A Reanalysis of Nonemphatic Pronouns in Dagbani

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1 Introduction

The clitic-like pronouns in Dagbani, referred to as 'nonemphatic' or 'weak' pronouns, are described as being marked for position in relation to the verb as opposed to grammatical role (Wilson 1973, Bawa 1980, Yahaya 1995, Olawsky 1999). However, in the course of compiling a broad corpus of written and spoken Dagbani texts, two pieces of evidence overlooked or undocumented by previous linguists (pronoun conjunction and qualified pronouns), combined with one well-known piece of evidence (identical sets of 'possessive' and 'preverbal' nonemphatic pronouns), prove problematic for this description and point towards yet another account of these pronouns—a primarily phonologically motivated division based on processes of cliticization. Additional linguistic phenomena (such as vowel elision with emphatic pronouns) and theoretical issues (such as debate of the inventory of phonemic vowels in Dagbani) corroborate this analysis and are discussed in this paper. In the following sections, I will describe the previous grammatical descriptions of the system of personal pronouns in Dagbani and

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¹ The data used in this analysis is drawn form this corpus—compiled in 2003/2004 on Fulbright-Hays Doctoral Dissertation Research funding—which comprises 356 spoken and written texts from a variety of contexts and contains a total of approximately 180,000 words. Inquiries may be sent to tpurvis@indiana.edu.

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make recommendations for a new analysis based on this overlooked evidence. By way of a discussion on the interface between syntax and phonology in the realization of nonemphatic pronouns, the paper also includes an argument against the claim that Dagbani is a language exemplifying 'low selectivity' on the part of clitics.

2 Overview of Dagbani Personal Pronouns

Dagbani, a Gur language (Volta-Congo) spoken by approximately 500,000 speakers in Northern Ghana, is characterized by two sets of personal pronouns: emphatic or 'strong' pronouns and nonemphatic or 'weak' pronouns. As the terms 'emphatic' and 'nonemphatic' are used in the most current grammatical description of the Dagbani language, I will begin by employing these terms. However, after presenting a new description of the 'nonemphatic' pronouns, I will argue that the terms 'weak' and 'strong' are the more appropriate. The thesis of this paper mainly concerns the nonemphatic pronouns; however, I will first present a description of the emphatic pronouns, which will later have a bearing on the analysis of the system of nonemphatic personal pronouns.

2.1 Emphatic Pronouns

The category of emphatic or 'strong' pronouns is generally accepted as one distinct set, with little dispute or confusion in terms of description of the variant forms. They are presented in Table 1.

	Singular	Plural
1 st person 2 nd person	mani (man')	tinima (tin', tinim')
2 nd person	nyini (nyin')	yinima (yin', yinim')
3 rd person [+animate]	ŋuna (ŋun')	bana, (ban', banima, banim')
3 rd person [–animate]	dina (din')	ŋana (ŋan') †

[†] Cited in Olawsky (1999), but this form is described as growing obsolete and mainly found in formal texts. In my corpus, this form is actually only attested as a relative pronoun (which are drawn directly from the set of emphatic pronouns). Colloquially, *dina* is said to be used also for 3P inanimate. In practicality, however, a demonstrative is just as likely employed versus an emphatic pronoun, and one form of demonstrative happens to be homophonous with the emphatic pronoun (*dina*)—or perhaps the relationship is one of polysemy. The plural of this is formed with the suffix –*nima* (*dinnima*).

Table 1. Dagbani Emphatic Pronouns

Emphatic pronouns reflect only the number, person, and animacy of their referent, but are not marked for grammatical role or any other function. Bawa (1980) does attempt to distinguish the elided forms in Table 1 as 'Emphatic' and the non-elided forms as 'Disjunctive'; however, these are

simply two functions of the same set of pronouns. (Furthermore, the 'Emphatic' function can in fact be represented by non-elided forms (see, e.g., (1c) in the data set further below); and the 'Disjunctive' pronouns may be pronounced in elided form (see, e.g., (1f)).) The only variation in the realization of these pronouns (noted in parentheses in Table 1) is the muting of the final -i or -a when they come before another word and truncation of the sequence -nima to -n' in the plural forms. While there are presumably limited constraints on the variable use of full versus truncated forms, emphatic pronouns can essentially appear in most any grammatical role and may be conjoined or adjoined freely with most any variety of nouns and pronouns. The data in (1) show a sampling of the various environments in which these pronouns occur.

```
(1) a. man'
                 ni
                      wurim
                                ya
                                      η၁
       1s/EMPH FUT demolish town DEM
       'I will demolish this town.' (Subject)
    b. mani, man'
                                  mε
                                        dimbono zaa
       1S/EMPH 1S/EMPH INF/EMPH build DEM
                                                  all
       'Me, [It is] I [who] built all this.' (Disjoint, Emph. Subj.)
    c. di
                      nyε mani
                                  ka bii yi
                                                          chan lala
       3S/INAM-A COND COP 1S/EMPH CONJ child COND about.to go thus
       'If it were me, and [my] child was about to go like that' (Post-copula)
                                         mani,
    d. nun
                    ηma n-
                                pa
                                                 man'
                                                           nubi o
       3s/REL/ANIM cut INF/SEQ layupon 1s/EMPH 1s/EMPH chew 3s/ANIM
       'Whoever deceives me, I['ll] eat him up' (Object, Subject)
                suhupielli nye -la so
    e. man'
                                                    karim li
       1s/EMPH happiness COP FOC INDEF/SING/INAM read 3s/INAM-B
       'My great wish is that someone read it.' (Possessive)
    f. vinim'
                ka
                           γεΙί ηηο
                      n
                                       maa
       2P/EMPH FRO 1S-A tell thus DET/TOP
       'It's you whom I'm saying this to.' (Fronted Ind. Obj.)
```

Emphatic pronouns are most typically used as disjoint pronouns as in a one-word response to a question such as 'who's there?' or as in the disjoint topic pronoun at the beginning of (1b), and as subject pronouns as in (1a), often co-occurring with the emphatic verb construction as with the second emphatic pronoun in (1b). However, they can also be found in object and possessive grammatical positions and after the copular verb as exemplified in (1c-e). If a solitary personal pronoun is ever fronted with the *ka* fronting construction, the emphatic pronoun must be used, as exemplified in (1f).

2.2 Nonemphatic Pronouns

The nonemphatic or 'weak' or 'simple' pronouns, however, have proven more problematic to describe. Like the emphatic pronouns, they are marked for person, number, and animacy. In addition, however, after accounting for person, number, and animacy, half of the pronouns in this category appear in two forms, and the variation is not simply a case of a muted vowel or truncation as with the emphatic pronouns. Under a cursory analysis, the variation appears to be based on a structural, grammatical consideration akin to the 'subject/object' grammatical case distinction in English or many other languages of the world. Indeed, the average educated Dagbani speaker, influenced by English grammar, is likely to describe these in such terms. For example, a bilingual handbook for the formal teaching of Dagbani in schools presents mutually exclusive sets of these pronouns in 'object', 'subject', and 'indirect object' functions (Mohammed 2004).

Among linguists, however, the nonemphatic pronouns in Dagbani are generally described as being marked for position in relation to the verb, as opposed to grammatical case (Bawa 1980, Olawsky 1999, Wilson 1973, Yahaya 1995). Wilson refers to 'after-verb' forms versus pronouns 'preceding nouns and verbs.' Olawsky (1999) refers to 'preverbal' versus 'postverbal' forms. Bawa (1980), who mixes terms by including an 'Objective' category of pronouns, later refers to these as 'post-Verb' or 'After Verb' pronouns, following Wilson's analysis. Yahaya (1995) also speaks of 'Post-V' forms, implying that the other forms are default or underlying. Table 2, adapted from Olawsky² (1999), presents the most current formal linguistic account of Dagbani nonemphatic pronouns.

	<u>-</u>	Singular	<u> </u>	<u>-</u>	Plural	<u>-</u>
	Pre verbal	Un- marked	Post verbal	Pre verbal	Un- marked	Post verbal
	(A)		(B)	(A)		(B)
1st person	ŋ [†]		ma	[tt]	ti	[ti]
2 nd person		a		yi [yi]		ya
3 rd person		0		bε [bt]		ba
[+animate]						
3 rd person	di [dt]		li	di [dt]	(ŋa) ^{††}	1i
[-animate]					(3)	

[†]homorganic nasal (with allomorphs of [n], [m], [n] and 'allographs' of n and m)

² Following most grammatical descriptions, the terms in this table, as well as in the sample data, are presented using standard Dagbani orthography which is not consistently reflective of phonetic pronunciation. Of particular importance, as noted later, is the fact that, with the exception of [yi], the vowels of the preverbal forms are all 'muted-i' [t] ([dt], [bt], and [tt]). Phonetic pronunciation will be clarified wherever necessary within this analysis.

Table 2. Dagbani Nonemphatic Pronouns

Incidentally, possessive pronouns pattern exactly the same as the 'preverbal' (and unmarked) set of pronouns. Olawsky (ibid.) presents the possessive pronouns as a separate set of pronouns in the Dagbani pronominal system. Wilson (1973) on the other hand treats the 'preverbal' pronouns and possessive pronouns as a common set described simply as 'pronouns preceding nouns and verbs,' thereby economizing his grammatical account.

This categorization of pronouns in Dagbani is primarily motivated by the observation of what might otherwise appear to be 'object pronouns' in the preterit position after the copular/equative verb $ny\varepsilon$ as in (2).

According to Wilson (ibid.), another motivation of this analysis is that the *ya* form of the 2nd person plural pronoun follows the verb in the plural imperative construction as in *nyamiya!* ('look!'). However, Dagbani orthography and current views of Dagbani grammar (Olawsky 1999) analyze this as a distinct suffix, not as a pronoun—not to mention the fact that some speakers let the same –*ya* follow the verb with 1st person plural imperative forms as in *ti cheliya gadama!* ('let's end gossip!'). Wilson (1973) may be correct in assuming that this construction derives historically from the pronoun *ya*, but this is arguably not a relevant factor in synchronic analysis.³

3 Evidence Contradicting Descriptions Based on Position in Relation to Verb

On closer analysis of naturally occurring data, the patterning of Dagbani nonemphatic pronouns is a little more complex than these previous grammatical sketches have described.

 $^{^{\}dagger\dagger}$ na is described as becoming obsolete. More is said on this in Section 4.3.7.

⁻ Note: in the linguistic data presented in this paper, unless unmarked for position, 'preverbal' pronouns are coded as (A) and 'postverbal' pronouns are coded as (B).

⁻ The watermarked/bracketed items reflect phonetic pronunciation (see Footnote 2).

³ In Mampruli, a sister language of Dagbani generally viewed to be more preservative of the proto language, the 2nd person plural imperative is formed by *ya* (ordinary 2P pronoun) plus the imperative form of the verb (Naden, p.c.).

3.1 Pronouns in Conjoined Noun Phrases

When pronouns appear in conjunctive Noun Phrases with the nominal conjunction *mini* or *ni* ('and'), we find deviations from the preverbal/postverbal categorization, as shown in (3).

```
(3) a. m mini ba n- pun bala
1s-A CONJ 3P-B INF/EMPH now 'there are'
'It is they and I that are now there.' (They and I are now there.)
b. n mini ba kana
1s-A CONJ 3P-B come
'They and I have come.' / 'I have come with them.'
c. yi boli n mini Warahima
2P call 1s-A CONJ Warahima
'[... that] you call me and Warahima.'
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The categorization of pronouns based on position in relation to the verb would have predicted such forms as *m mini *bɛ kana* and *yi bɔli *ma mini Warahima*. However, in all relevant data, no such forms are attested and are presumed to be ungrammatical. Table 3 presents a tally of all instances of variable nonemphatic pronouns in conjoined NPs.

	PRO-A (i.e., 'preverbal')	PRO-B (i.e., 'postverbal')
X mini + PRO + Verb	0	17 (1 ya, 16 ba) [†]
		Plus 7 in written
		(6 ba, 1 li)
Verb + PRO + mini X	3 (3 11, 1 00, 1 01)	0
	Plus 1 fronted object	
	'n mini X'	
	Plus 3 in written (1 n, 2 di)	

[†] Examples with 1s *ma* are not attested because of supposed ordering restrictions of pronouns in conjoined NPs (Bawa 1980: 85). However, Bawa mistakenly includes an example that contradicts this hierarchy ('*A mini ma ni bana*'). Of interest here is the fact that his contradictory, hypothetical form uses *ma*, not *n*.

Table 3. Nonemphatic Pronouns in Conjoined NPs (targeted cases)

Unless otherwise noted, all example sentences presented in this paper are from spoken texts in my corpus. Notoriously fraught with typographical errors and inconsistency in orthographical conventions, and having an orthography that does not consistently reflect phonology (Olawsky 1999); written data would not be a reliable source upon which to base an analysis of Dagbani pronouns, especially an analysis that sees this as a primarily phonological phenomenon. However, even the written data tend to reinforce the findings based on spoken utterances; so, results from the written corpus are also provided separately.

Wilson (1973) also apparently observed forms such as these in his research, as he comments, at the end of his brief explanation of why 'objective' is an insufficient term, that '2nd and 3rd (inanimate) person forms also follow mini and ni "and/with" (§7). The statement is confusing and incomplete and not supported with examples; but, from its context, we may assume he was referring to forms like *m mini ba* and *m mini ya*. Nonetheless, he does not pursue this point and his term 'after-verb' pronouns does not account for such data.

3.2 Qualified Pronouns

Another consideration that causes problems for the preverbal/postverbal analysis of nonemphatic pronouns is the patterning of pronoun forms when combined with some qualifier, such as *zaa* ('all') or *konko* ('only/alone'). When the pronoun is followed by one of these qualifiers, it is the so-called 'preverbal' form that is used, regardless of grammatical role or position in relation to the verb, as illustrated in (4).

- (4) a. ti puhiri be zaa ni be kookali

 1P-A greet-IMPF 3P-A all CONJ 3P-A good.effort
 'We thank all of them for their good effort.'
 - b. di tu ni yi laxim yi konko 3S/INAM-A be.proper COMP 2P-A unite 2P-A alone 'You should get together yourselves [and not call on me].'
 - c. o kpuyi be niriba ayi maa bayili ba
 3S-A take 3P-A people two DET straddle 3P-B
 'He gave the two of them a ride.' [niriba serves as a dummy noun]
 - d. boomiya di gba biela reduce-IMPER 3S/INAM also small 'Reduce it also a little.'

Again, the analysis based on pre/postverbal position would have incorrectly predicted forms such as *ti puhiri *ba zaa*, *yi laxim *ya kɔnko*, *o kpuxi *ba niriba ayi maa baxili ba*, and *boomiya li* gba biɛla*.

Table 4 summarizes the findings of the variable set of nonemphatic pronouns when observed to combine with some sort of qualifier. The 'qualifiers' examined systematically for this analysis are numerals (which typically must also combine with a dummy noun (zav', dib', or niriba), k nko and its truncated from ko' ('only'), kam ('each'), zaa(ha) ('all'), gba ('also'), and indefinite articles (sheli, shepa, so, sheba—inam. sing, inam.

plur., anim. sing., anim. plur., respectively). Also included are a few unique instance of a pronoun plus noun (yi pukpariba ('you farmers') and $b\varepsilon$ bihi ('they children')); unfortunately, the corpus as coded does not facilitate a systematic verification of the existence or nonexistence of counter-evidence of similar constructions involving postverbal (B) forms of nonemphatic pronouns.

	PRO-A	PRO-B
PRO + qualifier + Verb	All cases (except as noted in next column) as predicted by any theory/account.	1 (1 ti mini ba zaaha), because of conjoined NP zaaha must have scope over the entire NP 'preverbal' classification would have strictly predicted ti mini *be zaaha)
Verb + PRO + qualifier	28 (1 n konko, 2 yi zaa, 1 yi konko, 4 be zaa(ha), 1 be niriba ayi, 2 be bihi ayi, 1 be kam zaaha, 8 di zaa(ha), 4 di gba, 4 di ko') Plus 24 in written (2 yi zaa(ha), 1 yi gba, 1 yi pukpariba, 2 bezaa, 1 be niriba ayi, 1 be gba? (VD), 1 be yino kam, 9 di zaa, 1 di gba, 1 di sheli, 1 di sheŋa, 2 di ko', 1 di dib' ayi)	6 (2 ma gba, 1 ba gba, 1 ba zaaha, 1 mini ya zaaha, [see notes on constituency in Section 5.1], 1 li zaa) Plus 8 in written (1 mini ba zaa, 5 li zaa, 2 li dib')

Table 4. Nonemphatic Pronouns with Qualifier/Determiner (targeted cases).

Excluded from the list of 'qualifiers' is one of the most common, *pam* ('many/much'), whose dual grammatical roles (having either scope over an NP as a quantifier or over a clause or VP in a broader adverbial manner) cannot be disambiguated when following a nonemphatic 'postverbal' (B) pronoun, as well as the lexical item *mi* (roughly meaning 'too/also'), the problematics of which are too complex and are mentioned later (in Section 5.2). There were no instances of nonemphatic 'preverbal' (A) pronouns with *pam* in postverbal position, which might have further supported this analysis. Equally ambiguous is the particle *gba* which can have scope over either a specific NP or a broader action. Since the number of instances of pronoun + *gba* is relatively small, the results of this tally are included. *Zaa* has a similar dual role (as quantifier 'all' and adverb 'completely'; however, the intended role is usually more transparent than that of *pam* or *gba*. Nonethe-

less, some instances of the counter-evidence in Table 5 may in fact be instances of *zaa* and *gba* used ambiguously in an adverbial manner.

The results in Table 4 overwhelmingly discount any theory that describes Dagbani nonemphatic pronouns strictly in terms of position in relation to the verb. The only pieces of data in the spoken corpus that fit the prediction of the pre/postverbal account are a handful of instances involving *gba* and *zaa*. As noted above, the fact that these cases deviate from the general pattern (in which pronouns from series-A combine with qualifiers regardless of position or grammatical role) may be due to *gba* and *zaa* fulfilling an adverbial role rather than one of a nominal qualifier.

4 Towards a New Description

The evidence presented in this paper indicates that the idiosyncratic descriptions of Dagbani nonemphatic pronouns with terms like 'postverbal' or even 'before nouns and verbs' are hardly more successful in capturing the data than the 'subject/object' distinction. As long as we are using terminology which fails to capture all of the data, should we revert to the equally erroneous but more familiar 'subject/object' pronoun terminology? The descriptions employing terms like 'preverbal' and related expressions are improvements and do point in the right direction. The problem seems to stem from dwelling on descriptions that speak in terms of grammatical structures and lexical categories; whereas the phenomenon is probably best understood in phonological terms, or in the interface between syntax and phonology. In my initial analysis of this phenomenon, I proposed a fairly radical solution involving underlying monosegmental forms. Subsequently, I have pursued a variety of solutions, none of which are completely unproblematic when it comes to formalizing the rules. In what follows, I present various considerations in solving the puzzle of determining a concise, accurate, and comprehensive description of variant Dagbani personal pronouns. I leave this as a work in progress. For the sake of consistency I will retain the terms 'preverbal' and 'postverbal' throughout this article. However, while the complete details of a new solution remain to be worked out, I ultimately propose that the allomorphs of the nonemphatic pronouns be described as 'proclitic' versus 'enclitic' (or nonproclitic) forms, and that the category of nonemphatic pronouns can be listed as one set of pronouns with its allomorphs derived by a predictable set of rules or constraints. Furthermore, I would propose that the alternate terms, 'weak' and 'strong' rather than 'emphatic' and 'nonemphatic', be employed. While perhaps sounding less technical, these terms would better capture the fact that variation within the set of 'nonemphatic' pronouns is primarily motivated by low phonological prominence, as opposed to a functional category like emphasis. For example, as noted elsewhere in this paper, one form of relative clause construction is drawn from the so-called emphatic pronouns, even though the head of the relative construction is not necessarily being emphasized in a functional sense.

4.1 Syntactic Solution: Operator/Operand; Predication Phrase

Although I claim that the best solution will take into account the apparent motivation of phonological reduction, it may if fact be possible to account for this phenomenon concisely in syntactic or structural terms (see also Section 5 on the syntactic-phonological interface related to pronoun variation). For example, the shared variation of 'preverbal' and possessive pronouns can be explained in terms of Predication Phrase (see Bower 1993), in which case we could refer to 'subject' (in the abstract sense) versus predicate forms. Similarly, Naden (1986) refers to associative/subject operator versus object operand when describing variant forms of personal pronouns in the Western Oti/Volta language family of which Dagbani is a member. But can a syntactic characterization like this incorporate the conjoined NP and qualified pronoun data?

4.1.1 Syntactic Solution Account of Pronouns in Conjoined NPs

On one hand, there are universal reasons to structure NP conjunction in a way that puts the first N/NP/Nominal Group of a conjoined NP in a Spec (hence, 'Subject' position) in X' or PrP (Predication Phrase) structure (see Yoon & Lee 2005). Figure 1 fits an exemplary conjoined NP from Dagbani to '&P' structure drawn from Yoon and Lee, which they pattern after Predicate Phrase structure.

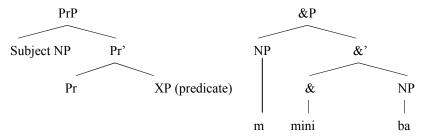


Figure 1. '&P' Structure based on Predicate Phrase

Furthermore, on a more language specific level, Lord (1993: Ch. 4) analyzes NP conjunction in several neighboring Kwa languages (a sister language group to the Gur group), as well as a couple more remotely related Benue-Congo languages, as historically deriving from verb serialization

involving verbs meaning 'be with', '(bring) along with', or possibly 'take' (e.g., Twi ne, Awutu ne Engenni naa). In such an analysis, the abstract &P could be replaced with or understood in terms of a more typical IP predicate structure.

Unlike the Kwa cases, there is no obvious connection between the conjunction (mi)ni and any known historical or defunct verb. However, there are parallel patterns of verb serialization in every other way; and Lord considers the possibility that syntactically and phonologically similar morphemes in Gur languages may derive from a similar process, making reference to a scholarly contention that 'there are not good reasons to make Gur languages a separate classification from Benue-Kwa' (ibid.: 51).

4.1.2 Syntactic Solution Account of Qualified Pronouns

Many of the 'qualifiers' I have identified could be analyzed as nouns. Certainly, the appositional $b\varepsilon$ niriba ayi ('the two of them'; lit., 'they two people') could be analyzed as a case of two nominal phrases in an associative relationship structurally similar to a possessive phrase. Also, as with grammatical categories derived from verbs, Dagbani (as well as related languages) has many grammatical categories derived from nouns or possibly still functioning as nouns. The word konko, for example, is arguably a nominal meaning 'oneliness' (Naden, p.c.). The quantifiers like zaa on the other hand have too many parallels with the determiner/information status particles maa and la; and any nominal status would more likely have to be the result of ellipsis/reduction (as appears to occur in English, for example, in structures like 'many have tried' or 'all are accounted for'). Attributing nominal (or lexical head status of any kind?) to gba is more problematic. The nature of this particle in general is unclear, but I doubt anyone, whether on intuitive or theoretical grounds, would consider this acting in a nominal capacity.

4.2 Phonological Solution: Proclitic Versus Enclitic Pronouns

As indicated earlier, based on a variety of considerations, I believe the best description will recognize the variant forms of Dagbani nonemphatic pronouns as being phonologically motivated, even if a viable description could be made in structural terms.

4.2.1 Comparison with Emphatic Pronouns

First, recall the less interesting variation of the emphatic or strong set of personal pronouns from Table 1. This involved a straightforward case of phonological reduction in the form of truncation or elision. Recognizing the

variation within the nonemphatic set of pronouns as a case of phonological reduction would establish a logical parallel between the variations for both types of personal pronouns.

4.2.2 Crosslinguistic Comparison

Crosslinguistically, the majority of sister languages in the Western Oti/Volta group only exhibit variant forms with the 1S category, and the weak/nonemphatic pronouns seem to be derived historically from noun class suffixes (hence, a single form) (Naden 1986). So, it makes more sense to hypothesize that Dagbani's variant forms are a phonological innovation, as opposed to saying all the other related languages have lost a structural contrast—the source of which has no bearing to the well-founded hypothesis of derivation from noun class suffixes. Furthermore, Dagbani is among the least preservative of proto Gur.

4.2.3 Clitics in Dagbani?

In addition to relatively unproblematic word classes such as noun and verb (but see Olawsky (2004) on problems of word classification), Dagbani is characterized by the existence of a variety of 'particles' (time depth markers, tense markers, emphatic particles) and 'suffixes' (emphatic, focus), as they are typically called in the absence of a more explicit grammatical description (Olawsky 1999, Wilson 1973). In a recent article on the elusive concept of 'word' in the world's languages, Olawsky (2002) makes an indepth consideration of whether the term 'clitic' can be used to describe various lexical and morphological items in Dagbani such as these particles, based on generally accepted factors contributing to classification as clitics: lack of stress and phonological salience, attaching to a phonological host, variability of word order or allowing intervening materials between a potential phonological host, and inability to occur in isolation. While many of the particles end up failing one or another of the parametric tests for prototypical clitic status, such as the frequently stress-bearing time depth markers, Olawsky is fairly decisive in concluding that 'nonemphatic pronouns ... can be characterized as clitics' (218).

In his analysis, however, he focuses on 'preverbal' nonemphatic pronouns and only briefly refers to the identical possessive set (i.e. 'prenominal') and the 'postverbal' set. So, it is unclear whether he intends to classify 'postverbal' nonemphatic pronouns as 'enclitics'. Similar to the particles referred to as 'postverbal emphasiser' in Olawsky's article, the 'postverbal' pronouns are somewhat deficient as clitics in terms of their phonological salience by containing [a] as opposed to muted [t] held by the 'preverbal'

counterparts. More importantly, I would argue that nonemphatic pronouns in object position do bear some stress.

Wilson (1973) also seems to have understood the phenomena of Dagbani pronouns more clearly than is suggested by the 'preverbal'/'postverbal' dichotomy, the development of which presumably can be traced to his manuscript. Wilson was essentially writing for language learners, not linguistic theorists. ⁴ As one of the first contemporary documented sources of Dagbani grammar, however, this manuscript set a precedent for linguistic descriptions of Dagbani pronouns based on position in relation to the verb. In light of the evidence presented in this paper and in combination with related linguistic phenomena in Dagbani—such as clitic-like behavior involving other lexical categories and related compounding processes (see Olawsky 2004)—I propose that the variation in nonemphatic pronouns is phonologically motivated by position of a clitic to its host. This would corroborate the observation of the truncated forms of the emphatic pronouns occurring when they appear before another word—i.e., also motivated by related combining or compounding phenomena. As seen in the data presented in previous sections, the phonological host for nonemphatic pronouns can be:

verbs in the case of subject and object functions,

nouns in the case of possessive function,

and more rarely when a noun is used as an adpositional qualifier as in yi pukpariba ('you farmers') or $b\varepsilon$ bihi ayi ('these two children', lit. 'they/them two children')

the **nominal conjunction** *mini* or *ni*,

and certain **qualifiers** (*konko*, *ko'*, *zaa(ha)*, *gba*, and various adpositional nominals including nouns and dummy nouns combined with numerals and, presumably, adjectives)

4.3 Underlying Forms

Whether we describe the variation in structural terms as in 4.1 or adopt a phonological description as in 4.2, the major problem in this puzzle involves the selection of the underlying set of pronouns and the specific rules or constraints that explain all of the alternations.

⁴ Other works by Wilson (1971a, 1971b) are more targeted towards an academic, linguistic audience; however, I mainly refer to Wilson (1973) in this paper as it is much more widely distributed and is arguably the dominant source of the 'preverbal' descriptive terminology.

4.3.1 Monosegmental UR Forms

The most radical solution might be to propose an underlying set of monosegmental preverbal forms (/m/, /a/, /o/, /d/, /t/, /y/). However abstract, such a solution is appealing due to corroboration with evidence and theoretical claims elsewhere related to the notion of monosegmental consonant morphemes in Dagbani and related languages. Rather than phonological reduction, this would imply a case where the underlying forms are of a minimal phonological form and rules relating to wellformedness call for the insertion of a nucleus where necessary, realized minimally as [t] in proclitic position, but requiring a more prominent nucleus in enclitic position.

Olawsky (2002) hints at the possibility that the underlying form of certain pronouns may be a nonsyllabic consonant, such as /d/ for 3rd person singular inanimate. This notion is also suggested by Naden (ms.), who claims that such an analysis would support a reanalysis of the inventory of vowels in Dagbani (currently troubled by the issue of schwa or muted-[i]) to be more closely comparable with that of its sister languages. Furthermore, Naden also notes that 'in Moore and Kusaal (and Bimoba of the Gurma group) some pronouns are analysed and written as a single consonant' (ibid.: 4).

Under such an analysis, given their feature of [+syllabic], there would be no constraints impeding the direct attachment of /m/, /a/, and /o/ to a phonological host. So, these pronouns would attach as is with no epenthetic insertion. Only /m/ would adjust homorganically to the appropriate place of articulation. The nonsyllabic pronouns /d/, /t/, and /b/, however, would have to take an epenthetic vowel [\mathfrak{t}] in order to attach to their phonological host, thus giving us the 'proclitic' forms [$d\mathfrak{t}$], [$\mathfrak{t}\mathfrak{t}$], and [$b\mathfrak{t}$], which we find written as di, ti, and $b\mathfrak{E}$. The 2nd person plural pronoun is a bit problematic.

In terms of the pronoun realization when a nonemphatic pronoun *follows* a host lexical item, the vocalic pronouns /a/ and /o/ would already be sufficiently prominent. The remaining nonsonorant forms, however, would take a prominent vowel that is most closely associated with its place of articulation. The bilabials /m/ and /b/ and the glide /y/, which already has a partially open oral passage, might be said to be well suited to take a highly ranked [a], thus giving [ma], [ya], and [ba]. The alveo-palatal /t/ and /d/, however, would end up taking [i] due to a rule or constraint that gives priority to proximity of place of articulation.

Such an analysis suffers from many of the considerations discussed in the subsequent subsections (treating the marked /m/ as underlying or default as opposed to /n/; predicting [yi] versus [yt]; and especially predicting [a] versus [i] as the nucleus for enclitic forms).

4.3.2 Preverbal Forms as UR

The simplicity principal as well as apparent metalinguistic view of native speakers (such as Yahaya (1995) implying preverbal as default) suggests treating preverbal forms as underlying, as these occur in a greater variety of environments. Compared to the monosegmental solution, this avoids the problem of accounting for the full vowel nucleus in [yi]. However, other problems mentioned for the monosegmental solution remain—namely, justifying marked allomorph /m/ as the UR form for the 1s form and explaining the realization of [i] versus [a] nuclei for the postverbal forms.

4.3.3 Homorganic Nasal Consideration

Any solution deriving postverbal forms from preverbal forms or from monsegmental forms suffers from having a more marked [m] as opposed to [n] serving as the default form of the homorganic nasal $/\eta$ / 1s pronoun. Where the underlying form is a homorganic nasal $/\eta$ /, markedness theory would lead us to expect the unmarked form [n] to show up in default positions where place of articulation assimilation is not relevant. Indeed, we find phrases like n yaba ('my grandfather') realized as [n yaba] or even n wumya ('I have understood') as [n wumŧya]. However, if the postverbal form [ma] is hypothesized to derive from the preverbal form, we would also predict *[na] as opposed to [ma].

4.3.4 Postverbal Forms as UR

In light of the preceding considerations, there are synchronic languageinternal reasons for positing the postverbal forms as underlying. Additionally, historical and cross-linguistic considerations tend to support a solution in which the postverbal forms are taken as underlying.

As mentioned under Section 4.2.2, personal and nonpersonal (in the case of inanimate nouns) pronouns in Dagbani and other languages from the Western Oti-Volta group appear to be derived from noun class suffixes (Naden 1986). This is especially apparent with languages other than Dagbani which have a full system of concordance between pronouns, as well as other anaphora, and noun class suffixes for up to 6 different singular/plural noun class pairs of inanimate nouns. These noun class suffixes, as word-final elements, naturally appear in a form similar to the postverbal forms of the personal and nonpersonal pronouns.

However, while this is very likely indicative of the origins of these pronouns, many linguists will be averse to letting diachronic information unduly influence the interpretation of synchronic phenomena. Furthermore, there remains the chicken or the egg dilemma by which the noun class suf-

fixes may have derived from pronouns. Naden also admits that 'it is at least possible, however, ...to consider the more elaborate systems [of noun class/pronoun concordance pairs] as an analogic innovation, tidying up the system of noun-suffixes and partially-similar pronouns' (ibid.: 262).

A solution taking the postverbal forms as underlying overcomes the problem of explaining $[a]\sim[i]$ alternations in the nuclei of the postverbal forms, as well as avoiding the need to derive the [m] in ma from an underlying homorganic nasal. The main problem for this solution is the explanation of [yi] versus *[yi] for the 2P form.

4.3.5 The [yi]~[ya] Dilemma

In all solutions alternation between the 2P forms [yi] and [ya] poses certain problems. For the monosegmental and postverbal form solutions, which need to derive [yi] from some other underlying form, it is possible to claim that the relatively sonorant /y/ requires a fuller vowel nucleus to respect sonority hierarchy. Unfortunately, this is contradicted by the existence of the phonetic sequence [yt] in other lexical items such as the verb [ytvi] ('fly'). Therefore, these solutions are complicated by the need to set the sonority hierarchy as a parameter that applies in certain contexts and not universally in the language.

In terms of predicting [ya], the monosegmental and preverbal form solutions require rules or constraints that support the notion that /y/ or /yi/ requires [a] in the nucleus in the postverbal position, despite the fact that the glide [y] is articulatorily well adapted to [i] and despite the fact that [i] is an acceptable nucleus for other postverbal forms such as [ti] and [li].

4.3.6 The [dt]~[li] alternation

The alternation between the 3rd person inanimate pronoun forms, [dt] and [li], is especially problematic for the solutions taking monosegmental and preverbal form as underlying. On the one hand, the lenition of /d/ to [l] would be somewhat contrary to the notion that the derived postverbal forms need to be more phonologically prominent. The inclination is simply to attribute this to an entirely different phenomenon—a general process of intervocalic or postvocalic allophony. In normal speech, even the proclitic *di* is weakened to a form with a liquid onset (usually heard as [r]) when falling in a postvocalic environment. Unfortunately for this solution, however, the proform [li] also occurs after a nasal, which is not typically a conditioning environment for allophonic lenition of [d] to [l]. In fact, in the case of the verbal suffix /-da/ or /-di/ which has [-ra] or [-ri] as a postvocalic allomorph, the /di/ is realized as [di]. Any description of nonemphatic pronoun

variation in Dagbani has to account for minimal pairs such as *wum li* ('hear it'), which is phonetically realized as [wum li], and *wumdi* ('hear-IMPERF'), which is pronounced as [wumdi].

In the case of the postverbal UR solution, the sonority hierarchy, which is only partially successful in explaining the realization of the 2P preverbal form as [yi] as opposed to [yt], could be called upon to help explain the alternation from /li/ to [dt]. In the case of [yi], the sonority hierarchy rule or constraint affects the realization of the nucleus, possibly because there is no natural nonsonorant counterpart for [y]. In the case of *[lt], the sonority hierarchy would be satisfied by the onset changing from the sonorant liquid /l/ to [d], which is presumably less sonorant than the minimally prosodic [t] nucleus. In this regard, the postverbal UR solution mainly suffers in crosslinguistic terms, as the sister languages have [di] as the invariable proform and [-di] as the noun class suffix. In crosslinguistic terms, then, it might be preferable to modify the postverbal UR solution to have /di/ as an abstract UR for third person inanimate category. However, this then poses the problem of mentioned above of explaining the alternation from /d/ to [1] in allomorphic terms that apply in the enclitic environment (as in wum li) but not in the context of verbal inflection (as in wumdi).

4.3.7 The Inanimate Plural Form [na]

Described in most grammatical descriptions as 'archaic' or 'becoming obsolete,' it is not particularly necessary to account for ηa in a synchronic analysis. Indeed, the only occurrence in spoken texts in this corpus is in a fairly old recording of a traditional salima (fable) told by a seasoned fiddler and storyteller; but it is employed in new written texts as well as archaic ones. Based on the contexts in which it appears (translation of Koran, Ghana Constitution, and UNHCR Declaration; academic writings; technical documents), I would characterize it as 'formal' or 'literary,' but not 'archaic' or 'obsolete.' However, the fact that this form is said to be becoming obsolete, particularly in spoken discourse, may support the notion that the variant forms in Dagbani are an innovation. The emerging obsolescence of this form might be due to the impossibility of phonological reduction in preverbal position without ambiguous homophony with the 1s pronoun.

If relevant, however, all solutions would have the dilemma of explaining the archaic 3rd person plural inanimate form [ηa]. In terms of crosslinguistic evidence or the correlation with noun class suffixes, di is paired with a separate plural counterpart (typically a, but sometimes ηa), and there are additional remnants of a [li]~[ηa] correspondence in Dagbani, as with the

inanimate indefinite pronouns *sheli* and *sheŋa*. If incorporated as a member of the nonemphatic pronouns, this would especially pose a problem for the monosegmental UR solution and the postverbal UR solution, both of which might appeal to a lexical exception on the grounds that the form [ŋa] is invariable in order to differentiate it from the velar allomorph of 1st person singular /ŋ/.

A more likely explanation, however, is that ηa as documented and as employed in formal texts has been misclassified in a forced attempt to balance the set of singular-plural pronoun pairs, and simply does not form part of the nonemphatic pronouns in terms of the synchronic development of the spoken language. In current dictionaries and wordlists, it is given glosses like 'these', 'that', 'those', '(several things)', and not as 'it'. Observing, like most everyone else, that the word is 'becoming obsolete,' Mahama (2003) provides the demonstrative pronouns *dinaa* [sic] and *dinnima* as 'the current words,' not a nonemphatic pronoun like *di*. Wilson (1973) suggests that ηa is an archaic emphatic pronoun, and he has this to say about the plural form of 3rd person inanimate pronouns:

there is no difference between singular and plural with dt, li. (In the NT [New Testament] you will find an old strong inanimate plural pronoun na, but it is very little used; it need only be recognized, not imitated; though some people may try to tell you dt, li cannot be plural, this is somewhat over-pure for everyday usage.) (§7)

Classifying /li/, /di/, or /d/ as fulfilling both singular and plural functions would be consistent with the fact that, with the exception of the idiosyncratic constructions of the form man' gbazaa, a gbazaa, etc. (roughly, 'all of me' or 'me completely', and 'you completely'), in instances where the qualifier zaa ('all') clearly has scope over a solitary nominal item, the only attested forms are plural pronouns (ti, yi, $b\varepsilon$, yinim', ban', dinnima), plural nouns or nouns implying plurality like gaana ('Ghana'), and other nominals implying plurality like $b\varepsilon$ yino kam zaa ('each and every one of them'), and many instances of di in a variety of contexts. Also, in subject-head relative constructions, in which a truncated strong ('emphatic') pronoun follows with an optional indefinite article, din is frequently combined with the plural inanimate indefinite article $sh\varepsilon na$, in lieu of nan.

5 A Note on the Interface Between Syntax and Phonology

5.1 Cliticization and Constituency Boundaries

Having analyzed the variation in nonemphatic pronouns in Dagbani as a process of cliticization, I would like to address what I interpret as an erroneous claim about Dagbani 'clitics.' In speaking of the degree of 'selectivity' that clitics in a given language may assert in terms of the word class of their host, Aikhenvald (2002) cites Dagbani as an example of a language with clitics having 'low selectivity.' In a misinterpretation of Olawsky's chapter in the same volume, Aikhenvald states that 'all clitics are attached to a host (defined phonologically) with which they may not have a grammatical connection' (ibid.: 45). First of all, the exact status of Dagbani particles is not straightforward. Olawsky (2002) has taken a major, insightful first step in considering which of lexical items in Dagbani may qualify as 'clitics,' but linguists working with Dagbani do not decisively refer to any given 'particle' or lexical item as a 'clitic.' Olawsky himself cautions, for example, that the classification of preverbal particles as 'clitics' is 'more controversial.' And his conclusion on the subject rather refers to a spectrum of sorts between word and affix. He concludes, 'Dagbani has a variety of clitics, which may have different properties. Some are obviously closer to affixes, whereas others share more features of words' (ibid.: 223).

As the data in the paper show, the hosts of pronoun clitics are not simply 'defined phonologically.' Phrasal constituency allows us to accurately predict the attested forms where there might otherwise be some ambiguity or indecision based solely on a potential adjacent host. It also helps to explain some surprising occurrences, including some of the unpredicted forms presented in the tables in preceding sections. For example, the 'preverbal' description would definitely not explain the sentence in (5).

(5) [ti mini ba] zaaha wolisi li -mi je 1P-A CONJ 3P-B all struggled.with 3S-B EMPH be.weary 'We and they all struggled with it in vain/tirelessly.'

However, a clitic-based description relying solely on phonological considerations would not necessarily predict this form either, as the 3rd person plural pronoun could just as well cliticize with the qualifier *zaaha*. In fact, there might even be reasons to predict this as the more natural result based on phonological patterns alone, if procliticization seems to be more common in Dagbani. However, the attested 'enclitic' form can be understood based on phrase structure and constituency levels. The qualifier *zaaha* has scope over the entire conjoined NP *ti mini ba*. Thus, in this case, the pronoun /ba/ (or whatever the underlying form) combines with *mini* within the NP, and the qualifier *zaaha*, combining with the conjoined NP at a higher phrase level, has no bearing on the realization of /b/:

```
[ [ti]_{NP} mini [ba]_{NP}]_{NP} zaaha]_{DP}.
```

Hypothetically, we might expect a minimal pair in which the qualifier only has scope over the one pronoun at a lower level prior to the NP conjunction: $[[ti]_{NP} \text{ mini } [[b\epsilon]_{NP} \text{ zaaha}]_{DP}]_{NP}$. However, no such data was found in my corpus, and it would be hard to come across or even contrive the right context to elicit this form.

A similar instance, where the conjoined noun phrase serves a possessive function rather than verbal subject, is presented in (6).

```
(6) ti dihiri [ti mini ba] zaa puya
1P feed-IMPF 1P CONJ 3P-B all stomachs
'We feed all of our and their stomachs'
```

As with (5), in (6) we see ba as opposed to $b\varepsilon$, because the qualifier zaa has scope over the entire NP:

```
[[[ti]_{NP} mini [ba]_{NP}]_{NP} zaa]_{DP} puya]_{NP}
```

Again, though theoretically desirable, there are no attested minimal pairs or near minimal pairs showing a case where *zaa* has scope only over the second pronoun. However, the next set of data in (7) involving a comparable construction does include such minimal pairs.

The sentence in (7a) shows a similar construction minus the qualifier. Here, we see the constituency level consideration applying with nonemphatic pronouns in a conjoined NP which is in a possessive construction with an adjacent noun (actually, there are several embedded possessive constructions in this example).

```
(7) a. di nyε -la [a mini ba] tuuli taba nyabu
3s/INAM-A COP FOC 2s CONJ 3P-B first REFL seeing
'It is your and their first time meeting each other'
b. [bε<sub>i</sub>] mini [bε<sub>i</sub> bieli maa] zaa daa yi na
3P-A CONJ 3P-A elder.sibling DET all TD2 exit hither
'They and their elder brother all went out'
```

Since both pronouns in the conjoined pronoun NP are intended as possessors for the possessed noun, the 3rd person plural pronoun takes the conjunction *mini* as its host and not the nominal item that follows:

```
 [ \quad [ \ [a]_{NP} \ mini \ [ba]_{NP} \ ]_{NP} \ [tuuli[taba[nyabu]_{N} \ ]_{NP} \ ]_{NP} \ ]_{NP} .
```

Near minimal pairs of this sort are easily attestable, as in (7b). In this sentence, the first 3P pronoun in the conjoined NP functions as a subject pronoun ('they') while the second pronoun functions as a possessive pronoun ('their'). Since the only possessor of the noun bieli ('elder brother') is the second $b\varepsilon$, this pronoun takes the noun bieli as a host at the lowest constituency level and this possessive NP construction conjoins with the first pronoun at a higher level:

```
[\ [b\epsilon]_{\text{NP}}\ mini\ [\ [b\epsilon[bi\epsilon li]_{\text{N}}\ ]_{\text{NP}}\ maa\ ]_{\text{NP}}\ zaa\ ]_{\text{DP}}.
```

If cliticization were strictly phonological, we might have expected the pronoun to take mini as its host, giving $b \varepsilon mini *ba bi \varepsilon li maa zaa daa yi na$.

5.2 Interaction with Other Clitics/Particles

One consideration which may have influenced Aikhenvald's categorization of Dagbani clitics as having low selectivity is the fact that clitic pronouns can actually appear before lexical items other than the list of potential hosts summarized in Section 4.2.3. This includes various preverbal particles, included among the lexical items Olawsky considers as potential candidates for classification as clitics. For example, in the complex nominal in (8), the subordinating particle *ni* (which is used in combination with indefinite articles, such as animate/plural *sheŋa* in this instance, in the formation of relative constructions such as this one) comes between the nonemphatic pronoun *di* and the verb *di* ('eat').

(8) zan kana ti ya zaa mini di **ni** di d'alifaani shena mi take come 1P town all CONJ 3S/INAM-A SUB eat benefit INDEF/REL also 'concerning our whole town and the benefits it has reaped' [written, letter]

In this instance, the subordinator ni (phonetically [nɛ]) is likely classifiable as a clitic with just as little phonological prominence as the nonemphatic pronoun, and the verb di is arguably the phonological host of both clitics. The fact that ni intervenes between the subject pronoun and its host is based on ordering rules, not some random selectivity on the part of the pronoun clitic. The whole sequence is pronounced as [dɪndi] or perhaps more like [dɪndi].

While the preverbal position is the most common environment where a clitic pronoun will be followed by an intervening lexical item, due to the extensive use of preverbal particles in Dagbani; we also see instances of intervening particles elsewhere. In (9), we see the particle *mi* ('also, too',

having a similar sense as gba, which we saw among the 'qualifier' hosts in Section 3.2) appearing between the weak pronoun $b\varepsilon$ and the qualifier zaa.

```
(9) be mi zaa daa nindi ŋɔ

3P-A also all TD2 do-IMPF DEM
'they all also were doing this'
```

This particle *mi* was excluded from the list of potential 'qualifiers' in Section 3.2 due to a variety of complications, including, for example, its ambiguous relationship with the suffix -mi, or what Olawsky (1999) calls a 'postverbal emphasiser.' Another reason, however, was that an apparent limited distribution (strictly in proclitic positions when following a nonemphatic pronoun) suggesting it to be as much a dependent clitic as the nonemphatic pronouns themselves. In addition to examples like the sentence in (9), *mi* is found to intervene between nonemphatic pronoun and possessed noun, and between pronoun and verb. Similar to the example in (8), the vowels of both the pronoun and the particle are muted ([btmtza:] or [bmzaa]). Hence, the host, be it qualifier, noun, or verb might be said to be the host of two clitics, with the intervention of *mi* between pronoun and host being explained by sequencing restrictions, not low selectivity by the clitic.

More difficult to explain is when a more prominent particle intervenes, such as the time depth marker *daa* (indicating that a time span of two or more days has passed or will pass between point of utterance and point of reference). Does such a particle qualify as the host (maybe an interdependent host) in this case, and does this imply low selectivity on the part of the preceding pronoun? Maybe so, but I believe the controversial, ambiguous status of the various particles in Dagbani need to be clarified before citing Dagbani as a typical example of this or that parameter of cliticization.

6 Conclusion

Perhaps at some point in the development of the Dagbani language, the description of proclitic pronouns as 'occurring before nouns and verbs' might well have been sufficient in capturing all data regarding the realization of nonemphatic pronouns. For example, perhaps the qualifiers, such as *konko* and *zaa* can be viewed to exhibit the qualities of nominals or to be derived from the same; and perhaps (though, even more radical of an idea) the nominal conjunction *mini* and *ni* derived historically from a serializing verb (or a verb *ni preceded by the particle *mi*?) similar to the constructions for nominal conjunction in genetically related languages (Lord 1993). In synchronic terms, however, these have developed into unique word classes, and the patterning of nonemphatic pronouns in relation to these lexical items

needs to be incorporated into a comprehensive description of the Dagbani pronominal system and grammar in general. Despite the fact that the contrary evidence posed by these instances have been overlooked or received little explanation in grammatical descriptions, this is by no means a rare occurrence.

Given the problematics of defining just what it means to be a clitic in Dagbani or any language, the cautious, intermediary solution would be to simply describe the appearance of variable pronoun forms in bulky, conditional terms such as 'series A appears before nouns and verbs, except in such and such instances...'. However, I believe a theoretically sound, concise, and efficient description can be developed employing the cliticizaton-based analysis pursued in this paper. Furthermore, such a solution will likely corroborate other phenomena and theoretical issues in Dagbani grammar. Much more remains to be studied or clarified regarding various issues of cliticization in Dagbani and the degrees of classification of the various 'particles' in Dagbani. Hopefully, the additional phenomena presented and discussed in this paper will serve as a useful contribution to the resolution of such issues.

7 Abbreviations

```
- - separates isolatable morphemes, suffixes
/ – lists inseparable grammatical information, fused morphology
1 \frac{S}{2S} - 1^{st} \frac{2^{nd}}{3^{rd}} person singular (n, a, o, di, li, mani, nyini, nyini)
1P/2P/3P - 1^{st}/2^{nd}/3^{rd} person plural (ti, yi, ba, ya, tinima, yinima, bana, yana)
-A – 'pre-' forms of nonemphatic pronouns (n, di, yi, b\varepsilon)
ANIM - animate (used in glossing INDEFinite articles/pronouns: so, sheba; not glossed with
    personal pronouns)
-B – 'post-' forms of nonemphatic pronouns (ma, li, ya, ba)
COND - conditional particle (yi - REALis, naan - IRREALis)
CONJ – conjunction (mini, ni – nominal; ka - verbal)
COP – equative, copular verb (ny\varepsilon)
DEM – demonstrative (192, dimbo192, dimbala, dina, dinnima)
DET-determiner (maa-known/given information, la-shared/retrievable information)
EMPH – emphatic (emphatic pronouns (mani, nyini, etc.); and emphatic function of INF)
FOC – focus marker (-la, marker of new information)
FRO – left fronting/focus construction (ka)
FUT - future (ni; ku - NEGative)
IMPER – imperative suffix (-ma (-mi, -miya))
IMPF – imperfective (-da (-ra, -di, -ri))
INAM – inanimate (di, li, ŋa, dina, ŋana - personal pronouns, ANIMate forms are assumed de-
    fault and not coded ANIM; also used in glossing INDEFinite articles/pronouns: sh li,
INDEF – indefinite article/pronoun (sheli, shena, so, sheba)
INF - infinitive prefix (used as EMPHatic and in verb sequencing)
LOC – locative (ni – postpositional/nominal; be - verb)
NEG - negative (bi, ku)
NP - noun phrase
PLUR – plural (when glossing INDEFinite articles/pronouns: shena, sheba; nominal suffix -nima,
    glossed as separate item, because it can inflect complex NPs (comparable to English 's))
PRO - pronoun
TD0/TD1/TD2 – time depth markers (di – same day, sa - 1 day, daa - 2 or more days)
RECIP - reciprocal (taba)
RECIP – reflexive pronoun (mana)
REL – relative (a function filled either by EMPHatic pronouns nun, ban, din, nan; or by INDEFi-
    nite pronouns in combination with SUBordinator ni)
SING – singular (used when glossing INDEFinite pronouns: sheli, so)
SUB – subordinator (ni)
TOP - topicalizer (a function of maa, which is crudely glossed as DETerminer)
V - verb
VP - verb phrase
STR – strong pronouns (proposed gloss in lieu of EMPHatic for personal pronouns, reserving
    EMPHatic for other emphatic functions, following the analysis proposed in this paper;
    weak pronouns are default)
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