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VISITING A NEGLECTED LEXICAL CATEGORY: AN OVERVIEW OF DAGBANI ADVERBIALS

Musah Sugri Issahaku

Samuel Alhassan Issah

Sadia Jomo Issahaku

Abstract

This paper provides a descriptive overview of adverbials in Dagbani, a Mabia (Gur) language spoken in northern Ghana, focusing on their distributional characteristics and the possibilities of adverbial sequencing. We show that Dagbani adverbials occur in clause-initial, postverbal, and clause-final positions but are banned in the preverbal position. We also demonstrate that focalization and topicalization are instrumental in the occurrence of Dagbani adverbials in the sentential initial position. We further show that the default distributional property of Dagbani adverbials is the postverbal position, with the exception of the epistemic adverbials and the grammatical aspectual adverbials, which are disallowed in this position. Whereas the former category of adverbials occur only clause initially, the latter occur in the position immediately before the verb. Finally, we demonstrate that whereas certain adverbial combinations present a flexible linear ordering, some combinations occur in a fixed linear order, hence, do not give room for reordering. The descriptive approach employed in this paper enables us to provide an exhaustive analysis of the data presented without binding it to any formal syntactic theory, which may limit the discussions to its principles. The data used in this study are drawn from primary sources. Whereas some of the data are obtained from fieldwork, others are constructed based on the native intuitions of the authors.

Keywords: Dagbani, Mabia, syntax, adverbials, linear ordering

1. Introduction

This paper discusses the syntax of Dagbani adverbials, a lexical category that remains largely unexplored in West African languages. Although Dagbani has received considerable research attention, adverbials have remained neglected. This study explores the syntactic properties of adverbials in Dagbani, focusing on their distributional features and possible adverbial sequencing. Adverbs have received scholarly attention (Jackendoff, 1972; Cinque, 1999, 2004; Ernst, 2002, 2004, 2007, 2020; Givon, 1993; Yin, 2002; Seiichi,

1972; Allerton and Cruttenden, 1974; Haegeman, 2010; Laenzlinger, 2015; Diepeveen, 2015; Rauh, 2015), but are largely unexplored in West African languages (Saah 2004; Lusekelo, 2010; Nabarese, 2017; Asamoah, 2018).

The adverb class remains hard to define. Givon (1993) acknowledges this and several others (Saah, 2004; Berk, 1999; Pittner et al., 2015). According to Givon (1993:28), an adverb is “the hardest to define” among the four major word classes. For instance, it is described as the most “nebulous and puzzling of the traditional word classes” (Quirk et al., 1985: 438), “a mixed bag” and “a notoriously difficult class” (Borjas & Burrige, 2010: 22), a “wastebasket category” (Morzycki, 2015:193), and a “grammatical dustbin” (Trask, 1993: 10). All the same, there have been attempts to describe the adverb as a word class or a grammatical category (Trask, 1993; Schaefer, 2015) whose members are often grammatical adjuncts of a verb that mostly give a semantic notion of time, manner, place, instrument or circumstance (Trask, 1993: 9). In this paper, we see an adverb as any word (including grammatical particles) that modifies an adjective, verb, adverb, or an entire proposition.

We differentiate between adverbs and adverbials in Dagbani. Whereas an ‘adverb’ refers to a lexical word with a semantic notion of manner as in *vienyela* ‘well,’ time, e.g., *pumpɔŋɔ* ‘now,’ place, e.g., *kpe* ‘here,’ frequency, e.g., *buta* ‘thrice,’ and pace, e.g., *baalim* ‘slowly,’ ‘adverbial’ is a grammatical element in the clause which provides more information about the verb, adjective or adverb. It may indicate time, manner, place, frequency, reason, condition, etc., which may come in different forms, either as adjectives, AdvPs, NPs, PPs, or clauses, in the case of Dagbani. Although the terms ‘adverb’ and ‘adverbial’ are used interchangeably, they differ. While an ‘adverb’ is a lexical category treated as an open word class, an ‘adverbial’ is an element of a clause, like the subject, verb, object, or complement (cf. Trask, 1993; Pittner et al., 2005; Schaefer, 2015).

This study focuses on a descriptive account of the distributional properties of Dagbani adverbials. Thus, we refer to any lexical category (belonging to the class of an adverb, NP, PP, AdjP, or verbal clause) with a syntactic function of the adverb as an adverbial since adverbs by syntactic function are referred to as adverbials.

Dagbani has three major dialects: Tomosili, Nanunli, and Nayahili (Issah, 2011a, 2011b; Olawsky, 1999). The data for this study were based on the Tomosili dialect, which the authors of this manuscript speak. The data presented in this study were collected from fieldwork in the Tomosili-speaking areas, and some were sourced from the authors’ native introspections. When data are constructed by the authors, they confirm their grammaticality judgements from other native speakers to avoid bias in the analysis. The objectives of the study are as follows: (i) to explore the distributional characteristics of Dagbani adverbials, (ii) to provide a semantic classification of Dagbani adverbials, and (iii) to examine the combinational restrictions on the different adverbial types in Dagbani. The remainder of this paper is organized as follows. In Section 2, we explore the distributional characteristics of Dagbani adverbials, and the linear order of adverbials is discussed in Section 3. Section 4 summarizes the study.

2. The Distributional Properties of Dagbani Adverbials

Previous studies have shown that adverbials occur in varied positions in natural languages, including clause-initially, preverbally, postverbally, and clause-finally (Jackendoff, 1972; Potsdam, 2017; Saah, 2004; Nabaarese, 2017; Asamoah, 2018; Yiagnigni, 2016). The distributional characteristics are tied to their semantic classification because adverbials identified as belonging to the same subclass have similar syntax (cf: Jackendoff, 1972; Saah, 2004; Nabaarese, 2017; Asamoah, 2018; Yiagnigni, 2016; Issahaku, 2021). Jackendoff (1972) and Saah (2004) subclassified adverbials on their syntactic grounds as sentence-modifying adverbials (S-adverbials) and verb-phrase modifying adverbials (VP-adverbials). Another level of syntactic classification is their categorization is high-class and lower-class adverbials (see Yiagnigni, 2016 and references thereof). Semantically, adverbials are sub-classified based on the information they provide as they modify verbs, adjectives, adverbs, and, to some extent, the entire proposition. In this study, we adapt the semantic categorization of Dagbani adverbials as proposed by (Saah, 2004 Yiagnigni, 2016; Nabaarese, 2017; Asamoah, 2018) since we find their categorizations as appropriate for the patterns in Dagbani.

2.1 The Syntax of Manner Adverbials

This category of adverbials describes how an activity is carried out in a proposition (Tabe, 2015). In some African languages such as Akan, Kasem, Dangme, Kinyakyusa, Kenyang, and Shupamem, manner adverbials have unmarked postverbal and VP-final positions (Saah, 2004; Lusekelo, 2010; Tabe, 2015; Yiagnigni, 2016; Nabaarese, 2017; Asamoah, 2018), as seen in (1a), (1c), (2a) and (2c) for Akan, Kenyang, Dangme and Kasem respectively. Accordingly, Dagbani manner adverbials only occupy the clause-final (3a) or postverbal (3b) positions in the canonical clause structure but are banned in the clause-initial and preverbal positions. A sentence is rated ungrammatical if a manner adverbial appears clause-initially (if not marking focus (3c)) or preverbally, as shown in (4a) and (4b) respectively.

Studies in Akan (1b), Kenyang (1d), Dangme (2b) and Kasem (2d) revealed that manner adverbials can only occupy the initial position of a sentence through focalization (Saah, 2004: 49-50; Tabe, 2015: 125-126; Nabaarese, 2017: 86-87; Asamoah, 2018: 141). A similar conclusion can be drawn for Dagbani, as shown in (3c).

- (1) a. **Amma kasa** **bɔkɔɔ**.
 Amma speak.PRES softly
 ‘Amma speaks softly.’

(Saah, 2004: 49-50)

- b. **Abufuw so na Kofi frɛ-ɛ Kwadwo.**
 Anger on FOC Kofi call.PST Kwadwo
 (Saah, 2004: 51)
- c. **Eta à púrí m-mwɛrɛ a-wì nɛ**
 Eta 1SG.PFV push 1-friend AUG-3SG.POSS with
βɛbɛnti.
 anger
 ‘Eta pushed his friend in anger.’
- d. **ʔi pɛli kɛ Eta ǎ kɔ.**
 Cleft slowly FOC Eta 1SG.PFV walk.
 ‘It is slowly that Eta walks.’
 (Tabe, 2015: 126)
- (2) a. **Jokue yoyo-ɔ sa kuadaa tsɛtsɛrsɛ.**
 child female-DEF grind-PFV pepper smartly
 ‘The girl grinded the pepper smartly.’
- b. **Tsɛtsɛrsɛ ne jokue yoyo-ɔ sa kuadaa.**
 Smartly FOC child female-DEF grind-PFV pepper
 (Asamoah, 2018: 137)
- c. **Bāārō wóm ɲòònè jwòrìm-vērānē.**
 man CL-DET speak-PST foolish-completely
 ‘The man spoke foolishly.’
- d. **Jwòrìm-vērānē mó Bāārō wóm ɲòònè.**
 foolish-completely FOC man CL-DET speak-PST
 ‘It was foolishly that the man spoke.’
 (Nabaarese, 2017: 89)
- (3) a. **Alzindoo kpe tiliga maa vienyɛla.**
 Azindoo carve.PFV pestle DEF well
 ‘Azindoo has carved the pestle well.’
- b. **Aduna kuhi-ri pam.**
 Aduna cry-IPFV a lot
 ‘Aduna cries a lot.’
- c. **Yirin ka doo maa tum tuma maa.**
 Carelessly FOC man DEF do.PFV work DEF
 ‘The man did the work CARELESSLY.’

- (4) a. ***Viɛnyɛla** **Azindoo** **kpe** **tiliga maa.**
 Well Azindoo carve.PFV pestle DEF
- b. ***Azindoo** **viɛnyɛla** **kpe** **tiliga maa.**
 Azindoo well carve.PFV pestle DEF

2.2. The Syntax of Pace Adverbials

Pace adverbials, like the true manner adverbials, exhibit the same distributional characteristics in the clause. There are no morphological or syntactic differences between place and manner adverbials in Dagbani. The difference is based on the context of use, of which the semantic component comes into play. Usually, the same lexical items are used to express both manner and pace notions, which might be one of the reasons why many linguists see one as a subtype of the other (Saah, 2004; Givon, 1993; Tabe, 2015; Lusekelo, 2010; Yiagnigni, 2016; Asamoah, 2018).

As shown in (5a), the unmarked position of pace adverbials is clause-finally. Similar to manner adverbials, they are shown to be VP-adverbials as described by Jackendoff (1972) because they are base-generated in the lower part of the clause and are noticed to be predicate modifiers in the clause. The only way they can be raised to the higher part of the clause is through focalization (5d). The ungrammatical construction in (5c) shows that pace adverbials in Dagbani cannot occur preverbally (i.e., between the subject and the verb/VP). They are also banned from the left periphery of the clause without the focus marker **ka** as in (5b).

- (5) a. **Azindoo** **ɲmaai** **tia** **maa** **yom.**
 Azindoo cut.PFV tree DEF quickly
 ‘Azindoo cut the tree quickly.’
- b. ***Bielabiɛla** **Azima** **guu-ra.**
 Slowly Azima run-IPFV
- c. ***Azindoo** **yom** **ɲmaai** **tia** **maa.**
 Azindoo quickly cut.PFV tree DEF
- d. **Yom** **ka** **Azindoo** **ɲmaai** **tia** **maa.**
 Quickly FOC Azindoo cut.PFV tree DEF
 ‘Azindoo has cut the tree quickly.’

2.2.2 The Syntax of Instrumental Adverbials

Syntactically, instrumental adverbials, although subsumed under manner adverbials, show varied distributional characteristics in the clause structure of Dagbani. First, instrumental adverbials come in the form of a combination of nouns and the preposition **ni** to create a prepositional phrase. Thus, though structurally a prepositional phrase, they function as an adverbial in the clause, showing how an action occurs in the clause. They occur only after the verb phrase and cannot be fronted for focus or topic. In (6) and (7), the adverbials identified in the constructions show that instrumental adverbials in Dagbani occur clause-finally (6a, 7b) and postverbally (7c) and are not permitted to occur elsewhere in the clause. They do not occur in the preverbal (6b) or clause-initial (6c) and (7a) positions. Also, unlike the true manner and pace adverbials, this subclass of manner adverbials cannot be fronted to mark topic (6c) or focus (7a) because these yield illicit constructions.

- (6) a. **Sibiri labisi bɔhigu maa ni suhuzia.**
 Sibiri answer.PFV question DEF with confidence
 ‘Sibiri has answered the question with confidence.’
- b. ***O ni suhuyivisili kpe yili ŋɔ na.**
 3SG with anger enter.PFV house DEM DM
- c. ***Ni suhuyivisili, o kpe yili ŋɔ na.**
 With anger 3SG enter.PFV house DEM DM
- (7) a. ***Ni suhuyivisili ka o kpe yili ŋɔ na.**
 With anger FOC 3SG enter.PFV house DEM DM
- b. **Bɛ deei liyiri maa ni suhumahili.**
 3PL collect.PFV money DEF with quietness
 ‘They collected the money quietly.’
- c. **Zaanyɛya kuli-ya¹ ni suli.**
 Zaanyɛya go.home-PFV with anger
 ‘Zaanyɛya went home angrily.’

¹ Note that **kuli** as glossed in (7c) is in its base form and has not gone through any morphological process to encode go.home. The verb, ‘go’, in Dagbani is ‘**chaj**’ but **kuli** is used to mean movement by any means towards home and nowhere else.

Secondly, instrumental adverbials are expressed through a combination of certain nouns and the verb **zaŋ**, yielding a serial verb construction. Similar patterns have been observed by (Osam, 1994; Saah, 2004; Tabe, 2015). This type of instrumental adverbials exhibits syntactic characteristics unique from those that come in the form of prepositional phrases in (6) and (7). The syntax of these adverbials is unique because they are not only different from their manner adverbial counterparts but also from all the adverbials in the language except those identified as grammatical aspectual adverbials (see Section 2.7). Moreover, this is because they are all base-generated in the preverbal position of the clause (8a) and are disallowed in the clause-initial (8c) and (9b) or the clause-final (9a) positions. This kind of instrumental adverbials can also occur with a nominal element preceding the sentence with the focus marker **ka**. When this happens, the verb **zaŋ**, still appears immediately before the main verb of the clause, as shown in (8b). The construction in (9b) is ungrammatical because these instrumental adverbials are banned in focus position.

- (8) a. **Sibiri zaŋ² nineesim** **di** **bindirigu** **la.**
 Sibiri take trick eat.PFV food DEF
 ‘Sibiri used tricks to eat the food.’
- b. **Suhuzia** **ka** **Sibiri zaŋ** **labisi** **bɔhigu** **maa.**
 Confidence FOC Sibiri take answer.PFV question DEF
 ‘Sibiri used confidence to answer the question.’
- c. ***Zaŋ nineesim** **Sibiri di** **bindirigu** **la.**
 Take trick Sibiri eat.PFV food DEF
- (9) a. ***Sibiri** **di** **bindirigu** **la** **zaŋ nineesim.**
 Sibiri eat.PFV food DEF take trick
- b. ***Zaŋ baŋsim** **ka** **Sibiri deei** **bolli** **maa.**
 Take skill FOC Sibiri collect.PFV football DEF

The data in (6) through (9) provide evidence in support of the proposal that instrumental adverbials, which are sub-categorized under manner adverbials, have wider distributional features. They can occur preverbally (8a), clause-finally (6a, 7b), and in the postverbal position (when the verb in the clause is used intransitively (7c)). They can also be spread around the subject of the clause where the nominal element of the adverbial phrase is fronted for focus while the serialized verb, **zaŋ**, occurs between the subject and the main verb of the clause (8b).

² We note that **zaŋ** ‘use/take’ is not a defective verb. Syntactically, this is just a serial verb construction. Semantically, it has a sense which may be translated adverbially as ‘with’ (+ means/instrument.) but could also be translated as a verb ‘use’.

2.2.3 The Syntax of Ideophonic Adverbials

In languages such as Akan, Kasem, Dangme Kenyang, and Shupamem, some manner adverbials appear in the form of ideophones (Saah, 2004; Agyekum, 2008; Nabaarese, 2017, Asamoah, 2018; Tabe, 2015; Yiagnigni, 2016). Tabe (2015:121) refers to these adverbials as ideophonic adverbials because “they are used to describe how an action is performed by appealing to some of our senses.” An ideophone is defined as “a vivid representation of an idea in sound or a word, often onomatopoeic, which describes a predicate, qualificative or adverb in respect to manner, colour, smell, action, state, or intensity.” (Doke, 1935: 118-119). Welmers (1973) further explains that in almost all the Niger-Congo and Nilo-Saharan languages, including a few Chadic branches of Afro-Asiatic languages, speakers employ many ideophonic words to express adverbials. Consequently, ideophones contribute significantly to their function as adverbials in languages across the globe.

Ideophonic adverbials in Dagbani share similar distributional properties with manner and pace adverbials. They occur clause-finally in their unmarked position, similar to manner adverbials and its sub-categories. They can also take the clause-initial position through focalization. From (10) and (11), we notice that the ideophonic adverbials occur clause-finally (10a), (11a) and (11b). In addition, they appear in clause-initial positions through focalization, as illustrated in (11c). The ungrammatical construction in (10b) shows that like manner and pace adverbials, ideophonic adverbials are banned in the preverbal position. Instrumental, pace, and ideophonic adverbials, even though are classified in the same semantic category as manner adverbials, have distinct syntactic characteristics in Dagbani.

In addition, we observe here that some ideophonic adverbials come in the form of multiple reduplication (11b and 11d). These adverbials do not occur in the clause-initial position even when fronted for focus, as illustrated in (11d), unlike those that are reduplicated once (11c). It is also worth noting that ideophonic adverbials that are reduplicated multiple times and those that appear in a single reduplicated form do not only differ by distribution. They also present different semantic interpretations as well. While the single reduplicated form in (11a and 11c) is interpreted as ‘very soft or so soft’, the multiple reduplicated form in (11b) is interpreted as ‘extremely soft’. For details on ideophones and reduplication, see (Dingemanse, 2015).

- (10) a. **O** **duu** **maa** **nyo** **mi** **yum.**
 3SG room DEF small.PFV FOC IDEOPH
 ‘His/her room smells so good.’
- b. ***Bia** **maa** **parigili** **lu** **na.**
 Child DEF IDEOPH fall.PFV DM

- c. **Vayivayi** ka **Sibiri di** moongu maa.
 IDEOP FOC Sibiri eat.PFV mango DEF
 ‘Sibiri has eaten the mango vigorously.’
- (11) a. **Amina nuu bali la nobanoba.**
 Amina hand soft FOC IDEOPH
 ‘Amina’s hand is so soft.’
- b. **Amina nuu bali la nobanobanobanoba.**
 Amina hand soft FOC IDEOPH
 ‘Amina’s hand is extremely soft.’
- c. **Nobanoba ka Amina nuu bala.**
 IDEOPH FOC Amina hand soft
 ‘Amina’s hand is so soft.’
- d. ***Timtintimtintim** ka liiga maa sabigi.
 IDEOPH FOC shirt DEF black.be

2.3 The syntax of time/temporal adverbials

Time/temporal adverbials have wider distributional characteristics. Adverbials in this category take both the initial and final positions of the clause. They can also occur in the postverbal position of a clause when the verb is used intransitively. In the initial position, they can be fronted to mark either focus or topics. They are, however, disallowed in the preverbal position except the durational adverbial, where it occurs in a serial verb construction with **zaŋ** ‘take,’ similar to that of the instrumental manner adverbial.³ Apart from the situation where the durational adverbial is constructed with the verb **zaŋ** ‘take’, all other forms of durational adverbials, like other temporal adverbials, take the clause-initial, clause-final, and postverbal positions.

The data in (12) through (14) show that adverbials of time can occur postverbally (12b) and clause-finally (after the VP) (12a). They can also occupy the clause-initial position through focalization (13a and 14b) or topicalization, as in (12c). Thus, Dagbani adverbials can be fronted through focalization or topicalization, except epistemic adverbials, as illustrated in Section 2.5, which are restricted in the clause-initial position and cannot mark focus. Further, it is observed that Dagbani temporal adverbials have three key distributional

³ We note that this is the same situation as instrumental adverbials that are in the form of **zaŋ** +noun. It is observed that whenever a nominal element occurs with the verb, **zaŋ** ‘take’ in an SVC, to express adverbial notion, such adverbials take the pre-verbal position in the clause.

positions regardless of their internal structure. The only place they are restricted from occurring is the preverbal position (14d and 13b). Another observation worth mentioning is that durational adverbials that are coded by a combination of the verbs **zaŋ** ‘take’ and **niŋ** ‘do,’ with nominal elements have temporal notions. These adverbials, like those discussed in section 2.2.2, have a semantic interpretation of **+instrument** in their use as modifiers. Like instrumental manner adverbials, they take the preverbal position (14a) in the clause. They modify the VP by indicating the duration of a particular activity in a sentence. Without the defective verbs **zaŋ** ‘take’ and **niŋ** ‘do,’ they cannot take the preverbal position in the clause, as shown in (14d).

- (12) a. **Saamba maa paai na pumpɔŋɔ.**
 Strangers DEF arrive.PFV DM now
 ‘The strangers have arrived now.’
- b. **Tidoo bi di zunɔ.**
 Tidoo NEG eat.PFV today
 ‘Tidoo did not eat today.’
- c. **Pumpɔŋɔ, saamba maa paai na.**
 Now, strangers DEF arrive.PFV DM
 ‘Now, the strangers have arrived.’
- (13) a. **Asiba ŋɔ ka saamba maa paai na.**
 morning DEM FOC strangers DEF arrive.PFV DEF
 ‘The strangers have arrived THIS MORNING.’
- b. ***Saamba maa pumpɔŋɔ paai na.**
 strangers DEF now arrive.PFV DM
- (14) a. **Bia maa zaŋ hawa yini di leemu maa.**
 child DEF take.PFV hour one eat.PFV orange DEF
 ‘The child used one hour to eat the orange.’
- b. **Goli muni ka ti zaŋ wari dari ŋɔ.**
 month full FOC 1PL take split.PFV firewood DEM
 ‘We used to split this firewood in a FULL MONTH.’
- c. **Ti tum la tuma maa chira ayi.**
 1PL work.PFV FOC work DEF monthstwo
 ‘We did the work in two months.’
- d. ***Ti chira ayi tum tuma maa.**
 1PL months two work.PFV work DEF

2.4 The syntax of place/locative adverbials

Place/locative adverbials occur postverbally, and clause-finally (VP-final). They are restricted from occurring in clause-initial positions without being focused. Place/locative adverbials are disallowed in the preverbal position of the clause. This applies to both adverbials that specify a location and those that give direction. Locational and directional adverbials share similar distributional properties with manner adverbials. Examples (15-17) show that both directional and locational adverbials in Dagbani have three syntactic slots in the clause, with the clause-final and postverbal as their unmarked positions. The illustrations in (15b) and (17b) show that place/location adverbials can occur in the postverbal position. We also observe in (15c) that locative adverbials can also occupy the clause-final position. Their occurrence in the clause-initial position is possible only by focalization, as shown in (15a) and (17a). The constructions in (16b) and (17d) are ungrammatical because place/locative adverbials cannot occur in the clause-initial position without the **ka** focus particle. Moreover, (16a) and (17c) show that, like manner adverbials, Dagbani place/locative adverbials are restricted from occurring preverbally.

- (15) a. **Kpe ka Adam bo o paya maa.**
 Here FOC Adam find.PFV 3SG wife DEF
 ‘It is from here that Adam has married his wife.’
- b. **Bua maa be duu maa puuni.**
 Goat DEF be.at room DEF inside
 ‘The goat is inside the room.’ (Issah, 2020: 52)
- c. **Danaa nya la o bua maa yili nɔ.**
 Danaa see.PFV FOC 3SG goat DEF house DEM
 ‘Danaa saw his goat in this house.’
- (16) a. ***Bua maa duu maa puuni be.**
 Goat DEF room DEF inside be.at
- b. ***Tia zuyu kpaŋ maa tam.**
 Tree on guinea.fowl DEF stand.top
- (17) a. **Yayili nɔ ha ka Azima mini Napari be.**
 Side DEM DIST FOC Azima CONJ Napari be.at
 ‘Azima and Napari are at THAT SIDE.’
- b. **Baa maa kpa n-nɔ polo.**
 Dog DEF head.towards.PFV DEM side
 ‘The dog headed towards this side.’

- c. ***Baa maa η-ηɔ polo kpa.**
 Dog DEF this side head.towards.PFV
- d. ***Daa maa polo loori maa kpa.**
 Market DEF side car DEF head.towards.PFV

2.5 The syntax of epistemic/speaker-oriented adverbials

These adverbials modify the entire clause because of their broader scope. In Dagbani, these adverbials are quite restricted in their distribution. The data in (18) show that the clause-initial position remains unmarked for epistemic adverbials in Dagbani and in several languages (Jackendoff, 1972; Travis, 1988; Saah, 2004; Asamoah, 2018; Laenzlinger, 2015) and others. The verbal particle **bahi** ‘unavoidably,’ which bears epistemic adverbial notion, is the only adverbial capable of occurring in the preverbal position. This adverbial can neither be focalized nor topicalized, similar to what Yiagnigni (2016) presents in Shupamem, and thus, banned in clause-initial, postverbal, or VP-final positions.

In (18a), the epistemic adverbial precedes the entire clause but is disallowed in the preverbal position (18c). In addition, they are banned in the clause-final position (18b). Sentence (18d) shows that epistemic adverbials cannot also occur in the clause-initial position to mark focus. However, apart from the preverbal position, the epistemic adverbial, **bahi** ‘unavoidably,’ in (19) is a grammatical word and is disallowed in other positions in the clause (19b, 19c and (19d). Thus, **bahi** is the only grammatical word that performs an epistemic adverbial function and is licensed in the preverbal position, as shown in (19a).

- (18) a. **η-ηɔ Dawuni kuli maa m bala.**
 Maybe Dawuni hoe DEF FOC DEM
 ‘Maybe, that is Dawuni’s hoe.’
- b. ***Dawuni kuli maa m bala η-ηɔ.**
 Dawuni hoe DEF FOC DEM maybe
- c. ***Bihi maa laabirata ku tooi ηmaai tia maa.**
 Children DEF actually NEG can cut tree DEF
- d. ***Dooli ka Azima ni paai na zuɔɔ.**
 Certainly FOC Azima will arrive DM today
- (19) a. **Lahiri bahi kpe yili maa ni.**
 Lahiri unavoidably enter.PFV house DEF in
 ‘Lahiri has unavoidably entered into the house.’

- b. ***Bihi** **maa** **kpe** **yili** **maa** **ni** **bahi.**
 children DEF enter.PFV house DEF LOC unavoidably
- c. ***Bahi** **ka** **Danaa zayisi** **liyiri** **maa.**
 unavoidably FOC Danaa refuse.PFV money DEF
- d. ***Bahi,** **Danaa zayisi** **liyiri** **maa.**
 unavoidably Danaa refuse.PFV money DEF

2.6 The syntax of frequency adverbials

Regarding the syntax of frequency adverbials, we further classify them into two categories: those that clearly define the number of times an event or action takes place and those that provide information on how often an action or event occurs. For this purpose, two different data sets are provided for the analysis. Examples in (20) present the distributional characteristics of frequency adverbials that indicate the number of times an activity is carried out, while (21) and (22) present frequency adverbials that spell out how often an activity is carried out in the clause.

Adverbials of frequency that specify the number of times an activity takes place, as shown in (20a), occur in the clause-final position. They are also allowed in clause-initial position (20b) through focalization. However, this kind of frequency adverbials is not permitted to occur in clause-initial position through topicalization (20d). As shown in (20c), they are also banned in the preverbal position of the clause.

- (20) a. **Niina di** **bindirigu** **maa** **buyi.**
 Niina eat.PFV food DEF twice
 ‘Niina ate the food twice/two times.’
- b. **Buta** **ka** **bε** **kali** **liyiri** **maa.**
 Thrice FOC 3PL count.PFV money DEF
 ‘It is thrice that they counted the money.’
- c. ***Niina yim** **di** **bindirigu** **maa.**
 Niina once eat.PFV food DEF
- d. ***Bunu** **ti** **ka** **na** **a** **yija.**
 Five.times 1PL come.PFV DM 2SG house

Contrary to the first sub-class of the frequency adverbials presented in (20), the second type of frequency adverbials in (21) and (22) share similar distributional characteristics with time/temporal adverbials. Therefore, they have a wider distribution. It can be seen in (21a) that adverbials in this sub-category are allowed to occupy the clause-initial position through topicalization. Secondly, as shown in (22b), there type of adverbial can also take the initial position of the clause through focalization. They are also permitted to occur postverbally (22a) and after the VP (21b) in Dagbani.

Lastly, like time/temporal adverbials, they are restricted from occurring in the preverbal position, as shown in (22c).

- (21) a. **Chira** ata kam, **ti** **kaa-ri** **bihi** **maa**.
 Months three every 1PL visit-IPFV children DEF
 ‘Every three months, we visit the children.’
- b. **Suhuyini** **kɔ-ri** **nyuuli** yuuni kam.
 Suhuyini farm-IPFV yam year every
 ‘Suhuyini farms yam every year.’
- (22) a. **Suhuyini** **kɔ-ri** yuuni kam.
 Suhuyini farm-IPFV year every
 ‘Suhuyini farms every year.’
- b. **Biɛyɛ** kam **ka** **o** **kani** **na** **kpe**.
 Day every FOC 3SG come-IPFV DM here
 ‘It is every day that he comes here.’
- c. ***Doo** **maa** saha kam **kani** **na** **kpe**.
 Man DEF time every come-IPFV DM here

2.7 The syntax of aspectual adverbials

Aspectual adverbials are restricted in the clause structure by distribution. Aspectual adverbials can only occur either postverbally or preverbally, depending on which sub-type they belong. Adverbials in this category are further classified as *lexical aspectual adverbials* and *grammatical aspectual adverbials*, which are analyzed as verbal particles. As a result, these two sub-types display varied syntactic distribution in the clause as (23), (24) and (25) illustrate. The dataset in (23) presents the distribution of lexical aspectual adverbials, while (24) and (25) provide illustrations for grammatical aspectual adverbials.

Sentence (23a) shows that Dagbani aspectual adverbials can occur in the clause-final position. Evidence from (23c), (23d), (24b), and (25b) indicates that these aspectual adverbials are banned in the left periphery of the clause and cannot be fronted for focus or topics. Sentence (23b) illustrates that lexical aspectual adverbials do not occur in the preverbal position. However, the grammatical words functioning as aspectual adverbials in (24) and (25) are allowed in the preverbal position (25a), contrary to not only the lexical aspectual adverbials but also all other adverbials in Dagbani except the adverbial, **bahi** in (19a). The only grammatical aspectual adverbial that exhibits an exact distributional characteristic as the lexical aspectual adverbial is **yaha** ‘again’ in (24) with its synonym as **lahi** ‘again.’ All the same, they are restricted to occurring in only one syntactic position in the clause, just like their counterpart lexical aspectual adverbials. The ungrammatical constructions in (25b and 25c) show that they are banned from occurring in clause-initial and clause-final positions, respectively.

- (23) a. **Payaba la pihl tuya maa zaa kolikoli.**
 Women DEF harvest.PFV beans DEF all completely
 ‘Those women have harvested the beans completely.’
- b. ***Buyum wuliwuli di puu maa zaa.**
 Fire entirely burn.PFV farm DEF all
- c. ***Wuliwuli buyum di puu maa zaa.**
 Entirely fire burn.PFV farm DEF all
- d. ***Kahikahi ka niyi maa ŋubi kawana maa**
 Entirely FOC cattle DEF chop.PFV maize DEF
zaa.
 all
- (24) a. **Doo maa kpuyi buku maa yaha.**
 Man DEF take.PFV book DEF again
 ‘The man has taken the book again.’
- b. ***Yaha doo maa kpuyi buku maa.**
 Again man DEF take.PFV book DEF
- c. ***Doo maa yaha kpuyi buku maa.**
 Man DEF again take.PFV book DEF
- d. ***Yaha ka doo maa puyi buku maa.**
 Again FOC man DEF take.PFV book DEF
- (25) a. **A paya [yaa/pun/lahi] ka na.**
 2SG wife [‘as usual’/already/just/again] come.PFV DM
 ‘Your wife came [as usual/already/just/again].’
- b. ***[Yaa/Pun/Lahi] a paya ka na.**
 [‘As usual’/Already/just/again] 2SG wife come.PFV DM
- c. ***A paya ka na [yaa/pun/lahi].**
 2SG wife come.PFV DM [‘as usual’/Already/just/again]

3.0 Adverb sequencing in Dagbani

This section presents the sequencing of adverbials in clauses when there is more than one adverbial from different classes. Many studies have shown that more than one adverbial can co-occur in a single syntactic structure to perform an adverbial function in a language (Cinque, 1999; Saah, 2004; Tabe, 2015; Yiagnigni, 2016; Nabaarese, 2017; Asamoah, 2018). Similarly, adverbials in Dagbani are also observed to exhibit this kind of phenomenon. A single clause can have more than one adverbial from different adverbial categories that modify each other or come together to perform adverbial functions in the clause. In the following subsections, we discuss how the different categories of adverbials are sequenced in the clause structure of Dagbani.

3.1 Linear order of manner and place adverbials

As mentioned earlier, more than one adverbial from different sub-categories is permitted to co-occur in the same syntactic construction in Dagbani. Manner and place adverbials exhibit this phenomenon, as seen in (26) and (27) below. Observations from the data sets in (26) and (27) show that it is possible for locative/place adverbials and manner adverbials to co-occur in a clause. When this happens, any of them can precede the other, depending on the type of action expressed by the verb in the clause. The data show that locative/place adverbials precede manner adverbials in constructions with verbs that denote movement from one place to another (27), and the reverse this sequencing is not allowed, as this will result in ungrammaticality (27b) and (27d). For sentences where, especially, stative verbs are used, any of the two is allowed to precede the other without any change in meaning or misinterpretation, as shown in (26).

- (26) a. **Danaa duhi loori maa yiriŋ palli maa zuyu.**
Danaa drive.PFV car DEF recklessly road DEF on.top
'Danaa drove the car recklessly on the road.'
- b. **Danaa duhi loori maa palli maa zuyu yiriŋ.**
Danaa drive.PFV car DEF road DEF on.top recklessly
'Danaa drove the car on the road recklessly.'
- c. **Niina tu Azima yayi layingu maa ni.**
Niina insult.PFV Azima over meeting DEF LOC
'Niina insulted Azima a lot at the meeting.'
- d. **Niina tu Azima layingu maa ni yayi.**
Niina insult.PFV Azima meeting DEF LOC over
'Niina has over insulted Azima at the meeting.'

- (27) a. **Abu chaŋ daa yom.**
 Abu go.PFV market quickly
 ‘Abu has quickly gone to market.’
- b. ***Abu chaŋ yom daa.**
 Abu go.PFV quickly market
- c. **Dawuni cha-ni puu ni pam.**
 Dawuni go-IPFV farm LOC a lot
 ‘Dawuni goes to farm a lot.’
- d. ***Dawuni cha-ni pam puu ni.**
 Dawuni go-IPFV a lot farm LOC

3.2 Linear order of manner and frequency adverbials

Another possibility for the co-occurrence of adverbials from different classes is the manner and frequency adverbials. These two adverbials are also allowed to co-occur in sequential order in the clause, as we can see in (28) and (29). From the illustrations in (28) and (29), one can posit that in situations where we have the manner adverbials occurring in the same construction as the frequency adverbials, it will be the manner adverbials that are supposed to precede the frequency adverbials (28a), (28c) and (29a). The reverse of this order is not possible, as can be seen in the illicit sentences in (28b), (28d) and (29b). The only way we can have a frequency adverbial preceding a manner adverbial is through topicalization of the frequency adverbial, as (29c) shows.

- (28) a. **Bɛ bu-ri la Niina kutikuti Asibiri dali kam.**
 3PL beat-IPFV FOC Niina randomly Saturday every
 ‘They beat Niina randomly on every Saturday.’
- b. ***Bɛ bu-ri la Niina Asibiri dali kam kutikuti.**
 3PL beat-IPFV FOC Niina Saturday every IDOEPH
- c. **Niyi maa di-ri vienyela saha kam.**
 Cattle DEF eat-IPFV well every time
 ‘The cattle eat well all the time.’
- d. ***Niyi maa di-ri saha kam vienyela.**
 Cattle DEF eat-IPFV timeevery well
- (29) a. **Mahami ba-ri wahu jɛrilimjɛrilim bɛyu kam.**
 Mahami ride-IPFV horse foolishness day every
 ‘Mahami rides a horse foolishly every day.’

-
- b. ***Mahami fiɛbi-ri bihi bɛyu kam jɛrilimjɛrilim.**
 Mahami cane-IPFV children day every foolishness
- c. **Bɛyu kam, Mahami fiɛbi-ri bihi jɛrilimjɛrilim.**
 Day every, Mahami cane-IPFV children foolishness
 ‘Every day, Mahami canes children foolishly.’

3.3 Linear order of manner and time/temporal adverbials

Adverbials of manner also co-occur with adverbials of time in the same syntactic construction in Dagbani. From the data presented in (30), any of the two different categories of adverbials can precede the other. In this sense, manner adverbials can precede time/temporal adverbials, and vice versa. The adverbials of manner precede those in the class of time in (30a) and (30c) but are seen to be preceded by the adverbials of time in (30b) and (30d). From the data presented in (30), it can then be concluded that there is no fixed order for Dagbani adverbials of manner and time when they co-occur in the same syntactic construction. Regardless of the order of these two adverbials, they do not give different semantic interpretation. The construction in (30a) for instance, could imply that Napari will beat the child today, more than she has been beating him/her. It could also imply that for today, Napari will beat the child and will not spare him/her. The same semantic interpretation could be given to (30b), and so, there is obviously no difference in their semantic interpretations. This is similar to (30c and 30d).

- (30) a. **Napari ni bu bia maa pam zunɔ.**
 Napari FUT beat.IPFV child DEF a lot today
 Napari will beat the child a lot today.
- b. **Napari ni bu bia maa zunɔ pam.**
 Napari FUT beat.IPFV child DEF today a lot
 ‘Napari will beat the child today a lot.’
- c. **Bɛ ko koli maa vienyɛla yuuni ɲɔ.**
 3PL plough farmland DEF well year DEM
 ‘They have plowed the farmland well this year.’
- d. **Bɛ ko koli maa yuuni ɲɔ vienyɛla.**
 3PL plough farmland DEF year dem well
 ‘They have plowed the farmland this year well.’

3.4 Linear order of place and time/temporal adverbials

It is also possible for adverbials belonging to the class of place and those belonging to the class of time to co-occur in a sequential order in the clause structure of Dagbani. From the data in (31) and (32), when temporal adverbials and place adverbials co-occur in a syntactic construction, the temporal adverbials are observed to be preceded by the place adverbials (31a) and (31c), and a reverse of this order is not possible as it will result in ungrammaticality (31b), (31d), and (32a). However, as we observe in the constructions in (32), temporal adverbials can only precede place adverbials in the lineal order by adverbial fronting through topicalization in (32b) and focalization in (32c).

- (31) a. **Loori maa ni zi bindira maa na daa**
 Car DEF FUT carry.IPFV food DEF DM market
ni zaawuni kurigaata.
 in evening three.o'clock
 ‘The car will bring the foodstuff to the market at three o’clock in the evening.’
- b. ***Loori maa ni zi bindira maa na**
 Car DEF FUT carry.IPFV food DEF DM
zaawuni kurigaata daa ni.
 evening three o'clock market LOC
- c. **Azima ni be yiŋa Alahiri dali.**
 Azima FUT be.at house Sunday
 ‘Azima will be at home on Sunday.’
- d. ***Azima ni be Alahiri dali yiŋa.**
 Azima FUT be.at Sunday house
- (32) a. ***Piɛri maa kpe pumpɔŋɔ napɔyɔ ni.**
 Sheep DEF enter.PFV now pen LOC
- b. **Pumpɔŋɔ, piɛri maa kpe duu.**
 Now, sheep DEF enter.PFV room
 ‘Now, the sheep has entered into the room.’
- c. **Zuŋɔ ka Sibiri ka na kpe.**
 Today FOC Sibiri come.PFV DM here
 ‘It is today that Sibiri came here.’

3.5 Linear order of place and frequency adverbials

It is possible for place and frequency adverbials in Dagbani to co-occur in a clause. Similar to the co-occurrence of manner and frequency adverbials, place adverbials precede frequency adverbials

in unmarked structures as shown in (33). Sentences (33a) and (33c) show that place adverbials precede frequency adverbials when they co-occur in the same clause. The reverse of this sequence is allowed, as seen in the constructions in (33b) and (33d). This presents a flexible sequencing because both can precede each other in the clause without resulting in ungrammaticality.

- (33) a. **Baako ka na yili ɲɔ bunahi.**
 Baako come.PFV DM house DEM four times
 ‘Baako came to this house four times.’
- b. **Bihi la kpe na buyi shitɔy ɲɔ ni.**
 Children DEF enter.PFV DM twice store DEM LOC
 ‘Those children entered twice into this store.’
- c. **Karimbanima maa zii-ni la kpe yun kam.**
 Teachers DEF sit-IPFV FOC here night every
 ‘The teachers sit here every night.’
- d. **Bɛ wa-ri waa goli kam palli maa zuyu.**
 3PL dance.IPFV dance month every road DEF on top
 ‘They dance every month on the road.’

3.6 Linear order of place and epistemic adverbials

Epistemic adverbials and place/locative adverbials are a set of two different categories of adverbials that can co-occur in the same syntactic construction. These adverbials appear to co-occur in a fixed and rigid order in their linear sequencing. This is because epistemic adverbials, as we have already learned, are base-generated in the clause-initial position. As a result, any adverbial from another category taking the clause-initial position must be preceded by the epistemic adverbial, and the reverse of this order will render the construction ungrammatical. This is because apart from the epistemic adverbial, all adverbials from the various sub-categories are base-generated in the clause-final position and can only occupy the clause-initial position by focalization or topicalization.

When epistemic adverbials co-occur with place/locative adverbials, the epistemic adverbials precede the locative adverbials (34a) and (34b), and the reverse is not allowed (34c) and (34d). In earlier combinations, we saw that certain adverbials could precede other adverbials in their marked sequential order by either focalization or topicalization. This is impossible in cases where epistemic and place/locative adverbials co-occur, as seen in (34c). Notice in (34a) that the place adverbial in the construction precedes the subject, **bɛ** ‘they,’ of the clause but is preceded by the epistemic adverbial, **ɲ-ɲɔ** ‘maybe.’ In addition, in (34b), the epistemic adverbial, **laabirata** ‘actually,’ precedes the locative adverbial, **daa maa polo** ‘at the market side.’ Epistemic adverbials are not flexible for movement in the

clause by any syntactic process (refer to section 2.5), unlike those of manner, place, time, and frequency adverbials, where they are allowed to be moved to other positions. In other words, epistemic adverbials are not mobile within the Dagbani clause structure. This further explains why place adverbials are not permitted to precede them, as (34c) and (34d) illustrate.

- (34) a. **η-η**, **puu maa ni** **ka** **bε** **zu** **nɔhi**
 Maybe, farm DEF LOC FOC 3PL steal.PFV fowls
maa.
 DEF
 ‘Maybe, it is in the farm that they have stolen the fowls.’
- b. **Laabirata**, **ti** **nya** **la** **Mbaŋba** **ni** **loori**
 Actually, 1PL see.PFV FOC Mbaŋba with car
maa daa maa polo.
 DEF market DEF side
 ‘Actually, we saw Mbaŋba with the car at the market side.’
- c. ***Shikuru** **ka** **η-η**, **bihi** **maa** **chaŋ.**
 School FOC maybe children DEF go.PFV
- d. ***Bihi** **maa** **chaŋ** **shikuru** **η-η.**
 Children DEF go.PFV school maybe

3.7 Linear order of frequency and epistemic adverbials

Another adverbial combination is the co-occurrence of frequency with epistemic adverbials. As stated earlier, epistemic adverbials are restricted to occur only in the left periphery of the clause. No clause element precedes it, indicating that they are inevitably bound to precede any adverbial they may co-occur within the clause structure. This explains why the epistemic adverbials in (35a) and (35b) precede the frequency adverbials in the constructions. The ungrammatical constructions in (35c) and (35d) indicate that frequency adverbials are not permitted to precede epistemic adverbials regardless of their place of occurrence in the clause.

- (35) a. **Laabirata** **yuuni kam**, **ti** **ti-ri** **o** **la** **nahu.**
 Actually, year every 1PL give-IPFV 3SG FOC cow
 ‘Actually, every year, we give him/her a cow.’
- b. **η-η** **bε** **pa** **tum-di** **la** **biɛyi-kam.**
 Maybe, 3PL now work-IPFV FOC day-every
 ‘Maybe, they now work every day.’

c.	*Buta, Thrice, maa. DEF	yɛlimanli, truly,	Suhuyini Suhuyini	chibi piece.PFV	shɛriga syringe
d.	*Yim ka Once FOC	laabirata actually	Tia di Tia eat.PFV	bindirigu food	maa. DEF

3.8 Linear order of epistemic, place, frequency, and temporal adverbials

It is possible for more than two adverbials from different subclasses to co-occur in a single sentence, as shown in (36) and (37). The sequential order of this combination is presented in (36a) and (36b). The epistemic adverbials precede all the adverbials, followed by the locative adverbial. The frequency adverbials precede the time/temporal adverbials but the two are preceded by the locative adverbials in the basic clause structure. In (36c), the temporal adverbial precedes both place and frequency adverbials by adverbial fronting through topicalization but still occurs after the epistemic adverbial. In addition, in (36d), the frequency adverbial precedes the place/locative adverbial through focalization but is preceded by the temporal adverbial. The frequency adverbial is preceded by the epistemic adverbial, which also precedes both place and temporal adverbials (37a). From (37b) and (37c), three types of adverbials (frequency, place/locative, and time adverbials) precede an epistemic adverbial, resulting in illicit constructions in the language.

- (36) a. **ɲ-ɲɔ Danaa pun** **chan** **layingu** **maa ni**
 Maybe Danaa already go.PFV meeting DEF LOC
naba-ayi zuɲɔ.
 legs-two today
 ‘Maybe, Danaa has already gone to the meeting twice today.’
- b. **Laabirita,** **shikurubihi** **maa ka** **na** **yili ɲɔ**
 Actually, students DEF come.PFV DM house DEM
buta **wuntan** **ɲɔ ni.**
 three.times afternoon DEM LOC
 ‘Actually, the students came to this house three times this afternoon.’
- c. **Laabirita,** **wuntan ɲɔ ni,** **shikurubihi** **maa**
 Actually, afternoon DEM LOC students DEF
ka **na** **yili ɲɔ** **buta.**
 come.PFV DM house DEM three.times
 ‘Actually, this afternoon, the students came to this house three times.’

- d. **Laabirita,** **wuntan** **ɲɔ** **ni,** **buta** **ka**
 Actually afternoon DEM LOC three.times FOC
shikurubihi **maa** **ka** **na** **yili** **ɲɔ.**
 students DEF come.PFV DM house DEM
 ‘Actually, this afternoon, it is three times that the students came to this house.’
- (37) a. **Laabirita,** **buta** **ka** **shikurubihi** **maa**
 Actually three.times FOC students DEM
ka **na** **yili** **ɲɔ** **wuntan** **ɲɔ** **ni.**
 come.PFV DM house DEM afternoon DEM in
 ‘Actually, it is three times that the students came to this house.’
- b. ***Wuntan** **ɲɔ** **ni** **shikurubihi** **maa** **ka** **na**
 Afternoon DEM LOC students DEF come.PFV DM
yili **ɲɔ** **buta** **ɲ-ɲɔ.**
 house DEM three.times maybe
- c. ***Buta** **ka** **ɲ-ɲɔ** **shikurubihi** **maa** **ka** **na**
 three.times FOC maybe students DEF come.PFV DM
yili **ɲɔ** **zunɔ.**
 house DEM today

The linear ordering of the adverbials suggests that reordering is allowed in some adverbial sequencing and disallowed for others. Thus, Dagbani adverbial sequencing does not satisfy the observation that adverbials co-occur in a fixed linear order cross-linguistically (Cinque, 1999; Tabe, 2015; Yiagnigni, 2016; Laenzlinger, 2015). Cross-linguistic studies on adverbials show that they are hierarchically ranked as high-class and lower-class adverbials, as proposed by (Cinque, 1999; Yiagnigni, 2016; Tabe, 2015; Laenzlinger, 2015)⁴. It is also shown that lower-class adverbs are further divided into preverbal and postverbal lower-class adverbials. Generally, this ranking significantly influences the sequencing of adverbials in every language. The Dagbani data show that the hierarchical ranking of adverbials influences adverbial ordering in linear form, as high-class adverbials must always precede lower-class adverbials. Table 1 presents a summary of the distribution of Dagbani adverbials, Table 2 summarizes some adverbial sequencing, and Table 3 presents the categorization of adverbials based on hierarchical classifications.

⁴ Our current paper does not focus on the ranking of these adverbials. For detail discussion on the hierarchical classification of adverbs, readers are referred to (Cinque, 1999).

Table 1: A summary of the distribution of Dagbani adverbials

Adverbial Type	Clause-initial by focalization	Clause-initial by topicalization	Preverbal	Postverbal	Clause-final
Manner	✓	*	*	✓	✓
Ideophonic	✓	*	*	✓	✓
Pace	✓	*	*	✓	✓
Instrumental	✓	*	* (but occurs with zaŋ+noun in SVC)	✓	✓
Time (when)	✓	✓	*	✓	✓
Time (duration)	✓	*	* (but occurs with zaŋ+ noun in SVC)	✓	✓
Place (location)	✓	*	*	✓	✓
Place (direction)	✓	*	*	✓	✓
Frequency (number of times)	✓	*	*	✓	✓
Frequency (how often)	✓	✓	*	✓	✓
Epistemic	*	✓	*	*	*
Aspectual (lexical)	*	*	*	✓	✓
Aspectual (grammatical)	*	*	✓	*	*

Table 2: Sequencing of Dagbani adverbials into a linear order

Possible Combination	Reversibility
Manner > Place	(reversible)
Manner > Frequency	(irreversible)
Manner > time/temporal	(reversible)
Place > Frequency	(reversible)
Place > Time/temporal	(irreversible)
Epistemic > Place	(irreversible)
Epistemic > Frequency	(irreversible)
Epistemic > Place > Frequency > Time	(reversible for all except Epistemic)

Table 3: Categorization of Dagbani adverbials into their hierarchical classifications

High-Class Adverbials	Lower Class Adverbials	
	preverbal lower-class	postverbal lower-class
Epistemic adverbials	grammatical aspectual adverbials	Lexical aspectual adverbials
		Manner adverbials
		Pace adverbials
		Instrumental adverbials
		Ideophonic adverbials
		Time/temporal Adverbials
		Locative adverbials
		Frequency adverbials

4. Conclusion

We established that Dagbani adverbials occur clause-finally (VP-final) and clause-initially. The latter position is triggered by A-bar constructions, such as focalization and topicalization. They also occur in the postverbal position when the finite verb in the clause occurs intransitively. However, when there is an object or postverbal particle in the clause, the adverbial comes after the object and/or that particle. Except for grammatical adverbials, Dagbani adverbials are banned in the preverbal position. We conclude that the view that adverbials co-occur in a fixed linear order is not entirely accurate for Dagbani, as reordering is possible in some combinations, a phenomenon already observed by Yiagnigni (2016). We also attested with the data in Dagbani that adverbials are hierarchically classified as high-class and lower-class adverbials as proposed by (Cinque, 1999). This classification highly influences the sequential ordering of adverbials in their linear ordering (Cinque, 1999 and Yiagnigni, 2016). Finally, it is also established that Dagbani adverbials can be classified as S-adverbials and VP-adverbials (Jackendoff, 1972 and Saah, 2004), depending on whether they modify the entire sentence or the VPs. This study has achieved its goal by exploring an aspect of Dagbani linguistics that has since remained uninvestigated by linguists, as it reveals some syntactic properties of Dagbani adverbials and what pertains in areal languages. We conclude here by recommending that further studies on adverbials in Dagbani or any of its Mabia language counterparts be focused on any formal linguistic theory that can further explore the syntactic properties of adverbials for a broader understanding of this lexical category in Dagbani and the Mabia language group at large.

List of abbreviations

1	first person pronoun
2	second person pronoun
3	third person pronoun
AdjP	adjective phrase
AdvP	adverb phrase
CONJ	conjunction
DEF	definite
DEM	demonstrative
DIST	distal marker
DM	directional marker
FOC	focus marker
FUT	future marker
IDEOPH	ideophonic
IPFV	imperfective
LOC	locative marker
NEG	negative
NP	noun phrase
PFV	perfective
PL	plural
PP	prepositional phrase
SG	singular
SVC	serial verb construction
*	ungrammatical

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