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## Himalayan Linguistics

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*Multi-functional deictics in South Central Tibeto-Burman*

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### ABSTRACT

This paper describes a phenomenon prevalent in South Central Tibeto-Burman languages, which we call multi-functional deictics (MFDs). Descriptively, MFDs are demonstratives that appear in multiple positions in the noun phrase, typically at the left edge and the right edge. They often co-occur and match in form, resulting in an apparent circumfix. MFDs are distinct from double definiteness or the reinforcer construction in Romance and Germanic languages, where a demonstrative co-occurs with a determiner or emphatic. In the case of MFDs, the two forms are both demonstratives, often identical. Although MFDs are prevalent in South Central Tibeto-Burman, even the most basic questions about MFDs remain to be answered, such as whether their core meaning derives from distance in space, evidentiality, or something else; and what syntactic structures result in the two distinct positions. We provide a range of hypotheses for these questions and outline what kinds of data are needed to test those hypotheses. Additionally, we find significant variation within South Central Tibeto-Burman in the specific properties of MFDs. More broadly, MFDs provide an important test case for noun phrase syntax that has complex interactions with other grammatical phenomena like case marking.

### KEYWORDS

Kuki-Chin, South Central, Tibeto-Burman, Trans-Himalayan, demonstratives, deixis, noun phrase, syntax, reinforcer construction

This is a contribution from *Himalayan Linguistics*, Vol. 22(1): 165–201.

ISSN 1544-7502

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# *Multi-functional deictics in South Central Tibeto-Burman\**

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## 1 Introduction

This paper describes noun phrase elements prevalent in South Central Tibeto-Burman (Kuki-Chin) languages,<sup>1</sup> which we refer to as multi-functional deictics or MFDs. These elements are deictics in that they pick out referents from the physical environment where the discourse is happening or from shared knowledge between the discourse participants. Descriptively, they are demonstratives, because their primary function is deictic, they can modify nouns, and they can appear on their own as pronouns. MFDs are distinct from third person pronouns, which do not modify nouns, and from articles, which do not function as deictics. They are also distinct from deictic determiners, which cannot appear on their own as pronouns (Skilton 2019: 39, 46). In this paper, we use the term ‘deictic’ to avoid making any theoretical claim about the status of MFDs, but they are predominantly referred to as ‘demonstratives’ in the cited literature.

MFDs are multi-functional in that they appear in multiple positions in the noun phrase: before the noun and after the noun (along with any modifiers that appear between the noun and MFD). We will refer to the former as *pre-nominal MFDs* and the latter as *post-nominal MFDs*. The two often occur together, which results in a construction that would appear to be a circumfix around the noun, if they were affixes. To illustrate, consider the four MFDs in Hakha Lai, each of which can appear pre-nominally or post-nominally (1).<sup>2</sup>

- (1) Hakha Lai:  
a. hii    *ʔuy tsaw*        hii    *ʔa*    *nun*    *ʔa*    *ʔhaa*  
    DEM dog                DEM 3SG    life    3SG    good  
    ‘This dog here is gentle.’

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\* Many thanks to David A. Peterson for extensive feedback and assistance in the development of this article, from an undergraduate thesis at Dartmouth College to its form today. Thanks also to the audience at the Issues in Kuki-Chin Linguistics Workshop at the 46<sup>th</sup> International Conference on Sino-Tibetan Languages and Linguistics; Ken Van Bik and Muhammad Zakaria for additional feedback; as well as Marianne Huijsmans, D. K. E. Reisinger, Tyler Lemon, John T. M. Merrill, and an anonymous reviewer for their discussion.

<sup>1</sup> We follow Peterson’s (2017) terminology and subgrouping for South Central Tibeto-Burman, henceforth *South Central*.

<sup>2</sup> Throughout this paper, MFDs will be glossed simply as DEM, with sentence glosses and accompanying text indicating their more specific meaning. Otherwise, we follow each author’s respective transcription, glossing, and abbreviations. MFDs and corresponding interlinears are underlined.

- b. khii    *ʔuy tsaw*            khii    *ʔa*    *nun*    *ʔa*    *ʈhaa*  
       DEM    dog                      DEM    3SG    life    3SG    good  
       ‘That dog over there is gentle.’
- c. tsuu    *ʔuy tsaw*            tsuu    *ʔa*    *nun*    *ʔa*    *ʈhaa*  
       DEM    dog                      DEM    3SG    life    3SG    good  
       ‘That dog (which we just mentioned/are talking about) is/was gentle.’
- d. khaa    *ʔuy tsaw*            khaa    *ʔa*    *nun*    *ʔa*    *ʈhaa*  
       DEM    dog                      DEM    3SG    life    3SG    good  
       ‘That dog (we know about/over by you) is/was gentle.’ (Barnes 1998: 71-73)

A similar phenomenon has been reported for some languages, such as Southern Qiang (Gao and Zhou 2016), Milang (Siangic: Northeast India), and Malagasy (Austronesian: Madagascar) (Wamsley 2019: 3). Additionally, MFDs are similar to double definiteness (Giusti 1994), also referred to as the reinforcer construction (Bernstein 1997), which is common in Germanic and Romance languages. Double definiteness typically involves a demonstrative co-occurring with a non-deictic determiner as in Romanian (2b). The choice between a demonstrative on its own (2a) and double definiteness (2b) is governed by pragmatics, such as (2b) requiring topicality or emphasis.

(2) Romanian:

- |                    |                                  |
|--------------------|----------------------------------|
| a. <i>acest om</i> | b. <i>omul            acesta</i> |
| this man           | man-the        this              |
| ‘this man’         | ‘this man’ (Giusti 1994: 241)    |

Demonstratives may also be accompanied by another deictic element, the reinforcer, as in *that there man* in some varieties of English such as York English (Rupp and Tagliamonte 2019). On the surface, MFDs are distinct in that the two elements are identical demonstratives. However, it is possible that MFDs and double definiteness are similar underlyingly. Section 6.1 compares the syntax of MFDs to that proposed for double definiteness.

While MFDs have been described in a variety of South Central languages, even the most basic questions remain to be conclusively answered. This paper focuses on three questions (3a-c), what we know so far, and what kinds of data are needed to answer them more fully in the future.

- (3) a.    What is the core meaning of MFDs?  
       b.    Which forms should be considered MFDs?  
       c.    What is the syntactic structure of MFDs?

As for question (3a), most often the forms that make up MFDs are analyzed as marking distance in space in relation to the discourse participants, as per Diessel’s (1999) typology. This paper probes how strong the evidence is for the distance-in-space analysis. Additionally, we explore the possibility that the core meaning is due to something else, like evidentiality or peripersonal space, as per Skilton (2019), described in more detail in Section 4.

As for question (3b), we use the notion of the paradigm to diagnose which forms are MFDs and which are forms that are only superficially similar to MFDs. Each language has a paradigm of demonstratives, and if each form in that paradigm can appear in the pre-nominal and post-nominal positions, those should be considered MFDs. In Section 3, we find that some South Central languages likely should not be considered to exhibit MFDs due to a lack of shared paradigms in multiple positions. Section 5 explores additional forms that resemble MFDs outside pre-nominal and post-nominal positions.

As for question (3c), we explore three types of general analysis that can account for MFDs within the Generative Syntax framework: (i) there are two slots for MFDs within a single noun phrase; (ii) there is only one slot, but another form gets pronounced as an MFD on the surface; and (iii) there is only one slot for MFDs, but two noun phrases, one embedded in the other. Analysis (i) is in line with proposals for double definiteness (e.g., Giusti 1994; Bernstein 1997), (ii) is in line with Zribi-Hertz and Mbolatianavalona's (1999) analysis of a comparable construction in Malagasy, and (iii) renders MFDs similar to complex noun phrase constructions like partitives. Partitives are noun phrases that indicate part of a whole, such as *three of those dogs*, where *those dogs* is an embedded noun phrase. Section 6 explores these analyses, along with clause-final MFDs reported for some South Central languages.

Before proceeding to the questions above, Sections 2-3 examine MFDs and potential MFDs across South Central. Section 2 conducts a micro-comparative study, looking at similarities and differences between the closely related Core Central varieties Hakha Lai, Falam Chin,<sup>3</sup> and Mizo. Section 3 discusses possible MFDs in each major South Central subgroup: Northeastern (Thadou), Southeastern (Daai, Hyow), Southwestern (Khumi), Maraic (Hnaring Lutuv), and Northwestern (Hrangkhoh),<sup>4</sup> and even potentially Central Naga (Mongsen Ao) and Qiangic (Southern Qiang). We find that there is significant variation in the more nuanced characteristics of MFDs, and perhaps the answers to questions (3a-c) above are different in each South Central language. Finally, we outline data needed to answer those questions more completely in the future. Because of this variation, we find that South Central provides an ideal testing ground for understanding MFDs, how they intersect with typologically related constructions like double definiteness, how they interact with other grammatical phenomena like case marking, and how noun phrase syntax can account for all these data.

## 2 Core Central South Central

The Core Central subgroup of South Central provides an opportunity to examine MFDs from a micro-comparative or micro-variationist standpoint. Micro-variation refers to studying closely related varieties in order to discover fine-grained differences in constructions that are otherwise expected to be largely identical (e.g., Henry 1995 on Belfast English compared with standard English). Hakha Lai, Falam Chin, and Mizo are closely related varieties, each with substantial existing description of their MFDs. While their MFDs share a number of characteristics,

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<sup>3</sup> Falam Chin, also known as Falam, has dialects including Laizo and Zahao.

<sup>4</sup> Note that the Northwestern subgroup may not be a coherent unit, and some languages, like Hrangkhoh, may be in the Core Central group (Peterson 2017).

there are significant differences as well. A full analysis of South Central MFDs must be able to account both for those similarities and differences.

Table 1 outlines selected MFD characteristics in Hakha Lai, Falam Chin, and Mizo. We focus on these characteristics, as we have enough evidence for them in existing descriptions, and they illustrate how MFDs differ between the varieties. Gray columns reflect common characteristics of MFDs throughout South Central, and white columns reflect ones only attested in one or two languages. In all three Core Central varieties, the same set of MFDs may appear in pre-nominal (Dem N) and post-nominal (N Dem) positions, with the exception of a non-deictic determiner, which can only appear pre-nominally. A subset of the post-nominal MFDs mark information structure (IS). Pre-nominal MFDs are dependent on the existence of a post-nominal MFD in two of the varieties. When they co-occur, the pre-nominal MFD must match the post-nominal one in form,<sup>5</sup> with the exception of post-nominal MFDs that mark information structure, which may co-occur with any pre-nominal MFD. Finally, case, such as ergative, is marked on the post-nominal MFD, often in addition to marking on the noun itself.

Language	Position			Dependency	Matching	Case marking on Dem	
	Dem N	N Dem (space/IS)	Clause Dem			Dem N	N Dem
Hakha Lai	✓	✓/✓	✓	✓	✓	✗	✓
Falam Chin	✓	✓/✓	✗	✗	✓	✗	✓
Mizo	✓	✓/✓	✗	✓	✓	✓	✓

Table 1. MFD characteristics in Core Central languages

Differences between the languages arise either due to micro-variation or by omission in existing descriptions. The post-clausal use of MFDs (Clause Dem) is only explicitly mentioned in some accounts of Hakha Lai. Others neither mention its existence nor its ungrammaticality. For example, it is theoretically possible that post-clausal MFDs exist in Mizo, though it is unlikely given the extensive literature on the language. Falam Chin pre-nominal MFDs can appear on their own; they do not have a dependency on post-nominal ones. Case in Mizo is marked on either the first or second demonstrative, depending on the case in question (Chhangte 1993: 67-70), which may be a crucial data point in analyzing the syntax of MFDs. Some additional details are mentioned in Sections 4-6 as they become relevant.

## 2.1 Hakha Lai

Multi-functional deictics are best described in Hakha Lai. In addition to Barnes' (1998) detailed account is the recent work of Wamsley (2019) and the corpus and syntactic approaches of

<sup>5</sup> This paper uses the term 'matching' as a description for a situation where the two demonstratives in a noun phrase must have the same form. Cases where the demonstratives match may be referred to as 'demonstrative doubling'. 'Nominal concord' is not used in this paper, as the term refers to cases where the noun and a modifier are inflected in a similar way (e.g., Norris 2014: 2).

Bedell (2001) and Hlaing and Hlun (2003). There are four MFDs, *hii*, *tsuu*, *khaa*, and *khii*, which can appear in pre-nominal (4, repeated from 1 above), post-nominal (5), and post-clausal positions (6). However, the post-clausal position is not reported by Wamsley (2019). In the pre-nominal case, MFDs are dependent on the existence of a post-nominal MFD when the noun phrase is in the absolutive case. In the typical case, the pre-nominal and post-nominal MFDs must match. Exceptions are exemplified below in (9). The form *hii* refers to entities close to the speaker (4a), *khii* to those far away from both the speaker and hearer (4b), *tsuu* to referents that are topics in the conversation or those that are non-visible (4c), and *khaa* to entities close to the addressee or shared information between the speaker and addressee (4d).

(4) Hakha Lai:

- a. *hii*    *ʔuy tsaw*            *hii*    *ʔa*    *nun*    *ʔa*    *tʃaa*  
       DEM dog                    DEM    3SG    life    3SG    good  
       ‘This dog here is gentle.’
- b. *khii*    *ʔuy tsaw*            *khii*    *ʔa*    *nun*    *ʔa*    *tʃaa*  
       DEM dog                    DEM    3SG    life    3SG    good  
       ‘That dog over there is gentle.’
- c. *tsuu*    *ʔuy tsaw*            *tsuu*    *ʔa*    *nun*    *ʔa*    *tʃaa*  
       DEM dog                    DEM    3SG    life    3SG    good  
       ‘That dog (which we just mentioned/are talking about) is/was gentle.’
- d. *khaa*    *ʔuy tsaw*            *khaa*    *ʔa*    *nun*    *ʔa*    *tʃaa*  
       DEM dog                    DEM    3SG    life    3SG    good  
       ‘That dog (we know about/over by you) is/was gentle.’ (Barnes 1998: 71-73)

The same MFDs may appear post-nominally on their own. The meaning of each is largely the same according to Barnes (1998), though *khaa* only refers to shared information between the speaker and addressee.

- (5) a. *ʔuy tsaw*            *hii*    *ni zaan*            *ʔaʔ*    *ka*    *hmuʔ*  
       dog                    DEM    yesterday            LOC    1SG    see.FORM2  
       ‘I saw the dog which is here in front of me yesterday.’
- b. *ʔuy tsaw*            *khii*    *ni zaan*            *ʔaʔ*    *ka*    *hmuʔ*  
       dog                    DEM    yesterday            LOC    1SG    see.FORM2  
       ‘I saw the dog which is over there yesterday.’ (Barnes 1998: 56-57)
- c. *law*    *thlaw*    *paa*    *tsuu*    *ka*    *hooy*    *ʔa*    *sii*  
       field    plow    man    DEM    1SG    friend    3SG    COP  
       ‘The farmer (we are talking about) is my friend.’
- d. *law*    *thlaw*    *paa*    *khaa*    *ka*    *hooy*    *ʔa*    *sii*  
       field    plow    man    DEM    1SG    friend    3SG    COP  
       ‘The farmer (we know about) is my friend.’ (Barnes 1998: 60)

Finally, the same four MFDs can appear post-clausally, or after the predicate and potentially other clausal modifiers. Again, *hi?* refers to entities close to the speaker (6a) and *khi?* to entities far away from both the speaker and addressee (6b). A non-visible meaning is attributed to *tsu?* (6c), and *kha?* refers to entities close to the addressee (6d). Note the difference in form between the post-clausal elements and MFDs in the noun phrase.

- (6) a.     *ʔeek naa laʔm laay hi?*  
           dung 2SG-RFL tread.on FUT DEM  
           ‘You are going to tread in dung (here).’
- b.     *ʔeek ʔaa laʔm laay khi?*  
           dung 3SG-RFL tread.on FUT DEM  
           ‘He is going to tread in dung (over there where he is).’
- c.     *ʔeek naa laʔm laay tsu?*  
           dung 2SG-RFL tread.on FUT DEM  
           ‘You are going to tread in dung (I suspect, though I cannot see it).’
- d.     *ʔeek naa laʔm laay kha?*  
           dung 2SG-RFL tread.on FUT DEM  
           ‘You are going to tread in dung (over there where you are).’ (Barnes 1998: 54)

While spatial demonstrative readings are available in all three syntactic positions, information-structural readings are limited to post-nominal and post-clausal MFDs, specifically to *tsuu* and *khaa*. For this reason, Peterson (2003: 412) refers to the post-nominal and post-clausal forms as ‘discourse deictics’ (cf. King 2010: 93). Other authors follow suit, glossing all post-nominal demonstratives as topicalizers, even if they primarily mark spatial relations in a given example (e.g., Wamsley 2019).

One addition worth noting is a non-deictic determiner, *ma?*, that appears in the same slot as pre-nominal MFDs (7). Barnes (1998: 72) describes the form as synonymous with the proximal *hii*, and Wamsley (2019: 6) describes it as a generic demonstrative not marking spatial relations. In this paper, we refer to this form as a *non-deictic determiner*, as it lacks deictic meaning. We use the term *determiner* in the descriptive sense of noun phrase elements that modify nouns; we do not intend to make any theoretical claim that it is, for instance, a definite article. In examples we gloss non-deictic determiners as DEM, but see Section 4 for discussion on their status.

- (7)     *ma? ʔuy tsaw hii ʔa nun ʔa ʔhaa*  
           DEM dog           DEM 3SG life 3SG good  
           ‘This dog here is gentle.’ (Barnes 1998: 72)

Pre-nominal MFDs, along with the non-deictic determiner, are dependent on post-nominal MFDs, as mentioned for (4) above. Wamsley (2019) reports that pre-nominal demonstratives are ungrammatical in the absence of post-nominal ones based on elicited data (8a-b). Bedell (2001) supports this conclusion based on corpus data from a translation of the Book of Matthew. Barnes

(1998: 77) refines the notion of dependency to only apply to absolutive noun phrases. In the ergative or locative case, a pre-nominal demonstrative may appear without a post-nominal one (8c).

- (8) a.    \*hi    *uico*    *a*        *lian*  
           DEM   dog     3SG   big  
           Intended: ‘This dog is big.’
- b.    \*mah *uico*    *a*        *lian*  
           DEM   dog     3SG   big  
           Intended: ‘This dog is big.’ (Wamsley 2019: 5-6, with minor changes)
- c.    hii    *ʔuy tsaw*        *lee*    hii    *tshii zoʔ*        *hnaa*   *niʔ*    (*hin*)  
           DEM   dog                   and    DEM   cat                   PL     ERG   DEM
- ni zaan*        *ʔan*   *ka*    *seʔ*  
           yesterday     3PL   1SG   bite  
           ‘This here dog and this here cat both bit me yesterday.’ (Barnes 1998: 78)

When they co-occur, the pre-nominal and post-nominal MFDs must match, as in (4) above. There are two exceptions. First, the non-deictic determiner form *maʔ* has no post-nominal counterpart and can be accompanied by any post-nominal MFD. Second, the post-nominal MFDs *tsuu* and *khaa*, which mark information structure, may accompany any pre-nominal MFD, potentially with additional meaning such as contrast and tense (9a-b). Bedell (2001: 164) supports the non-matching pattern reported by Barnes (1998) with corpus evidence.

- (9) a.    hii    *ʔuy tsaw*        tsuu    *ʔa*    *nun*    *ʔa*    *ʔhaa*  
           DEM   dog                   DEM   3SG   life   3SG   good  
           ‘This here dog is gentle (but the others are not/but that cat is ferocious/etc.)’
- b.    hii    *ʔuy tsaw*        khaa    *ʔa*    *nun*    *ʔa*    *ʔhaa*  
           DEM   dog                   DEM   3SG   life   3SG   good  
           ‘This dog here was gentle (but now he is a man-eater/but now he is dead/etc.)’  
           (Barnes 1998: 71)

Finally, case marking interacts with MFDs in that the post-nominal MFD receives case marking in addition to optional case marking on the noun. The noun may be marked for ergative (10a), locative, or instrumental (10b) case,<sup>6</sup> while the post-nominal MFD is marked by a syncretic non-absolutive *-n*.

- (10) a.    hi    *minu=nih*        hin                   *ca*    *a*    *ttial*  
           DEM   woman=ERG   DEM.ERG           paper   3SG   write  
           ‘This woman writes a paper.’

<sup>6</sup> According to Ken Van Bik, (10b) has a comitative reading such as ‘cook something (unspecified) along with the egg’, not an instrumental one.

- b. hi     *arti=he*     hin     *ka*     *chumh*  
       DEM egg=INST     DEM.INST     1SG     cook  
       ‘I cook with this egg.’ (Wamsley 2019: 8)

## 2.2 Falam Chin

Falam Chin, as described by King (2010), has a nearly identical set of MFDs, but it lacks a number of characteristics reported for Hakha Lai. Its four demonstratives have comparable functions to those in Hakha Lai: *hi* marks referents close to the speaker, *kha* marks those close to the addressee, and *khi* marks those far away. The fourth form, *cu*, is only described as a topicalizer, without the non-visibility semantics of Hakha Lai *cuu*.

Falam Chin MFDs may be pre-nominal or post-nominal. When both occur in the same noun phrase, they frequently match (11), except for final topicalizer *cu* (King 2010: 96).

(11) Falam Chin:

- a. cu     *nam*     cu     *cabuai*     *par=ah*     *a*     *si*  
       DEM knife DEM table on=LOC     3SG.NOM     be  
       ‘The knife is on the table.’  
       (knife has previously been referenced in the conversation)
- b. kha     *nam*     kha     *i*     *lak*     *aw*  
       DEM knife DEM 1SG.ACC     take     IMP.SG  
       ‘Bring me that knife.’ (referent far from speaker, but next to hearer) (King 2010: 90)
- c. hi     *inn*     hi/cu     *keima=i*     *ta*     *a*     *si*  
       DEM house DEM 1SG.STD=GEN one     3SG.NOM     be  
       ‘This house is mine.’ (King 2010: 96)

Intriguingly, Falam Chin does not exhibit demonstrative dependency, even in absolutive noun phrases. Pre-nominal MFDs are free to occur on their own without a corresponding post-nominal one (12). Any analysis of MFDs that relies on dependency would have to account for these aspects of Falam Chin.

- (12) khi     *ui*     *hnak=in*     hi     *ui*     *a*     *zamrang-deuh*  
       DEM dog than=ABL DEM dog 3SG.NOM     fast-CMPV  
       ‘This dog is faster than that dog.’ (King 2010: 65)

Turning to case marking, when a post-nominal MFD is present, case is marked on the demonstrative, with a likely syncretic non-absolutive case marker *-n*. Unlike Hakha Lai, additional ergative marking does not appear to be found on the noun (13).

- (13) *Cinte*     *le*     *Thangte*     cu=n     *Pathian*     *an*     *rian*  
       Cinte and Thangte DEM=ERG God     3PL.NOM     serve.1  
       ‘Cinte and Thangte serve God.’ (King 2010: 69)

### 2.3 Mizo

Mizo has a larger MFD paradigm than Hakha Lai and Falam Chin, but the MFDs as a whole share many of the same properties. Additionally, Mizo has expanded case marking possibilities. There are six MFDs described in Chhangte (1993: 67) with different forms in pre-nominal and post-nominal positions, each of which displays tonal and segmental allomorphy: *hèy-héé/hî* marks referents close to the speaker (14), *khàà/khâ* marks those close to the addressee, *khìi/khî* marks referents uphill, *khùu/khû* marks those downhill, *sòò/sô* marks referents far away, and *cùu/cû* marks non-visible referents (cf. also Murthy and Subbarao 2000: 779).

- (14) Mizo:  
*héé*    *mùu*                      *hî*    *mùu*                      *dán*    *zòŋ zòŋ*    *âây-în*    *a-sâân*  
DEM woman                      DEM woman                      other all            than 3SG-tall  
 ‘This woman is taller than all other women.’ (Chhangte 1993: 72)

Pre-nominal MFDs appear to exhibit dependency, as they are typically accompanied by post-nominal ones (Chhangte 1993: 66). Lone post-nominal MFDs are frequent in available data (15a). The only lone pre-nominal demonstrative we have found is the fragment (15b).

- (15) a.    *Kêicâl-a*                      *cùàn*    *vok*    *cû*    *â-let*                      *â-let*                      *â*  
 Keichal-MASC    DEM.ERG pig    DEM 3SG-flip                      3SG-flip                      FP  
 ‘Keichala flipped the pig over and over again.’ (Chhangte 1993: 92)
- b.    *héé*    *Mhîŋ-a*  
DEM Hming-MASC  
 ‘this Hminga’ (Chhangte 1993: 67)

As with Hakha Lai, pre-nominal MFDs must match post-nominal ones, with the exception of the post-nominal *khâ* and *cû* (16), which are described as having an evidential or information-structural use. According to Chhangte (1993: 69), *khâ* marks information familiar only to the speaker and *cû* information familiar to the addressee.

- (16) a.    *hê-tâ*                                      *mùu*    *khâ*  
DEM-LOC/GEN                      person DEM  
 ‘The person who was over here.’
- b.    *sô-lâây-â*                                      *mùu*    *cû*  
DEM-about-GEN                      person DEM  
 ‘(I wonder about) that person over there.’ (Chhangte 1993: 70)

Finally, Mizo MFDs have a complex interaction with case marking. As with Hakha Lai and Falam Chin, post-nominal MFDs are marked for ergative (17a) and oblique or instrumental case (17b). The pre-nominal MFDs are marked for plural (17c), along with locative and genitive case (16a-b). Murthy and Subbarao (2000: 778) claim that *-cu* also marks accusative case. However, it is possible that nouns marked with the MFD *-cu* are unmarked for case (i.e., absolutive).

- (17) a. *kán-thiηlúâη-zoʔ*                      *khààn*                      *mit*                      *â-ney-kùàw-máy*  
 1POSS.PL-fallen.tree-cross                      DEM.ERG                      eye                      3SG-have-INT-just
- â-tii*                      *â*  
 3SG-say                      FP  
 ‘He said, ‘The log we crossed had huge eyes!’” (Chhangte 1993: 159)
- b. *a-sâyhlùm*                      *rhual*                      *khâ*                      *a-lów-aʔ*                      *cûân*                      *tihân*  
 3POSS-clay                      roll.2                      DEM                      3POSS-field-LOC                      DEM.OBLQ                      like.this
- â-perʔ-lùùt*                      *â*  
 3SG-shoot-in FP  
 ‘He shot in the clay pellets he had rolled into the fields, like this.’
- c. *khà-η*                      *zow-zâây*                      *khâ*                      *ejâtâân*                      *ηèè*                      *î-tiʔ*  
 DEM-PL                      all                      DEM                      what.purpose Q                      2SG-do.2  
 ‘For what do you want all that for?’ (Chhangte 1993: 77)

More research is needed into the case split in Mizo. Perhaps the case marked on the pre-nominal MFD is the result of other constructions such as a partitive wherein the pre-nominal MFD is in fact a nominalization that receives case marking on its own. Genitive case marking on the pre-nominal demonstrative is also seen in Daai (Section 3).

### 3 Other South Central languages

This section presents candidate MFDs in a variety of other languages across South Central. One purpose of the survey is to establish that at least some aspects of MFDs are widely attested in the family. The following subsections present MFDs in each of the main sub-branches of South Central: the Northeastern sub-branch is represented by Thadou (Section 3.1), Northwestern by Hrangkhoh (Section 3.2), Southeastern by Daai (Section 3.3) and Hyow (Section 3.4), Southwestern by Khumi (Section 3.5), and Maraic by Hnaring Lutuv (Section 3.6). Additionally, MFDs may be found in other Tibeto-Burman languages, such as Qiang and the Central Naga language Mongsen Ao (Section 3.7).

The MFDs found in many of these languages exhibit atypical properties, except for Hrangkhoh which needs further data to evaluate. One of the pre-nominal MFDs marks information structure and can override matching in Thadou. Daai MFDs do not appear to allow information structural readings, and dependency is not found. Hyow only can be seen as having MFDs in that pre-nominal demonstratives appear similar to information structure-marking post-nominal elements. Khumi lacks post-nominal demonstratives but does have post-clausal ones. Hence, matching is impossible. Hnaring Lutuv is comparable to languages like French, in that the only licit pre-nominal element is the non-deictic determiner.

Language	Position			Dependency	Matching	Case marking on Dem	
	Dem N	N Dem (space/IS)	Clause Dem			Dem N	N Dem
Hakha Lai	✓	✓/✓	✓	✓	✓	✗	✓
Falam Chin	✓	✓/✓	✗	✗	✓	✗	✓
Mizo	✓	✓/✓	✗	✓	✓	✓	✓
Thadou	✓	✓/✓ <sup>7</sup>	✗	✗	✓	✗	✓
Hrangkhoh	✓	✓/?	?	?	✓	?	✓
Daai Chin	✓	✓/✗	✗	✗	✓	✗	✓
Hyow	✓	✗/✓	✗	✗	N/A	✗	✗
Khumi	✓	✗/✗	✓	N/A	N/A	✗	N/A
Hnaring Lutuv	✓ <sup>8</sup>	✓/✗	✗	✓	N/A	✗	✓

Table 2. MFD characteristics in South Central Tibeto-Burman

### 3.1 Thadou

Thadou exhibits MFDs with very similar properties to those in Falam Chin. Haokip (2014: 103) reports three MFDs in Thadou: *hí*, which marks referents close to the speaker, *tsú*, those close to the addressee, and *xú*, those far from both (18a-c). Note that the pre-nominal MFDs are morphologically complex, containing an additional *tsé* element.

(18) Thadou:

a. *hítsé léxǎ-bù hí ká=deì=è*  
DEM book-CLF DEM 1CLT=like=DECL  
 ‘I like this book.’

b. *tsútsé léxǎ-bù tsú ká=deì=è*  
DEM book-CLF DEM 1CLT=like=DECL  
 ‘I like that book (near addressee).’

c. *xútsé léxǎ-bù xú ká=deì=è*  
DEM book-CLF DEM 1CLT=like=DECL  
 ‘I like that book.’ (Haokip 2014: 103-104)

Pre-nominal MFDs are not dependent on post-nominal ones in Thadou. Haokip (2014: 119) includes an unglossed example containing *hítsé tsápáŋ* ‘this child’ without a post-nominal MFD. As

<sup>7</sup> A pre-nominal MFD also marks information structure and can override matching.

<sup>8</sup> Only the non-deictic determiner may appear pre-nominally.

in Core Central languages, the near-addressee form *tsú* also marks information structure, perhaps topicality. Haokip (2014: 119) reports that it marks the person/object in question and is close in meaning to a definite article. As expected, pre-nominal MFDs must match post-nominal ones, except when the post-nominal MFD is the information structure-marking *tsú* (19a-b). Additionally, it is reported that the near-speaker form *hítsé* marks information status, familiarity to the speaker, and can override matching (19c). All other combinations of MFDs are reported to be ungrammatical.

- (19) a. *ítsé-tsápáŋ-tsú*      *á=p<sup>h</sup>à=è*  
 DEM-child-DEM      ADJ=good=DECL  
 ‘This child (near the speaker, whom the speaker knows about and is concerned about) is good.’
- b. *xútsé-tsápáŋ-tsú*      *á=p<sup>h</sup>à=è*  
 DEM-child-DEM      ADJ=good=DECL  
 ‘That child (that is the topic of discussion) is good.’
- c. *hítsé-tsápáŋ-xú*      *á=p<sup>h</sup>à=è*  
 DEM-child-DEM      ADJ=good=DECL  
 ‘This child (away from the speaker, that I am concerned about) is good.’  
 (Haokip 2014: 121)

Regarding case marking, it is marked on the post-nominal MFD as well as on the noun itself. As with Core Central languages, the case marking on the MFD is a syncretic non-absolutive marker. In (20), the noun is marked with the locative *-à?*; the *-n* suffix on the post-nominal MFD is also found in other cases such as ergative.

- (20) *hítsé-in-à?-hìn*      *kei*      *ká=tsèŋ=è*  
 DEM-house-LOC-DEM      1      1CLT=live=DECL  
 ‘I live in this house.’ (Haokip 2014: 127)

### 3.2 *Hrangkhol*

Recent research provides a glimpse into MFDs in the Northwestern or Old Kuki language Hrangkhol. According to examples (21a-b) from Barman (2020), various MFDs can appear in pre-nominal and post-nominal slots. As with Hakha Lai, ergative case is marked on the post-nominal MFD (21b). However, unlike Hakha Lai, the noun itself does not receive additional ergative marking.

- (21) a. *so-gari-so*      *ki-ruol-ta*      *ani*  
 DEM-car-DEM      1SG-friend-GEN      COP  
 ‘That car belongs to my friend.’ (Barman 2020: (29))
- b. *hi-pa-hi-in*      *naite-k<sup>h</sup>a*      *a-hmu*  
 DEM-male-DEM-ERG child-FOC      3SG-see  
 ‘He saw that child.’ (Barman 2020: (9))

More research remains to be done on MFDs in Northwestern languages. Yet even from these examples it is clear there is a paradigm of demonstratives that can appear in multiple positions in the noun phrase, and there is an interaction with case marking similar to what has been seen so far.

### 3.3 Daai

Daai as described by So-Hartmann (2009) has typical MFDs, though post-nominal demonstratives do not seem to mark information structure, and there is no dependency. There are four demonstratives: *hi*, which marks referents close to the speaker, *sä*, which marks those near the addressee or in their reach, *sa*, which marks those out of reach of the speaker and hearer, and *su*, which marks non-visible referents or those remote in time (So-Hartmann 2009: 158).

These MFDs may appear in pre-nominal and post-nominal positions (22). Unlike those in the languages seen so far, post-nominal MFDs do not appear to mark information structure, though *su* is reported to be used anaphorically. If anything, it is the pre-nominal MFDs that serve to mark anaphora (So-Hartmann 2009: 136).

- (22) Daai:
- |                        |               |                                    |             |                         |                         |
|------------------------|---------------|------------------------------------|-------------|-------------------------|-------------------------|
| <u>asun</u> = <i>a</i> | <i>ui</i> :   | <i>nu</i> :                        | <i>kshe</i> | <i>kthum</i> = <i>e</i> | <u>sun</u> = <i>noh</i> |
| DEM=CF                 | dog           | GEND:fem                           | bad         | three=PL                | DEM=ERG                 |
|                        |               |                                    |             |                         |                         |
| <i>nah</i>             | <i>suui</i> : | <i>hlü</i> = <i>kti</i> = <i>e</i> |             |                         |                         |
| O.AGR:1S               | bite          | want=NON.FUT=PL                    |             |                         |                         |
- ‘These [three] bad female dogs wanted to bite me.’ (So-Hartmann 2009: 158)

The form of pre-nominal MFDs is complex. The demonstrative root is nominalized with *a*- and marked by the enclitic =*a*, which is a genitive marker elsewhere in the language. As a result, the pre-nominal MFD appears to be an embedded noun phrase giving rise to a partitive reading along the lines of ‘these bad female dogs of these’. This complex structure may be crucial in understanding the underlying syntactic structure of MFDs more broadly. Perhaps pre-nominal demonstratives in other languages reflect embedded noun phrases, but the required partitive marking is silent. If this is not the case, then it is striking that Daai has approximated MFDs with a different syntactic structure. Section 6.3 explores the partitive analysis in more detail.

Matching between the pre-nominal and post-nominal MFDs appears to be required. We find no counterexamples in the literature, and there are no information structure-marking MFDs to give rise to matching violations. Both the pre-nominal (23a) and post-nominal MFDs (23b) may modify a noun on their own, so no dependency exists. As for case marking, case like ergative and instrumental appears after the post-nominal MFD, as in (23b) and (22) above.

- (23) a.
- |                        |                        |             |                                      |                        |
|------------------------|------------------------|-------------|--------------------------------------|------------------------|
| <u>ahin</u> = <i>a</i> | <i>kkhom</i>           | <i>pa</i> : | <i>kshe</i> = <i>xooi</i> = <i>a</i> | <i>kkeh</i> = <i>a</i> |
| DEM=CF                 | bear                   | GEND:male   | bad=DU=GEN                           | between=LOC            |
|                        |                        |             |                                      |                        |
| <i>kah</i>             | <i>ip</i> = <i>kti</i> | <i>ni</i>   |                                      |                        |
| S.AGR:1S               | sleep=TNS              | EMPH        |                                      |                        |
- ‘I slept between these two bad bears.’ (So-Hartmann 2009: 89)

- b.     *kah*                 *ksi:m*   *kshaai*                 *hin=ing*         *kah*                 *ni:ng*  
           POSS:1S           knife   ADJ:long                 DEM=INSTR   S.AGR:1S           O.AGR:2S
- pat-shüm*         *vai*         *ni*  
           cut.through   SUBJ   EMPH
- ‘I would cut you down with my long knife.’ (So-Hartmann 2009: 81)

### 3.4 Hyow

Hyow presents a case testing the boundaries between MFDs and normal demonstratives. Demonstratives in Hyow only occupy the pre-nominal slot, alongside an anaphoric determiner, and they may be related to post-nominal information structure markers. According to Zakaria (2018: 126), three forms constitute a pre-nominal paradigm: *ni*, which marks referents close to the speech act participants, *tsú*, which marks those far away, and *èy*, which marks those anaphoric to the discourse, as evidenced by adverbials like those in (24).

- (24) Hyow:
- |    |  |    |  |    |   |
|----|--|----|--|----|---|
| a. | <u><i>èy-bó</i></u><br>DEM-way<br>‘that way’     | b. | <u><i>ni-bó</i></u><br>DEM-way<br>‘this way’     | c. | <u><i>tsú-bó</i></u><br>DEM-way<br>‘that way’                         |
| d. | <u><i>èy-hú?y</i></u><br>DEM-like<br>‘like that’ | e. | <u><i>ni-hú?y</i></u><br>DEM-like<br>‘like this’ | f. | <u><i>tsú-hú?y</i></u><br>DEM-like<br>‘like that’ (Zakaria 2018: 161) |

There also exist two post-nominal information structure markers, the focus marker *ni* and the topicalizer *tsê*, which modify nouns, adverbials, and verbs, though Zakaria (2018: 199) treats the latter as nominalizations. Frequently a pre-nominal demonstrative co-occurs with a post-nominal information structure marker (25). Observe that ergative case is marked inside the post-nominal marker in (25a).

- (25) a.     *èydó*   *tsú*   *á-tá-ti?*                                 *ó-ngók-ti?lá=tsê*  
           then   DEM   3SG.POSS-elder.brother-PL   3SG.POSS-sister.in.law=PL=ERG=TOP
- èy-khól=lá*                                 *i-ni-káelêy=tí*  
           DEM-EXP=ERG                             1P-INV-envy=R.EVID
- ‘Then, those of his brothers and sister-in-laws, they envied him.’  
           (Zakaria 2018: 179)
- b.     *ni*    *lóng-tsó-khól=ni*         *è-hét-é*                                 *lóng-khól=dó*  
           DEM   worm-DIM-EXP=FOC   1P-bring.out.I-POL.IMP                 worm-EXP=EMPH
- ‘Bring me out these worms, the worms!’ (Zakaria 2018: 511)

Despite the frequent co-occurrence, the pre-nominal demonstratives are not dependent on the post-nominal information structure markers (26a). Additionally, the forms need not match (26b), though this is expected as information structure markers also do not require matching in the other languages examined.

- (26) a. tsú    *báyú*    *dók-êy-âl-dú-dák*  
           DEM    shirt    wear.II -MID-DEP-ITER-ANT  
           ‘He had worn back that shirt again like before.’ (Zakaria 2018: 181-182)
- b.        tsú=kón=tsê                      ní=tʂʔ=â=tsê                      *lò-hóm-ú*  
           DEM=ABL=TOP                      DEM=DLIM=LOC=TOP                      come-CONT-3PL.NEG  
           ‘They did not yet come up to here from there...’ (Zakaria 2018: 430)

It is not clear to what extent the pre-nominal demonstratives are related to the post-nominal information structure markers both synchronically and diachronically. There are some reasons to think the information structure markers could stem from the demonstratives. The focus marker is phonologically identical to the proximal demonstrative *ní*, and in other languages thus far, it has been a distal demonstrative that marks topicality. Baclawski Jr. (2012: 59) attempts to find additional semantic links between the distal demonstrative and topicalizer. Yet, there are reasons to be skeptical of any link. The forms *tsú* and *tsê* differ in two respects, tone and vowel quality. The tone difference could be accounted for by the restriction of falling tone to phrase-final position (Zakaria 2018: 89), but there does not appear to be a principled motivation for *u* ~ *æ*, unlike the consistent alternations found in Khumi (see below).

More research is needed to assess how Hyow informs our understanding of South Central MFDs. If the demonstratives and information structure markers are related synchronically, Hyow would provide an important test case where the apparent semantic link between the different slots is missing (in contrast with Hakha Lai *hii*, for example, which retains proximal demonstrative semantics in all slots). If they are related diachronically, Hyow could illustrate the grammaticalization of MFDs, as claimed in Baclawski Jr. (2012). Finally, if they are unrelated, Hyow would provide a case where accidental homophony may lead one astray.

### 3.5 Khumi

Khumi affirms the post-clausal slot of MFDs seen thus far only in Barnes’ (1998) account of Hakha Lai, though Khumi demonstratives do not satisfy the core requirement of being MFDs. They can only appear pre-nominally, not post-nominally. According to Peterson (2019: 35), there are three pre-nominal demonstratives: *hi*<sup>2</sup>, which marks referents near the speaker, *tu*<sup>2</sup>, which marks those close to the addressee, and *hu*<sup>2</sup>, which marks those far away. These demonstratives precede the noun and often co-occur with a *ni/nay* element (27).

- (27) Khumi:  
 a.        *nay*<sup>11</sup>*b*<sup>1</sup>*lô*<sup>1</sup>                      *h*<sup>1</sup>*ni*<sup>2</sup>                      *t*<sup>1</sup>*ay*<sup>1</sup>*c*<sup>1</sup>*kê*<sup>1</sup>=*mô*<sup>3</sup>=*lô*<sup>1</sup>                      *p*<sup>1</sup>*cöy*<sup>2</sup>-*lâ*<sup>3</sup>=*te*<sup>5</sup>  
           then                      DEM                      red.crab=FGR=TOP                      incite-instead=EVID  
           ‘Then this red crab incited them (monkeys) (to give fruit to a deer).’  
           (Peterson 2011: 77)

- b.  $\underline{hu}^l$   $juw^l bo^5=wa^l$   $p'ceng^3$  ...  $athay^3$   
DEM bag=LOC put.inside fruit  
 'Into that bag he put (it) ... (the) fruit.' (Peterson 2011: 94)

The three pre-nominal demonstratives correspond with three post-clausal clitics,  $he^l$ ,  $to^l$ , and  $ho^l$ . While the clitics differ from the pre-nominal demonstratives in form, there is a clear correspondence of mid-vowel~high-vowel and low-falling~low-checked tone. The forms  $he^l$  and  $ho^l$  mark non-past (28) and past tense, respectively, along with other evidential information. The remaining form  $to^l$  appears to be neutral in terms of tense and often indicates a 'you know' reading, which accords with its near-addressee semantics.

- (28)  $nang^l$   $nang^{l0}$   $kang-ca^l=\underline{he}^l$   
 2SG 2SG.LOC AGR-eat.IRR=DEM  
 'I'm going to eat you!' (Peterson 2011: 81)

Khumi, thus, presents a case where the clausal aspects of MFDs can be explored further. A number of the categories discussed throughout this section are not relevant for Khumi, as it lacks post-nominal demonstratives. There is no relevant dependency or matching, and case marking follows the noun.

### 3.6 Hnaring Lutuv

Based on a brief initial report, Hnaring Lutuv has demonstratives that may be better described in terms of double definiteness. There are five demonstratives reported for Hnaring Lutuv: *hing*, which marks referents close to the speaker, *kha*, which marks those close to the addressee, *hue*, those far away, *khy*, those uphill, and *khuv*, those downhill (Matthews and Wamsley 2020: 4). Each of these demonstratives may only appear in post-nominal position. The only licit pre-nominal form is the non-deictic determiner *ma* (Matthews and Wamsley 2020: 2), which is dependent on a post-nominal demonstrative (29a-b).

- (29) Hnaring Lutuv :
- a.  $\underline{ma}$   $uv$   $\underline{khuv}$   $a$   $taa$   $sa$   
DEM dog DEM 3SG be.small DECL  
 'That dog (down there) is small.'
- b.  $*\underline{ma}$   $uv$   $a$   $lee$   
DEM dog 3SG be.big  
 Intended: 'This/that dog is big.'
- c.  $uv$   $\underline{khuv}$   $a$   $taa$   $sa$   
 dog DEM 3SG be.small DECL  
 'A/the dog (below) is small.' (Matthews and Wamsley 2020: 2-4)

It does not appear to be the case that the post-nominal demonstratives additionally mark information structure. There is no matching due to the lack of overlap between the pre-nominal and post-nominal forms. Case is marked outside the post-nominal demonstrative (30).

- (30) *ma phielta hing ta na mumu i ba*  
DEM spoon DEM INSTR ? rice 1SG eat  
 'I ate rice with that spoon.' (Matthews and Wamsley 2020: 7)<sup>9</sup>

Based on these data, Hnaring Lutuv demonstratives are comparable to those in French. French has a pre-nominal determiner *ce* whose form depends on the noun's gender, which is distinct from the definite article. Distance in space is marked by the post-nominal *-ci* and *-là* (31b-c). Unlike Hnaring Lutuv, the non-deictic determiner may appear on its own (31a).

- (31) French:
- |    |                |    |                             |
|----|----------------|----|-----------------------------|
| a. | <i>ce gars</i> | b. | <i>cette femme-ci</i>       |
|    | <u>DEM</u> guy |    | <u>DEM</u> book- <u>DEM</u> |
|    | 'this guy'     |    | 'this woman'                |
- 
- |    |                                     |
|----|-------------------------------------|
| c. | <i>ce livre-là</i>                  |
|    | <u>DEM</u> book- <u>DEM</u>         |
|    | 'that book' (Bernstein 1997: 91,96) |

Given that the full paradigm of demonstratives is not found in multiple positions (cf. Section 4), Hnaring Lutuv does not have MFDs, as with French. Likely an analysis along the lines of what has been proposed for double definiteness is appropriate for Hnaring Lutuv. However, it is worth examining how Hnaring Lutuv fits in with other South Central languages. Perhaps historical MFDs grammaticalized into a double definiteness construction in this language, or conversely, double definiteness may have grammaticalized into MFDs in others.

### 3.7 Mongsen Ao

If we accept that MFDs are prevalent in South Central languages, we might then investigate their broader diachronic and areal properties. Should some aspects of MFDs be reconstructed for Proto-South Central, or deeper in Tibeto-Burman? Could they be borrowed into or from South Central due to language contact? Thorough examination of unrelated neighboring languages and more distantly related languages is crucial to answering these questions.

Meithei, Karbi, Tangkhulic, and Central Naga are frequently assumed to be most closely related to South Central. If MFDs are reconstructible beyond Proto-South Central, we might expect to find evidence of them in these languages. For many, this does not appear to be the case. The Meithei demonstratives *-si* and *-tu* only modify nouns as suffixes according to Chelliah (1997: 81). Karbi *la* and *hala* only precede NPs, which may additionally be marked by a possessor prefix *a-*

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<sup>9</sup> The form *na* may be an instrumental marker, but is un glossed in Matthews and Wamsley (2020).

(Konnerth 2020: 182, 292). The Tangkhulic language Tangkhul Naga has demonstratives *hi* and *ci* that only follow NPs (Arokianathan 1987: 42).

However, the Central Naga language Mongsen Ao exhibits a pattern similar to Hnaring Lutuv (Section 3.6). As per Coupe (2007: 106), in Mongsen Ao there is a non-deictic determiner *ipáʔ*, glossed as an ‘emphatic demonstrative’, that precedes the NP and is dependent on the co-occurrence of a post-nominal demonstrative (the proximal *i* or the distal *tfú*) or the anaphoric determiner *sə* (32a). The post-nominal demonstratives and determiner, however, do not require *ipáʔ* (32b).

(32) Mongsen Ao:

- a. *tə-ku ipáʔ a-úk i thijwɯ nə ni-uk-əɬ*  
 this-LOC.CV DEM NRL-pig DEM hulling.room ALL lead-INTO-SEQ  
 ‘And so, having herded this pig into the paddy-hulling room, ...’  
 (Coupe 2007: 107)
- b. *muli tfú phà-tshəŋ-i atə*  
 medicine DEM sprinkle-ATTACH-IRR PTCL  
 ‘The medicine [i.e., yeast] should be sprinkled and left [on the cooked rice].’  
 (Coupe 2007: 110)

There is no matching to be expected in Mongsen Ao, as the pre-nominal is not comparable to any post-nominal form. As for case marking, agentive case occurs outside the post-nominal demonstrative or determiner (33). Note that information structure is marked inside the post-nominal form, as with the topicalizer *la* in (33a).

- (33) a. *wàzàʔ tfú nə tə-pə̀ti-’-pàʔ la tfú nə ... tə səmtsə*  
 bird DEM AGT NZP-big-SUP-NR TOP DEM AGT thus ask.PST  
 ‘the bird that was the leader asked ...’
- b. *tə-ku pùkphu-la sə nə ... tə sa*  
 thus-LOC owl-F DEM AGT thus say.PST  
 ‘Upon asking that, Owl said ...’ (Coupe 2007: 482)

Further work is needed to understand the distribution of MFDs outside South Central, if they exist. Nevertheless, Mongsen Ao is so similar to Hnaring Lutuv that it seems likely that additional languages can fill in the picture of the distribution and evolution of MFDs in South Central.

### 3.8 Summary

To summarize, outside the Core Central group of South Central, some languages have MFDs quite similar to Hakha Lai, while others have divergent properties. The similarities support the view that MFDs should be considered a South Central phenomenon, not limited to Core Central languages. Mongsen Ao suggests it could be considered a broader phenomenon as well. Additionally,

the differences will inform the analysis of MFDs as a whole, such as the morphologically complex pre-nominal demonstratives of Daai.

It should be noted that not all South Central languages exhibit MFDs. For example, there is little indication of MFDs in the Northeastern language Sizang. Sarangthem (2010) and Davis (2017) report two demonstratives, the proximal *hî:* and the distal *tu:a/ta:/tâ:*, which are both often followed by *-sia:*, a form that is identical to the absolutive (34a).

(34) Sizang

a. *ta:sîa:* *nû:=sîa:* *sǎŋ-sə.ja:=nû:* *hî:*  
DEM woman=ABS school-teacher=FEM be  
 ‘That woman is a school-teacher.’ (Davis 2017: 40)

b. *in* *hî:sîa:*  
 house DEM  
 ‘this house’ (Davis 2017: 16)

Davis (2017: 16) does note that a post-nominal order is preferred in elicitation (34b), while the pre-nominal order is predominant in narratives. Perhaps Sizang presents a case where multiple syntactic structures exist in free variation.

It should also be noted that MFDs can be found in some more distantly related Tibeto-Burman languages such as Southern Qiang.<sup>10</sup> In the case of Southern Qiang, however, Gao and Zhou (2016) argue that the MFD pattern is limited to certain dialects and represents the midway point on a grammaticalization path. In conservative dialects, such as Longxi, demonstratives follow the noun. In appropriate pragmatic contexts, the demonstrative may also appear before the noun (35a). Note that demonstratives are accompanied by classifiers in both positions. The MFD in (35a) seems to be limited to clause-initial position, among other restrictions (Gao and Zhou 2016: 8-9).

(35) Longxi (Southern Qiang):

a. *tɕä<sup>31</sup>* *phu<sup>55</sup>* *phu<sup>31</sup>* *tɕä<sup>31</sup>* *phu<sup>31</sup>* *ke<sup>31</sup>ma<sup>31</sup>* *mi<sup>31</sup>-ua<sup>31</sup>-ue<sup>31</sup>*  
DEM CL tree DEM CL leaf NEG-have-CSM:3  
 ‘This tree has no leaves.’ (Gao and Zhou 2016: 8)

Taoping (Southern Qiang):

b. *tsa-χgy* *tei* *χgy* *ɕ'qhua-la* *dəye-qe*  
DEM-CL house CL DIR-collapse will.be-AUX  
 ‘This house will be collapsed.’ (Gao and Zhou 2016: 10, citing Sun 1981)

Other dialects such as Taoping exhibit a more innovative construction where the post-nominal demonstrative is lost (35b). In some of these dialects, the resulting post-nominal marker indicates definiteness or topicality. Finally, other dialects such as Miansi only exhibit pre-nominal demonstratives. Gao and Zhou (2016: 13) argue that the grammaticalization path is the result of

<sup>10</sup> Thanks to an anonymous reviewer for making the connection between South Central MFDs and demonstrative order in Southern Qiang.

contact with Chinese, as speakers of more innovative dialects like Miansi are the ones in greatest socioeconomic contact with Chinese.

Southern Qiang is an important datapoint, as it shows that MFDs may not be uncommon, especially in the context of a broader grammaticalization path involving the positions of demonstratives. South Central MFDs, though, appear to be more stable over time. Given that MFDs are present across South Central, it is unlikely that all of them represent intermediate stages of a grammaticalization path. More research is needed on all South Central varieties, including those like Sizang that appear to lack MFDs entirely, to assess whether or not a grammaticalization path like that seen in Southern Qiang is at play.

## **4 The core meaning of MFDs**

The next sections examine the three questions laid out in the introduction. First, what is the core meaning of MFDs? It is important to establish the core semantics of a phenomenon in order to situate it cross-linguistically and generate predictions about its behavior. For example, if MFDs were in fact evidentials that secondarily marked distance in space, we might expect them to have different properties from demonstratives that primarily mark distance in space. Nearly all who have described South Central MFDs have used a framework approximating that of Diessel (1999). However, this section shows that it is necessary to examine alternative possibilities like evidentiality and peripersonal space, which is the space *within reach* of the discourse participants. We find that there is no conclusive evidence that South Central MFDs primarily mark distance in space. More data is needed, such as natural conversations between native speakers, careful elicitation in constructed contexts, video data, and carefully controlled experimental setups in order to tease apart the predictions of the various hypotheses.

Section 4.1 lays out existing evidence for the spatial distance hypothesis. We show that the evidence favors spatial distance over certain other meanings found with MFDs, tense and information structure. However, the evidence for spatial distance is circular and prone to data bias. Section 4.2 sketches a hypothesis in terms of evidentiality, with spatial distance marked secondarily, based on recent work on the Central Salish language  $\text{ʔayʔajuθəm}$  (Huijsmans et al. 2020; Huijsmans and Reisinger 2021). Section 4.3 presents Skilton's (2019) analysis of Ticuna (South America) demonstratives in terms of perception and peripersonal space, but not distance.

### **4.1 Distance**

Diessel (1999: 1) makes a universal claim that all languages have demonstratives and that demonstratives primarily mark spatial distance in reference to the discourse participants (i.e., the speaker and addressee). In Sections 2-3, many descriptions of demonstrative meanings have been couched in terms of this approach, such as 'near speaker' or 'far away from speaker and addressee'. Distance in space also implies a scale, from 'near speaker' to 'near addressee' and 'far away from both'. Many authors imply such a scale by ordering demonstratives from near to far. Additional perceptual information, such as visibility, and relative information like 'uphill/downhill', is orthogonal to distance in space, but is still represented in such a one-dimensional scale.

Despite its widespread adoption in typology and language documentation, Skilton (2019: 54) argues that there is little empirical evidence offered in favor of this view. Distance in space is assumed to be the core meaning of demonstratives, so they are circularly described in those terms.

In this subsection, we assess spatial distance as the core meaning of MFDs. Three potential arguments in favor of spatial distance are presented, which are typically implicit in the literature: i.) universals, ii.) related languages, and iii.) paradigms. To demonstrate that these arguments have value, we assess them not only for distance in space, but also for two meaning components often ascribed to MFDs: tense and information structure. As expected, the arguments affirm distance in space as a candidate for the core meaning of MFDs, and they discount tense and information structure.

Why should tense and information structure be considered as possible core meanings of MFDs? Each MFD in Hakha Lai may be characterized in terms of information structure and tense. As for information structure, *hii* marks new referents and *khii* a certain discourse ‘vividness’, in addition to the functions of *khaa* and *tsuu* described in Section 2.1 (Barnes 1998: 57). As for tense, Barnes (1998: 84) finds distinct readings for each MFD in a sentence-initial construction consisting of the non-deictic demonstrative *ma?*, followed by a reduced MFD and a case-marked MFD (36).

- (36) a. *ma?* *hi* *hin* *kuak* *ka* *zuu* *tii* *laay* *law*  
 DEM DEM DEM cigar 1SG smoke more FUT NEG  
 ‘From this moment on, I will no longer smoke cigars.’
- b. *ma?* *khi* *khin* *kuak* *ka* *zuu* *tii* *laay* *law*  
 DEM DEM DEM cigar 1SG smoke more FUT NEG  
 ‘From that moment on (some point in the future, the speaker’s birthday, for example), I will no longer smoke cigars.’
- c. *ma?* *kha* *khan* *kuak* *ka* *zuu* *tii* *law*  
 DEM DEM DEM cigar 1SG smoke more NEG  
 ‘From that moment on (some specific point in the past), I never smoked another cigar.’
- d. Context: ‘People who smoke cigars often fall ill, and sometimes when they do,’  
*ma?* *tsu* *tsun* *kuak* *?an* *?i* *khap* *toon*  
 DEM DEM DEM cigar 3PL RFL abstain.from HAB  
 ‘From that (hypothetical, general) point on, they abstain from all cigar-smoking.’ (Barnes 1998: 84)

If we accept that each MFD may have its own information structure and tense meaning, it is conceivable that the tense or information structure meanings are primary, with spatial distance meanings arising secondarily.

First, let us assume there is a universal that all languages have demonstratives and that demonstratives mark distance in space. If that is true, and the only way to mark spatial distance in South Central languages is with a demonstrative, then we might come to the conclusion that distance is the core meaning component of those demonstratives. The same cannot be said of tense and information structure, as there are many languages that do not overtly mark them, at least not with dedicated morphology. Additionally, South Central languages typically have other means of marking tense and information structure, as seen in examples throughout this paper.

Second, related languages may provide corroborating evidence. In the case of South Central, we turn to languages that lack MFDs, such as Sizang. Sizang has at least one demonstrative which is cognate with those across the family, the proximal *hi*: (Baclawski Jr. 2013). Sizang demonstratives are reported to mark distance in space (see Section 3.8), affirming the spatial distance analysis. We do not find South Central languages that use cognate forms to mark tense and information structure without otherwise functioning as demonstratives.

Third, we might expect the core meaning of MFDs to be found across the paradigm of forms, in each MFD and in each position they occur in. By contrast, if a meaning is restricted to a certain form or position, it could be the result of grammaticalization. In the South Central MFDs described in this paper, with the exception of Hyow, spatial distance readings are found in each position (pre-nominal, post-nominal, and post-clausal when applicable) and for each individual MFD, with the exception of non-deictic demonstratives. Tense and information structure readings are typically limited to post-nominal or post-clausal MFDs, and even then to a particular subset of forms, such as the near-addressee and non-visible ones in Hakha Lai.

In sum, as expected, the arguments provide evidence that tense and information structure are not the core meaning components of MFDs. The arguments also appear to support spatial distance as the core meaning of MFDs. However, upon closer inspection, each of these arguments is subject to circularity. If one assumes that demonstratives mark spatial distance in the first place without entertaining alternative possibilities, it is only natural that demonstratives be glossed in those terms. It is not clear that any description of South Central MFDs so far has seriously entertained a hypothesis other than spatial distance. Furthermore, conclusively distinguishing between spatial distance, evidentiality, and peripersonal space may require highly specific data collection. Skilton (2019: 59) shows that once demonstratives are examined with a higher degree of scrutiny, spatial distance is almost never found to be the core meaning component of demonstratives.

## **4.2 Evidentiality**

Another possible core meaning of MFDs is evidentiality, or indicating the status of the evidence the speaker has for a given statement. Evidentiality is typically discussed at the level of the proposition, as in what evidence a speaker has that a given proposition is true. That evidence may be in the form of direct knowledge (e.g., through sight), non-visual knowledge through other senses, hearsay or evidence from someone else, among others. Evidentials may also mark the level of evidence a speaker has for the existence of a nominal referent. Recent work on the Central Salish language *ʔayʔajuθəm* proposes that deictic determiners and clause-level demonstratives mark evidentiality, not visibility or distance in space (cf. also Renans 2016 on the Kwa language Ga).

Huijsmans et al. (2020) examine deictic determiners in *ʔayʔajuθəm*, which prior research characterized in a variety of ways, such as visibility, remoteness (i.e., spatial distance), nominal tense (i.e., ‘former’), and non-deictic. The deictic determiner *lə*, previously analyzed in terms of visibility, is shown to mark current direct evidence. The deictic determiner *ʂə*, which was previously analyzed in terms of remoteness or nominal tense, is argued to reflect previous direct evidence or evidence obtained before the discourse itself. The non-deictic determiner *kʷə* completes the paradigm as an evidence-neutral marker, used in cases of direct evidence, indirect evidence, or no evidence at all.

Huijsmans and Reisinger (2021) further examine clausal demonstratives, which are superficially similar to South Central post-clausal demonstratives. *ʔayʔajuθəm* clausal demonstratives

mark visibility and tense. The visible forms *ti* and *ta* are argued to mark direct evidence, while the non-visible forms *k<sup>wi</sup>* and *k<sup>wa</sup>* are evidence-neutral. As for tense, which is distinguished by vowel quality, Huijsmans and Reisinger (2021: 4) propose an analysis in terms of the relation in time between the event indicated by the proposition and the time of the utterance itself. Present tense forms require a proximal relation between the event and the time of utterance, while past tense forms require a distal relation between the event and the time of utterance. The resulting analysis treats the clausal demonstratives as evidentials with an additional distance in time component.

These studies are relevant to South Central, because they show that the visibility, tense, and non-deictic aspects of MFDs can be analyzed in terms of evidentiality, not distance in space. Additionally, if MFDs are analyzed as evidentials, spatial distance can be a secondary meaning component.

Consider again the post-clausal demonstratives in Khumi from Section 3.5. Two post-clausal demonstratives mark tense, while the third is often glossed as ‘you know’. Perhaps all of these forms are in fact evidentials with secondary spatial distance components, or conversely they could be demonstratives with incipient evidential components. Much of Barnes’ (1998) characterization of Hakha Lai demonstratives is also reminiscent of evidentials. For example, the post-nominal use of *khaa* implies the addressee has prior knowledge of the referent, and the post-clausal and post-nominal uses of *tsuu* have a non-visible component.

In order to assess South Central MFDs from the standpoint of evidentiality, data is needed from natural conversations between native speakers, elicitation in constructed scenarios, or carefully controlled experiments. The context of an utterance must be thoroughly examined to ensure that the nature of the speaker’s evidence is as intended. For example, if one records a conversation between two native speakers, they might revisit the conversation with the same speakers to ascertain what kinds of evidence they had in mind at that time. One might also ask if the utterance would change if the type of evidence were different. In terms of elicitation, basic sentences in a ‘here-and-now’ context are not sufficient. One should construct scenarios that give rise to different combinations of evidence, tense, distance in space, and any other factors needed.

### 4.3 Peripersonal space

Finally, Skilton (2019) analyzes demonstratives in Ticuna, a language isolate spoken in the northwestern part of the Amazon Basin, as having no spatial distance component. Instead, they mark visibility or location relative to the peripersonal space, which is the space within the reach of the speaker and addressee. Among the four exophoric (i.e., not anaphoric to the conversation) demonstratives, *nu<sup>4</sup>a<sup>2</sup>* marks referents within the reach of the speaker, *ŋe<sup>3</sup>a<sup>2</sup>* marks those between the speaker and addressee, *je<sup>3</sup>a<sup>2</sup>* marks those not within the reach of the speaker, and *ŋe<sup>3</sup>ma<sup>2</sup>* either marks those within reach of the addressee or those not visible to the speaker.

This work is relevant to South Central MFDs in light of the fact that some languages like Mizo and Khumi have demonstrative paradigms including forms that make reference to the addressee, and two of the Daai MFDs are explicitly characterized in terms of ‘within reach’. It is also instructive in terms of the kind of data that is needed to fully understand the core meaning of demonstratives in a language. To analyze the Ticuna demonstrative paradigm, Skilton employed a range of methods from elicitation using imaginary contexts, a questionnaire involving a speaker and an addressee in a carefully controlled environment with specific prompts, and recording natural

conversations. It is important to note that video was also recorded for the purpose of examining gesture, eye gaze, and other nonverbal cues. See Skilton (2019: 21) for a detailed discussion of the advantages and disadvantages of each method.

## 5 The scope of MFDs

Thus far, we have discussed pre-nominal, post-nominal, and post-clausal MFDs with the assumption that they are all part of one grammatical phenomenon. There are two potential problems with this assumption. First, perhaps some forms that were described as MFDs above, such as information structure markers and non-deictic determiners, should not be considered true MFDs. Second, perhaps there are more forms that ought to be included, such as demonstrative pronouns, locative demonstratives, emphatics, and subordinators or relativizers. This section expands upon these problems and what kind of data is needed to define the scope of MFDs more strictly.

### 5.1 Information structure markers

In many South Central languages, post-nominal MFDs take on information structural functions. In these cases, pre- and post-nominal MFDs no longer need to match, which raises the question of whether the information structure markers are true MFDs or if they have grammaticalized into something else.

To illustrate, consider again the post-nominal MFDs in Hakha Lai when they co-occur with pre-nominal MFDs (37). The post-nominal *hii* and *khii* retain their spatial functions, according to the sentence glosses (37a-b). The post-nominal *khaa* retains its near-addressee semantics and also gains a shared information interpretation (37c). The post-nominal *tsuu* appears to lose its non-visibility semantics and only mark topicality (37d).

- (37) a. hii    *ʔuy tsaw*        hii    *ʔa*    *nun*    *ʔa*    *ʔhaa*  
           DEM dog                DEM 3SG life 3SG good  
           ‘This dog here is gentle.’
- b. khii    *ʔuy tsaw*        khii    *ʔa*    *nun*    *ʔa*    *ʔhaa*  
           DEM dog                DEM 3SG life 3SG good  
           ‘That dog over there is gentle.’
- c. khaa    *ʔuy tsaw*        khaa    *ʔa*    *nun*    *ʔa*    *ʔhaa*  
           DEM dog                DEM 3SG life 3SG good  
           ‘That dog (we know about/over by you) is/was gentle.’
- d. tsuu    *ʔuy tsaw*        tsuu    *ʔa*    *nun*    *ʔa*    *ʔhaa*  
           DEM dog                DEM 3SG life 3SG good  
           ‘That dog (which we just mentioned/are talking about) is/was gentle.’  
           (Barnes 1998: 71-73)

If *tsuu* only functions as an information structure marker when it is in the post-nominal position, perhaps it has undergone grammaticalization and should no longer be considered an MFD. However, when the pre-nominal MFD is absent, *tsuu* retains its non-visibility semantics, at least in some cases (Barnes 1998: 57). In Hakha Lai, post-nominal *tsuu* likely should be analyzed as two separate lexical items, *tsuu*<sub>1</sub> which functions as a non-visibility marking demonstrative, and *tsuu*<sub>2</sub> that functions as a topicalizer. The first, *tsuu*<sub>1</sub>, should be considered a true MFD, while the second, *tsuu*<sub>2</sub>, blocks other post-nominal MFDs from being used, resulting in mismatches.

This level of detail is needed to assess information structure-marking MFDs. For each one, are there cases where the non-information structural reading can be found? If so, they should be considered MFDs on some level. If not, perhaps they are grammaticalized forms that only coincidentally occupy the same position and are homophonous with pre-nominal MFDs.

## 5.2 Non-deictic determiners

Next, non-deictic determiners could be crucial for understanding the syntax of MFDs as a whole. Non-deictic determiners may only occur in the presence of a post-nominal MFD, as in Hakha Lai (38a), but they do not match the post-nominal MFD in form.

- (38) a. 

<u>maʔ</u>	<i>ʔuy tsaw</i>	<u>hii</u>	<i>ʔa</i>	<i>nun</i>	<i>ʔa</i>	<i>ʔhaa</i>
DEM	dog	DEM	3SG	life	3SG	good

  
 ‘This dog here is gentle.’ (Barnes 1998: 72)
- b. 

<u>maʔ</u>	<i>(tsu)</i>	<u>tsuu</u>	<i>ʔuy tsaw</i>	<u>tsuu</u>	<i>ka</i>	<i>ʔin</i>	<i>ʔaʔ</i>
DEM	(DEM)	DEM	dog	DEM	1SG	house	LOC

<i>ʔa</i>	<i>rak</i>	<i>ʔum</i>	<i>bal</i>
3SG	ASP	live	EXP

  
 ‘That very dog (we are discussing) used to live in my house.’ (Barnes 1998: 79)

The non-deictic determiner appears to occupy a similar, but not identical position to pre-nominal MFDs. They may co-occur in the same noun phrase, as in (38b) with an optional short-vowel demonstrative in between them. According to Barnes (1998), this construction marks emphasis along the lines of the reinforcer construction found in some English varieties: *viz. that there dog* (see Section 1). The dependency of non-deictic determiners on post-nominal MFDs could be due to a deep similarity between non-deictic demonstratives and MFDs. Alternatively, it may be the result of a more general phenomenon, such as requiring the noun phrase to be overtly marked as definite, and that overt definiteness only getting supplied by a post-nominal MFD.

To be answered, all of these questions require more fine-grained data. One should examine a wide range of noun phrase forms and cast a wide net beyond demonstratives to see if any of the MFD properties are shared by unexpected forms, such as quantifiers, appositives, and partitives (Section 6.3). Even if it is determined that non-deictic determiners are not true MFDs, however, they may be crucial for understanding the syntax of MFDs as a whole.

### 5.3 Other uses of demonstratives

This section introduces additional uses of demonstratives that have not been mentioned thus far. Some, like independent demonstrative pronouns and locative demonstratives, can be used with the full paradigm of demonstratives and are likely just as frequent as the nominal modification described in the sections above. A description of MFDs in a language would be incomplete if it only focuses on demonstratives that modify overt nominals and omits other uses that are just as typical.

Independent demonstrative pronouns are a clear example of a construction that should be considered part of MFDs. Across South Central languages, the full paradigm of demonstratives may appear as independent pronouns, likely through ellipsis of the noun phrase. Hakha Lai has a construction similar to the emphatic demonstrative of (38b), but with ellipsis of the noun phrase (39).

- (39) maʔ    hii    hii    ʔa    ʈhaa    maʔ    hii    hii    tsuu    ʔa    ʈhaa    law  
          DEM   DEM   DEM   3SG   good   DEM   DEM   DEM   DEM   3SG   good   NEG  
          ‘This thing here (pointing to some object) is good. (But) *this thing here* (contrastive) is not good.’ (Barnes 1998: 80)

Independent demonstrative pronouns may have additional morphology. For example, in Falam Chin they optionally have a nominalizer (40), which is less likely to be found with demonstrative modifiers (King 2010: 90). Note that often a subset of demonstratives, typically those that mark information structure, may function as propositional anaphors, which refer to previous discourse content, not physical referents, as in (40).

- (40) cu-mi            cu    ka                    thei                    ual    lo  
          DEM-NMLZ   DEM   1SG.NOM            know.1                    MIR    NEG  
          ‘I didn’t know that!’ (King 2010: 109)

It is worth noting that ‘locative demonstratives’ (i.e., anaphoric locatives such as *here* and *there*) are often described alongside MFDs, though they appear largely to be identical in form to MFDs but with locative case marking and ellipsis of the noun phrase. For example, Daai locative demonstratives are composed of pre-nominal and post-nominal MFDs, such as *asu su* ‘there’, albeit without the additional oblique marking found on the pre-nominal form (So-Hartmann 2009: 142; cf. Section 3.3).

Emphatics are also worth investigating, as they may give rise to reinforcer constructions, as in (38b) above for Hakha Lai. Adverbials present another possible extension of MFDs. Barnes (1998: 82) and Zakaria (2018: 127) report paradigmatic cases for Hakha Lai and Hyow, respectively, where each MFD may be used in adverbial constructions like *X way X*, meaning ‘like this/that’ (cf. Section 3.4).

Subordinators or relativizers present in-between cases, either current instantiations of MFDs or grammaticalizations of previous MFDs. In Hakha Lai, the locative functions as a clausal subordinator if it is followed by a post-nominal MFD marked for non-absolute case. The near-addressee *khan* results in a ‘when’ meaning (41a), and the non-visible/topicalizer *tsun* results in an ‘if’ meaning (41b). Barnes (1998: 69) also reports that the proximal *hin* and distal *khin* are possible in this construction, with unclear semantics possibly relating to distance in space.

- (41) a. *fa laam ka kal ?a? khan ban hlaa kaa ken*  
 Falaam 1SG go LOC DEM banana 1SG-REFL bring  
 ‘When I went to Falaam, I brought a banana with me.’
- b. *fa laam ka kal ?a? tsun ban hlaa kaa ken*  
 Falaam 1SG go LOC DEM banana 1SG-REFL bring  
 ‘If (whenever) I go to Falaam, I brought a banana with me.’ (Barnes 1998: 68)

Given that each demonstrative may appear in this construction, it is likely an additional function of MFDs. The conditional meaning associated with *tsun* may arise from the association of topics and conditionals (Haiman 1978). It is unclear if the meanings in (41) can be derived from the core meanings of the respective MFDs. If it were the case that only *tsun* were used as a subordinator and it meant ‘if’, it would be more plausible that a single MFD had grammaticalized into a subordinator such that it was no longer grammatically linked to MFDs in general.

## 6 The syntax of MFDs

Finally, this section addresses questions concerning the syntactic structures needed to account for MFDs within the Generative Syntax framework. We use this approach primarily as a way to compare MFDs to other constructions cross-linguistically, especially double definiteness and the reinforcer construction, which have been the subject of significant research in Generative Grammar. It would also be valuable to examine MFDs through the lens of cross-linguistic work in other theoretical frameworks such as Construction Grammar.

Sections 6.1-6.3 focus on the central question of how to analyze the syntax of pre- and post-nominal MFDs. We find three possible analyses that are each plausible. Section 6.1 examines the possibility of two slots in the noun phrase where an MFD can appear. This analysis would bring MFDs in line with analyses proposed for double definiteness or the reinforcer construction. Section 6.2 proposes an analysis wherein there is only one slot for MFDs in the noun phrase, and a morphological or syntactic mechanism results in another slot getting pronounced identically to an MFD under certain circumstances. This analysis follows work on a similar construction in Malagasy. Section 6.3 presents an analysis where there is only one slot for MFDs in the noun phrase, but pre-nominal MFDs are in an embedded noun phrase of their own. This analysis equates MFDs with complex noun phrase constructions like partitives. Section 6.4 presents a cautionary tale about the need for thorough data through an attempt to analyze pre-nominal MFDs as pre-clausal. Section 6.5 briefly examines the syntax of post-clausal demonstratives.

### 6.1 Noun phrase analysis #1: The two-slot approach

The existing literature on MFDs has appealed to the determiner phrase, or DP hypothesis to account for the pre- and post-nominal positions.<sup>11</sup> Within Generative Syntax, there has been much cross-linguistic work on related phenomena such as double definiteness or the reinforcer

<sup>11</sup> We use the term ‘noun phrase’ as a pre-theoretic way to describe the noun and any of its modifiers, while we use ‘NP’ as a theoretical construct for a phrasal projection headed by the noun.

construction that appeals to the DP (e.g., Giusti 1994; Bernstein 1997). In a nutshell, the DP hypothesis posits that the head of the noun phrase (in the typical case) is a determiner, and its phrasal projection is the Determiner Phrase, or DP. Nouns themselves are the heads of NPs, which are selected by the head of DP. While this hypothesis is counterintuitive, it has made many successful cross-linguistic predictions and has been widely adopted in Generative Syntax. Additional phrasal categories have been posited between DP and NP as well, such as DemonstrativeP, especially in the Cartographic enterprise (e.g., Nguyễn 2013 on reinforcers and demonstratives in the Vietnamese noun phrase).

Following work such as Giusti (1994), Bedell (2001) hypothesizes that in Hakha Lai, pre-nominal MFDs begin low in the NP as sisters to N. Then they undergo syntactic movement to the specifier of DP. Post-nominal MFDs are taken to be heads of the DP (Figure 1a). Hlaing and Hlun (2003) posit a similar analysis, except that pre-nominal MFDs begin as DP specifiers.

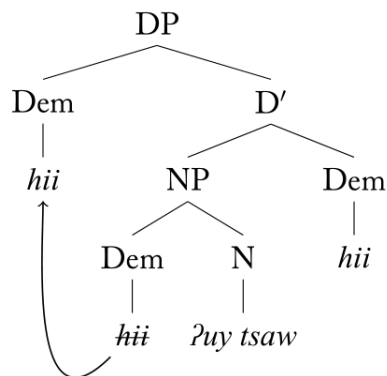


Figure 1a. Bedell (2001)

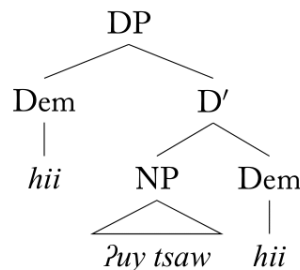


Figure 1b. Hlaing and Hlun (2003)

Figure 1. Previously proposed DP structures for *hii ʔuy tsaw hii* ‘this dog’ in Hakha Lai

These structures posit that there are two positions in the noun phrase where MFDs may appear, and they capture the intuition that the post-nominal MFD is more of a core element of the noun phrase. As seen in Sections 2-3, in many South Central languages, pre-nominal MFDs are dependent on the existence of post-nominal ones. It makes intuitive sense that the syntactic head be obligatory while the specifier be optional.

However, these structures incorrectly predict the constituency of MFDs. Figures 1a-b both predict that the noun and the post-nominal MFD form a constituent (D'), to the exclusion of the pre-nominal. Barnes (1998: 77) offers a constituency test through coordination (42), which shows that it is the pre-nominal MFD that forms a constituent with the noun, to the exclusion of the post-nominal one. Chhange (1989: 97) comes to the same conclusion for Mizo based on similar data.

- (42) [            [*hii ʔuy tsaw*]            *lee*            [*hii tshii zoʔ*]            *hnaa hii*            ]  
                  DEM dog                            and            DEM cat                            PL            DEM

*ni zaan            ka            hmuʔ*  
yesterday            1SG            see

‘I saw this here dog and this here cat yesterday.’ (Barnes 1998: 77)

Based on the constituency data so far, we propose three general types of analysis in Figures 2a-c. It should be noted that these analyses are simplified as much as possible for ease of exposition. It is likely that additional phrasal projections such as DemonstrativeP, mentioned above, are needed to account for the data. Figure 2a is similar to Figures 1a-b above, in that there are two positions for MFDs in the DP, but the pre-nominal MFD and noun form a constituent. Sections 6.2-6.3 explain Figures 2b-c in detail.

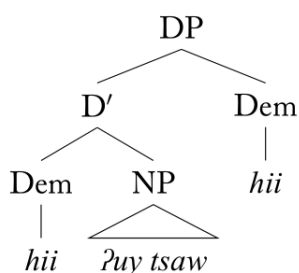


Figure 2a. Two slots

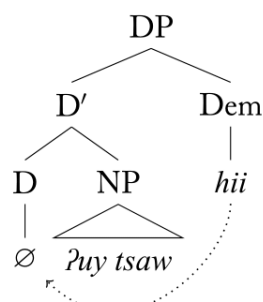


Figure 2b. One slot, with feature transfer

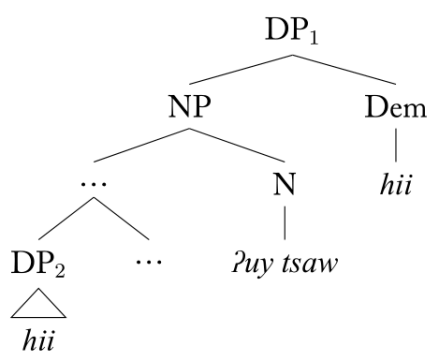


Figure 2c. One slot, with embedded DP

Figure 2. New proposed DP structures for *hii ɳuy tsaw hii* ‘this dog’ in Hakha Lai

The analysis in Figure 2a is in line with analyses of double definiteness or the reinforcer construction (e.g., Giusti 1994; Bernstein 1997), which posit two distinct slots within one DP. Cinque (2020: fn 46) considers Hakha Lai MFDs plausibly to be due to reinforcers, based on Wamsley (2019).

How would an analysis along the lines of Figure 2a account for matching and the dependency of pre-nominal MFDs on post-nominal ones? Matching would likely be enforced semantically: if there are two MFDs in one noun phrase indicating different spatial distance, for example, a clash would arise. Since the requirement would not be syntactic, though, matching might be predicted to be violated under certain circumstances. As for the dependency, it is possible that the pre-nominal MFD requires the noun phrase to be definite, and that definiteness can only be supplied by the post-nominal MFD.

To test this approach, more data is needed on whether MFDs truly need to match, outside of the known exceptions. Elicitation in carefully constructed scenarios may provide circumstances where mismatches arise that were not previously thought possible. More data is also needed on when

the dependency arises and what can satisfy that dependency. Recall that Barnes (1998) found that the dependency only arises in Hakha Lai for absolutive noun phrases.

## 6.2 Noun phrase analysis #2: The one-slot and feature transfer approach

Next, it is possible that there is only one true slot for MFDs, and the appearance of the other MFD is due to a morphological or syntactic operation. This approach is repeated as Figure 3 below. The dotted arrow represents the transfer of features from the MFD *hii* to the pre-nominal slot, which is represented by a hypothetical silent determiner.

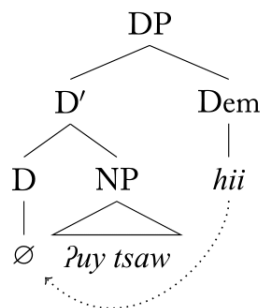


Figure 3: One slot, with feature transfer

To illustrate feature transfer, consider subject-verb agreement. In English, person and number features are transferred from the subject to the verb. If those features include third person and singular, an *-s* suffix is pronounced on the verb (e.g., *The dog barks*; *The dogs bark*). In the case of MFDs, it could be the post-nominal MFD that transfers its demonstrative features to the lexical item in the pre-nominal slot, and that lexical item gets pronounced the same as the post-nominal MFD.

There are a variety of feature transfer operations that could give rise to MFDs. As with subject-verb agreement, the operation could be syntactic agreement (Chomsky 2000; Miyagawa 2009). Another mechanism could be morphological feature lowering in the Distributed Morphology framework (Halle and Marantz 1993). Malagasy exhibits a phenomenon similar to MFDs, where demonstratives are ‘reduplicated’. Zribi-Hertz and Mbolatiana-valona (1999: 188) analyze the reduplication of demonstratives in Malagasy via morphological feature lowering from the head of DP to the head of a NumeralP. As a result, the head of NumeralP is pronounced as another demonstrative.

How would this kind of structure account for matching and dependency? Matching is an integral part of this analysis; it predicts that pre-nominal MFDs must match post-nominal ones, as they are made up of identical features. Dependency is also naturally accounted for, as the pre-nominal MFD can only exist by getting its features from the post-nominal one. This analysis predicts that both matching and dependency are syntactically inviolable and that no context should give rise to violations.

### 6.3 Noun phrase analysis #3: The one-slot and embedded noun phrase approach

Finally, it is possible that pre-nominal MFDs are not simply demonstratives, but constitute whole noun phrases of their own. In Figure 4, repeated below, the post-nominal MFD is the head of DP<sub>1</sub>, the pre-nominal MFD is the head of DP<sub>2</sub>, and DP<sub>2</sub> is embedded inside DP<sub>1</sub>. The advantage of this approach is that MFDs need no special syntax on their own. Pre-nominal MFDs are simply the result of a complex noun phrase construction like a partitive.

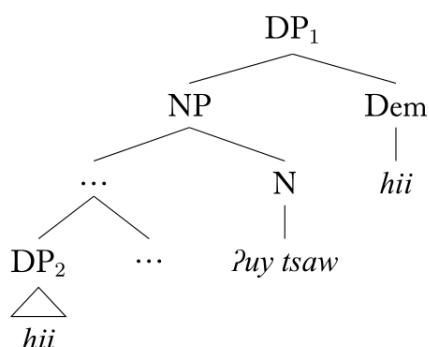


Figure 4: One slot, with embedded noun phrase

As discussed in Section 1, partitives are complex noun phrases that indicate part of the whole (e.g., *three of the dogs*). Standard syntactic analyses of partitives are similar to Figure 4, but with a Preposition Phrase projection between DP<sub>2</sub> and NP (Stickney 2009). In English, that Preposition Phrase is headed by the preposition *of*. In languages like Hakha Lai, perhaps that preposition is silent, resulting in a reading of *hii ɽuy tsaw hii* as ‘this dog of this’. It should be noted that partitives are not the only possible relevant complex noun phrase. For example, MFDs may be related to appositives (e.g., the close appositive *that man John*).

If MFDs were partitives, they would violate several cross-linguistic properties of partitives. Partitives in languages like English have a definiteness restriction, whereby the noun phrase referring to the whole must be definite, while the noun phrase referring to the part may not be definite (e.g., *\*the three of those dogs; \*three of dogs*; cf. Jackendoff 1977 on the ‘partitive constraint’). In the case of MFDs, both noun phrases are definite, as they are headed by demonstratives. Partitives also frequently exhibit an ‘empty noun’ constraint, where the noun phrase referring to the part may not have an overt noun. In the case of MFDs, the noun phrase referring to the part would have an overt noun, but not the noun phrase referring to the whole. Nevertheless, MFDs could result from a partitive-like construction. In Eastern Cham, Baclawski Jr. (2019: 133) describes a partitive-like construction that violates the partitive constraint. Nevertheless, the construction largely functions as a partitive and is useful in understanding Eastern Cham noun phrase syntax.

How would this kind of structure account for matching and dependency? The same predictions would be made as for the two-slot analysis (Section 6.1). Matching would result from a semantic restriction, and dependency would result from an additional constraint, such as the noun phrase referring to the part being definite (i.e., an anti-partitive constraint). Additionally, this analysis predicts that pre-nominal MFDs will be morphologically complex, accompanied by a preposition or case marking of their own. In Mizo (Section 2.3), Thadou (Section 3.1), and Daai (Section 3.3) this prediction is borne out at least in some cases.

More research is needed on complex noun phrases in general to understand how viable the embedded noun phrase analysis is for MFDs. Data is needed on a range of different complex noun phrase types, such as partitives and appositives, to see if they share any characteristics with MFDs. For example, are regular partitives dependent on post-nominal MFDs, and does their morphology line up with that seen for Mizo, Thadou, and Daai pre-nominal MFDs?

#### 6.4 Pre-clausal demonstratives: A cautionary tale

When examining the syntax of constructions like MFDs, it is important to examine a wide range of sentence forms, couched in a broader understanding of the syntax of a given language. From such an understanding, as many analyses should be entertained as possible. As a case in point, consider the hypothetical example of pre-clausal demonstratives in South Central languages. We present this analysis not as a feasible option, but as an illustration of why we need thorough data.

Imagine a language where demonstratives could be pre-clausal or post-clausal, in which case they mark the whole clause. Uab Meto (Austronesian: West Timor) demonstratives exhibit this pattern (43). The proximal demonstrative *ii* and the distal *nane* may appear at the left- or right-edges of the clause, in which case they situate the event.

(43) Uab Meto:

- a. ii     *nitu*             *mese'*   *es*     *na-hóin*     *kai*  
       DEM   ancestor        one    FOC    3-birth        1PL.EXC.ACC
- m-bi-n*                     *le'*     *bale*     ii  
       3-RLS.LOC-SFX        REL    place     DEM  
       ‘Here one ancestor birthed us at this place.’ (Yanti 2019: MON003, line 41)
- b. nane   *au*                *he*     *'-mate-n|a*             *'-bi-n*     nane=t  
       DEM   1SG.NOM        IRR    1SG-die-SFX|EPEN    1SG-LOC-SFX   DEM=SET  
       ‘At that point I wanted to die there.’ (Yanti 2019: MON011, line 102)

Hakha Lai would be no different from Uab Meto, if all the examples of pre-nominal MFDs could also be understood as modifying the clause, as in (44a). In other words, perhaps Hakha Lai has pre-clausal, post-nominal, and post-clausal MFDs, but no pre-nominal ones.

(44) Hakha Lai:

- a. hii     *ʔuy tsaw*             hii     *ʔa*     *nun*     *ʔa*     *ʔhaa*  
       DEM   dog                DEM   3SG    life    3SG    good  
       ‘This dog here is gentle.’ (Barnes 1998: 71)
- b. cu     *uico=nih*             cun     cu     *chizawh*             cu     *a*     *dawi*  
       DEM   dog=ERG        DEM   DEM   cat                DEM   3SG    chase  
       ‘The dog chased the cat.’ (Wamsley 2019: 14)

Even pre-nominal MFDs in examples where both the subject and the object are modified by demonstratives (44b) could be analyzed as pre-clausal. In (44b) perhaps *cu uico=nih cun* represents a small clause with a pre-clausal *cu*, then *cu chizawh cu a daw* is a main clause again with a pre-clausal *cu*; or perhaps the first instance of *cu* modifies the clause while the second modifies the predicate.

The vast majority of the examples presented in this paper are amenable to an analysis of pre-nominal MFDs as pre-clausal MFDs. Additional data is needed, such as constituency tests or distributional evidence couched in a broader theory of a given language's clause structure. For example, certain forms or constructions may delimit positions in a sentence that conclusively rule out the pre-clausal demonstrative analysis.

### 6.5 *The syntax of post-clausal demonstratives*

In Sections 2-3, post-clausal MFDs were only reported in Khumi and in some descriptions of Hakha Lai. These forms are worth further examination to assess what they modify and to what extent they can be analyzed as post-nominal, rather than post-clausal, MFDs. First, it must be clarified what the demonstratives modify. Do they modify the verb, in which case perhaps they indicate deixis with regard to the predicate or event; do they modify the clause, in which case they indicate deixis with regard to the whole sentence or proposition; or do they modify a nominalization, in which case they may simply be post-nominal forms? If the MFDs modify the clause, we would predict instances where they appear not only after the verb but also after predicate modifiers like adverbs and clausal modifiers. Next, if post-clausal MFDs are nominalizers, we would predict them to function the same as post-nominal MFDs. We might expect pre-clausal MFDs to be possible on analogy with pre-nominal MFDs (cf. Section 6.4). We might also expect that clauses modified by an MFD can function in the same way as nominals. In English, a clause like *the dog is good* can be nominalized, in which case it can be a subject or object just as any other nominal, as in *That the dog is good is encouraging*. Elicited data would likely be needed to test these rare constructions.

## 7 Conclusion

To conclude, we have found that multi-functional deictics (MFDs) are prevalent in South Central Tibeto-Burman languages and potentially beyond. However, even the most basic questions about them have yet to be conclusively answered, and they are not yet clearly relatable to other phenomena cross-linguistically, such as double definiteness or the reinforcer construction. We have also found that there is great variation within South Central languages. Some languages exhibit minor differences in their MFDs, such as case marking in Mizo and morphological complexity in Mizo, Daai, and Thadou, while others may exhibit different phenomena entirely. For example, Hnaring Lutuv likely exhibits a reinforcer construction. Micro-variationist study of South Central MFDs would be valuable for the study of noun phrase syntax, along with case marking and, potentially, feature transfer operations within the noun phrase.

Moving forward, it is imperative to have a wide range of new data sources in the study of MFDs. Conversational and elicited data are necessary to examine a wide range of contexts and syntactic structures. Experimental data may be necessary for targeting scenarios that can tease apart hypotheses that are otherwise difficult to distinguish. Finally, demonstratives are inherently embodied linguistic forms, so video data is necessary to understand the full meaning of MFDs.

**ABBREVIATIONS**

1/I or FORM1/I	stem alternation category	HAB	habitual
ABL	ablative	IMP	imperative
ABS	absolutive	INST/INSTR	instrumental
ACC	accusative	INV	inverse
ADJ	adjective	IRR	irrealis
AGR	agreement	ITER	iterative
AGT	agent	LOC	locative
ALL	allative	MASC	masculine
ANT	anterior	MID	middle
ASP	aspect	MIR	mirative
CF	constituent final	NEG	negative
CLT	clitic	NMLZ/NZP	nominalizer
CLF	classifier	NOM	nominative
CMPV	comparative	NRL	non-relational
CONT	continuative	O	object
COP	copula	OBLQ	oblique
CSM	change of state marker	PL	plural
CV	converb	POL	polite
DECL	declarative	POSS	possessive
DEM	demonstrative	PST	past
DEP	dependent	PTCL	participle
DIM	diminutive	Q	interrogative
DLIM	delimitative	R.EVID	reported evidential
DU	dual	REL	relativizer
EMPH	emphatic	RFL/REFL	reflexive
EPEN	epenthetic	RLS	realis
ERG	ergative	S	subject
EXC	exclusive	S/SG	singular
EXP	experiencer frequency	SEQ	sequential
F	feminine	SET	setting
FGR	foreground	SFX	suffix
FOC	focus	STD	standard pronoun
FP	final particle	SUP	superlative
FUT	future	SUBJ	subjunctive
GEN	genitive	TNS	tense
GEND	gender	TOP	topic

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