CONJOINT AND DISJOINT VERB ALTERNATIONS IN DAGBANI

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Abstract

The goal of this paper is to understand the nature and functions of aspectual suffixes of Dagbani, a language belonging to the South-Western languages of the Western Oti-Volta subgroup of the Gur group of languages. The paper considers the morphology of the verb and how it may be correlated with readily observable syntactic features of the language such as the presence or absence of certain arguments. The aspectual suffixes have different realisations which call for the presence or absence of certain structural arguments such as NP complements and adjuncts referred to as conjoint (CJ) and disjoint (DJ) verb forms respectively. I also propose three accounts in an attempt to account for the function(s) of the conjoint and disjoint alternations: the incorporated pronoun hypothesis, the medio-passive hypothesis, and the focus hypothesis, and conclude that the CJ/DJ forms are directly correlated with focus. It is concluded then that the CJ form correlates with focus on post-verbal materials, while the DJ focuses on the verb. The paper also discusses certain post-verbal particles whose distribution is affected by the aspectual markers. I give the paper a comparative flavour by drawing data from other languages of the Oti-Volta subgroup (excluding the Eastern languages) to buttress my claim based on empirical evidence that the phenomenon discussed is quite pervasive in this subgroup of Gur languages. The analysis is basically from a theory-neutral perspective. I conclude that the interaction between the aspectual suffixes and the sentence structure of Dagbani is (at least superficially) very similar to the so-called 'short/long' or 'conjunctive/disjunctive' verb which has been argued to be phenomenal in a number of Bantu languages.

Key Words: Dagbani, aspect, sentence structure, conjoint, disjoint, focus hypothesis, Gur.

1. Introduction

This paper seeks to analyse and understand the nature and functions of suffixes and sentence structure in Dagbani (South Western Oti-Volta), a central Gur language spoken by the Dagbamba in Northern Ghana. The canonical word order of Dagbani is basically Subject, Verb, Object (SVO), also called Agent Verb Object. Dagbani has three major dialects which include: **Tomosili**, (the Western dialect) spoken in Tamale and its surroundings, **Nayahali** (the Eastern dialect), spoken in and around Yendi, and **Nanuni,** which is also spoken around Bimbilla and its surroundings. Noticeable dialectal differences are basically phonological and lexical without any known syntactic/structural differences. The data for the study is drawn from two different sources: data taken from students' written works, and examples generated by the author using native speaker intuitions. The use of data from written texts has been motivated by the fact that in general, it is better to get someone else's speech in linguistic analysis, since it is not influenced by the particular research agenda. Though a native speaker of the **Tomosili** dialect myself, the generalizations concerning the verb morphology and its interaction with the sentence structure could not be limited to a particular dialect of Dagbani, since interactions with speakers of the other two dialects show that similar patterns exist in **Nayahali** and **Nanuni** as well.[1]

Though there is a terminological split amongst linguists regarding the concept "aspect", in this paper it is used to refer to the 'view-point aspect'. This is because when 'aspect' is used as a cover term in Gur languages, it always concerns the 'narrow' form. Adger (2004: 50) argues that the "semantic difference between ongoing and completed action is one of aspect". Natural languages basically distinguish between 'ongoing' and 'completed' actions denoted by the verb via the concept of aspect. Typologically, in most natural languages a two-way aspectual distinction is made,

between perfective and imperfective aspects. Traditionally, the imperfective aspect includes the habitual and progressive forms of the verb. The distinction between the perfective and imperfective forms of the verb is very important as they help users of a particular language to codify different situations associated with the action of the verb. I therefore define aspect as that grammatical property of verbs which indicates whether the action denoted by the verb is viewed as perfected or ongoing.

The correlation between verbal forms (morphology) and presence or absence of complements and adjuncts within the sentence structure has been noted to be a phenomenal property of Bantu languages: by Buell (2005, 2006), Nurse (2006), Creissels (1996), Givon (1975), van der Wal (2013), Sharman (1956), Voeltz (2004) among others. Different Bantu scholars have used different terminologies to refer to this verbal paradigm. For instance Buell and Riedel (2008) use *conjoint* and *disjoint*, Creissels (1996) uses the terms *conjunctive* and *disjunctive*, while in the Nguni languages, the terms *long* and *short* are pervasive. The conjoint form cannot appear clause-finally, while the disjoint form canonically does appear in clause-final position. For instance a Bantu syntactician, Van der Wal (2009: 217) submits that:

> a very salient and easily detectable difference between the verb forms is their sentence-final distribution: the CJ forms need to be followed by some other element, while the DJ form can occur sentence finally, although it does not need to.

While research into Dagbani continues to attract attention in recent times, there are some areas that remain largely understudied. For instance, there is an interesting morphological feature of the verb that could broaden our understanding about Gur languages and natural languages in general. Specifically interesting about the morphology of the verb is the interaction between the verb morphology and sentence structure. A look at recent publications reveals that the 'disjoint/conjoint' theme is currently a much debated issue, also for non-Bantu languages. I will establish that the verb morphological feature of aspectual suffixation has some correlation with the syntactic consideration as to whether the verb occurs clause-finally or clause-medially, indicating that there is an interaction between verbal morphology and sentence form**.**[2]

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[2]Abbreviations used in this paper are: 1st, 2nd, 3rd for first, second, and third person respectively, ADJUN=adjunct, AFF=affirmative, ATR=advanced tongue root, CJ=conjunction, COMPL=completive aspect, DEF=definite, DJ= disjoint, FOC=focus, IMPERF= imperfective, NEG=negative, NP=noun phrase, PERF=perfective, PL=plural, PROG=progressive, POSS=Possessive, PST=past, PVP=post verb particle, QUAN=Quantifier, TRM= time reference marker, SG=singular.

Specifically, this work demonstrates that: (i) the marking of aspect is a morphological phenomenon in Dagbani, (ii) the perfective and imperfective aspect come in different morphological forms, (iii) there is a close relationship between aspectual suffixes and the presence or absence of certain arguments such as NP objects and adjuncts within the sentence structure, (iv) the distribution of the post-verb particles is affected by the purely surface consideration of whether the verb is final in the clause or not, (vi) the conjoint/disjoint verb alternation can be accounted for using the focus hypothesis, and (vi) the interaction seen between the post-verb particles and the aspect system of Dagbani appears to be a typological phenomenon which can be observed in several other Gur languages in the Oti-Volta subfamily. Dakubu (1989) and Saanchi (2003) identify a similar verbal paradigm in Dagaare, a genetically related language, and use the terminologies 'perfective A', 'perfective B' and 'imperfective A' and 'imperfective B' to describe the phenomenon.

The discussion in this paper is structured as follows: section 2 discusses the verb morphology of Dagbani, highlighting the syntactic requirements of the conjoint/disjoint alternations, while section 3 discusses negation and the verbal paradigm. Section 4 investigates the correlation between ex-situ focus and the conjoint/disjoint forms; section 5 considers relativisation and the morphology of the verb form, while section 6 discusses possible accounts/uses of the CJ/DJ verb forms with a discussion on the interaction between the verbal paradigm and post-verb particles, drawing data from genetically closer languages and aimed at making some generalizations with regard to Oti-Volta typology. Section 7 concludes the paper with a summary of findings.

2. The Morphology of the Dagbani Verb

In Dagbani, there is no known work that discusses the aspectual suffixes of Dagbani and their interaction with the sentence structure. Though Olawsky (1999) rightly identifies the perfective and imperfective forms of the verb, he does not go into details such as the different morphological shapes and different syntactic requirements of the two forms. A brief overview of the morphology of the verb is crucial in understanding the phenomenon that is discussed in this paper. Morphologically, the Dagbani main verb may be identified by the forms shown in Table 1.

In Table 1, the forms in column E are verbal nouns derived via the use of the derivational suffix identified as -**bú**. This morpheme can be identified as the class marker -**bú**. Almost all Gur languages use class suffixes for marking verbal nouns (since the noun class suffixes very often display additional derivative functions); in O-V languages verbal nouns are derived preferably by means of -**bú**.

Table 1: The forms of the Dagbani verb

A CJ PERF	B DJ PERF	C CJ IMPERF	D DJ IMPERF	E Nominal	Gloss
kú	**kú-yà**	**kú-rì**	**kú-rá**	**kú-bù**	kill
dàm	**dàm-yà**	**dàm-dí**	**dàm-dá**	**dàm-bú**	shake
nyú	**nyú-yà**	**nyú-rì**	**nyú-rá**	**nyú-bú**	drink
páŋ	**páŋ-yà**	**páŋ-dí**	**páŋ-dá**	**páŋ-bú**	borrow
wɔrí	**wɔrí –yà**	**wɔrí-tì**	**wɔrí-tá**	**wɔrí-bú**	split
kɔhí	**kɔhí –yà**	**kɔhí-rì**	**kɔhí-rá**	**kɔhí-bú**	sell
dì	**dì-yà**	**dì-rì**	**dì-rá**	**dì-bú**	eat
tú	**tú-yà**	**tú-rì**	**tú-rá**	**tú-bú**	insult

Nicole (1999:4-5) makes a typological remark on the verb morphology of Gur languages and asserts that:

> …the basic distinction is between an incompletive and a completive (or some cases neutral) forms, these forms often being distinguished by different suffixes, but also notably by tonal differences or vowel alternations...[v]erbs are generally verbo-nominal, that is they can be used both as verbs (on the addition of the appropriate aspect suffixes) and as nouns (on the addition of a class suffix)....very often, the form that is given as the 'infinitive' is really a nominal form, that is, a verb form, followed by noun class marker.

Nicole's arguments above on the verb morphology of Gur languages propose a two-way division, where the division may be indicated either by a suffix, and/or by tone. Accordingly, Nicole's description matches Dagbani very well since Dagbani marks the two-way distinction for the perfective and imperfective verb form by suffixes, as illustrated in Table 1. The proposal of a two-way contrast in the verb morphology is based on the observation that what other scholars have called the 'neutral' stem is identical to the conjoint perfective, both segmentally and supra-segmentally.

Naden (1988) gives a brief overview of the genetic classification of the Gur languages spoken in Ghana. His discussion does not exclude discussion on the verb. Naden (1988: 37) asserts that verbs in most Gur languages have 'two basic forms, perfective or neutral and imperfective'. He contends that in terms of morphology, there is basically a suffix that is attached to the neutral form of the verb to derive the

imperfective. I use the terminologies 'imperfective' and 'perfective' to refer to what has been termed as 'incompletive' and 'completive' respectively by some other scholars (cf. Osam 2003).

2.1. Illustrating the Conjoint/Disjoint Phenomenon in Dagbani.

This section illustrates the phenomenon of conjoint and disjoint verb forms using empirical evidence. Table 2 shows sentential illustrations of verbal alternations.

Table 2: Sentential illustrations of Dagbani verbal alternations

	CJ	DJ
IMPERF	**Bɛ kú-rì X** 3PL kill.IMPERF X 'They kill, they are killing X.'	**Bɛ kú-rá** 3PL kill.IMPERF 'They kill/are killing.'
PERF	**Chentiwuni chìm-Ø X** NAME fry.PERF X 'Chentiwuni has fried X.'	**Chentiwuni chìm-yá** NAME chim.PERF 'Chentiwuni has fried.'

The morphological alternation of the imperfective aspect is further illustrated in the sentences in (4) and (5).

4. a**.**   **Bì-hí   máá   dì-rá**   DJ
         child-PL   DEF   eat.IMPERF
         'The children eat/are eating'.

    b.   ***Bì-hí   máá   dì-rá   shìnkááfà**   DJ
          child.PL   DEF   eat.IMPERF   rice
         'The children eat/are eating rice.'

    c.   **Bì-hí   gbí-rì   vó-yà**   CJ
         child.PL   dig.IMPERF   hole.PL
         'Children dig/are digging holes'.   (Salifu 2012: 7)

    d.   ***Bì-hí   gbí-rì.**   CJ
          child.PL   dig.IMPERF
         'Children dig/are digging.'

5. a.   **Bɛ   dàm-dí   tì-hí   gbá**   CJ
         3PL   shake.IMPERF   tree.PL   too
         'They shake/are shaking trees too.'

b.   ***Bɛ**   **dàm-dá**   **tì-hí**   **gbá**   DJ
           3PL   shake**.IMPERF**   tree.PL   too
           'They shake/are shaking trees too.'

c.   **Bɛ**   **dàm-dá.**   DJ
           3PL   shake**.IMPERF**
           'They shake/are shaking.'

d.   ***Bɛ**   **dàm-dí.**   CJ
           3PL   shake.IMPERF
           'They shake/are shaking.'   **(**Yakubu 2012: 18**)**

The evaluation of incompleteness or ungrammaticality of sentences (4d) and (5d) is because the aspectual suffix **-ri** is used and no linguistic material follows the verb. This suffix never occurs clause-finally, thus (4d) and (5d) appear to be incomplete and are ungrammatical. In contrast, the ungrammaticality of sentence (4b) and (5b) is because **-ra** is assigned a NP complement, **shinkaafa** 'rice' and **tihi gba** 'trees too'. The CJ/DJ verbal alternation in the imperfective aspect does not only affect the distribution of NP objects, but also adjunct phrases, such as adverbials (of manner, time and place etc) as illustrated in (6).

6.   a.   ***Chentiwuni**   **dì-rá**   **yìríŋ**   DJ
            NAME   eat.IMPERF   carelessly
           Chentiwuni eats/is eating carelessly.'

    b.   **Chentiwuni**   **dì-rì**   **yìríŋ**   CJ
           NAME   eat.IMPERF carelessly
          'Chentiwuni eats carelessly.'

    c.   **Pàɣí- bá**   **dèm-dí**   **kpè**   CJ
           woman.PL   play.IMPERF   here
          'Women play here.'

    d.   ***Pàɣí- bá**   **dèm-dà**   **kpè**   DJ
           Woman.PL   play.IMPERF   here
          'Women play here.'

The ungrammaticality of (6a) arises from the fact that the 'disjoint' form of the imperfective aspect occurs with an adjunct phrase, in this case the adverb of manner **yiriŋ** 'carelessly'. In sentence (6d) too, the ungrammaticality arises from the fact that the 'disjoint' form of the verb co-occurs with an adjunct of place **kpe** 'here'. I earlier

argued based on empirical evidence that the 'disjoint' form canonically occurs in sentence final position, indicating that, syntactically, the disjoint aspectual suffix neither takes an NP object nor an adjunct.

The verbal alternation between the DJ and CJ forms is not only realizable in the imperfective aspect, but also in the perfective form of the verb. There are two different morphological forms of the perfective aspect, each of which comes with different syntactic requirements. The CJ perfective obligatorily requires an NP object or adjunct in its syntactic configuration; while the DJ perfective invariably marked with **-ya** does not occur with NP objects (whether full NP objects or pronoun objects). It can however, occur with adjuncts**.** This paradigm is shown in (7) and (8).

7. a. **Gòlí máá   kpí-yà**   DJ
        moon DEF   die.PERF
        'The month has ended.'   (Salifu 2012:7)

    b. *__Mandeeya   dá-yà   búkù__   CJ
        NAME   buy.PERF   book
        'Mandeeya has bought a book.'

    c. **Bì-hí   máá   sà³   kú-yà   pàm**   DJ
        child.PL   DEF   TRM   kill.PERF   a lot
        'The children killed a lot yesterday.'

    d. *__Mandeeya   bú-yà   ò__   DJ
         NAME   beat.PERF   3SG.
        'Mandeeya beat him/her.'

    e.   *__Mandeeya   duhí-yà   loori__   DJ
         NAME   drive.PERF   lorry
        'Mandeeya has driven a lorry.'

8. a. **Abu   dá-Ø   yìlí**   CJ
        NAME   buy.PERF   house
        'Abu has bought a house.'   Salifu (2012:8)

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³There are preverbal particles in Dagbani that mark the time reference of events: **sa** is one such particle which indicates that the action denoted by the verb is either a day away in the past or in the future. When it is to indicate that an action is a day away (in the future) it must occur obligatorily with the future particle **ni**.

b. **Mikashini cháŋ- Ø vìɛnyɛlà**   CJ
  NAME   go.PERF   well
  'Mikashini has gone well.'

c. **Fati   dugì- Ø   kpè**   CJ
   NAME   cook.PERF   here
  'Fati has cooked here.'

d. *__Mikashini   dì-Ø.__   CJ
   NAME   eat.PERF
  'Mikashini has eaten.'

e. **Bì-hí   máá dáá tú-Ø   ò**   CJ
   child.PL   DEF TRM insult.PERF 3SG
  'The children insulted him/her (some time ago).'   Yakubu (2012: 6)

f. *__Mikashini   cháŋ- Ø   púmpɔŋɔ__
   NAME   go.PERF   now
  'Mikashini went now.'

We observe in (7b) and (7d) that the DJ perfective cannot occur with NP objects (whether full NPs or pronominal NPs). The DJ perfective form is, however, compatible with adjuncts as in (7c). We also notice that the conjoint perfective form of the verb occurs with NP complements (8a). It does not only occur with full NPs as in (8a) but also pronominal objects as in (8e). It can also occur with manner adverbs as in (8b). Though the manner adverbial **viɛnyɛla** 'well' does not affect the grammaticality of the sentence in (8b), the grammaticality of sentence (8f) is affected by the time adverbial **pumpɔŋɔ** meaning 'now'. My conclusion is that the DJ perfective form does not occur with all kinds of adjuncts.

With a critical look at the verbal paradigm so far discussed, a reader immediately notes that there seems to be something striking about these aspect markers. We notice for instance that the imperfective disjoint has the morphemes **-r-a/d-a/t-a** whilst the imperfective conjoint has the morphemes -**r-i/d-i/t-i**. With the perfective disjoint too, we could have -**y-a**. Comparing across forms, it seems reasonable for one to hypothesize that the -**r/d** is probably the imperfective marker whilst the **-a** is the marker of disjoint form and the **-i** could be analyzed as a marker of conjoint property. This claim of possible separate morpheme segmentation is shown in a more picturesque manner in (9) and (10).

9.   **r/d/t-i**   **r/d/t-a**
            IMPERF -CJ   IMPERF –DJ

10.   PERFECTIVE?

The morpheme separation analysis would seem unattractive given the fact that it works out for only the imperfective verbal alternation, but not the perfective. For instance, a segmentation of -**ya** into **y-a** would rather be misleading, since all verbal stems end in a vowel so that /y/ is not the perfective marker, but should better be interpreted as a glide between the final vowel and the morpheme /a/ which indeed can be identified as the morpheme that marks this special syntactic position. Therefore, we will rather deal with distinct aspectual markers rather than a separate CJ/DJ morpheme.

Saanchi (2003) also discusses the verb morphology of a genetically related language, Dagaare, and concludes that the perfective and imperfective aspect have two different forms with corresponding different syntactic requirements. He uses the terminologies 'perfective A' and 'perfective B', and 'imperfective A' and 'imperfective B' to describe the different morphological realizations. Saanchi (2003: 102) argues that the 'perfective A' is the same as the bare form of the verb, while the 'perfective B' suffix 'is a front mid vowel /e/ or /ɛ/ depending on the ATR value of the root vowels'. Saanchi (2003) further indicates that in terms of syntactic requirement, the 'perfective A' is obligatorily followed by the post-verb particle **la** and an obligatory NP object or adjunct. He further points out that when the NP object is a pronoun the 'pronoun comes between the verb and the post verbal particle'. It will be demonstrated later in this work that similar conclusions are valid for the Dagbani post-verb **la** and other genetically related Gur languages. The 'perfective B' according to Saanchi (2003) is also followed by a NP object or an adjunct. It is also argued by Saanchi (2003) that the post-verb **la** may also follow the 'perfective B'.

The imperfective aspect also occurs in two morphological forms with different syntactic prescriptions. The 'imperfective A' according to Saanchi (2003) is 'followed obligatorily by the post verb particle **la** (9a) and an optional object (9b)'. He further demonstrates that when the verb is used intransitively, the clitic -**ŋ** may be suffixed to the imperfective A as in (9c). The data is taken from Saanchi (2003:104).

9.   a.   **a   bie   di-re   la**
            DEF   child   eat-IMPERF   AFF
            'The child is eating.'

b.   **a**   **bie**   **di-re**   **la**   **a**   **sɪɪma**
   DEF   child   ear-IMPERF   AFF   DEF   meal
   'The child is eating the meal.'

c.   **a**   **bie**   **di-re-ŋ**
   DEF   child   eat-IMPERF-AFF
   'The child is eating.'

d.   ***a**   **bie**   **di-re-ŋ**   **a**   **sɪɪma**
   DEF   child   eat-IMPERF-AFF   DEF   meal

The 'imperfective B' according to Saanchi (2003:105) requires an obligatory object (3a) or adjunct (3b). It however, does not occur with pronouns object (9c). The 'imperfective B' does not also occur with post verb **la** or the clitic -**ŋ** as shown in the ungrammaticality of (9d)**.**

10.   a.   **a**   **bie**   **kuɔ-rɛɛ**   **a**   **zie**
    DEF   child   weed-IMPERF   DEF   place
    'The child is weeding the place'.

   b.   **a**   **bie**   **di-ree**   **suŋ**
    DEF   child   eat.IMPERF   well
    'The child is eating well'

   c.   ***a**   **bie**   **ŋmɪɛ-rɛɛ**   **ma**   **la**
    DEF   child   beat.IMPERF   1SG   AFF.
    'The child is beating me.'

   d.   ***a**   **bie**   **kuɔ-rɛɛ-ŋ**
    DEF   child   weed-IMPERF-AFF
    'The child is weeding.'

These morphological alternations for the different aspect forms and their correlation with the sentence pattern of Dagbani shall be the focus of this paper.

3. Negation and the Verbal Paradigm

Negation in simple propositional logic is an operator that reverses the truth value of a proposition. Since negation is a fundamental grammatical feature of verb category, it is important to investigate the correlation between this verbal paradigm and negation. This is to establish how this verbal alternation manifests itself in

negative polarity sentences. Dagbani marks negation using preverbal particles **ku** and **bi** for future and non-future negation respectively. The interaction between negation and the verbal alternation is exemplified in the sentences in (11) through (14).

The ungrammaticality of sentences (14a) and (14c) indicates that the disjoint perfective form of the verb does not occur in negative sentences, leading to the conclusion that the negation morpheme **bi** is not compatible with -**ya**. Possibly, Manessy (1963) is right in assuming that -**ya** has a strong perfective connotation. This assumption is in accordance with observations from other languages, where a perfective notion is not compatible with negation. It has been argued that something which is negated is to be seen as neutral with regard to the aspectual perspective. However, this morpheme (which seems to be an old Gur inheritance according to Manessy) has undergone different developments in the languages in question and where it has developed into a focus marker; the notion of perfectivity has been weakened.

11.   a.   **Bì-hí**   **máá**   **kù**   **duhi-rí**   **loori**   CJ
           child.PL   DEF   NEG   drive.IMPERF   lorry
           'The children will not be driving a lorry.'

       b.   **Bì-hí**   **máá**   **kù**   **duhi-rá**   DJ
           child.PL   DEF   NEG   drive.IMPERF
           'The children will not be driving.'

       c.   ***Bì-hí**   **máá**   **kù**   **dì-rá**   **shìnkááfà**   DJ
           child.PL   DEF   NEG   eat.IMPERF   rice
           'The children will not be eating rice.'

       d.   ***Bì-hí**   **máá**   **kù**   **di-rí**   CJ
           child.PL   DEF   NEG   eat.IMPERF
           'The children will not be eating.'

12.   a.   **Andani**   **bì**   **ku-rá**   DJ
           NAME   NEG   kill.IMPERF
           'Andani does not kill.'

       b.   ***Andani**   **bì**   **ku-rá**   **bua**   DJ
           NAME   NEG   kill.IMPERF   goat
           'Andani does not kill a goat.'

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c.   **A**   **bì**   **vìhí-rí**   **yɛl-á**   CJ
      1SG   NEG   check.IMPERF   matter.PL
      'You don't investigate issues.'   Yakubu (2012:16)

d.   ***A**   **bì**   **vìhí-rí.**   CJ
      2SG   NEG   check.IMPERF
      'You don't investigate.'

e.   **M**   **bì**   **dìhí-rì**   **ò.**   CJ
      1SG   NEG   feed.IMPERF   3SG
      'I do not feed him/her.'   Yakubu (2012:16)

f.   ***M**   **bì**   **dìhí-rì.**   CJ
      1SG   NEG   feed.IMPERF
      'I do not feed.'

13.   a.   **Abu**   **bì**   **dì-Ø**   **shìnkááfà**   CJ
          NAME   NEG   eat.PERF   rice
          'Abu has not eaten rice'.

     b.   **Abu**   **bì**   **dì-Ø.**   CJ
          NAME NEG   eat.PERF
          'Abu has not eaten'

.

     c.   **Bì-á**   **bì**   **chàŋ-Ø**   **pùmpɔŋɔ**   CJ
          child.SG   NEG   go.PERF   now
          'A child has not gone now'

     d.   **Bì-á**   **bì**   **chàŋ-Ø**   CJ
          child.SG   NEG   go.PERF
          'A child has not gone'

14.   a.   ***Bì-á**   **máá**   **bì**   **chàŋ-yà**   DJ
          child.SG DEF   NEG   go.PERF
          'The child has not gone.'

     b.   **Bì-á**   **máá**   **bì**   **chàŋ –Ø**   CJ
          child.SG   DEF   NEG   go.PERF
          'The child has not gone.'

     c.   ***Bì-á**   **máá**   **bì**   **gbìhí-yà**   **pùmpɔŋɔ**   DJ
          child.SG   DEF   NEG   sleep.PERF   now
          'The child has not fallen asleep now.'

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There is something worth noting about the manifestation of the conjoint forms in polarity sentences. It was earlier noted that the conjoint form does not appear clause finally, as it obligatorily requires some linguistic material to follow it. The grammaticality of (13b) and (13d) where the conjoint form occurs clause finally, however, indicates that this claim is not valid for negative polarity sentences. This then means that in negative polarity sentences, the conjoint perfective can appear in clause final positions. Detailed research is needed to understand this change of the syntactic requirement of the conjoint perfective form when it occurs with negation. The conclusion however, is that the morphological alternation is neutralized here in the CJ perfective form.

4. **Ex-situ Focus Marking and the Verbal Paradigm**

This section investigates the correlation between the DJ/CJ verb alternation and ex-situ focusing strategies. Ex-situ focus is marked within the left periphery of the clause using focus markers **ka**, and **n** for non-subject and subject constituents respectively (Hudu 2006, 2012; Issah 2008, 2012; Olawsky 1999). The data in (15) and (16) illustate how focus marking is coded in the imperfective form of the verb and its correlation with the verbal alternation.

15. a. **Bɛ   tù-rí   mà**   CJ
         3PL   insult.IMPERF   me
         'They are insulting me.'

     b. **Màní   ká   bɛ tù-rá**   DJ
         1SG (EMPH)   FOC   3PL insult.IMPERF
         'It is me (that) they are insulting.'

     c. ***Màní   ká   bɛ   tù-rí**   CJ
         1SG (EMPH)   FOC   3PL   insult.IMPERF
         'It is me (that) they are insulting.'

     d. **Báɲì   ɲ   tu-ri   ma**   CJ
         3PL   FOC insult.IMPERF   me
         'They are insulting me.'

     e. ***Báɲì   ɲ   tù-rá   mà**   DJ
         3PL   FOC insult.IMPERF   me
         'It's they who are insulting me.'

16. a.   **Bì-á   máá   dá-rì   bù-hí   máá kpè**   CJ
            child.SG   DEF   buy.IMPERF goat.PL   DEF here
            'The child buys/is buying the goats here.'

     b.   **Bù-hí   máá kà   bɛ dá-rì   kpè**   CJ
            goat.PL DEF FOC   3PL buy.IMPERF   here
            'It is the goats that they are buying here.'

     c.   ***Bù-hí   máá   kà   bɛ   dá-rá   kpè** DJ
            goat.PL   DEF   FOC   3PL buy.IMPERF   here
            'It is the goats that they are buying here.'

     d.   **Bì-á   máá   n   dá-rì   bù-hí   máá   kpè** CJ
            child.SG   DEF FOC buy.IMPERF goat.PL   DEF   here
            'The child buys/is buying the goats here.'

     e.   ***Bì-á   máá   n   dá-rá   bù-hí   máá   kpè** DJ
            child.SG   DEF FOC buy.IMPERF goat.PL DEF   here
            'The child buys/is buying the goats here.'

In (15b) when the object of the sentence **ma** 'me' is moved from the canonical position and brought to clause initial position, the verb form also changes from the 'conjoint' form **turi** 'insulting' to the 'disjoint' form **tura** 'insulting'. This change in the form of the verb in (15b) is necessitated by the fact that the verb is now in the clause final position after the movement of the object. The ungrammaticality of the sentence in (15c) demonstrates the claim that even in focus constructions, the CJ verb form cannot occur clause finally, at least in the simple sentence. It is therefore seen that in (16b), where **buhi** 'goats' is moved to clause initial for purposes of coding focus, it is the CJ aspectual form **dari** 'buying' that is used. A descriptive account of this is that the verb still has an element **kpe** 'here' after it and so does not appear in the clause final position. In (16c), the sentence is ungrammatical because the DJ form of the imperfective is used when the verb is not in the clause final position. The author therefore contends that in focus constructions, the verbal alternations of disjoint and conjoint forms are active just as in canonical sentences.

Having taken a look at the interaction between the verbal alternation and focus constructions in imperfective aspectual forms, it is necessary to take a look at the nature of focus constructions in the perfective aspectual forms. This, it is hoped, will allow a more acceptable generalization on the manifestation of the discussed verbal alternation. In the data that follow, I discuss focus constructions in the perfective form of the verb. It should be recalled that I have indicated that Dagbani marks the

perfective aspect in two ways: via the use of the aspectual suffix **-ya** and the use of null morpheme **-Ø**. The realization of focus in the perfective aspectual paradigm is illustrated in the sentencs under (17) and (18)

17. a. **Kayaba   kú-yà**   DJ
         NAME   kill.PERF
         'Kayaba has killed.'   Yakubu (2012: 18)

     b. *__Kayaba n   kú-yà__   DJ
          NAME   FOC kill.PERF
          'It is Kayaba who has killed.'

     c. **Kayaba   n   kú- Ø**   CJ
          NAME   FOC   kill.PERF
          'It is Kayaba who has killed.'

     d. **Bì-á   máá   dá-Ø   yìlí**   CJ
         child.SG   DEF   buy.PERF   house
         'The child has bought a house.'

     e. **Yìlí   kà   bì-á   máá   dá-Ø**   CJ
         house   FOC   child.SG   DEF   buy.PERF
         'It is a house that the child has bought.'

     f. *__Yìlí   kà   bì-á   máá   dá-yà__**   DJ
          house   FOC   child.SG   DEF   buy.PERF
          'It is a house that the child has bought.'

18. a. **Bì-á   máá   sá   chaŋ-yà**   DJ
         child.SG   DEF   TRM   go.PERF
         'The child went yesterday.' Yakubu (2012:22)

     b. *__Bì-á   máá   n   sá   chaŋ-yà__   DJ
         child.SG   DEF   FOC   TRM   go.PERF
         'It is the child who went yesterday.'

     c. **Bì-á   máá   n   sá   chaŋ -Ø**   CJ
         child.SG   DEF   FOC   TRM   go.PERF
         'It is the child who went yesterday'

     d. **Bì-á   máá   duhi- rì   loori**   CJ
         child.SG   DEF   drive.IMPERF   lorry
         'The child drives/is driving a car'

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e. ***Loori ka bì-á máá duhi- rì** CJ
lorry FOC child.SG DEF drive.IMPERF
'It is a car that the child is driving/drives'

f. **Loori ka bì-á máá duhi- rá** DJ
lorry FOC child.SG DEF drive.IMPERF
'It is a car that the child drives.'

It is clear from the data in (17) and (18) above that the focus marker **n/ka** and the disjoint aspectual marker **-ya** cannot co-occur. Though the perfective CJ form of the verb does not occur clause-finally in the canonical sentence, in subject focus constructions this requirement is neutralised, and the CJ verb form occurs clause finally. It is striking, however, that the imperfective CJ, even in focus constructions, does not occur clause-finally. Even when it happens that the DJ form of the verb occurs with an adjunct (as discussed earlier), the paradigm described in (17) and (18) does not change. This is illustrated with data in (19).

19. a. **Bì-á máá sá lú-yà sɔhálá** DJ
child.SG DEF TRM fall.PERF yesterday
'The child fell yesterday.'

b. ***Bì-á máá n sá lú-yà sɔhálá** DJ
child.SG DEF FOC TRM fall.PERF yesterday
'It is the child who fell yesterday.'

c. **Bì-á máá n sá lú-Ø sɔhálá** CJ
child.SG DEF FOC TRM fall.PERF yesterday
'It is the child who fell yesterday.'

d. ***Sɔhálá kà bì-á máá sá lú-yà** DJ
yesterday FOC child.SG DEF TRM fall.PERF
'It was yesterday that the child fell.'

It is observed from this description that there is a co-occurrence restriction between the focus markers and the suffix -**ya**. This conclusion suggests that the /a/ forms do not convey aspect only, but are aspect forms modified by an additional function morpheme.

Having seen that the focus markers **ka** and **n** are incompatible with the perfective aspectual marker -**ya** in simple sentences, there is the need to investigate the phenomenon in subordinate clauses. The fact that the verb in the matrix clause in

(20c) is suffixed with **-ya** is what is responsible for its ungrammaticality indicating that -**ya** and focus are mutually exclusive.

20.   a. **Abu   tɛhí-yà   ní   Jemima   dì-Ø   bìndírígù   máá**
           NAME   think.PERF   that   Jemima   eat.PERF   food   DEF
           'Abu thought that Jemima has eaten the food.'

     b. *__Abu   n   tɛhí-yà   ní   Jemima   dì-Ø   bìndírígù   máá__
           NAME   FOC   think.PERF   that   Jemima   eat.PERF   food   DEF
           'It was Abu who thought that Jemima has eaten the food.'

     c. **Bìndírígù   máá   ká   Abu   tɛhí-Ø   ní   Jemima   dì-yà**
           food   DEF   FOC   NAME   think.PERF   that   Jemima   eat.PERF
           'It is the food that Abu thought that Jemima has eaten.'

     d. *__bìndírígù   máá   ká   Abu   tɛhí-yà   ní   Jemima   dì-yà.__
           food   DEF   FOC   Abu   think.PERF   that   Jemima   eat.PERF
           'It is the food that Abu thought that Jemima has eaten.'

21.   a. **Abu   tɛhí-yà   ní   bí-hì   máá   chàŋ-Ø   dáà**.
           NAME   think.PERF   that   child.PL   DEF   go.PERF   market
           'Abu thought that the children have gone to the market.'

     b. **Bí-hì   máá   ká   Abu   tɛhí-Ø   ní bɛ   chàŋ- Ø   dáà**
           children   DEF   FOC   Abu   think.PERF   that   2PL   go.PERF   market
           'It is the children that Abu thought have gone to the market.'

     c. *__Bí-hì   máá ká   Abu   tɛhí-yà   ní   bɛ chàŋ-Ø   dáà.__
           child.PL   DEF   FOC   NAME   think.PERF   that   2PL   go.PERF   market.
           'It is the children that Abu thought have gone to the market.'

It is also possible to focus the subject of an embedded clause, as in (21b) where the subject of the embedded clause, **bihi maa**, 'the children', has been focused. An interesting issue that is worthy of mention is the ungrammaticality of sentences (20d) and (21c). A plausible explanation to the ungrammaticality of these sentences may be that there is some relation between focus movement and verbal morphology in subordinate clauses. It is then observed, based on (20c) and (21b) that the verb that immediately precedes the subordinate clause of a focus constituent cannot be morphologically marked with the disjoint completive or perfective aspectual marker -**ya** as that yields ungrammatical forms. There is thus a prohibition of the presence of -**ya** on the intermediate verb in Dagbani, as seen from data. It is observed based on

(20d) and (21c) that in successive cyclic movement, the verb in the matrix clause is invariably not marked with the perfective aspectual suffix -**ya**. When it is marked with the morpheme, the resulting structure is ungrammatical. Why -**ya** changes to conjoint form -Ø in the matrix clause might therefore, be linked to prohibition on co-occurrence between focus and the -**ya** suffix.

5. Relativisation and the Verbal Paradigm

This section investigates the interaction between relativisation and CJ/DJ alternations. In relative clauses, the indefinite quantifiers **so/shɛba** for singular and plural animate/count nouns, respectively and **shɛli/shɛŋa** for singular and plural non-count nouns respectively, occur in their normal function as modifiers (indefinite quantifiers) of the antecedent, and the relative pronouns **ŋùn** and **dìn**, for living and non-living things respectively, occur within the relative clause to point back to the noun being modified. The relative pronouns also differ depending on whether the relativised element is singular or plural: **ŋùn** for singular and **bàn** for plural. Furthermore, the indefinite quantifiers also have the singular/plural and animacy dichotomy. When the indefinite quantifiers modify a noun in Dagbani, the noun loses part of it, usually the final syllable. For details on the indefinite quantifiers in Dagbani, see Issah (2013a).

I establish that the perfective DJ verb form does not occur in relativised clauses, be they relativised subjects as in (22b, 22d) or relativised objects as in (22f). Also, the imperfective DJ verb form does not also occur in relativised clauses, be they relativised subjects as in (23b, 23d) or relativised objects as in (23f). I conclude then that the DJ verb forms do not occur in relative clauses and that the CJ form cannot also occur clause finally even in relative clauses.

22.   a. **Pàɣ'**   **só**   **[ŋùn** **dà-Ø**   **lóórì**   **máá]**   **kpì-yá**
        Woman   QUAN RELPr buy.PERF   lorry   DEF   die.PERF
        'The woman who bought the car has died.'

    b. *****Pàɣ'**   **só**   **[ŋùn** **dà-yá**   **lóórì**   **máá]**   **kpì-yá**
        Woman   QUAN RELPr buy.PERF   lorry   DEF   die.PERF
        'The woman who bought the car has died.'

    c. **Bìndírì' shɛlí**   **[dìn**   **máâì. Ø]**   **bì**   **gálìsí**
        food   QUAN   RELPr   be.cold.PERF   NEG   be.plenty
        'The food that is cold is not plenty.'

d. ***Bindiri'** **shɛli**   **[dìn**   **máá-yá]**   **bì**   **gálìsí**
   food   QUAN   RELPr   be.cold.PERF   NEG   be.plenty
   The food that is cold is not plenty.'

e. **Adam** **nyà-Ø** **bí'** **shɛba** **[[bàn chàŋ-Ø**   **dáà]** **máá**
   NAME   see.PERF child QUAN RELPr go.PERF   market DEF
   'Adam has seen the children who went to the market.'

f. ***Adam** **nyà**   **bí'** **shɛba** **[bàn chàŋ-yá**   **dáà]** **máá**
   NAME   see.PERF child QUAN RELPr go.PERF   market DEF
   'Adam has seen the children who went to the market.'

23.   a. **Bu'**   **shɛba** **[bàn**   **gúú-rì**   **máá]** **bì**   **bàrá**
         goat.SG   QUAN RELPr   run.IMPERF   DEF   NEG   be.big
         'The goats that are running are not fat.'

      b.***Bú'**   **shɛba** **[bàn**   **gúú-rà**   **máá]** **bì**   **bàrá**
         goat   QUAN RELPr   run.IMPERF   DEF   NEG   be.big
         The goats that are running are not fat.'

      c. **Pàɣ'**   **sò**   **[ŋùn chìm-dí**   **nìmdí máá]** **màlí** **lìɣírì**
         woman   QUAN RELPr fry.IMPERF   meat   DEF   has   money
         'The woman who fries the meat has money (is rich).'

      d. ***Pàɣ'**   **sò**   **[ŋùn chìm-dá**   **nìmdí máá]** **màlí** **lìɣírì**
         woman   QUAN RELPr fry.IMPERF   meat   DEF   has   money
         'The woman who fries the meat has money (is rich).'

      e. **Nóómbì-h'** **shɛba** **[bàn yìɣí-rì**   **zaa]**   **màlí** **ànfáánì**
         bird.PL   QUAN RELPr fly.IMPERF   QUAN   have   benefits
         'All flying birds have benefits (are beneficial)'**.**

      f. * **Nóómbì-h'** **shɛba**   **[bàn yìɣí-rà**   **zaa]** **màlí** **ànfáánì**
         bird.PL   QUAN   RELPr fly.IMPERF   QUAN have   benefits
         'All flying birds have benefits (are beneficial)'

The distinction between CJ/DJ verb forms therefore represents a packaging in different morphology of verbs, distributional properties (syntactic requirements) and information structure. The canonical properties of the CJ/DJ distinction is therefore summarised in (24):

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24.   a. the use of different verbal suffixes (morphology) of the verb
        b. different distributional properties within the clause
        c. codes different information structural notion (focus)
        d. difference in interaction with post verbal particles.

6. Plausible Accounts of the Verbal Paradigm

This section attempts to give possible accounts for the CJ/DJ alternation within the Dagbani verbal paradigm. I develop three plausible explanations for this morphological alternation: the incorporated pronoun hypothesis, the medio-passive morpheme hypothesis and then the focus hypothesis. Of the three hypotheses, I contend that the focus hypothesis seems to be the most adequate in addressing accounting for the verbal paradigm in the language.

6.1. The Incorporated Pronoun Hypothesis.

The incorporated pronoun hypothesis is stated in (25).

25. A verb appearing in the DJ form has an incorporated pronoun, while a verb appearing in the CJ form has no incorporated pronoun.

With this proposal, we maintain that the perfective DJ morpheme -**ya** and the imperfective CJ markers -**ra** or its variant -**da** and **-ta** are analyzable as incorporated pronouns. Accordingly, a verb that occurs in the disjoint form has an incorporated pronoun thereby prohibiting its co-occurrence with NP objects and sometimes adjunct phrases, whilst the conjoint form of the verb lacks an incorporated pronoun. Within this hypothesis, it implies that there are different ways in which objects are structurally realized in Dagbani; either they appear in their canonical placement as sisters to the head of a verb phrase, or they are incorporated, or adjoined at the sentence level, in which case they are morphologically attached to the verb. However, we soon see that the correlation between CJ/DJ alternations and the presence or absence of incorporated pronoun is imperfect, suggesting that the proposed incorporated pronoun hypothesis does not address the problem on the function or this verbal alternation. The weakness of this proposal is revealed in the fact that the forms of the verbs that are said to have incorporated pronouns do occur in medio-passives as in the sentences under (26).

26.   a.   **Púú   máá   kó-yà**   DJ
                farm   DEF   till.PERF
                'The farm is tilled.'

    b.   **Dàm máá bí-yà**   DJ
          pito DEF cook.PERF
          'The pito is cooked.'

    c.   **Ʒìrí bì kɔhì-rá**   DJ
          lie   NEG sell.IMPERF
          'Lie is not sold.'   Salifu (2012:18)

This observation is then taken to greatly weaken the proposal for an analysis in which the DJ aspectual suffixes –**ya** and –**ra/da/ta** are analyzable as incorporated pronouns. This calls for another proposal which I call the medio-passive morpheme analysis.

6.2. The Medio-passive Morpheme Hypothesis

27. A verb that is used in the disjoint form has a medio-passive morpheme, **-ya** and **-ra** while a verb used in the conjoint form has no medio-passive morpheme.

This observation is in accordance with the general structural feature of many Gur languages in that with dynamic verbs the canonical structure SVO may change to SV, but then the semantic role of S changes from agent to patient. However, different constraints are observed from language to language concerning the semantics of verbs as well of nouns in S position. For details see for instance, Reineke & Miehe (2005). However, there is evidence to indicate that this hypothesis, just like the incorporated pronoun hypothesis, does not address the problem of the function of this morphological alternation. A problematic fact for this hypothesis is the selectional restriction on NP subjects before a structure can be assigned medio-passive reading. Accordingly, only inanimate nominals (subjects) can assign the disjoint forms of the verb a medio-passive reading. When the NPs used are animate ones, the resulting sentences would still have active readings and not passive readings as in (28).

28.   a**.**   **Mbaŋba**   **kó-yà**   DJ
             NAME   till.PERF
             'Mbaŋba has tilled.'

        b.   **Mbaŋba**   **dì-yà**   DJ
             Mbangba   eat.PERF
             'Mbaŋba has eaten.'

Thus, the selective nature of the NP requirement in injecting medio-passivity into a sentence undermines the medio-passive morpheme analysis proposed to account for

the alternation. The morphological expression of medio-passivization on the verb is therefore also found only to occur with some lapses.

6.3. The Focus Hypothesis

This proposal argues that the CJ/DJ verb alternation is associated with focus. I contend therefore, that the CJ verb form marks focus on whatever follows the verb, while the DJ verb form encodes focus on the verb. One would not be far from right to argue then that the formal requirement that something follows the CJ verb form is because the information structure requirement that it focuses some post verbal material. This explains why the CJ form cannot occur at the end of a sentence (at least in the main clause), while the DJ form of the verb focuses the verb and so occurs clause-finally. By the tenets of this proposal, Dagbani has two types of in-situ focus strategies: namely syntactic focus strategy coded by use of post verbal particles **mi** and **la**, (Olawsky 1999, Issah 2013b, Hudu 2012), and morphological focus, which is marked using the CJ and DJ verb forms. I therefore, pursue an analysis according to which CJ focuses post verbal elements, while the DJ form correlate with narrow verb focus, as demonstrated in (29).

29. a. **Yí chìm-dá?**
     2PL fry.IMPERF
     'Do you fry?'

     b. **ììn, tí   chìm-dá**
     yes 1PL   fry.IMPERF
     'Yes, we fry.'

     c. **ììn, tí   chìm-dí   nyùlí**
     yes 1PL   fry.IMPERF   yam
     'Yes, we fry yams.'

     d. **Yí chìm-yá?**
     2PL fry.PERF
     'Have you fried?'

     e. **ììn, tí   chìm-yá**
     yes 1PL   fry.PERF
     'Yes, we have fried.'

In (29), we demonstrate the morphological coding of *in situ* focus in Dagbani. In (29b) for instance, the focus is on the verb **chim**, 'fry' marked with the

imperfective CJ morpheme -**da**, while in (29c), the focus is marked on **nyuli** 'yam' and so the CJ morpheme -**di** is used. The same observation is made of (29e) where **-ya** marks focus on the verb. Thus, whether the verb or post-verb material is the focal element calls for specific verb suffixes.

In the literature, scholars have argued that there is a correlation between verb form and the marking of predicate focus. Schwarz (2008) makes draws similar conclusions for Buli and labels the strategy as morphological means of marking predicate focus, and Sharman (1956) also draws similar conclusions in Bantu.

An observation that further strengthens my proposal that CJ focuses post verbal NP objects, complements and adjuncts while the DJ focuses the verb itself is based on the distribution of post verbal elements which are associated with syntactic focus in the study of Dagbani grammar. I demonstrate that the distribution of these post verb particles is affected by interaction with the aspect system and the purely surface consideration of whether the verb is final in the clause or not. This paradigm is demonstrated in (30).

30. a. **Suhuyini dì-rí lá bìndírìgú** CJ
       NAME eat.IMPERF FM food
       'Suhuyini is eating/eats food.'

    b. ***Suhuyini dì-rí lá** CJ
        NAME eat.IMPERF FM

    c. **Neindoo sà dì-rí mì** CJ
       NAME TRM eat.IMPERF FOC
       'Neindoo was eating (yesterday)'.

    d. ***Neindoo sà dì-rí mì bìndírìgú** CJ
        NAME TRM eat.IMPERF FOC food

If it has so far been established that -**ra** and its variants occur clause finally while -**ri** and its variants occur when something must follow the verb, (at least in the simple sentence), then it stands to reason that **la** must be incompatible with -**ra** since the two have conflicting syntactic requirement. The incompatibility between the post verb **la** and the disjoint imperfective aspectual marker **-ra** explains the ungrammaticality of sentence (30a). The post verbal **mi** is also mutually exclusive with -**ra** and its variants. At least descriptively, one can suggest that the syntatic incompatibility between **-ra** and **mi** arises from the fact that the two have same syntactic features, they both occur clause finally (at least) in simple sentencess and for

that matter, selecting one of tthem will suffice. This is evident in the ungrammatical sentence in (30b).

30.   a.   ***Suhuyini dì-rá   lá bìndírìgú**   DJ
               NAME   eat.IMPERF FOC food
               'Suhuyini is eating/eats food.'

      b.   ***Neindoo   sà dì-rá   mì**   DJ
               NAME   TRM eat.IMPERF FOC
               'Neindoo was eating (yesterday).'

        I therefore conclude that the occurrence of the post verb **la** and **mi** within a sentence is dependent on the aspectual marker that occurs on a verb. It must be pointed out however, that pronouns differ in their syntactic relations with the post-verb particle **la** within the sentence structure of Dagbani. Pronouns, unlike full DPs, precede the post verb **la** instead of following it. This explains the ungrammaticality of sentences (31b) and (31d) where we have the pronouns **ba** 'them' and **ma** 'me' following **la** instead of preceding it as in sentences (31a) and (31c).

31.   a.   **Neindoo   bú-rí   bà   lá   kpè**   CJ
               NAME   beat.IMPERF 2PL   FOC here
               'Neindoo is beating them here.'

      b.   ***Neindoo   bú-rí   lá   bà   kpè**   CJ
               NAME   beat.IMPERF FOC   2PL   here.
               'Neindoo is beating them here.'

      c.   **Napodoo sà   tú-Ø   mà   lá   sɔhálà**   CJ
               NAME TRM   insult-PERF 2SG   FOC   yesterday
               'Napodoo insulted me yesterday.'

      d.   ***Napodoo sà   tú-Ø   lá   mà sɔhálà**   CJ
               NAME TRM   insult.PERF FOC   2SG yesterday.
               'Napodoo insulted me yesterday.'

        Issah (2013) argues that the syntactic variation of pronouns and the post verb **la** could be accounted for by either assuming that: (i) object pronouns are syntactically bound, or perhaps morphologically, as though in some sense they are suffixes in which case the object pronouns are clitics to the verb and (ii) that the weak pronominals always shift to the left of the **la** particle. This syntactic behaviour of weak pronouns when they co-occur with post verb particles has been established as a

phenomenon in another (related) Gur language, Dagaare (Hiraiwa and Bodomo 2008: 249-250), which has a phonologically similar post-verb **la**. In Table 3 we summarize the descriptive observations so far made on the CJ/DJ forms in Dagbani.

This verbal paradigm and its interaction with the post verb particles as discussed in section 4 is very relevant in regard to Oti-Volta typology. For instance, other (genetically) related Gur languages such as Gurɛnɛ (Atintono 2004; Dakubu 2007, 2000) and Kusaal (Issah 2006) also have the post verb particles which interact with aspectual markers**.** Gurɛnɛ has the particle **mɛ** which follows an imperfective form of the verb in the absence of an object, and also **la** which occurs when something must necessarily follow but not in the negative (like **ya**). Atintono (2004:132) asserts that:

> the affirmative **mɛ** is also used after an imperfective verb if no object or adverb follows to indicate that the event is internally viewed as continuing.

On the distribution of the post verb **la**, Dakubu (2000: 61) argues that:

> it never occurs with an intransitive verb or a verb whose Complement (which may be an NP, a pronoun, a locative NP or an entire clause is not expressed.

Table 3: Summary of the syntactic requirements of the Dagbani verbal paradigm

verb alternation	suffix	use in negative clauses	syntactic requirements	used with post verb particles	occurrence in relative clause
CJ PERF	-Ø	occurs with negative clauses	requires obligatory NP object can take an adjunct	compatible **mi** and l**a**	occurs in relative clauses
DJ PERF	-ya	incompatible with negative sentences	cannot co-occur NP object is compatible with adjuncts	incompatible with **mi** and **la**	does not occur in relative clauses
CJ IMPERF	-ri/di/ti	compatible with negative clauses	needs an obligatory NP object is compatible with adjuncts	compatible with **mi** and **la**	occurs in relative clauses
DJ IMPERF	-ra/da/ta	compatible with negative clauses	cannot co-occur with NP object is incompatible with adjuncts	incompatible with **mi** and **la**	- does not occur in relative clauses.

Atintono (2004: 132) simply asserts that 'the **yá** modifier occurs after the verb to mark the completion of the event. It affirms a verb that is perfective'. However, there is a slight difference in terms of how Gurunɛ and Dagbani treat their (-) **ya** marker. For instance, Dagbani orthography has always treated the perfective marker -**ya** as a suffix, while Gurenɛ treats the **ya** as a post verb particle, rather than a suffix, because according to Dakubu (2007), it gets stress like the initial root syllable of a lexeme. The data below taken from Atintono (2004: 133) illustrate the distribution of the Gurunɛ post verb **ya**.

32. a. **À   dí   yá**
         S/he   eat   COMPL
         'S/he ate.'

     b. ***À   dítí   yá**
          S/he   eat.IMPERF COMPL

     c. **À   wá'   yá**
         S/he   dance   COMPL
         'S/he danced.'

     d. ***À   wá'arì   yá**
          S/he dance.IMPERF   COMPL

     e. ***À   dí   yá   dia**
          S/he eat   COMPL   food

Descriptively therefore, the Gurunɛ post verb **ya** occurs clause finally just like its phonologically similar counterpart in Dagbani. It also does not occur with the imperfective aspect as evidenced in the ungrammatical sentences in (32b) and (32d). The distribution of the Gurunɛ post verb particles **la** and **mɛ** is illustrated below with data taken from Atintono (2004: 73).

33. a. **Pɔka   la   wa'ari   mɛ**
         woman   DEF   dance.PROG   AFF
         'The woman is dancing.'

     b. **Pugela la   dugeri   la   dia**
         girl   DEF   cook. PROG   FOC   food
         'The girl is cooking food.'

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c. **Naafu la   nyuuri   la   ko'om**
cow   DEF   drink.PROG   FOC   water
'The cow is drinking water.'

d. ***Naafu   la   nyuuri   la**
  cow   DEF   drink.PROG   FOC

e. **Bã'ara   la   diti   la   sagebɔ**
patient   DEF   eat.PROG   FOC   tuo
'The patient is eating tuo'.

f. **Saana la   daa   kule   mɛ**
visitor DEF   PST   go home   AFF
'The visitor did go home.'

In Kusaal, a Gur language spoken in the Upper East region of Ghana, a similar paradigm exists, in the sense that Kusaal has the post verb particle **nɛ,** which follows the perfective form of the verb when something must follow, that is, the verb does not occur clause finally, (except for object pronouns) but never the conjoint imperfective form. In Kusaal too, the different morphological alternations call for different syntactic forms. It must however be pointed out that since the Agole Kusaal which I studied does not have the word-final vowels of the other languages, a distinction between -**ri** and –**ra** does not work for this language. The perfective form of the verb that is morphologically marked with -Ø is almost always followed by post verb particle **nɛ**, an NP object or an adjunct (except the object is a pronoun object, when the pronoun will precede the post verbal **nɛ**) while the form that is marked morphologically with -**ya** needs neither an NP object nor an adjunct and so occurs only clause finally in the canonical sentence. The former is what is termed as perfective 'conjoint', while the latter is referred to as perfective 'disjoint'. This explains why the ungrammaticality of sentence (34b) where the aspectual suffix -**ya** is assigned an NP object **diib** 'food'. Also, in (34d) the post verb **nɛ** occurs clause finally where in principle, it requires an NP object. The ungrammatical sentence in (34e) is also borne out of the fact that -**ya** occurs with an adjunct **suŋŋa** 'well'. Abubakari (2011) discusses similar observations.

34. a. **Ndego   dūg-yá**   DJ
Ndego   cook.PERF
'Ndego has cooked.'

b.	***Ndego**	**dūg-yá**	**dīib**		DJ
	Ndego	cook.PERF	food		
	'Ndego has cooked food.'				

c.	**Ndego**	**dūg.Ø**	**nɛ̄**	**dīib**	CJ
	Ndego	cook.PERF	PVP	food	
	'Ndego has cooked food.'				

d.	***Ndego**	**dūg.Ø**	**nɛ**		CJ
	Ndego	cook.PERF	PVP		
	'Ndego has cooked food.'				

e.	***Bíig**	**lá**	**dūg-yá**	**sūŋŋā**	CJ
	Child	DEF	cook.PERF	well	
	'The child has cooked well.'				

The distribution of the perfective aspectual marker -**ya** and **nɛ** in Kusaal is not different from what has been observed of (-)**ya** and **la** in Dagbani and Gurunɛ. This suggests that the syntactic requirement of these items could be described as being pervasive in Gur languages.

Just as we earlier observed of the post verb particles **la** in Dagbani and Gurunɛ, pronouns differ in their syntactic relations with the post verb particle **nɛ** within the sentence structure of Kusaal. When pronouns occur with the post verb **nɛ**, they precede the particle, unlike full noun phrases (NPs) which follow it. For instance, in sentences (35a) and (35e) the object pronouns **o** 'him/her' and **fu** 'you' precede the post verb particle **nɛ.** Sentences (35b) (35d) are ungrammatical because they have pronoun objects which follow **nɛ** rather than preceding them. This is illustrated in (35).

35.	a.	**Bíig**	**lá**	**bʊ́'**	**ō**	**nɛ̀**	CJ
		3SG	DEF	beat.PERF	3SG	PVP	
		'The child has beaten him/her.'					

	b.	***Bíig lá**		**bʊ́'**	**nɛ̄**	**ō**	CJ
		3SG DEF		beat.PERF	PVP	3SG	
		'The child has beaten him/her.'					

	c.	**M̄**	**púà**	**kūʊ**	**fʊ̄**	**nɛ̀**	CJ
		1SG.POSS	wife	kill.PERF	2SG	PVP	
		'My wife has killed you.'					

d.	*M̄	púà	kʉ̄ʋ	nɛ̄	fʉ̄.	CJ
	1SG.POSS	wife	kill.PERF	PVP	2SG	

‘My wife has killed you.’

Similar conclusions were drawn for the different syntactic relations that exist between pronouns and the post verb particle **la** in Dagbani and Gurunɛ. According to Naden (2005: 3) Mampruli, also a Gur language, also has the suffix **-ya** which "marks perfective very much in the sense of the English Perfect – past with present relevance." The Mampruli data in (36) are taken from Naden (2005: 3) to illustrate the phenomenon in Mampruli.

36. a. **U kyaŋŋi Tammali.**   "He went to Tamale (but may be back now)."

   b. **U kyaŋŋiya.**   "He has gone (and is still away)."

   c. ***U kyaŋŋiya Tammali.**   "He has gone to Tamale."

   d. ***U kyaŋŋiya soosa la.**   "He went yesterday."

   e. **U dugi sinkaafa.**   "She cooked rice."

   f. ***U dugi.**   "She cooked."

We could say based on the data in (36) that in Mampruli, just as observed of Dagbani, Kusaal and Gurunɛ, the perfective marker -**ya** occurs clause finally. From the comparative perspective, one would be right to conclude that the different realization of the perfective and imperfective aspect is not only unique to Dagbani, but also other genetically related languages. It was also observed that the presence or absence of post verb particles in Dagbani and other Gur languages such as Mampruli, Dagaare, Kusaal and Gurunɛ does interact with the aspect system of the languages. The distribution of the post verbal **la** in Mampruli is also demonstrated in (37).

37. a. | **U** | **dugri** | **la** | **sinkaafa.** |
     |-------|-----------|--------|---------------|
     | She | cooking | FOC | the rice |

   ‘She is/was cooking rice.’

   b. | ***U** | **dugri** | **la.** |
     |--------|-----------|---------|
     | She | cooking | FOC |

   ‘She is/was cooking.’

7. Summary and Conclusions

This paper set forth to discuss the verbal morphology of Dagbani with special attention on the correlation between verbal morphology and sentence structure.

Focusing on verbal inflection, the discussion centred on the relation between inflections and complement placement. It is established that the CJ/DJ verb form encodes differences in morphology, syntax and information structure. The CJ form of the verb obligatorily needs some element (NP object, adjunct) to follow it whereas the disjoint form can (but does not need to) be in sentence final position. The interaction between negation and the verbal alternation is also investigated. It was established that there is a co-occurrence relation between the perfective DJ form and negation as well as focus marking and the verbal paradigm.

In an attempt to account for the distribution of the conjoint and disjoint verb forms in Dagbani, three proposals were considered: the incorporated pronoun hypothesis, the medio-passive morpheme hypothesis and the focus hypothesis. I concluded based on empirical evidence that the CJ/DJ correlated with focus suggesting that the focus hypothesis best accounts for the CJ/DJ forms in Dagbani as has been established in other Gur and non-Gur languages.

A comparative flavour was injected into the work by looking at the verbal alternation and its interaction with the sentence structure in regard to Oti-Volta typology. Drawing on data from genetically related languages such as: Gurunɛ, Kusaal, Mampruli and Dagaare, it is established that the interaction seen between the post-verb particles and the verbal paradigm of Dagbani appears to be a typological phenomenon which can be observed in several other Gur languages in the Oti-Volta subfamily. The paper therefore, contributes to the literature on verb morphology by bringing data from a lesser known language and related ones. This could consequently contribute to our knowledge of not only the verb morphology on Dagbani, but also, a cross linguistic contribution to the understanding of the verbal alternation and its correlation with sentence patterns in natural languages.

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