u>Esahie</u>	<u>Meaning</u>
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examples in 7(a-d) have nouns as their bases, implying that they are noun-based nominalizations. In terms of internal structure, the input elements for these nominalizations are simplex nouns. This word-formation phenomenon is reminiscent of the English word-formation process that derives *keyboardist* from *keyboard*, *bigamist* from *bigamy*, *decker* from *deck*, *Londoner* from *London*, and *potter* from *pot*. The Esahie forms *apaafɔɛ* ‘laborers’ and *kuanie* ‘farmer’ are derived from *paa* ‘labor’ and *kua* ‘farming’, respectively, via the attachment of [-*fɔɛ*] or [-*nie*].

	<u>Input</u>	<u>Output</u>
(7) a.	<i>paa</i> labor	<i>a-paa-fɔɛ</i> PL-labor-NMLZ _{P/P} ‘laborers’
b.	<i>kua</i> farming	<i>kua-nie</i> farming-NMLZ _{P/P} ‘farmer’
c.	<i>nworɛ</i> wisdom	<i>nworɛ-fɔɛ</i> wisdom-NMLZ _{P/P} ‘wise person’
d.	<i>ngɔmhyɛ</i> prophecy	<i>ngɔmhyɛ-nie</i> prophecy-NMLZ _{P/P} ‘one who prophesies/prophet’

Let us proceed to examine other examples of P/P nominalization in Esahie in (8). The bases for the nominalizations in (8) are all nouns, hence, these nominalizations are noun-based nominalizations formed via affixation. Semantically, they all have P/P readings.

	<u>Input</u>	<u>Output</u>
(8) a.	<i>awie</i> ‘theft’	<i>awie-nie</i> awie-NMLZ _{P/P} ‘thief’
b.	<i>agudi</i> ‘sports’	<i>agudi-nie</i> athletics-NMLZ _{P/P} ‘athlete/sportsperson’
d.	<i>nyaatwom</i> ‘hypocrisy’	<i>nyaatwom-fɔɛ</i> hypocrisy-NMLZ _{P/P} ‘hypocrites’
e.	<i>awue</i> ‘death’	<i>awu-fɔɛ</i> death-NMLZ _{P/P} ‘the dead/dead people’

<i>(o-)kuani</i>	<i>kuanie</i>	‘farmer’
<i>nkɔmhyɛni</i>	<i>ngɔmhyɛnie</i>	‘prophet’
<i>apaafɔɔ</i>	<i>apaafɔɛ</i>	‘laborers’
<i>ɔwarani</i>	<i>awarenie</i>	‘a married person’
<i>asuafoɔ</i>	<i>asuafoɛ</i>	‘disciple/student’

- | | | |
|----|---|--|
| f. | <i>ahyerε-le</i>
write-NMLZ
'writings' | <i>ahyerε-le⁷-fue</i>
writing-NMLZ _{E/R} -NMLZ _{P/P}
'writer/scribe' |
| g. | <i>kwata</i>
'leprosy' | <i>kwata-nie</i>
leprosy-NMLZ _{P/P}
'leper' |

The next class of P/P nominalizations that we consider are agentive nominalizations derived via compounding. To be precise, the pattern of nominalization exhibited in (9) conforms to the standard *synthetic compounding* pattern, like *truck-driver* in English. Having deverbal noun bases, these nominalizations are more complex in structure than the examples in (7-8) whose input elements were mostly simplex forms. This class of nominalization is productive in the morphological system of Esahie.

- | | | |
|-----|--|---|
| (9) | <u>Input (VP)</u> | <u>Output</u> |
| a. | <i>sesã sika</i>
change money
'to change money' | <i>sika-sesã-fue</i>
money-change-NMLZ _{P/P}
'money-changers' |
| b. | <i>si sua</i>
build house
'to build a house' | <i>sua-si-fue</i>
house-build-NMLZ _{P/P}
'builder(s)/mason(s)' |
| c. | <i>de etoɔ</i>
take tax
'to collect taxes' | <i>etoɔ-di~dé-le-nie</i>
tax-take-RED-NMLZ-NMLZ _{P/P}
'tax collector' |

3.2. Instrumental nominalization

In some languages, there is usually a morphological process for deriving nouns from verbs having a general meaning of 'an instrument used for performing the action designated by the verb'. In Akan, for instance, the multi-functional nominalizing suffix $[-(e)\epsilon]$, with the meaning 'used for the purpose of', is concatenated to the verb roots to form instrumental nominalizations, as shown in (10).

- | | | | | | | | | | | | |
|---------------------|--|---------------------|----------------------|----|---------------------------------|--|---|----|---------------------------------|--|--|
| (10) | Akan: | | | | | | | | | | |
| | <table border="0"> <tr> <td style="text-align: center;"><u>Input</u></td> <td style="text-align: center;"><u>Output</u></td> </tr> <tr> <td style="vertical-align: top;">a.</td> <td><i>sɔne</i>
'to sift'</td> </tr> <tr> <td></td> <td><i>sɔne-ε</i>
sift-NMLZ_{INST}
'colander'</td> </tr> <tr> <td style="vertical-align: top;">b.</td> <td><i>pra</i>
'to sweep'</td> </tr> <tr> <td></td> <td><i>pra-ε</i>
sweep-NMLZ_{INST}
'broom'</td> </tr> </table> | <u>Input</u> | <u>Output</u> | a. | <i>sɔne</i>
'to sift' | | <i>sɔne-ε</i>
sift-NMLZ _{INST}
'colander' | b. | <i>pra</i>
'to sweep' | | <i>pra-ε</i>
sweep-NMLZ _{INST}
'broom' |
| <u>Input</u> | <u>Output</u> | | | | | | | | | | |
| a. | <i>sɔne</i>
'to sift' | | | | | | | | | | |
| | <i>sɔne-ε</i>
sift-NMLZ _{INST}
'colander' | | | | | | | | | | |
| b. | <i>pra</i>
'to sweep' | | | | | | | | | | |
| | <i>pra-ε</i>
sweep-NMLZ _{INST}
'broom' | | | | | | | | | | |

⁷ The suffix *-le* which is a very productive nominalizing operator has three (phonologically-conditioned) allomorphs $[-n\epsilon]$, $[-r\epsilon]$ and $[-l\epsilon]$ (cf. Frimpong 2009; Broohm 2017; Broohm 2019). The variant $[-n\epsilon]$, for instance, is used in contexts where the final vowel of the base to which the affix is attached is a nasal or nasalized.

Similarly, in English, such instrumental nouns may be derived from verbs and adjectives via various morphological operators. Let us examine the examples below in (11) with the suffixes *-er* and *-ant*.

(11) English:

	<u>Affix</u>	<u>Input</u>	<u>Output</u>
a.	<i>-ant</i>	seal	sealant
b.	<i>-ant</i>	cool	cooler
c.	<i>-er</i>	mow	mower

In other languages, instrumental nominalizations may also take the form of a compounding operation, as in Romance languages where instrument nouns are often formed via V+N compounding (e.g. Italian. *apribottiglie* ‘open-bottle(s), bottle opener’).

In Esahie, instrumental nouns can be derived parasynthetically via the attachment of the operator [*n-*] and [*-lee*] as in (12), or via compounding as in (13).

(12) Affixation

<i>za</i>	<i>n-za-lee</i>
‘to hang’	PL-hang-NMLZ _{INST}
	‘a stick used to stake yam plant [so that it climbs around]’

(13) [V-N]_N compounding

a.	<i>songyi</i>	<i>turoo</i>
	sieve	soup
	‘colander (an item used to sieve soup)’	
b.	<i>sesa</i>	<i>wura</i>
	pick	rubbish
	‘dustpan (a flat container with a handle into which you brush dust and dirt)’	

[N-N]_N compounding

c.	<i>bangu</i>	<i>bakaa</i>
	banku	stick
	‘a stick used for preparing <i>banku</i> (a dough meal).’	

The instrumental nominalization *nzalee* ‘a plant-staking stick’ in (12), derived from the verb *za* ‘to hang’, has a parasynthetic structure with the input verb prefixed with an inflectional prefix [*n-*] and simultaneously suffixed with a derivational operator [*-lee*]. The nominalizations in (13a-b) take the form of V-N compounding whilst that of (13c) takes the form of N-N compounding. In the Esahie V-N formations, the N is the direct argument (or complement) of the V and bears a Theme/Patient role. The V-N compounds in (13a-b) are formally and semantically exocentric. As a result, none of the compounds is a hyponym of either of the elements from which they are formed. The instrumental compound *songyi-turoo* [sieve-soup] ‘colander’, for instance, is neither a type of *songyi* ‘sieve’ nor a type of *turoo* ‘soup.’ The semantic exocentricity of the compounds in 13(a-b) stems from the fact that their meanings are a bit lexicalized.⁸ The N-N compound *bangu-bakaa* [banku-stick] ‘a stick used for preparing banku’ in 13(c), on the contrary, is both formally and semantically endocentric. Therefore, the whole compound is a hyponym of its right-hand member *bakaa* ‘stick’.

8 The compounds are semantically exocentric because the instrumental meaning they bear is not formally represented in their internal structure.

3.3. Locative nominalization

Some languages have devices for deriving from verbs nouns that mean ‘a place where an event happens’. Many Ghana-Togo-Mountain languages have such devices. In Lelemi, for instance, locative nominals are derived parasynthetically via the attachment of the noun class prefix [*ká-*] and a locative suffix [*-nkɔ̀*] (cf. Boamah 2016).

- (14) a. *ká-nĩ-nkɔ̀* c. *ká-wã-nkɔ̀*
 CM-drink-NMLZ_{LOC} CM-cook-NMLZ_{LOC}
 ‘drink spot/pub’ ‘kitchen’
 b. *ká-nĩ-nkɔ̀* d. *ká-tẽ-nkɔ̀*
 CM-urinate-NMLZ_{LOC} CM-sleep-NMLZ_{LOC}
 ‘urinal’ ‘bedroom’ (cf. Boamah 2016: 44)

The locative suffix in Esahie is [*-leɛ*], the same form which is used for deriving instrumental nominalization as discussed earlier in (12).⁹ As shown in (15), locative nominalizations in Esahie have a parasynthetic structure involving a simultaneous prefixation (of the operator [*a-*]) and a suffixation of the operator [*-leɛ*] to the verbal input. These nominalizations name the location where the action designated in the verbal input takes place. The forms in (16) also follow this pattern. Let us examine the following examples.

- | | | |
|------|---------------------------------|---|
| (15) | <u>Input</u> | <u>Output</u> |
| a. | <i>bia</i>
bath
‘to bath’ | <i>a-bia-leɛ</i>
SG-bath-NMLZ _{LOC}
‘bathroom’ |
| b. | <i>sie</i>
‘to bury’ | <i>a-sie-leɛ</i>
SG-bury-NMLZ _{LOC}
‘cemetery’ |
| c. | <i>bɔ</i>
‘to crack’ | <i>a-bɔ-leɛ</i>
SG-crack-NMLZ _{LOC}
‘a place where harvested cocoa pods are cracked’ |
| d. | <i>tena</i>
‘to sit’ | <i>a-tena-leɛ</i>
SG-sit-NMLZ _{LOC}
‘seat/sitting place’ |
-
- | | | |
|------|---------------------------|---|
| (16) | <u>Input</u> | <u>Output</u> |
| a. | <i>fia</i>
‘to hide’ | <i>a-fia-leɛ</i>
SG-hide-NMLZ _{LOC}
‘hideout’ |
| b. | <i>mua</i>
‘to spread’ | <i>mua-leɛ</i>
spread-NMLZ _{LOC}
‘a place where yams spread its leaves and |

⁹ The multifunctional role of locative affixes is richly attested in the nominalization literature (cf. Melloni 2007).

flowers'

- c. **wura** 'to place something somewhere' **a-wura-leε** SG-place-NMLZ_{LOC}
 'a place where harvested foodstuff is gathered and stored before they are transported home for preservation'
- d. **bɔ** 'to converge' (nɛue) water **a-bɔ-leε** SG-converge-NMLZ_{LOC}
 'confluence'

Indeed, in Italian too, the suffix **-tore** (usually used to derive *agentive* and *instrumental* nouns) and V+N instrumental compounding may also express locative meanings. Melloni (2007) observes, that very often locative meanings are derived from word formation means having another primary function (event/result affixes, instrument affixes, etc.) This is exemplified below.

- (17) a. **bollitore**: object/place' where one can boil liquids' (locative)
 b. **battiscopa** – hit-broom 'base board' (instrumental)

In Esahie, another attested mechanism for deriving locative nominalizations is compounding. In the examples in (18), place-naming nominalizations take the form of compounds.

- (18) a. [[**nwāfi-hɔ-le**] **nekaa**]
 run-go-NMLZ_{E/R} place
 'refuge (lit. hiding place)'
- b. [[**anwonyere-sa-le**] **nekaa**]
 sickness-heal-NMLZ_{E/R} place
 'hospital (sickness-healing place)'

The compounds in (18) are formally and semantically endocentric. They are headed by the right-hand constituent **nekaa** 'place', which functions as both the formal and semantic head of the compound. As the formal head, the right-hand element **nekaa** 'place', being a noun, provides the compound with its (nominal) syntactic category. As the semantic head of the compound, the right-hand element **nekaa** 'place' is the constituent which shares its lexical conceptual information with the whole compound, making the whole compound a hyponym of it. Hence, the whole compound is a type of **nekaa** 'place'. Another interesting formal property of these compounds is that they are (left-)recursive, that is, the compound contains another compound. The left-hand member **anwonyere-sa-le** 'healing (lit. sickness-healing)' of the compound **anwonyere-sa-le-nekaa** 'hospital' in (18b) is itself a (synthetic) compound, so that we have a compound embedded within a compound. Semantically, the compounds in (18) are both compositional and transparent.

3.4. Result nominalization

Some languages have affixes that form nouns designating the result, or the typical ‘cognate’ object of an action. This is the case for Diola (spoken in parts of Senegal, the Gambia and Guinea-Bissau), where a suffix *-um* derives result nouns (Sapir 1965), as in (19).

	<u>Input</u>	<u>Output</u>
(19)	<i>lib</i> ‘to make slices’ ‘cuts, slices’	<i>lib-um</i> cut-NMLZ _{OBJ}

Many Bantu languages have a similar device for creating a noun from a verb, where that noun means the object that results from an action. In Zulu, and in Si-Luyana, for example, a prefix for nouns in one of the non-human noun classes and the suffix [-o] will turn a verb into such a noun (Kunene 1974; Givon 1970).

(20) Zulu:

	<u>Input</u>	<u>Output</u>
a.	<i>cabanga</i> ‘to think’	<i>um-cabang-o</i> CL-think-NMLZ _R ‘thought’
b.	<i>cula</i> ‘to sing’	<i>i- cul -o</i> CL-sing-NMLZ _R ‘congregation/hymn’

(21) Si-Luyana:

	<u>Input</u>	<u>Output</u>
a.	<i>lóta</i> ‘to dream’	<i>lu-lot-o</i> a dream’
b.	<i>imba</i> ‘to sing’	<i>lw-imb-o</i> ‘a song’

In what follows we examine some result nominalizations in Esahie. These nominalizations have the same morphological structure as event nominalizations. They all have parasyntetic structures and are derived from verbal stems.

(22)	a.	<i>hyerε</i> write	<i>a-hyerε-lε</i> PL-write-NMLZ _R ‘writings’
	b.	<i>pε</i> fall	<i>ε-pε-lε</i> SG-fall-NMLZ _R ‘epilepsy’
(23)	a.	<i>kyerε</i> teach	<i>η-gyerε-gyerε</i> PL-teach-RED _R ‘teachings’
	b.	<i>yie</i> finish	<i>a-yie-leε</i> SG-finish-NMLZ _R ‘the end (of a situation/event)’

An interesting and prototypical instance of result nominalization in Esahie involves forms derived via the attachment of operator /*n-*/ (with allomorphs [*n-/m-/ŋ-*]), which is a regular plural marker in morphological system of Esahie (cf. Frimpong 2009; Boateng 2017; Broohm 2017; 2018; 2019). This highly productive inflectional prefix is attested in forms such as *ndina* ‘cloths’ (vs. *etina* ‘cloth’), *mmakaa* ‘sticks’ (vs. *bakaa* ‘stick’), and *ngendem* ‘baskets’ (vs. *kendem* ‘basket’), where it indicates plural number. When this plural prefix [*n-*] is concatenated to the verbal stem *bie* ‘to urinate’ in (24), the form is transposed into a noun, *mbie* ‘urine’.

	<u>Input</u>	<u>Output</u>
(24)	<i>bie</i> ‘to urinate’	<i>m-bie</i> PL-urinate ‘urine’

Given the deverbalizing role of the operator /*n-*/ in the derivation of result nominalizations as shown in (24), the prefix /*n-*/ constitutes further empirical evidence for what has been called *word-class-changing* or *transpositional* inflection (cf. Haspelmath 1996; Bauer 2004),¹⁰ since it transposes verbs into nouns. As such, the operator /*n-*/ could be said to belong to the class of *transpositional* inflectional markers. Indeed, what happens here goes beyond mere transposition, since the semantics of the output is also somewhat altered. The nominalization *mbie* ‘urine’ is the cognate object of the input verb *bie* ‘to urinate’, so that rather than being eventive (i.e. naming the action designated in the verb *bie* ‘to urinate’), the nominalization *mbie* ‘urine’ is referential or resultative in nature (i.e. naming the end-product or result of the action designated in the verb).

3.5. Reason nominalization

Reason nominalizations are nouns that indicate or explain the reason for certain actions, states or events. Mwan (spoken in Ivory Coast) is an example of a language in which nouns meaning ‘the reason for performing the action designated by verb’ can be created from verbs (Perekhvalskaya 2011). Reason nominalizations in Mwan are derived via the operator [-*zá*] as shown in (25).

	<u>Input</u>	<u>Output</u>
(25) a.	<i>dɛ</i> ‘to kill’	<i>dɛ-zà</i> kill-NMLZ _[REASON FOR] ‘reason for murdering’
b.	<i>bèè</i> ‘to heal’	<i>bèè-zá</i> heal-NMLZ _[REASON FOR] ‘reason for healing’

In example (25a), for instance, a reason nominalization is derived from the verb *dɛ-zà* ‘to kill’ via the attachment of the suffix [-*zá*]. This affixation operation is not only transpositional but also affects the meaning of the nominalization. The resultant

10 Inflection and word formation have been argued to belong to a continuum rather than constituting distinct categories. As such, transpositional inflectional markers such as the adverbial suffix [-*ly*] in *fairly* or the plural suffix [-*s*] in *basics* are closer in affinity to word formation than non-transpositional inflectional markers. Once we assume that the inflection-word formation distinction can be represented in a continuum, transpositional inflectional markers will occupy an intermediate position (cf. Haspelmath 1996; Bauer 2004).

nominalization indicates the reason for performing the action designated in the base verb.

In Esahie, we could have nominalizations that name ‘the reason for the action described in the verb’. They are formed via affixation through the attachment of the suffix [-*see*] to a verbal base, as in (26). This class of nominalizations is an unproductive one with members that are potentially borrowed.

- (26) *nate* *nate-see*
 ‘to walk’ walk-NMLZ_R
 ‘reason for coming (lit. reason for walking)’

3.6. Abstract nominalization

The last class of lexical nominalization we consider is the class of abstract nominalizations. Abstract nominalizations denote abstract/non-concrete and intangible concepts such as *love*, *dream*, *death*, *laughter*, etc. The input element for this type of lexical nominalizations may be verbs, as in (27a-c), or adjectives, as in (27d). In terms of internal structure, abstract nominalizations may have either a parasynthetic structure (i.e. with a [prefix+base+suffix] structure) as in (27a-c) or ‘simpler’ structure (i.e. with a [prefix+base] or [base+suffix] structure) as in (28a-c).

- | | | | |
|------|----|-----------------------------|--|
| (27) | | <u>Input</u> | <u>Output</u> |
| a. | | <i>kuro</i>
‘to love’ | <i>e-huro-le</i>
SG-love-NMLZ _{E/R}
‘(the feeling of) love’ |
| b. | | <i>sere</i>
‘to laugh’ | <i>e-sere-le</i>
SG-laugh-NMLZ _{E/R}
‘laughter’ |
| c. | | <i>wu</i>
‘to die’ | <i>e-wu-e</i> ¹¹
NMLZ-die-NMLZ
‘death’ |
| (28) | a. | <i>la</i>
to sleep’ | <i>la-lee</i>
sleep-NMLZ _R
‘dream’ |
| | b. | <i>yɔ</i>
do | <i>yɔ-lee</i>
do-NMLZ _R
‘deeds/actions’ |
| | c. | <i>nyemene</i>
beautiful | <i>nyemēnē-ne</i>
beautiful-NMLZ
‘beauty’ |

In (28a-b), the (multifunctional) suffix *-lee* is attached to verbal bases to derive abstract nominalizations whilst the suffix *-ne* is attached to an adjectival base in (28c). Unlike those in (27a-c), these nominalizations have a relatively simpler structure (i.e. [base+suffix]).

Our discussion so far has shown that lexical nominalization in Esahie is typically a deverbalization operation and one that is highly productive in the morphological system of Esahie. This operation may take form simple derivation (or simple affixation), parasyntesis or compounding. Hence, in terms of internal structure, lexical nominalizations have varied degrees of morphological complexity –

11 This kind of derivation involving the attachment of [*e/-e*] as both a prefix and a suffix may be described as a case of circumfixation or discontinuous morphology.

they may have a binary or ternary structure. We have also shown that lexical nominalizations in Esahie fall into various semantic classes including P/P nominalizations, instrumental nominalizations, locative nominalizations, result nominalization, reason nominalizations and abstract nominalizations. The multifunctional suffix *-leε*, for instance, has been shown to be highly productive in the morphological system of Esahie.

4. Clausal nominalization in Esahie

Having examined various kinds of lexical nominalizations, we now proceed to discuss the form and function of clause-based nominalizations in Esahie, comparing them with nominalizations in other languages. In this section, we discuss how the two types of clause-based nominalizations earlier mentioned manifest in Esahie, by focusing on genitivization and relativization. We begin with nominalized clauses in Section 4.1, and proceed to look at clausal nominalizations in Section 4.2.

4.1. Nominalized Clauses

As noted earlier, nominalized clauses exhibit the syntax of noun phrases and typically express event (*E*) nominalizations, noun complements and relative clause constructions. In Esahie, this type of nominalization simultaneously involves genitivization and the attachment of a nominalizing suffix. The morpheme *-le* (and its allomorphs) is the principal nominalizing suffix in Esahie (Boateng 2017; Broohm 2019). This operator nominalizes various types of constructions. Let us consider the following parallel constructions in (29) and (30).

- (29) a. *Awo kenga-le nwomaa ne*
 NAME read-PAST book DEF
 ‘Awo read the book’
 b. [*Awo-ye nwomaa-kengá-le*] *tè pa*
 NAME-POSS book-read-NMLZ COP good
 ‘Awo’s (style/habit of) book-reading is good.’
- (30) a. *Paapa li-le aleε ne nkoraatĩ*
 NAME eat-PAST food DEF all
 ‘Paapa ate all the food.’
 b. [*Paapa-ye aleε-lí-le*] *tè maye*
 NAME-POSS food-eat-NMLZ COP good
 ‘Paapa’s (style/habit of) eating is courteous.’

The construction in the subject slot of (29b) is a nominalized version of (29a). Although the base construction for this nominalization is a clause, hence instantiating clause-based nominalization, the nominalized construction [*Awo-ye nwomaa-kengá-le*] ‘Awo’s (style/habit of) book-reading’ in (29b) has the syntax of an NP. As an NP, the nominalized construction is headed by the possessed noun *nwomaa-kengá-le* ‘(style/habit of) book-reading’, and the possessor noun *Awo*, which is a dependent to the head, is marked for possessive case to signal dependency. Similarly, the construction in the subject slot of (30b) is a nominalized version of (30a), with a clausal base construction, yet it displays the syntax of an NP. As an NP, the nominalized construction is headed by the possessed noun *aleε-lí-le* ‘(style/habit of) eating’, and the possessor noun *Paapa*, which is a dependent to the head, is marked for possessive case to signal dependency. Hence, within the whole nominalized construction in both (29b) and (30b), the modifying elements (i.e. the possessor

nouns) stand in a genitive relation with the head noun. Furthermore, the nominalized constructions occupy subject slots in both cases. Hence, there is a strong parallelism between (29b) and (30b).

However, notwithstanding the fact that these are cases of clausal nominalization, there are a number of features that make them amenable to a lexical nominalization treatment. First, in terms of semantics, the nominalization pattern instantiates event nominalization, but more precisely, they pattern after *mode nominals*, i.e. deverbal nouns which describe the manner or style of performing the action designated by the verb' (cf. Koptjevskaja-Tamm 1993). This implies that *nwomaa-kengá-le* in (28b) refers to the agent's 'manner/style of reading' whilst *alee-li-le* in (29b) refers to the agent's 'style/manner of eating'. One would not expect that a purely clausal type of nominalization (which ought to be strictly transpositional) would have the characterization of nouns with modified meanings, such as *manner*, which is a typical feature of lexical nominalizations. With this semantic characterization, these nominal forms approach lexical nominalizations. Second, the fact that there is no *aspect-tense-mood* preservation either at the morphological or the semantic level also makes them akin to lexical nominalizations. Given this characterization, these cases of nominalizations could be conveniently re-classified as cases of lexical nominalizations.

4.2. Clausal Nominalizations

As explained earlier, clausal nominalizations have been argued to show the semblance of predicative clauses in that they have the tendency to retain certain verbal features such as tense-aspect-mood marking. They also typically occur as subordinate clause constructions with framing and backgrounding functions. The discussion on clause-based nominalizations in this section focuses on relativization.

As far as clausal nominalization is concerned, the relation between relativization and nominalization has long been noted in extant literature as an interesting, intimate, and germane one (cf. Wheatley 1982, Herring 1991, Genetti 1992, Noonan 1997, and Bickel 1999). In Lahu, a Tibeto-Burman language, for instance, a single morpheme, [-*və*], functions as a nominalizer, complementizer, relativizer, and a genitive marker (cf. Matisoff 1972, Wheatley 1982). Indeed, in Tibeto-Burman languages in general, relative clauses are typically nominalizations, and have been described as a subspecies of clausal nominalizations (cf. DeLancey 2002, 2005). The affinity between nominalizations and relative clauses is also attested in Korean, Chinese, and Japanese and several other Asian languages (cf. LaPolla 1994, 2008; Bickel 1999; DeLancey 1999, 2005; Genetti 1992, 2011; Genetti et al. 2008; Horie 1998; Matisoff 1972).

In what follows, we discuss relativization in Esahie as an instance of clausal nominalization. Let us consider the examples in (31).

- (31) a. *Benyiwa tō-ne emo anoma*
 NAME cook-PAST rice yesterday
 'Benyiwa cooked rice yesterday'
- b. *Əhoin-ku-me koso [emo bɔ ɔ-tō-ne-n]_{REL}*
 hunger-kill-1SG.OBJ but rice REL 3SG-cook-PAST-DEF
n-yɛ-fɛ
 NEG-COP-tasty
 'I am hungry, but the rice which s/he cooked is not palatable'.

The sentence in (31b) is a relativized version of the clause in (31a). The (modifying) relativized construction in (31b) [*ɔ-tō-ne-n*] 'she cooked' is nominalized by means of the relativizer *bɔ*, which has nominal features that take scope over the entire construction and stands in apposition to the relative head noun *emo* 'rice'.

At this point it is instructive to introduce Ouhalla's (2004) relativizer typology, according to which, cross-linguistically, there are two types of relativizers:

the Complementizer-type (*C-type*) relativizer and the Determiner-type (*D-type*) relativizer. A language like English, for instance, has been argued to have the C-type relativizer since the relativizer *that* is the same as the regular complementizer for sentential complementation, as in ‘Salo exclaimed *that* Obed would return soon’.¹² In Esahie, just like in Akan (Osam 1998; Saah 2010), Amharic (Mullen 1986; Ouhalla 2004) and Nuosu Yi (Liu & Gu 2011), the relativizer is different from the complementizer employed for sentential complementation. This difference is illustrated in the Esahie examples in (32).

- (32) a. *Aseda hã-ne kyε sona η-gã nahorε*
 NAME say-PAST COMP man NEG-say truth
 ‘Aseda said that men are liars’
- b. *Aseda η-gro menia bɔ bε-η-gã nahorε*
 NAME NEG-like people REL 3PL-NEG-say truth
 ‘Aseda dislikes people who lie’
- c. **Aseda η-gro menia kyε bε-η-gã nahorε*
 NAME NEG-like people COMP 3PL-NEG-say truth

From example (32) we notice that the role of the complementizer *kyε* and the relativizer *bɔ* are distinct and not interchangeable in their use in the grammar of Esahie. This accounts for the ungrammaticality of (32c). In consonance with the predictions of Ouhalla’s (2004) analysis, if a language lacks relative pronouns or does not employ relative pronouns in relativization, as appears to be the case for Esahie, and Akan too (Saah 2010), the relativizer introducing relative clauses and the complementizer introducing sentential complements in this language must be two different morphemes.

Following Kayne (1994) and Ouhalla’s (2004) typology of relative clauses, we propose that Esahie is a language with a D-type relativizer, where the relative clause is a DP with a [D-TP] structure. But what does it mean to say that the relative morpheme in Esahie, which is a D-type relativizer, takes a TP as its complement. We reckon that this is a nominalization process. In other words, having the (nominal) features of a determiner, the relativizing morpheme *bɔ* could be argued to be playing the role of a nominalizer, turning a relative clause into a nominalized construction, and this nominalized relative clause then stands in apposition to the relative head noun. Alternatively, we could also simply argue that since the whole relative clause has an N head *emo* ‘rice’, the nominal feature of the head percolates¹³ to the entire relative clause [*bɔ ɔ-tõ-ne-n*] ‘which she cooked’, resulting in the nominalization of the whole construction [*emo ɔ-tõ-ne-n*] ‘the rice which she cooked’. Either way, this type of nominalization instantiates clausal nominalizations because it has the semblance of predicative clauses and retains some verbal features, specifically tense and polarity features.¹⁴ In the relativized construction [*emo ɔ-tõ-ne-n*] ‘the rice which

12 Undeniably, English also has relative pronouns such as *WHO* and *WHICH* that have nominal features. Although such *wh*-elements are typically hosted in the complementizer (C) layer, they are not C heads, but determiner (D) heads.

13 Percolation is a well-formedness condition through which properties of a head are passed upward/downward from one node to another (cf. Lieber 1980, 1989, 1992; Selkirk 1982; Appah 2013 *inter alia*). Through percolation, the features of the head take precedence over the properties of the non-head so that the properties of the non-head are blocked from percolating.

14 Other markers such as aspect and mood markers may also be retained in clausal nominalization. The aspectual marker in (Xa) is preserved in the relativization in (Xb).

- (X) a. *Ama kɔ-kenga nwomaa ne*
 NAME FUT-read book DEF
 ‘Ama will read the book.’
- b. *Nwomaa bɔ Aseda kɔ-kenga ne*
 Book REL NAME FUT-read DEF

she cooked' in (31b), for example, the *ne*-tense marking of the verb is retained. Similarly, in the relativized construction [*menia bɔ bɛ-ŋ-gã nahore*] 'people who lie' in (32b), for example, the *ŋ*-negation marking of the verb is retained.

Typical of clausal nominalizations, the Esahie relativized clause occurs as a subordinate clause construction with a backgrounding function. According to Post (2011), backgrounding clausal nominalization tends to occur clause-medially, in an "aside"-like presentation often designed to clarify a reference or otherwise support a listener's understanding. From the perspective of the internal syntax of the output nominalization, clausal nominalizations resemble VPs, rather than NPs.

Comparing the two types of clause-based nominalizations discussed in this section, one might observe that whilst clausal nominalizations (i.e. involving relativization) show some clausal properties and have the internal syntax of a typical clause, nominalized clauses (i.e. involving genitivization and affixation) show no clausal properties and exhibit the internal syntax of lexical nominalizations.

5. Conclusion

The discussion offered in this paper sought to enrich our understanding of nominalization and word-formation in general, but particularly in the grammar of Esahie. We have shown that Esahie has both lexical and clausal nominalizations, and that whilst the latter retain some verbal features, the former lose all verbal features. The characterization of nominalization as discussed in this paper, however, shows that Esahie nominalization is predominantly a case of lexical nominalization, because, it is typically not a case of the so-called clausal nominalizations, where a VP or TP is turned into a DP-structure nominal construction via the addition of an article. Rather, what we typically have is something close to what exists in English, in terms of nominalizations which are fully fledged nouns, having lost some or all of their verbal properties (such as verbal inflection). Lexical nominalization in Esahie is typically a deverbalization operation, which may take the form simple of derivation, parasynthesis or compounding. We have also shown in this work that, contrary to the claims of Aronoff's (1976) Unitary Base Hypothesis, morphemes may attach to bases of different syntactic categories. Certain affixes in Esahie have also been shown to belong to class of *transpositional inflectional* markers.

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