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RELATIVIZATION IN SISAALI: A DESCRIPTIVE ACCOUNT

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Abstract

This paper examines relativization in Sisaali, a Mabia language spoken in Ghana, with particular attention to the structural properties and strategies of relative clause formation. Drawing on elicited and natural speech data, the study shows that Sisaali employs postnominal, externally headed, and obligatorily finite relative clauses. The language uses two relativizer forms (*àà/áá*), which do not inflect for person, number, or gender, followed by a definite determiner (*hv*) to introduce relative clauses. The analysis shows that subject and object relativization employ a gap strategy, while possessive and locative contexts typically involve resumptive pronouns. Sisaali further permits relativization across a wide range of syntactic roles, consistent with the NP Accessibility Hierarchy. These findings contribute to the typological understanding of relativization in Mabia and related languages.

Keywords: Sisaali, relative clauses, relativization strategies, Mabia languages, typology

1. Introduction

Relativization is a central domain of cross-linguistic variation, reflecting the diverse strategies languages employ to modify noun phrases (NPs) through subordinate clauses. Relative clauses (RCs) have been widely studied in both typological and theoretical linguistics, particularly concerning the morphosyntactic mechanisms that encode them. Foundational typological insights were provided by Keenan and Comrie (1977, 1979), who proposed the Accessibility Hierarchy, establishing which grammatical relations are most readily relativized across languages. Subsequent research, including Kuteva and Comrie (2005), has expanded this cross-linguistic perspective, offering comparative analyses of relativization strategies across Niger-Congo and other languages. These studies identify strategies such as the gap strategy, pronoun retention, and non-reduction strategies (e.g., correlatives and head-internal constructions), while also highlighting cross-linguistic constraints on relativization as captured by the NP Accessibility Hierarchy.

Within African linguistics, research on Kwa and Mabia (Gur) languages has revealed both shared typological patterns and language-specific variations in relative clause formation. In Kwa

languages, for instance, Akan (Saah 2010) and Ewe (Dzameshie 1995) exhibit postnominal relative clauses introduced by overt relativizers, often accompanied by resumptive pronouns and clause-final determiners. Saah (2010) shows that Akan allows resumptive pronouns in relativized positions alongside a dedicated relative clause marker, while Dzameshie (1995) demonstrates that Ewe RCs are marked by a relativizer and concluded with a clause-final determiner, with modifiers consistently following the head noun.

Similarly, studies on Mabia languages such as Dagaare (Bodomo & Hiraiwa 2004) and Kusaal (Abubakari 2019) show that relative clauses are typically externally headed and postnominal, with variation in the use of resumptive pronouns and structural configurations. Dagaare employs a relativizing particle alongside resumptive pronouns, whereas Kusaal allows both internally and externally headed RCs but restricts certain constructions, such as stacking and extraposition.

Despite these advances, many Mabia languages remain underdescribed regarding relativization. In particular, Sisaalt has received limited attention, especially concerning the range of strategies it employs and the structural properties of its relative clauses. This gap limits our understanding of relativization patterns within the Mabia family. This study addresses this gap by providing a descriptive account of relativization in Sisaalt, examining both the structural properties of RCs and the strategies employed in their formation, based on data from elicitation and natural speech. Preliminary findings show that Sisaalt employs externally headed, postnominal relative clauses, using both gap and resumptive strategies depending on syntactic context. By situating Sisaalt within broader typological patterns, this paper contributes to ongoing discussions of relativization in African linguistics.

The remainder of the paper is organized as follows. Section 2 provides background on the Sisaalt language and the data sources used. Section 3 describes the canonical structure and formation of RCs in Sisaalt. Section 4 examines relativization in relation to the NP Accessibility Hierarchy. Section 5 discusses restrictive and non-restrictive RCs. Section 6 addresses stacked RCs, Section 7 explores additional aspects of relativization, and Section 8 concludes the paper.

2. The Sisaalt Language and Data Sources

Sisaalt is a Mabia (Gur) language spoken in the Upper West Region of Ghana and parts of Burkina Faso. While the language exhibits some dialectal variation, the data analyzed in this study were drawn primarily from speakers in Funsì, but claims made here can be generalized to other dialects of Sisaalt.

Typologically, Sisaalt follows a basic SVO word order and employs a phonemic tonal system with two level tones (High and Low) that function in both lexical and grammatical distinctions. Grammatical relations are largely expressed through word order and functional particles. Tense and

aspect distinctions are typically marked through preverbal particles and auxiliary-like elements, with contrasts such as perfective and progressive playing an important role in clause structure.

Although Sisaali remains relatively under-documented, some previous studies have contributed valuable insights into its phonology, morphology, and syntax. For instance, Gariba (2017) examines word formation processes in Sisaali, Luri (2023) addresses aspects of Sisaali dialectology, and Dumah (2017) analyzes question markers in the language. Incorporating these studies situates the current research within the growing body of work on Sisaali and ensures that the description presented here builds on existing knowledge rather than presenting the language in isolation.

The data for this study were collected through a combination of elicitation sessions and natural speech recordings with native speakers. Elicitation involved structured translation tasks and guided interviews designed to produce RC constructions across syntactic roles, including subject, object, possessive, and locative contexts. Natural speech data, drawn from informal conversations and narrative discourse, ensured that the analysis reflects both controlled elicitation and spontaneous language use.

3. Literature Review on Relative Clauses

This section reviews relevant literature. Section 2.1 focuses on cross-linguistic typology of RCs, while Sections 2.2 and 2.3 examine Kwa and Mabilia languages, respectively.

3.1. Cross-linguistic Typology of Relative Clauses

Kuteva and Comrie (2005) investigate morphosyntactic strategies used to encode RCs across African languages, focusing on subject relativization. They categorize six primary strategies: relative pronoun strategy, non-reduction strategies (including correlatives, head-internal, and paratactic forms), pronoun retention, and the gap strategy. These strategies highlight cross-linguistic variation in how languages signal the common argument (CA) between the main clause and the RC.

Dixon (2010) provides a framework for understanding RC constructions across languages. He defines a canonical RC as comprising two clauses, a main clause (MC) and an RC, within a single intonation unit, where the RC modifies a noun phrase in the MC. Central to this construction is the common argument (CA), which occurs in both clauses in varying degrees. Dixon notes that RCs may include peripheral and core arguments, exhibit independent tense/aspect/modality (TAM), and may be restrictive (specifying an incompletely identified referent) or non-restrictive (providing additional information). He distinguishes canonical RCs from non-canonical forms, such as correlatives, adjoined relatives, condensed RCs, and 'to'-introduced RCs.

Sisaalt RCs share features with Dixon's canonical construction: they function as NP modifiers, are structurally integrated with the main clause, and employ an externally-headed, left-headed construction, with the relativizer *àà/áá* and the clause-final determiner *hv* marking the RC. The CA is realized via a gap strategy in subject and object RCs and via resumptive pronouns in possessive and locative RCs.

Compared with Kuteva and Comrie (2005), who categorize six strategies for African languages, Sisaalt demonstrates a combination of gap strategy and resumptive pronouns in specific syntactic roles. Resumptive pronouns are largely restricted to possessive and locative RCs, suggesting a more constrained application. Whereas Kuteva and Comrie focus on broad morphosyntactic strategies, Dixon emphasizes the structural and semantic architecture of RCs, concepts directly observable in Sisaalt.

Thus, Sisaalt exemplifies canonical relativization principles (Dixon 2010) while illustrating specific cross-linguistic patterns identified by Kuteva and Comrie. This dual perspective situates Sisaalt within both a typological framework and a structural canonical perspective on RCs

3.2. Relative Clauses in Kwa Languages

Relative clause formation has been widely discussed in Kwa languages, including Akan, Ewe, Logba, Kaakye, Nkami, and Tafi. A robust generalization across these languages is the postnominal positioning of RCs: the head noun precedes the modifying clause (Saah 2010; Dzameshie 1995; Abunya & Osam 2022; Dorvlo 2008).

Saah (2010) details RC formation in Akan, identifying an antecedent noun, a dedicated relativizer, and a resumptive pronoun in the relativized position. Determiner realization at the head NP is optional, while clause-peripheral elements, such as demonstratives, may appear at the right edge if semantically compatible.

Abunya and Osam (2022) report similar patterns for Kaakye, reinforcing the typological observation of postnominal RCs. McCracken (2013) observes that in Twi, a dedicated relativizer marks postnominal RCs, with an optional clause-final enclitic sensitive to discourse factors such as topicality. Resumptive pronouns are obligatory in subject relativization, partially challenging the Accessibility Hierarchy.

Asante and Ma (2016) describe Nkami, which employs a bracket strategy, marking RCs at both left and right edges. Pronoun retention is obligatory in subject positions, while inanimate non-subjects may allow omission. Relativizers may have evolved from demonstratives.

Dzameshie (1995) reports bipartite marking in Ewe: RCs begin with a relativizer and end with a clause-final marker. Postnominal modifiers (adjectives, numerals, demonstratives, plural markers, intensifiers, determiners) follow a rigid order.

Dorvlo (2008) describes Logba, where RCs are introduced by an invariant particle following the head noun. Subject RCs involve an anaphoric pronoun prefixed to the verb, while object RCs typically use a gap strategy.

Bobuafo (2013) examines Tafi, reporting both gap and resumptive strategies, with resumptive elements in possessive and locative contexts. The system is sensitive to discourse-pragmatic factors and interacts with tense-aspect-mood marking.

Across Kwa languages, RCs generally conform to the Accessibility Hierarchy (Keenan & Comrie 1977, 1979), with variation in the use of gap versus resumptive marking depending on grammatical role and language-specific constraints.

Sisaalt shows both convergence and divergence with Kwa patterns. Like other Kwa languages, it displays postnominal RCs and employs a dedicated relativizer. Unlike Akan or Twi, resumptive pronouns are largely restricted to possessive and certain oblique contexts, with gap strategies more prevalent in subject and object RCs. Unlike Nkami's bracket strategy or the bipartite marking of Akan and Ewe, Sisaalt uses a single relativizer followed by a clause-final determiner.

Semantic distinctions between restrictive and non-restrictive RCs are also variably encoded across Kwa languages. While some languages (e.g., Akan) employ clause-peripheral elements, others, such as Logba, rely on contextual interpretation.

Overall, Kwa RCs exhibit a coherent typological profile: postnominal positioning, dedicated relativizers, and clause-peripheral marking, alongside microvariation in resumptive pronoun distribution, clause-final elements, and syntax-discourse interaction. However, comparative analyses involving lesser-described languages such as Sisaalt remain limited. This study addresses these gaps by systematically analyzing RC formation in Sisaalt, contributing to discussions of microvariation in Kwa syntax and Niger-Congo relativization.

3.3. Relative Clauses in Mabia Languages

The formation and distribution of relative clauses (RCs) in Mabia (Gur) languages have attracted growing scholarly attention, revealing both shared typological patterns and language-specific innovations. Across these languages, RCs are generally postnominal, employ dedicated relativizers, and, in some cases, resumptive pronouns. These strategies serve to encode syntactic dependencies while maintaining interpretive clarity.

In Dagaare, Bodomo and Hiraiwa (2004) identify the relative marker *nang* and resumptive pronouns as core strategies for relativization. RCs typically involve a left-dislocated head noun followed by the relativizing particle, with resumptive pronouns used to maintain reference, particularly in object positions. Bodomo and Hiraiwa argue that Dagaare RCs are inherently restrictive, contributing to the semantic specificity of modified NPs. The structural parallels with Sisaal, particularly the use of dedicated relativizers and selective resumptive pronouns, highlight typological continuity within the Mabilia subgroup.

Likpakpaln has been examined by Bisilki et al. (2024), who distinguish restrictive and non-restrictive RCs. Both types are finite and marked by a composite relative pronoun, comprising a noun class agreement marker and a relative marker, along with a clause-final definite determiner. Restrictive RCs are headed by indefinite nouns, whereas non-restrictive RCs are headed by definite nouns, prosodically distinguished, and often under focus. This dual system illustrates the interaction between syntactic marking and information structure, situating Likpakpaln RCs within both the genealogical and areal contexts of Mabilia languages.

In Kusaal, Abubakari (2018, 2019) provides complementary perspectives. The 2018 study emphasizes internally-headed relative clauses (IHRCs), documenting both in-situ and left-headed IHRCs and examining their semantic and syntactic properties. These constructions, while structurally complex, reflect broader Mabilia patterns identified in comparative studies (Hiraiwa et al., 2017). The 2019 study focuses on postnominal RCs, highlighting surface morphosyntactic properties such as the limited use of resumptive pronouns (restricted to object relativization), the prohibition of stacking or extraposition, and the distribution of definite and indefinite heads. Together, these works show that Kusaal employs both externally- and internally-headed strategies while selectively integrating resumptive pronouns and relativizers to mark syntactic dependencies.

Comparison across these Mabilia languages reveals several convergences and divergences. Postnominal placement and dedicated relativizers are largely consistent, while resumptive pronouns are generally restricted to specific syntactic roles, such as objects or possessives, reflecting a balance between structural transparency and economy. Languages like Likpakpaln introduce additional marking layers, including clause-final determiners and prosodic distinctions, to signal semantic and information-structural contrasts. Internally-headed constructions in Kusaal offer further typological insight, showing variation in the alignment of head nouns and relativized elements within the clause.

From a typological perspective, Mabilia data illustrate both microvariation and macro-patterning. While general strategies such as postnominal placement and relativizer use are shared, languages diverge in the availability of IHRCs, distribution of resumptive pronouns, and interactions with focus or definiteness. These patterns provide a comparative framework for understanding Sisaal, which permits only externally-headed, left-headed RCs, employs postnominal relativization, and

restricts resumptive pronouns primarily to possessive and locative contexts. Consequently, Sɪsaalɪ aligns with broader Mabia tendencies while exhibiting its own distinctive profile within the subgroup.

In summary, the Mabia literature underscores the significance of relativization strategies in mapping syntactic dependencies while highlighting how individual languages vary in the balance between structural marking, semantic interpretation, and information structure. Insights from Dagaare, Likpakpaln, and Kusaal provide a robust comparative foundation for situating Sɪsaalɪ within its genealogical and areal context.

4. The Canonical Relative Clause Construction in Sɪsaalɪ

This section describes the canonical structure of relative clauses (RCs) in Sɪsaalɪ. Typically, RCs are postnominal and follow patterns illustrated in examples (1b) and (1c):

1a. *Baal hv ηmaa bie hv.*
 Man DET beat child DET
 ‘The man beat the child.’

Subject Relativization

1b. *Baal hv [àà ηmaa bie hv] muu Wa re.*
 Man DET REL beat.PST child DET go Wa FOC
 ‘The man who beat the child has gone to Wa.’

Object relativization

1c. *Bie hv [baal hv àà ηmaa] wie re.*
 Child DET man DET REL beat.PST cry.PST FOC
 ‘The child who the man beat cried.’

1d. **Bie hv [àà baal hv ηmaa] wie re.*
 Child DET REL man DET beat cry FOC

In examples (1b) and (1c), the head noun (baal ‘man’ or bie ‘child’) is followed by a relative clause, forming a complex NP. The key morphosyntactic features of canonical Sɪsaalɪ RCs are:

- A head noun or antecedent NP
- An obligatory relative marker: *àà / áá*
- An obligatory clause-final determiner: *hv*
- Optional resumptive pronouns, primarily in possessive or long-distance dependencies
- Postnominal RC positioning

- Inherently restrictive interpretation
- A clause-final particle *rɛ*, marking declarative or focus status

In (1c), the NP *baal hv* within the relative clause functions as the object of the head NP (*bie hv*). The RC is fully clausal, containing the agent, action, and the relative marker *àà* linking it to the head noun.¹

The clause-final particle *rɛ* is a general feature of Sisaalt declaratives and reflects declarative or focus marking rather than being an intrinsic component of RCs. Its presence demonstrates that Sisaalt RCs retain the morphosyntactic properties of independent clauses, including tense, aspect, polarity, and clause-final particles, consistent with patterns observed in related Mabilia languages (Hiraiwa et al., 2017).

4.1. The formation Strategies of Relative Clauses in Sisaalt

This section examines the strategies Sisaalt employs to form RCs, focusing on the role of relative markers.

4.1.1. The Relative Pronoun

As Givón (1993:126) notes, languages differ in the elements used to introduce RCs. In English, relative pronouns (who, whom, when) are case-marked interrogative pronouns. In Kwa languages like Kaakye, the relativizer *kɛ* not only introduces RCs but also functions as a future tense marker and a complementizer (Abunya & Osam, 2022).

Sisaalt employs two obligatory relative markers, *àà* and *áá*, which immediately follow the head NP:

2a. *Baal hv [àà ηmaa bie hv] yaa nibɔŋ nɛ*
 Man DET REL beat.PERF child DET COP person.bad FOC

‘The man who beat the child is wicked or bad.’

b. *Baal hv [áá ηmaa bie hv] yaa nibɔŋ nɛ.*
 Man DET REL beat child DET COP person.bad FOC

‘The man who is beating the child is wicked or bad.’

c. * *Baal hv [ηmaa bie hv] yaa nibɔŋ nɛ.*
 Man DET beat child DET COP person.bad FOC

¹ All gloss abbreviations used in the examples are listed in the List of Abbreviations at the end of the paper.

The distinction between the two relative markers lies in their aspectual marking: *àà* signals completed actions, while *áá* marks ongoing or progressive actions. These markers do not inflect for person, number, gender, or case associated with the head noun, but they are sensitive to aspect, indicating that their form varies depending on the temporal interpretation of the verb within the relative clause. Crucially, their presence is obligatory in Sisaalt relativization, as omission results in ungrammatical constructions, exemplified by (2c).

Outside RCs, *áá* functions as a progressive marker, as in example (3), consistent with Givón’s observation on the multifunctionality of relativizers:

3. **Baal hv áá ko rε.**
 Man DET PROG come FOC
 ‘The man is coming.’

The use of relative markers in Sisaalt aligns with related Mabilia languages: Dagaare employs the relative marker *nang* and resumptive pronouns (Bodomo & Hiraiwa, 2004), while Kusaal uses similar externally-headed strategies (Abubakari, 2019). In Akan, RC formation involves an obligatory complementizer *áà*, functioning as the relativizer (Saah, 2010:92).

4.2. Relative Clauses and Pronoun retention

One of the cross-linguistic strategies employed in the formation of relative clauses is pronoun retention, which involves the insertion of a pronominal element at the relativization site as a copy of the head noun phrase (Kuteva & Comrie, 2005). In Sisaalt, this strategy appears primarily in constructions indicating possession, with both subject and object positions capable of hosting resumptive pronouns, as illustrated in examples (4a) and (4b). However, the resumptive pronoun is optional in certain object relativization contexts, as shown in (4c).

- 4a. **Haan hv [àà mula v bie hv] lii Wa rε**
 Woman DET REL carry 3SG.POSS child DET from Wa FOC
 ‘The woman who has carried (at her back) her child is from Wa.’

- 4b. **Bie hv [v naa àà mula] lii Wa rε**
 Child DET 3SG.POSS mother REL carry] from Wa FOC
 ‘The child who the mother has carried (at her back) is from Wa.’

- 4c. **Bie hv [àà mula] lii Wa rε**
 Child DET REL carry] from Wa FOC
 ‘The child who is carried is from Wa.’

- 4d. **Bie hv [mula] lii Wa re*
 Child DET carry] from Wa FOC
 ‘The child who is carried is from Wa.’

In all relative clause constructions in Sisaal, the presence of a relative pronoun (*àà* or *áá*) is obligatory. Omission of the relative pronoun results in ungrammaticality as exemplified in (4d). The use of resumptive pronouns in Sisaal aligns with what Bodomo and Hiraiwa (2004) describe for Dagaare. However, it contrasts with Akan, where resumptive pronouns are obligatorily required for both subject and object relativization (Saah 2010). Despite this, Sisaal and Akan both require relative pronouns in relative clause constructions.

In Sisaal, the resumptive pronoun shows number agreement but does not inflect for person. Both singular and plural animate head nouns may be overtly represented by resumptive pronouns as illustrated below:

Singular head noun:

- 5a. *Bie hv [v naa àà mula] lii Wa re*
 Child DET 3SG.POSS mother REL carry] from Wa FOC
 ‘The child who the mother has carried (at her back) is from Wa.’

Plural head noun:

- 5b. *Biisi hv [ba nimma àà miila] lii Wa re*
 Child.PL DET 3PL mother.PL REL carry from Wa FOC
 ‘The children that their mothers are carrying (at their back) are from Wa.’

Here, *v/ba* (resumptive pronouns) agree in number with the head noun but remain third-person forms, illustrating the claim that resumptive pronouns do not inflect for person.

Resumptive pronouns in Sisaal display restricted distribution across referent types, with their occurrence conditioned in part by animacy. With animate referents, resumptive pronouns may be overtly realized, particularly in possessive constructions, as illustrated in (6):

- 6a. *Biisi hv [ba nimma àà miila] lii Wa re*
 Child.PL DET 3PL mother.PL REL carry from Wa FOC
 ‘The children that their mothers are carrying (at their back) are from Wa.’

In this example, the resumptive pronoun *ba* encodes co-reference with the plural animate head noun *biisi* ‘children’, demonstrating number agreement and the availability of pronoun retention in such contexts.

By contrast, with inanimate referents, relativization typically proceeds without an overt resumptive pronoun, and a gap strategy is sufficient for interpretation, as illustrated in (6a-b):

6a. *Vii hv [Maria àà saa] welie re*
 Pot DET [Maria REL build] nice FOC
 ‘The pot which Maria moulded is beautiful.’

6b. *Gal hv [Maria àà ala tia η] muro re*
 Cloth DET Maria REL sew give 1SG small FOC
 ‘The cloth/dress which Maria sewed for me is small (undersized).’

These examples show that, for inanimate objects, the resumptive pronoun is not required and is generally absent, without affecting interpretation.

A similar restriction is observed in Mabia languages such as Kusaal and Dagaare, where resumptive pronouns are not uniformly employed across all relativization contexts (Bodomo & Hiraiwa 2004; Abubakari 2018, 2019). Unlike Akan, where resumptive pronouns are more systematically used (Saah 2010), Sisaali limits their occurrence, especially with inanimate referents, relying instead on gap strategies.

4.3. Relative Clauses and Determiners

In Sisaali, the head noun of a relative clause is obligatorily modified by the definite determiner *hv*, which immediately follows the relativized noun. In addition, the head noun may also take the demonstrative determiners *haŋ* ‘that’ and *no* ‘this’, as illustrated in examples (8a-8c). Notably, while the distal demonstrative *haŋ* co-occurs with the definite determiner *hv*, the proximal demonstrative *no* does not. This distribution pattern also holds in non-relative constructions, as shown in (9a-b). Other demonstratives in the language include the locative determiners *daha* ‘here’ (proximal) and *doŋ* ‘there’ (non-proximal).

8a. *Bie hv [Duma àà naa] ko re*
 Child DET Duma REL see.PST come.PERF FOC
 ‘The child who Duma saw has come.’

8b. *Bie no [Duma àà naa] ko re*
 Child this Duma REL see.PST come.PERF FOC

‘This child who Duma saw has come.’

8c. *Haŋ* *bie* *hv* [*Duma* *àà* *naa]* *ko* *re*
 That child DET Duma REL see.PST come.PERF FOC
 ‘That child who Duma saw has come.’

9a. *Bie* *no* *si* *wu*
 Child DEM FUT cry
 ‘This child will cry.’

9b. *Haŋ* *bie* *hv* *si* *wu*
 DEM Child DET FUT cry
 ‘That child will cry.’

In (8a), the head noun is modified by the definite determiner *hv* ‘the’, which is obligatory in relative clause constructions. The absence of *hv* leads to semantic degradation of the head noun. Even when the head noun is indefinite, *hv* still appears, as in (10):

10. *Bie* *hv* [*àà* *si* *mv* *baga* *jinaŋ]* *si* *wu*.
 Child DET REL FUT go farm today FUT cry
 ‘The child who will go to farm today will cry.’

The demonstrative *no* ‘this’ functions as a post-nominal modifier and is incompatible with *hv*, while *haŋ* ‘that’ is a pre-nominal modifier and can co-occur with *hv*, as evidenced in examples (8b) and (8c), respectively.

In summary, while demonstrative elements are not structurally required for the formation of relative clauses, they are semantically significant. Their presence contributes specific deictic interpretations that are not recoverable in their absence. For instance, the omission of *haŋ* ‘that’ in (8a) does not yield the same interpretation, as the resulting construction lacks the distal demonstrative meaning. By contrast, the definite determiner *hv* and the relative marker are obligatory, as they are required for the grammatical well-formedness of the construction.

4.4. The Head Noun

In Sisaalt, relative clauses are post-nominal, with the relative clause following the head noun. The head noun may assume various syntactic roles in both the main clause (MC) and the relative clause (RC), serving as either subject or object.

In (11), the head noun is *Batong*, which functions as the complement of the copular clause in the MC, while the relativized element corresponds to the subject of the RC. In (12), the head noun is

my ‘floor’, which functions as the object of the MC, whereas the relativized element corresponds to the object within the RC. In (13), the head noun *baal* ‘man’ functions as the subject of the MC, and the relativized element is likewise the subject of the RC. In (14), the head noun *baal* ‘man’ functions as the object of the MC, while the relativized element corresponds to the object within the RC.

11. *Miyay ne yaa Batong hv [àà ko daha]*
 1SG.EMP FOC COP Batong DET REL come.PST here
 ‘I am the Batong who came here.’

12. *Miy hv [ŋ àà saa] ŋ mvv yɔbɔ re*
 Floor DET 1SG REL stir 1SG go.PST buy FOC
 ‘The floor that I stirred I went and bought.’

13. *Baal hv [áá ko ku kart tiisi hv] suba re.*
 Man DET REL come PROG cut tree.PL DET die.PST FOC
 ‘The man who comes to cut trees is dead.’

14. *ŋ naa baal hv [àà kpa Maria hv] re.*
 1SG see.PST man DET REL take.PST Maria DET FOC
 ‘I saw the man who married Maria.’

While common nouns most frequently serve as heads of relative clauses, proper nouns can also appear in this position, always accompanied by the definite determiner *hv*, which restricts their reference to a specific individual or set. Although (12) may superficially resemble an internally headed relative clause, it is best analyzed as an externally headed construction: the head noun *my* ‘floor’ occurs outside the relative clause, and the relativized position within the RC is represented by a gap rather than an overt nominal expression. This contrasts with true internally headed relative clauses, where the head noun is structurally contained within the RC.

Likewise, personal pronouns (in their emphatic form) and indefinite pronouns can serve as head nouns, as illustrated in (15)-(17):

15. *ŋ naa Duma hv [àà saba teŋ hv] re.*
 1SG see.PST Duma DET REL write.PST book DET FOC
 ‘I saw the Duma who wrote the book.’

16. *Miyay [àà dii kidiillie hv] ne juy ba svmy.*
 1SG.EMP REL eat.EMP food DET FOC know 3SG sweetness
 ‘I, who ate the food, know the sweetness of the food.’

17. *Nal buloŋ [àà jɨŋ haan hv] jima ni v yaa bɔnye*
 Person all REL know woman DET know that 3SG COP kind
tiina re.
 person FOC
 ‘Everyone, who knows the lady, knows that she is a kind person.’

Typologically, relative clauses are classified by the position of the head noun. Two primary types are recognized: externally-headed relative clauses (EHRCs), where the head noun lies outside the complementizer phrase (CP), and internally-headed relative clauses (IHRCs), where the head noun is located within the CP (Hiraiwa et al., 2017; Bodomo & Hiraiwa, 2009). Hiraiwa et al. further classify RCs based on linear ordering: left-headed (head precedes the clause), right-headed (head follows the clause), and in-situ (head is embedded within the clause).

Data from Sisaalt indicate that the language permits only externally-headed, left-headed relative clauses. Examples (18) and (20) illustrate grammatical constructions, whereas internally-headed, right-headed, and in-situ constructions, illustrated in (19), (21), and (22), are ungrammatical.

Externally-headed RC in Sisaalt

18. *Baal hv [àà mari kidilie hv] ko daha re*
 Man DET REL cook.PST f ood DET come.PST here FOC
 ‘The man who cooked the food came here.’

Internally headed RC in Sisaalt

19. **[Baal àà mari kidilie hv] ko daha re*
 Man REL cook.PST food DET come.PST here FOC

Left headed RC in Sisaalt

20. *Baal hv [àà mari kidilie hv]*
 Man DET REL cook food DET
 ‘The man that cooked the food’

Right headed RC in Sisaalt

21. **[A mari kidilie hv] baal hv*
 That cook.PST food DET man DET

In-situ RC in Sisaalt

22. **[Baal mari kidilie hv] ko re*
 Man cook.PST food DET come FOC

These data show that Sisaalt strictly requires overt pre-relative clause head positioning, allowing only externally-headed and left-headed constructions.

5. The NP Accessibility Hierarchy

Keenan and Comrie (1977) and Comrie (1981, 1989) propose the NP Accessibility Hierarchy to explain cross-linguistic variation in the relativization of noun phrases. The hierarchy is as follows, where the symbol “>” means “more accessible than”:

23. NP Accessibility Hierarchy

Subject>Direct Object>Non-Direct Object>Possessor (Comrie 1981:149)

According to this hierarchy, if a language can relativize a lower-ranked syntactic role, such as an indirect object or possessor, it can also relativize all higher-ranked roles, including the subject. Sisaalt conforms to this hierarchy by permitting relativization of noun phrases in all positions, including subjects, direct and indirect objects, possessors, locatives, prepositional phrases, comparatives, and temporals.

- Subjects and direct objects typically use the gap strategy, leaving no pronoun at the relativization site.
- Indirect objects and possessors generally employ resumptive pronouns.

Subject relativization

24. *Bie hv [àà dii kidiillie hv] we daha re.*
 Child DET REL eat.PST food DET inside here FOC
 ‘The child who ate the food is here.’

Direct Object relativization

25. *Kidiillie hv [bie hv àà dia] suma re*
 Food DET child DET REL eat.PST sweet FOC
 ‘The food that the boy ate was delicious.’

The head noun *Kidiillie* (‘food’) occurs outside the relative clause, while a gap represents the relativized object position within the RC. This is an externally-headed object relative clause. It is not internally-headed, because the head noun is not contained inside the RC.

Indirect Object relativization

26. *Nal hv [v àà kpaa ten hv tia] yaa η didagil le*
 Person DET 3PL REL take.PST book DET give COP 1SG teacher FOC

‘The person to whom he gave the book is my teacher.’

Possessive relativization

27. *Baal hv [loori àà yaa kifian] yaa η chana re*
 Man DET car REL COP red COP 1SG friend FOC
 ‘The man whose car is red is my friend.’

Locative Relativization

28. *Lee hv [baal hv àà yəbɔ puna hv] bolie re.*
 Place DET man DET REL buy.PST animal DET far FOC
 ‘The place where the man bought the animal is far.’

Preposition relativization

29. *Kalɥ hv [nyuu ι àà pɪna] jalie re*
 Mat DET head 2SG REL lie.PST wide FOC
 ‘The mat on which you are lying down is wide.’

Comparative relativization

30. *Baal hv [Maria àà dolie te] mvv Wa re*
 Man DET Maria REL tall more go Wa FOC
 ‘The man who Maria is taller than has gone to Wa.’

Temporal Relativization

31. *Taj hv [baal hv àà yəbɔ kidilie tia bie hv] re.*
 Time DET man DET REL buy.PST food give child DET FOC
 ‘The time that the man bought food for the child.’

This pattern aligns Sisaalt with other relativization-permissive Mabilia languages, such as Dagaare (Bodomo & Hiraiwa, 2004) and Gurene (Atintono, 2003), as well as Kwa languages such as Akan (Saah, 2010) and Ewe (Dzameshie, 1995).

6. Restrictive Versus Non-restrictive Clauses

Givón (1993) distinguishes between restrictive and non-restrictive relative clauses, the latter sometimes referred to as appositive relative clauses. He notes that restrictive relative clauses are the most common cross linguistically, and Sisaalt conforms to this typology. According to Comrie (1981), restrictive relative clauses restrict the set of referents of the head noun while the non-restrictive type of relative clauses do not restrict the set but instead provide additional information. Sisaalt predominantly uses restrictive relative clauses, which narrow down the reference of the head noun. However, non-restrictive (appositive) clauses also occur, marked by a focus particle *re*

and comma intonation, as seen in examples (32) and (33). These clauses add information rather than restrict reference.

32. *Sia hv, [kiŋ hv fa àà piŋ kpasa hv nyuu], rɛ ŋ*
 Knife DET thing DET PST REL lie chair DET head FOC 1SG
ku chɛ.
 PROG search
 ‘The knife, the one which was lying on the table, is the one I am looking for.’

33. *Hatolu hv, [nal hv àà lii Yaala ko jinaŋ hv] rɛ*
 Woman.young DET person DET REL from Yaala come today DET FOC
ɲmaa v.
 beat 3SG
 ‘The young lady, who came from Yaala today, is the one who beat her.’

In Sisaali, the particle *rɛ* frequently occurs at the clause-final position in both restrictive and non-restrictive relative clauses, as illustrated in examples (32) and (33). This particle is also present in all declarative clauses and in constructions conveying focus, signaling that its function is primarily discourse-structural rather than nominal-definitive. While its surface position is reminiscent of the clause-final determiners observed in some Kwa languages (Hiraiwa et al., 2017), *rɛ* does not mark definiteness but instead indicates focus or emphasis on the clause or proposition. In non-restrictive relative clauses, its presence is obligatory, signaling that the clause adds additional, non-restrictive information about the head noun. In restrictive relative clauses, *rɛ* may appear optionally, contributing to information-structural prominence. Thus, although Sisaali exhibits a clause-final particle in RCs similar in position to Kwa clause-final determiners, its grammatical role is discourse-functional and not nominal-definitive.

7. Stacked relative clauses

Stacked relative clauses refer to multiple relative clauses that modify the same noun without embedding one within the other. Unlike Buli (Hiraiwa 2003) and Gurene (Atintono 2003), Sisaali, like Dagaare (Bodomo & Hiraiwa 2004) and Kusaal (Abubakari 2019), does not permit stacking of relative clauses. This is shown in the ungrammatical construction in (34).

34. **Baal hv [àà yiï yiila àà gvwa] yaa ŋ maana rɛ*
 Man DET REL sing song REL dance COP 1SG brother FOC

Unacceptable stacking can be corrected by introducing a conjunction or rephrasing the structure as shown in example (35).

35. *Baal hv [àà yii yiila aŋ ki gvwa yaa ŋ maana re*
 Man DET REL sing song CONJ PROG dance COP 1SG brother FOC
 ‘The man who is singing and dancing is my elder brother.’

8. Other Elements of Sısaalt Relativization

This section explores other relevant features used in the formation of relative clauses in Sısaalt.

8.1. Long Distance Dependency

Long distance dependency occurs when the head noun described by a relative clause is syntactically distant from the gap within the clause. Sısaalt allows long-distance relativization. In such cases, a resumptive pronoun is optionally used for object positions and obligatorily used for subjects. The relative pronoun *àà* appears only in the highest clause, not in the intermediate clauses.

36. Long Distance Relativization (Object)

- a. *Haan hv [ŋ àà buna ni Maria baa di Laadi*
 Woman DET 1SG REL think.PST that Maria said that Laadi
naa (v)] yaa ŋ nyila re.
 see.PST COP 1SG aunt FOC
 ‘The woman who I thought that Maria said that Laadi saw is my aunt.’

- b. **Haan hv [ŋ àà buna ni Maria baa di Laadi àà*
 Woman DET 1SG REL think.PST that Maria said that Laadi REL
naa (v)] yaa ŋ nyila re.
 see.PST 3SG COP 1SG aunt FOC

37. Long Distance Relativization (Subject)

- a. *Haan hv [ŋ àà buna ni Maria baa di v naa*
 Woman DET 1SG REL think.PST that Maria said that 3SG see.PST
Laadi] yaa ŋ nyila re.
 Laadi COP 1SG aunt FOC
 ‘The woman who I thought that Maria said that she saw Laadi is my aunt.’

- b. **Haan hv [ŋ àà buna ni Maria baa di naa*
 Woman DET 1SG REL think.PST that Maria said that see.PST
Laadi] yaa ŋ nyila re.
 Laadi COP 1SG aunt FOC

8.2. Island Subjacency

Island subjacency constraints in syntax prevent the formation of relative clauses when the head noun is separated from the gap by a syntactic barrier. Relativization in Sisaalt is subject to island subjacency. This suggests that the relationship between the relativized head and the gap is mediated by movement. It is therefore ungrammatical in Sisaalt to have relativization out of a complex NP or an adjunct clause. This is demonstrated in example (38).

38. Complex NP constraint

a. * <i>ŋ</i>	<i>karima</i>	<i>teŋ</i>	<i>hv</i>	<i>ŋ</i>	<i>àà</i>	<i>naa</i>	<i>haaŋ</i>	<i>hv</i>
1SG	read.PST	book	DET	1SG	REL	see.PST	woman	DET
<i>v</i>	<i>àà</i>	<i>saba</i>	<i>rɛ.</i>					
3SG	REL	write.PST	FOC					

38. Adjunct Island

b. * <i>ŋ</i>	<i>karima</i>	<i>teŋ</i>	<i>hv</i>	<i>ŋ</i>	<i>fa</i>	<i>àà</i>	<i>naa</i>	<i>haaŋ</i>
1SG	read.PST	book	DET	1SG	PST	REL	see.PST	woman
<i>hv</i>	<i>di</i>	<i>v</i>	<i>fa</i>	<i>àà</i>	<i>sabɪ</i>	<i>v.</i>		
DET	when	3SG	PST	REL	write.PST	3SG		

8.3. Use of Double relativizers

Unlike some Mabia languages such as Buli, Dagaare, Dagbani, Moore, and Gurene, (Hiraiwa et al. 2017), Sisaalt does not permit the use of multiple relative markers within a single construction. This is illustrated in example (38).

39a. <i>D dii</i>	<i>mongo</i>	<i>hv</i>	<i>[Duma</i>	<i>àà</i>	<i>yɔbɔ]</i>	<i>rɛ</i>	
1SG	eat.EMP	mango	DET Duma	REL	buy	FOC	
'I ate the mango that Duma bought.'							

39b. * <i>D</i>	<i>dii</i>	<i>mongo</i>	<i>hv</i>	<i>àà</i>	<i>Duma</i>	<i>àà</i>	<i>yɔbɔ</i>	<i>rɛ</i>
1SG	eat.EMP	mango	DET	REL1	Duma	REL2	buy	FOC

8.4. The Placement of Adverbs

In Sisaalt, adverbs can occur either before the verb in a relative clause with the relativizer *àà* placed between the adverb and the verb (40), or at the end of the relative clause (41).

40a. <i>D karima</i>	<i>teŋ</i>	<i>hv</i>	<i>[Duma dii</i>	<i>àà</i>	<i>saba]</i>	<i>rɛ.</i>	
1SG	read.PST	book	DET Duma	last year	REL	write.PST	FOC

‘I read the book which Duma wrote last year.’

40b. **D* *karima* *teŋ* *hv* [*Duma àà* *dii* *saba]* *rɛ.*
 1SG read.PST book DET Duma REL last year write.PST FOC

41. *ŋ* *karima* *teŋ* *hv* [*Duma àà* *saba* *dii]* *rɛ.*
 1SG read.PST book DET Duma REL write.PST last year FOC

‘I read the book which Duma wrote last year.’

9. Conclusion

This paper has explored the morphosyntactic structure and typological properties of relative clause (RC) formation in Sisaalt, a Gur language spoken in Ghana. The analysis demonstrates that Sisaalt employs externally-headed, postnominal relative clauses, where the head noun precedes the relative clause. A defining characteristic of these constructions is the obligatory use of a relative pronoun (*àà/áá*) that introduces the clause, as well as a determiner (*hv*) that immediately follows the head noun. These two elements are structurally required for well-formed relative clauses in the language.

In addition to these obligatory components, the study finds that resumptive pronouns are optionally employed, particularly in contexts involving possessive constructions or long-distance dependencies. In such cases, the resumptive pronoun reinforces the syntactic link between the relativized noun and its grammatical role within the embedded clause, reflecting a strategy for maintaining syntactic coherence in complex clause structures (Comrie, 1981; Keenan & Comrie, 1977).

Typologically, Sisaalt relative clauses are consistently externally-headed and left-headed. The language does not permit internally-headed, right-headed, or in-situ relative clauses, pointing to strong structural constraints on clause embedding and relativization strategies (Givón, 2001). Among the types of relative clauses, restrictive RCs are the most frequently attested. These serve a delimiting function by narrowing the reference of the head noun, which aligns with the pragmatic function of RCs in many natural languages (Downing, 1978).

These findings provide not only a detailed account of RC formation in Sisaalt but also contribute to broader typological and theoretical discussions on relativization strategies across languages. They highlight the systematic nature of RC structures in Sisaalt and offer valuable data for cross-linguistic comparison within the Mabia family and beyond.

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Abbreviation Meaning

1SG	First person singular
2SG	Second person singular
3SG	Third person singular
3PL	Third person plural
COP	Copula
DET	Determiner
EMP	Emphatic
FOC	Focus particle
FUT	Future tense
MC	Main clause
RC	Relative clause
REL	Relative marker (àà / áá)
PER	Perfect aspect
PROG	Progressive aspect
PST	Past tense
PL	Plural
SG	Singular