

TOPICS IN HAKHA LAI NOMINAL MARKING

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Dedicated to the memory of my father, Donald Lane Wamsley, M.D.

## Acknowledgements

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TOPICS IN HAKHA LAI NOMINAL MARKING

This dissertation investigates the formal and functional properties of discourse deictics, morphemes which provide information to help interlocutors identify nominals, mark their discourse status, and highlight them for pragmatic purposes. Discourse deictics remain understudied, despite serving varied and complex functions. This work investigates Hakha Lai, a South Central (formerly Kuki-Chin) Tibeto-Burman language spoken in Chin state in Burma and in diaspora communities worldwide. Hakha Lai discourse deictics are derived from the spatial deictic markers of the demonstrative paradigm, where they encode information about the spatial location of discourse referents in relation to speaker and addressee location. In non-demonstrative contexts, they mark discourse-level properties of nominal referents (e.g., topic status; prior discourse reference) and aid in semantic and pragmatic interpretation. This dissertation investigates elicitation data collected in collaboration with three fluent speakers of Hakha Lai. Elicitation materials, carefully designed to control discourse context information, were adapted from three questionnaires which tested the role of nominal markers in encoding: 1) the spatial deictic properties of demonstratives (Wilkins 1999); 2) the information status of the nominal (Aissen 2015); and 3) other referential properties of the nominal (Jenks 2015). Methodological innovations employed to address the difficulty inherent in investigating discourse/pragmatic markers through elicitation included providing discrete narrative contexts in which target utterances were used, eliciting target utterances appropriate for the context, and conducting follow-up judgement tasks with modified utterances containing discourse deictics. In the judgement tasks, speakers judged not only the grammaticality of nominals marked with discourse deictics but also

their acceptability in the given discourse context, thus providing data on the nature of their functional properties. This investigation contributes to ongoing research on the morphosemantics of discourse information marking, and informs future work on nominal reference, topic and focus, differential case marking, and the unique properties of South Central Tibeto-Burman languages.



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## Glossing Conventions

<b>Gloss</b>	<b>Meaning</b>
1.SG	first person singular
3.PL	third person plural
3.SBJ	third person subject marker
3.SG	third person singular
ACC	accusative case
ACT	actor semantic role
ADDR.PROX	addressee proximal
ADV	adverbial particle
ALL	allative
CL	classifier
COMP	comparative particle
COP	copula
CU	undefined function <i>cu</i>
D	determiner
DECL	declarative
DEF	definite
DEM	demonstrative particle
DET	determiner (from Chhangte 1989)
DIM	diminutive
DIST	distal spatial deixis
DX	deictic marker (from Baclawski 2012)
EMPH	emphatic (from Kieviet 2017)
ERG	ergative case marker
EXP	experiential aspect
F	female gender marking
FOC	focus marker
FUT	future tense
HAB	habitual aspect
IMP	imperative mood
INSIDE.OF	relational noun: inside of
INST	instrumental
INT	intensifier
IRR	irrealis mood
KHA	undefined function <i>kha</i>
LOC	locative case
MID	middle voice
MIR	mirative
NEG	negative
NMLZ	nominalizer
NOM	nominative case
NPST	non-past tense
NTR	neutral aspect (from Kieviet 2017)
OBL	oblique case

PERF	perfective aspect
PL	plural marker
POSS	possessive
PRO	pronoun
PROG	progressive aspect
Q	question particle
QUOT	quotative
REAL	realis mood
REF	referential marker
REFL	reflexive
REL	relativizer
REM	remote demonstrative
SBS	subsequent (from Kieviet 2017)
SPRK.PROX	speaker proximal
SUB	subordinator
TA	discourse exclamation <i>ta</i>
TOP	topic marker
TOP.OF	relational noun: top of
VOC	vocative (from Baclawski 2012)
()	optional
*()	cannot be excluded
(* )	cannot be included

## Chapter 1. Introduction

This dissertation investigates the formal and functional properties of postnominal markers in Hakha Lai, a South Central (formerly “Kuki-Chin”) Tibeto-Burman language spoken in Chin State in Burma/Myanmar.<sup>1</sup> In Hakha Lai, demonstrative expressions consist of a prenominal and postnominal element. The presence of the prenominal element, which can appear as *mah* or as a morpheme identical to the postnominal element, marks the phrase as a demonstrative expression. The postnominal element appears as one from a set of four morphemes which paradigmatically mark the spatial deictic properties of the nominal. This kind of structure differs from English in that the English demonstrative system contains only two lexical members, *this* and *that* to denote proximity and distance, respectively and that they can occur either alone as pronominals or alongside nominals in a demonstrative phrase (e.g., *this* dog). In Hakha Lai, the four lexical members of the spatial deictic paradigm are *hi*, denoting speaker proximity, *kha*, denoting addressee proximity, *khi*, denoting speaker and addressee distality, and *cu*, which is underspecified for spatial location. Additionally, demonstratives in Hakha Lai can surface in a number of morphosyntactic configurations which place the aforementioned elements in multiple locations before and after the noun. The postnominal markers *hi*, *kha*, *khi*, and *cu*, the morphosyntactic configurations in which they appear, and the functional properties of these morphemes are the subject of this dissertation.

Previous research has found that when occurring in a non-demonstrative context, these postnominal markers perform a variety of functions, often related to discourse-level properties of the nominal. This includes topic marking, contrastive focus marking, as well as addressee familiarity marking. The investigation contained in this dissertation uses data obtained from three

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<sup>1</sup> Both “Myanmar” and “Burma” are commonly accepted names for the country. Speaker consultants for this dissertation prefer to use “Burma”. Therefore, the country is referred to hereafter as “Burma”.



fluent speakers of Hakha Lai in elicitation sessions to obtain natural data examining 1) the inventory of grammatically acceptable configurations of these postnominal markers and 2) the pragmatic acceptability of these postnominal marker configurations in different discourse contexts.

The results of this investigation reveal that, indeed, the postnominal markers do not function the same as they do in demonstrative expressions and that they encode additional meaning related to the discourse-level properties of the nominal referent. This research contributes to ongoing research on semantics and pragmatics in natural language as well as studies on demonstrative typology, especially in the Tibeto-Burman family of languages.

## 1.1 Introduction

This dissertation investigates the formal and functional properties of *discourse deictics*, a type of nominal marking, in Hakha Lai, a South Central (formerly “Kuki-Chin”) Tibeto-Burman language spoken in Chin State in northwest Burma and by a diaspora refugee community in Indianapolis, Indiana. Discourse deictics are a class of postnominal particles which aid in the interpretation of nominals by encoding their information structure status (such as topic and focus) and/or reference (such as definiteness). Discourse deictics are additionally a component of demonstrative phrases, where they paradigmatically contrast with one another according to the spatial location of a nominal referent.

Before continuing, it would be helpful to illustrate the uses of discourse deictics to put them in context for this research. In Hakha Lai, demonstrative phrases are composed of at least two elements, a prenominal morpheme *mah*, and a postnominal morpheme which encodes spatial deictic information locating the referent in spatial relation to the speaker and addressee. The morphological structure of Hakha Lai demonstratives is shown in example (1) below.

- (1) [mah uico hi] a-lian<sup>2</sup>  
 DEM dog SPKR.PROX 3.SG-be.big  
 “This dog is big.”

In (1), the structure of demonstrative phrases is morphologically transparent. The head noun *uico* ‘dog’ is preceded by the general demonstrative morpheme *mah*, and is followed by a postnominal morpheme *hi*, which conveys that the location of the referent is proximal to the speaker. The postnominal morpheme is in paradigmatic relation with three other morphemes, *kha*, which denotes that the referent is close to the addressee, *khi*, which denotes that the referent is distant from the speaker and addressee, and *cu*, which is underspecified for spatial location. These four morphemes, *hi*, *kha*, *khi*, and *cu*, are the discourse deictics of focus in the current investigation. Their prototypical usage is, as an obligatory element of demonstrative expressions, to aid in the interpretation of a nominal with reference to its spatial location in the discourse context. However, the postnominal usage of discourse deictics to mark the spatial deictic location of a referent in demonstrative expressions is not the whole story. In addition to marking the spatial location of the referent, the postnominal slot can also contain morphemes that perform alternate functions related to information structure and nominal reference. Previous research (Barnes 1998; Bedell 2001; Baclawski 2012) has found that these alternate functions include topic marking, familiar reference marking, and case marking, functions which encode the relationship between the referent and elements of the larger discourse, and which are not strictly related to their function as the spatial deictic components of demonstratives. One illustration of these alternate functions is shown in (2)

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<sup>2</sup> Hakha Lai orthography will be used throughout this dissertation. The orthographic system was developed by missionaries and has been widely adopted (Peterson 2017). Although Hakha Lai is a tonal language, it is common practice for tone to be not included in the orthographic system nor in linguistic literature which makes use of this orthographic system. Other notable conventions are that syllable-final <h> represents a glottal stop, <c> represents an alveolar affricate /ts/, and <ɰ> represents a voiceless palato-alveolar stop.

below where the spatial deictic morpheme *hi* is used for a function other than marking the spatial location of a referent, and instead allows for *uico* ‘dogs’ to be interpreted as the sentence topic.

- (2) [uico **hi**] a-lian  
dog TOP 3.SG-be.big  
“Dogs are big.” not: “*This dog is big.*”

In example (2), the postnominal morpheme *hi* is not used for spatial deixis, and instead denotes that the head noun which it follows, *uico*, should be interpreted with general reference and as the sentence topic. The spatial location of the dog (or dogs) is not relevant to the usage of this postnominal discourse deictic, which contrasts with the usage of *hi* seen in example (1). That is, the dog (or dogs) in question could be located anywhere and this expression would be considered acceptable. Another example of the discourse-related function of these morphemes is shown in (3) below, where postnominal *kha* is a marker of speaker-addressee familiarity.

- (3) [uico **kha**] a-lian  
dog FAM 3.SG-be.big  
“The dog (which you know from before) is big.”

As shown in example (3), the postnominal morpheme which in demonstrative expressions encodes spatial deictic location (in this case, proximity to addressee), once again performs a non-spatial function. In this example, postnominal *kha* marks the discourse property of familiarity, a discursive (as opposed to spatial deictic) property of the nominal which it accompanies. Also, the spatial location of the referent is once again not relevant, and the dog being referred to could be located anywhere. Because of the range of discourse-related functions performed by these morphemes as well as their role in encoding contextual information on the nominal with which they occur, they are referred to as *discourse deictics*.

The goal of this dissertation is first to describe the formal properties of Hakha Lai discourse deictics, addressing questions such as where they occur in nominal phrases and in what

configurations as well as the allomorphic alternations which they undergo. The second goal is to discover the functional properties of these morphemes in their various configurations by referencing the contexts in which they are acceptably used. Up to now, these morphemes have been investigated very little and most descriptions of these morphemes in Hakha Lai have been observational descriptions, based on data obtained through elicitation with one speaker as part of a field methods course (Barnes 1998) or in literary or narrative texts (Bedell 2001, Baclawski 2012). This dissertation presents a concentrated effort to investigate the formal and functional properties of these morphemes through fieldwork elicitation. Specifically, the analysis contained in this dissertation is based on data obtained in collaboration with three fluent speakers of Hakha Lai who took part in elicitation sessions with the author. The elicitation tools used in this investigation are based on three elicitation questionnaires designed to investigate three categories of properties encoded by discourse deictics in Hakha Lai. The three categories of properties are 1) their primary exophoric demonstrative usage, to establish their role in demonstrative expressions, 2) their secondary information status-related functions, namely the marking of topic and focus, and 3) their role in marking nominal referential properties. Field elicitation with fluent speakers allows for increased control over the contextual properties which are being investigated. Speaker participants are also able to provide insightful commentary on the acceptability of forms in the context and give comparisons with situations in which forms might be grammatical but are still unacceptable.

The elicitation items which were used to investigate these three categories of discourse deictic properties were based on three previously designed elicitation tools. These three elicitation tools are *The 1999 Demonstrative Questionnaire: "THIS" and "THAT" in Comparative Perspective*, designed by David P. Wilkins (hereafter 'Wilkins 1999') which identifies the use of

spatial demonstrative terms, *Documenting Topic and Focus*, designed by Judith Aissen (hereafter ‘Aissen 2015’), which investigates topic and focus marking, and the *Noun Phrase Interpretations Questionnaire*, designed by Peter Jenks (hereafter ‘Jenks 2015’), which investigates the encoding of referential properties such as definiteness, specificity, generic terms, and predicative expressions, among others. This is the first investigation of a linguistic class which makes use of all three elicitation tools. The results of the questionnaires and an analysis of these findings are presented in the three core chapters (Chapters 4, 5, 6) of this dissertation.

This investigation of discourse deictics in Hakha Lai expands our understanding of the ways in which natural languages encode meaning as it relates to the larger discourse context. By studying a language which is notable in the way it utilizes discourse deictics, we can obtain a better understanding of the range of possibilities for these kinds of markers in natural language. Thus, it is necessary to investigate such markers in testing conditions which take into consideration their contextually determined functions. Previous research on discourse-level properties of linguistic objects has posed a challenge for elicitation methodologies. According to Dimendaal (2001), it is difficult to investigate definiteness and specificity through elicitation. He says, “The referential meaning of nouns (in terms of definiteness and specificity) is an intricate topic that is extremely hard to investigate on the basis of elicitation. In the end it is texts or connected discourse in general in the language under investigation which provide the most important clues for analysis of these grammatical domains.” Coupe & Lestrade (2017) claim “analyses based on directly elicited data often fail to create the specific pragmatic contexts that motivate the use of core case marking in these languages. Elicited data may consequently produce regular paradigms that are not actually attested in narrated texts (McGregor 2009: 493; Willis 2011: 103), or the structure of the contact language used may exert an adverse influence on the structure of the elicited data (Chelliah 1997:

129; Lidz 2011: 50; Willis 2011: 110)”. The challenges posed by Tibeto-Burman languages (among others) has been remarked upon previously, with van der Wal saying, “...Tibeto-Burman languages... show an uneasy fit with theories of nominal licensing.” (van der Wal 2022, p. 1).

While textual analysis can make use of data that is natural and represents the language as it is spoken, it contains two shortcomings. The first is that texts will not always contain all appropriate contexts which one should investigate when it comes to the grammatical encoding of discourse-level properties of nominals. Deictic contexts such as contrastive focus, reference to generics, or predicative expressions might be hard to come by, even with a large corpus. The second shortcoming is that even those forms which are observed in natural discourse do not represent the entire range of acceptable forms in the context, thus giving a potentially diminished illustration of how grammatical items like discourse deictics are used. To address the shortcomings of textual analysis, this dissertation uses data obtained in field elicitations, where there are greater opportunities to test a wider range of contexts. For example, speakers are asked to judge the acceptability of a target form not only in terms of grammaticality, but also in terms of acceptable usage in the given context. In other words, forms are tested for their pragmatic felicity, or contextual well-formedness. Conducting field elicitations necessarily involves careful design of research tools, not only to be efficient, but also to obtain the data needed for the intended investigation topic. Research on discourse-level linguistic phenomena is especially challenging because it requires extra steps to establish appropriate discourse contexts for the targeted forms. The nature of discourse deictics is such that they are sensitive to both semantic and pragmatic properties of the referent and the context. The encoding of multiple properties in a single marker provides a challenge that makes careful design of elicitations a requirement. The shortcomings of textual analysis stated above are overcome in this dissertation by working with

fluent speakers in carefully designed elicited contexts which allow the investigator to control the conditions under which an utterance is made, thus ensuring acceptability or rejection of a form based on the linguistic discourse context. Conducting elicitations in this manner also allows for multiple forms to be tested at once. A methodology like this has its own shortcomings, such as the lack of naturalness and potential for experimental observation effects, as well as the difficulties noted previously.

However, recent literature on semantic and pragmatic field elicitation such as Tonhauser and Matthewson (2015) and Bochnak and Matthewson (2015) has reconsidered the investigative potential of this method. Ultimately, all methods will have their shortcomings, and this investigation is the first to approach pragmatic markers in this way on this topic in this language in order to utilize the advantages that this methodology offers.

Before turning to the dissertation itself, we'll take a brief moment to introduce the language and concepts relevant to the investigation. These include the theoretical assumptions of the author, the linguistic objects of investigation, the questionnaires used in the design of elicitation items, and a description of the structure of the dissertation. We will begin by introducing the language of investigation, Hakha Lai.

## **1.2 Hakha Lai, a South Central Tibeto-Burman Language**

The language of investigation in this dissertation is Hakha Lai, a South Central Tibeto-Burman language spoken in Chin State in western Burma and surrounding areas. Hakha Lai, also known as Lai, Lai Chin, Hakha Chin, or Laiholh, is spoken by about 200,000 speakers worldwide (Eberhard, Simons, and Fennig 2023). Hakha Lai is among several of the South Central Tibeto-Burman (formerly known as “Kuki-Chin”) languages. It is spoken by the Chin people as a native

variety among those who live in Hakha, the capital city of Chin State. Elsewhere, it has also been adopted as the language of wider communication in the Chin community, notably in the diaspora community in Indianapolis, and is therefore the most widely spoken Chin language. It is for this reason that the language of investigation in this study is Hakha Lai, though it has been shown that other Chin languages, such as Hyow (Baclawski 2012), also have a similar system of discourse deictics.

Typologically, Hakha Lai is an SOV language and is typically head-final. Other notable grammatical features of the language include a four-way coronal consonant contrast, a series of voiced and voiceless onset sonorants, a series of onset clusters, a verbal stem alternation system, a numeral classifier system, and a split ergative-absolutive case system. The Hakha Lai discourse deictic system has four morphemes which are relevant to the current investigation. The four morphemes are *hi*, *kha*, *khi*, and *cu*. Each of these morphemes are components of the demonstrative phrase paradigm but serve additional functions in their capacity as discourse deictics. Morphosyntactically, these morphemes can appear before a noun, after a noun, or in a circumfixal configuration wherein the same morpheme appears in both prenominal and postnominal position. One exception to this restriction on circumfixal configurations is *cu*, which can appear in postnominal position alongside any of the discourse deictics in prenominal position. A theoretical analysis of the syntactic structure of discourse deictic expressions is not the focus of this study, though a proposed syntactic structure is discussed briefly in Chapter 7.

The linear structural properties of the four morphemes in question as well as the general demonstrative *mah* are summarized in Table 1.1.



			Morpheme	Appears prenominally	Appears postnominally	Marks spatial deixis
Demonstrative Morphemes	Discourse deictics	Spatial Deictics	<i>mah</i>	✓		
			<i>cu</i>	✓	✓	
			<i>hi</i>	✓	✓	✓
			<i>kha</i>	✓	✓	✓
			<i>khi</i>	✓	✓	✓

Table 1.1. The Five Demonstrative Morphemes

As can be seen in Table 1., all five demonstrative morphemes are members of the demonstrative paradigm, but only four of them are considered discourse deictics, and only three of them mark spatial deixis. This pattern, wherein *hi*, *kha*, and *khi* group together, and *cu* stands out will persist throughout this investigation. In fact, as will be shown later in this study, the morpheme *cu* by itself warrants an entire investigation of its own. For now, it is worth remembering that this dissertation is a crucial first step in ongoing investigations of the morphological encoding of discourse-level properties not only in Hakha Lai, but in all languages.

### 1.3 Discourse Deictics, a grammatical marker of deixis

The linguistic objects of investigation, the demonstrative morphemes *hi*, *kha*, *khi*, and *cu* have been categorized as *discourse deictics*. This term is attributable to their functions in encoding the deictic properties of the referent as they relate to the larger discourse situation in which they are used. Languages often make use of grammatical components which encode such properties. For example, the English definite article *the* does not occur alone and accompanies nominal expressions to mark them as definite. For example, in the English expression *the dog*, it is the combination of the head nominal *dog*, which contains the semantic denotation of the furry four-legged pet, alongside the prenominal definite article *the*, which renders the interpretation of the combined expression, *the dog*, as ‘the contextually identifiable furry four-legged pet which is

salient in the discourse context’, as opposed to ‘some unfamiliar (or generic) furry four-legged pet’. Hakha Lai and many other languages, however, lack such articles. Instead, as will be shown, Hakha Lai makes use of a set of morphemes, members of the demonstrative paradigm,<sup>3</sup> to encode deictic properties such as definiteness. Another property that can be held by a nominal referent is topichood, which in languages such as Japanese or Korean, is marked overtly with a dedicated “topic marker” morpheme, *wa* in the case of Japanese and *eun/neun* in the case of Korean. In the case of Hakha Lai, topichood status is compatible with the presence of postnominal discourse deictics. A discourse deictic is herein defined as a morphological object which signals the discourse-related properties of the referent with which it appears. Properties such as topichood status, definiteness, specificity, etc. are all related to discourse deixis as they contribute to the ability of the speaker and addressee to identify the referent within the larger discourse context.

This research also considers the interaction of the Hakha Lai discourse deictics with case marking. Case markers, unlike discourse deictics, provide contextual information which is relevant to the relation between a nominal and other elements in a clause, such its thematic role. As will be shown in Chapter 5, Hakha Lai discourse deictics appear on nominals of any syntactic category without regard to their semantic role. Although the discourse deictics themselves are not categorized as case markers, their behavior in certain pragmatic contexts is similar to what has been observed in a phenomenon known as differential case marking (also known as “differential object marking”, “differential subject marking”, or “differential marking”). Differential case marking is a phenomenon observed in many unrelated languages around the world in which the case marking on nominals is sensitive to pragmatic properties such as an animacy hierarchy, the

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<sup>3</sup> The question of the diachronic origin of the discourse deictics will not be investigated thoroughly in this dissertation, however, it’s worth noting that they appear to be co-opted from members of the demonstrative paradigm. This is especially evident in the fact that they have dedicated functions in demonstrative phrases, which align clearly with different spatial reference.

perceived “subjectness” or “objectness” of a referent, semantic verbal dynamics, and many other semantic and pragmatic properties. In languages which exhibit differential case marking, dimensions such as these affect the presence or absence of case marking, and in some instances, can determine which case marker appears with a nominal.

For instance, accusative case marking in Hebrew is sensitive to the property of definiteness in objects. Definite object referents must appear with accusative case marker *et* while indefinite referents obligatorily cannot receive accusative case marking even if their role in the clause would otherwise seem to license it (Kagan 2022). This is illustrated in example (4) below.

- (4) a.        raiti    \*(et)    ha-yeled  
              I.saw    ACC    the-boy  
              “I saw the boy.”
- b.        raiti    (\*et)    yeled  
              I.saw    ACC    boy  
              “I saw a boy.”

In other languages which exhibit differential case marking, case marking is sensitive to other properties or dimensions such as definiteness, specificity, and animacy as well as the prototypicality of the referent and discourse status. Among the pragmatic properties which differential case marking is sensitive to are the information structural properties which are investigated in this study, and it appears that the presence or absence of discourse deictics is likewise sensitive to these dimensions. Differential case marking in Tibeto-Burman languages has been researched before (Gerner 2008; DeLancey 2011; Teo 2019). However, most references to the differential case marking-related functions of these morphemes have been based on narrative texts and have not used formalized theories of information structure concepts. For example, while similar elements in other languages have been referred to as “focus markers”, they have not been

scrutinized using a set of elicitation tools which test “focus” nor have the researchers defined focus according to any formalized theoretical analysis.

#### **1.4 Conducting Semantic and Pragmatic Fieldwork**

As stated previously, the primary goal for this project is to conduct a theory-driven investigation of discourse deictics, a pervasive yet little-studied feature of Hakha Lai. The outcome of this investigation will be to provide descriptions of the formal and functional properties of the morphemes under investigation. The formal properties are the various morphosyntactic configurations which discourse deictics can appear in while the functional properties are how these morphemes encode discourse-level properties of the referent such as topic, focus, definiteness, specificity, etc. This dissertation contributes to ongoing research on Tibeto-Burman languages, nominal marking, demonstratives, reference marking, information structure and the larger fields of linguistic typology, semantics, and pragmatics. The use of primary data elicited from fluent speakers using a carefully designed methodological approach strengthens the claims made in this investigation. The intention is that this methodology will be adopted in future research on this area of investigation.

In the course of this investigation, there are several theoretical assumptions used to describe the data. First of all, I follow the DP hypothesis (Abney 1987), which states that nominals are syntactically composed of a noun phrase (NP), headed by a determiner (D) to form a determiner phrase (DP). Under the DP hypothesis, this is the case – even when determiners are not overtly present in the nominal expression. There are other theories (Chierchia 1998; Bošković and Gajewski 2011) that claim that some languages allow for NPs to take part in syntactic operations without the need for a D head to host it, often in languages which do not have articles, as is the

case for Hakha Lai. However, for the purposes of this study, I assume a null D hypothesis. For this reason, I will occasionally make reference to a syntactic “head” or a semantic syntactic object, but this will mostly be contained in the discussion sections. Secondly, I assume that the Fine Left Periphery (Rizzi 1997), which is composed of a series of functional syntactic projections, holds. This is relevant to the function of discourse deictics in marking information structure properties of nominal expressions.

In addition to the theoretical assumptions of my analyses, there are some terms which I use following definitions established in previous studies. My definition of “focus” is based on that of Roberts (2012), which states that focused elements are alternative sets of propositions, a formalization initially described in Rooth (1992). For the purposes of this dissertation, definite referents will be those which are identifiable by the speaker and the addressee. In this dissertation, the term ‘information structure’ refers to the ways in which discourse-related information is arranged and modified to aid in interpretability by discourse participants. This should be seen as distinct from the content of the sentence, whose interpretation is subject to the truth conditions of the composition of the sentence’s constituent elements. The questionnaires themselves also make reference to certain theories. For example, the Jenks 2015 questionnaire references nominal strength (Milsark 1977). These theoretical concepts are elaborated upon in the respective chapters where the questionnaire results are described.

The methodology adopted in this investigation is based on two key sources. The first source is a set of three questionnaires which were used as the basis for elicitation items testing the formal and functional properties of Hakha Lai discourse deictics. The first of these questionnaires is the Wilkins 1999 questionnaire on demonstratives, to study the spatial deictic demonstrative function of these morphemes. The second is Aissen 2015, which investigates the role of postnominal

morphemes in marking topic and focus. The third is Jenks 2015, which investigates definiteness, specificity, and other types of nominal “reference”. The second source is the elicitation model. Questionnaire items were designed according to a methodology outlined in Tonhauser and Matthewson (2015). As stated before, obtaining semantic and pragmatic data through elicitation presents several inherent benefits and challenges. The advantage of conducting the research in this manner is that the parameters set by the testing conditions are made clear, a necessity for this kind of investigation.

## **1.5 The Dissertation Structure**

Now that the preliminary concepts have been established, it is appropriate to lay out the structure of the rest of the dissertation. The next chapter, Chapter 2, provides the background for the research. This chapter contains an overview of linguistic properties of Hakha Lai and more in-depth descriptions of the theoretical concepts associated with discourse deictics in this study. Chapter 3 discusses the methodological approach of the research and provides background information about the speaker participants. Chapters 4, 5, and 6 are the three core chapters which report the results of the elicitation questionnaire items with speaker participants. The first, Chapter 4, reports the results of the Wilkins 1999 demonstratives questionnaire items, which investigates the spatial deictic properties of demonstratives and includes a discussion of the results. The next chapter, Chapter 5, reports the results of the Aissen 2015 questionnaire items on topic and focus marking in discourse deictics in Hakha Lai. This chapter also includes a discussion. The final of the core chapters is Chapter 6, reporting the results of the Jenks 2015 questionnaire items. The three core chapters are followed by Chapter 7, a discussion chapter which discusses the findings and

implications for future work on this project. After the discussion is a conclusion chapter, Chapter 8, which summarizes the key findings and describes avenues of potential future research.

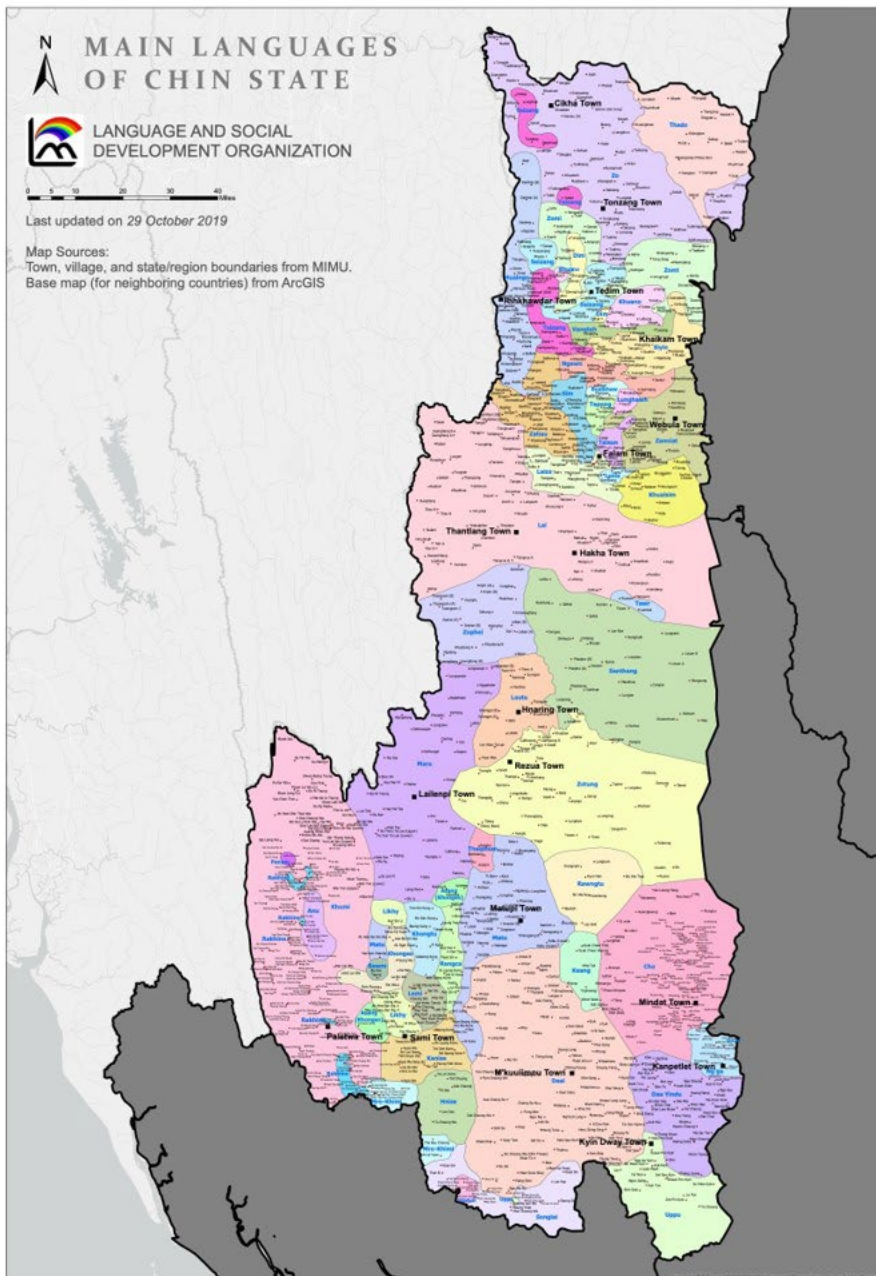
## **Chapter 2. Background**

This chapter provides background information that informs the current research on discourse deictics in Hakha Lai. It includes an introduction to the language, an overview of previous research on discourse deictics in Hakha Lai and related languages, and a detailed description of the theoretical notions that inform the analysis.

### **2.1 Hakha Lai Linguistic Background**

This research is an investigation of discourse deictics in Hakha Lai, a South Central (formerly known as “Kuki-Chin”) Tibeto-Burman language. Hakha Lai is also known as Lai, Lai Chin, Hakha Chin, or Laiholh, and will often be referred to as ‘Lai’ in this dissertation. The South Central Tibeto-Burman family is part of the Tibeto-Burman language family, itself part of the larger Sino-Tibetan (or Trans-Himalayan) family which includes the Sinitic (or Chinese) languages (e.g., Mandarin, Cantonese, Hokkien), Tibetan, Burmese, and many other languages spoken mainly in Southern and East Asia. The South Central Tibeto-Burman branch consists of several languages spoken in an area that spans northwestern Burma, Bangladesh, and northeast India. Besides Hakha Lai, other members of the family include Lutuv (also known as Lautu), Zophei (Lotven 2021), Matu, Mizo (Chhangte 1989; 1993), Senthang, Falam (King 2010), and Khumi (Peterson 2011). This group of languages and the speakers of these languages go by the name ‘Chin’, which is also the name of the state in Burma where the Chin people reside. The map in Figure 2.1 depicts the languages spoken in Chin State, Burma and does not include languages spoken in Bangladesh and Northeast India.





*Figure 2.1 Languages of Chin State*

In total, there are estimated to be around 30-50 South Central Tibeto-Burman languages. There has been relatively little previous research on the languages in this family. This investigation is

part of an ongoing effort to research and document these languages as part of the Chin Languages Research Project (Berkson et al. 2023).<sup>4</sup>

Languages in the South Central Tibeto-Burman family often have a prototypical SOV structure and are often tonal. Examples of the grammatical structure of several South Central Tibeto-Burman languages are shown for comparison in example (5) below.

(5) *“Didn’t the dogs chase you?” in various Chin languages*

a.	uico=nih dog=ERG	a-n=in=dawi 3.SBJ-PL=2SG.OBJ=chase	lo NEG	ma? Q	(Hakha Lai)
b.	uv=ta dog=ACT	caa 2.SG.OBJ	cade chase	va=yi NEG=PL	ma? Q (Lutuv)
c.	ui=tah dog=ERG	a=ca=deng 3.SBJ=2.OBJ=chase	ba=hee NEG=PL	ma? Q	(Zophei)

As can be seen in (5a-c), in addition to SOV word order, these languages also share agglutinative verbal morphology, postverbal negation, and overt question particles.

Researchers have split the South Central Tibeto-Burman family into sub-groups, often with a division between ‘Central’, ‘Peripheral’ (northern and southern), and ‘Maraic’ sub-varieties. Van Bik (2009) and Peterson (2017) support a sub-grouping of Central and Peripheral groups. Whereas other researchers have used statistical approaches to determine the sub-groupings of this family (e.g., Khoi 2001), Van Bik (2009) bases his analysis on phonological evidence using the comparative method. Hakha Lai is a member of the Central sub-group and is the most widely studied variety in the family. Other languages in the Central sub-group include Laizo, Bawm, Mizo, Hmar, and Pangkhua (Baclawski 2012).

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<sup>4</sup> more at [chinlanguages.org](http://chinlanguages.org)

The name of the language, ‘Hakha Lai’ generally refers to the variety that is spoken in Hakha, the capital city of Chin State in Northwestern Burma.



*Figure 2.2 Location of Chin State*

The total number of speakers exceeds 200,000, with approximately 137,000 who speak it as a first language in Burma (Eberhard, Simons, and Fennig 2023). Because it is spoken in the capital of

Chin State, Hakha Lai is the most widely spoken variety, and serves as a language of wider communication in the Chin community. Within Burma and among the diaspora population, it is considered a ‘vehicular language’ or a ‘lingua franca’ and is therefore spoken by many Chin people as a second language. Notable typological characteristics of Lai include a system of verb-stem alternation which is sensitive to syntactic and semantic properties, a split ergative-absolutive structural case marking system, stop-liquid affricate onsets, and the discourse deictic system which is the subject of this research (Peterson 2017).<sup>5</sup>

Lai has previously been reported to be a tonal language, and tone has been investigated in a small amount of previous research (Hyman and Van Bik 2002a, 2002b). Peterson (2017) states that the tone system in Lai is used for distinguishing lexical minimal pairs, with two reported tones, falling and high level. No thorough examination of Hakha Lai tone has been conducted, however. Additionally, tone is not represented in the orthographical system, which was developed by missionaries in the early 20<sup>th</sup> century. As noted in the introduction, this dissertation uses Hakha Lai orthography in all example sentences unless otherwise noted. Not marking tone is a standard choice in the existing literature on Lai.

Hakha Lai discourse deictics have been investigated previously in several studies (Barnes 1998, Bedell 2001, Baclawski 2013a;2013b), which are described in greater detail in section 2.4 below. Regarding the historic development of these morphemes, Kenneth Van Bik’s reconstruction of Proto-Kuki-Chin (Van Bik 2009) posits the deictic element system depicted in Table 2.1.

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<sup>5</sup> Topics such as the phonological system, verb-stem alternation, tense and aspect, deictics, psycho-collocations have been investigated elsewhere. (see *Linguistics of the Tibeto-Burman Area* 20.2 and 21.1)

	<b>Proto-Kuki-Chin</b>	<b>Hakha Lai</b>
Proximal	*hi	hi
Medial	*so/tso	kha
Distal	*cu	khi
Downhill	*kha	-
Uphill	*khi	-

*Table 2.1 Proto-Kuki-Chin Deictics (from Baclawski 2012)*

As can be seen in the table, the Proto-Kuki-Chin deictic forms have shifted in meaning when compared with their synchronic meaning in Lai. Notably, *hi* has remained the speaker-proximal deictic element in Hakha Lai, whereas the distal *\*cu* has become a marker of underspecified spatial location. The downhill and uphill deictic elements are not present in Hakha Lai. Instead, these forms (*\*kha* and *\*khi*) proposed for Proto-Kuki-Chin have become the medial (addressee-proximal) deictic *kha* and the distal deictic *khi* in Hakha Lai, respectively.

## **2.2 Hakha Lai Political Background**

Hakha Lai and many of the other South Central Tibeto-Burman languages are spoken in the area of Burma known as the Chin Hills. Historical accounts of the origins of the Chin people state that they originated in an area north of modern-day Burma and migrated as a result of a catastrophe known as *Thimzing* (Sakhong 2003). Following this catastrophe, the Chin people spread throughout an area which contains modern-day India, Burma, and Bangladesh. Early historical records from the 13<sup>th</sup> century Pagan inscriptions make mention of the Chin people living in the Chindwin valley. Later historical records claim that invasions by the Shan forced the Chin to migrate further south into the area which many of them populate today (Sakhong 2003).

In the 19<sup>th</sup> century, British imperialism spread from India to Burma, including to the area which the Chin people inhabited. As part of this invasion of the Chin homeland, British colonizers

conducted early linguistic accounts of Chin languages, which includes those done by Newland (1897) and Grierson and Konow (1904). British imperialism also led to the arrival of Christian missionaries, who worked to spread Christianity among the Chin people. Christianity is still an important part of Chin culture today and the church is the central organization in Chin life. Beginning in 1917, conflict erupted between the Chin people and the imperialist British, leading to the Anglo-Chin War, which lasted until 1919.

Prior to independence, in 1948, ethnic minority leaders and representatives from the Burmese government created the Panglong Agreement, a document establishing the states of Shan, Kachin, and Chin, which were integrated into the Union of Burma. In 1948, the British were expelled from Burma, leading to the establishment of democratic self-rule which lasted until 1962, when the military, known as the Tatmadaw took over the government. In 1989, under Tatmadaw rule, the name of the country was changed from the Union of Burma to the Republic of the Union of Myanmar. Although democratic institutions and practices slowly began to re-establish control in Burma starting in the early 21<sup>st</sup> century, the Tatmadaw once again, as recently as February 2021, deposed the democratically elected leadership, leading to widescale protests and a renewal of civil conflict.

Regional ethnic and religious conflict in Chin state and across Burma which occurred under Tatmadaw rule has led to mass human displacement. Members of the Chin community began migrating outside of Burma, often to countries such as Malaysia, Australia, and the United States. Since then, more migrants have come out of Chin state, such that Burmese refugees were the second-most common refugees entering the United States from 2017 to 2018 (CDC).<sup>6</sup> At the time of this writing, the Chin diaspora community is said to number over 25,000, with many members

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<sup>6</sup> <https://www.cdc.gov/immigrantrefugeehealth/profiles/burmese/index.html#pop-movements>

of the community having relocated to Southern Indianapolis (Salaz & Raymer 2020). This community has grown over the past several years with dozens of churches, each offering services in several Chin languages. Multiple organizations such as the Burmese American Community Institute (BACI), the Chin Community of Indiana (CCI), and others have been established to serve the needs of the community. The research described in this dissertation has been done thanks to the cooperation of three fluent speakers who are members of the Chin community in southern Indianapolis. Further details on the speakers' backgrounds are provided in Chapter 3.

### 2.3 Hakha Lai Noun Phrase Structure

Now that the typological and historical details of the language have been covered, it would be prudent to now discuss the general linguistic features of the language before jumping into the specifics of the dissertation analyses. Hakha Lai noun phrases have the following linear structure shown in Figure 2.3 (from Peterson 2017):

[demonstrative] [relative] [possessor] <head> [classifier-numeral] [quantifier] [case] [discourse deictic]

*Figure 2.3 Linear Structure of Hakha Lai Noun Phrases (Peterson 2017)*

In the Lai noun phrase, the general demonstrative, relative clause content, and possessive morphology appear before the head noun. Postnominal elements include the classifier-numeral sequence, quantifiers, case marking, and discourse deictics. The two elements of note relevant to this dissertation are the prenominal demonstrative element, often *mah* or a morpheme which resembles the postnominal discourse deictic (explored further in Chapter 4) and the postnominal discourse deictic, which marks the discourse properties of a referent, including spatial location.

Hakha Lai relative clauses are often head-final, with the relativized noun appearing in final position. However, Lai notably has internally-headed relative clauses as shown in example (6)

below. Example (6a) depicts an externally-headed relative clause and (6b) depicts an internally-headed relative clause.

(6) *Externally- and Internally-headed relative clauses in Hakha Lai*

- a. [sayamah-nu=nih hngakchia-nu a-pek mi **cauk**] kha a-tla  
 teacher-F=ERG child-F 3.SG-give.II REL book TOP 3.SG-fall.I  
 “The book that the teacher gave to the girl fell.” (Flego 2019)
- b. [sayamah-nu=nih hngakchia-nu **cauk** a-pek mi] kha a-tla  
 teacher-F=ERG child-F book 3.SG-give.II REL TOP 3.SG-fall.I  
 “The book that the teacher gave to the girl fell.” (Flego 2019)

Internally-headed relative clauses are typologically rare and involve a relative clause construction in which the head noun phrase is located within the relative clause, as can be seen with *cauk* ‘book’ in (6b), which precedes the relativizer *mi*.

In Lai, demonstratives and possessive morphology can co-occur, as shown in example (7) below.

- (7) [mah ka ha hi] bawlung=nih a-ka-khawn  
 DEM 1.POSS tooth SPKR.PROX ball=ERG 3.SG-1.SG-hit  
 “The ball hit me on this tooth.” (Wilkins 1, Hakha speaker)

As can be seen in example (7), both demonstrative morphology and possessive morphology can occur on the same noun phrase. There are often restrictions on these kinds of structures, as in English where *\*this my tooth* would be considered ungrammatical. This raises interesting questions about the grammatical structure of such phrases in Lai, such as whether a DP is headed by the possessive morpheme or the demonstrative morpheme, though this will not be addressed in this dissertation.

Lai also has a classifier-numeral system in which numerals are accompanied by a semantically designated classifier. Examples of this sequence are shown in (8-9) where the classifiers are in bold.



(8) [catlap            **tlap**            khat]            a-um  
 paper            CL            one            3.SG-be.at  
 “There is one piece of paper.”            (Wamsley 2019)

(9) [arti            **pum**            khat]            a-um  
 egg            CL            one            3.SG-be.at  
 “There is one egg.”            (Wamsley 2019)

In these examples, the classifier follows the head noun and precedes the numeral. The choice of classifier is determined by the semantic properties of the head noun, with *pum* being used for objects like eggs and *tlap* used for objects like paper. The general classifier, *pa* is used extensively and is acceptable in most cases. The citation form for numerals themselves includes the general classifier, e.g., *pakhat* ‘one’, *pahnih* ‘two’, *pathum* ‘three’, etc.

Quantification is occasionally expressed through verbal morphology. In example (10) below, *a zaapi tein*, an adverbial meaning ‘wholly’, in combination with middle voice verbal morphology, expresses universal quantification of the nominal *apple*.

(10) Apple    cu    a-zaapi    tein    aa-ei    dih    cang  
 Apple    TOP    3SG-whole    ADV    3.SG.REFL-eat    COMP    PERF  
 “All of the apples have been eaten.”            (Jenks 5, Vawngtu speaker)

Other quantifiers, such as *tlawmpal* ‘several’ appear to behave like a determiner in that they occur within the nominal phrase structure. This is shown in example (11).

(11) Art=nih            misur            tlawmpal            cu    a-ei            cang  
 Art=ERG            grapes            some            CU    3.SG-eat            PERF  
 “Art has eaten several grapes.”            (Jenks 10, Vawngtu speaker)

Case marking in Hakha Lai is limited to a few overt postnominal morphemes. These include the “ergative”<sup>7</sup> marker =*nih*, the spatial/temporal locative =*ah*, the instrumental =*in*, and a comitative

<sup>7</sup> Most previous descriptions of this marker in Hakha Lai have described it as an ergative case marker. Although it appears with subjects of transitive verbs, the evidence that it is strictly marking ergative case is unclear, given that it is used in agentive by-phrases in passive sentences (see Bedell 1996) and with objects in causative sentences (see Bedell 1997). It is better described as an agentive semantic role marker.

=*he*. Within subordinate clauses, the ergative, locative, and instrumental markers can optionally surface as =*i* (Peterson 2017). Examples (12-18) below illustrate various kinds of overt case marking in Hakha Lai.

- (12) uico=**nih**      chizawh      a-dawi  
 dog=ERG      cat      3.SG-chase  
 “The dog chases the cat.” (Vawngtu speaker)
- (13) Cabuai=cung=**ah**      hai      a-um  
 table=TOP.OF=LOC      mango      3.SG-be.at  
 “There is a mango on top of the table.” (Vawngtu speaker)
- (14) hngakchia      pawl      cu      museum=**chung=ah**      an-lut  
 child      group      TOP      museum=INSIDE.OF=ALL      3.PL-enter  
 “The children went into the museum.” (Vawngtu speaker)
- (15) Zingrawl=**ah**      arti      ma      na-ei?  
 breakfast=LOC      egg      Q      2.SG-eat  
 “Did you eat *eggs* for breakfast?” (Vawngtu speaker)
- (16) Mipa=**nih**      sa      cu      nam=**in**      a-can  
 man-ERG      meat      CU      knife=INST      3.SG-cut  
 “The man cut the meat with a knife.” (chin-dictionary.com)
- (17) Dawn      cu      thaizing=**ah**      a-nau nu=**he**  
 Dawn      TOP      tomorrow=LOC      3.SG.POSS-sister=COM  
 Indianapolis=**ah**      an-kal      lai  
 Indianapolis=LOC      3PL-go      IRR  
 “Dawn is going to Indianapolis tomorrow with her sister.” (Vawngtu speaker)
- (18) Na      liang=**i**      khuai      kha      zoh      hmanh  
 2.SG.POSS      shoulder=LOC      bee      FAM      look      IMP  
 “Look at the bee that’s on your shoulder!” (Vawngtu speaker)

When a discourse deictic (*hi*, *kha*, *khi*, or *cu*) follows a nominal with overt case, the discourse deictic surfaces as an allomorphic variant with *-n*. Some have argued that this is coalescence with the instrumental/ablative case marker *-in* (Chit Hlaing and Hlun 2003, Bedell 2001).

- (19) Indianapolis=**ah**      khi=**n**      a-kal      lai  
 Indianapolis=ALL      DIST=**n**      3.SG-go      IRR  
 “He will go to Indianapolis.” (Vawngtu speaker)



In recent years, researchers taking part in the Chin Languages Research Project have expanded the amount of research on the language. These efforts have included research on topics such as adjectival expressions (Danaher 2019), internally-headed relative clauses (Flego 2019), grammaticalizations of time (Merritt 2019), psycho-collocations (Yandt 2019), and phonetics (Lee & Berkson 2019), as well as several Swadesh lists and a growing number of investigations of Lutuv (also known as ‘Lautu’) (Lotven et al. 2019). Preceding this fieldwork-centered output, the 21<sup>st</sup> volume of the journal *Linguistics of the Tibeto-Burman Area* contains papers describing research from a University of California Berkley field methods course taught by James Matisoff in 1996-1997 where Hakha Lai was the language of focus. The papers in this volume report on investigations of topics such as middle voice (Smith 1998), ideophones (Patent 1998), transitivity (Peterson 1998), verbal alternations (Melnik 1997), and tense and aspect (Kavitskaya 1997). Among these papers is Barnes (1998), which describes deixis, demonstratives, and discourse particles in Hakha Lai. This research will be covered in section 2.5.1, but to preview it here, Barnes (1998) investigates the usage of Lai discourse particles which appear in several syntactic positions, frequently as part of demonstrative phrases, but also in sentence-final position.

This outline of previous research shows that although the amount of scholarship on Hakha Lai is growing, research on this language branch is still in the early stages. There is also much more work to be done on Chin language varieties besides Hakha Lai. While many studies have described the properties of these languages mostly in the domain of field research, future studies will make use of theory-based analyses and methodologies to consider what Hakha Lai contributes to ongoing research on linguistic typology, semantics, pragmatics, as well as the sociolinguistics of diaspora community languages. This dissertation contributes to research on the encoding of semantic and pragmatic properties into natural language using an elicitation-based methodological

approach and is a significant next step in the development of the field of South Central Tibeto-Burman linguistic research.

## **2.5 Previous Research on Hakha Lai Discourse Deictics**

Until now, there have been only a few studies of Lai discourse deictics (*hi*, *kha*, *khi*, and *cu*), none of which have adopted the methodological approach described herein. These include Barnes (1998), Bedell (2001), and Baclawski (2012). Each of these studies will be discussed in turn, highlighting their main findings and the claims which inform the current research.

Most previous research has identified discourse deictics as ‘particles’, a catch-all term which does not commit them to a particular syntactic analysis. One of the earliest proposed analyses for discourse particles in Hakha Lai was Hay-Neave (1933)’s proposition that *cu* is a case marker (though according to Bedell (2001), Hay-Neave doesn’t use this term). Most subsequent studies have used the term ‘demonstrative’, ‘discourse deictic’ or ‘deictic particle’. Barnes (1998) and Bedell (2001) refer to the postnominal morphemes *hi*, *kha*, *khi*, and *cu* as ‘deictic particles.’ Baclawski (2013) refers to the general category as ‘deictics’, implying a delineation between ‘exophoric demonstratives’ which are the adnominal forms and ‘discourse deictics’, which are the forms that appear in sentence-final position. Chit Hlaing and Hlun (2003), on the other hand, argue that particles such as *cu* are determiners which head a determiner phrase. Bedell (2001) adopts this analysis as well.

As for the semantic properties of discourse deictics, the research described above draws a connection between their function in demonstrative expressions and their functions in other grammatical contexts. For instance, as a postnominal element of a demonstrative expression, e.g. *mah uico hi*, the morpheme *hi* encodes the deictic property of spatial proximity to the speaker. In

contrast, when *hi* appears postnominally in a non-demonstrative expression, e.g., *uico hi*, the metaphorical notion of “speaker proximity” is maintained even though postnominal *hi* can be used even when the referent is not physically close to the speaker. In other words, when used in a non-demonstrative context, *hi* encodes figurative proximity, but not spatial proximity. Previous researchers’ identification of the four morphemes of investigation in this research are displayed in Table 2.2 below.

	Barnes (1998)	Bedell (2001a)	Baclawski (2012)	Baclawski (2013b)
postnominal demonstrative morphemes	‘discourse particles’ or ‘demonstratives’	‘discourse particles’ or ‘demonstratives’	‘deictic markers/ deictic demonstrative’	‘deictics’ (cites Barnes 1998)
<i>hi</i>	near speaker	this, near me	proximal	near speaker
<i>kha</i>	near addressee	that, near you	medial	near addressee
<i>khi</i>	distal	that, over there (visible)	distal	distal
<i>cu</i>	remote ‘non-visible’	that, over there (not visible)	-	remote ‘non-visible’

Table 2.2 Discourse deictic identifications in previous research

Now that we have discussed the ways in which these researchers have categorized discourse deictics, let’s briefly introduce their individual analyses and methodologies before going into further detail.

First, Barnes (1998) is a report of the findings of elicitation sessions done with a native speaker consultant, Kenneth Van Bik, as part of a field methods course led by James Matisoff at the University of California Berkeley in 1996-1997 (Matisoff 1997). The elicitations were designed to test the usages of the discourse deictics *hi*, *kha*, *khi*, and *cu* (see Table 2.2 above). Barnes (1998) is mostly descriptive and does not contain an analysis grounded in any particular theoretical tradition. The report describes many of the additional features of these discourse deictics such as their usage in sentence-final position, which will not be discussed in depth in the current research.

The second major study of Hakha Lai discourse deictics is Bedell (2001). Unlike the other studies, Bedell (2001) is unpublished and was part of a presentation for the Chin Workshop at the 32<sup>nd</sup> International Conference on Sino-Tibetan Languages and Linguistics in October 1999. Bedell bases his analysis of Lai discourse deictics on the Lai translation of the Bible, which he uses as a reference corpus, meaning that it contains no data which come directly from fluent speakers. This paper describes the semantic properties of the discourse deictics *hi*, *kha*, *khi*, and *cu* and proposes a syntactic structure for nominal expressions which contain discourse deictics.

The third major study is Baclawski (2012), which investigates the deictics of Hyow, a South Central Tibeto-Burman language spoken in Bangladesh. Although Hakha Lai is not the central focus of the thesis, the paper contains sections which compare Hyow discourse deictics to those in Hakha Lai. Baclawski's analysis is based on a combination of elicitations, done by David Peterson and a corpus of ten narrative texts transcribed and annotated by Zakariah Rehman. This report includes a proposed theoretical analysis for discourse deictics in which article-like information status markers follow the noun while demonstratives precede it. This analysis will be explored in further detail in section 2.5.2 below. In addition to the (2012) thesis on Hyow, Baclawski gave presentations on the Kuki-Chin deictic system at the 87<sup>th</sup> Annual Meeting of the Linguistics Society of America and at the 46<sup>th</sup> International Conference on Sino-Tibetan Languages and Linguistics which this dissertation references in the form of two handouts, cited as Baclawski (2013a) and Baclawski (2013b), respectively.

The contributions of these and other previous studies have informed our understanding of discourse deictics in Hakha Lai. However, they differ from the current study in that they do not employ a methodology which integrates discourse context properties into speaker elicitations. Only Barnes (1998) and Baclawski (2012) reference data obtained in consultation with native

speakers, while the others base their analyses on corpus texts. As stated previously, due to the semantic and pragmatic nature of these particles, it is necessary to carefully establish the discourse context in which a given discourse deictic is employed and found to be acceptable or unacceptable. Corpus text references give examples of acceptable usage, but the context is often necessarily inferred by the researcher since testing conditions and negative data cannot be obtained. This dissertation attempts to contribute further to the findings of these previous studies by using carefully designed elicitation contexts to obtain data on the grammatical and pragmatic acceptability of nominal expressions containing discourse deictics and by referencing previous research on the relevant sub-topics mentioned above such as definiteness marking (Schwarz 2009, Milsark 1977), marking of sentence topic (Lee & Shimojo 2016), focus-marking (Roberts 2012), and others. We will now turn to the key findings about discourse deictics in Hakha Lai from Barnes (1998), Bedell (2001), and Baclawski (2012; 2013a; 2013b).

### **2.5.1 Barnes (1998)**

Barnes (1998), titled *Tsuu Khaa Tii Hla?: Deixis, Demonstratives, and Discourse Particles in Lai Chin*, provides an overview of the Lai discourse deictics *hi*, *kha*, *khi*, and *cu*. This overview describes their use in demonstrative expressions, as adnominal discourse particles, in sentence-final position, as well as in subordinate clauses and fixed expressions. As stated previously, Barnes (1998) is based on elicitations with a fluent speaker which test various conditions for the usage of discourse particles. Because of the advantages of this methodology, Barnes is able to provide a thorough description of the discourse deictic particles, supplemented by contextual information about their usage. These descriptions often include remarks from the speaker participant about additional meaning found in the particles. However, Barnes (1998)'s descriptions of Hakha Lai



deictic elements are strictly descriptive and do not provide an analysis based on previous work on demonstratives or information structure. Instead, the descriptions are based solely on the contexts presented in elicitation sessions and the analysis of the data from the author and speaker participant.

One of the key questions that Barnes (1998) raises is which form of discourse deictics are the diachronic predecessors, that is, whether the demonstratives existed as spatial deictic demonstratives first and later developed their secondary functions in other phrase and clause types. Barnes (1998) does not investigate the diachronic development of these particles but references it as a topic of future inquiry. This question has been raised by others, particularly Baclawski (2012; 2013a; 2013b). The next sections will describe Barnes (1998)'s key findings on the function of Lai discourse deictics in demonstratives, as sentence-final particles, and as components of fixed expressions.

### **2.5.1.1 Hakha Lai Demonstratives (Barnes 1998)**

Barnes (1998) classifies the four demonstrative elements *hi*, *kha*, *khi*, and *cu* according to their spatial deictic properties, with *hi* being 'near speaker', *kha* 'near addressee', *khi* as a distal, and *cu* as a 'remote' (or non-visible) demonstrative. Almost all of Barnes (1998)'s examples of demonstratives are of the form [DEM N DEM], in which the prenominal and postnominal elements are identical morphemes, e.g., *hi uico hi*. This demonstrative configuration contrasts with the other common demonstrative phrase structure, [*mah* N DEM]. Barnes states that the latter form is used for emphatic contrast, though as will be shown in Chapter 4, these two morphosyntactic configurations are effectively in free variation.

Barnes (1998) examines the range of functions of deictic particles. As such, he discusses demonstratives at length and gives an analysis of their structure and functional components. Barnes (1998)'s first demonstrative example sentence is shown in (21).

- (21) [hi        uico    hi]                    a-nun                    a-tha  
 DEM    dog    SPRKR.PROX    3.SG.POSS-life            3.SG-be.good  
 "This dog is gentle."                    (adapted from Barnes 1998, p. 71)

Barnes proposes the syntactic structure for Hakha Lai noun phrases shown in (22) below.

- (22) [[[Dem N] Case] (D)]<sub>NP</sub>

In this structure, the prenominal element of a demonstrative expression is a demonstrative morpheme while the postnominal element is a determiner. This proposed syntactic structure groups the demonstrative and head noun into the same constituent, a "demonstrative phrase". This demonstrative phrase is then the complement of a case marker forming a "case phrase". This case phrase is the complement of an optional determiner head which appears in postnominal position. This structure is based on the linear surface structure of discourse deictic phrases and is notably different from those which propose a separate additional projection for demonstratives which take a DP as a complement. Arguments for the latter structure in Hakha Lai would be supported by the ability of possessive morphology to co-occur with a demonstrative, as has been seen in the phrase *mah ka ha hi* 'this my tooth'. Barnes (1998) does not propose any further argumentation to support the proposed structure and states that his hypothesized structure is pre-theoretical and does not consider other kinds of nominal modification such as adjectives or relativization.

Semantically, Barnes (1998) argues that prenominal and postnominal elements of Hakha Lai demonstratives perform different functions, stating that "the generalization we will see repeated in all such examples is that, although the default construction has the two particles identical, the first particle fixes the argument relative **to the speech event**, while the second fixes

its position **inside the narrative.**” (Barnes 1998, p.71). In essence, the pronominal element refers to a deictic spatial/figurative domain, while the postnominal element configures the referent in a more general narrative domain. In Barnes’s typology, demonstratives precede the noun that they modify. He claims that for nouns in absolutive case, the pronominal form requires a postnominal deictic, either *cu* or *kha*. The presence of *cu* creates a *contrastive* or *restrictive* interpretation while the presence of *kha* creates a past-tense interpretation. Barnes categorizes *mah* as an emphatic demonstrative pronoun and draws a comparison to the suffixal element *-mah*, a component of overt subject pronouns, though he claims they are unrelated.<sup>8</sup>

Barnes states that following nouns in absolutive case, the demonstratives surface in their citation forms. With any case marking present, the demonstratives surface as the allomorphic variant with an *-n* suffix. This is shown in example (23) below, where the postnominal *hi* surfaces as *hin* due to the presence of locative case marker =*ah* on the head noun *Falam*.

- (23) Falam=*ah*    *hi-n*                      *a-ra*                      *lai*  
 Falam=*LOC*    *SPKR.PROX-n*                      *3.SG-come*                      *FUT*  
 “He will come here to Falam.”                      (adapted from Barnes 1998, p.66)

### 2.5.1.2. Postnominal Deictic Particles and their functions

Barnes (1998) shows that in addition to their strict spatial deictic usage, the postnominal demonstratives can be used to mark referents that are figuratively deictic in relation to speaker and addressee. “They can function as “narrative-internal” deictic markers, i.e., deictics centered on the subject of the sentence’s location within the narrative, rather than speaker’s location at utterance time, making them unlike demonstratives.” As Barnes puts it, adding these postnominal deictics adds “vividness” to the expression. As such, they are almost always optional, providing a

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<sup>8</sup> Wamsley (forthcoming), however, argues that there is a link between the two, wherein *mah* is an indexical, a syntactic object which represents the index identifying the referent in discourse.



Barnes (1998) provides some preliminary analysis of some of the secondary functions of Hakha Lai demonstrative elements. According to Barnes, *cu*-marked nominals are definite but not specific. He states that the remote demonstrative *cu* also functions as a topic marker. He notes the possible diachronic development of one of these functions from the other but does not provide any arguments for which way the development occurred. As will be seen in Chapters 5 and 6, *kha*-marked referents are discourse-relevant and familiar to both the speaker and the addressee while *cu* is used to mark a nominal that is topicalized or discourse-relevant. In his words, *kha* marks “the one we know about” where *cu* marks “the one we are talking about”. Barnes characterizes this as an “old vs. new” discourse property, but does not link it with any specific theory, such as Prince (1981) or Heim (1982). He further states that *kha* is used for referents which are familiar based on previous context or the addressee having direct reference to the argument. He contrasts this with *cu*, which does not imply familiarity or direct reference.

However, Barnes also states that *kha* can also be used to mark an indefinite argument within a narrative in order to place prominence on the argument. This is shown in example (28) below.

- (28) [uico    pakhat        **kha**] ka-hmuh    i        cu    uico=nih    cun    ki  
       dog    one                KHA    1.SG-see    and    DEM    dog=ERG    CU-n    horn  
       kha    a-ngei  
       KHA    3.SG-have  
       “I saw a dog and that dog had horns!” (adapted from Barnes 1998, p.64)

Barnes notes that this usage is seemingly contradictory with the previous analysis of *kha* being used for discourse familiarity.

### 2.5.1.3. Sentence-final Hakha Lai Deictic Particles

In addition to their use in adnominal constructions, Barnes also presents examples of discourse deictics in sentence-final position, where they characterize the content of the sentence according

to the experiences of speaker and addressee. All four of the deictic particles, *hi*, *kha*, *khi*, and *cu* can appear at the end of the sentence in an allomorphic variant with a glottal stop coda and “locate” the clause proximally or distally to the speaker and addressee. Examples are shown in (29-30) below.

(29) eek      naa-lamh              lai      **hih**  
 dung    2.SG.REFL-tread.on    FUT    D.SPKR.PROX  
 “You are going to tread in dung (here).”                      (adapted from Barnes 1998, p.54)

(30) eek      naa-lamh              lai      **khah**  
 dung    2.SG.REFL-tread.on    FUT    D.ADDR.PROX  
 “You are going to tread in dung (over there where you are).”  
 (adapted from Barnes 1998, p.54)

Barnes notes that these forms surface with short vowels and glottal stop codas. The paradigmatic distinction between forms is linked to their spatial deictic meaning, with *hi* describing an action closer to the speaker and *kha* describing an action closer to the addressee. Although the usage of sentence-final discourse deictic particles is relevant to the investigation of adnominal discourse deictics, a more complete investigation and analysis of this usage of discourse deictics is outside the scope of this dissertation.

#### 2.5.1.4. Subordinate Clauses and Fixed Expressions

The deictic particles also appear in certain fixed expressions at the end of subordinate clauses, as shown in example (31) below.

(31) Falam              ka-kal              [**ahcun**],              banhlaa              kaa-ken  
 Falam              1.SG-go              when              banana              1.SG.REFL-bring  
 “When I went to Falam, I brought a banana with me.” (adapted from Barnes 1998, p.68)

In (31), the subordinator *ahcun*, which establishes the preceding clause as the protasis, contains the suffix *-cun*. Example (32) shows another fixed discourse expression with *cu*.

- (32) [mah cu cun] kuak an i khap tawn  
 DEM CU CU-n cigar 3.PL REFL abstain HAB  
 ‘...from that (hypothetical, general) point on, they abstained from all cigar-smoking’  
 (adapted from Barnes 1998, p.84)

In example (32), Barnes shows that the discourse deictic *cun* is used in the fixed expression *mah cu cun* meaning ‘from that point on’. He also states that both *cu* and *cun* in sentence-initial position can be interpreted as ‘next’ or ‘then’.

Barnes (1998) provides an early crucial investigation of discourse deictics in Lai. He describes several of their properties and functions by referencing data obtained from a native speaker during field elicitations. Although he describes the usage of discourse deictics in demonstratives, as sentence-final particles, in fixed expressions, and in other discourse-related functions, this dissertation will only focus on discourse deictics in the nominal domain and will thus leave discussions of sentence- or clausal-level discourse deictics to future research. Now that Barnes’s findings have been described, let’s turn to two other studies that have investigated Lai discourse deictics, Baclawski (2012) and Baclawski (2013a; 2013b).

### 2.5.2 Baclawski (2012)

Baclawski (2012) is an investigation of the deictic elements of Hyow, spoken by the Khyang<sup>9</sup> people in Bangladesh. Hyow has been classified as part of the Southern branch of the South Central Tibeto-Burman language family along with Daai, Mindat, Asho, and Matu. Baclawski based his research on data from ten narrative texts and elicitations that were gathered by Zakariah Rehman and David Peterson during fieldwork in 1999 and 2000. Baclawski refers to the postnominal discourse deictic particles as “deictic elements” and defines them as markers of information status, such as topic markers, focus markers, and proximal (i.e., spatial) deictics. One of Baclawski’s

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<sup>9</sup> ‘Khyang’ is an alternative word for ‘Chin’ (Sakhong 2003)

claims is that, as is observed in Lai, deictic elements that were initially spatial expanded in usage to be grammaticalized as discourse-related deictics. Baclawski states that deictics in Kuki-Chin languages generally mark topicality and focus but can also indicate tense.

Like Hakha Lai, Hyow has both prenominal and postnominal deictic elements. In the inventory of Hyow deictic elements are several postnominal morphemes, such as *cae* and *ni*, which Baclawski glosses as NZ (nominalizer) and topic marker, respectively. However, elsewhere in the paper, he also refers to *cae* as a topicalizer. The noun phrase structure of Hyow is shown in Figure 2.4 below.

Noun Phrase								
Pre-Head	Head		Post-Head					
Relative Clause	Common Noun	Genitive	Adjective	Classifier Phrase		Number	Case	Dx
Demonstrative	Pronoun			Classifier	Numeral			
Possessor-NP	Proper Noun			Quantifier Phrase				
	Dem. Pronoun			Quantity	Quantifier			
				Locative Noun				

Figure 2.4 Hyow Noun Phrase Structure (Baclawski 2012)

Many of Baclawski’s descriptions of Hyow deixis are not grounded in any previous theoretical framework. In this way, Baclawski (2012), like Barnes (1998), gives a descriptive account of deictic particles based on comparing the morphological elements of the Hyow phrase with the English translation. Baclawski’s key contribution to this research is his description of the morphosyntactic behavior in Hyow deictic elements, most of which can be extended to analyses of Hakha Lai. This section provides a summary of several key findings of Baclawski’s description of the Hyow demonstrative paradigm and draws comparisons to Hakha Lai where relevant.



### 2.5.2.1. Hyow Demonstratives

Hyow has three members of its demonstrative paradigm, shown in Table 3 below.

Morpheme	Function	Gloss
<i>ey</i>	hearer proximal	there
<i>ni</i>	speaker proximal	here
<i>cu</i>	distal	there

Table 2.3 Hyow Demonstratives (Baclawski 2012)

These three elements surface in three forms, as head nouns, as “demonstrative adjectives” with spatial or referential marking, or cliticized to head nouns, usually with discourse-based semantics.

### 2.5.2.2. Hearer proximal *ey*, speaker proximal *ni*, distal *cu*

Baclawski classifies the morpheme *ey* (which also surfaces as *öy*) as a hearer proximal spatial demonstrative. However, he notes that its pragmatic spatial deictic usage is currently in flux between this usage and a “medio-distal” usage, a variation which is driven by speaker age. Morphosyntactically, *ey* appears in prenominal position. As a bound morpheme, it appears in grammaticalized oblique elements, such as *eya*, ‘him/them’ and *eya* ‘there’. Baclawski also claims that *ey* might be used to indicate a progression in tense and could be a tense marker.

The deictic usage of *ey* is shown in example (33) below with its medio-distal interpretation.

- (33) *eydö*    *cu=a*            [*uwåk=hât=ey*]            *hât=ni*            *uwåk*  
 then    DX=LOC            pig=1=DX            1=DX            pig  
*khom=hn’la=cæ*  
 meet=SUB=DX  
 “Then, after meeting the one pig there...” (8.8)(adapted from Baclawski 2012, p.49)

The speaker proximal deictic *ni* tends to appear prenominally when functioning as a spatial deictic.

When it appears postnominally, it functions as an information status marker, marking a continuing topic or present relevance. This function is shown in (34).

- (34) [ni s'möycã] u-nuy-sã  
 DX boy 3.SG-laugh-REAL  
 This boy laughs (i, 18) (adapted from Baclawski 2012, p. 51)

The deictic *cu* is distal to both speaker and hearer. It resembles the demonstrative *cu* found in Hakha Lai and performs a similar function, however in Hakha Lai, *cu* is unspecified for spatial location while *khi* is the demonstrative which represents speaker and addressee distality. The usage of *cu* in Hyow is shown in example (35) below.

- (35) [cu=s'möycã=khol=la] hãytheý ni-hley-ey-khö  
 DX=boy=PL=ERG mango 3.PL-buy-MID-PERF  
 “Those boys bought mangoes.” (adapted from Baclawski 2012, p.54)

The discourse deictic elements of Hyow differ from those in Hakha Lai in a few notable ways. First, their phonological structures are different, especially the addressee-proximal forms. This is due to different historical developments of these morphemes in the respective languages, as evidenced by the historical “downhill” spatial function of *kha* (Van Bik 2009). Second, the number of forms differ, with Hyow having three forms (*ey*, *ni*, *cu*) and Hakha Lai having four (*hi*, *kha*, *khi*, *cu*). Lastly, and most significant, Hyow deictic elements can appear in prenominal position without a postnominal deictic of the same structure, a configuration which is prohibited in Hakha Lai.

#### 2.5.2.5. Topicalizer *cae* and focus marker *dö*

Baclawski (2012) also describes a set of particles whose main function is related to encoding discourse properties. The element *cae* is a topicalizer and it shares this function with *ni*. They differ from one another according to information status distance, meaning that the choice of topicalizer in Hyow is sensitive to information status properties of the referent. The topicalizer *ni* is associated with present tense, present relevance, continuing action. The topicalizer *cae* is associated with past tense, new information, and interrupted action. An example of topicalizer *cae* is shown in example (36) below.

- (36) [kho=a=cae]                    eyo    nã-krã-ay    hare=tij  
time=LOC-TOP                    VOC    2.SG-fall-IRR    understand=QUOT  
“(After washing his head) he said, ‘You will fall down, understand?’”  
(adapted from Baclawski 2012, p.60)

Baclawski also describes other items in the deictic category. These include *dö*, a focus marker and *co* and *nu*, which are “visibility markers”. The focus marker *dö* in Hyow is used to mark nominals with more emphasis. It is not a focus marker in the sense of Roberts (2012), though it does appear in the same paradigmatic slot as other information status markers. This emphasis-imbuing function is similar to what has been observed for *cu* in Hakha Lai. Example (37) below illustrates the usage of *dö* in Hyow.

- (37) [kho=a=dö]                    ey    nã=påtã            ey=kon            ne-hle-ey-hnün-hã  
time=LOC=FOC                    3SG    2SG=husband    3SG=from            2SG-push-MID-be.able-REAL  
“‘At that time you’ll be able to push down your husband.”  
(adapted from Baclawski 2012, p.61)

In the example above, *dö* is used to emphasize that only at the specified time can the woman push her husband.

This ends the section on Hyow deictic elements as they are presented in Baclawski (2012). The next section summarizes the second part of Baclawski (2012), an analysis of deictic systems in the South Central Tibeto-Burman family based on analyses from a number of languages in the South Central Tibeto-Burman family.

#### 2.5.2.6.            **Deixis in the South Central Tibeto-Burman Family (Baclawski 2012)**

In addition to analyzing Hyow deictics, Baclawski (2012) also relates the findings to the deictic systems of the South Central (formerly Kuki-Chin) family as a whole. Baclawski states that there has been little historic change among deictic forms in Kuki-Chin languages. Typologically, the

number of spatial deictic elements in Kuki-Chin languages ranges from two (as in Daai Chin) to five (as in Mara). Figure 2.5 below shows a comparison of the number of distance categories in South Central Tibeto-Burman languages.

Distance Category	Number of Categories			
	2	3	4	4+
PROX (near speaker)	X	X	X	X
MED (near hearer)		X	X	X
DIST (far away)	X	X	X	X
SUPER.DIST			X	X
Non-distance-related, e.g. NON.VIS				X

Figure 2.5 Distance Contrast Patterns in Kuki-Chin Languages (Baclawski 2012)

Baclawski (2012) reconstructed proto-forms for Kuki-Chin deictics using data from 38 languages.

The forms are shown in Table 2.4.

Form	Function
* <i>hi</i>	proximal
* <i>so</i>	medial
* <i>tsu</i>	distal
* <i>si</i>	medial (dubious)

Table 2.4 South Central Tibeto-Burman deictic particle proto-forms (Baclawski 2012)

Baclawski (2012) states that the Mizo and Hmar distal *soo* forms replaced \**tsu*-, which seems to have been maintained in Lai. He cites Peterson’s research in claiming that \**ni* is a reconstructed proto-form of an equative copula, the origin of the Lai ergative marker, *nih*. Baclawski states that *nih* in Lai is a focus marker, an ergative marker, and a negative equative copula.

Regarding the diachronic development of these deictic systems, Baclawski suggests a development path of DEMONSTRATIVE > EXISTENTIAL COPULA EQUATIVE COPULA, LOCATIVE

COPULA > DEMONSTRATIVE. In this analysis, demonstratives become a copula and cycle back to demonstratives. See Baclawski (2012) for a more in-depth analysis.

### 2.5.2.7. Syntactic structure of the Hyow DP

Baclawski (2012)'s most significant contribution to the study of South Central Tibeto-Burman deictics is his syntactic analysis of the Hyow DP. In Baclawski's analysis, the article-like information status marker follows the noun, while demonstratives precede it. The linear structure is shown in (38) below.

(38) [DEM N INF]

This is exemplified in the example phrase *öy tupni*, glossed in example (39) below.

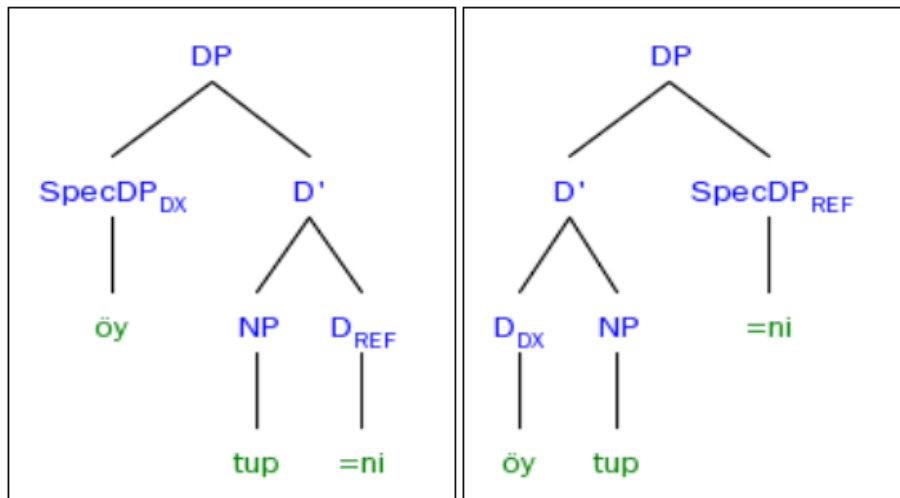
(39) *öy*        *tup*        =*ni*  
      that        hat        D.REF  
      “that hat”

(adapted from Baclawski 2012)

According to Baclawski's analysis, the prenominal element, *öy* (an allomorphic variant of *ey*), is the deictic marker, the head noun is *tup*, meaning 'hat', and the postnominal element, an enclitic =*ni* “lends discourse status” to the phrase as a whole. Baclawski's analysis of Hyow is based on Bruge (2002)'s analysis of French demonstrative phrases, which also have a pseudo-circumfixal form. He also cites data from Spanish and Japanese. In Spanish, the deictic demonstrative moves between prenominal and postnominal position based on the presence of an article. In Japanese, spatial deictic information is prenominal while information status elements are postnominal. Baclawski's main claim is that information status markers seem to be consistently placed into the specifier position and deictic markers into DP head position.

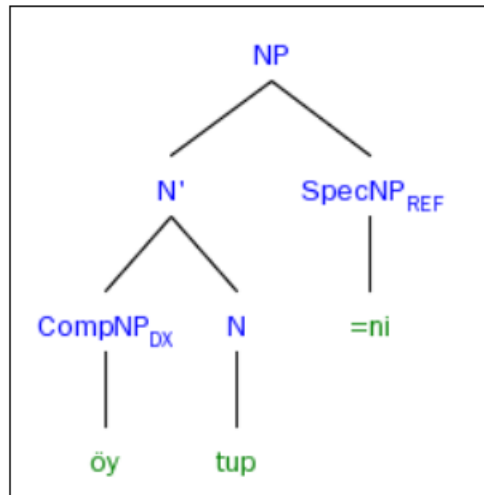
Accounting for the data in Hyow demonstrative phrases, Baclawski proposes two possible structures for Hyow noun phrases, show in (40) below.

(40)



Baclawski posits both structures, though both have shortcomings. As he explains it, the first structure does not capture the fact that the information status marker *ni* (which he labels as REF ‘referential’) modifies the entire noun phrase. This issue is addressed in the second structure, which is peculiar in that it contains a head-initial DP constituent, *öp tüp*. Baclawski does not propose any kind of movement analysis, instead positing that demonstratives are oblique elements of noun phrases, as shown in his final proposed structure in (41).

(41)



In this structure, the preposed demonstrative element *öy*, is part of the structure of the noun phrase while the postposed element, *ni*, which marks information status, is the specifier of the NP. Modifications to these proposed structures are included in Chapter 7.

This ends the section on Baclawski (2012)’s analysis of Hyow deictics and the South Central Tibeto-Burman deictic system. Following this investigation, Baclawski expanded his analysis of South Central Tibeto-Burman deictics in two follow-up presentations, both on the Kuki-Chin deictic systems, Baclawski (2013a) and Baclawski (2013b). The next section only describes Baclawski (2013b), as Baclawski (2013a) is similar but contains less content.

### 2.5.3. Baclawski (2013b)

Baclawski (2013b), titled *Deictics and Related Phenomena in Kuki-Chin* is a handout from a presentation at the International Conference of Sino-Tibetan Languages and Linguistics (ICSTLL) 46. It describes the deictic properties of South Central (Kuki-Chin) languages. In this handout, Baclawski provides a table of prototypical South Central deictics, reproduced below in Table 2.5.

Proximal	Addressee-Proximal/Mediiodistal	Distal/Non-visible	Uphill	Downhill
*hi	*tu ('now')	*cu	*khi	*khu
*ni	*to			
*si	*kha			

Table 2.5 Prototypical South Central Tibeto-Burman deictics (adapted from Baclawski 2013b)

This table gives an overview of the deictic particles which appear in various South Central Tibeto-Burman languages, including Lamkang, Thadou, Khumi, Laizo, Hakha Lai, Hyow, Daai Chin, Mara, Mizo, and Bawm.

Baclawski (2013b) describes several of the properties of South Central Tibeto-Burman language deictics, dividing them into spatial deictics and discourse deictics. ‘Spatial deictics’ refers to exophoric demonstratives while ‘discourse deictics’ refers to particles which occur in phrase-, clause-, or sentence-final position which can mark spatial, discourse, or temporal deixis. He notes that in many languages, spatial deictics and discourse deictics resemble one another.

Additionally, Baclawski proposes a deictic cycle, wherein the prenominal element consistently denotes spatial deixis and the postnominal element cycles through spatial, temporal, and tense or information status meaning. This analysis is based on observations in the different meanings of postnominal discourse deictics across South Central Tibeto-Burman languages.

Ultimately, Baclawski (2013b) is a valuable resource for information about the range of South Central Tibeto-Burman languages and the ways in which their discourse deictic systems function.

#### 2.5.4. Bedell (2001)

Bedell (2001), *The Syntax of Deixis in Lai*, is an unpublished manuscript which describes several semantic properties of Hakha Lai discourse deictics and provides a preliminary account of the syntactic structure of Hakha Lai deictic phrases. Bedell grounds his analysis in X-bar theory and



cites data from a Lai translation of the Gospel of Matthew from the Bible. Like other analyses, Bedell states that Hakha Lai contains four members in its demonstrative paradigm, *hi*, *kha*, *khi*, and *cu*. The majority of Bedell (2001) contains examples of phrases which contain discourse deictics appearing in multiple positions. Two such examples, shown below in (42) and (43), contain prenominal demonstrative elements without postnominal discourse deictic or case marker, a structure which has not appeared elsewhere (and which is universally rejected by the speakers who took part in this study).

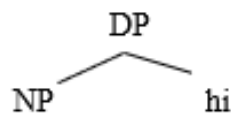
(42) **hi**        vawlei cung    khua.sak.tin.tuk-nak            kong    i        lungretheihnak  
           this        world inside living make.living-NMZ        about OBL    worry  
           “worries about the strife of living in this world”        (Bedell 2001, p.5)

(43) **hi**        ka                bia    a-thei        i        a-zul.mi                **cu**  
           this        1.SG.POSS        words 3.SG-hear        and    3.SG-follow.REL        CU  
           “whoever hears and follows these words of mine.”        (Bedell 2011, p.5)

In (42), the prenominal demonstrative *hi* modifies the entire noun phrase without a postnominal discourse deictic or case marker. He explains in a footnote that the entire phrase is *hi vawlei cung khuasak tintuknak kong i lungretheinak le chaw le va duhnak nih* ‘the cares of the world and the delight in riches’, which does end with the ergative marker *nih*. In (43), the noun phrase ends with *cu*, but Bedell claims that *hi* modifies ‘these words of mine’ and not the entire phrase.

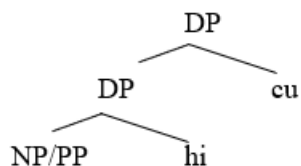
From the examples drawn from the Gospel of Matthew corpus, Bedell proposes several possible syntactic structures for Hakha Lai noun phrases which contain discourse deictics. One of his claims is that postnominal deictic particles are determiners and that Hakha Lai is right-branching. His proposed syntactic structure is shown in (44) below.

(44)



Bedell additionally makes some observations about the semantic and pragmatic differences among the discourse particles, singling out *cu*, which functions as both a topicalizer and contrastive marker. Bedell proposes a second DP layer to account for instances in which there is both a postnominal spatial deictic and postnominal *cu*. This structure is illustrated in (45) below.

(45)



This type of analysis which contains two DP layers is uncommon, however. Bedell proposes that it is possible that, in these instances, *cu* heads a topic or contrast phrase, possibly in a kind of functional projection, though Bedell does not elaborate on this. Bedell also notes that deictic particles can appear in sentence-final position, where they have obvious exclamatory force.

Bedell provides a corpus analysis of the four discourse deictic particles. These have been integrated into Table 2.6 below.

	<i>hi</i>	<i>kha</i>	<i>khi</i>	<i>cu</i>
total number or tokens in text	485	973	43	1994
with -n	78	327	21	597
prenominal position (no final deictic)	85 (11)	5 (0)	5 (3)	247 (132)

sentence-final particles (main sentence cases)	13 (9)	40 (6)	0	66 (40)

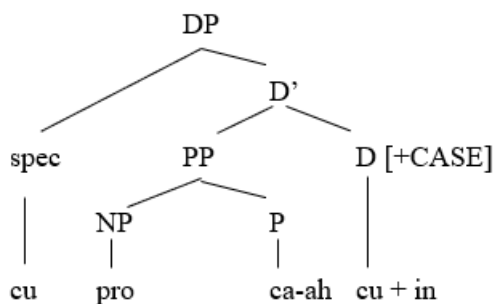
Table 2.6 Count of discourse deictic tokens from *The Gospel of Matthew* (Bedell 2001)

Overall, Bedell (2001) gives an overview of textual examples of the Hakha Lai discourse deictics and an analysis of the syntactic structure. Another proposed syntactic structure of a similar nature can be found in Chit Hlaing and Hlun (2003)<sup>10</sup> but this dissertation will not go into detail about their analysis.

## 2.6. DP Hypothesis: The Structure of Nominals

Several of the analyses we've seen thus far posit that Hakha Lai discourse deictics are determiners. This section provides a brief description of this syntactic analytical framework, commonly referred to as the "DP Hypothesis". Since Abney (1987) and even before, determiners have been analyzed and categorized according to their syntactic placement and the functional contribution that they make to the semantic interpretation of a nominal phrase. As a syntactic

<sup>10</sup> Chit Hlaing (a pseudonym of F.K. Lehman) and Hlun (2003) propose a syntactic structure for Hakha Lai demonstrative phrases which argues that in circumnominal expressions, such as *cu caah cun* 'therefore', the prenominal element is a specifier and the postnominal element is the determiner head of the DP. Their proposed structure is shown below.



This proposed structure differs from Bedell (2001) in that the prenominal deictic morpheme is placed in 'spec' position.

object, determiners head a “Determiner Phrase”, a type of phrase which takes a noun phrase (NP) as its complement.

Semantically, the function of determiners is to limit the scope or interpretation of a nominal phrase. Determiners such as the quantifier *every* and the demonstrative *this* aid in specification and delimit the reference of a noun phrase. Taken as a syntactic object, the determiner heads the maximal projection of a nominal because it is the choice of determiner which affects the acceptability and interpretation of the entire noun phrase. For example, the choice of determiner allows a nominal to occur with negative polarity items or affects the scope of interpretation. The examples below contain DPs which consist of a determiner head and a noun phrase.<sup>11</sup>

- (46) a boy
- (47) the boy
- (48) some boys
- (49) all boys
- (50) no boys
- (51) seven out of thirty boys
- (52) an infinite amount of boys

Considering examples (46-52), each of these nominal phrases relates to the common noun phrase *boy*. However, the ability of the phrase to appear in certain semantic constructions is regulated by the determiner which accompanies it. This is illustrated by two example contexts, *there*-sentences and negative polarity constructions.

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<sup>11</sup> Bare nouns, that is, noun phrases which do not contain an overt determiner, are sometimes analyzed as lacking a DP layer. However, I adopt the DP Hypothesis in analyzing Lai, and throughout the rest of the paper all nominal projections are headed by a Det and are thus DPs.

*There*-sentences are said to only allow a restricted set of determiner phrases. According to an analysis in Keenan (2003), *there*-sentences only allow for DPs which are constructed from cardinal Dets<sup>12</sup>. Examples (53-59) below illustrate this restriction.

- (53) There is [a boy]
- (54) \*There is [the boy]
- (55) There are [some boys]
- (56) \*There are [all boys]
- (57) There are [no boys]
- (58) There are [seven out of thirty boys]
- (59) There is [an infinite amount of boys]

Among this set of examples, (54) and (56) contain non-cardinal Dets and are unacceptable. What this is meant to illustrate is that it is not the choice of noun phrase *boy/s*, rather, it is the choice of determiner which allows a *there*-sentence to be grammatical.

Another illustration of the effect of determiners is provided in the examples below of the negative polarity item *ever* in the string *has ever been to the circus*.

- (60) \*[a boy] has ever been to the circus
- (61) \*[the boy] has even been to the circus
- (62) \*[Some boys] have ever been to the circus
- (63) \*[All boys] have ever been to the circus
- (64) [No boys] have ever been to the circus
- (65) [Seven out of thirty boys] have ever been to the circus
- (66) [An infinite amount of boys] have ever been to the circus.

In these negative polarity sentences, examples (60-63) are disallowed while (64-66) are allowed. Again, the acceptability of these sentences is not determined by the NP *boys*. Rather, it is due to the interpretation of DPs which are headed by the set of determiners in (64-66), which are compatible with negative polarity constructions.

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<sup>12</sup> In general terms, Keenan (2003) defines cardinal Dets as those which denote a cardinal function, which is a function sensitive to the cardinality of its arguments. See (Keenan 2003) for a more in-depth analysis.

These two examples (*there*-sentences and negative polarity statements) show that the interpretation of a noun phrase and the restrictions on its argument structure are defined by the choice of determiner as opposed to the semantic denotation of a given noun head. This overview of Determiner Phrase theory has informed the analysis of Hakha Lai discourse deictics in several previous investigations of these particles. For the purposes of this dissertation, these prior analyses will be taken into account but the goal at this stage is to document the formal and functional properties of discourse deictics in context without a strict adherence to one theoretical tradition. These analyses are discussed for Chapter 7.

## **2.7. Interpretive Properties of Nominal Expressions**

Nominals refer to grammatical entities which are noun phrases or determiner phrases. These types of expressions can co-occur with other grammatical elements, e.g., demonstratives, quantifiers, possessives, etc., which contribute to the interpretation of the nominal expression. Likewise, nominals can surface as ‘bare’, meaning that they are not accompanied with other grammatical elements. In some instances, so-called ‘bare nominals’ can have one or more interpretations. This dissertation is concerned with the interpretation of nominal expressions in Hakha Lai of differing structures, particularly nominals which co-occur with discourse deictics. When investigating expressions with discourse deictics, it is useful to compare them with nominal expressions of all types. There have not yet been any in-depth investigations of Lai nominal expressions or the structures in which they occur. This dissertation is among the first to test the interpretative conditions of Lai nominal expressions, namely in the results of the Nominal Interpretation Questionnaire (Jenks 2015), reported in Chapter 6. This section provides

an overview of a range of interpretive properties that nominal expressions which are tested as part of this questionnaire.

### 2.7.1. Strong vs. weak interpretations

One of the properties which influences the kinds of clausal expressions nominal expressions appear in is referred to as *strength*, split between “strong” vs. “weak”. This distinction, described by Milsark (1977) refers to nominals which can or cannot appear in existential expressions. The items in example (67) illustrate the distinction between strong and weak nominals in English using *there*-existential sentences.

(67) *there-existential sentences*

- a. There is [a printer] in the building
- b. \*There is [the printer] in the building

As can be seen in (67a), the indefinite nominal expression *a printer* is acceptable in a *there*-existential sentence. It is thus categorized as a *weak* nominal. In (67b), on the other hand, the presence of *the* in the nominal gives it a definite interpretation and is prohibited in a *there*-sentence. This is an example of a *strong* nominal.

However, the strong vs. weak distinction does not strictly align with a definite vs. indefinite reading. Example (68) below shows that different kinds of quantified nominal expressions are considered *weak* or *strong*.

(68) *there-existential sentences*

- a. There are [three printers] in the building.
- b. \*There is [every printer] in the building.
- c. There is [no printer] in the building.

In example (68a), the numeral quantified expression *three printers* is allowable and thus, is a *weak* nominal. The same goes for *no printer* in (68c). Example (68b) contains the nominal *every printer*, which is prohibited and is thus a *strong* nominal. The property of nominal *strength* is a typologically robust distinction in world languages and is therefore one of the properties tested for Lai discourse deictic expressions.

### 2.7.2. Definite vs. Indefinite Interpretations

Another interpretational property of nominals is whether they are *definite* or *indefinite*. Definite expressions are nominals which are referential – they refer to an identifiable referent within the discourse situation. The identifiability of the referent in the nominal expression can arise due to previous reference in discourse, implied existence as part of a larger construct (e.g., *the driver* of a car), physical presence in the discourse situation, or through gesturing in the case of demonstrative expressions. Definite nominal expressions presuppose that the speaker and addressee are both able to identify the referent of the nominal expression.

Recent research on definite expressions has proposed more fine-grained delineations in this category. One such delineation is *familiar* vs. *anaphoric*. This distinction is based on whether a nominal is interpreted as definite because it is referentially *familiar* to the speaker and addressee as part of the larger discourse context or because it has been mentioned previously in discourse. Examples of *familiar* definite expressions in English include *the computer* when there is a single computer present in the speaking location (which the speaker and addressee are both aware of). In contrast, *anaphoric* definite expressions refer to an entity previously mentioned in discourse as in the expression *the hat* in the sentence “*Yesterday, I saw a man wearing a hat and [the hat] was very colorful*”. In some languages, such as English, both *familiar* and *anaphoric*



referents are encoded by the same article *the*. However, research on languages such as German (Schwarz 2009) and Akan (Arkoh and Matthewson 2012) have shown that they are grammatically sensitive to the familiar/anaphoric distinction and thus encode it in different ways. In the case of German, this distinction is evident in the rules on article-preposition contraction. In the case of Akan, anaphoric definite referents are marked with a dedicated morpheme, while *familiar* definite referents are not.

### 2.7.3. Other Kinds of Nominal Interpretations

Specificity is a property which is often distinguished from definiteness, though the dichotomy is not clear. Often, specific nominals are defined as nominal expressions where the speaker has the referent in mind while the addressee does not. Another method of defining *specific* nominals is in their scopal properties (Enç 1991). In English, a nominal with the indefinite article *a* can be interpreted as specific or non-specific. Example (69) below illustrates this distinction.

(69) *specific and non-specific indefinite expressions*

a. I need to buy [a book] (it's called *The Catcher in the Rye*).

b. I need to buy [a book] (because my bookshelf is empty).

In these examples, the follow-up sentences aid in the specific vs. non-specific interpretation of the expression *a book*. In (69a), *a book* is specific because the speaker has a referent in mind. In (69b.), *a book* is non-specific as the speaker will accept any book and does not have a referent in mind.

Another relevant category of nominal interpretation is quantification. Quantificational nominals express different kinds of number, size, type distinctions in a referent. They can be numeral expressions (e.g., *three printers*) or involve a quantifier such as *all*, *every*, *no*, etc.

Quantificational nominals are not referential in that they do not refer to a specific referent. Their primary role is to express a relation between two predicates. For instance, in the sentence in example (70) below, the two predicates *children* and *like broccoli* are joined to express that the set of children is a subset of the set of individuals who like broccoli.

(70) [All children] like broccoli.

Predicative expressions are similar in that they state a relationship between an entity and a predicate property. They differ in that they do not involve a quantifier. For example, the sentence *Hiro is my teacher* describes a relation between the entity-denoting expression *Hiro* and the property of being a teacher.

This ends the brief introduction to the nominal interpretation properties investigated in the current research. The elicitation items in the Jenks 2015 questionnaire test what effect, if any, the presence of discourse deictics has on nominal expressions with these properties in Lai. The results of these questionnaire items are reported in Chapter 6.

## 2.8 Deixis: Encoding Context

The function of discourse deictics is often linked to discourse-level properties of the referents which are represented in the nominal expression. This means that the grammatical form of a nominal expression is determined by the context in which it is used. The presence and choice of postnominal deictic is influenced by the specifics of those discourse-level properties. Therefore, this dissertation investigates the lexical representation of a linguistic phenomenon known as *deixis*<sup>13</sup>. Deixis refers to the encoding of context into the grammatical forms of a language in order

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<sup>13</sup> I use the term ‘deixis’ here in a sense that is broader than one which is delimited to interpretational properties that are determined by non-inherent phenomena such as pointing or previous discourse context. My definition of ‘deixis’ subsumes phenomena which would be considered under the umbrella of ‘indexicality’.

to represent information relevant to the interpretation of discourse. Deixis shows up in natural language in different ways, including the grammatical representation of time- and space-related details of discourse as well as in aiding the identification of a referent. All languages have some form of grammatical encoding which aids the speaker and addressee in interpreting discourse. Deixis can be represented in a language's grammar in a number of ways, ranging from the choice of determiner, marking of tense and aspect on the verb, case marking, as well as in items such as demonstratives and time-related terms. Deictic phenomena are often relevant to investigations of morphology, semantics, and pragmatics. This dissertation investigates the grammatical encoding of deixis in Hakha Lai discourse deictics using an approach which focuses on these three areas.

It is often the case that deixis is considered a property encoded by grammatical elements that is secondary to their primary role. For instance, the expression *the president* primarily refers to an identifiable individual who is the current president. It is the deictic properties of the nominal expression, e.g., the speaker and addressee are Americans, the utterance is spoken in the year 2023, the subject of discussion is U.S. politics, etc., that identify it specifically as referring to the president of the United States (as opposed to the president of France or Indonesia). A clearer example of deictic properties can be found in the usage of the English determiner *my* as in the expression *my bike*. In this expression, *my* helps to identify the referent by limiting the interpretation of the nominal *bike* to the one which is owned by the speaker. The interpretation of the utterance containing *my* is dependent on the context of who the speaker is, and is thus *deictic*. The complimentary “bare” expressions, *president* and *bike*, are not subject to the grammaticalization of deixis and are, in formal semantic terms, interpreted as expression which refer to “the set of all individuals who are president” or “the set of all things which are bicycles”.

Nevertheless, context can still play a role in the interpretation of these expressions. In languages without articles, for example, bare nouns can be interpreted with the same deictic properties as in those languages which have overt morphological marking for deictic properties such as definiteness. In cases such as these, it is presumed that there is a phonologically null index, *i*, which contains information about the identity of the referent noun and thus bears the relevant deictic information. (Partee 2002). This typological property is relevant to the current discussion of Lai, since it is a language without articles, but which still encodes deictic properties of nominals with discourse deictics. Demonstratives are a classic example of expressions subject to deixis, as the interpretation of demonstratives is dependent on the spatial location of the speaker at the time of utterance. It is in this capacity that they are categorized as *discourse deictics*.

Hakha Lai demonstrative phrases are usually composed of a prenominal element *mah*, the head noun, and a postnominal element which encodes the spatial deictic location of the referent. In cases of pronominal demonstratives, the head noun is not present, and the demonstrative is composed of *mah* and the spatial deictic element (e.g., *mah hi*, ‘this’ *mah kha* ‘that (near you)’, *mah khi* ‘that (away from us)’, *mah cu*, ‘this/that (which has been mentioned previously)’). What is notable in the case of Hakha Lai is that the postnominal spatial deictic components of demonstrative phrases (*hi*, *kha*, *khi*, and *cu*) encode other deictic properties of nominal referents. For instance, the morpheme *kha*, when used in a demonstrative expression, conventionally encodes spatial proximity to addressee as a property of the nominal referent. However, another function of *kha* has arisen – it is also a marker of speaker-addressee familiarity.

The cooptation of demonstrative expressions for alternative deixis-encoding functions is a normal process in language. For example, in English, *this* can be used to introduce a discourse-novel referent, as in the sentence *Last week, I went to [this] amazing concert* (cf. Gundel et al.

1993). What is notable in Hakha Lai is that it is a very widespread practice and serves a number of functions beyond what has been observed in other languages. Additional points of interest include the interpretation of the morpheme *cu*, which seems to be purely dedicated to encoding deixis in itself and does not contain any spatial deixis at all. There are two notable characteristics of Hakha Lai discourse deictics to mention here. First, structurally, it is only the postnominal morpheme and not the entire demonstrative phrase construction which is used to encode deictic properties. Second, the set of deictic properties encoded by discourse deictics in Lai ranges from definiteness to topicness to emphasis, a wide array of functions. Additionally, there are at least four different discourse deictic morphemes whose acceptability may or may not be reflective of their spatial deictic properties. These notable characteristics are the subject of investigation in this research.

This brief introduction to deixis has set the scene for the upcoming discussion of these morphemes in this research. Most of the discussion will be descriptive, but there will be reference to theoretical considerations in order to aid in defining the function of the morphemes.

## **2.9 Defining Discourse Deictics**

Several terms have been used to describe the postnominal elements in Hakha Lai demonstrative phrases. In this dissertation, I use the term *discourse deictic*. The term “discourse deictic” comes from Peterson (2017) and Baclawski (2013) and it has been adopted in this dissertation in order to capture the wide range of usage and to distinguish it from demonstratives.

The next closest parallel to Hakha Lai discourse deictics are information structure markers found in other languages, such as topic markers in Japanese and Korean and focus markers in Gùrùntùm. Examples of information structure markers are shown in (71) below.

(71) *Information Structure Markers*

a. Japanese topic marker

[neko **wa**] [inu ga niwa de oikakete iru]  
cat **TOP** dog NOM garden in chasing is  
“The cat is being chased by a dog in the garden.” (Kuroda 1972, p.168)

b. Korean topic marker

[Hwacangsil-**un**] eti-ey iss-eyo?  
restroom-**TOP** where-LOC exist-Q  
“Where is the restroom?” (Lee & Shimojo 2016)

c. Gùrùntùm focus marker

[**Á** fúrmáyò] bà wúm kwálingála.  
FOC Fulani PROG chew colanut  
“The Fulani is chewing the colanut.” (Hartmann and Zimmermann 2009, p. 1342)

Focus markers have been observed in other South Central Tibeto-Burman languages, such as Lutuv (also known as Lautu). This is shown in (72) below.

(72) ma ziekuo hing uv **na** a cade  
DEM cat this dog **FOC** 3.SG chase  
“This cat chased a dog.” (Matthews and Wamsley 2020)

In (72), the postnominal morpheme *na* marks the focused element of the sentence *uv*, ‘dog’. Hakha Lai does not have the same kind of dedicated focus marker as is seen in Lutuv, but, as will be seen in Chapter 5, the focus property of a nominal referent does affect the presence or absence of some discourse deictics in Hakha Lai.

## 2.10 Differential Case Marking

The previous sections have described interpretational and deictic properties of nominals that are a consequence of the interaction between nominals and the choice of determiner or other grammaticalized deictic marker. One additional system that is worth mentioning involves the interaction of a nominal’s case marking and its discourse-level properties. Conventionally, case

marking encodes the relationship between a nominal referent and other components of a sentence. Differential case marking (also known as “differential object marking” or “differential subject marking”) is a phenomenon in which the presence or absence of case marking on a nominal is influenced by factors other than the structural syntactic position (e.g., subject or object) of the nominal or its thematic role (e.g., agent, theme, experiencer, etc.). These factors are often discourse-related, such as definiteness and specificity, and even properties such as topichood status or focus. This type of case marking has been observed in over 300 such disparate languages as Spanish, Turkish, Hebrew, Uzbek, and many others (Bossong 1985). Differential case marking has also been reported in Tibeto-Burman languages previously, such as Meithei (Chelliah 2009) and Sümi (Teo 2019). Although this phenomenon is observed in many languages, it does not behave the same way in all languages, with different grammatical and semantic properties affecting the process. The general tendency is that objects of higher prominence or individuation status receive overt morphological case marking. Differential case marking is often referred to in the literature as “differential object marking” (DOM), though in some languages, such as Dani (West Papuan), differential subject marking has been observed as well (Kagan 2022). For this reason, the phenomenon will be referred to as “differential case marking” throughout the paper. Chelliah and others (see Volumes 34.2 and 35.1 of *Linguistics of the Tibeto-Burman Area*) have discussed differential case marking in Tibeto-Burman languages, though as of yet, it has not been observed in Lai. Differential case marking has also been observed in Bodo (also written as ‘Boro’), which is a member of the Tibeto-Burman family in the Bodo-Garo branch (Haokip & Brahma 2018).

Let’s illustrate differential case marking with an example. In Kannada, accusative case marking is obligatory on all animate referents, regardless of specificity. For inanimate referents,

accusative case marking is “optional” with case-marked referents interpreted as specific (i.e., an indefinite with wide scope). This is shown in the example sentences in (73) below.

- (73) a.      naanu           [pustaka]        huDuk-utt-idd-eene  
           1.NOM           book            look.for-NPST-be-1.SG  
           “I am looking for a book.” (both interpretations possible)   (Lidz 2006, p.11)
- b.      naanu           [pustaka-**vannu**]    huDuk-utt-idd-eene  
           1.NOM           book-ACC        look.for-NPST-be-1.SG  
           “I am looking for a (certain) book.”                               (Lidz 2006, p.11)

In these examples, the presence or absence of case-marking and the subsequent interpretation is sensitive to 1) the animacy of the referent and 2) the specificity status of the referent. In (73a), *pustaka* ‘book’ is inanimate and therefore does not have accusative case marking. This allows for either a specific or non-specific reading of ‘book’. When considering (73b), where case marking is present, only a specific (wide scope) reading is available. This raises the question of why speakers have the option of including or excluding the accusative case marker whenever a specific reading is intended. Additionally, it should be noted that although differential object marking cross-linguistically tends to be sensitive to the same properties, the actual behavior with respect to these properties differs from language to language. Two general approaches accounting for differential case marking have been proposed. The first, from Hopper and Thompson (1980), is based on the transitivity status of the referent. The second approach, adopted by Comrie (1979) and Aissen (2003), posits that the presence or absence of case marking serves a disambiguation role.

The data gathered as part of this investigation does not treat discourse deictics as case markers. However, the fact that the presence or absence of discourse deictics, like differential case marking, is sensitive to discourse-level properties of nominals, means that the findings of studies on this phenomenon can contribute to the current investigation. As will be seen, Hakha Lai



discourse deictics behave quite similarly to case markers when used in certain contexts. For instance, *cu* often behaves as if it is an absolutive case marker and in other instances behaves as if it is a contrastive focus marker. Also, as will be seen in the results of the Aissen 2015 questionnaire, discourse-level properties such as topichood status or discourse prominence do have an effect on the presence of discourse deictics, further hinting at a possible link between these two phenomena.

## **2.11 Next Steps**

Now that the theoretical background has been established, this dissertation will turn to a description of the methodology adopted for this research. This will be followed by reports on the results of the three questionnaires and an analysis of the results. The next four chapters are as follows. Chapter 3 is a chapter on the methodology, which describes the questionnaires, the method of obtaining data for this research, and background information on the three fluent speaker participants. The first part of Chapter 4 introduces the Wilkins 1999 demonstrative questionnaire which investigates the usage of demonstrative phrases in Hakha Lai in exophoric contexts. The second part of Chapter 4 reports the results of the questionnaire conducted with three fluent speakers of Hakha Lai. The first part of Chapter 5 introduces the Aissen 2015 questionnaire which investigates the role of discourse deictics in topic and focus marking in Hakha Lai. The second part reports the questionnaire results. The next chapter is Chapter 6, whose first part introduces the Jenks 2015 questionnaire, which investigates various kinds of nominal interpretations. The second part of this chapter reports the results of the questionnaire and contains an analysis of the role of discourse deictics in nominal interpretation in Hakha Lai. Following these three chapters is a discussion chapter, Chapter 7, which discusses the overall findings, the form and function of

discourse deictics in Hakha Lai, notes on the methodology, and ideas for future research. This is followed by a conclusion which ends the dissertation.

## **2.12 Conclusion**

This chapter has provided the necessary background information which informs the investigation of discourse deictics in Hakha Lai described in this dissertation. It introduces the topic of investigation, Hakha Lai discourse deictics, and describes previous research on relevant phenomena such as the theoretical assumptions of the investigation, interpretational properties of nominals, deixis, and differential case marking. The next chapter outlines the methodology used for this research, describing the type of data used in the analysis and how it was obtained through field elicitation with fluent speakers.

### **Chapter 3. Methodology**

This chapter describes the semantic and pragmatic fieldwork methodology that was used for this research on discourse deictics in Hakha Lai. It also contains speaker background information and the research questions which guided the current study. Fieldwork is a commonly adopted method of conducting linguistic research that involves obtaining primary data from speaker participants. The data themselves can take many forms, from elicitations to recording of fluent speech. Employing a fieldwork methodology ensures that the data come from speakers of a language and aids in the production of targeted data on specific research topics. Fieldwork has been used to investigate all kinds of linguistic phenomena, from phonology, to syntax, to pragmatics. There is a rich tradition of fieldwork methodology used to obtain linguistic research data as well as a strong collection of literature on fieldwork methodologies for investigating a range of linguistic topics.

The chapter proceeds as follows. The next section describes the methodology for conducting semantic and pragmatic fieldwork adopted for this research, focusing on a set of methodological guidelines laid out by Tonhauser and Matthewson (2015). The next section describes the questionnaires used in this study and how they were employed for research on discourse deictics. This is followed by a section on speaker background information, which briefly introduces the speakers and discusses some of the specifics of conducting field elicitations with them. The research questions which guided the design of the questionnaire-based elicitation tools are presented in the following section. The chapter ends with a conclusion summarizing the main points discussed herein.

### **3.1. Conducting Semantic and Pragmatic Fieldwork**

Fieldwork necessarily involves the careful design of research tools, not only to be efficient, but also to obtain the data needed for the intended investigation topic. It has been acknowledged in the literature (e.g., Coupe and Lestrade 2017) that research on discourse-level linguistic phenomena is challenging, because it requires additional steps to establish proper discourse contexts. The nature of discourse deictics is such that they involve forms which are sensitive to both semantic and pragmatic properties of the referent and the context. The encoding of multiple properties in a single marker provides a challenge that makes careful design of elicitations a requirement. This section discusses previous research of this kind and the methods used to address the challenges posed by obtaining semantic and pragmatic field data.

Most previous studies on Lai discourse deictics make use of textual data, such as Bedell (2001) and Chit Hlaing and Hlun (2003). Yet, there are examples of elicitations being used to obtain data on pragmatics-influenced forms, as we see with Barnes (1998). Baclawski (2012) uses a combination of both naturalistic speech data and elicitations; however, it is not clear that the researchers had discourse deictics in mind when conducting their research. The challenges posed by the investigation of markers such as discourse deictics has been overtly acknowledged in previous literature. In fact, one previous study of case marking in Tibeto-Burman languages states, “analyses based on directly elicited data often fail to create the specific pragmatic contexts that motivate the use of core case marking in these languages. Elicited data may consequently produce regular paradigms that are not actually attested in narrated texts (Macgregor 2009: 493; Willis 2011: 103), or the structure of the contact language used may exert an adverse influence on the structure of the elicited data (Chelliah 1997: 129; Lidz 2011: 50; Willis 2011: 110)” (Coupe and Lestrade 2017). These concerns are valid, especially if the necessary steps are not taken to design

effective elicitation using proper controls and rigorous methodological choices. Nevertheless, these potential shortcomings can be mitigated through carefully considered research tool design. The topic is of great interest in the current literature and has led to the publication of work dedicated to discussion of how to conduct appropriate semantic and pragmatic fieldwork (e.g., Bochnak and Matthewson 2015, Tonhauser and Matthewson 2015, Chelliah and de Reuse 2011). This dissertation contributes to the growing body literature employing an elicitation-centered fieldwork methodology to investigate semantic and pragmatic topics.

Because it is often the case that the markers investigated here are used in specific pragmatic contexts and are often optional, special care has been taken to present participants with contexts that elicit responses which are acceptable, then contrasting the given responses with alternate forms which are potentially acceptable or unacceptable. This technique is based on a methodology outlined in Tonhauser and Matthewson (2015). In this methodology, an utterance is judged according to a discourse context given by the researcher. The utterance is judged as possible or not possible in the given context, with extra care being made to draw a distinction between utterances which are simply ungrammatical, grammatical but not appropriate in the context, and grammatical and appropriate in the context, whether or not the participant or speaker would themselves opt to use it in the given context. For this reason, many of the observations presented here are based on a combination of positive and negative evidence (evidence that a form is prohibited in a given context) and are highly influenced by the elicitation context established by the researcher. An example of these discrepancies is shown in (74) below.

(74) **CONTEXT:** *Scott and Liang meet at school in the early morning. Scott is making small talk with Liang by asking her what she ate for breakfast. He is guessing that she ate eggs since this is a typical thing to eat for breakfast, but he isn't sure that she did. In fact, Liang did not have eggs for breakfast, she instead ate rice for breakfast. (Aissen 13)*

Scott: Did you eat eggs for breakfast?

Liang:

- a. No, I had *rice* for breakfast.
- b. ?No, I had rice for *breakfast*.
- c. \*I had the for breakfast.

The varying responses in (74a-c) above exhibit different levels of acceptability. In (74a), the response from Liang is considered both grammatical and felicitous as it addresses the question under discussion and places prosodic focus (represented through italics) on the grammatical element which contains the relevant alternative information. In (74b), the sentence is grammatically acceptable in isolation, but does not address the question under discussion because prosodic focus is on the grammatical element which is not the relevant alternative and is thus not considered pragmatically felicitous despite the fact that it is grammatical. In (74c), the sentence is not grammatical and is therefore unacceptable.

In their paper on conducting semantic and pragmatic fieldwork, Tonhauser and Matthewson (2015) discuss what constitutes empirical evidence in research on natural language meaning. This proposal consists of three parts which are what a piece of data is, which kinds of speaker participant tasks are useful for semantic field research, and which kinds of data inform which kinds of hypotheses on natural language meaning. They propose a framework which is composed of four key pieces of information: 1) the utterance to be analyzed, 2) the context in which the utterance is to be evaluated, 3) speaker information, and 4) the speaker's judgements. They argue that these components inform theories that are robust (controls for factors that may lead to variation in speaker judgements), replicable (it maximally facilitates replication in the same or another language), and transparent (makes fully explicit how it supports the hypothesis). The

framework described by Tonhauser and Matthewson (2015) has been adopted in this dissertation and so, for each piece of data, all four components are made evident. This is done by providing speaker information labels (Hakha, Vawngtu, or Thantlang) and task labels (Wilkins, Aissen, or Jenks and elicitation item number) on all pieces of data in the relevant chapters. The target utterance is presented in each example and judgements are provided in subsequent descriptions.

Tonhauser and Matthewson (2015) also describe different kinds of tasks which are effective for research on semantic and pragmatic meaning. These include acceptability judgement tasks, implication judgement tasks, truth value judgement tasks, and translation tasks. This research makes use of these kinds of tasks to differing degrees, but is primarily concerned with acceptability judgements, both on the grammatical and pragmatic level. Hypotheses on natural language meaning are often supported by appealing to minimal pair data. Tonhauser and Matthewson (2015) divide minimal pairs into two kinds, linguistic variants, which are two pieces of data with the same context but different linguistic expressions, and context variants, which are two pieces of data which are structurally the same linguistically but differ with regard to the context in which they are evaluated. This dissertation makes use of both kinds of minimal pairs, often involving many more than two expressions or contexts. The specifics of the research task design are described in the next section.

### **3.1.1 Research Task Design**

As stated previously, field research on context-based grammatical elements requires the careful design of elicitation tools. This dissertation investigates the expression of discourse-level meaning in Hakha Lai as it relates to a set of adnominal particles called discourse deictics. The data presented to support the analyses was obtained in collaboration with three fluent speakers of Hakha

Lai who participated in one-on-one elicitation sessions involving a series of research tasks designed to investigate specific phenomena which are encoded by discourse deictics. Research tasks were designed to investigate the elements in question through a two-step process involving translation and acceptability judgement tasks. This section describes how the tasks were designed, how the tasks were executed, and how the data was analyzed.

First, elicitation tasks were designed by the researcher based on the functional roles associated with discourse deictics and similar grammatical elements in previous research. For instance, the postnominal spatial deictic elements *hi*, *kha*, *khi*, and *cu* are components of demonstrative expressions. Therefore, a series of elicitation tasks was designed to investigate what role these morphemes play in contexts commonly associated with demonstratives. In this case, a set of tasks based on the Wilkins 1999 Demonstrative Questionnaire was designed to test the acceptability of each morpheme in different spatial-locational contexts (e.g., the referent object is closer or further away from speaker and/or addressee). Following Tonhauser and Matthewson (2015)'s framework, each item describes a context involving the relevant pieces of information being tested and one or more utterances produced by context participants. Both the context and the utterances were written in English. The same method was applied to a series of tasks on information structure (based on Aissen 2015) and nominal interpretation (based on Jenks 2015). An example elicitation task is shown in Figure 3.1 below.



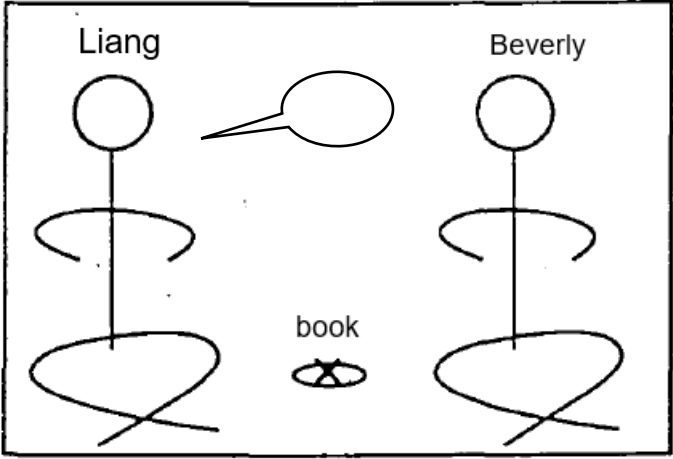
Scene 8	
	<p>8. Two friends, Liang and Beverly, are sitting on the carpet of Liang's room. There is a book between them which is equidistant to both of them. It is within an arm's reach of both of them.</p>
<p>1. How would Liang say "Is ____ your book?"?</p>	
<p>2. How would Liang say "I like ____ book"?</p>	
<p>3. How would Liang say "Would you like to borrow ____ book?"?</p>	
<p>4. Q: Does it make a difference if addressee has her attention drawn to the book or not?  a. If Beverly <b>does</b> have her attention drawn to the book, how would Liang say (1)?  b. If Beverly <b>does not</b> have her attention drawn to the book, how would Liang say (1)?</p>	
<p>5. Q: Must Liang point?  a. If Liang <b>does</b> point, how would she say (1)?  b. If Liang <b>does not</b> point, how would she say (1)?</p>	
<p>6. Q: Does ownership matter?  a. If <b>Liang</b> owns the book, how would she say (2-3)?  b. If <b>Beverly</b> owns the book, how would Liang say (1-2)?</p>	

Figure 3.1 Wilkins Scene 8

The example above displays the necessary components for the elicitation of discourse deictic data. First, there is a picture which rudimentarily depicts the scene described in the context. The next component is the context description, which describes who the speaker and addressee are, what the target object is, and because this is a task which investigates the role of spatial location on postnominal discourse deictic choice, the location of the object relative to speaker and addressee. Also included are three utterances and three follow-up questions which are meant to obtain data related to the effect of attention state, the role of gesturing, and ownership of the target object on

the discourse context and choice of discourse deictic. In total, there were 25 scenes in the Wilkins elicitation items, 21 scenes in the Aissen elicitation items, and 20 scenes in the Jenks elicitation items.

The second step involved the elicitation session and the execution of the tasks by three fluent speakers of Hakha Lai. This second step was divided into two sub-steps based on two tasks, a translation task and an acceptability judgement task. Elicitation sessions began in June 2021 and were conducted on a weekly basis in hour-long sessions with speakers one-on-one. Because of the COVID-19 pandemic, speakers and the researcher were initially not able to meet in person. All elicitation sessions were done over videoconferencing technology using Zoom software. Elicitation items were shown to the speaker participant via screen sharing and read aloud by the researcher. As shown in Figure 3.1, elicitation tasks contained descriptions of the contexts, labels for the discourse participants and target referent, and where necessary, visual depictions of the scene.

As part of the translation task, speaker participants were shown figures like the one above and were read the context aloud to properly establish the context in which the target utterances are made. Speakers were asked to translate the target utterances (e.g., the three target utterances in items 1-3 in Figure 3.1) into Hakha Lai, paying careful attention to the context. Participants were then asked additional questions included in the research task (e.g. the questions in items 4-6 in Figure 3.1). All participant responses as well as any notes or comments about the task were recorded by the researcher in Microsoft Excel.

After the translation task, speaker responses were analyzed according to their linguistic structure in the translated expression. Initial responses were presumably acceptable both grammatically (because they were produced by a fluent speaker) and contextually (because the

speaker was asked to provide a response relevant to the given context). The recorded responses from the translation task were used as the basis of utterances to be judged in the follow-up acceptability judgement task as shown in example (75) below. The context description and illustration were presented to the participant again, but this time a series of potential utterances based on their initial responses was also presented to the participant to judge whether or not they would be acceptable a) grammatically and b) felicitously in the given context. For example, if a participant's initial response used *hi*, a minimal set with *kha*, *khi*, and *cu*, as well as several more potentially acceptable expressions was presented to the speaker. Example (75) below lists the set of utterances presented to the Vawngtu speaker based on her initial response in the translation task to Wilkins Scene 8 Item 2.

(75) Wilkins 8, Vawngtu Speaker

“I like this book.”

- a. [mah cauk hi] ka uar ngai (initial response)
- b. [mah cauk kha] ka uar ngai
- c. [mah cauk khi] ka uar ngai
- d. [mah cauk cu] ka uar ngai
- e. [cauk] ka uar ngai
- f. [mah cauk] ka uar ngai
- g. [cauk hi] ka uar ngai
- h. [cauk kha] ka uar ngai
- i. [cauk khi] ka uar ngai
- j. [cauk cu] ka uar ngai
- k. [hi cauk] ka uar ngai
- l. [kha cauk] ka uar ngai
- m. [khi cauk] ka uar ngai
- n. [hi cauk cu] ka uar ngai
- o. [kha cauk cu] ka uar ngai
- p. [khi cauk cu] ka uar ngai
- q. [cu cauk cu] ka uar ngai
- r. [hi cauk hi] ka uar ngai
- s. [kha cauk kha] ka uar ngai
- t. [khi cauk khi] ka uar ngai
- u. [hi cauk hi cu] ka uar ngai
- v. [kha cauk kha cu] ka uar ngai
- w. [khi cauk khi cu] ka uar ngai

- x. [mah cauk hi cu] ka uar ngai
- y. [mah cauk kha cu] ka uar ngai
- z. [mah cauk khi cu] ka uar ngai

Each of these responses are based on attested forms in the language. Each form was asked to be judged on its a) grammaticality and b) acceptability in the context. Speaker responses as well as any additional comments they provided on the task or the utterances were recorded again in Microsoft Excel. The responses to the translation task and acceptability judgement tasks comprise the key pieces of data used in the analysis of discourse deictics in this dissertation. This procedure was repeated for each item in each of the three questionnaires with each speaker.

Due to the contextually defined nature of discourse deictics, speaker participants were consistently reminded of the specifics of the discourse context to ensure not only accurate judgements of the grammaticality of target utterances, but also the acceptability in the given context. This is a necessary and essential component of the research design, especially given that the grammatical elements being investigated involve sensitivity to discourse-contextual variables.

The third step consisted of analysis of the responses to the acceptability judgement tasks. The responses were analyzed according to the contextual variables being tested. For example, the judgements of the items in the follow-up acceptability task for Wilkins Scene 8 from the Vawngtu speaker were used to determine the acceptability of varying forms (presented in example 75) when referring to a referent object which is located in a position equidistant to speaker and addressee.

### **3.1.2. Sample Results**

As the locus of investigation for this research was adnominal discourse deictics, the initial responses from the translation task were adopted as a template for the subsequent acceptability judgement task. Oftentimes, the three speakers gave the same responses but there were occasional

differences such as choice of verb, noun, or other pragmatic words, such as exclamatory particles. As described previously, the response utterances from the translation task were modified with alternative adnominal discourse deictics in a set of morphosyntactic configurations which were found to be grammatical during preliminary research. Because this investigation is among the first studies of discourse deictics using this methodology, almost all possible forms were tested. This involved adding or omitting discourse deictics, such as postnominal *hi*, *kha*, *khi*, and *cu* as well as rearranging the configuration of elements in the expression according to what has been attested previously. The multiple morphosyntactic configuration templates used in elicitations is shown in Table 3.1 below.

<b>Form</b>	<b>Examples</b>
<i>“bare noun” [N]</i>	<i>uico ‘dog’</i>
<i>[mah N]</i>	<i>mah uico</i>
<i>[mah N cu]</i>	<i>mah uico cu</i>
<i>[N cu]</i>	<i>uico cu</i>
<i>[cu N cu]</i>	<i>cu uico cu</i>
<i>[N DEM]</i>	<i>uico hi, uico kha, uico khi</i>
<i>[DEM N]</i>	<i>hi uico, kha uico, khi uico</i>
<i>[DEM N DEM]</i>	<i>hi uico hi, kha uico kha, khi uico khi</i>
<i>[mah N DEM]</i>	<i>mah uico hi, mah uico kha, mah uico khi</i>
<i>[N DEM cu]</i>	<i>uico hi cu, uico kha cu, uico khi cu</i>
<i>[DEM N DEM cu]</i>	<i>hi uico hi cu, kha uico kha cu, khi uico khi cu</i>
<i>[mah N DEM cu]</i>	<i>mah uico hi cu, mah uico kha cu, mah uico khi cu</i>
<i>[DEM N cu]</i>	<i>hi uico cu, kha uico cu, khi uico cu</i>

*Table 3.1 Morphosyntactic Configurations of Hakha Lai Deictic Phrases*

As stated before, the follow-up acceptability judgement task repeated the original contextual information alongside the initial responses given by the speakers. Speakers were then asked to judge the acceptability of each variation based on responses designed following the template above. The example from Figure 3.1 is shown below accompanied by responses from the Thantlang speaker in Figure 3.2, which repeats the items from the translation tasks. Table 3.2 shows the

speaker's responses to the translation task and Table 3.3 shows the responses to the acceptability judgement task.

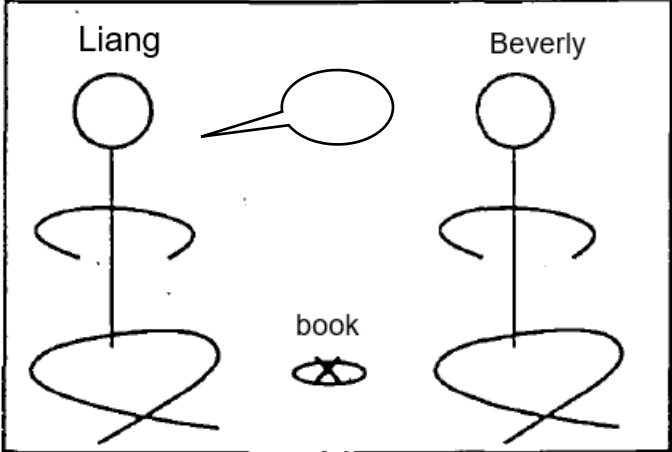
Scene 8	
 <p>The diagram shows two stick figures, Liang on the left and Beverly on the right, sitting on a carpet. A book is placed between them, equidistant to both. Liang has a speech bubble above her head.</p>	<p>8. Two friends, Liang and Beverly, are sitting on the carpet of Liang's room. There is a book between them which is equidistant to both of them. It is within an arm's reach of both of them.</p>
<p>1. How would Liang say "Is ____ your book?"?</p>	
<p>2. How would Liang say "I like ____ book"?</p>	
<p>3. How would Liang say "Would you like to borrow ____ book?"?</p>	
<p>4. Q: Does it make a difference if addressee has her attention drawn to the book or not?  a. If Beverly <b>does</b> have her attention drawn to the book, how would Liang say (1)?  b. If Beverly <b>does not</b> have her attention drawn to the book, how would Liang say (1)?</p>	
<p>5. Q: Must Liang point?  a. If Liang <b>does</b> point, how would she say (1)?  b. If Liang <b>does not</b> point, how would she say (1)?</p>	
<p>6. Q: Does ownership matter?  a. If <b>Liang</b> owns the book, how would she say (2-3)?  b. If <b>Beverly</b> owns the book, how would Liang say (1-2)?</p>	

Figure 3.2 Wilkins Scene 8

Questionnaire Question	Thantlang Speaker Response
1. How would Liang say "Is ____ your book?"?	<i>mah hi na cauk si ma?</i>
2. How would Liang say "I like ____ book"?	<i>mah cauk hi ka uar ngai</i>
3. How would Liang say "Would you like to borrow ____ book?"?	<i>mah cauk hi na hlan duh ma?</i>
4. Q: Does it make a difference if addressee has her attention drawn to the book or not?	
a. If Beverly <b>does</b> have her attention drawn to the book, how would Liang say (1)?	<i>mah hi na cauk si ma?</i>
b. If Beverly <b>does not</b> have her attention drawn to the book, how would Liang say (1)?	<i>mah hi na cauk si ma?</i>
5. Q: Must Liang point?	
a. If Liang <b>does</b> point, how would she say (1)?	<i>mah hi na cauk si ma?</i>
b. If Liang <b>does not</b> point, how would she say (1)?	<i>mah hi na cauk si ma? (NOTE: if Liang does not point, Beverly will likely ask "which one?")</i>
6. Q: Does ownership matter?	
a. If <b>Liang</b> owns the book, how would she say (2-3)?	<i>mah ka cauk hi ka uar; mah ka cauk hi na hlan duh ma?</i>
b. If <b>Beverly</b> owns the book, how would Liang say (1-2)?	<i>mah na cauk hi na ta si ma?; mah na cauk hi ka uar</i>

Table 3.2 Thantlang Speaker Translation Task Responses from Wilkins Scene 8, Item 2

Sentence	Grammatical Acceptability	Contextual Acceptability	Notes from the speaker
“I like this book”			
[cauk] ka uar ngai	✓	✗	means “I like books (in general)”
[mah cauk <b>hi</b> ] ka uar ngai	✓	✓	
[mah cauk <b>kha</b> ] ka uar ngai	✓	✓	
[mah cauk <b>khi</b> ] ka uar ngai	✓	✓	
[mah cauk <b>cu</b> ] ka uar ngai	✓	✓	would be better if the book is previously mentioned or with pointing
[mah cauk] ka uar ngai	✗	-	
[cauk <b>cu</b> ] ka uar ngai	✓	✗	means “I like books (in general)”, even if mentioned previously
[ <b>cu</b> cauk <b>cu</b> ] ka uar ngai	✓	✓	(acceptable if the book was mentioned previously)
[cauk <b>hi</b> ] ka uar ngai	✓	✗	means “I like books (in general)”, even if pointing, even if mentioned previously
[cauk <b>kha</b> ] ka uar ngai	✓	✗	means “I like books (in general)” even if mentioned previously
[cauk <b>khi</b> ] ka uar ngai	✓	✗	means “I like books (in general)”
[ <b>hi</b> cauk] ka uar ngai	✗	-	
[ <b>hi</b> cauk <b>hi</b> ] ka uar ngai	✓	✓	
[mah cauk <b>hi</b> ] ka uar ngai	✓	✓	(initial response)
[ <b>hi</b> cauk <b>cu</b> ] ka uar ngai	✓	✓	acceptable even out-of-the-blue
[cauk <b>hi</b> <b>cu</b> ] ka uar ngai	✓	✗	means “I like books (in general)”
[ <b>hi</b> cauk <b>hi</b> <b>cu</b> ] ka uar ngai	✓	✓	means “I like this book (in particular)”
[mah cauk <b>hi</b> <b>cu</b> ] ka uar ngai	✓	✓	means “I like this book (in particular)”

Table 3.3 Thantlang Speaker Acceptability Judgement Task Responses from Wilkins Scene 8, Item 2

Speaker judgements in the acceptability judgement task were recorded and accompanied by notes from the speakers where they were offered, most often when a form was considered unacceptable. Comments such as “there are too many words” or “it makes sense, but you wouldn’t say it here” or “this is a correct sentence, but it doesn’t answer the question” were reflective of the speakers’



understanding of concepts of grammaticality and felicitousness and were, more importantly, indicative of their understanding of the discourse context and the requirements of the task. Such comments provided by the speakers were invaluable and aided in the analysis of the functional properties of discourse deictics in Lai.

It is worth remembering that although speaker participants are not always as involved as researchers in the analysis of responses, such as in phonetic investigations, the nature of the current investigation necessitated their participation using these techniques. Additionally, although none of the speakers had formal linguistic training, they were seen as collaborators in forming an understanding of the utterances in the contexts, though the analysis and any mistakes contained herein are entirely the author's.

The responses given in the translation and acceptability judgement tasks formed the basis of the analysis of discourse deictics in Hakha Lai. Additional elicitation sessions using additional discourse contexts and testing additional discourse-related variables would have strengthened the overall analysis of discourse deictics, but these could not be accomplished due to limitations of time. Potential avenues for future research are discussed in Chapter 7.

### **3.2. The Elicitation Questionnaires**

This research makes use of three questionnaires in the design of elicitation items, *The 1999 Demonstratives Questionnaire: "THIS" and "THAT" in Comparative Perspective* (Wilkins 1999), *Documenting Topic and Focus* (Aissen 2015), and *Noun Phrase Interpretations Questionnaire* (Jenks 2015). These questionnaires were chosen because of the relevance of their investigative goals to the previously reported function of discourse deictics and the flexibility of their design. In the case of all three questionnaires, the original authors provided descriptions of the targeted

forms or properties, often providing their own elicitation items or example sentences. However, the discourse contextual information as well as the task structure used in elicitation sessions with speaker participants were designed by the researcher. This was done in order to ensure that the appropriate contextual parameters were clearly established for the participants and to test a number of grammatically acceptable forms found in Hakha Lai for their pragmatic acceptability in carefully described discourse contexts. The results yielded from each questionnaire are presented in Chapters 4 (on the Wilkins items), 5 (on the Aissen items) and 6 (on the Jenks items). Detailed information about the individual questionnaire is provided in the respective chapter, but it is useful to include a brief overview of each here as well.

*The 1999 Wilkins Demonstrative Questionnaire: “THIS” and “THAT” in Comparative Perspective*, was designed by David P. Wilkins for the purpose of identifying basic spatial demonstrative terms. The elicitation items are designed to test for different demonstrative terms in different spatial contexts. Parameters tested in the questionnaire includes distance of the referent object from speaker and addressee as well as additional contextual information, such as locating the event indoors or outdoors, questions about ownership, focused attention, pointing, and other contextual considerations. In total, there are 25 elicitation scenes. An example scene from Wilkins (1999) is shown in Figure 3.3 below.

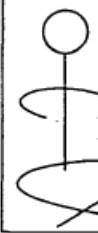

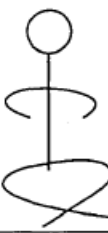
8.	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>SPKR</p>  </div> <div style="text-align: center;">  </div> <div style="text-align: center;"> <p>ADDR</p>  </div> </div>	<p>The referent is in between Spkr and Addr and equidistant from both (and within arm's reach of both).          "Is ____ your book/radio?"          "I like _____ book/radio."          "Do you want to borrow ____ book?"</p> <ul style="list-style-type: none"> <li>• Does it make a difference if Addr already has attention on object vs. attention being drawn?</li> <li>• Must Spkr point?</li> <li>• Does ownership of object make a difference?</li> </ul>
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Figure 3.3 Wilkins 1999 Questionnaire Item 8

As can be seen in the figure, the original questionnaire provides minimal contextual information beyond the spatial location of the referent object in relation to the speaker and addressee. For the current study, the researcher added speaker and addressee names and a clear description of the discourse context to ease the production of targeted forms and the analysis of the data. For example, the researcher provided the following context for Wilkins Item 8.

(76) **CONTEXT:** *Two friends, Liang and Beverly, are sitting on the carpet of Liang's room. There is a book between them which is equidistant to both of them. It is within an arm's reach of both of them.* (Wilkins 8)

Giving the speaker and addressee names allowed the researcher to ask, “What would Liang say?” as opposed to “what would the speaker say?” or “what would you say?”, which might confuse the speaker participant or cause them to be self-conscious about their response.

The Aissen (2015) questionnaire, *Documenting Topic and Focus*, was designed by Judith Aissen and presented at the 4<sup>th</sup> International Conference on Language Documentation and Conservation (ICLDC 4). As the title implies, the elicitation items in this questionnaire are designed to investigate how a language represents concepts such as topic and focus, either through overt grammatical forms or otherwise. The questionnaire and paper describe different categories of topic and focus. These include *information focus* and *contrastive focus* and *non-contrastive* and *contrastive* topic. Aissen stresses the importance of establishing context for testing and documenting these phenomena. An example from the questionnaire is shown in Figure 3.4 below.

### 1.3 Types of focus

Dik et al. (1981); Rooth (1992); Vallduví and Vilkuna (1998); Kiss (1998) and many others

A focus  $\alpha$  is associated with a set A of contextually appropriate alternative values that might have been selected, including  $\alpha$  itself. Alternative Items 'normally' eaten for breakfast = {eggs, pancakes, waffles, bacon ... }

- (16) (New) information focus
  - a. What did you eat for breakfast?
  - b. I ate [égg].
- (17) Selective focus: selects from alternatives explicitly introduced in previous discourse
  - a. Did you have pancakes or eggs for breakfast?
  - b. I had [égg].
- (18) Corrective (or *replacive*) focus: replaces alternative(s) introduced in previous discourse.
  - a. Did you have pancakes for breakfast.
  - b. No, I had [égg].
- (19) Expanding (or additive) focus: adds to alternatives already introduced in previous discourse
  - a. Did you have pancakes for breakfast?
  - b. Yes, and I had [égg] too.
- (20) Exhaustive focus: excludes all alternatives other than  $\alpha$ 
  - a. What did you have for breakfast?
  - b. I only had [égg].
- (21) Unexpected focus: unexpected alternative (not member of set of culturally appropriate alternatives) (see also Hartmann and Zimmermann 2009).
  - You know what? I had [snáil] for breakfast.

*Figure 3.4 Description of different types of focus from Aissen (2015)*

As with the Wilkins 1999 Questionnaire, the examples shown above were adapted by the researcher to clearly establish contextual information and aid the speaker participant in providing responses to the translations and judgement acceptability task. An example from the Aissen elicitations designed by the researcher is shown in examples (77-78) below.

(77) **CONTEXT:** *Michelle and Beverly meet at school in the early morning. Michelle wants to start the conversation and asks Beverly what she ate for breakfast. Beverly tells her she ate eggs.* (Aissen 11)

- a. Michelle: What did you eat for breakfast?
- b. Beverly: I had [eggs].

(78) **CONTEXT:** *Scott and Liang meet at school in the early morning. Scott is making small talk with Liang by asking her what she ate for breakfast. He is guessing that she ate eggs since this is a typical thing to eat for breakfast, but he isn't sure that she did. In fact, Liang did not have eggs for breakfast, she instead ate rice for breakfast. (Aissen 13)*

- a. Scott: Did you eat eggs for breakfast?
- b. Liang: No, I had [rice].

In the examples above, there is a description of the context and two sentences for each item. Both sentences were translated by the speaker in the translation task while the target sentence was tested with different discourse deictic structures in the follow-up acceptability judgement tasks.

The Jenks 2015 questionnaire, *Noun Phrase Interpretations Questionnaire*, also presented at ICLDC 4, gives an overview of different nominal interpretation categories and includes example sentences. These include categories such as strength (strong vs. weak), definiteness, specificity, quantified expressions, existential constructions and predicative expressions. Like the Aissen questionnaire, the Jenks questionnaire lists the categories and provides example sentences in English. It is also accompanied with slides from the ICLDC presentation, which were also referenced in the design of the elicitation items by the researcher. An example from the Jenks questionnaire is shown in Figure 3.5 below.

#### 2.1.1 Strong vs. weak

- Weak noun phrases can occur in the existential construction (9-a), strong noun phrases cannot (9-b); indefinites which tend to be interpreted partitively (e.g. *some, many*) also may pattern be strong.
- (9) THE EXISTENTIAL CONSTRUCTION (Milsark 1977)
- a. \*There is [the snake] in my bed
  - b. There is [a snake] in my bed.
  - c. There are [snakes] in my bed.
- Note that (10-a) is possible with the interpretation of temporary, alienable possession.
- (10) INALIENABLE POSSESSION WITH 'HAVE'
- a. \*The snake has [the tail].
  - b. The snake has [a tail].
  - c. Snakes have [tails].
- (11) PRESUPPOSITIONALITY (all strong determiners have an existence presupposition)
- a. %Sarah didn't see the snake, because there was no snake.
  - b. Sarah didn't see a snake, because there was no snake.
  - c. Sarah didn't see snakes, because there were no snakes.

Figure 3.5 Description of Nominal Interpretation Types from Jenks (2015)

As with the other two questionnaires, the examples provided were adapted by the researcher to include clear contextual information and target utterances for translation and the subsequent acceptability judgement tasks. See example (79) below.

(79) **CONTEXT:** *Jim and Michelle are at a party in Art's apartment. Jim tells Michelle that he is very hungry, but all Art has at the party are drinks. Michelle sees that there is a mango on the table, next to some of the drinks. She thinks that Jim could eat the mango. She tells Jim that there is a mango on the table. (Jenks 16)*

Michelle: There is [a mango] on the table.

As with the other questionnaires, the sentence was first translated by the speaker participant as part of the translation task and later tested with different discourse deictic configurations in the follow-up acceptability judgement task.

These questionnaires served as a crucial jumping off point for the current research. By relying on existing materials that have been documented to yield language data that is robust, replicable, and transparent, we are able to move beyond the descriptive analyses of previous research and ground them in established theoretical approaches which allow for a richer analysis, applicable to all natural languages. The descriptions of categories in the Aissen and Jenks questionnaires are strongly informed by previous research on the relevant topics. The Wilkins questionnaire led to an entire volume of research on the demonstrative terms in a wide set of languages (see Levinson et al. 2018). Thus, basing the elicitation tasks on previously designed questionnaires ensures that the current research contributes to the growing body of literature on the topic of morphologically encoding discourse-level properties in nominal expressions.

### 3.3. Speaker Backgrounds

The participants in the study are three women in their early 20s who are members of the Chin community in Indianapolis. Their names are Rem Zathang, Dawt Hlei Iang, and Biak Tha Par.<sup>14</sup> They will be referred to throughout the rest of the dissertation as ‘Vawngtu speaker’, ‘Hakha speaker’, and ‘Thantlang speaker’, respectively. Rem Zathang is from Vawngtu (also spelled ‘Vuangtu’), which is a Zophei-speaking part of Chin state. Zophei is part of the Maraic branch of the South Central Tibeto-Burman language family. Rem speaks Zophei, Hakha, Hindi, English, Mizo, and can understand Burmese. At age 7, she moved with her family to New Delhi, India. At age 14, she moved to the United States and eventually settled in Indianapolis, where she resides today. At the time that the elicitation sessions were done, Rem, known by her friends as ‘Arem’ was a junior at Indiana University studying Textile Design. Rem learned Hakha Lai as this is the language spoken by members of her family.

Dawt Hlei Iang was born in Hakha and lived there until age 11. She lived with her family in Yangon for two years until moving to the United States at age 13, where she settled in Indianapolis. At the time of the elicitations, she was a junior at Indiana University studying Political Science. In addition to Hakha Lai, Dawt speaks English and Burmese and has studied Mandarin Chinese. Dawt speaks Hakha Lai with members of her family.

Biak Tha Par is from Farrawn, a town in Thantlang Township, which is west of Hakha. The variety of Lai spoken in Thantlang is similar to the one spoken in Hakha, with some identifiable exceptions – particularly phonological, such as the use of *maw* as a question particle as opposed to *ma*. Biak Tha Par lived in Thantlang for the first 9 months of her life until she went to live in Hakha. She lived in Hakha until the age of 10 when she left Burma. She first resided in

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<sup>14</sup> These are the speaker participants’ full given names shared with permission from the speakers.

Malaysia for a little over a year, and then moved to the United States. She lived in Jacksonville, Florida from the ages of 12 to 17 and later moved to Indianapolis, where she lives today. At the time of the elicitation, she was a junior studying Electrical Engineering at Indiana University-Purdue University Indianapolis (IUPUI).

All three of these speakers are identified in this dissertation as “fluent” speakers of Hakha Lai. This designation is used for two reasons. First, the notion of a native language is not particularly useful for describing the language situation or linguistic competencies of these speakers. People who live in Chin state are often highly multilingual, speaking as many as five or six languages. Second, Hakha Lai is the lingua franca of the community, and so members often speak it in addition to whatever other languages they may speak at home. A small language attitude study conducted by the author and another member of the community (Thawngza et al. 2019) found that being able to speak Hakha Lai was seen as an important part of Chin identity, even among those whose native language was not Hakha Lai. Therefore, many members of the community who are not from Hakha still learn the Hakha Lai variety as a matter of intra-community communication and identification. Although only one of the three speakers comes from Hakha, all of them are fluent speakers of Hakha Lai. That being said, the questionnaire results reveal that the speakers do have different judgements on several of the elicitation items. Given the scale of the current study, it is not yet possible to determine whether this can be attributed to influence from the other varieties spoken by each speaker. Thus, while the current work establishes an important foundation, future work with additional speakers will help shed light on the generalizability of the results.



### 3.4. Research Questions

Having established the specifics of the research methodology as well as background information on the speakers serving as sources for the research data, it is now time to turn to the research questions of this study. The choice of research questions was informed by the findings of previous studies of discourse deictics in Hakha Lai and other Chin languages. The current research augments the previous research by creating robust pools of data to inform theory-based analyses of the functional properties of discourse deictics. As the current work has benefited from long-term collaboration with fluent speakers of Hakha Lai, it has generated an abundance of fluent, natural language data and is therefore not subject to the limitations encountered in textual analysis. Another intention in formulating the research questions was the fact that discourse deictics do not operate within one strict category, e.g., demonstratives. Compiling this body of data and analyzing the contexts in which discourse deictics are used will allow for future research on these grammatical elements.

The research questions are thus:

- A) What are the members of the Hakha Lai discourse deictic paradigm?
- B) What is the distribution of Hakha Lai discourse deictics in different pragmatic contexts?
- C) What are the functional properties of the Hakha Lai discourse deictics?

The first question seeks to identify the various elements involved in adnominal discourse deictic constructions in Hakha Lai. Preliminary research has identified *hi*, *kha*, *khi*, *cu*, and the prenominal general demonstrative *mah* as relevant morphemes in demonstrative and referential expressions. One question that remains is what configurations of these morphemes are possible in the language. The set of configurations under investigation are shown in Table 3.1 above. The second question about the distribution of discourse deictics is the main research question of this study. Given a

context, what are the acceptable (and unacceptable) forms of discourse deictics that are used in representing contextual deictic information? To rephrase, when a nominal expression is, for example, in focus or is the sentence topic, or represents a referent which has been mentioned previously in discourse, which of the discourse deictics are acceptable and not acceptable and in what morphosyntactic configurations? The findings of this question inform the third. Given which forms are acceptable in different pragmatic contexts, what patterns can be identified and how can we relate these patterns to the formal and functional properties of the morphemes themselves? What are we able to conclude about Hakha Lai discourse deictics' semantic and pragmatic properties by analyzing how they are used in the established contexts?

The data obtained in elicitations with the three speakers provide support for the subsequent analyses of Hakha Lai discourse deictics and will be used to address these questions. This dissertation starts from just a few pieces of previous research and is the first study that 1) looks at all of the different morphosyntactic configurations of discourse deictics that are known and 2) uses a methodology which controls for the pragmatic as well as semantic functions of these grammatical elements. Therefore, the outcome is not a full-fledged analysis of discourse deictics, but rather the data set and critical observations of the data which will inform later full-fledged analyses of Lai discourse deictics. Stepwise, (A) is obtaining the data, (B) is making observations about the data, and (C) is constructing theory-grounded analyses of the data. This dissertation does (A) and (B) in the three chapters which follow, and provides preliminary discussion of (C) in Chapter 7. Some remaining critical questions which will not be addressed include the syntactic structure of Hakha Lai discourse deictics, the interaction of discourse deictics and case marking, and the usage of discourse deictics in non-adnominal contexts. However, the data obtained in this research will aid in the development of future research projects on these topics.

### **3.5. Conclusion**

Now that the theoretical and methodological background has been established, this dissertation will turn to the results of the questionnaires and the accompanying analyses. The next three chapters report the results of the questionnaires described above and proceed as follows. Chapter 4 concerns the usage of the discourse deictic elements in exophoric demonstrative expressions and describes the results of the modified version of the Wilkins 1999 Demonstrative Questionnaire shared with the three speakers. This is accompanied by an analysis of the role of discourse deictics in exophoric demonstrative contexts based on the findings. The next chapter, Chapter 5, concerns the role of discourse deictics in encoding information structure properties of nominals and describes the results of the Aissen 2015 questionnaire. It also includes an analysis based on the findings. The next chapter is Chapter 6, concerning the role of discourse deictics in encoding various nominal properties and describes the results from the Jenks 2015 questionnaire. Chapter 6 also contains an analysis of the role of discourse deictics in nominal interpretation in Hakha Lai. Following these three chapters is Chapter 7, a discussion chapter which discusses the overall findings, makes observations on the formal and functional properties of discourse deictics in Hakha Lai, provides commentary on the effectiveness of the methodology, and describes ideas for future research. This is followed by a conclusion which ends the dissertation.

## Chapter 4. Hakha Lai Demonstratives

This chapter describes the formal and functional properties of discourse deictics in Hakha Lai exophoric demonstrative expressions. Exophoric demonstratives are those which modify a nominal to identify it within physical space, often accompanied with a gesture such as pointing. Exophoric demonstratives are contrasted with endophoric demonstratives, which modify a nominal to identify it based on discourse reference. This distinction is shown in example (80) below.

(80) *Exophoric vs. Endophoric Demonstratives*

- a. (Pointing to a book): [That book] is one of my favorites.
- b. I just read *Nineteen Eighty-Four*. [That book] is one of my favorites.

In example (80a), the expression *that book* is accompanied with a pointing gesture and deictically points to a book in physical space to aid the addressee in identifying it as the referent. This is contrasted with (80b), wherein the expression *that book* deictically refers to a book which was previously mentioned in discourse – in this example *Nineteen Eighty-Four*.

Demonstrative marking is one of the primary functions of the discourse deictic markers *hi*, *kha*, *khi*, and *cu*. This chapter focuses on the use of these morphemes in demonstrative phrases, as in the English phrases *this book* or *that bicycle*, with the following chapters examining their usage in information structure marking (Chapter 5) and nominal reference marking (Chapter 6). As noted previously, the analysis contained herein has been formulated on the basis of data which was gathered in elicitation sessions with three fluent speakers of Hakha Lai using elicitation items drawn from the Wilkins 1999 Demonstrative Questionnaire (hereafter ‘WDQ’). The WDQ investigates the spatial deictic properties of demonstratives, and the findings of the questionnaire

provide a conceptual foundation for the more complex analysis of the discourse and referential functions of these morphemes in the later chapters.

The development of grammatical markers from demonstratives is a frequent occurrence in the world's languages (Diessel 1999). As we will see, evidence of this developmental path is seen in Hakha Lai as well, where demonstrative morphemes have been co-opted into the secondary functions discussed in Chapters 5 and 6: information structure and nominal reference, respectively. While the exact developmental path is certainly of interest, this dissertation provides an analysis of the synchronic function of these morphemes and will leave the examination of the diachronic process to future research.

Because Hakha Lai is an under-investigated language, the current research focuses primarily on the formal properties of Hakha Lai demonstrative phrases (i.e., surveying the inventory of possible morphosyntactic configurations of demonstrative phrases in Hakha Lai) and seeks to determine what correlations exist between the various forms and their functional properties in discourse (i.e., the contextual properties discourse deictics encode on the morphosyntactic level). The findings of this research will inform future in-depth investigations of their syntactic and semantic structure and provide a pool of data to contribute to research on the cross-linguistic typology of demonstratives.

To preview the contents of this chapter, the Hakha Lai demonstrative phrase paradigm contains at least five morphological components of interest, the discourse deictics *hi*, *kha*, *khi*, and *cu*, as well as the general demonstrative *mah*. The morphemes *hi*, *kha*, and *khi* encode speaker-proximal, addressee-proximal, and speaker and addressee-distal spatial properties, while *cu* does not encode spatial deictic properties even though it can appear in the same linear position as other spatial deictic morphemes. For this reason, and because it appears in multiple locations in nominal

phrase structure, *cu* has been subject to additional scrutiny in this research. Hakha Lai demonstrative phrases can surface in several morphosyntactic configurations, some of which share the same meaning. The morphosyntactic configurations found in pilot research and which were tested in this study are shown in Table 4.1 below, repeating the contents of Table 3.1 in Chapter 3.

<b>Form</b>	<b>Examples</b>
“bare noun” [N]	<i>uico</i> ‘dog’
[mah N]	<i>mah uico</i>
[mah N cu]	<i>mah uico cu</i>
[N cu]	<i>uico cu</i>
[cu N cu]	<i>cu uico cu</i>
[N DEM]	<i>uico hi, uico kha, uico khi</i>
[DEM N]	<i>hi uico, kha uico, khi uico</i>
[DEM N DEM]	<i>hi uico hi, kha uico kha, khi uico khi</i>
[mah N DEM]	<i>mah uico hi, mah uico kha, mah uico khi</i>
[N DEM cu]	<i>uico hi cu, uico kha cu, uico khi cu</i>
[DEM N DEM cu]	<i>hi uico hi cu, kha uico kha cu, khi uico khi cu</i>
[mah N DEM cu]	<i>mah uico hi cu, mah uico kha cu, mah uico khi cu</i>
[DEM N cu]	<i>hi uico cu, kha uico cu, khi uico cu</i>

Table 4.1. Morphosyntactic Configurations of Hakha Lai Demonstrative Phrases

Compare these varying configurations with the two primary demonstratives in English: *this* and *that*, both of which can appear solely in prenominal position as part of an adnominal construction, e.g., *this door* ([DEM N]) and cannot co-occur with a definite article e.g., \**the this door*. Hakha Lai, on the other hand, has several demonstrative phrase configurations, all of which are analyzed in the current chapter. Conducting this investigation of Hakha Lai demonstratives requires addressing three central questions:

- 1) What are the morphemes involved in Hakha Lai demonstrative phrases?
- 2) What are the morphosyntactic configurations in which these morphemes can appear in Hakha Lai demonstrative phrases?
- 3) What syntagmatic and paradigmatic functions do these morphemes perform in Hakha Lai demonstrative phrases?

The answers to these questions establish the central properties of the Hakha Lai demonstrative system and lay a foundation for the investigation of discourse deictics in Hakha Lai in the next two chapters.

The chapter proceeds as follows. Section 4.1 discusses previous research on demonstratives. Section 4.2 describes demonstratives in other South Central Tibeto-Burman languages. Section 4.3 introduces and discusses the WDQ and how it was employed in this research. Section 4.4 discusses the results of the WDQ questionnaire. Section 4.5 discusses the results further and proposes analyses of these elements which will be useful in later chapters. Section 4.6 summarizes the chapter.

#### **4.1 Investigating Demonstratives**

For the purposes of this research, *demonstratives* are defined as a lexical category which “point to” a referent in discourse. Demonstratives are thus defined by two key properties: 1) they mark a referent which is salient to both speaker and addressee either because it is an established part of the discourse or via gesturing; and 2) they contain a spatial deictic feature that locates a referent in spatial relation (whether physical or conceptual) to the speaker and/or addressee. As is often observed in demonstrative usage, spatial deixis may or may not refer to physical location. For this reason, demonstratives are often divided into categories based on their usage. One categorical distinction is that of *exophoric* vs. *endophoric* usage. Exophoric demonstratives point to a referent in physical space. For instance, when a speaker refers to a cup that is perceived as being close to them, they will refer to the cup with the phrase *this cup* as opposed to *that cup*. However, if the referent cup is perceived by the speaker to be physically distant from them, they will likely use the phrase *that cup*.

(81) **CONTEXT:** *A speaker perceives a cup as being physically close to them.*

a. I bought [**this cup**] when I lived in Athens.

(82) **CONTEXT:** *A speaker perceives a cup as being physically farther from them.*

a. I bought [**that cup**] when I lived in Athens.

The choice of demonstrative terms *this* or *that* in (81) and (82) is determined by the position of the referent object in physical space relative to the speaker. There has been much research on the nature of these spatial characteristics, including how speakers perceive them and what properties the deictic field itself has (see Levinson et al. 2018) In English, this selection comes down to how the speaker ultimately perceives the referent object in spatial relation to themselves. This is not always the case in other languages, however (see Hellwig 2018 on Goemai).<sup>15</sup>

In contrast, the other category, endophoric demonstratives, describes reference in a non-physical “discourse space”. For instance, a referent which has been mentioned previously in discourse would preferentially be marked in English with the demonstrative *that* as in “*that cup you were drinking from yesterday*” as opposed to the demonstrative *this*, which is more likely to be employed to refer to something which is currently present or the current topic of discussion, as in “*this cup we’re talking about*”. The notion of extra-spatial reference to a referent object exhibits preferences based on discourse-level properties such as cognitive state of the referent. This type of pseudo-spatial property is reflected in the findings of research such as Gundel et al. (1993), which finds that in English, the form [this N] is preferentially used for a referent which is both *type-identifiable* (the type of object is able to be identified based on the expression) and “*referential*” (the identity of a particular object is able to be identified based on the description) while the form [that N] is preferentially used for a referent which is otherwise *familiar* (the

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<sup>15</sup> In Goemai (Afro-Asiatic), the proximal term can be used if a referent object is perceived to be near to a distant addressee. Goemai appears to have a speaker-addressee anchorage system (Hellwig 2018).



addressee is able to identify the referent object because they already have a representation of it in short-term or long-term memory). Both usages contain these properties despite their primary association with the physical spatial properties of English *this*, marking a referent which is spatially proximal<sup>16</sup> to the speaker and English *that*, which describes a referent which is non-proximal. This chapter focuses on the exophoric usage of demonstratives while Chapters 5 and 6 explore some of the endophoric usages of demonstrative elements in Hakha Lai, particularly as they are employed for discourse-level function.

There are further methodological limits imposed on demonstratives in the current research. For the purposes of this research, only adnominal demonstratives – those which co-occur with nominal expressions are examined in-depth. As will be discussed in later chapters, the demonstrative morphemes discussed in this chapter appear in other usages, including clause- and sentence- level usage. It is beyond the scope of the current research to investigate these forms here, but the findings of this research will inform future research on this topic.

## 4.2 Demonstratives in South Central Tibeto-Burman Languages

Until now, there has not been a systematic documentation or theory-driven investigation of the exophoric properties of Hakha Lai demonstratives. However, there has been descriptive and observational research done on Hakha Lai as well as other South Central Tibeto-Burman languages. Previous investigations of Hakha Lai demonstratives include Barnes (1998), Bedell (2001), Chit Hlaing and Hlun (2003) and Baclawski (2012; 2013a; 2013b), described in Chapter 2. Although the spatial deictic properties of the deictic morphemes *hi*, *kha*, and *khi* have been discussed in these

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<sup>16</sup> Throughout this dissertation, the term *proximal* is used as a category which often denotes proximity to speaker. This is a relative term and is not absolute. The same applies to the term *distal*, which denotes distance from speaker. The term *medial* does not reference spatial proximity or distality and is a category for demonstrative categories which are not *proximal* or *distal*.

previous studies, this questionnaire examines them paradigmatically and classifies them within a formal theoretical framework. This section introduces the findings of these previous researchers as well as the findings of previous research on Mizo (Central branch, Changgte 1989), Lutuv (Maraic branch, Matthews and Wamsley 2020) and Falam (Central branch, King 2010), related languages in the South Central Tibeto-Burman family.

#### 4.3.1. Demonstratives in Hakha Lai

Barnes (1998) contains descriptions of Hakha Lai demonstratives, which he refers to as ‘particles’ or ‘deictic particles’. Barnes identifies the demonstrative particles and their spatial properties as shown in the table below.

Particle	Meaning
<i>hi</i>	‘near speaker’
<i>kha</i>	‘near addressee’
<i>khi</i>	‘yonder (away from speaker and addressee)’
<i>cu</i>	‘not visible’

Table 4.2. *Hakha Lai Demonstratives (Barnes 1998)*

Notably, Barnes defines *cu* as a marker of a referent which is spatially not present or is ‘not visible’ (remote). Example (83) below contains several examples of Hakha Lai demonstrative expressions from Barnes (1998).

(83) *Hakha Lai Demonstrative examples*

- a. [**hi**                      uico    **hi**]                      a-nun                      a-ṭha  
 SPKR.PROX                      dog    SPKR.PROX                      3.SG.POSS-life                      3.SG-be.good  
 “This dog here is gentle.”                      (adapted from Barnes 1998, p.71)
- b. [**kha**                      uico    **kha**]                      a-nun                      a-ṭha  
 ADDR.PROX                      dog    ADDR.PROX                      3.SG.POSS-life                      3.SG-be.good  
 “That dog over by you is gentle”                      (adapted from Barnes 1998, p.73)
- c. [**khi**                      uico    **khi**]                      a-nun                      a-ṭha  
 DIST                      dog    DIST                      3.SG.POSS-life                      3.SG-be.good  
 “That dog over there is gentle.”                      (adapted from Barnes 1998, p.72)



(84) *Mizo Demonstratives*

- a.     **So1**   ta1                    mii3   **so1**   ka1                    en3  
          there   LOC-REL            person   DET   1.NOM                look  
          “I’m looking at that man over there.”           (adapted from Chhangte 1989, p.142)
- b.     **hee**   nuu3                    **hi1**   a        saang1                ber  
          this    woman                DET   3.NOM tall            most  
          “This woman is the tallest.”                   (adapted from Chhangte 1989, p.159)

### 4.3.3. Demonstratives in Lutuv

Lutuv (also known as Lautu) is a South Central Tibeto-Burman language from the Maraic branch.

Matthews and Wamsley (2020)<sup>18</sup> describe the demonstrative system, shown in Table 4.4 below.

Particle	Meaning
<i>hing</i>	this ‘near the speaker’
<i>kha</i>	that.1 ‘near the listener’
<i>hue</i>	that.2 ‘far from both listener and speaker’
<i>khy</i>	that.3 ‘up above speaker’
<i>khuv</i>	that.4 ‘down below speaker’

Table 4.4. *Lutuv Demonstratives (Matthews and Wamsley 2020)*

The data here come from Sui Hnem Par, a speaker of Hnaring Lutuv. Like Mizo, Lutuv also has vertical demonstratives which encode ‘above speaker’ and ‘below speaker’. Example (85) shows each of the Lutuv demonstratives.

(85) *Lutuv Demonstratives*

- a.     **ma**   uv        **hing**   a        taa                sa  
          DEM   dog    this   3.SG   be.small        DECL  
          “This dog is small.”                   (adapted from Matthews and Wamsley 2020, p.2)
- b.     **ma**   pavaa   **kha**   a        zuu  
          DEM   bird   that.1 3.SG   fly  
          “That bird flies.”                   (adapted from Matthews and Wamsley 2020, p.2)
- c.     **ma**   ning                    **hue**   ca        **na**   a        cape  
          DEM   woman                that.2 text   FOC   3.SG   write  
          “That woman (over there) writes.”(adapted from Matthews and Wamsley 2020, p.2)

<sup>18</sup> These examples from Lutuv use an orthography that was developed by speaker consultant Sui Hnem Par. Although Lutuv is tonal, tone is not represented in the orthographic system.

- d. **ma** pavaa **khy** a zuu  
 DEM bird that.3 3.SG fly  
 "That bird (up there) flies." (adapted from Matthews and Wamsley 2020, p.2)
- e. **ma** uv **khuv** a taa sa  
 DEM dog that.4 3.SG be.small DECL  
 "That dog (down there) is small." (adapted from Matthews and Wamsley 2020, p.2)

Like Hakha Lai, Lutuv demonstratives contain a prenominal general demonstrative and a postnominal element which encodes spatial deixis.

#### 4.3.4. Demonstratives in Falam

Falam Chin is a South Central Tibeto-Burman language in the Central branch, spoken mainly in Falam township, north of Hakha township. The demonstratives of Falam resemble those of the other Chin languages. Falam demonstratives are shown in Table 4.5.

Particle	Meaning
<i>hi(mi)</i>	'this (proximal spatial)'
<i>kha(mi)</i>	'that (distal spatial; far from speaker, close to hearer)'
<i>khi(mi)</i>	'that (distal spatial; far from speaker and hearer)'
<i>cu(mi)</i>	(discursive)

Table 4.5. *Falam Demonstratives* (King 2010)

Demonstrative forms optionally end with *-mi* in demonstrative pronouns. King (2010) reports that Falam *cu* is 'discursive' and indicates discursive proximity. Example (86) below shows Falam demonstratives.

(86) *Falam Demonstratives*

- a. **hi-mi** hi ka inn a si  
 this-NMLZ TOP 1.SG house 3.SG.NOM be  
 "This is my house." (referent is right by speaker) (adapted from King 2010, p.86)
- b. **cu-mi** cu ka thei ual lo  
 that-NMLZ TOP 1.SG.NOM know MIR NEG  
 "I didn't know that!" (adapted from King 2010, p.86)

### 4.3 The Wilkins 1999 Demonstratives Questionnaire

This chapter describes the data obtained in a series of elicitation sessions with three fluent speakers of Hakha Lai using a set of items based on *the 1999 Demonstrative Questionnaire “THIS” and “THAT” in Comparative Perspective* (WDQ), designed by David Wilkins. Previous research on demonstratives has investigated a range of properties from their morphosyntax to their semantics and pragmatics, employing a wide range of methodological techniques. Researchers investigating demonstratives have made use of investigative instruments which help to define the contextual applications of this grammatical category. For the research presented in this dissertation, analyses are based on data gathered from carefully structured elicitations informed by a methodology described by Tonhauser and Matthewson (2015). The Wilkins 1999 Demonstrative Questionnaire (WDQ) is therefore an important tool for investigating the spatial deictic properties of Hakha Lai demonstrative morphemes, as it provides well-structured, carefully designed contextually driven scenarios to investigate the spatial deictic properties of demonstratives. More specifically, the questionnaire was designed to elicit a language’s forms of demonstrative phrases in exophoric contexts (meaning that they refer to the spatial deictic location of the referent in relation to the speaker and addressee). The results of the questionnaire aid in addressing the three research questions which seek to determine which grammatical elements are involved in Hakha Lai demonstratives, the available morphosyntactic configurations of these elements, and their function as part of demonstrative expressions.

The WDQ has previously been used in research on diverse languages such as Lao (Tai-Kadai, Enfield 2018), Dalabon (Gunwinyguan, Cutfield 2018), Brazilian Portuguese (Indo-European, Meira & Guirardello-Damian 2018), and many others as part of a collected volume of

papers on demonstratives which make use of the WDQ (see Table 4.6 below for a list of languages studied).

<b>Language</b>	<b>Family</b>	<b>Researcher</b>
Lao	Tai-Kadai	Enfield (2018)
Dalabon	Gunwinyguan	Cutfield (2018)
Brazilian Portuguese	Indo-European	Meira & Guirardello-Damian (2018)
Goemai	Afro-Asiatic	Hellwig (2018)
Tzeltal	Mayan	Brown & Levinson (2018)
Yucatec Maya	Mayan	Bohnemeyer (2018)
Lavukaleve	Isolate	Terrill (2018)
Tiriyó	Cariban	Meira (2018)
Trumai	Isolate	Guirardello-Damian (2018)
Saliba	Austronesian	Margetts (2018)
Warao	Isolate	Herrmann (2018)
Chukchi	Chukotko-Kamchatkan	Dunn (2018)
Yéli Dnye	Isolate	Levinson (2018)
Tidore	North Halmaheran	van Staden (2018)
Jahai	Austro-Asiatic	Burenhult (2018)

*Table 4.6. Languages investigated in Levinson et al. 2018*

Conducting studies on these languages yielded several findings about the cross-linguistic typological properties of demonstratives. For instance, languages differ in the number of dedicated morphological elements used to represent discrete spatial areas relative to speaker and addressee. Additionally, almost all of the languages allowed for overlap in terms in a given scenario, meaning that more than one form was found acceptable in the same context. However, which terms were applicable differed based on the language. See Levinson et al. (2018) for more.

The WDQ is composed of 25 scenarios which describe the relative spatial relations between a speaker, an addressee, and a referent object. The findings of these surveys illustrate the morphological components involved in demonstratives in these languages as well as the systematic characteristics of the language's demonstrative system. For instance, while English has two dedicated lexemes expressing spatial relations between speaker, addressee, and referent, other languages, such as Brazilian Portuguese have three (Meira & Guirardello-Damian 2018).

Researchers conduct the WDQ survey using different methods, including reconstructing each scenario with real-life participants or constructing photographic replicas of the situations described in the questionnaire. The scenes are presented to participants with contextual descriptions and are followed with questions eliciting demonstrative phrase constructions, ideally avoiding other kinds of referential descriptions, such as definite articles.

In conducting the WDQ, speakers are presented with a scene that is constructed both with a verbal description of the scene that describes the location of the speakers e.g., in a field, in a house, as well as a visual supplement to illustrate the spatial relationship between speaker, addressee, and referent object. Each scene has been constructed to elicit the acceptable demonstrative forms based on variation in speaker, addressee, and referent distance as well as the effects of pointing, possession relations, whether the referent object is or is not already part of the shared joint attention of speaker and addressee, and whether the referent object has been mentioned previously in discussion. Some scenes include additional variables such as the visibility of the referent object and the effects of perceived physical boundaries such as a doorway. After obtaining speaker participants' initial responses, follow-up elicitations were conducted based on the originally reported translation to judge the acceptability of other demonstrative forms in these contexts in order to construct an analysis of which demonstrative phrase types are acceptable in a given context. As was found in several of the previous studies which used the WDQ, speakers often find more than one of the demonstrative forms acceptable in a given context, even if there is a strong preference for one over others. See Appendix 1 for the modified scenes from the WDQ used in this research. Figure 4.1 below presents an example adaptation of one of the 25 scenes with an image, contextual description, and questions.



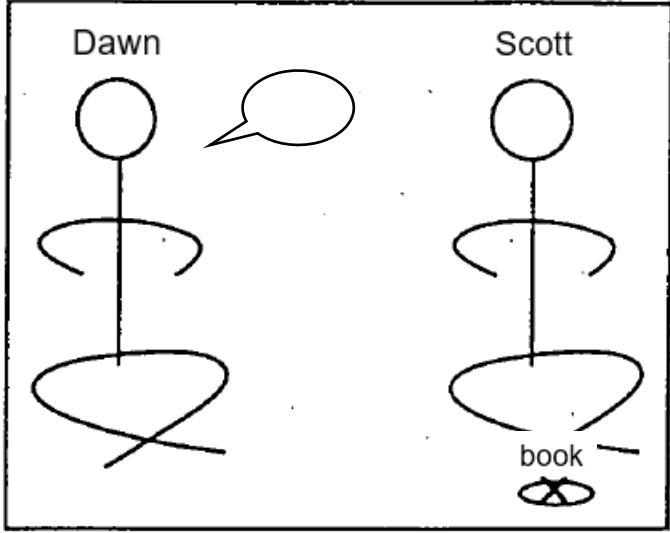
Scene 9	
	<p>9. Two friends, Dawn and Scott, are sitting on the carpet of Dawn's room. There is a book just in front of Scott. It is visible to Dawn but she cannot reach it.</p>
<p>1. How would Dawn say "Is ___ your book?"?</p>	
<p>2. How would Dawn say "I like ___ book"?</p>	
<p>3. How would Dawn say "Do you want to borrow ___ book?"?</p>	
<p>4. Q: Does it make a difference if addressee has his attention drawn to the book or not?</p> <p>a. If Scott is looking <b>at the book already</b>, how would Dawn say (2)?</p> <p>b. If Scott is looking <b>at his phone</b>, how would Dawn say (2)?</p>	
<p>5. Q: Does Dawn have to point?</p> <p>a. If Dawn <b>does</b> point, how would she say (1)?</p> <p>b. If Dawn <b>does not</b> point, how would she say (1)?</p>	

Figure 4.1. Example Scene from the Wilkins Demonstrative Questionnaire (Wilkins 1999)

As can be seen in Figure 4.1 above, each scene contains an image, a contextual description, and follow-up questions related to the attention state of the addressee. The elicitation items include three sentences with the demonstrative in English left blank, to avoid influencing participant responses. As described in Chapter 3, speaker participants took part in two tasks, an initial translation task and a follow-up acceptability judgement task based on the results of the translation task. As part of the translation task, the speaker participant translated the sentence into the target language and provided a demonstrative form which would be acceptable in the context provided. Follow-up elicitation gauged the acceptability of other forms. For example, if a participant

presented with Scene 9 (shown in Figure 4.1 above) provided the response “*Is [that] your book?*”, then the demonstrative term *that* would be categorized as an acceptable grammatical form in the given context in which the book is in front of the addressee and visible to the speaker. In a follow-up elicitation, as part of the acceptability judgement task, the participant would be asked if Dawn could say “*Is [this] your book?*” in order to test the acceptability of another demonstrative term in English. The questionnaire is designed without a specific theoretical basis in mind and is meant to find the various grammatical demonstrative forms which are acceptable in the contextual conditions presented in the questionnaire. The main results of the questionnaire are reported in the next sections.

For this research on exophoric demonstratives in Hakha Lai, the questionnaire items were presented to three fluent speaker participants as images from the questionnaire with context as shown above in Figure 4.1. This was done via videoconference on Zoom due to the restrictions imposed by the COVID-19 pandemic. As mentioned previously, the questionnaire was presented to three fluent speakers of Hakha Lai: a female speaker in her 20’s from Hakha (hereafter referred to as ‘Hakha speaker’), another female speaker from Vawngtu (also spelled ‘Vuangtu’), also in her 20’s (hereafter referred to as ‘Vawngtu speaker’), and a third female speaker from Thantlang in her 20’s (hereafter referred to as ‘Thantlang speaker’). These speakers were presented with the 25 scenarios from the WDQ and asked to provide Hakha Lai translations for the questionnaire sentences describing the scenarios from the viewpoint of a speaker participant labelled in the context. For instance, participants were asked “How would *Dawn* say “*Is \_\_\_\_ your book?*”” in order to avoid confusion about what the speaker themselves might say in a hypothetical scenario where they are observing the actions described in the images.

The remainder of the chapter presents a brief introduction to the five demonstrative morphemes, followed by a discussion of the morphosyntactic configurations of Hakha Lai demonstratives. Following these introductory sections will be a presentation of the results of the WDQ as well as a discussion of the key findings as they relate to the structure and usage of Hakha Lai demonstrative phrases.

#### 4.4 Questionnaire Findings

This section reports the findings of the WDQ questionnaire on exophoric demonstratives in Hakha Lai from three fluent speakers. Results from the questionnaire showed these overall findings: of the four discourse deictic morphemes, three of them function as spatial deictic morphemes in exophoric demonstrative phrases. These are: *hi*, a speaker-proximal spatial deictic; *kha*, an addressee-proximal spatial deictic; and *khi*, a speaker-addressee-distal deictic (meaning that the referent object is distant from *both* speaker and addressee). In addition, there are two other non-deictic elements which appear in exophoric demonstrative phrases, but which do not carry spatial deictic semantic information. These are *mah*, an indexical morpheme whose function is to *identify* the referent, and *cu*, a discourse deictic morpheme which appears in demonstrative phrase constructions but rarely in exophoric referential contexts. Table 4.7 below presents an overview of the results.

			morpheme	appears prenominally	appears postnominally	marks spatial deixis
Demonstrative Morphemes			<i>mah</i>	✓		
		Postnominal deictics	<i>cu</i>	✓	✓	
	Spatial Deictics		<i>hi</i>	✓	✓	✓
			<i>kha</i>	✓	✓	✓
			<i>khi</i>	✓	✓	✓

Table 4.7. The Five Morphemes in Hakha Lai Demonstrative Expressions

The remainder of the chapter will proceed by addressing the research questions laid out in the introduction to this chapter. The first section addresses the first research question “What are the morphemes involved in Hakha Lai demonstrative phrases?” by presenting general observations about the properties of Hakha Lai demonstrative phrases drawn from the responses of the speakers. The next section addresses the second of the research questions, “What are the morphosyntactic configurations in which these morphemes can appear in Hakha Lai demonstrative phrases?” with a discussion of the varying morphosyntactic configurations of Hakha Lai demonstrative phrases found in the speakers’ responses. Finally, each of the spatial deictic morphemes are discussed in turn, describing their properties and providing examples of their usage, addressing the third research question “What syntagmatic and paradigmatic functions do these morphemes perform in Hakha Lai demonstrative phrases?” The chapter ends with a discussion of the overall results and a conclusion.

#### **4.4.1 Hakha Lai Demonstrative Properties**

As stated above, the five morphemes which are used to construct Hakha Lai demonstrative phrases are the spatial deictics *hi*, *kha*, *khi*, the indexical *mah*, and the discourse deictic *cu*. Examples (87-90) below illustrate all five of these morphemes and contain paradigmatic distinctions between the relevant elements in the English translation. Example (87) contains the speaker-proximal *hi*, (88) the addressee-proximal *kha*, (89) the speaker- and addressee-distal *khi*, and (90) the discourse deictic *cu*. All examples contain the pronominal morpheme *mah*, which, as will be shown, is a good indicator of whether a nominal expression is a demonstrative phrase, though it is not the only way to determine whether an expression is a demonstrative and there are other uses of *mah* elsewhere in the language and demonstrative expressions which do not contain *mah*. Thus, *mah* is

a sufficient, but not obligatory element of Hakha Lai demonstrative phrases. This detail will be discussed in the section on the morphosyntactic configurations of Hakha Lai demonstrative phrases. Each example is accompanied by a reference to the scene number in WDQ from which the sentence was elicited as well as speaker information (see Appendix 1 for the full WDQ scenarios).

(87) [mah cauk **hi**] ka-uar ngai  
 DEM book SPKR.PROX 1.SG-like very  
 ‘I like this book (near me)’ (Wilkins 11, Hakha speaker)

(88) [mah cauk **kha**] ka-uar ngai  
 DEM book ADDR.PROX 1.sg-like very  
 ‘I like that book (near you)’ (Wilkins 9, Hakha speaker)

(89) [mah cauk **khi**] ka-uar ngai  
 DEM book DIST 1.SG-like very  
 ‘I like that book (over there)’ (Wilkins 12, Hakha speaker)

(90) [mah cauk **cu**] ka-uar ngai  
 DEM book CU 1.SG-like very  
 ‘I like the book (which we are talking about)’ (Wilkins 9, Hakha speaker)

As shown in examples (87-90), the indexical element *mah* can appear prenominal in all demonstrative phrases. We will see later that not all demonstrative phrases contain *mah*, but it is otherwise a good indicator of demonstrative phrases, especially when preceding a noun which is followed by one of the spatial deictic morphemes. In Example (87), the speaker-proximal morpheme *hi* appears in postnominal position and marks the referent as close to the speaker. Likewise, in example (88), the addressee-proximal *kha* appears in the same linear position as *hi* and marks the referent as proximal to addressee. The choice between *hi* and *kha* in relation to speaker and addressee proximity is determined by the distance of the referent object from the speaker. If a referent is proximal to both speaker and addressee, *hi* is used. The morpheme *kha* is only employed in cases where the referent is distal to the speaker and proximal to the addressee.

Example (89) shows that the speaker- and addressee- distal morpheme *khi* appears in postnominal position and marks that the referent is distal from the speaker and addressee. These three morphemes, *hi*, *kha*, and *khi* make up the set of spatial deictic morphemes in Hakha Lai demonstrative phrases. The spatial deictic paradigm of Hakha Lai is illustrated in Table 4.8 below.

	addressee proximal	addressee distal
speaker proximal	<i>hi</i>	<i>hi</i>
speaker distal	<i>kha</i>	<i>khi</i>

Table 4.8. The spatial deictic paradigm of Hakha Lai demonstrative morphemes

Finally, the morpheme *cu* shown in example (90) is worth discussing in more depth. This form is used in WDQ scene 9, where we saw earlier that *kha* was acceptable, in example (88). As will be shown later, the three spatial deictic morphemes *hi*, *kha*, and *khi* have been shown to be paradigmatically distinct and are often not interchangeable with one another. This implies that although *cu* appears in the same linear post-nominal position as the spatial deictics, its meaning does not contain spatial deictic information. The speakers have noted that demonstrative phrases of the form [*mah N cu*] are not spatial but still “point to” a referent that is in the broader exophoric domain. This form is used to refer to things that are in the shared perceived spatial domain of the speaker and addressee. This is best illustrated with two further examples (91-92), shown below, where both *hi* and *cu* have been deemed acceptable in two minimally contrastive contexts in which there is a bee that is bothering the speaker.

(91) [mah khuai **cu**] hna a-ka-hnawh ngai  
 DEM bee CU ear 3.SG-1.SG-bother INT  
 “This/the bee is bothering me.” (Wilkins 3, Vawngtu speaker)

(92) [mah khuai **hi**] hna a-ka-hnawh ngai  
 DEM bee SPKR.PROX ear 3.SG-1.SG-bother INT  
 “This bee is bothering me.” (Wilkins 3, Vawngtu speaker)

The context in example (91) differs from example (92) in that in example (91), the bee is flying around the vicinity of the two speakers while in example (92), the bee has landed on the shoulder

of the speaker and is stationary at utterance time. Both sentences in (91-92) would be acceptable in both contexts, but one speaker (out of three) has expressed a preference for one over the other in each respective context. Nevertheless, this does not mean that *cu* should be interpreted as a spatial deictic that refers to a referent object in the location covering the entire (visible) exophoric domain of the speaker and addressee. As we will see in later chapters, *cu* is highly polyfunctional and is generally used to refer to “given” entities, that is, entities which are “known”, or which have been previously mentioned in discourse. For this reason, we could interpret demonstrative phrases of the form [*mah N cu*] as general demonstratives which merely refer to a referent but are underspecified regarding the spatial location of the referent in relation to the speaker and addressee.

This section has described the basic components and structure of demonstrative phrases in Hakha Lai by showing which morphemes are involved in Hakha Lai demonstrative phrases and providing examples of their usage, illustrating their syntactic position and paradigmatic relation with one another according to their spatial deictic properties. Hakha Lai demonstrative phrases involve five morphemes, *hi*, *kha*, *khi*, *mah*, and *cu*. The first three appear in postnominal position and are paradigmatically interchangeable with respect to the spatial location of the speaker, addressee, and referent object and can be categorized as spatial deictics. The morpheme *mah* appears in prenominal position in demonstrative phrases and the morpheme *cu*, like the spatial deictics appears in postnominal position, but does not contain spatial deictic information. Rather, in [*mah N cu*] constructions, postnominal *cu* acts as a general referential marker. As will be shown later in this chapter, there is more to all five of these morphemes, but what is presented here aims to be an adequate introduction to their core characteristics. The next section will describe other morphosyntactic configurations of demonstrative phrases in Hakha Lai and how they differ from the canonical form described in this section.

#### 4.4.2 Morphosyntactic configurations of demonstrative phrases

Although demonstrative phrases in Hakha Lai have been described in the previous section as consisting of prenominal *mah*, the noun, and a postnominal element (either a spatial deictic or *cu*), there are other acceptable forms for demonstrative phrases. The total number of morphosyntactic configurations found for demonstrative phrases are three. These are [*mah N DEM*], [*DEM N DEM*], and [*DEM N CU*]. Each will be discussed below.

##### 4.4.2.1. [*mah N DEM*] Configuration

The first of the morphosyntactic forms is [*mah N DEM*]. This form, which was presented as the basic construction in the section above, is acceptable in all demonstrative phrases. Examples (87-90) from above are repeated below as examples (93-96)

- (93) [*mah cauk hi*]                      ka-uar              ngai  
DEM    book    SPKR.PROX    1.SG-like              very  
“I like this book (near me).”                      (Wilkins 11, Hakha speaker)
- (94) [*mah cauk kha*]                      ka-uar              ngai  
DEM    book    ADDR.PROX    1.SG-like              very  
“I like that book (near you).”                      (Wilkins 9, Hakha speaker)
- (95) [*mah cauk khi*]                      ka-uar              ngai  
DEM    book    DIST              1.SG-like              very  
“I like that book (over there).”                      (Wilkins 12, Hakha speaker)
- (96) [*mah cauk cu*]                      ka-uar              ngai  
DEM    book    CU                      1.SG-like              very  
“I like the book (which we are talking about).” (Wilkins 9, Hakha speaker)

This configuration appears to be the most common of the demonstrative forms and was the form which was most often given in the initial responses by all three speakers. This form is notable in that it contains the prenominal demonstrative morpheme *mah*, which appears to be a general





result that we can draw from this observation, then, is that there are two readily available forms for demonstrative phrases in Hakha Lai which stand in (apparently free) variation with one another, and that the indexical morpheme *mah* is a sufficient, but not necessary component of Hakha Lai demonstrative phrases.

#### 4.4.2.3. [DEM N CU] Configuration

In addition to the two forms of demonstratives shown above, there is one more form that is often acceptable, but which is shown to differ semantically and pragmatically from the other two forms, one in which the spatial deictic morpheme appears in prenominal position and the postnominal slot is occupied by *cu*, [DEM N *cu*]. The properties of this configuration are useful for upcoming analyses of postnominal discourse-level markers. This configuration is shown in examples (101-103) below.

- |   |                 |                     |  |
|---|-----------------|---------------------|--|
| (101) [ <b>hi</b><br>SPKR.PROX<br>“I like this book.”           | cauk<br>book CU | ka-uar<br>1.SG-like | ngai<br>INT<br>(Wilkins 8, Vawngtu speaker)  |
| (102) [ <b>kha</b><br>ADDR.PROX<br>“I like that book (by you).” | cauk<br>book CU | ka-uar<br>1.SG-like | ngai<br>INT<br>(Wilkins 9, Vawngtu speaker)  |
| (103) [ <b>khi</b><br>DIST<br>“I like that book (over there).”  | cauk<br>book CU | ka-uar<br>1.SG-like | ngai<br>INT<br>(Wilkins 12, Vawngtu speaker) |

Although the forms above were found to be acceptable by the Vawngtu speaker, (102) was not accepted by the Hakha speaker. In fact, all items with prenominal *kha* and postnominal *cu* were rejected by this speaker. As stated previously these forms are acceptable in the same contexts as (97-100) but differ in their semantic and pragmatic meaning. The difference will be discussed further in Chapter 7. To preview this discussion, items (101-103) are formulated as such when the

referent noun *cauk*, ‘book’ is overtly marked with *cu*. Presumably, these forms with postnominal *cu* appear to be topic-marked demonstrative phrases. This conclusion is based on the presence of postnominal *cu*, which has been categorized as a topic marker elsewhere (Bedell 2001). In contexts in which a demonstrative phrase is not the topic, it possibly cannot appear in this configuration. See section 5.6.1.2.

There is one final morphosyntactic configuration to consider with respect to demonstrative phrases in Hakha Lai. These are phrases of the form [*N DEM*]. Although these phrases are found to be acceptable in many of the same contexts and they make use of spatial deictics, it is not the case that these are demonstratives in the conventional sense established by the prerequisites established earlier. As a reminder, demonstrative phrases are defined by two key properties: 1) they refer to a referent which is salient to both speaker and addressee by being an established part of the discourse or via gesturing, and 2) they contain a spatial deictic feature, that is, they locate a referent in spatial relation to the speaker and addressee. Examples (104-107) below illustrate the [*N DEM*] morphosyntactic configuration in contexts where it *would be* acceptable, namely with generic reference. The translations are provided by the Thantlang speaker and are not the intended target utterance from the respective items from the WDQ.

- (104) [cauk **hi**]                      ka-uar              ngai  
 book    SPKR.PROX    1.SG-like              INT  
 “I like books.” int. “I like this book”                      (Wilkins 8, Thantlang speaker)
- (105) [cauk **kha**]                      ka-uar              ngai  
 book    ADDR.PROX    1.SG-like              INT  
 “I like the book.” int. “I like that book (near you).”                      (Wilkins 9, Thantlang speaker)
- (106) [cauk **khi**]                      ka-uar              ngai  
 book    DIST              1.SG-like              INT  
 “I like books.” int. “I like that book (over there).”                      (Wilkins 12, Thantlang speaker)

(107)	[cauk	<b>cu</b>	ka-uar	ngai	
	book	CU	1.SG-like	INT	
	“I like books.” int. “I like this book.”				(Wilkins 8, Thantlang speaker)

Despite the presence of spatial deictic morphemes in postnominal position, these are not demonstrative phrases in that the postnominal spatial deictic morpheme is not strictly used to denote the exophoric spatial location of the referent in relation to the speaker and addressee. Rather, their usage appears to be representative of a type of endophoric (speaker-internal, narrative, or “discourse”) demonstrative reference. Because the three spatial deictic morphemes are used for both exophoric and endophoric reference, it can appear that they are being used in a demonstrative phrase construction. However, phrases of this type do not meet the second criterion set for demonstratives (they do not locate the referent in a spatial relation to speaker and addressee). There is functional overlap between true demonstratives and the endophoric constructions shown in the examples above. The forms in examples (104-107) have thus been categorized in previous analyses as “spatialized topic markers”. These may essentially have the same function as the topicalized demonstrative phrases shown in (101-103). Two crucial points must be made regarding this [*N DEM*] form which distinguishes it from those described earlier. First, speakers have stated that phrases of the form [*N DEM*] seem to contain spatial/temporal information, with [*N hi*] implying present tense reference and [*N kha*] implying past tense reference. Also, phrases of the form [*N kha*] are stated to be ambiguous with a secondary function of *kha*, which is to mark speaker-addressee familiarity (entailing a presupposition that the addressee knows which referent is being referred to).

To summarize, this section has presented a total of four different possible morphosyntactic configurations for demonstrative phrases in Hakha Lai. These are presented in Table 4.9 with commentary on their functional specializations.

Form	Function
[mah N DEM]	canonical exophoric demonstrative phrase
[DEM N DEM]	canonical exophoric demonstrative phrase
[DEM N cu]	topicalized exophoric demonstrative phrase
[N DEM]	topicalized phrase with spatial/temporal deictic features

Table 4.9. Hakha Lai demonstrative phrase morphosyntactic configurations

Demonstrative phrases of the form [mah N DEM] and [DEM N DEM] are canonical demonstrative phrases and are the same in semantic and pragmatic meaning. Phrases of the structure [DEM N cu] are also demonstrative phrases but are only available for noun referents which are overtly marked with *cu*. Finally, phrases of the structure [N DEM] are not demonstrative phrases in the conventional sense but contain overlapping information which would allow them to perform a similar function to conventional demonstrative phrases.

#### 4.4.3. Properties of Discourse Deictics in Demonstrative Phrases

This section addresses the third of the research questions “What syntagmatic and paradigmatic functions do these morphemes perform in Hakha Lai demonstrative phrases?” by referencing the usages of the discourse deictics *hi*, *kha*, *khi*, and *cu* in the speakers’ responses to the questionnaire.

Table 4.10 below shows the results per scenario per speaker.

	Vawngtu Speaker			Hakha Speaker			Thantlang Speaker		
	[hi]	[kha]	[khi]	[hi]	[kha]	[khi]	[hi]	[kha]	[khi]
1	✓	✗	✗	✓	✗	✗	✓	✓	✓
2	✓	✓	✗	✗	✓	✗	✓	✓	✓
3	✓	✗	✗	✓	✗	✗	✓	✗	✗
4	✗	✓	✗	✓	✓	✗	✓	✓	✗
5	✓	✓	✗	✓	✓	✗	✓	✓	✗
6	✓	✗	✗	✓	✗	✗	✓	✓	✓
7	✓	✗	✗	✓	✗	✗	✓	✓	✓
8	✓	✗	✗	✓	✓	✗	✓	✓	✓
9	✗	✓	✗	✗	✓	✗	✗	✓	✓
10	✗	✓	✗	✗	✓	✗	✗	✓	✗
11	✓	✗	✓	✓	✗	✗	✓	✓	✗

12	X	X	✓	X	✓	✓	✓	X	✓
13	X	X	✓	X	X	✓	X	X	✓
14	X	X	✓	X	✓	✓	X	X	✓
15	X	X	✓	X	✓	✓	X	X	X
16	X	✓	X	X	✓	X	X	✓	X
17	X	X	✓	X	✓	✓	X	X	X
18	X	✓	X	X	✓	X	X	X	X
19	✓	X	X	✓	X	X	✓	✓	X
20	✓	X	✓	✓	✓	X	X	X	X
21	X	X	✓	X	X	✓	X	X	✓
22	X	X	✓	✓	✓	X	✓	✓	X
23	X	✓	X	X	✓	X	X	✓	X
24	X	X	✓	X	X	✓	✓	✓	✓
25	X	X	✓	X	X	✓	X	X	X

Table 4.10. Acceptability of the spatial deictics by scenario by speaker

What is observable from the table of responses from first glance is that speakers often varied in their acceptability judgements. This could be attributed to several potential factors, including the research task design, differences in conceptualization based on the images used, lack of clarity in understanding responses, consideration of endophoric acceptability, or any combination of factors. The data summarized in Table 4.10 are explained in further detail in sections 4.4.3.1-4.4.3.4 below, which discusses each morpheme in turn.

#### 4.4.3.1 Proximal deictic *hi*

The first spatial deictic *hi* was acceptable in scenarios where the referent item was at least close to the speaker. The morpheme *hi* was acceptable in demonstrative phrases in scenarios (1, 3, 5, 6, 7, 8, 11, and 19). Two of three speakers found *hi* acceptable in (2, 4, 20, and 22). Only one of the three speakers found *hi* acceptable in scenarios (12 and 24). This section discusses the usage of discourse deictic *hi* in marking the speaker-proximal spatial location of a referent.

One of the scenarios in which all speakers found *hi* acceptable was Wilkins Scene 3, depicted in Figure 4.2 below.

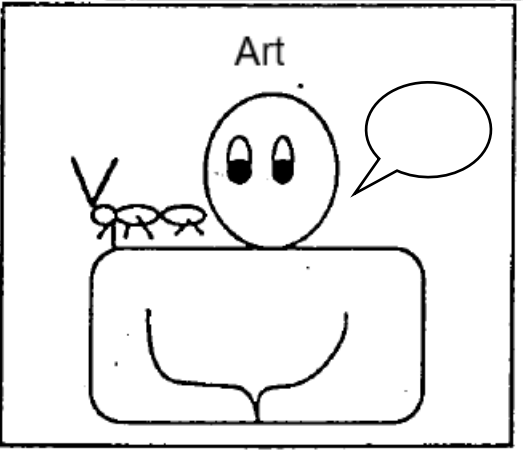
<b>Scene 3</b>	
	<p>3. Art (spkr) is outdoors with his friend, Beverly (addr). While they are talking, Art notices a bee crawling on his shoulder. It is bothering him.</p>
<p>1. How would Art say "_____ bee is bothering me"?</p>	
<p>2. Q: Does it make a difference if Art's attention has just gone to the bee or it has been a while?</p> <p>a. If Art has <b>just noticed</b> the bee, how would he say (1)?</p> <p>b. If Art has <b>been staring for a while at</b> the bee, how would he say (1)?</p>	
<p>3. Q: Does it make a difference if Beverly's attention is already on the bee or has just been drawn to it?</p> <p>a. If Beverly is <b>looking at the bee already</b>, how would Art say (1)?</p> <p>b. If Beverly is <b>looking at her phone</b>, how would Art say (1)?</p>	

Figure 4.2. Wilkins Scene 3

All three speakers found *hi* to be an acceptable morpheme to represent the proximal location of the bee. Their responses are shown below.

(108) [Mah khuai **hi**]                      hna    a-ka-hnawh                      ngai  
          DEM    bee    SPKR.PROX    ear    3.SG-1.SG-bother              INT  
          "This bee is bothering me."    (Wilkins 3, Vawngtu speaker)

(109) [Mah khuai **hi**]                      hna    a-ka-hnawh                      tuk  
          DEM    bee    SPKR.PROX    ear    3.SG-1.SG-bother              INT  
          "This bee is bothering me."    (Wilkins 3, Hakha speaker)

(110) [Mah khuai **hi**] hna a-ka-hnawh  
 DEM bee SPKR.PROX ear 3.SG-1.SG-bother  
 “This bee is bothering me.” (Wilkins 3, Thantlang speaker)

In this scene, the other spatial deictic morphemes *kha* and *khi* were found to be unacceptable, as shown in Table 4.10. Another scene in which most speakers preferred *hi* was Scene Wilkins 19, depicted in Figure 4.3.



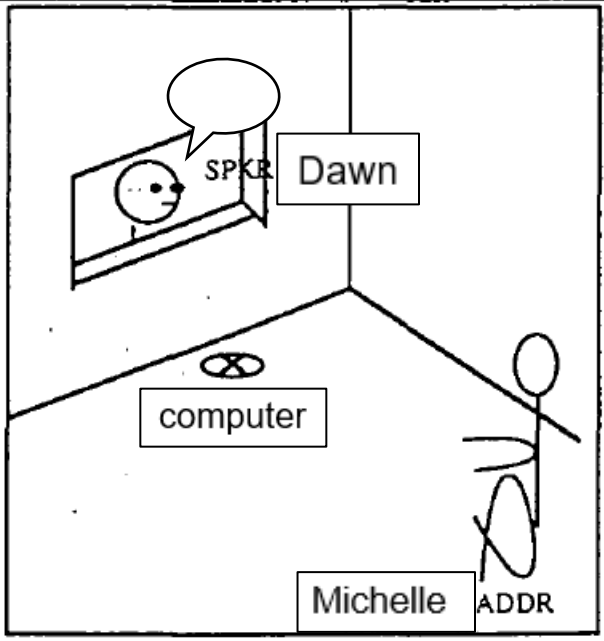
Scene 19	
 <p>The diagram shows a house with a window on the left. Dawn is outside the window, looking in. A speech bubble from Dawn contains the word 'SPKR'. Inside the house, a computer is on the floor, and Michelle is sitting on a couch. Labels include 'Dawn' near the window, 'computer' near the floor, and 'Michelle ADDR' near the couch.</p>	<p>19. Two friends, Dawn and Michelle are planning to meet at Michelle's house. When Dawn arrives, she stands in the window of Michelle's house to surprise her. Michelle is sitting on her couch at the other end of the room Dawn is looking into. Dawn sees a new computer on the floor right on the other side of the window. The computer is closer to Dawn than Michelle.</p>
<p>1. How would Dawn say "Is ___ your new computer"?</p>	
<p>2. How would Dawn say "I like ___ new computer"?</p>	
<p>3. Q: Does it make a difference if Dawn points?</p> <p>a. If Dawn <b>does</b> point, how would she say "I like ___ computer"?</p> <p>b. If Dawn <b>doesn't</b> point, how would she say "I like ___ computer"?</p>	
<p>4. Q: Does it make a difference if object has been mentioned before?</p> <p>a. If earlier Michelle told Dawn that she was getting a new computer today, how would Dawn say "I like ___ computer"?</p> <p>b. If earlier, Michelle <b>did not</b> tell Dawn about the computer, how would Dawn say (2)?</p>	
<p>5. Q: Does it make a difference if Michelle has her attention on the computer or drawn to it?</p> <p>a. If Michelle is already looking <b>at the computer</b>, how would Dawn say "I like ___ new computer"?</p> <p>b. If Michelle is looking <b>at her phone</b>, how would Dawn say (2)?</p>	

Figure 4.3. Wilkins Scene 19

In this scene, all three speakers found *hi* acceptable in referring to the computer which was proximal to speaker even though the speaker was outdoors, and the computer was indoors with the addressee. Both the Thantlang and Hakha speakers found *kha* acceptable as well. The speakers' responses are shown below.

(111) [Mah **hi**] na computer thar ma si?  
 DEM SPKR.PROX 2.POSS computer new Q COP  
 “Is this your new computer?” (Wilkins 19, Vawngtu speaker)

(112) [Mah **kha**] nangmah computer a-thar ma  
 DEM ADDR.PROX 2.SG.PRO computer 3.SG-be.new Q  
 a-si?  
 3.SG-COP  
 “Is that your new computer?” (Wilkins 19, Hakha speaker)

(113) [Mah na computer **kha**] a-thar si ma?  
 DEM 2.POSS computer ADDR.PROX 3.SG-be.new COP Q  
 “Is that your new computer?” (Wilkins 19, Thantlang speaker)

To briefly summarize this section, these examples show that spatial proximity to speaker in Hakha Lai is encoded with the spatial deictic *hi*. As will be shown in the next section, referent objects which are proximal to addressee (as opposed to speaker) are spatially encoded with *kha*.

#### 4.4.3.2 Medial deictic *kha*

The second spatial deictic, *kha*, was acceptable in scenarios in which the referent object was proximal to the addressee as opposed to the speaker. All speakers accepted *kha* in scenes (2, 4, 5, 9, 10, 16, and 23). Only two of the speakers found *kha* acceptable in scenes (8, 18, and 22). Only one speaker found *kha* acceptable in scenes (1, 6, 7, 11, 12, 14, 15, 17, and 20). The usage of *kha* to encode the addressee-proximal spatial location of a referent object is illustrated in Figure 4.4 below depicting Wilkins 9.



(116) [Mah **kha**] na cauk si ma?  
 DEM ADDR.PROX 2.POSS book COP Q  
 "Is that your book?" (Wilkins 9, Thantlang speaker)

Another example of *kha* encoding addressee-proximal location is Scene 16, shown in Figure 4.5 below.

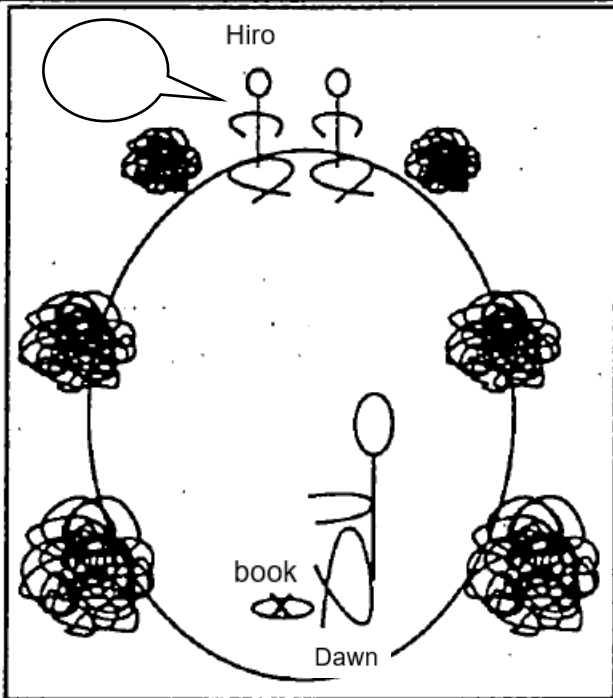
<b>Scene 16</b>	
	<p>16. Two friends, Hiro and Dawn are sitting at two ends of a large clear field. Hiro has to shout to talk to Dawn. There is a book right in front of Dawn that Hiro is able to see.</p>
<p>1. How would Hiro say " ___ book is a good one"?</p>	
<p>2. How would Hiro say "Is ___ book yours"?</p>	
<p>3. Q: Does it make a difference if addressee has her attention drawn to the book or not?</p>	
<p>a. If Hiro and Dawn have <b>not</b> discussed the book, how would Hiro say "I like ___ book"?</p>	
<p>b. If Hiro and Dawn have <b>already</b> discussed the book, how would Hiro say "I like ___ book"?</p>	
<p>4. Q: Does Hiro have to point?</p>	
<p>a. If Hiro <b>does</b> point, how would he say (1)?</p>	
<p>b. If Hiro <b>does not</b> point, how would he say (1)?</p>	

Figure 4.5. Wilkins Scene 16

In this scene, there is once again a referent object, a book, which is distant to the speaker and close to the addressee. All three speakers accepted *kha* and did not allow *hi* or *khi*. Their responses are shown below.

(117) [Mah cauk **kha**] a-ṭha ngai  
 DEM book ADDR.PROX 3.SG-be.good INT  
 “That book is good.” (Wilkins 16, Vawngtu speaker)

(118) [Mah cauk **kha**] a-ṭha ngai  
 DEM book ADDR.PROX 3.SG-be.good INT  
 “That book is good.” (Wilkins 16, Hakha speaker)

(119) [Na hmaika cauk **kha**] a-ṭha mi a-si  
 2.POSS front book ADDR.PROX 3.SG-be.good REL 3.SG-COP  
 “That book in front of you is a good one.” (Wilkins 16, Thantlang speaker)

This section has shown that in cases where an object is close to the addressee and not to the speaker, the spatial deictic *kha* is used. Cases where the object is close to both speaker and addressee will be discussed below. The next section discusses the properties of the final spatial deictic morpheme, *khi*.

#### 4.4.3.3. Distal deictic khi

The third spatial deictic *khi* was acceptable when a referent object is distal from both speaker and addressee. All three speakers found *khi* acceptable in scenes (12, 13, 14, 21, and 24). Two of the three speakers found *khi* acceptable in scenes (15, 17, and 25). Only one speaker found *khi* acceptable in scenes (1, 2, 6, 7, 8, 9, 11, 20, and 22). The encoding of speaker- and addressee-distal location with *khi* is best illustrated in examples from Scene 13, depicted in Figure 4.6.

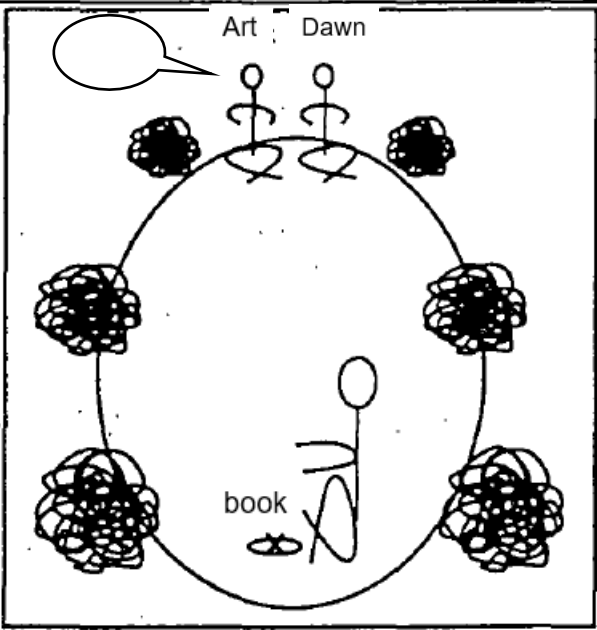
Scene 13	
	<p>13. Two friends, Art and Dawn are sitting at the end of a large clear field. There is a book in front of someone on the other end and it is visible to both Art and Dawn.</p>
<p>1. How would Art say " ___ book is a good one"?</p>	
<p>2. How would Art say "I wonder where he got ___ book"?</p>	
<p>3. Q: Does it make a difference if Dawn has her attention drawn to the book or not?  a. If Dawn is <b>already looking at the book</b>, how would Art say (1)?  b. If Dawn is <b>looking at her phone</b>, how would Art say (1)?</p>	
<p>4. Q: Does it make a difference if they have discussed the book or not?  a. If Art and Dawn have <b>not</b> discussed the book, how would Art say "I like ___ book"?  b. If Art and Dawn have <b>already</b> discussed the book, how would Art say "I like ___ book"?</p>	
<p>5. Q: Does Art have to point?  a. If Art <b>does</b> point, how would he say (1)?  b. If Art <b>does not</b> point, how would he say (1)?</p>	

Figure 4.6. Wilkins Scene 13

In this scene, the referent object is distant from both speaker and addressee. All three speakers accepted *khi* and rejected *hi* and *kha*. Their responses are shown below in examples (120-122).

<p>(120) [Mah cauk <b>khi</b>  DEM book DIST  "That book is good."</p>	<p>a-tha  3.SG-be.good</p>	<p>ngai  INT  (Wilkins 13, Vawngtu speaker)</p>
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(121) [Mah cauk khi] a-ṭha ngai  
 DEM book DIST 3.SG-be.good INT  
 “That book is good.” (Wilkins 13, Hakha speaker)

(122) [Mah khi] cauk khi a-ṭha ngai  
 dem DIST book DIST 3.SG-be.good INT  
 “That book is good.” (Wilkins 13, Thantlang speaker)

Another illustration of the use of *khi* is Scene 21, shown below in Figure 4.7.

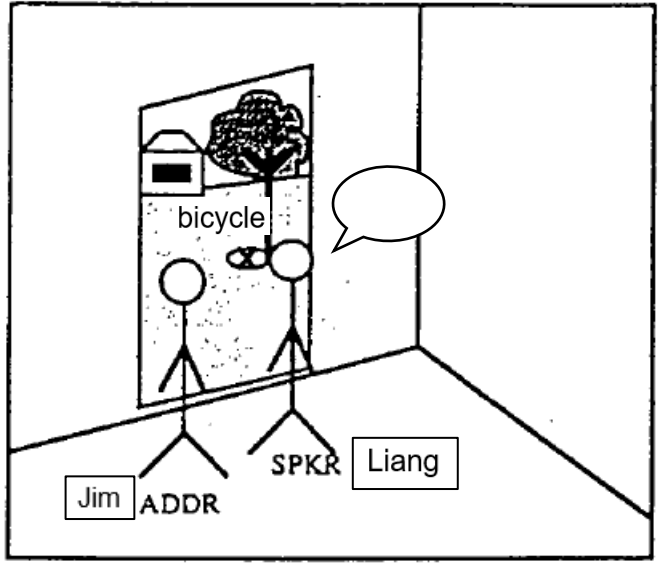
<b>Scene 21</b>	
	<p>21. Two friends, Liang and Jim are standing inside of a house looking out an open door. They are both near the doorway. There is a green bicycle next to a tree outside. The bike is technically closer to Liang since the bike and the tree are on her side of the house.</p>
<p>1. How would Liang say “I like ___ bike”?</p>	
<p>2. How would Liang say “Whose bike is ___?”?</p>	
<p>3. Q: Does it make a difference if Liang points? Must she point?</p> <p>a. If Liang <b>does</b> point, how would she say (1)?</p> <p>b. If Liang <b>doesn’t</b> point, how would she say (1)?</p>	
<p>4. Q: Does it make a difference if the bicycle has been mentioned before?</p> <p>a. If Jim <b>did</b> tell Liang about a bike that was outside earlier, how would Liang say (1)?</p> <p>b. If Jim <b>did not</b> tell Liang about the bike earlier, how would Liang say (1)?</p>	
<p>5. Q: Does it make a difference if Jim has his attention drawn to the bike or not?</p> <p>a. If Jim is looking <b>at the bike</b> already, how would Liang say (1)?</p> <p>b. If Jim is looking <b>at his phone</b>, how would Liang say (1)?</p>	

Figure 4.7. Wilkins Scene 21

In this scene, the speaker and addressee are both indoors and the referent object is a bicycle which is outdoors near a tree. All three speakers accepted *khi* and rejected *kha* and *hi*. Their responses are shown below.

(123) [Mah setbing **khi**] ka-uar ngai  
 DEM bicycle DIST 1.SG-like INT  
 “I like that bicycle.” (Wilkins 21, Vawngtu speaker)

(124) [Mah setbing **khi**] ka-uar ngai  
 DEM bicycle DIST 1.SG-like INT  
 “I like that bicycle.” (Wilkins 21, Hakha speaker)

(125) [Mah **khi**] setbing khi ka-uar  
 DEM DIST bicycle DIST 1.SG-like  
 “I like that bicycle.” (Wilkins 21, Thantlang speaker)

This section has shown that in Hakha Lai, speaker- and addressee-distal location is encoded with the spatial deictic morpheme *khi*. The next section will discuss the usage of the non-spatial deictic *cu*.

#### 4.4.3.4. Non-spatial deictic *cu*

The fourth discourse deictic was found to not have spatial deictic properties but was nevertheless a common component of Hakha Lai demonstrative phrases. Previous research has reported that *cu* is a remote demonstrative, meaning that it is used to refer to objects which are not visible to speaker or addressee. However, responses from the WDQ provide evidence that this is not the case. This is illustrated in referencing Scenes 3 and 25. Each will be addressed in turn.

In WDQ Scene 3, the referent object, a bee, is close to the speaker. However, all three speakers accepted both *hi* and *cu* in their responses, shown below.

(126) [Mah khuai **cu**] hna a-ka-hnawh ngai  
 DEM bee CU ear 3.SG-1.SG-bother INT  
 “This bee is bothering me.” (Wilkins 3, Vawngtu speaker)



(127) [Mah khuai **cu**] hna a-ka-hnawh tuk  
 DEM bee CU ear 3.SG-1.SG-bother INT  
 “This bee is bothering me.” (Wilkins 3, Hakha speaker)

(128) [Mah khuai **cu**] hna a-ka-hnawh  
 DEM bee CU ear 3.SG-1.SG-bother  
 “This bee is bothering me.” (Wilkins 3, Thantlang speaker)

If *cu* were to be analyzed as a remote demonstrative, then *cu* should not be an acceptable discourse deictic in the demonstrative phrases in examples (126-128). In these examples, it is likely the case that the bee is being referred to deictically without reference to its spatial location.

Scene 25 provides additional support that *cu* is not a remote demonstrative. Scene 25 is shown in Figure 4.8 below.

Scene 25	
	<p>25. Two friends, Michelle, the speaker, and Jim, the addressee, are in a large park. They are looking across a river some kilometers away at some hills. Somewhere in the hills, there is a statue. However, neither of them can see the statue currently.</p>
1. How would Michelle say “I’ve climbed to ___ statue”?	
2. How would Michelle say “Have you been to ___ statue?”?	
3. How would Michelle say “My father made ___ statue”?	
4. Q: Does it make a difference if Jim knows the statue is there or doesn’t know the statue is there?	
a. If Michelle knows that <b>Jim already knows</b> about the statue, how would Michelle say (1)?	
b. If Michelle thinks that <b>Jim doesn’t already know</b> about the statue, how would Michelle say (1)?	
5. Q: Does it make a difference if the statue has been mentioned before?	
a. If Michelle earlier <b>did</b> tell Jim about a statue in the hills, how would Michelle say (1)?	
b. If Michelle <b>did not</b> tell Jim about the statue earlier, how would Michelle say (1)?	
6. Q: Does it make a difference if Michelle points? Must she point?	
a. If Michelle <b>does</b> point, how would she say (1)?	
b. If Michelle <b>doesn’t</b> point, how would she say (1)?	

Figure 4.8. Wilkins Scene 25

In this scene, the referent object is not visible to speaker and addressee. If *cu* were a remote demonstrative, it would be the preferred deictic morpheme. However, all three speakers accepted *khi* and rejected *cu*. Their responses are shown in (129-131) below.

(129) [Mah lungdawnh **khi**] ka-kal cang  
 DEM memorial post DIST 1.SG-go PERF  
 “I have been to that statue.” (Wilkins 25, Vawngtu speaker)

(130) [Khi-ka           zawn           lungdongh           **khi**]           ka-kai  
 DIST-LOC       angle           memorial post       DIST           1.SG-go  
 bal  
 EXP  
 “I have been to that statue there before.”           (Wilkins 25, Hakha speaker)

(131) [Mah-ka           zawn   um    mi    tlang           hnu   lei    i    milem  
 DEM-LOC       angle   be.at   REL   mountain       behind side   ADV   statue  
 um    mi    tiang   **khi**]           ka-kai       bel  
 be.at   REL   area   DIST           1.SG-arrive   EXP  
 “I have been to that statue that is behind that mountain.” (Wilkins 25, Thantlang speaker)

Because the preferred form for a referent object is the distal spatial deictic *khi* and *cu* is found not acceptable, we should conclude that *cu* is not a remote demonstrative. This then raises the question of what role *cu* plays, which will be addressed in Chapter 7.

#### 4.5 Discussion

The previous sections have provided evidence that Hakha Lai has three deixis-encoding morphemes, *hi*, *kha*, and *khi*, which encode the spatial location of a referent based on the proximity or distance to the speaker and addressee. A fourth deixis-encoding morpheme, *cu* seems not to encode spatial location and yet is still a part of the demonstrative paradigm in Hakha Lai.

One question that is raised by the data is why there are so many discrepancies in speaker responses. The only observable patterns were that the Hakha speaker tended to allow *kha* where others did not and the Thantlang speaker tended to allow *khi* where others did not. This could be due to speaker-led or region-led variation or a mistake in the elicitation design. Another question which remains is whether or not there is a grammatical paradigm to account for the different morphosyntactic configurations of demonstrative phrases. As has been speculated earlier, [*DEM N DEM*] and [*mah N DEM*] appear to be in free variation, with speaker or variant preference guiding the choice between the two. However, it is still unclear from these elicitation items when

[*DEM N CU*] is acceptable or necessary. This will need to be addressed in future research. Further issues raised by the data will be discussed in Chapter 7.

#### 4.6 Summary

This chapter described the results of the WDQ conducted with three fluent speakers of Hakha Lai. The data obtained as part of this questionnaire informed analyses of the formal and functional properties of the five morphemes involved in demonstrative expressions in Hakha Lai, revealing the paradigmatic distribution of these morphemes according to different spatial locational contexts of the referent object in relation to the speaker and addressee. The main findings are that *mah* appears prenominally in exophoric demonstrative phrases. In exophoric demonstrative phrases, the other four elements, *hi*, *kha*, *khi*, and *cu*, appear either postnominally (with prenominal *mah*) or in a circumnominal configuration. When the four discourse deictics appear postnominally without a prenominal element, they do not encode exophoric spatial deixis; rather, they likely encode endophoric spatial properties. The four deictic morphemes are *hi*, which encodes proximity to speaker, *kha*, which encodes proximity to addressee, *khi*, which encodes distance from speaker and addressee, and *cu*, a particle whose deictic properties encode general referentiality as opposed to the spatial position of the referent. This concludes the overview of the functional role of Hakha Lai discourse deictics in exophoric demonstrative expressions. The next chapter, Chapter 5, introduces and examines the role of discourse deictics in information structure marking and the forms acceptable for these functions. This is followed by Chapter 6, which discusses the roles of these morphemes in marking nominal reference (e.g., definiteness, quantification, etc.) in Hakha Lai.

## Chapter 5. Hakha Lai Information Structure Marking

This chapter investigates the usage of the discourse deictic morphemes *hi*, *kha*, *khi*, and *cu* in information structure marking in Hakha Lai, particularly their role in marking topic and focus. While the morphemes *hi*, *kha*, *khi*, and *cu*, described in the previous chapter are primarily involved in marking the spatial location of a referent in demonstrative constructions, they are also utilized for information structure purposes, often in the same linear position, i.e., postnominally without a prenominal element. Previous investigations into the role of discourse deictics in marking information structure have been impressionistic and this research contributes to those previous investigations by compiling a robust, controlled pool of data. The analysis provided in this chapter comes from data obtained in elicitation done with three fluent speakers of Hakha Lai, a female speaker in her 20's from Hakha, a female speaker in her 20's from Vawngtu (also spelled 'Vuangtu'), and a female speaker in her 20's from Thantlang. The elicitation are based on items from the questionnaire *Documenting Topic and Focus* designed by Judith Aissen and presented as part of the 4<sup>th</sup> International Conference on Language Documentation & Conservation (ICLDC4). Like the previous chapter, this chapter reports on research using targeted elicitation in carefully designed pragmatic contexts, a methodology which has not previously been employed for investigating these morphemes in Hakha Lai or other related languages. The results of the questionnaire reported here form the basis of an analysis of topic- and focus-marking in Hakha Lai and make important contributions to future research on morphological representations of information structure.

Research on topic and focus markers is ongoing and has been investigated previously in various languages, including English (Roberts 2012), Japanese (Kuroda 1972, 2005; Lee & Shimojo 2016), and Korean (Lee & Shimojo 2016). Because information structure marking is not

limited to over dedicated markers, the data obtained in this research also contributes to ongoing research on other forms of information structure marking. One such phenomenon is differential case marking, wherein the morphological form of case marking is sensitive to discourse-level properties of the referent noun, such as whether the nominal referent is animate, definite, or a sentence topic. Differential case marking (also called “differential object marking” or “differential subject marking”) is a cross-linguistic phenomenon and is robustly attested in Tibeto-Burman languages (see *Linguistics of the Tibeto-Burman Area* 34.2 and 35.1). Because of the nature of the data gathered using the Aissen 2015 questionnaire, the contents of this chapter contribute to ongoing research on differential case marking, even though the questionnaire was not designed with this phenomenon in mind.

To provide a preview of the content of this chapter, topic and focus are two functional categories which have been difficult to define but are important concepts in theories of discourse and information structure. Stated broadly, the notion of ‘topic’ as a linguistic category establishes what a given sentence is ‘about’, while ‘focus’ describes which constituent in a given sentence provides new information to the *common ground*. ‘Common ground’ is a term which describes the set of shared assumptions between the speaker and addressee (Stalnaker 2002). In English, topic does not have any overt morphological marking and is recognized as a covert feature of a sentence. However, English, like other languages, also allows for topic to be interpreted via left-dislocation, a syntactic rather than morphemic process. Focus, on the other hand, is often marked prosodically in English with a pitch accent.

Previous research in Hakha Lai has found that the topic and focus status of a referent are represented both morphologically and syntactically, wherein the morphological marking utilizes the same set of postnominal morphemes used in demonstrative phrase constructions. In this case,

postnominal *hi*, *kha*, *khi*, and *cu* are used to mark a sentence topic. The analysis in this chapter based on the results of the Aissen 2015 questionnaire posits that although most kinds of focus-marking are not overt in Hakha Lai, other types, such as contrastive focus are marked overtly, often with postnominal *cu*. In addition, focused constituents are sometimes prohibited from discourse deictic marking, due to, for instance, the co-occurrence of focus and topichood. The research presented herein supports an analysis of Hakha Lai information structure marking where functions such as ‘focus-marking’ are subsumed under a larger category ‘foregrounding’, which provides a more parsimonious understanding of the function of overt morphological forms in Hakha Lai. Foregrounding, as described by Peterson (2011), is any function which draws the addressee’s attention to the referent, either as a matter of contrast, focus, or other discourse-level significance. According to Barnes (1998), topic in Hakha Lai is optionally marked with postnominal *hi*, *kha*, *khi*, or *cu*. The choice of which morpheme is used is based on endophoric (speaker-internal) categorizations, with *hi* and *khi* reflecting general notions of proximity and distance respectively, and *kha* marking speaker-addressee familiarity and *cu* applied in topic-marking constructions which make no reference to spatial deictic relations between the referent and the speaker or addressee, endophoric or otherwise. The findings of this questionnaire and the subsequent analysis contained here contribute to research on overt morphological marking of topic and focus, a little-researched subject in linguistics literature and contributes more widely to research on information structure patterns in natural language.

The rest of this chapter proceeds as follows. First, there is an introduction to the concepts of topic and focus, with reference to the definitions provided by Aissen and others. This section also contains a discussion of two typological phenomena relevant to the analysis of information structure, “optional agentive marking” and “differential case marking”, both concepts which have

been investigated in previous work on Tibeto-Burman languages. Next is a brief discussion of the Aissen 2015 elicitation questionnaire. This is followed by an analysis of the results of the questionnaire, first examining focus-related structures in Hakha Lai and then topic-marking. The chapter is summarized and ends with a conclusion.

## 5.1 Topic and Focus as Components of Information Structure

Before looking at Lai topic- and focus-marking, it is necessary to define what these two terms refer to and how they have been investigated in previous linguistics literature. Topic and focus are two concepts which are difficult to define neatly but are often discussed in analyses of discourse and information structure in natural language. The notion of ‘topic’ as a linguistic category describes what a sentence is ‘about’ (Aissen 2015). This is paradigmatically contrasted with the ‘comment’, a category which expresses the content of the sentence related to the topic. In some languages, topichood is a contextually derived category which influences the formal properties of a sentence. In cases where the topic of the sentence is already established, it is often referred to with a pronoun or zero-marking in languages which are pro-drop. Topicality is a functional (as opposed to grammatical) category and should not be understood as equivalent to the grammatical subject, even though the grammatical subject is often the sentence topic. Topichood is established in the discourse by the interlocutors based on what has been discussed previously as well as what is in the *common ground*. For this reason, it is also often the case that topics are definite descriptions, the agents of transitive constructions, or the experiencers in intransitive or absolutive constructions. Linguistic research on topic often delves into the syntactic and morphological representations of this category. The grammaticalization of topic is best illustrated with two examples, first, one in





In the examples in (133a-b), the same semantic content is being expressed, wherein there is a dog chasing a cat in a garden. However, the sentences contrast with each other in that they establish different constituents as the sentence topic, represented by left-dislocation as well as a dedicated overt morphological marking, topic marker *wa*. The topics are the nominal expression *neko* ‘the cat’ in (133a) and the prepositional phrase *niwa de*, ‘in the garden’ in (131b). Notice also that in (133a) where *neko* is both the topic and the object of the verb *oikakete*, it is only marked with the topic marker *wa* and otherwise lacks accusative case marking. In (133b), *neko* is marked with the accusative case marker *o* when it is not the topic. In Japanese, it appears to be the case that a referent’s status as a sentence topic supersedes its semantic role as a theme. Thus, it is the topic marker *wa* which surfaces in (133a) as opposed to accusative marker *o* or even a stacking of markers, e.g., *\*neko o wa*.

One final note on overt topic marking that is worth mentioning is that it has not been shown to operate in the same way cross-linguistically. In a study of topic marking in Japanese and Korean (Lee & Shimojo 2016), it was found that the topic markers in the two languages encode different kinds of definiteness, wherein Korean marks *anaphoric* referents while Japanese marks *familiar* referents. The patterns of encoding different types of definiteness with overt topic marking will be relevant to how the deictic morpheme *cu* patterns in Hakha Lai.

Focus is, like topic, a pragmatic concept, also related to information structure, and is also defined by the ways in which it contributes to the *common ground*. One definition of focus which has been adopted for this study is the constituent in the sentence which provides new information and is presented in contrast with a set of alternative foci (Aissen 2015). The focus of a sentence is contrasted paradigmatically with the ‘background’, which contains the informational content of a sentence already known to the interlocutors. Languages which mark focus overtly can do so

through prosodic marking, as is the case with English, or with an overt focus marker morpheme.

An illustrative example of focus-marking in English is provided in example (134).

(134) **CONTEXT:** *Two friends, Beverly and Liang, are talking about their other friend, Dawn. Beverly knows that Dawn is driving somewhere tomorrow but she doesn't remember where. She knows that Liang should remember since Liang gave her some suggestions for local sights to check out. In fact, Dawn is driving to Indianapolis. She asks Liang where Dawn is driving tomorrow, and Liang tells her that Dawn is driving to Indianapolis.*

Beverly: a. Who is driving to Indianapolis tomorrow?

Liang: b. *Dawn* is driving to Indianapolis tomorrow.

c. #Dawn is driving to *Indianapolis* tomorrow.

In this example, (134a) establishes the question under discussion (QUD) and requests information about the subject argument of *driving to Indianapolis tomorrow*. In posing this question, the question word *who* represents the list of potential foci, that is, all of the potential responses to the question of who is driving to Indianapolis tomorrow. In responding, Liang in (134b) presents a response in the form of an argument of the verb phrase *driving to Indianapolis tomorrow* and marks it prosodically with a pitch accent (represented here with italics) to denote that it is the focus of the sentence, the element which provides new information.. The response with the prosodic focus-marking on *Dawn* in (134b) is considered to be pragmatically felicitous, meaning that it is acceptable according to the discourse situation. An alternative response, shown in (134c), is infelicitous because although it selects an appropriate argument in response to the question, the prosodic focus marking is found on the location argument, *Indianapolis*, which is not the question under discussion posed previously by Beverly. Such a sentence would be felicitously given in response to the question “*Where will Dawn drive to tomorrow?*”.

Languages also make use of overt morphological focus marking. Example (135) below from Gùrùntùm (West Chadic) (Hartmann and Zimmermann 2009) shows how both question focus and argument focus in are marked with a dedicated morpheme *á*.

- (135) a. [Á kwá] bà wúm kwálingála-i?  
 FOC who PROG chew colanut-DEF  
 “Who is chewing the colanut?” (p. 1342)
- b. [Á fúrmáyò] bà wúm kwálingála.  
 FOC Fulani PROG chew colanut  
 “The Fulani is chewing the colanut.” (p. 1342)

There are other types of focus as well. Besides argument focus, as seen in example (135), there is also sentence focus, exhaustive focus, corrective focus, and others. The Aissen questionnaire tests several of these different kinds of focus-marking.

## 5.2 Previous Research on Topic and Focus in Tibeto-Burman languages

Topic and focus have been the subject of little previous research in Tibeto-Burman languages. Hlun (2007) describes two pronominal forms in Hakha Lai which are governed by information structure-related properties including focus. Hlun (2007) categorizes pronouns with a *-mah* suffix, such as the first-person singular pronoun *keimah*, as “focus” pronoun forms, which can be contrasted with pronouns without the suffix, like *kei*, which are “contrast” forms. Examples in (136) illustrate the difference in usage of these two pronominal forms, thus showing that Hakha Lai is sensitive to the distinction between conventional argument focus and contrastive focus in its pronominal system.

- (136) a. [keimah cu] kaa-lio lai lo  
 1.SG.PRO TOP 1.SG.REFL-swim.I IRR NEG  
 “I am not going to swim” (I just came to watch the children). (Hlun 2007, p.85)
- b. [kei cu] kaa-lio lai lo  
 1.SG.PRO TOP 1.SG.REFL.-swim.I IRR NEG  
 “I am not going to swim” (You go, if you want). (Hlun 2007, p.85)

In example (136a), the speaker uses the “default” form of the first-person singular pronoun, *keimah*, which is used when not focus-marked, as part of a general statement about not going to swim. In



(138) [uico                    **cu**]    nizaan=ah                    ka-hmuh  
          dog                    TOP    yesterday=LOC                    1.SG-see  
          “I saw the dog yesterday.”                    (adapted from Barnes 1998, p.58)

According to Barnes’s analysis, *cu* is used in these sentences to mark the sentence topic. This will be tested further in this research by controlling the context of the utterance.

This section has introduced the basic properties of the information structure-related concepts of ‘topic’ and ‘focus’. These are both discourse-level properties of expressions but are shown to have morphological representations on the relevant grammatical element in some languages. Before proceeding to the questionnaire, it is worth taking a moment to discuss differential case marking, a phenomenon which involves the connections between nominal forms and discourse-level properties, and which has been the subject of previous research in Tibeto-Burman languages.

### 5.3 Differential Case Marking in Tibeto-Burman Languages

Another issue of relevance for the current discussion is differential case marking. Differential case marking is a concept which describes systems of discourse-level representation sensitive to overlap between case marking and discourse-level semantic and pragmatic properties of nominals. For instance, the choice between different forms of case marking or the presence or absence of a case marker would be determined by whether the referent noun is definite, animate, expresses volitionality, or several other categories. The term “differential case marking” is derived from “differential object marking”, which comes from Bossong (1985). Two recent studies which have investigated differential marking are Teo (2019), which used corpus data and experimental methods to investigate Sümi (Tibeto-Burman, Naga) and Just (2022), which focuses on verbal agreement in several Bantu languages. The research on differential marking is ongoing and the

current research is one of the first of its kind to use specific operationalizations of topic and focus alongside carefully designed elicitation schemes to investigate information structure marking in Hakha Lai.

Issues 34.2 and 35.1 of *Linguistics of the Tibeto-Burman Area* are dedicated to studies on optional agentive case marking, a type of differential case marking prevalent in Tibeto-Burman languages. The studies were part of a workshop on Optional Case Marking held in conjunction with the Himalayan Languages Symposium at the School of Oriental and Asian Studies (London, September 3, 2010). The papers contained in these volumes discuss the phenomenon of pragmatic factors influencing the appearance of agentive case marking on different nominal constituents. The analyses of most of these papers characterize this phenomenon as case marking, mainly due to the resemblance of the markers in question to agentive case markers in these languages. Such case marking corresponds structurally with features such as predicate valence, “heavy” NPs, semantically with arguments of verbs of speech, affirmative as opposed to negative clauses, and pragmatically with contrastive focus and unexpected or unsanctioned action. The conclusion drawn by volume editors Chelliah and Hyslop (2011) is that the terms “optional” and “pragmatic” are problematic because they fail to capture the nature of these markers because they are in some cases obligatory, and they are not always driven by pragmatic force. In this same volume, Peterson (2011) argues for analyzing these markers as *foregrounders*, based on textual analysis of Khumi, a South Central Tibeto-Burman language spoken in Bangladesh.

In Khumi, there is a postnominal marker =*mō*<sup>3</sup>, which has previously been categorized as an agentive case marker. However, Peterson (2011) found that this particle frequently appears where unexpected, marking non-agentive discourse entities, and does not always appear where expected on semantic agents. Analyzing the presence of =*mō*<sup>3</sup> in a naturalistic corpus, Peterson

categorizes the particle as a *foregrounder*, a particle whose purpose is to draw the addressee's attention to the referent, as a matter of contrast, focus, or other discourse-level significance. This is not the same as the information structure category of *focus* and it comes originally from Chafe (1972). A concept is *foregrounded* if the speaker can assume that the audience has the concept in mind, thus licensing the use of pronouns (Kaufer and Neuwirth 1982). As Peterson describes Khumi =*mö*<sup>3</sup>, it is a particle whose function is to foreground the referent with which it occurs.

While the current research does not consider discourse deictics to be case markers, the data obtained in conducting the Aissen questionnaire may support an analysis in which discourse deictics sometimes function as foregrounders, though more research is needed. The foregrounding hypothesis is appealing for two reasons: 1) the parallel marker to Khumi =*mo*<sup>3</sup> in Hakha Lai, *cu*, does not appear solely on agents and 2) most of the semantic and pragmatic conditions for “optional agentive marking” can be parsimoniously subsumed into the notion of *foregrounding*. Another strength of this hypothesis is that it can account for the optionality of these markers under an information structure-based analysis because it takes into consideration the speaker's understanding of what needs to be foregrounded for the interlocutor and what doesn't. This study does not investigate differential case marking in Hakha Lai as the elicitation instruments were not designed with this phenomenon in mind. The status of discourse deictics as case markers taking part in differential case marking or as foregrounders will be the subject of future research.

Having introduced the main topics of this chapter – topic, focus, information structure, and differential case marking – it is time to consult the results of the Aissen 2015 questionnaire to construct an analysis of the role of discourse deictics in marking information structure in Lai. This discussion will begin with an introduction to the questionnaire, what it investigates, and how it was deployed. Then, the results of the questionnaire obtained in elicitation sessions with three



fluent speakers will be used to describe the findings on general topic marking in Lai. This is followed by the role of discourse deictics in marking contrastive topics, which has been investigated more thoroughly in previous research, such as Hlun (2007). Then, the next section will turn to focus-marking in Lai, with a description of different types of focus, including the syntactic movement of question marker *ma* to alter the focus of a question.

#### **5.4 The Aissen 2015 Questionnaire**

To obtain the data needed to investigate information structure marking in Hakha Lai, this research made use of a questionnaire titled *Documenting Topic and Focus* (hereafter referred to as ‘Aissen 2015’). This questionnaire is split into two sections, the first one on focus, and the second on topic. The focus section introduces the notion of focus, how it is marked in language, and how to document it. This preliminary introduction introduces several different types of focus, including argument focus, selective focus, corrective focus, and exhaustive focus. Aissen notes that in different languages, different types of focus might be marked differently. The second section of the questionnaire, on topic, introduces topic as a functional category, provides notes on how topic is marked in language, and describes types of topics which are present in languages such as continuing topic and contrastive topic.

Using this questionnaire as a basis for elicitation design, the various categories of topic and focus were tested in elicitation by providing speaker participants with explicit contexts in which a given type of topic or focus would be relevant. The specifics of this methodology are outlined in Chapter 3, but they are repeated here for ease of reference. The elicitation design was also based on guidelines provided in Tonhauser and Matthewson (2015). Each elicitation item for each category contained a context, a “background utterance” (an immediately preceding utterance

which establishes the appropriate discourse context for target forms), and the target utterance. The participants were asked to translate the background and target utterances into Hakha Lai as part of an initial translation task and the target utterance was later tested in a follow-up acceptability judgement task for different kinds of discourse deictic marking on the topic and focus constituent within the sentence to test acceptability *in the utterance context*. Because the categories being tested are related to information structure, each context contained speaker and interlocutor background information as well as what was known and understood mutually between the characters in the context. The questionnaire items were given to three participants in one-on-one elicitation sessions conducted over Zoom.

The forms which were tested in the target sentence are illustrated in Table 5.1 below.

<i>[N]</i>	<i>[N DEM]</i>
<i>[mah N]</i>	<i>[mah N DEM]</i>
<i>[N cu]</i>	<i>[DEM N DEM]</i>
<i>[mah N cu]</i>	<i>[N DEM cu]</i>
<i>[cu N cu]</i>	<i>[DEM N cu]</i>
<i>[mah N DEM cu]</i>	<i>[DEM N DEM cu]</i>

*Table 5.1. Nominal Configurations Elicited in Acceptability Judgement Task*

Each of these forms have been shown to be grammatically acceptable forms in Hakha Lai in pilot research. Of special interest in this section are the forms *[N]*, *[N cu]*, *[N DEM]*, *[N DEM cu]*, *[mah N DEM cu]*, and *[DEM N DEM cu]*. The other forms are generally used for demonstratives, as shown in the results of the WDQ, described in Chapter 4.

## 5.5 Questionnaire Findings

Now that the methodology has been presented, it is time to look at the key findings based on the results of the Aissen questionnaire. In total, the author designed 22 items based on the questionnaire which was designed to test the grammatical encoding of different categories of topic and focus. This section will be followed by a discussion of these findings in section 5.7.

### 5.6.1. Topic Marking in Hakha Lai

Aissen (2015) contains six items on topic marking, dividing them into the categories of “topic”, contrastive topic, continuing topic, definite topic, indefinite topic, and definite locative topic. The contexts which were provided to the speakers establish the target referents in each sentence as the topic. In Hakha Lai, the topic of the sentence can go unmarked, surfacing as a “bare” referent. In addition, the topic can be marked with a set of postnominal morphemes, which establish the referent overtly as the sentence topic. Among the set of possible topic markers in Hakha Lai are the postnominal spatial deictics *hi*, *kha*, *khi*, and most commonly, *cu*. The option between bare marking and overt marking does not allow us to conclude that the postnominal spatial deictics and *cu* are themselves topic markers. It is also not clear whether topic marking in Hakha Lai is obligatory. Example (139) below shows the possible acceptable forms for a sentence topic. In this example, the sentence topic is the speakers’ friend, a definite individual referent. The context, utterance, and acceptable forms are shown in (139) below.

(139) **CONTEXT:** *Beverly and Michelle are talking about their friend, Dawn. Dawn is driving to Indianapolis with her sister. Beverly and Michelle know that Dawn hasn’t been able to spend time with her sister for a long time, so she must be excited.* (Aissen 19)

prompt:                   Beverly: “[Dawn] is driving to Indianapolis with her sister tomorrow.”  
                                  Michelle: “[**Dawn**] must be excited.”



What we can conclude from the Vawngtu speaker's response is that topic marking might be optional. According to the Thantlang speaker, *cu* is not the only discourse deictic which can appear with the topic, even to establish that *Dawn* is still the topic of the sentence. This calls into question the analysis of *cu* as a topic marker.

### 5.6.1.1. Contrastive topics

Contrastive topics are topics which co-occur, and which are distinct from one another. They often share the same focus and are the topics to two sub-questions of the same form. For example, in responding to the question “*What did the boys do and what did the girls do?*”, there are two sub-questions which are raised: “*What did the boys do?*” and “*What did the girls do?*”. The response will contain two sentences, each with their own topic. Other names for contrastive topic include *S-topic*, *double-focus of contrast*, *i-contrast*, and *focused topic* (Aissen 2015).

In Hakha Lai, contrastive topics can appear in bare form and do not require postnominal spatial deictic marking, whether it be *cu* or *hi*, *kha*, *khi*. This is shown in (141) below.

(141) **CONTEXT:** *This morning, Hiro was driving to campus and was behind a school bus full of children. The bus made frequent stops to pick up more children and this caused Hiro to arrive to campus later than expected. Later, he is telling Dawn about the bus of children. He tells her that the bus eventually stopped in front of a zoo and later stopped in front of a school. Dawn asks what happened.* (Aissen 18)

prompt: Dawn: “Where did the girls go and where did the boys go?”  
Hiro: “The girls went to the school, and the boys went to the playground.”

### Translation Task

Vawngtu speaker: Dawn: “Khoika ah dah hngakchia nu pawl le hngakchia pa pawl an kal?”  
Hiro: “[Hngakchia pa pawl **kha**] zoo ah an kal i, [hngakchia nu pawl **kha**] sianginn ah an kal.”

Hakha speaker: Dawn: “Mah dih cun hngakchia pawl nih zei dah an tuah?”  
Hiro: “[Nu pawl **kha**] sianginn ah an kal i, [pa pawl **cu**] lengtecelh nak ah an kal.”

Thantlang speaker: Dawn: “A ho dah khoika ah a kal?”  
 Hiro: “[Pa pawl **kha**] saram chiahnak ah an kal i, [nu pawl **kha**] sianginn ah an kal.”

### Judgement Task

	Vawngtu	Hakha	Thantlang
[nu pawl], [pa pawl]	✓	✓	✗
[nu pawl <b>kha</b> ], [pa pawl <b>cu</b> ]	✓	✓	?
[nu pawl <b>cu</b> ], [pa pawl <b>cu</b> ]	✓	✓	✓
[nu pawl <b>kha</b> ], [pa pawl <b>kha</b> ]	✓	✓	✓

We can see that the available postnominal markers for *nu pawl* ‘girls’ and *pa pawl* ‘boys’ are *kha* and *cu*. The Vawngtu and Hakha speakers accepted all forms, including those without any discourse deictics. The Thantlang speaker, on the other hand, did not accept the bare form and accepted forms which had the same discourse deictic on both contrastive topics. The Thantlang speaker did not produce and was not asked about forms with different discourse deictics on the referents.

#### 5.6.1.2 Definite topics

As stated previously, sentence topics are often definite descriptions. In Japanese, for example, unfamiliar entities cannot be marked with the topic marker *wa*. In Lai, both definite and indefinite topics can be marked with *mah*, but they cannot be marked solely with *cu*. Let’s first look at a definite sentence topic in example (142):

(142) **CONTEXT:** *David is looking into a room where there is a dog chasing a cat. He knows the dog because there is always a dog hanging out in that room. The cat and dog are making a lot of noise. Scott walks by in the hallway, hearing the noise, but not looking in the room. Scott asks what's happening. David knows that Scott also knows of the dog that is hanging out in the room. (Aissen 20b)*

prompt:                    Scott: “What’s going on?”  
                                David: “The dog is chasing a cat.”

**Translation Task**

Vawngtu Speaker:       Scott: “Zeidah a cang?”  
                                David: “[Uico nih] chizawh a dawi.”

Hakha Speaker:         Scott: “Zeidah a cang?”  
                                David: “[Mah uico nih] chizawh a dawi.”

Thantlang Speaker:    Scott: “Zeidah a cang?”  
                                David: “[Uico nih] chizawh kha a dawi.”

**Judgement Task**

	<b>Vawngtu</b>	<b>Hakha</b>	<b>Thantlang</b>
[uico nih]	✓	✓	✓
[mah uico nih]	✗	✓	✓
[uico nih cun]	✗	✗	✓
[mah uico nih cun]	✗	✓?	?

From the results of the judgement task, we can see that for definite sentence topics, all three speakers accepted a bare form. Although the Hakha and Thantlang speakers accepted a form with prenominal *mah*, the Vawngtu speaker rejected this form. Only the Thantlang speaker accepted a form with a postnominal discourse deictic *uico nih cun*. The Vawngtu and Hakha speakers were asked to judge forms with both prenominal *mah* and a discourse deictic. The Vawngtu speaker rejected it and the Hakha speaker found it acceptable only if *chizawh*, ‘cat’ were also marked with *cu*. What we can conclude from these results is that definite sentence topics do not need a discourse deictic to be acceptable; however, they were found acceptable by some speakers in some circumstances. It’s possible that the presence of overt case marking has an effect on the choice or presence of discourse deictic, but this kind of example would need to be revisited in order to come

to a clearer conclusion on the interaction of case marking and discourse deictics on definite sentence topics.

Example (143) below tests discourse deictic marking in a similar scenario, this time with an indefinite sentence topic.

(143) **CONTEXT:** *David is looking into a room where there is a dog chasing a cat. David does not know where this cat and this dog came from. They are making a lot of noise. Scott walks by in the hallway, hearing the noise, but not looking in the room. Scott asks what’s happening. David thinks that Scott also does not know where the cat and dog are from. (Aissen 20a)*

prompt:                    Scott: “What’s going on?”  
                               David: “A dog is chasing a cat.”

**Translation Task**

Vawngtu Speaker:       Scott: “Zeidah a cang?”  
                               David: “[Uico nih] chizawh a dawi.”

Hakha Speaker:         Scott: “Zeidah a cang?”  
                               David: “[Mah uico nih] chizawh a dawi.”

Thantlang Speaker:    Scott: “Zeidah a cang?”  
                               David: “[Uico nih] chizawh kha a dawi.”

**Judgement Task**

	Vawngtu	Hakha	Thantlang
[uico nih]	✓	✓	✓
[mah uico nih]	✗	✗	✓
[uico nih cun]	✗	✗	✓
[mah uico nih cun]	✗	✗	?

In comparing the responses to the translation task in (142) with a definite sentence topic and (143) with an indefinite sentence topic, there is no difference in speakers’ responses. In the judgement task, the primary difference is in the responses of the Hakha speaker, who found forms with *mah* unacceptable where they previously had been. The Thantlang speaker found all forms tested acceptable and was not asked about forms with both case marking and a discourse deictic.



The results from these two elicitation items, Aissen 20a and 20b, show that both definite and indefinite sentence topics can occur without discourse deictics markers. However, it is still unclear whether or not this is due to the presence of the case marker *nih* on the sentence topics in these scenarios. Future research could investigate the sub-category of topic marking further.

### **5.6.1.3 Summary of Hakha Lai Topic Marking**

Given that topic referents in the previous examples can surface both with and without markers, this raises the question as to whether *cu* is a topic marker and whether topic marking in Hakha Lai is optional. Considering the foregrounding hypothesis, where *cu* is used to emphasize a referent in a sentence, it is possible that there is no over topic marking in Hakha Lai and that the topic of a sentence can instead be optionally foregrounded with *cu*. The lack of acceptability for other spatial deictic markers also precludes the topic marking hypothesis for spatial deictics such as *hi*, *kha*, and *khi*.

### **5.6.2. Focus Marking in Hakha Lai**

Focus marking occurs in language in at least two ways, through prosodic accent and through overt morphological marking. The role of prosodic accent in marking focus has seldom been tested in Tibeto-Burman languages. In an investigation of Sümi, a Tibeto-Burman language spoken in Northeast India, Teo (2019) found that in an experimental context, speakers relied more on the sentence type than prosodic pitch to interpret information structure. In the current investigation, it appears that Hakha Lai does not exhibit overt morphological focus marking. However, the focus of a sentence has been found to restrict what other kinds of postnominal marking may appear on a nominal constituent. As with the other questionnaire elicitation items, each item was presented to the speaker with a preceding context, a background utterance, and a target utterance to be translated

into Hakha Lai in the translation task. The follow-up acceptability judgement task was presented in subsequent sessions to test which types of marking would also be found acceptable on the target utterance. The results of the questionnaire show that in Hakha Lai, the focus of a sentence is unmarked. However, focus status prohibits certain types of marking in some cases. The results from focus-related items in the Aissen questionnaire are presented and discussed below.

### 5.6.2.1 Focused Referents

This section describes the results of items which test several types of focus in Hakha Lai these are: agent focus, recipient focus, corrective focus, and contrastive focus.

### 5.6.2.2 Agent Focus

Results from the Aissen 2015 questionnaire which test focus marking on a semantic agent are shown below.

(144) **CONTEXT:** *Two friends, Jim and Dawn are talking about driving to Indianapolis. Jim knows that someone else he was just talking to told him that they will drive to Indianapolis tomorrow, but he can't remember who. He asks Dawn. (Aissen 2)*

prompt: Jim: "Who will drive to Indianapolis tomorrow?"  
Dawn: "[**Hiro**] will drive to Indianapolis tomorrow."

#### **Translation Task:**

Vawngtu speaker: Jim: "Ho dah thaizing Indianapolis ah a kal hnik?"  
Dawn: "Thaizing Indianapolis ah [**Hiro**] a kal hnik."

Hakha speaker: Jim: Thaizing kha a ho dah Indianapolis ah a kal lai?  
Dawn: "[**Hiro kha**] thaizing ah Indianapolis ah a kal lai."

Thantlang speaker: Jim: "A ho dah thaizing ah/cu Indianapolis ah a kal lai?"  
Dawn: "Thaizing cu [**Hiro kha**] Indianapolis ah a kal lai"

### Judgement Task

	Vawngtu	Hakha	Thantlang
[Hiro]	✓	✓	✗
[Hiro hi]	✓?	✗	✓?
[Hiro kha]	✗?	✓	✓
[Hiro khi]	✗	✗	✓?
[Hiro cu]	✓	✓	✗

In the responses to the translation task shown in example (144), we see that the speakers marked the focused agent with *kha* or left it unmarked. In the judgement task, speakers did not agree on which discourse deictic forms were acceptable. The Vawngtu and Hakha speakers found the bare form without a discourse deictic acceptable while the Thantlang speaker rejected a bare form. The acceptability of *cu* also reflected this discrepancy, where the Hakha and Vawngtu speakers accepted postnominal *cu* and the Thantlang speaker rejected postnominal *cu*. Both the Vawngtu and Thantlang speaker remarked that *hi* would be acceptable if the referent were nearby. The Vawngtu speaker also accepted *kha* if it was being used to remind the addressee, which was not explicitly mentioned in the context description. The Thantlang speaker accepted postnominal *khi* if the referent was not nearby.

#### 5.6.2.3 Recipient Focus

(145) **CONTEXT:** *Art and Michelle are talking about a book they are reading for class. One of their classmates, Hiro, is going to lend his book to Beverly. (Aissen 7)*

prompt: Art: Who will Hiro give the book to?  
Michelle: Hiro will give the book to [Beverly].

#### Translation Task:

Vawngtu speaker: Art: “Hiro nih ho dah cauk a pek hnga?”  
Michelle: “[Beverly] a pek lai.”

Hakha speaker: Art: “A ho dah Hiro nih a cauk cu a pek lai?”  
 Michelle: “Hiro nih [Beverly **kha**] a cauk cu a pek lai.”

Thantlang speaker: Art: “Hiro nih a ho dah cauk kha a pek lai?”  
 Michelle: “Hiro nih cauk cu [Beverly **kha**] a pek lai.”

**Judgement Task:**

	<b>Vawngtu</b>	<b>Hakha</b>	<b>Thantlang</b>
[Beverly]	✓	✓	✓
[Beverly kha]	✓	✓	✓
[Beverly cu]	X	✓	✓?

In the results of the translation task shown in (145) above, the Vawngtu speaker did not include discourse deictic marking while the Hakha and Thantlang speaker marked the focused recipient with postnominal *kha*. In the judgement task, the Vawngtu speaker rejected postnominal *cu* on the focused recipient. This is possibly because the template sentence in her response did not contain an overt agent and the presence of *cu* would cause ambiguity about the role of the referent *Beverly* in the response to the question. The Hakha and Thantlang speaker accepted all forms, though the Thantlang speaker remarked that although postnominal *cu* is acceptable on the focused recipient, the sentence does not sound good. This is possibly due to the presence of postnominal *cu* on the immediately preceding constituent, *cauk* ‘book’.

**5.6.2.4 Corrective Focus**

Another type of focus tested in the Aissen 2015 questionnaire is corrective focus. This is a type of focus where a previous statement is denied and then restated with a corrected constituent. For an example, confer the sequence in example (146) below.

(146) Speaker 1: Jim is going to Cleveland.

Speaker 2: No, he is going to *Indianapolis*.

In this example, the constituent which is altered is the location, from *Cleveland* to *Indianapolis*. The background information, that Jim is going somewhere, is maintained in the second sentence.

The example below shows the usage of *cu* in corrective focus contexts:

(147) **CONTEXT:** *Two friends, Dawn and Michelle are talking about their friend, Jim. Jim is driving to Indianapolis tomorrow. (Aissen 5)*

prompt: Dawn: “Jim will drive to Cleveland tomorrow.”  
Michelle: “No, Jim will drive to [Indianapolis] tomorrow.”

**Translation Task:**

Vawngtu speaker: Dawn: “Jim cu thaizing Cleveland ah a kal lai.”  
Michelle: “A si lo, Jim cu thaizing [Indianapolis ah] a kal lai.”

Hakha speaker: Dawn: “Jim kha thaizing Cleveland ah a kal lai.”  
Michelle: “A si lo, Jim cu thaizing [Indianapolis ah] a kal lai.”

Thantlang speaker: Dawn: “Thaizing cu Jim kha Cleveland ah a kal lai.”  
Michelle: “A si lo. Thaizing cu Jim kha [Indianapolis ah] a kal lai.”

**Judgement Task:**

	<b>Vawngtu</b>	<b>Hakha</b>	<b>Thantlang</b>
[Indianapolis ah]	✓	✓	✓
[Indianapolis ah cun]	✗	✗	✓

From the results of the translation task, it can be seen that all three speakers accepted a form with no postnominal discourse deictic on a corrective focus constituent. In the judgement task, the Vawngtu and Hakha speakers rejected forms with postnominal *cu(n)*. The Thantlang speaker, however, accepted this form.

The results of the Aissen 2015 questionnaire show that constituents with corrective focus need not appear with overt morphological marking. Both the Vawngtu and Hakha speaker rejected overt marking. Comparing these results with the results from the agent and recipient focus items, it would seem that bare nominals are almost always acceptable forms for focused constituents and

that there is inconsistency in whether or not discourse deictic marking is allowed. The next two sections examine one final category or focus marking, contrastive focus.

### 5.6.2.5. Contrastive focus

Contrastive focus is used to mark a constituent which is being contrasted with another of the same type which is previously stated or known. The example below illustrates how contrastive foci are marked in Lai.

(148) **CONTEXT:** *Two friends, Jim and Hiro are talking about their friends, Dawn and Scott. Dawn is driving to Indianapolis and Scott is driving to Cleveland.* (Aissen 6)

prompt: Hiro: Who is driving where tomorrow?  
 Jim: [Dawn] is driving to Indianapolis tomorrow and [Scott] is driving to Cleveland.

#### Translation Task:

Vawngtu speaker: Hiro: “A ho dah thaizing khual a tlawng hnik?”  
 Jim: “[Dawn cu] Indianapolis ah a kal lai i, [Scott cu] Cleveland ah a kal lai.”

Hakha speaker: Hiro: a ho dah khoika ah a kal lai?  
 Jim: [Dawn cu] Indianapolis ah a kal lai cun, [Scott cu] Cleveland ah a kal lai.”

Thantlang speaker: Hiro: A ho dah thaizing cu khoika ah a kal lai?  
 Jim: [Dawn kha] thaizing cu Indianapolis ah a kal lai i, [Scott kha] Cleveland ah a kal lai

#### Judgement Task:

	Vawngtu	Hakha	Thantlang
[Dawn, Scott]	✓	✗	✗
[Dawn cu, Scott cu]	✓	✓	✓
[Dawn kha, Scott kha]	✗	✗	✓

In the responses to the translation task, all three speakers marked the contrastive focus constituents *Dawn* and *Scott* with discourse deictics. The Vawngtu and Hakha speakers used *cu* while the Thantlang speaker used *kha*. In their responses to the judgement task, only the Vawngtu speaker

accepted a bare form. All three speakers accepted *cu*-marking on both focused constituents, and only the Thantlang speaker, who used *kha* in her initial response, found *kha* acceptable.

### 5.6.2.6. Question word *ma*

One additional focus-related phenomenon in Lai is the ability for the question word *ma* to be dislocated to follow an intended question focus. Typically, the question word *ma* appears in sentence-final position to mark a polar yes-no question. The usage of sentence-final *ma* to form a polar yes-no question is illustrated in example (149) below.

- (149) a.       buh   na-ei  
               rice   2.SG-eat  
               “You ate rice.”
- b.       buh   na-ei       [ma]?  
               rice   2.SG-eat     Q?  
               “Did you eat rice?”

The sentence “*buh na ei*” in example (149a) is a declarative statement. The addition of the question word *ma* in sentence-final position in (149b) renders it a polar question. In Lai, the question word *ma* is able to move to other positions in the sentence in order to focus-mark the constituent and make it the question under discussion. Example (150) illustrates the movement of question word *ma*.

- (150) buh       [ma]   na-ei?  
           rice     Q       2.SG-eat  
           “Did you eat *rice*?” or “Was it rice that you ate?”

The question word *ma* must always appear after the constituent which is focused. This form is restricted to sentential and nominal constituents, though it hasn’t yet been tested in VPs.

## 5.6 Discussion

The results from the questionnaire provide the first in-depth investigation of topic and focus marking in Hakha Lai. The results from the questionnaire reveal that in Hakha Lai, sentence topics can be marked with postnominal discourse deictics, often *cu*. However, this only supports an analysis in which discourse deictics are *compatible with* sentence topics and do not overtly mark them. This argument is further supported by the observation that sentence topics can occasionally appear without discourse deictic marking. It could further be argued that the appearance of discourse deictics is attributed to other factors related to sentence topics, such as subjecthood or definiteness, though examples such as (143) provide counterarguments to an argument based on definiteness. More examples with more types of constituents will need to be researched in order to determine the interaction of discourse deictics and topic marking in Lai. As for focus marking, focused constituents in Lai often appear both with and without discourse deictics. More often, it is the unmarked form which is preferred for discourse deictics, though speakers rarely agreed completely in their judgements.

In both cases, there is a noticeable amount of discrepancy between speakers, both in their translation task responses and acceptability judgement responses. These discrepancies would need to be addressed before coming to a firm conclusion about the acceptability of certain forms. At a glance, it seems that the Thantlang speaker is more accepting of a wider range of forms, but this was not always the case. Future research using a larger set of topic and focus categories and working with speakers in a group setting could further clarify speaker judgements on the usage of discourse deictics in information structure marking in Lai.



One way to address these remaining questions is to do cross-linguistic comparisons with data from other Tibeto-Burman languages, such as Sümi (Teo 2019), Khumi (Peterson 2011), and Falam (King 2010). By investigating the patterns of information structure marking in these related languages, we can get a better understanding of the historical development and formal-functional properties of these markers.

## **5.7 Summary**

This chapter has presented the results of elicitation items based on the Aissen 2015 questionnaire on topic and focus which investigates information structure-marking items in Hakha Lai. Key findings were that any of the postnominal spatial deictic markers are compatible with topichood and that focus is generally unmarked in Hakha Lai. The next chapter reports the results of elicitation items based on the Jenks 2015 nominal interpretations questionnaire, which investigates the role of discourse deictic marking in nominal interpretation in Hakha Lai.

## Chapter 6. Nominal Reference Marking in Hakha Lai

This chapter investigates the role of the four discourse deictics *hi*, *kha*, *khi*, and *cu* in encoding nominal reference properties in Hakha Lai. Nominal reference refers to how a nominal expression represents the identity of its referent to aid in the interpretation of discourse between a speaker and an addressee. Topics related to nominal reference include definiteness, specificity, quantification, existentials, generics, predicatives, kind-level referents, possession, existence/non-existence, and scope. The present chapter is mainly concerned with definiteness, as previous research has shown promising evidence that the discourse deictics encode definiteness and specificity through the use of two postnominal morphemes from the demonstrative system, *kha* and *cu*. The analysis in this chapter is based upon the results of a questionnaire, *Noun Phrase Interpretations Questionnaire* (hereafter ‘Jenks 2015’) designed by Peter Jenks, which is based on a presentation at the 4<sup>th</sup> International Conference on Language Documentation & Conservation (ICLDC4). The questionnaire items are designed to elicit data on nominal expressions controlling for the parameters of *reference*, *strength* (in the sense of Milsark 1977), *quantification*, *predication*, and *definiteness*. Items from the questionnaire were presented to three fluent speakers of Hakha Lai and their responses inform the analysis contained herein.

The usage of discourse deictics for encoding nominal reference is an extension of their function as markers of spatial location in demonstrative expressions. The diachronic development of this extension is a topic which requires further investigation but will not be explored in-depth here. Instead, this study investigates how various nominal referential properties are morphologically encoded in Hakha Lai synchronically. The data provided in this dissertation will inform future research on the diachronic development of spatial deictic morphemes into information structure marking particles. As with the previous two chapters, this research makes

use of a methodology which until now has not been employed in researching these phenomena in Tibeto-Burman languages, namely the use of structured elicitations to investigate the encoding of discourse-level properties of nominals. As with the investigation of information structure, it has been claimed that using fluent elicitation data to investigate nominal reference is extremely difficult. This current study has involved careful elicitation design to accommodate this challenge and employs the methodology described previously (see Chapter 3).

To preview the contents of this chapter, Hakha Lai definite expressions often surface as bare nominals. Most properties involved in nominal reference (e.g., definiteness/indefiniteness, specificity, strong/weak nominals, quantification, existentials, generics, predicatives, kind-level referents, possession, existence/non-existence, scope) do not make direct use of discourse deictics to encode these properties. However, there are instances where these properties influence the presence of discourse deictics, a phenomenon similar to what is observed in differential case marking, wherein the semantic and pragmatic properties of a nominal referent influence the presence/absence/form of case marking on the nominal expression. One of the key observations regarding the representation of nominal referential properties through overt morphological marking is that two members of the discourse deictic paradigm, *kha* and *cu*, occur with nominal expressions to mark fine-grained distinctions in the definiteness properties of the nominal. The postnominal discourse deictic *kha* is used to mark a referent expression as *familiar* to the speaker and addressee, often through general shared knowledge of the referent. The additional parameters of “familiarity” in this sense will be expanded upon below. The other discourse deictic, *cu*, which appears to perform a number of functions in the language, is occasionally used for anaphoric reference, wherein a referent which was mentioned previously in discourse is marked with *cu*. Additionally, *cu* is shown to be required in predicative expressions, hinting that *cu* could be

operating in this capacity as a predicative case marker. The polyfunctionality of *cu* is one of the significant findings of this research and raises several questions to be addressed in the future.

The rest of the chapter proceeds as follows. It begins by introducing the nominal interpretation concepts at issue in the chapter. This is supplemented with discussions of previous research on nominal reference in world languages, then more specifically into research on nominal interpretation in Hakha Lai. Then, the Jenks 2015 questionnaire will be introduced, discussing its function, design, and deployment. This is followed by a description of the questionnaire results with key findings of the elicitation items and a discussion. This chapter ends with a conclusion summarizing the findings and leading into the next chapter, a discussion of additional concepts relevant to discourse deictics in Hakha Lai, how the findings of the three questionnaires contribute to this discussion, and how they inform future research.

## 6.1 Previous Research on Nominal Reference

One of the most widely discussed properties involved in nominal reference is definiteness. Definiteness is a semantic grammatical property of nominal expressions that has long been subject to theoretical analysis. Early work by semanticists such as Frege (1892) and Strawson (1950) posit that definite expressions contain a semantic feature which establishes their *uniqueness* in an utterance context. In contrast, later studies by Christophersen (1939), Kamp (1981), and Heim (1982) argue that expressions are definite based on their status within the common ground between speaker and addressee, essentially recognizing definites as *anaphoric* expressions. These two *uniqueness* and *anaphoricity* (or *familiarity*) analyses are the main analyses of definiteness to date. However, recent research on definite expressions has found that both properties can be encoded in

definite expressions and in some cases, linguistic data from some languages has shown that these might be better categorized as two different *types* of definiteness.

Moving outside the domain of definite expressions, one type of division observed in nominals is *strength*, those which are *weak* and those which are *strong* (Milsark 1977). The distinction is based on the ability of a nominal expression to appear in existential *there*-statements. A strong nominal is one which is prohibited from being the argument of *there is/are*, while weak nominals are those which are allowed. This is best illustrated with the sentences in example (151) below.

(151) *Strong and weak nominals in existential there-sentences* (adapted from Jenks 2015)

- a. \*There is [the dog] in my office.
- b. \*There is [every dog] in my office.
- c. There is [a dog] in my office.
- d. There are [three dogs] in my office.

In the example sentences in (151) above, nominal expressions *the dog* and *every dog* are considered strong, since they are unacceptable in existential *there*-statements. The nominal expressions *a dog* and *three dogs* are likewise allowable and are considered weak nominals. The inability of definite expressions to act as the argument in existential *there*-sentences is sometimes referred to as the ‘definiteness effect’<sup>19</sup>.

To address questions about the semantic properties of definite expressions, researchers have turned to examining the structure and context of definite expressions themselves. Heim (1982) sought to explain the pragmatic and semantic function of definite and indefinite expressions in English according to a dynamic semantic system called “file change semantics”, which considered the continually updated common ground knowledge of the speaker and addressee. Within Heim’s framework, the definite/indefinite distinction is a grammatical device for marking whether a

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<sup>19</sup> However, see the discussion of Keenan (2003) in Chapter 2 for an alternative approach.

discourse referent is *novel* or *familiar*. Indefinites are used for the former and definites for the latter. As a referent is first mentioned in discourse, it is established as a member of the logical form which contributes to the truth conditions of an utterance and is thus a novel *indefinite* expression. When a referent reappears in the discourse, it is *familiar* and thus, definite.

Subsequent work by Roberts (2003), Schwarz (2009) and others have utilized Heim's (1982) file change model in analyzing definite expressions. Roberts (2003), which builds on Heim (1982), combines the two prevailing *uniqueness*<sup>20</sup> - and *anaphoricity*-based analyses and establishes a delineation between two types of definite expressions. Roberts (2003) sought to address traditional analyses of definiteness, with a special focus on *uniqueness*, and to discuss whether uniqueness effects in definite expressions come about as a result of semantics or pragmatics. Roberts ultimately found that definite noun phrases can be divided into two different types which align with the two analyses. Based on the analysis in Heim (1982), Roberts argues that definite expressions are licensed by the existence of a corresponding referent in the discourse which is unique among all current discourse referents. This type of uniqueness effect is referred to by Roberts as *strong familiarity*. Examples of strong familiarity are found in second reference to a referent in a subsequent sentence, much like anaphoric expressions. Roberts further contributed to the definiteness debate by contrasting this type of familiarity with *weak familiarity*, in which the uniqueness effect does not come about as a result of the uniqueness in the local discourse context and is a result of uniqueness in a larger context. Examples of *weak familiarity* include expressions such as *the table* where there is only one table present in a room. This also applies to expressions such as *the sun* or *the President*. These are sometimes referred to as "larger situation"

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<sup>20</sup> *Uniqueness* can apply to singular referents as well as plural referents. Roberts (2003) states: "plural definites are also unique, in the sense that an instantiation must be the maximal set satisfying the description", referencing Link (1983).

or “global” definites. Later research on definiteness utilized the findings of Heim (1982) and Roberts (2003) to analyze the formal structures used to express these semantic definiteness properties in individual languages.

One such study, Schwarz (2009), investigates two types of definite articles in German to posit two types of definiteness: *strong* and *weak* definites, based on the concepts of *weak familiarity* and *strong familiarity* established in Roberts (2003)<sup>21</sup>. Example (152) from Schwarz (2009) below gives two minimally contrastive example sentences which illustrate the morphological representation of two types of definites in German articles.

(152) *German weak and strong familiarity* (adapted from Schwarz 2009, p.7)

- a. Hans ging [**zum** Haus]  
Hans went to.the<sub>weak</sub> house  
“Hans went to the house.”
- b. Hans ging [**zu dem** Haus]  
Hans went to the<sub>strong</sub> house  
“Hans went to the house.”

In example (152a), the definite article surfaces in its contracted form, *zum*, while in (152b), the contracted form is not available, always yielding the form *zu dem*. The reason for the phonological disparity in these two forms is because they contain two different forms of the definite article in German. Although they are both *dem* in citation form, the weak definite article *dem* in (152a) allows phonological contraction with the preposition *zu*, while the strong definite article *dem* in (152b) prohibits phonological contraction. As Schwarz interprets Roberts (2003), strong definites are used in cases of anaphoric reference, while weak definites are generally considered to align with situationally unique referents. Subsequent studies utilize the *weak/strong definite* framework established by Roberts (2003) and utilized in Schwarz (2009) in defining the morphology and semantics of definite expressions.

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<sup>21</sup> Note that this is different from Milsark’s notion of “weak” and “strong” nominals.

The observations made by Schwarz on German definiteness marking have been extended to analyses of other languages such as in Arkoh and Matthewson’s (2013) investigation of the article *nɔ* in Akan. While uniqueness-related or *weak* definites surface as bare nominals, there is also a postnominal article *nɔ*,<sup>22</sup> which encodes familiarity (Schwarz’s *strong definite*). This particle is used in definite expressions to anaphorically mark referents which have been previously established in the discourse background, making it a *strong definite*. Examples (153-154) below illustrates the usage of *nɔ* in Akan.

(153) *Akan nɔ* (Arkoh and Matthewson 2013, p.2)

**CONTEXT:** *beginning of conversation*

Mò-tó-ò	[èkùtú (*nó)].	[Èkùtú *(nó)]	yè	dèw	pápá
1.SG.SUBJ-buy-past	orange (*FAM)	orange *(FAM)	be	nice	good

“I bought an orange. The orange was really tasty.”

(154) *Akan nɔ* (Arkoh and Matthewson 2013, p.9)

**CONTEXT:** *Esi visits her friend Ama. There is a single cassava in a basket. Ama utters:*

??Ési	fá	[bànkýí	nó]	áà	ó-gú	kèntsén	mù	nó	brà
Esi	take	cassava	FAM	REL	it-pour	basket	in	FAM	come

“Esi, bring the cassava that is in the basket.”

As shown in (153), *nɔ* is infelicitous at the first mention of *èkùtú* ‘orange’. However, it is obligatory the second time the same orange is mentioned. Likewise, in (154), even though there is one unique cassava in the situation, *nɔ* is not acceptable because it has not yet been mentioned in discourse. Thus, the article *nɔ* is identified as an anaphoric (or strong) definite and not a uniqueness-marking (or weak) definite. The contribution of this study is that it applies the definiteness framework that had been developed by Heim, Roberts, and Schwarz to a language which contains definite expressions which can surface as bare nominals (having no overt definite/indefinite marking) in cases where uniqueness comes from the larger situation (Schwarz’s *weak definite*) and with a definite article *nɔ*, when definiteness comes from anaphoric reference.

<sup>22</sup> In Akan, this same particle *nɔ* also functions as a third person singular pronoun and a subordinate clause marker, but these functions are not the focus of Arkoh & Matthewson (2013) or the current study.



Also relevant to the work of Heim and Roberts is that both Akan and German have two distinct surface forms for definite expressions, each corresponding to two categories of definiteness described in previous research, showing the value of investigating definite expressions and their formal qualities across languages.

Although the semantics of definite expressions has been the focus of many investigations, the definiteness properties of demonstratives have merited their own semantic research. This is important to remember when analyzing Hakha Lai discourse deictics, morphemes which operate in both domains. Previous research, such as Elbourne (2008) and Kratzer (1989) use Barwise and Perry's (1983)<sup>23</sup> situation semantics to argue that demonstratives (as well as pronouns) are definite articles that introduce both existence and uniqueness presuppositions. Analyzing demonstratives and pronouns as definite expressions might help to explain why demonstratives often serve as the diachronic basis for the development of articles which perform other semantic functions, such as information structure marking or reference marking.

Beyond definiteness-marking, the instantiations of other kinds of nominal reference have been investigated in numerous languages. Gillon (2015), is an overview of articles and article-like elements in noun phrases across a set of languages. It describes the morphology of nominal reference in Skwxwu7mesh (Salish), Lithuanian (Balto-Slavic), Innu-aimun (Algonquian), and Inuttut (Labrador Inuktitut; Eskimo-Aleut). Gillon's main argument is that all articles are involved in domain restriction, meaning that they restrict the set of individuals which match the NP description to those that are within the domain of discourse (Gillon 2015). This analysis addresses variation in the function of articles across languages and presents a range of semantic functions of articles based on cross-linguistic data. Namely, this is whether they refer to definiteness or scope.

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<sup>23</sup> In situation semantics, a "situation" is the semantic primitive part of a possible world (in the semantic sense), which contributes to the semantic interpretation of an expression.

Gillon addresses the fact that for many languages, both definite and indefinite expressions can be represented with bare nominals, as is the case in Hakha Lai. In the languages referenced in Gillon (2015), articles do not serve to mark a referent as definite or indefinite, but rather to express another semantic property. For example, in Skwxwu7mesh, articles are used to mark deictic information or to elicit a wide or narrow scope interpretation. The article-like nature of discourse deictics in Hakha Lai make these findings relevant to the current study.

Another study which investigates the encoding of nominal reference is Kieviet (2017), which looks at two articles involved in definiteness and referentiality marking in Rapa Nui, a Polynesian language of Easter Island. The first article, *te*, appears in prenominal position and is defined by Kieviet as a “referentiality marker”, which marks a nominal as a referential expression. This article is often used for the subject or object arguments of verbs or for the subjects of nominal clauses that are not otherwise marked for number. The second article, *tu*, is an anaphoric definite article (Schwarz (2009)’s *strong definite*) and is often accompanied with a postnominal spatial deictic demonstrative. Example (155) below illustrates the usage of the anaphoric article *tu* in Rapa Nui.

(155) He                    iri                    rō                    mai   ‘ai   [tū   kona   era].<sup>24</sup>  
          NTR                    go.up                    EMPH                    higher SBS   DEM   place   DIST  
          ‘He went up from that place.’ (adapted from Kieviet 2017)

In Rapa Nui, the anaphoric definite article appears in circumnominal demonstrative configurations. A similar structure has been observed in Hakha Lai in which a prenominal general demonstrative *mah* accompanies a postnominal discourse deictic (*hi*, *kha*, *khi*, or *cu*). Kieviet’s analysis of Rapa Nui is relevant to the current study for two reasons. First, it presents natural language data on a referentiality-marking article and second, the circumnominal demonstrative-definite article

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<sup>24</sup> NTR- neutral aspect; EMPH- emphatic; SBS- subsequent

configuration is present in Hakha Lai. Parallel structural features might reflect parallel functional applications for the determiners in these two languages.

The *strong/weak* definite distinction has additionally been investigated in other languages, such as Mandarin and Cantonese in Jenks (2018). Jenks finds that Mandarin unique definites (*weak* in the sense of Roberts/Schwarz) surface as a bare noun while anaphoric definites (*strong* in the sense of Roberts/Schwarz) are realized with a demonstrative unless they are in subject position. The question which Jenks then raises is whether bare noun definites have a phonologically null D-headed DP or an NP without a D. In considering analyses that claim Mandarin NPs do not have a D (e.g., Chierchia 1998), Jenks presents two possible strategies of marking definiteness: via a covert type-shifting operation (involving the metalanguage operator  $\iota$ ) or by having classifiers serve the definiteness-marking function often performed by articles. These two possibilities have been examined in previous work. Cheng and Sybesma (1999), who argue that Mandarin has an overt (phonologically null) determiner, found that Mandarin definite expressions use bare nominals while Cantonese definite expressions use classifiers, illustrating the adaptation of nominal morphology for the encoding of secondary referential nominal properties. Jenks (2018) builds upon this analysis by continuing the investigation through the lens of Roberts (2003)'s and Schwarz (2009)'s uniqueness (*weak definites*) and familiarity (*strong definites*) analyses of definites. Jenks (2018) finds that Mandarin tends to use bare nominals for weak definites and demonstratives with strong definites. In consulting data and findings from other studies, Jenks (2018) states that languages such as Japanese, Korean, and Thai pattern with Mandarin, while Vietnamese, Hmong, and Bangla pattern with Cantonese.

The ways in which languages express weak and strong definiteness is summarized in Table 6.1 below.

Language	Weak Definites	Strong Definites	Citation
English (Germanic)	weak determiner <i>the</i>	strong determiner <i>the</i>	Heim 1982; Roberts 2003
Mandarin (Sino-Tibetan)	bare nominal	bare nominal (in subject position) demonstrative + nominal (in object position)	Jenks 2018
Cantonese (Sino-Tibetan)	classifier + nominal	classifier + nominal	Jenks 2018
Akan (Niger-Congo)	bare nominal	strong determiner <i>no</i>	Arkoh & Matthewson 2013
German (Germanic)	weak determiner <i>dem</i> which allows contraction	strong determiner <i>dem</i>	Schwarz 2009
Skxwu7mesh (Salish)	bare nominal	bare nominal	Gillon 2015
Rapa Nui (Austronesian)	-	strong definite <i>tu</i>	Kieviet 2017

Table 6.1. Weak and Strong Definites in Natural Languages

This survey of research on nominal reference, in particular definiteness, is useful in presenting the many theoretical schemes which have been used to investigate nominal reference in natural language. Because this study is the first research of its kind to investigate the role of discourse deictics in nominal reference, this study does not commit to one theory, but rather reports on the findings of the questionnaire in order to inform future research on this topic. The next chapter, Chapter 7, entertains some preliminary possibilities for theoretical analyses of Hakha Lai discourse deictics. Moving on, the next section will discuss previous research on nominal reference in Hakha Lai.

## 6.2 Previous Research on Nominal Reference in Hakha Lai

Previous studies on nominal reference in Hakha Lai have investigated the usage of discourse deictics *kha* and *cu*, which have been shown in Wamsley (2022) to be consistent with Schwarz's



This use of *kha* is notable because it marks a proper referent as “known by the addressee” instead of merely marking the nominal as definite. This can also be applied to place names as in the next example.

(159) [Falam            ah    **khan**] ka    kal    lai  
Falam            loc    kha

“I am going to Falaam (which you know)” (adapted from Barnes 1998, p.66)

In both these cases, the usage of *kha* to mark a proper noun referent evokes a familiarity property.

Baclawski’s research on discourse deictics also examines the referential properties of discourse deictics by referencing narrative texts and elicited data in Hyow, a South Central Tibeto-Burman language spoken in Bangladesh in Baclawski (2012) and in South Central Tibeto-Burman languages in general in Baclawski (2013a; 2013b). Baclawski (2012) approaches the question of the development of *cu* into a nominal reference marker from a historical and variational standpoint. He claims that historically, *\*tsu* was a distal morpheme. Among the Kuki-Chin languages he investigated, Lai and Mizo have *\*tsu* as a non-visible (or remote) demonstrative while others have it as a distal demonstrative morpheme.

Baclawski (2013a) also contains research on deictics and related phenomena in South Central Tibeto-Burman (Kuki-Chin) languages. In his analysis of postnominal deictics, he claims that they are all discourse deictics. This presents two possibilities for the analysis of demonstrative phrases in Hakha Lai. The first analysis is that demonstrative phrases are composed of a prenominal element which functions as a general demonstrative, often *mah*, while the postnominal element contains the spatial deictic semantic information in what is a compositionally transparent circumnominal demonstrative system. The second analysis, extrapolating from Baclawski (2013b), is that all demonstrative phrases in Hakha Lai have a prenominal element which is the true demonstrative and the postnominal element is a discourse-level “spatial” deictic which marks a

referent deictically PROXIMAL or DISTAL to speaker and addressee, but does not necessarily contain *exophoric spatial* semantic properties, instead representing these values as proximal or distal according to spatial, temporal, and/or discourse levels. Two features of the language further complicate these analyses. One is that prenominal *mah* can sometimes occur without a postnominal deictic, which supports the second analysis. Also, postnominal deictics can often occur on their own without prenominal *mah* in cases where a demonstrative would be used, though not always. See Chapter 4 for more discussion of demonstratives in Hakha Lai.

The current research builds upon the analyses of discourse deictics from Barnes (1998) and Baclawski (2012; 2013a; 2013b) by applying a methodology informed by data obtained in consultation with fluent speaker participants. This methodology uses carefully designed contexts in which the target nominal referential properties would appear. The elicitations were based upon the Jenks 2015 questionnaire on the interpretation of nominal phrases, which is described in the next section.

### **6.3 The Jenks 2015 Questionnaire**

The questionnaire which guided the design of the elicitation items used as part of this chapter's investigation, *Noun Phrase Interpretations Questionnaire* (Jenks 2015), was developed as part of a presentation on the interpretation of nominals presented at the 4th International Conference on Language Documentation and Conservation (ICLDC4). It contains explanations of different kinds of nominal interpretations based upon concepts such as reference, strength (in the sense of Milsark 1977), quantification, predication, and definiteness. Individual questionnaire items were designed by the author and presented to three fluent speakers of Hakha Lai. The questionnaire items consist of a description of the context, written by the author, a background phrase, and a target phrase

which contains the nominal reference property being tested. A full description of the methodology used for all three questionnaires is shown in Chapter 3 but is briefly summarized here for ease of reference. An example is shown in (160) below.

(160) **CONTEXT:** *Liang and Hiro are talking about a party that Liang held at her apartment last week. Liang tells Hiro that she bought all kinds of fruits to serve at the party but when she went to the store, there was only one mango left, which she bought. She knows that Hiro really likes mangoes, so she hopes that he was the one who got to eat it. However, when she asks Hiro if he ate the mango, he says that he didn't eat it. Liang asks why he didn't eat it.* (Jenks 1)

Liang (background sentence): Why didn't you eat the mango?

Hiro (target sentence): [The mango] had been eaten.

The speakers were each presented with the context and asked to complete two tasks. The first task was a translation task in which speakers were asked to translate the background sentence and the target sentence. In the example above in (160), these are the sentences spoken by the characters Liang and Hiro. The second task, presented in follow-up sessions was an acceptability judgement task which had the speakers judge the acceptability of alternatively marked forms for the target sentence, to test which types of discourse deictics were acceptable or unacceptable in the given context. In addition to marking target referents with discourse deictics, some elicitation items also included forms which moved the referent to the left edge of sentences, a possibility that had been observed in pilot research. Example (161) below, which shows an elicitation item from Jenks Item 1, tests marking on a definite subject *the mango*.

(161) **CONTEXT:** *Liang and Hiro are talking about a party that Liang held at her apartment last week. Liang tells Hiro that she bought all kinds of fruits to serve at the party but when she went to the store, there was only one mango left, which she bought. She knows that Hiro really likes mangoes, so she hopes that he was the one who got to eat it. However, when she asks Hiro if he ate the mango, he says that he didn't eat it. Liang asks why he didn't eat it.*

prompt:

Liang: Why didn't you eat the mango?

Hiro: [The mango] had already been eaten.



### Translation Task

Vawngtu speaker: Liang: Ziah **hai cu** na ei lo?  
Hiro: [**Hai cu**] aa ei cang.

In both sentences, the definite referent *hai* ‘the mango’ is marked with postnominal *cu*. In follow-up sessions with the Vawngtu speaker, the following forms were also found to be acceptable in the given context:

(162) *Jenks Item 1 Acceptability Task Responses (Vawngtu speaker)*

- a. [hai **kha**] aa ei cang
- b. [hai **kha cu**] aa ei cang

These forms were found unacceptable in the given context by the Vawngtu speaker:

- c. #[hai] aa ei cang
- d. #[hai hi] aa ei cang
- e. #[hai khi] aa ei cang
- f. #[hai hi cu] aa ei cang
- g. #[hai khi cu] aa ei cang

Participants occasionally offered notes on the reasons why certain forms were unacceptable. For example, the Vawngtu speaker explained that item (162c) is an acceptable grammatical phrase in other contexts but is said to not work in the given context because it “does not answer the question.” In total, 20 items were designed by the author based on the Jenks 2015 nominal interpretations questionnaire. The results and findings are discussed in the next section.

## 6.4 Questionnaire Findings

Jenks (2015) divides the questionnaire into the categories of definite/indefinite, quantificational, specific, existential, predicative, generic, and scope. This section will address the results of different kinds of marking acceptable or unacceptable for these categories, starting with definite expressions.

### 6.5.1. Definite Expressions

As shown in previous research, definite referents in Hakha Lai can surface in three possible forms: bare, with postnominal *kha*, and with postnominal *cu*. When in subject position, a definite referent can surface with postnominal *kha* or *cu*. The results of the questionnaire items on definite expressions in subject position are shown in examples in (162) below.

(163) **CONTEXT:** *Liang and Hiro are talking about a party that Liang held at her apartment last week. Liang tells Hiro that she bought all kinds of fruits to serve at the party but when she went to the store, there was only one mango left, which she bought. She knows that Hiro really likes mangoes, so she hopes that he was the one who got to eat it. However, when she asks Hiro if he ate the mango, he says that he didn't eat it. Liang asks why he didn't eat it.* (Jenks 1)

prompt: Liang: Why didn't you eat the mango?  
Hiro (target sentence): [The mango] had been eaten.

#### Translation Task

Vawngtu speaker: Liang: Ziah hai cu na ei lo?  
Hiro: [Hai **cu**] aa ei cang.

Hakha speaker: Liang: Zei ruang ah dah hai kha na ei lo?  
Hiro: [Hai **cu**] mi dang nih an rak ei cang.

Thantlang speaker: Liang: Zei ruang ah dah hai kha na ei lo?  
Hiro: [Hai] aa rak ei cang.

#### Judgement Task

	Vawngtu	Hakha	Thantlang
[hai]	✗	✗	✓
[hai cu]	✓	✓	✓
[hai kha]	✓	✓?	✓
[hai kha cu]	✓	?	✓

The results from the questionnaire indicate that when discussing a definite referent subject, acceptable forms include postnominal *kha* and *cu* or a combination of the two. Both the Vawngtu and Hakha speaker did not accept the bare nominal form, while the Thantlang speaker did. All three speakers accepted *cu* and only the Vawngtu and Thantlang speaker accepted forms which

included *kha*. During the translation task, the Hakha speaker noted that *hai kha* was also a possibility but that this would imply that the speaker, Hiro, was upset about the situation and that he did not interpret the mango as being for him in the first place. Both the Vawngtu and Thantlang speakers also accepted a form with both *kha* and *cu* discourse deictics, *hai kha cu*.

Jenks item 2 tested definite referents in object position . The results from Jenks questionnaire item 2 are shown in (160) below.

(164) **CONTEXT:** *Beverly and Jim are talking about a party that Liang held at her apartment last week. Beverly tells Jim that Liang bought a single mango to serve at the party. Beverly knows that Jim likes mangoes. However, when she asks Jim if he ate the mango, he says that he didn't eat it. Beverly asks why he didn't eat the mango. (Jenks 2)*

prompt: Beverly: Why didn't you eat [the mango]?  
Jim: David had eaten [the mango].

**Translation Task:**

Vawngtu speaker: Beverly: Ziah [hai cu] na ei lo?  
Jim: David nih [hai **cu**] a ei cang.

Hakha speaker: Beverly: Zei ruang ah dah [hai kha] na ei lo?  
Jim: David nih [hai **cu**] a rak ei cang.

Thantlang speaker: Beverly: Zei ruang ah dah [hai kha] na ei lo?  
Jim: [Hai **kha**] David nih a rak ei cang.

**Judgement Task:**

	Vawngtu	Hakha	Thantlang
[hai]	X	X	X
[hai cu]	✓	✓	✓
[hai kha]	✓	✓	✓
[hai kha cu]	X	X	✓

In the responses to the translation task, all three speakers marked the definite referent in object position, *hai* ‘mango’, with a discourse deictic. In the acceptability judgement task, all three speakers rejected the bare form. All three speakers also accepted both *kha* and *cu* as discourse

deictic markers on definite objects. Only the Thantlang speaker accepted a form with both *kha* and *cu*. From these results, we can conclude that in subject position, there is ambiguity as to whether a definite nominal referent can be marked with a discourse deictic. In object position, the bare form appears to be prohibited. All three speakers accepted *cu* in both subject and object position and for the most part, accepted *kha* as well. The question of what function forms with two discourse deictics such as *kha cu* is still unclear from the questionnaire results.

#### 6.4.2. Specific expressions

This section reports on the questionnaire findings for the items on specific referents. Specific referents were tested in both subject and object position, as shown in the results of Jenks items 7 and 8, reported below.

(165) **CONTEXT:** *Hiro and Jim are at a party that Hiro is holding at his apartment. There is a lot of food on the table in the kitchen for people to eat, including a bowl of bananas. Hiro is looking through the bananas and Jim notices that he seems upset and worried. Jim asks Hiro what's wrong. Hiro says he is upset because one of the bananas was still green and he wanted to eat that one because he likes green bananas. (Jenks 7)*

prompt: Jim: "What's wrong?"  
Hiro: "A (specific) banana was eaten. It was my banana."

#### Translation Task:

Vawngtu speaker: Jim: "Zeidah a cang?"  
Hiro: "[Banhla] aa ei cang. Keimah banhla a si."

Hakha speaker: Jim: "Zeidah a cang?"  
Hiro: "[Banhlaa] aa ei i mah banhlaa kha keimah ta a si."

Thantlang speaker: Jim: "Zeidah a cang?"  
Hiro: "[Banhlaa **kha**] aa rak ei cang."

**Judgement Task:**

	Vawngtu	Hakha	Thantlang
[banhlaa]	✓	✓	✗
[banhlaa kha]	✗	✓	✓
[banhlaa cu]	✓	✓	✓

The results from Jenks item 7 show that speakers did not agree on what kind of marking was warranted for specific indefinite referents in subject position. In the translation task, the Vawngtu and Hakha speaker provided bare forms, while the Thantlang speaker used a form with postnominal *kha*. In the follow-up judgement task, all three speakers accepted forms with *cu* and although the other two speakers used bare forms in their initial responses, the Thantlang speaker rejected a bare form. The results of Jenks item 8 below report on specific referents in object position.

(166) **CONTEXT:** *David and Art are at a party that David is holding at his apartment. There is a lot of food on the table in the kitchen for people to eat, including a bowl of bananas. David is looking through the bananas and Art notices that he seems upset and worried. Art asks David what's wrong. David says he is upset because one of the bananas was still green and he wanted to eat that one because he likes green bananas. He saw Beverly eating a green banana earlier and assumes that it was the one he had planned on eating. (Jenks 8)*

prompt: David: "What's wrong?"  
Art: "Beverly ate a (certain) banana. It was my banana."

**Translation Task:**

Vawngtu speaker: David: "Zeidah a cang?"  
Art: Beverly nih [banhla] a ei. Keimah banhla a si.

Hakha speaker: David: "Zeidah a cang?"  
Art: Beverly nih [banhlaa] a ei i mah kha keimah ta a si

Thantlang speaker: David: "Zeidah a cang?"  
Art: Beverly nih [banhlaa **kha**] a rak ei cang. Keimah banhlaa a rak si.

**Judgement Task:**

	<b>Vawngtu</b>	<b>Hakha</b>	<b>Thantlang</b>
[banhlaa]	✓	✓	✓
[banhlaa kha]	✓	✓	✓
[banhlaa cu]	✓	✓	✓

The results of Jenks 2015 questionnaire item 8 show that in object position, a specific referent can appear as a bare nominal, or with either *kha* or *cu*. All three speakers agreed on these forms.

To summarize this section reporting the results of questionnaire items on definite and specific referents, it does not appear that *kha* and *cu* functionally distinguish between these two types of referents. Additionally, bare forms for definite and specific referents were generally found to be acceptable. It appears that Hakha Lai does not use discourse deictic morphology to distinguish between these two types of referential expressions. The next section reports on the results of the questionnaire items testing the role of discourse deictics in marking quantificational expressions.

**6.4.3. Quantificational Expressions**

This section reports on the results of Jenks 2015 questionnaire item 5, which tests the acceptability of discourse deictic marking on quantification nominals. It should be noted that this initial investigation of quantificational nominals only tested universal quantification. Future studies should investigate additional types of quantificational expressions in order to determine the role of discourse deictics for this category as a whole. It should also be noted that in Hakha Lai, quantificational properties in the testing sentence are not expressed morphologically as part of the nominal itself. Instead, universal quantification is encoded as part of verbal morphology. This is illustrated in the example below.

- (167) Apple cu aa-ei dih cang  
 apple CU 3SG.REFL-eat completely COMP  
 “Every apple has been eaten.” (Jenks 5, Hakha speaker)

In (167), the nominal translated as *every apple* appears as *apple cu*. The universal quantificational interpretation arises from the interaction of middle voice agreement marking on the verb and the verbal marker *dih* meaning ‘finish’ or ‘completely’. Nevertheless, Jenks item 5 tests nominal marking on quantificational expressions, reported below in (168).

- (168) **CONTEXT:** *Liang and Beverly are at a party that Beverly is holding in her apartment. Beverly is a little worried that she doesn’t have enough apples and asks Liang to see if there are any apples left to eat. Liang returns and tells Beverly that the apples have all been eaten.* (Jenks 5)

prompt: Beverly: “Are there any apples left?”  
 Liang: “Nope. Every apple has been eaten.”

**Translation Task:**

Vawngtu speaker: Beverly: “Apples a dang ti ma?”  
 Liang: “Nope. [Apple **cu**] a zaapi tein aa ei dih cang.”

Hakha speaker: Beverly: “Apple a tang mi a um ti ma?”  
 Liang: “Nope. [Apple **cu**] aa ei dih cang”

Thantlang speaker: Beverly: “Epal<sup>25</sup> a um ti ma?”  
 Liang: “Um lo. [Epal] a zaa tein aa ei dih cang.”

**Judgement Task:**

	Vawngtu	Hakha	Thantlang
[apple]	✓	✓	✓
[apple cu]	✓	✓	✓
[apple kha]	✓?	✗	✓

In their responses to the translation task, the Vawngtu and Hakha speaker used *cu* to mark *apple*. The Thantlang speaker did not use a bare form, though in the judgement task, all three speakers accepted forms with and without *cu*. The Vawngtu speaker noted that *kha* would be acceptable to

<sup>25</sup> The Thantlang speaker provided an alternative spelling of *apple* in Lai, <epal>, which is used here.

refer to apples from the day before, which was not part of the context description. The Hakha speaker did not accept postnominal *kha*.

From this single example, we can determine that nominals which are interpreted as part of universal quantificational expressions can appear with or without *cu*. The acceptability of *kha* is less clear. As mentioned before, universal quantification is only one of several categories of quantification. Further tests on other categories would need to be performed to determine the role of discourse deictic marking on this larger category. Additionally, Hakha Lai appears to express universal quantification as part of its verbal structure as opposed to its nominal structure.

#### 6.4.5. Predicative Expressions

Predicative expressions state a relationship between an entity and a property. That is, they characterize individuals or groups on the basis of a shared property (Jenks 2015). Previous research on Hakha Lai has noted that the postnominal particle *cu* frequently appears in expressions which are “definitional”, or “copular”, or predicative. Several examples in (169-172) below from Barnes (1998) illustrate the usage of *cu* on the individual entity in predicative expressions.

(169) [Ceumang **cu** mi fiar a si  
 Ceumang D person steal 3.SG COP  
 “Ceumang is a thief.” (adapted from Barnes 1998, p. 59)

(170) [mi fiar **cu** Ceumang a si  
 person steal D Ceumang 3.SG COP  
 “The thief is Ceumang.” (adapted from Barnes 1998, p. 59)

(171) [uico **hi** chizawh nakin an fim deuh  
 dog D cat ‘than’ 3.PL be.smart COMP  
 “(As you can see) dogs are smarter than cats.” (adapted from Barnes 1998, p. 58)

(172) [uico **cu** chizawh nakin an fim deuh  
 dog D cat ‘than’ 3.PL be.smart COMP  
 (As in a textbook): “Dogs are smarter than cats.” (adapted from Barnes 1998, p. 58)



Jenks items 11 and 12 tested the role of nominal marking in Hakha Lai predicative expressions.

Jenks item 11 tests marking on the predicative property while Jenks item 12 tests marking on the individual entity. Examples (173) below displays the results from Jenks item 11.

(173) **CONTEXT:** *Liang and Art are at a party at Beverly’s apartment. On the kitchen table, there are many kinds of fruits for guests to eat. Liang tells Art she is excited that Beverly provided longyan. Art doesn’t know what longyan is and asks Liang. She tells him that longyan is fruit.*  
(Jenks 11)

prompt: Art: “What is longyan?”  
Liang: “Longyan is [a fruit].”

**Translation Task**

Vawngtu speaker: Art: “Longyan cu zeidah a si?”  
Liang: “Longyan cu [thingthei] a si.”

Hakha speaker: Art: “Longyan cu zeidah a si?”  
Liang: “Longyan cu [thingthei] a si.”

Thantlang speaker: Art: “Longyan cu zeidah a si?”  
Liang: “Longyan cu [thingthei] a si.”

**Judgement Task**

	Vawngtu	Hakha	Thantlang
[tingthei]	✓	✓	✓
[thingthei cu]	✗	✓	✗
[thingthei kha]	✗	✓	✓

In the responses to the translation task, all three speakers used a bare nominal form to mark nominal denoting the predicative property *thingthei* meaning ‘a fruit.’ In the judgement task, only the Hakha speaker accepted *cu* on the predicative property nominal and the Hakha and Thantlang speaker additionally accepted *kha*.

The next elicitation item, Jenks 12 tested for nominal marking on the individual entity which is the subject argument of predication. The results are displayed in example (174) below.

(174) **CONTEXT:** *Scott and Hiro are at a party at Jim’s apartment. On the kitchen table, there are many kinds of fruits for guests to eat. Scott tells Hiro he is excited that Jim bought lychee. Hiro doesn’t know what lychee is and asks Scott. He tells him it is a fruit.*

prompt: Hiro: What is ['lychee']?  
 Scott: ['Lychee'] is a fruit.

### Translation Task

Vawngtu speaker: Hiro: [Lychee *cu*] zeidah a si?  
 Scott: [Lychee **cu**] thingthei a si.

Hakha speaker: Hiro: [Lychee *cu*] zeidah a si?  
 Scott: [Lychee **cu**] thingthei a si.

Thantlang speaker: Hiro: [Lychee *cu*] zeidah a si?  
 Scott: [Lychee **cu**] thingthei a si.

### Judgement Task

	Vawngtu	Hakha	Thantlang
[Lychee]	X	X	X
[Lychee <i>cu</i> ]	✓	✓	✓
[Lychee <i>kha</i> ]	X	X	✓

In their responses to the translation task, all three speakers used discourse deictic *cu* to mark the individual entity subject of predication 'lychee'. All three speakers also rejected a bare form. Only the Thantlang speaker accepted *kha*.

The results from these two items testing the role of discourse deictic marking on predicative expressions show that the objects of predicative expressions often appear in bare forms, though this isn't necessarily obligatory. However, the individual entity subjects of predicative expressions, bare forms are prohibited and discourse deictics of some sort are required, usually *cu*. The next section describes the results of the questionnaire items on the interaction of discourse deictics on the scopal properties of nominal expressions.

#### 6.4.6. Scope

This section reports the results of questionnaire items testing the interaction of discourse deictics on scopal properties of nominal expressions in Lai. There were two scopal conditions which were tested in Jenks items 19 and 20. They both involve the expressions *not* and *every* and the two conditions are distinguished by which expressions takes scope over the other. The two conditions are illustrated with the example sentences below in (175).

(175) a. Dawn didn't see [*every fruit*]. (She only saw some fruit).

b. Dawn didn't see [*every fruit*]. (She saw no fruit at all).

In (175a), *not* (or in this case, *didn't*) takes scope over *every*. This creates an interpretation in which Dawn saw some of the fruit but did not see every piece of fruit, paraphrased as “It is not the case that Dawn saw every fruit”. In the second sentence, shown in (175b), *every* takes scope over *not*, which creates an interpretation in which Dawn did not see every piece of fruit. This could be paraphrased as “For every fruit, it is not the case that Dawn saw it”.

In Hakha Lai, rather than use a determiner meaning *every*, universal quantification is expressed in the verbal domain, such as in the example below where an adverbial, *zaapi tein* ‘wholly, completely’ expresses universal quantification. The results of Jenks questionnaire item 19, which tests the scopal condition of *not* over *every*, are shown below in (176).

(176) **CONTEXT:** *David and Scott are at a party at Michelle's apartment. Their friend, Dawn, is looking for durian since she likes to eat durian. David and Scott watch Dawn leave after Dawn says that there is no durian to eat. She saw **some apples and some bananas, but not durian**. Scott can see that there is durian on the table and asks David why Dawn said that there was no durian.* (Jenks 19)

prompt: David: “Dawn didn't see *every fruit*.”  
(It's not the case that Dawn saw every fruit)

#### Translation Task:

Vawngtu speaker: David: Dawn nih [thingthei] a zaapi tein a hmu lo

Hakha speaker: David: Dawn nih [thingthei kha] a zaapi tein a hmu dih lo

Thantlang speaker: David: Dawn nih cun [thingthei paoh paoh kha] a hmu lo.

**Judgement Task:**

	Vawngtu	Hakha	Thantlang
[thingthei]	✓	✓	✓
[thingthei cu]	✗	✓	✓
[thingthei kha]	✓	✓	✓

In their responses to the translation task, the Vawngtu speaker used a bare nominal form and the Hakha and Thantlang speaker used discourse deictic *kha*. It should be noted that the Thantlang speaker used an expression *paoh paoh*, which means ‘whichever’ but can also express the notion ‘every’. In the follow-up judgement task, all three speakers accepted bare nominal forms and postnominal *kha*. Only the Vawngtu speaker rejected discourse deitic *cu*.

The next item, Jenks 20, investigated the interaction of discourse deictics on the opposite scopal condition, with *every* taking scope over *not*. The results are shown in example (177) below.

(177) **CONTEXT:** *Art and Hiro are at a party in Liang’s apartment. Their friend, Jim, is in the kitchen. He is looking in the refrigerator, he is looking in the cabinets, he is looking around the kitchen, but not at the table where there is some fruit. Jim tells Art and Hiro that there is nothing to eat at the party and leaves. Art asks Hiro why Jim couldn’t eat some of the fruit on the table. Hiro replies: (Jenks 20)*

prompt: Hiro: “Jim didn’t see *every fruit*.”  
 (“For every fruit, it is not the case that Jim saw it.”)

**Translation Task:**

Vawngtu speaker: Hiro: “Jim nih [thingthei] pakhat te hmanh a hmu lo.”

Hakha speaker: Hiro: “Jim nih [thingthei] pakhat hmanh a hmu lo.”

Thantlang speaker: Hiro: “Jim nih cun [thingthei paoh paoh **kha**] a hmu lo.”

**Judgement Task:**

	Vawngtu	Hakha	Thantlang
[thingthei]	✓	✓	✓
[thingthei cu]	✓	✗	✓
[thngthei kha]	✓	✓	✓

In their responses to the translation task the Vawngtu and Hakha speaker used the expression *pakhat*, meaning ‘one’ in order to express the scopal interpretation of *every* taking scope over *not*. Thus, these phrases could be paraphrased as “*Jim did not see a single fruit*”. The Thantlang speaker used the same expression from the previous elicitation item *thingthei paoh paoh* and noted that this expression could be used in both scopal situations. It should also be noted that the presence of *hmanh* ‘even’ is an important component of this interpretation. It is common for emphatic negative polarity items to take this form, and they obligatorily take narrow scope (Chierchia 2013). In the judgement tasks, the Vawngtu and Thantlang speakers accepted all forms and the Hakha speaker only rejected *cu*.

From the results of these two sections, it appears that discourse deictics do not affect the scopal interpretation of nominals in Hakha Lai. Rather, it is the verbal and nominal morphology which influences the interpretation and the presence or absence of discourse deictics has no direct effect. This section concludes the report of the results of the Jenks questionnaire items. The next section is a brief discussion of the results of the questionnaire which is followed by a summary of the chapter.

**6.5 Discussion**

The results of the questionnaire have shown that the discourse deictics *hi*, *kha*, *khi*, and *cu* largely do not play a role in encoding referential properties of nominal expressions. Discourse deictics do not seem to encode a distinction between definite and specific nominals and do not have an effect

on the scopal interpretation of nominals. However, it seems that discourse deictics are necessary for marking the individual entity subject of predicative expressions, though which discourse deictic must appear does not seem to be fixed. For quantificational expressions, there is not enough data to come to a strong conclusion on the role of discourse deictics. What role then, do postnominal discourse deictics play in nominal expressions? The last chapter has illustrated the *compatibility* of these particles with topic- and focus-marking. The data in this chapter show that discourse deictics perform even more functions. While *cu* seems to be compatible with anaphoric reference, it is not entirely clear that this is the purpose of this morpheme when it is used with anaphoric referents. The obligatory presence of *cu* in predicative expressions is also noteworthy. It could be the case that *cu* is operating in this case as a topic marker. The apparent polyfunctionality of *cu* raises several questions such as how many *cu*'s there are and what their functions are. If there is one *cu*, what is its role and what kind of property might it encode that allows it to appear in so many kinds of information structure and referential expressions? Overall, the results of this questionnaire highlight a critical observation about discourse deictics in Hakha Lai. It appears to be the case that discourse deictics are *compatible* with certain nominal interpretations but may not be the grammatical component which performs the tested function. Rather, it might be that other grammatical components e.g., adverbials, middle voice verbal morphology, number, lead to the tested interpretational properties. Future investigations of these grammatical components will be able to test this hypothesis.

## 6.6 Summary

This chapter discussed the results of a questionnaire on nominal reference in Hakha Lai conducted with three fluent speakers. The main findings were that discourse deictics are compatible with both

definiteness and specificity and can often appear with other kinds of nominals such as universal quantificational expressions, and nominals in different scopal conditions. Discourse deictics appear to be obligatory with the individual entity subjects of predicative expressions. This concludes the section of the dissertation which reports the findings of three questionnaires, the Wilkins 1999 questionnaire on demonstratives in Chapter 4, the Aissen 2015 questionnaire on topic and focus in Chapter 5, and the Jenks 2015 questionnaire on nominal interpretation in Chapter 6. The next chapter, Chapter 7, will discuss the overall findings of these questionnaires and provide a broader analysis of discourse deictics in Hakha Lai.

## Chapter 7. Discussion

This chapter synthesizes the findings and observations from the previous three chapters to address remaining issues in the questionnaire results and to address large-scale questions about discourse deictics in Hakha Lai, such as comparing their apparent functions to differential case marking, their categorization as adnominal grammatical elements, and the polyfunctionality of *kha* and *cu*. This chapter also provides preliminary analysis of the formal semantic and syntactic structure of nominal expressions which contain discourse deictics. Finally, this chapter also includes a discussion of the methodology employed for this research and the results it yielded as well as the contributions this kind of methodological approach makes to future research on discourse deictics and other research on the encoding of discourse-level properties of nominals.

The chapter will proceed as follows. It first starts with a recapitulation of the main findings from the three questionnaires. This repeats key findings from Chapters 4, 5, and 6 to give an overview of the questionnaire results and what they tell us about Hakha Lai discourse deictics. It then continues with a discussion of how to categorize discourse deictics and how markers such as discourse deictics compare with case markers in differential case marking. Then, there is a discussion of the polyfunctionality of *kha* and *cu*, and finally, a proposal for how the results described here can contribute to an analysis of the formal syntactic and semantic structure of discourse deictics. This will be followed by notes on the methodology employed in this dissertation.

### 7.1 Summary of Findings

To recapitulate the content of this dissertation to this point, Hakha Lai contains a set of morphemes which are sensitive to various semantic and pragmatic properties related to discourse, information structure, and reference. The hallmark function of these morphemes is to encode spatial deictic



properties in demonstrative phrases. The results of the *Wilkins 1999 Demonstrative Questionnaire* revealed that in Hakha Lai, demonstratives are composed of a prenominal element, often *mah* and a postnominal element which encodes spatial deictic information about the referents. These postnominal elements are the discourse deictics *hi*, *kha*, *khi*, and *cu*. The morpheme *hi* marks proximity to speaker, *kha* marks proximity to addressee, *khi* marks distality from speaker and addressee, and *cu*, previously reported to be a remote demonstrative, was found to lack spatial deictic information and merely mark a nominal as referential. Discourse deictics can appear in several different morphosyntactic arrangements. In addition to the canonical circumnominal [*mah N DEM*] configuration, demonstrative phrases can appear in [*DEM N DEM*] configuration as well, with no apparent difference in meaning. Another possible configuration is [*DEM N cu*].

The results of the Aissen (2015) *Documenting Topic and Focus* questionnaire revealed that in Hakha Lai, focus is not overtly marked, and topic is optionally marked postnominally with *cu* or one of the spatial discourse deictics. This optionality indicates that postnominal discourse deictics are not topic markers themselves, but that they are compatible with sentence topics. The exact restrictions on which postnominal spatial deictics can appear with sentence topics is still not clear and will be the subject of future research.

The results of the Jenks (2015) *Noun Phrase Interpretations Questionnaire* revealed that in Hakha Lai, nominals of different interpretational categories (e.g., definite, specific, referents of varying scope) can appear with and without discourse deictics, though the subjects of predicative expressions must have discourse deictic marking.

These findings have described several of the formal and functional properties of discourse deictics. Future targeted research on the categories tested by these three questionnaires will illuminate additional functional properties. For now, several questions remain which will be

discussed in the sections below. These discussions include the categorization of discourse deictics, the functional properties of *kha* and *cu*, and the syntactic and semantic structure of Hakha Lai discourse deictics. This next section begins with the discussion of how to categorize Hakha Lai discourse deictics.

### **7.2.1. Where and when do discourse deictics appear?**

The question of where and when discourse deictics appear is still, after all this work, only partially answered. To start, there is robust evidence that discourse deictics can appear with nominals. The morphemes themselves appear most frequently in postnominal position, following a head noun, but can also appear in prenominal and circumnominal configuration when they are part of a demonstrative expression. Discourse deictics are restricted to occurring in prenominal position only when there is postnominal marking of some sort, whether it is *cu* or a structural case marker such as locative *-ah*.

Within the larger grammatical structure of the sentence, discourse deictics can accompany both subjects and objects. Discourse deictics are rarely obligatory. Only in predicative expressions does it seem that *cu* is required to follow the individual entity nominal subject. They are optional in most other cases, or rather, they appear when it is necessitated by the pragmatic structure of the sentence. Whether grammatical elements like discourse deictics can be considered optional was taken up in *Linguistics of the Tibeto-Burman Area* volumes 34.2 and 35.1 where the conclusion was that the label “optional” was problematic (Chelliah and Hyslop 2011).

As mentioned earlier, there is a category of discourse deictics which can appear in sentence-final position. This was not subject to investigation in this research, but it is worth investigating them in the future.

## 7.2 Categorizing discourse deictics

As stated earlier, Hakha Lai has four morphemes which often appear in postnominal position and contribute to the discourse-level interpretation of nominals. These particles are *hi*, *kha*, *khi*, and *cu*. For the purposes of this research, they have been designated “discourse deictics”. To categorize these particles broadly, we can say that they all contain deictic information, that is, they encode contextual information related to the discourse situation. Diachronically, it is likely the case that these four particles were originally involved solely in marking the spatial location of referents, as evidenced by their role in demonstrative phrases. The spatial function of these particles then extended into other functions, namely marking discourse-level properties of nominal referents.

Discourse deictics in Hakha Lai contain a notable property in that in their basic form, they encode spatial information while in their secondary functions, they have been reported to encode a range of functional properties which have been investigated in the current study. This raises the question of how this spatial information has been extrapolated to apply to discourse level information. According to comments given by some of the speakers consulted for this research, the proximal demonstrative *hi* is related to information that is conceptually proximal to the speaker. This can include a recent topic of discussion, or something that has occurred in the recent past, or something which is relevant to the present, and can even be used in situations where the referent nominal is physically present. Additionally, for the addressee-proximal morpheme, *kha*, we have seen that in many sentences in the initial translation task, it is often used to mark familiar referents. This is a clearer extension of the spatial deictic function of this morpheme in demonstrative phrases. A referent which is familiar to the addressee can conceptually be interpreted as being located proximally to them.

It is also worth considering if discourse deictics could be put into a more conventional category such as “demonstrative”. However, what is made clear from the research reported in this dissertation is that they are not simply demonstratives since they mark more than spatial deixis and only fulfill this role as part of a structured demonstrative phrase. When they appear as postnominal markers, they mark pragmatic content. The question, then, is how else they might be categorized. One possibility is that discourse deictics constitute a special kind of case marker.

Case is a difficult concept to define, but one approachable definition is “a morphological means of marking arguments for syntactic, semantic, and/or pragmatic content.” (Grimm 2005). If we accept this definition of case, then the discourse deictics might fall within this category. Discourse deictics certainly mark nominal arguments. The question then is whether they mark them for syntactic, semantic, or pragmatic content. However, we must consider that other languages do not often have case markers which encode spatial content, that is, there are no reported instances of “proximal case” or “distal case”. Morphological elements which encode spatial deixis are usually simply considered demonstratives.

Lai does have obligatory “structural” case markers (also called semantic role markers). These are case markers which appear with nominals depending on their syntactic position in a sentence. One example is the ergative case marker *nih*,<sup>26</sup> which appears as an enclitic after the noun. The ergative marker follows the subject of transitive verbs and is obligatory in all instances. Another common case marker is *ah*, a locative case marker which often appears in locative constructions. Discourse deictics can co-occur with structural case markers, providing additional semantic and pragmatic information related to discourse-level properties of the nominal referent. In these cases, they even exhibit a productive allomorphic variant with *-n* (i.e., *hin*, *khan*, *khin*,

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<sup>26</sup> As noted previously, *nih* does not appear to be an ergative case marker as they are conventionally defined, because they reliably mark agentive role but do not reliably mark a sentence subject.

*cun*). As for right now, the evidence is not clear that discourse deictics could be categorized as case markers. The co-occurrence of structural and semantic case is not commonly reported, though it does occur, a phenomenon known as case stacking.

It could be that in Hakha Lai, demonstratives (or simply the spatial deictic elements) have grammaticalized into case markers. The evolution from demonstrative to discourse-level marker is reported in some cases in English. One example of this is referential *that* as in *that Shakespeare guy* or *that movie we saw*. What then leads us to put them into one category or the other and why would we be driven to do so? At what point do the additional pragmatic functions of demonstratives put them into a different grammatical category? These are larger questions that will not be addressed in depth here.

Another analysis that has been considered for postnominal pragmatic markers in Tibeto-Burman languages such as Hakha Lai discourse deictics is “foregrounder”, a term which comes originally from Chafe and which has been applied to an analysis of Khumi markers by Peterson (2011). Interestingly, this analysis argues that case markers have further grammaticalized into pragmatic markers. In Khumi the postnominal morpheme =*mo*<sup>3</sup> which is often linked to agentive case marking is sometimes seen on nominal elements which are not agents. This includes elements which are contrastive, unexpected referents, etc. Peterson claims that in this usage, the postnominal marker =*mo*<sup>3</sup> functions as a “foregrounder”, which highlights a referent for the purposes of discourse clarity.

One must also consider that Lai discourse deictics might be topic markers, such as *wa* in Japanese or *neun* in Korean, that have adopted additional pragmatic functions. This is unlikely as evidence for their traditional function as elements of demonstrative phrases is quite robust. For now, the term “discourse deictics” is adequate as it describes their wide range of functions and

describes their primary role as markers which encode semantic and pragmatic content which is relevant at the discourse level.

### 7.3 Discourse Deictics and Differential Case Marking

This dissertation has drawn comparisons between the behavior of discourse deictics and a phenomenon known as differential case marking (also called “differential subject marking” or “differential object marking”). This phenomenon has been observed in the case marking patterns of a number of languages, in unrelated families including the Romance languages and other Tibeto-Burman languages (Kagan 2022). In differential case marking, discourse-level properties of nominals determine the surface level morphological properties of case markers. For example, an indefinite object might surface without case marking or temporal boundedness (telicity) or lack thereof (atelicity) in the verb can result in the appearance of different case marking, despite the fact that their syntactic or semantic role remains the same.

The data reported here were not designed specifically with the purpose of addressing differential case marking itself, though the data can shed light on how differential case marking might work in Hakha Lai. It should first be stated that in Hakha Lai, there are some case markers which are “obligatory”, that is, they do not appear optionally and do not appear to be subject to the pragmatic properties which trigger differential case marking. These are so-called “morphosyntactic structural” case markers. In Hakha Lai, these are *nih*, which is occasionally classified as an ergative marker (Peterson 2017) and marks the agent of transitive verbs. Another structural case marker is the “oblique” *ah*, which marks location. It has been observed here that the discourse deictics are able to co-occur with these kinds of structural case markers, in an allomorphic variant with an appended *-n*, yielding *hin*, *khan*, *khin*, and *cun*.

This brings us to the question of whether or not we would want to consider the postnominal discourse deictics *hi*, *kha*, *khi*, and *cu* pragmatic markers which are sensitive to the same set of properties observed in differential case marking. The first question which is raised is which *case* these particles mark. Because each of them is able to appear in all structural case positions, this is a difficult categorization to determine. Nominative, accusative, locative, and oblique referents all allow for the presence of these markers without restrictions conditioned by the structural properties of the sentence.

One of the other proposed functions of differential case marking is to disambiguate referents which are non-canonical or unexpected. For instance, a cat which chases a dog, or an inanimate referent acting on an animate referent. In an investigation of case marking in the Tibeto-Burman language Sümi, Teo (2019) finds that differential case marking likely does not perform this function, though this only speaks to the case marking pattern of that particular language. As for how the discourse deictics pattern in Hakha Lai, the issue that arises is that the properties which trigger differential case marking do not seem to trigger the presence of the discourse deictics in Lai, though this would need to be tested in carefully designed contexts with the intention of investigating this phenomenon in Lai.

The results of the questionnaires used in this research are ultimately inconclusive regarding the case marking properties of these markers, or whether they behave in a manner parallel to differential case marking, but the data reported here will contribute to future research on differential case marking.

## 7.4 The Polyfunctional *cu*: a Demonstrative? a Case Marker? a Topic Marker? All Three?

One of the more enigmatic elements in Hakha Lai nominal phrases is *cu*. In general, it behaves syntactically like a demonstrative in that it is able to appear in both prenominal and postnominal positions and appears in demonstrative phrases preceded by *mah*. However, unlike most demonstratives, it does not encode spatial deictic information about the location of the referent relative to speaker and addressee. In other instances, its contribution to the interpretation of the nominal phrase seems to be connected to information structure. In previous research, *cu* has been classified as an absolutive case marker (Hay-Neave 1933), a remote demonstrative (Barnes 1998), and a topic marker (Barnes 1998, Peterson 2017). There is a strong possibility that there are multiple *cu*'s which are historically derived from a single diachronic source. The following sections provide data both in support of and in conflict with these classifications. Each category is addressed in turn, beginning with *cu* as a remote demonstrative (7.5.1), an absolutive marker (7.5.2), and as a topic marker (7.5.3).

### 7.5.1. *Cu* as Remote Demonstrative

Barnes (1998) describes one of the functions of *cu* as a 'remote demonstrative', deictically referring to entities which are not visible to the speaker. This observation is supported by its usage in the demonstrative paradigm illustrated in items (178a-d.) below.

(178)

- |    |  |         |           |
|----|--|---------|-----------|
| a. | mah                                      | chizawh | hi        |
|    | DEM                                      | cat     | SPRK.PROX |
|    | “this cat”                               |         |           |
| b. | mah                                      | chizawh | kha       |
|    | DEM                                      | cat     | ADDR.PROX |
|    | “that cat (which is close to addressee)” |         |           |



- c. mah chizawh khi  
 DEM cat DIST  
 “that cat (which is far from speaker and addressee)”
- d. mah chizawh cu  
 DEM cat REM  
 “that cat (which is not visible)”

Unlike the demonstrative items in items (178a-c.), postnominal *cu* in (178d.) does not mark spatial deixis; rather, it refers to the visibility of the referent. It is still nonetheless categorized as a demonstrative morpheme because like the discourse deictics in (178a-c.), it is accompanied with prenominal *mah*, the general demonstrative morpheme.

However, evidence from elicitations done with fluent speakers of Hakha Lai (described in Chapter 4) showed that a non-visible referent is not obligatorily marked with *cu* and can instead be marked with *khi*.

- (179) [mah-ka zawn um mi tlang hnu lei i milem  
 DEM-LOC angle be.at REL mountain behind side ADV statue  
 um mi tiang **khi**] ka-kai bel  
 be.at REL area DIST 1.SG-arrive EXP  
 “I have been to that statue that is behind that mountain.” (Wilkins 25, Thantlang speaker)

This example provides evidence that in its capacity as part of a demonstrative expression, *cu* is not a remote demonstrative and is more likely a marker of underspecification of spatial properties. This means that demonstratives of the form [*mah N cu*] are not exophoric (referring to nominals in physical space) and are strictly endophoric (referring to nominals in conceptual space). Thus, we can reject the classification of *cu* as a non-visible demonstrative while maintaining its classification as part of the demonstrative paradigm.

### 7.5.2. *Cu* as Absolutive Case Marker

According to Bedell (2001), Hay-Neave (1933) claims that *cu* is an absolutive case marker, meaning that it marks a noun referent as the subject of an intransitive or the object of a transitive. It has already been shown that Lai employs ergative case marking for the agents of transitive verbs as shown in (180) below.

(180) *chizawh*          *pakhat*          **nih**    *zu*    *cu*    *a-dawi*          *lio*  
           cat                  one                  ERG    mouse CU        3.SG-chase        PROG  
           “A cat is chasing a mouse.”

In (180), *chizawh pakhat* ‘one cat’ is followed by the ergative marker *nih*, showing that it is the agent of a transitive verb. Without ergative case marking, this sentence is ungrammatical as shown in (181).

(181) ?*chizawh*          *pakhat*          \*(**nih**) *zu*    *cu*    *a-dawi*          *lio*  
           cat                  one                  ERG    mouse CU        3.SG-chase        PROG  
           intended: “A cat is chasing a mouse.”

The status of *cu* remains in question, given the data on absolutive case marking, which is shown to be at least optional. Example (182) shows *cu* following the subject of an intransitive verb, where absolutive case marking would be expected and example (183) shows *cu* following the object of a transitive verb, again where absolutive case marking would be expected.

(182) *Chizawh*          **cu**    *a-chuak*  
           cat                  cu        3.SG-leave  
           “The cat left.”

(183) *Chizawh*          *pakhat nih*    *zu*    **cu**    *a-dawi*          *lio*  
           cat                  one    ERG    mouse CU        3.SG-chase        PROG  
           “A cat chased a mouse.”

However, unlike the obligatorily present ergative case marker *nih*, the so-called absolutive case marker *cu* is not obligatory as shown in (184) and (185), which parallel (182) and (183) respectively

(184) Chizawh (cu) a-chuak  
 cat CU 3.SG-leave  
 “The cat left.”

(185) Chizawh pakhat nih zu (cu) a-dawi lio  
 cat one ERG mouse CU 3.SG-chase PROG  
 “A cat chased a mouse.”

Given the evidence presented in these items, it appears to be the case that:

- a. *cu* does appear where absolutive case marking would be expected
- b. Unlike ergative case marker *nih*, *cu* is not obligatory

One final piece of evidence that challenges the status of *cu* as an absolutive case marker is its ability to co-occur with other case marking, shown in example (186), in which the noun is followed by both case marker *nih* and *cun* (an allomorph of *cu*).

(186) Chizawh pakhat **nih** **cun** zu cu a-dawi lio  
 cat one ERG cu mouse CU 3.SG-chase PROG  
 “A cat is chasing a mouse.”

It is unlikely that a noun would be marked with two contradictory (ergative vs. absolutive) morphemes to mark case. However, this may be evidence that there are multiple *cu*'s and the postnominal *cu* which appears in (186) is not an absolutive case marker *cu*, but rather a different *cu*.

### 7.5.3. *Cu* as Topic Marker

The classification of *cu* as a topic marker is more firmly established in previous literature (e.g. Barnes 1998 *inter alia*). Overt morphological topic marking is observed in languages such as Japanese and Korean, where a sentence topic is followed by a topic-marking morpheme, *wa* in Japanese and *-neun* in Korean. Topic-marking of this sort shows sensitivity to the information structure of a sentence. A topic is essentially what the sentence is “about”, while a comment is a

statement regarding the topic. Lai has been claimed to use *cu* to mark a nominal as a sentence topic. In example (187), the topic of the sentence, *chizawh* ‘the cat’, is marked postnominally with *cu*, which lends support to its status as a topic marker.

(187) **CONTEXT:** *There is one cat in the classroom with Dawn and Hiro. Hiro does not see it. He asks, “where is the cat?” Dawn sees it and responds:*

Dawn:	Chizawh	<b>cu</b>	cabuai tang-ah	a-um
	cat	TOP	table under-LOC	3.SG-be.at

“The cat is under the table.”

In example (187), because the question under consideration regards the cat, the cat is the topic of the response. Concurrently, it is marked postnominally with *cu*. However, we find once again that *cu* is not obligatory. Given the same context, the sentence in example (188) below where *cu* is not included is also a suitable response.

(188) Chizawh	(cu)	cabuai tang-ah	a-um
cat	CU	table under-LOC	3.SG-be.at

“The cat is under the table.”

Like absolutive case marker *cu*, topic-marker *cu* is found to be not obligatory.

The data presented in these sections lend support for and challenge the status of *cu* in Lai as a remote demonstrative, absolutive case marker, and topic marker. Like other demonstratives, *cu* is able to follow a noun preceded by *mah* and contributes to the deictic interpretation of the noun. As an absolutive marker, *cu* is shown to appear where expected but is shown to not be obligatory, unlike other case markers like ergative *nih*. As a topic marker, *cu* appears to follow sentence topics, but like the absolutive marker, is not shown to be obligatory.

One property that has been observed throughout the data and the dissertation is that *cu* has not patterned quite the same as the other spatial deictics, *hi*, *kha*, and *khi*. Historically, it seems to be the case that *cu* was a member of the demonstrative paradigm which did mark spatial location of a referent (See Chhangte 1989, Baclawski 2012). However, it now seems to be an auxiliary

morpheme which performs several functions. Below is a list of the many functions that have been observed for the postnominal morpheme *cu*:

- a. Marks a referent which is “known” or “apparent”
- b. Marks the topic of a sentence
- c. Marks a referent which has been mentioned previously in discourse
- d. Is obligatory in predicative expressions
- e. As a demonstrative, marks an “aforementioned” referent
- f. Is used in contrastive circumstances

The obligatoriness of *cu* in predicative structures is notable for two reasons. First, it does not seem to align with any traditional notion of case. Second, sometimes, speakers translate *cu* as a copula, meaning ‘is’. This function seems to resemble a particle found in some languages (e.g., Hebrew, Polish) called a pronominal copula (Kagan 2015). Some of the functions listed above are also observed in the spatial deictics *hi*, *kha*, and *khi* but some of them are exclusive to *cu*. The role of other discourse deictics in performing these functions will have to be investigated in future research.

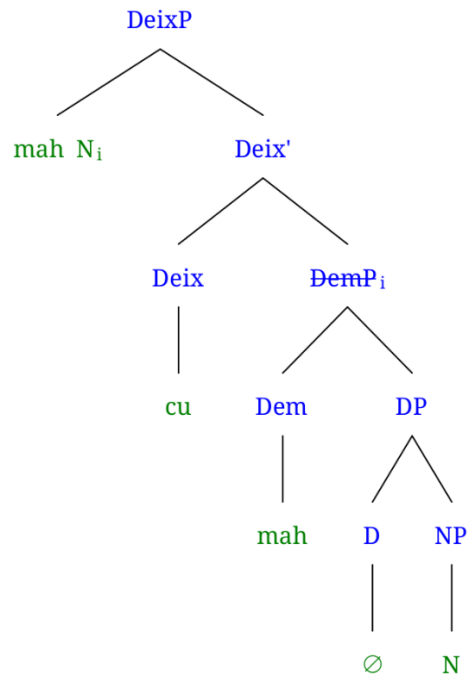
One other hypothesis is that *cu* is a *foregrounder*, which Peterson (2011) uses to categorize a similar morpheme in Khumi, a related Tibeto-Burman language. The role of a foregrounder is to mark a referent which would otherwise be assumed to be a general reference and is meant to highlight or make the referent stand out. In the case of Khumi, it is the agentive marker which fulfills this role while in Hakha Lai, it is *cu*, a member of the demonstrative paradigm. Ultimately, many of the properties of *cu* will for now remain a mystery and its functional properties will need to be investigated in future research.

## 7.6 The syntax of discourse deictics

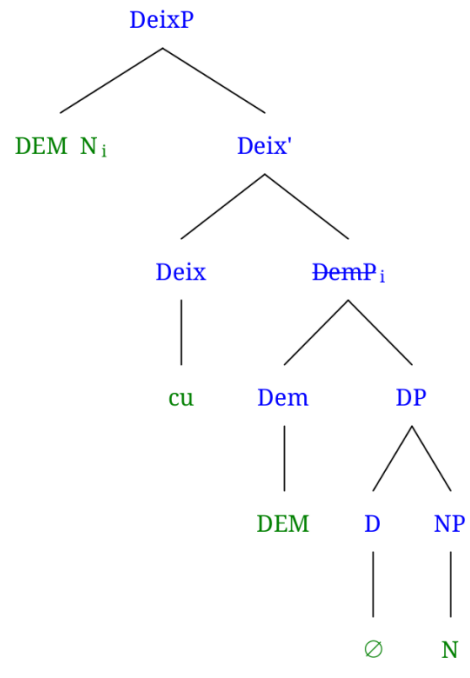
This now brings us to a preliminary syntactic and semantic analysis of discourse deictics. This analysis will begin with the structure of Hakha Lai demonstrative phrases and then move to the structure of discourse deictic phrases in information structure-marking contexts. The syntactic analysis contained herein follows DP theory (Abney 1987) in positing that a nominal is underlyingly a noun phrase (NP) which is headed by a D (Determiner) to form a DP. As mentioned in Chapter 2, there are some analyses which posit that not all NPs are DPs and this structural difference is the source of differences in interpretation at the nominal interpretation level (see Cheng & Sybesma 1999 *inter alia*).

First, we should consider the structure of demonstrative phrases, i.e., those which “point to” a referent and include information about the spatial deictic location of the speaker and addressee in relation to the referent. In Hakha Lai, these types of phrases take two general forms: those with prenominal *mah* and postnominal discourse deictics, and those with “circumnominal” configurations. Both involve both a prenominal and a postnominal element and as of now, are assumed to have the same structure. The structure is shown in examples (189-190) below:

(189)



(190)



In the proposed structure shown in (189), the demonstrative morpheme *mah* is classified as a DEM and is the head of a Demonstrative Phrase (DemP) which takes the DP as its complement. Then, the postnominal discourse deictic, which is the head of a Deictic Phrase (DeixP), takes DemP as its complement. Then, there is a movement operation which results in DemP landing in the specifier position of DeixP. There are two main reasons that this structure is proposed: The first reason is that constituents of the form [*mah N*] have been shown to be acceptable when there is case marking on the nominal. It is possible that demonstrative phrases in Hakha Lai exhibit transparent morphology, where the structure of a phrase is (both syntactically and semantically) transparent. In the case of Hakha Lai, the two necessary components of a demonstrative, the “pointing” and the spatial information, are split into two morphemes, the prenominal and postnominal elements, respectively. This contrasts with English, where the “pointing” element and the spatial deictic element of the demonstratives *this* and *that* are subsumed in their respective morphemes. It is possibly the case that demonstratives of the structure [*mah N*] are referential non-spatial demonstrative phrases of an endophoric nature. However, these phrases more often take the structure [*mah N cu*]. The second reason is that the movement of DemP into Spec of DeixP yields the linear structure of Hakha Lai demonstrative phrases. There is currently no proposal for what triggers the movement operation.<sup>27</sup> For comparison, see the structures proposed by Baclawski (2012) and Barnes (1998), shown in Chapter 2. Neither involve movement and are based on the linear order of morphological elements.

Moving on to the preliminary semantic analysis, the syntactic structures in (189-190) contain three separate objects, the head noun, the prenominal (*mah* or *DEM*), and the postnominal discourse deictic (*DEM*). These three elements make different contributions to the denotation of

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<sup>27</sup> See Wamsley (forthcoming) for further discussion.



the nominal phrase. The prenominal *mah*, as a general demonstrative, contains the referential elements of the phrase. This is the indexation element, *idx*, as is seen in other languages with transparent morphology in their demonstrative phrases (see Hanink 2021 on Washo). Further evidence in support of this hypothesis is that *mah* is a suffixal element of citation form pronouns (e.g., for *keimah* “I”) (Hlun 2007). Pronouns, like demonstratives would be expected to contain the same referential element as demonstratives in that they also deictically refer to a salient discourse referent.

The head noun contributes the nominal denotation of the phrase. This comes in the form of an NP and allows for the appearance of other elements, such as adjectives. The postnominal element is the one which is subject to the most potential variation in analysis. One possibility is that the postnominal discourse deictic is at the level of a “discourse phrase” or “deictic phrase”, where other information structure related morphemes are structured. There is a question of how many layers there are for this type of phrase, allowing space for postnominal familiarity marker as well as postnominal *cu*. There is also the remaining question of whether the postnominal discourse deictics in demonstrative phrases are the same as those in information structure functions.

There is also the question as to how the prenominal discourse deictics appear in this position and when they are preferred over *mah*. In a demonstrative phrase, it’s possible that the “indexical” element (usually the morpheme *mah*) is underspecified and surfaces as either *mah* or in a form which resembles the postnominal morpheme. It is notable that there seem to be almost no examples of the structure [*DEM N*], whereas there are some cases of [*mah N*], though these are only allowed when there is postnominal case marking.

Next, we should consider demonstrative phrases of the structure [*DEM N cu*]. These are among the few configurations which allow a prenominal discourse deictic. They should be

differentiated from phrases of the structure [*N DEM cu*], which differ in that they are not demonstrative phrases and they contain two discourse deictics. Phrases of the first type, [*DEM N cu*], have the proposed structure shown in example (191).

(191) [DEM<sub>i</sub> [N t<sub>i</sub> cu]]

In this proposed syntactic structure, the postnominal spatial deictic moves into prenominal position, triggered by the presence of postnominal *cu*. Since this structure is often seen with demonstratives in sentence topic contexts, the prenominal discourse deictic is the demonstrative and the postnominal *cu* is the information structure element. This would support a structure which consists of a DEM phrase and a TOP phrase. The question remains, however, why the presence of postnominal *cu* triggers this movement, especially when phrases of the form [*N DEM cu*] exist. This question is left to future research.

Finally, turning to the postnominal morphemes which appear information structure roles, the proposed structure of these phrases is shown in (192).

(192) [[NP] DEM]

Like the spatial deictic morphemes in demonstrative phrases, *DEM* appears after the head NP. However, this raises a big question with two potential hypotheses. The question is which element is the DP. The first possibility is that the NP takes D and becomes DP before the DEM phrase is attached. The second possibility is that DEM is the determiner (D) and the whole phrase forms a DP. As of right now, there is no clear indication as to which analysis has more merit.

## 7.7 On the Methodology

The final section of this chapter addresses the methodology used in this dissertation. One of the novel contributions of this research is that it applies a rigorous, scientifically based elicitation

methodology for systematically investigating the formal and functional properties of discourse deictics, a method which has not been adopted previously. Most previous attempts at investigating these phenomena were descriptive, impressionistic, or utilized a different methodological approach, such as corpus study (e.g., Teo 2019). The data generated by this research is useful and will inform future research which replicates the methodology used here.

The methodology used in this dissertation follows a structure that was described in Tonhauser and Matthewson (2015) for eliciting semantic and pragmatic information. This required four key pieces of information: speaker information, context, target utterance, and judgement. This methodology proved to be effective yet presented challenges. As seen in the results reported in Chapters 4, 5, and 6, speakers occasionally gave different responses as to the acceptability of different forms, but the overall results allow for a better picture of the role of discourse deictics in Hakha Lai.

Among the challenges were the fact that pragmatics-based elicitations are difficult in general, and it takes careful elicitation design to make sure that researchers elicit data with the target information that they are seeking. Even with the carefully designed elicitation context prompts, it's possible that speakers provided judgements that were not reflective of the intended context. As much effort as possible was taken to mitigate this, but mistakes still arise<sup>28</sup>.

Some final pieces of information to discuss are the notes given by the speakers throughout the elicitation process and how their insights inform the analysis and why this methodology was useful. One note that came frequently was that this was hard for speakers to do, particularly judging the appropriateness of different expressions. Sometimes the speakers felt that the acceptability of certain forms were obvious, but sometimes they were less clear and often seemed to warrant an

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<sup>28</sup> To be clear, this is a shortcoming of the study on the part of the author and *not* the speaker participants.

explanation. One repeated issue that came up was the desire to limit the number of *cu*'s in a sentence. Sometimes the problem with an expression was that there was already a phrase with *cu* present, and so having another was seen as dispreferred. Another common note was that *kha* refers to "you know, the one from yesterday". This type of evidence was helpful for the analysis of *kha* as a marker of familiarity rather than merely as a definite article in the vein of English *the*.

It should also be mentioned that there were limitations placed on the methodological approach due to the COVID-19 pandemic. The author was unable to meet with speakers in person and this required that elicitation were done online through videoconferencing technology. This was mitigated as much as possible by giving clear descriptions of the context and sharing the screen with participants when necessary to share targeted utterances as well as providing verbal reminders that the target utterance can be used appropriately in the given context or not.

One of the challenges related to this was explaining to speaker participants that there are different levels of acceptability, both from the linguist's perspective and the speakers' perspective. If a sentence was deemed acceptable, extra steps were taken to make sure that the form was acceptable as stated in the context and would be considered natural by a native speaker. Often the speakers would accept a target utterance because "it made sense" or "the addressee would at least understand what you meant to say." This was always a tricky issue to navigate and many of the utterances required detailed discussion of why an utterance was or was not acceptable. Any notes accompanying a judgement were written down by the author.

Despite this, the author still contends that it is very important to work alongside fluent speakers whose knowledge of the language is innate. Corpus and textual studies have their place but the comments and understanding of fluent speakers is invaluable, which is a crucial contribution of this research.

## 7.8 Future Research

This dissertation strives to accomplish a lot. The analyses contained herein are based on the responses to three questionnaires from three speakers. Nevertheless, it only scratches the surface of what possible sub-topics can be explored when it comes to discourse deictics in Hakha Lai. First, the data here should be used to inform future analyses of the topics touched on earlier: differential case marking, the polyfunctionality of *cu* is, and the syntactic and semantics structure of these phrases. Other remaining questions include when *hi*, *kha*, *khi*, and *cu* are used in paradigmatic relation with each other outside of exophoric demonstrative contexts. Another research question is the proposed diachronic development of these morphemes. This can be analyzed by comparing the morphemes described here with other related languages. Already, analyses of Mizo and Falam can illuminate how Hakha Lai compares and how the probable historical development of these morphemes took shape. The historical development of these markers would be interesting to study, particularly *kha* and *cu*, which might warrant their own studies, given all of the functions that they have.

One other usage of the discourse deictics is as sentence-final particles. Sentence-final particles, as observed in other languages, such as Mandarin, Cantonese, Japanese often contain pragmatic information about the mind state of the speaker (and possibly expected mind state of the addressee). In Hakha Lai, the discourse deictic morphemes are able to appear in sentence-final position and seem to convey pragmatic information. Questions include what the different morphemes do and how this relates to their core semantic properties, e.g., spatial deixis.

The discourse deictics, in particular *cu*, also appear at the clausal level and in fixed expressions. The phrases *cun* and *mahcun* appear in conversation as a kind of conjunction, similar

to “and then” or “so...” in English. This was not touched on in this research but the analysis of the individual morphemes *mah* and *cu* should help the analysis of these expressions in discourse.

Future research could make use of corpus studies and speaker elicitation in tandem. Already, Hakha Lai corpora are being developed as part of the various activities being undertaken as part of the Chin Languages Research Project (CLRP) (Berkson et al. 2023). This includes the Linguistically Underserved Communities and Health (LUCAH) project, which collects interviews on health information and the COVID-19 experience with members of the Chin community and the Chin Folklife Survey, in which CLRP team members conduct interviews with community members on traditional Chin folk practices. As the corpora grow, there are more opportunities to investigate discourse deictics as they are used in natural conversation to supplement the observations made here about discourse deictics using structured elicitations.

Finally, more studies which use this methodology could be done with other Tibeto-Burman languages with similar structures. In addition to Hakha Lai, Lutuv, and Zophei, there are languages which have similar properties wherein discourse deictics perform multiple roles. This methodology could also be adopted for further research on other languages where members of the demonstrative domain are involved in functions beyond the conventional spatial location marking.

## **7.9 Conclusion**

This chapter has discussed outlying issues and topics related to the data presented in this research, but which were not the primary focus of this study. The observations and discussion contained in this chapter will be a first step for future studies informed by the research reported in this dissertation. The next chapter is the conclusion of the dissertation, which reiterates the goals of the

dissertation, the data and analyses that are presented, and how this dissertation contributes to the larger body of research on the encoding of context in natural language.

## Chapter 8. Conclusion

This dissertation investigated the formal and functional properties of discourse deictics in Hakha Lai, a South Central Tibeto-Burman language. The analysis was based on the results of three questionnaires, designed to elicit data on discourse deictics in Hakha Lai. This chapter briefly describes the main findings of each chapter and the implications for future research contained in the discussions.

Chapter 4 reported the results of elicitation items based on *The 1999 Demonstrative Questionnaire: “THIS” and “THAT” in Comparative Perspective* (Wilkins 1999). The primary findings were that three of the discourse deictics encode spatial deictic information related to the spatial location of the referent in relation to the speaker and addressee. The morpheme *hi* encodes speaker proximity, the morpheme *kha* encodes addressee proximity, and the morpheme *khi* encodes speaker- and addressee-distality. The morpheme *cu*, although it is a member of the demonstrative paradigm as it can appear in the conventional demonstrative phrase configuration, [*mah N DEM*], does not, as previously reported, refer to a “remote” referent and instead is used as a general demonstrative, referring to a previously mentioned referent.

Chapter 5 reported the results of the *Documenting Topic and Focus* questionnaire (Aissen 2015), which examined the role of discourse deictics in marking topic and focus in Hakha Lai. The main findings were that all four of the discourse deictics can appear with the topic of the sentence, but do not necessarily encode this discourse-level functional property. As for focus, Hakha Lai does not make use of the discourse deictics to overtly mark focus.

Chapter 6 reported the results of the *Noun Phrase Interpretations Questionnaire* (Jenks 2015), which investigated the usage of discourse deictics in marking nominal referents for different categories of interpretational properties. The main findings were that discourse deictics



are compatible with definite and specific referents and do not have an effect on scopal interpretation. Also, the discourse deictic *cu* is obligatory in predicative statements.

The data which informed these analyses was obtained using a novel methodology wherein three fluent speakers of Hakha Lai were presented with carefully designed elicitation items which tested the grammatical and pragmatic acceptability of discourse deictics in controlled contexts. Speakers first translated context-based sentences into Hakha Lai and subsequently providing acceptability judgements on the same sentences with discourse deictics in multiple attested configurations. This is the first study which investigates this grammatical category in this language.

Future research on discourse deictics will investigate further questions such as the interaction of morphosyntactic configuration of discourse deictics on the interpretation of nominal expressions, the formal semantic and syntactic properties of nominals which contain discourse deictics, the diachronic development of discourse deictics, and functional distinctions between each discourse deictic in non-exophoric demonstrative contexts. This investigation also contributes to future research on differential case marking and similar grammatical items in other Tibeto-Burman languages.

For now, this dissertation has produced a robust pool of data which informs analyses of Hakha Lai discourse deictics and has contributed to ongoing investigations on the morphological encoding of space, information structure, and reference in natural language.

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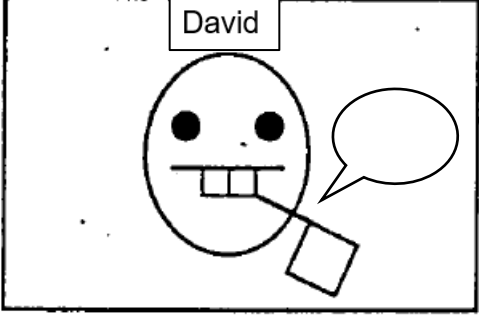
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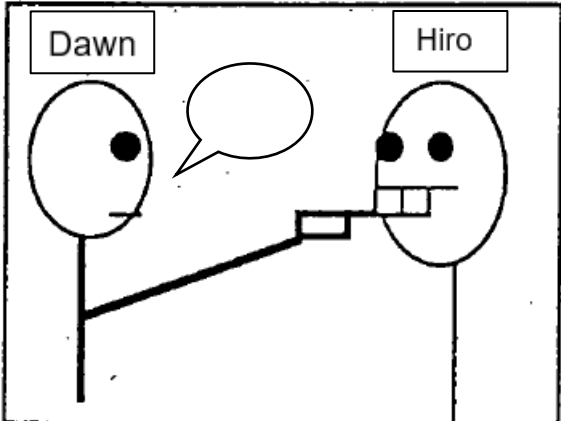
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## Appendix I: Wilkins 1999 Elicitation Items

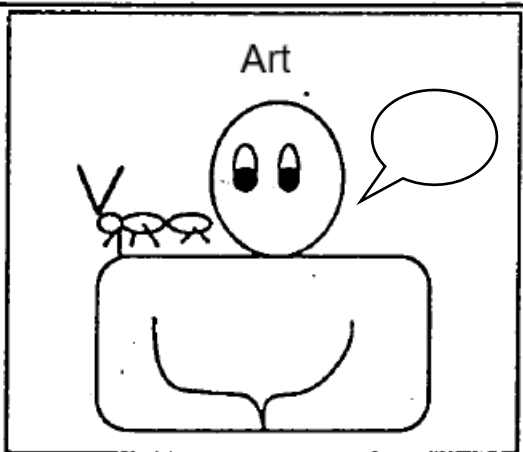
*Each figure below contains elicitation items based on The 1999 Demonstrative Questionnaire: “THIS” and “THAT” in Comparative Perspective, designed by David P. Wilkins*

*Participants should first be presented with the scene description, and then asked for translations of the sentences **based on the context established in the scene description.***

Scene 1	
	<p>1. David (spkr) has hurt one of his teeth. Some people were playing baseball and the ball flew through the air and hit him in the tooth. It is now hurting. He is telling his friend Liang (addr) about it later that day.</p>
1. How would David (spkr) say “_____ tooth hurts”?	
2. How would David (spkr) say “the ball hit me on _____ tooth”?	
3. Q: Does close pointing versus touching make a difference?	
a. If David <b>does</b> point closely, how would he say (1)?	
b. If David <b>does not</b> point closely, how would he say (1)?	
4. Q: Does it make a difference if Liang (addr) already has attention on tooth versus attention being drawn?	
a. If Liang is looking <b>at David’s tooth</b> , how would David say (1)?	
b. If Liang is looking <b>at her phone</b> , how would David say (1)?	
Q: Does it make a difference if it is another body part? Fingers? Hands? Shoulders?	
a. If David hurt his <b>head</b> , how would he say (1)?	
b. If David hurt his <b>hand</b> , how would he say (1)?	
c. If David hurt his <b>leg</b> , how would he say (1)?	

Scene 2	
	<p>2. Hiro (addr) and Dawn (spkr) are outside talking. Dawn notices that one of Hiro's teeth looks chipped. Dawn <b>points</b> to Hiro's tooth.</p>
<p>1. How would Dawn (spkr) say "Did you know _____ tooth is chipped?"</p>	
<p>2. If Hiro says that he thinks something is wrong with his tooth, and Dawn looks at it and sees that it is yellow, how would she say "You're right, _____ tooth is yellow"?</p>	
<p>3. Q: Does close pointing versus touching make a difference?</p> <p>a. If Dawn <b>points closely</b>, how would Dawn say (1)?</p> <p>b. If Dawn <b>touches</b> Hiro's tooth, how would Dawn say (1)?</p>	
<p>4. Q: Does it make a difference if Hiro already has attention on tooth versus attention being drawn?</p> <p>a. If Hiro <b>does know</b> that something might be wrong with his tooth, how would Dawn say (1)?</p> <p>b. If Hiro <b>does not know</b> that something might be wrong with his tooth, how would Dawn say (1)?</p>	
<p>5. It may be impolite to <b>point</b> to the tooth. Is there a better way to draw attention to the tooth?</p> <p>a. If Dawn <b>points with her finger</b>, how would she say (1)?</p> <p>b. If Dawn <b>does a head nod</b>, how would she say (1)?</p>	

Scene 3



3. Art (spkr) is outdoors with his friend, Beverly (addr). While they are talking, Art notices a bee crawling on his shoulder. It is bothering him.

1. How would Art say "\_\_\_\_\_ bee is bothering me"?

2. Q: Does it make a difference if Art's attention has just gone to the bee or it has been a while?

a. If Art has **just noticed** the bee, how would he say (1)?

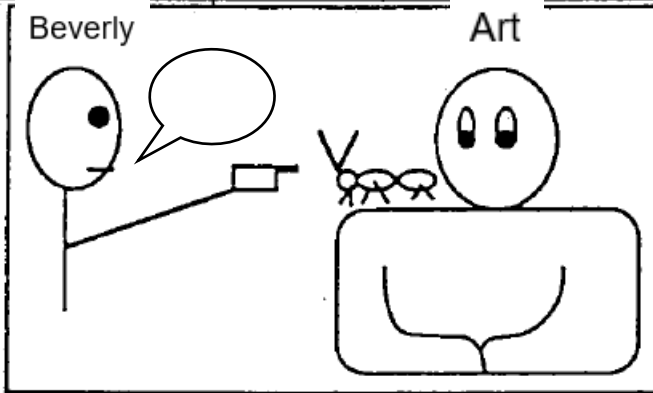
b. If Art has **been staring for a while at** the bee, how would he say (1)?

3. Q: Does it make a difference if Beverly's attention is already on the bee or has just been drawn to it?

a. If Beverly is **looking at the bee already**, how would Art say (1)?

b. If Beverly is **looking at her phone**, how would Art say (1)?

Scene 4



4. Art (addr) is outdoors with his friend, Beverly (spkr). While they are talking, Beverly notices a bee on Art's shoulder. Beverly **points** to the bee on Art's shoulder.

1. How would Beverly say "Look at \_\_\_\_ bee on your shoulder"?

2. How would Beverly say "What kind of bee is \_\_\_\_"?

3. Q: Does degree of closeness of point to referent make a difference?

a. If Beverly is pointing **from a distance**, how would she say (1)?

b. If Beverly is pointing **very closely to the bee**, how would she say (1)?

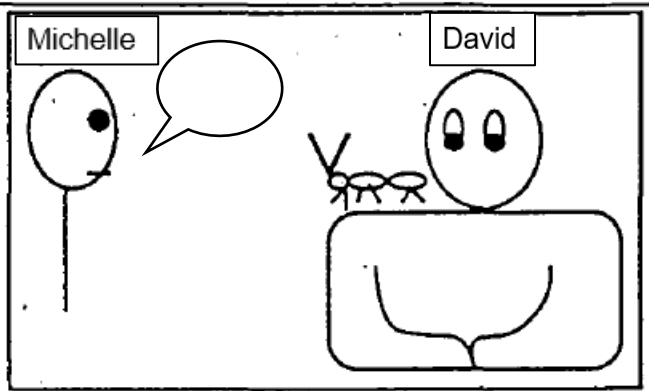
4. Q: Does it make a difference if Art already has attention on bug vs. attention being drawn?

a. If Art is **already looking at the bee**, how would Beverly say (1)?

b. If Art is **looking at his phone**, how would Beverly say (1)?



Scene 5



5. Michelle (spkr) and David (addr) are outdoors talking. While they are talking, Michelle notices a bee on David's shoulder. She does not point, she only sees the bee and watches it.

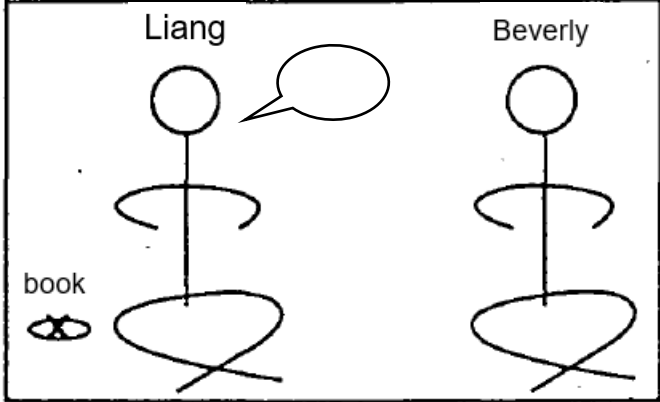
1. How would Michelle say "Look at \_\_\_ bee on your shoulder" (not pointing)?

2. How would Michelle say "What kind of bee is \_\_\_\_\_?" (not pointing)?

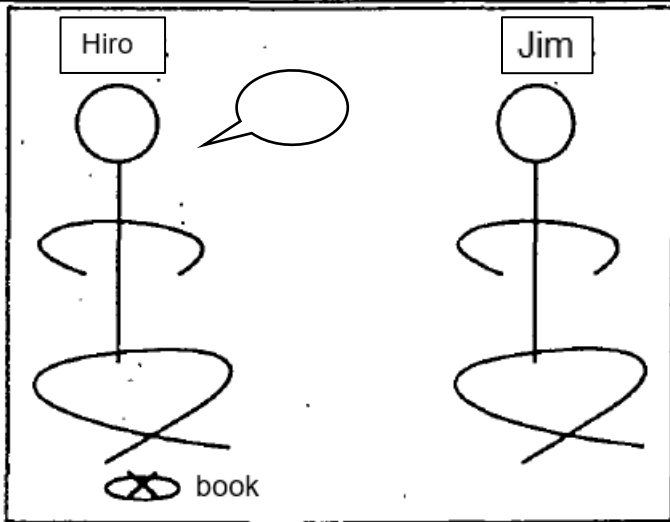
3. Q: Does it make a difference if David already has attention on the bee vs. attention being drawn?

a. If David is **already looking at the bee**, how would Michelle say (1)?

b. If David is **looking at his phone**, how would Michelle say (1)?

Scene 6	
 <p>The diagram shows two stick figures, Liang and Beverly, sitting on a carpet. Liang is on the left, Beverly is on the right. A book is on the floor next to Liang. Beverly is looking towards Liang but cannot see the book. A speech bubble is next to Liang's head.</p>	<p>6. Two friends, Liang (spkr) and Beverly (addr), are sitting on the carpet of Liang's room. Right next to Liang is a book about plants. Beverly is not easily able to see the book and cannot reach it.</p>
<p>1. How would Liang say: "I just finished reading ___ book"</p>	
<p>2. How would Liang say "Do you want to borrow ___ book?"</p>	
<p>3. Q: Does it make a difference if Beverly knows the book is there or doesn't know?  a. If Beverly <b>knows</b> the book is there already, how would Liang say (1)?  b. If, Beverly <b>does not know</b> the book is there, how would Liang say (1)?</p>	
<p>4. Q: Does it make a difference if Liang and Beverly have already talked about the book?  a. If they <b>already talked</b> about the book, how would Liang say (1)?  b. If they <b>haven't talked</b> about the book before, how would Liang say (1)?</p>	
<p>5. Q: Does Liang have to point?  a. If Liang <b>does</b> point, how would she say (1)?  b. If Liang <b>does not</b> point, how would she say (1)?</p>	
<p>6. Q: What if the book was more visible?  a. If the book is <b>more visible to Beverly</b>, how would Liang say (1)?</p>	

Scene 7



7. Two friends, Hiro (spkr) and Jim (addr), are sitting on the carpet of Hiro's room. Right in front of Hiro is a book about plants that Jim is easily able to see but cannot reach.

1. How would Hiro say: "I just finished reading \_\_\_ book"

2. How would Hiro say "Do you want to borrow \_\_\_ book?"

3. How would Hiro say "have you read \_\_\_ book?"

4. Q: Does it make a difference if Beverly has her attention drawn to the book or not?

a. If Beverly has her attention drawn to the book **already**, how would Liang say: "Have you read \_\_\_ book"

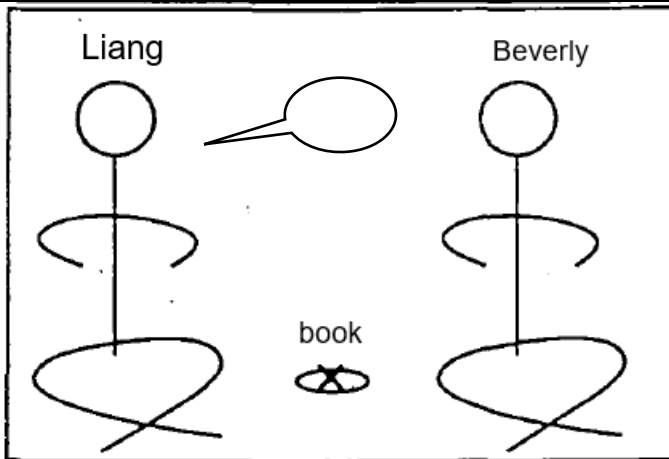
b. If Beverly does **not** have her attention drawn to the book already, how would Liang say "Have you read \_\_\_ book"

5. Q: Does Liang have to point?

a. If Liang **does** point, how would she say (1)?

b. If Liang **doesn't** point, how would she say (1)?

Scene 8



8. Two friends, Liang and Beverly, are sitting on the carpet of Liang's room. There is a book between them which is equidistant to both of them. It is within an arm's reach of both of them.

1. How would Liang say "Is \_\_\_ your book?"?

2. How would Liang say "I like \_\_\_ book"?

3. How would Liang say "Would you like to borrow \_\_\_ book?"?

4. Q: Does it make a difference if addressee has her attention drawn to the book or not?

a. If Beverly **does** have her attention drawn to the book, how would Liang say (1)?

b. If Beverly **does not** have her attention drawn to the book, how would Liang say (1)?

5. Q: Must Liang point?

a. If Liang **does** point, how would she say (1)?

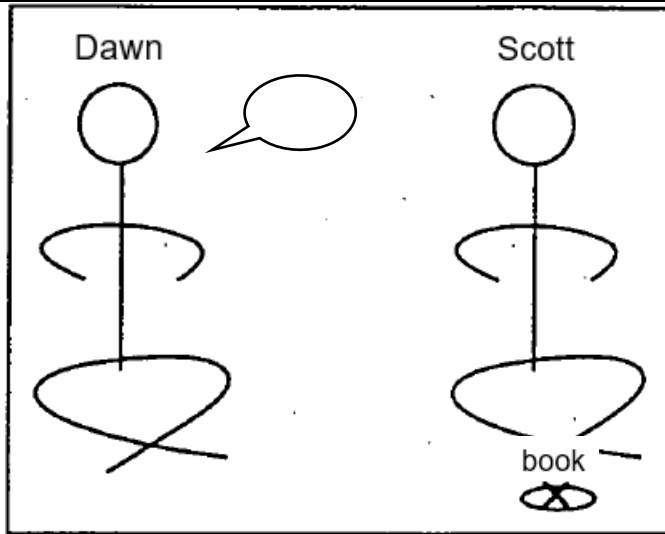
b. If Liang **does not** point, how would she say (1)?

6. Q: Does ownership matter?

a. If **Liang** owns the book, how would she say (2-3)?

b. If **Beverly** owns the book, how would Liang say (1-2)?

Scene 9



9. Two friends, Dawn and Scott, are sitting on the carpet of Dawn's room. There is a book just in front of Scott. It is visible to Dawn but she cannot reach it.

1. How would Dawn say "Is \_\_\_ your book?"?

2. How would Dawn say "I like \_\_\_ book"?

3. How would Dawn say "Do you want to borrow \_\_\_ book?"?

4. Q: Does it make a difference if addressee has his attention drawn to the book or not?

a. If Scott is looking **at the book already**, how would Dawn say (2)?

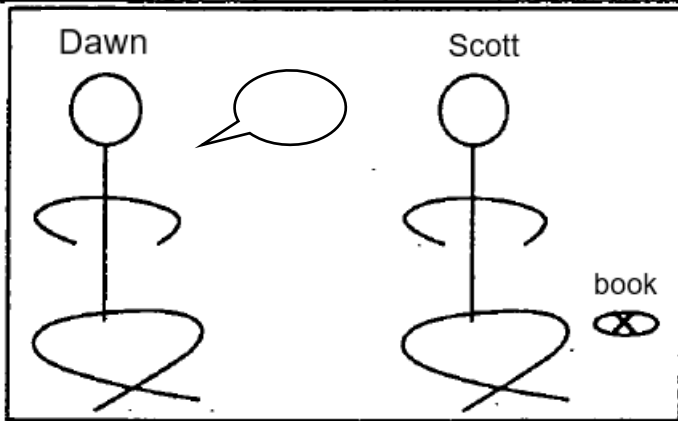
b. If Scott is looking **at his phone**, how would Dawn say (2)?

5. Q: Does Dawn have to point?

a. If Dawn **does** point, how would she say (1)?

b. If Dawn **does not** point, how would she say (1)?

Scene 10



10. Two friends, Dawn and Scott, are sitting on the carpet of Dawn's room. There is a book just next to Scott on the side away from Dawn. Dawn cannot see it but she knows it is there.

1. How would Dawn say "Is \_\_\_ your book?"?

2. How would Dawn say "I like \_\_\_ book"?

3. How would Dawn say "Do you want to borrow \_\_\_ book?"?

4. Q: Does it make a difference if addressee has his attention drawn to the book or not?

a. If Scott is looking **at the book already**, how would Dawn say (2)?

b. If Scott is looking **at his phone**, how would Dawn say (2)?

5. Q: Does Dawn have to point?

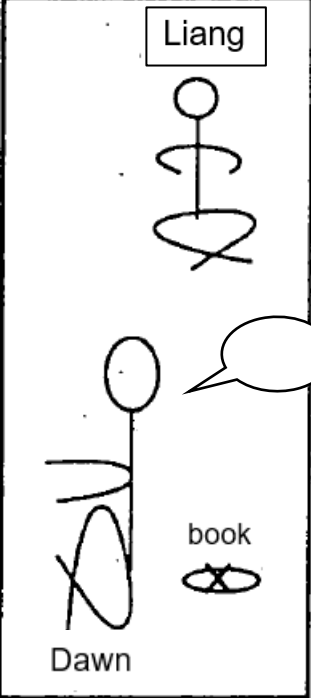
a. If Dawn **does** point, how would she say (1)?

b. If Dawn **does not** point, how would she say (1)?

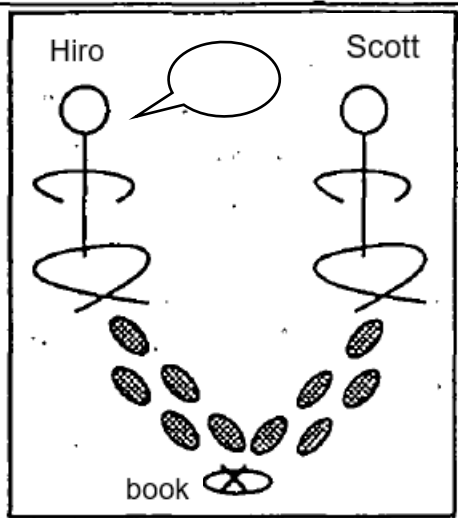
6. Q: What if the book is more visible?

a. If Dawn can **not** see the book, how would she say (2)?

b. If Dawn can **barely** see the book, how would she say (2)?

Scene 11	
 <p>The diagram shows two stick figures, Liang and Dawn, in a classroom. Liang is at the top, Dawn is at the bottom. A book is on the floor between them. A speech bubble is next to Dawn. Labels 'Liang', 'Dawn', and 'book' are present.</p>	<p>11. Two friends, Dawn and Liang are in a classroom working. There is a book behind Dawn. She knows the book is there but does not look back at it. Liang can see the book and it is distant from her (out of arm's reach).</p>
<p>1. How would Dawn say "Is ___ your book?"?</p>	
<p>2. How would Dawn say "I like ___ book"?</p>	
<p>3. How would Dawn say "Do you want to borrow ___ book?"?</p>	
<p>4. Q: Does it make a difference if Liang (addressee) has her attention drawn to the book or not?</p> <p>a. If Liang and Dawn have <b>not</b> discussed the book, how would Dawn say "I like ___ book"?</p> <p>b. If Liang and Dawn have <b>already</b> discussed the book, how would Dawn say "I like ___ book"?</p>	
<p>5. Q: Does Dawn have to point?</p> <p>a. If Dawn <b>does</b> point, how would she say (2)?</p> <p>b. If Dawn <b>does not</b> point, how would she say (2)?</p>	

Scene 12



12. Two friends, Hiro and Scott are outside working. There is a book in front of both of them and equidistant to both of them. It is about five steps away from them and easily visible.

1. How would Hiro say "Is \_\_\_ your book?"?

2. How would Hiro say "I like \_\_\_ book"?

3. How would Hiro say "Do you want to borrow \_\_\_ book?"?

4. Q: Does it make a difference if addressee has his attention drawn to the book or not?

a. If Hiro and Scott have **not** discussed the book, how would Hiro say "I like \_\_\_ book"?

b. If Hiro and Scott have **already** discussed the book, how would Hiro say "I like \_\_\_ book"?

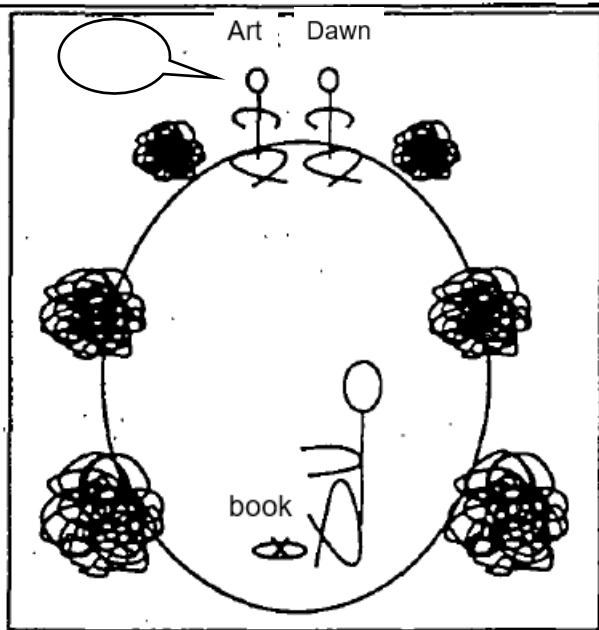
5. Q: Does Hiro have to point?

a. If Hiro **does** point, how would he say (2)?

b. If Hiro **does not** point, how would he say (2)?



Scene 13



13. Two friends, Art and Dawn are sitting at the end of a large clear field. There is a book in front of someone on the other end and it is visible to both Art and Dawn.

1. How would Art say " \_\_\_ book is a good one"?

2. How would Art say "I wonder where he got \_\_\_ book"?

3. Q: Does it make a difference if Dawn has her attention drawn to the book or not?

a. If Dawn is **already looking at the book**, how would Art say (1)?

b. If Dawn is **looking at her phone**, how would Art say (1)?

4. Q: Does it make a difference if they have discussed the book or not?

a. If Art and Dawn have **not** discussed the book, how would Art say "I like \_\_\_ book"?

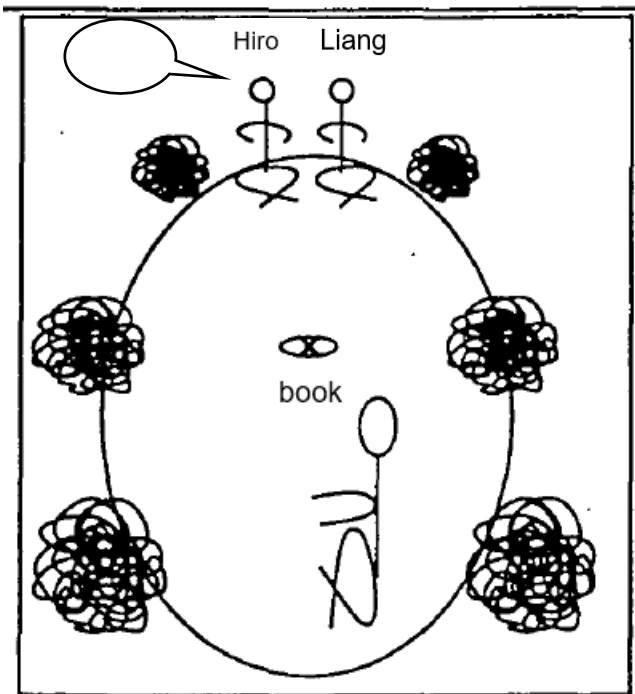
b. If Art and Dawn have **already** discussed the book, how would Art say "I like \_\_\_ book"?

5. Q: Does Art have to point?

a. If Art **does** point, how would he say (1)?

b. If Art **does not** point, how would he say (1)?

Scene 14



14. Two friends, Hiro and Liang are sitting at the end of a large clear field. There is a book right in the center of the field, between Hiro and Liang and the stranger at the other end.

1. How would Hiro say " \_\_\_ book is a good one"?

2. How would Hiro say "I wonder where he got \_\_\_ book"?

3. Q: Does it make a difference if Liang has her attention drawn to the book or not?

a. If Liang is **already looking at** the book, how would Hiro say (1)?

b. If Liang is **looking at her phone**, how would Hiro say (1)?

4. Q. Does it make a difference if Hiro and Liang have discussed the book?

a. If Hiro and Liang have **not** discussed the book, how would Hiro say "I like \_\_\_ book"?

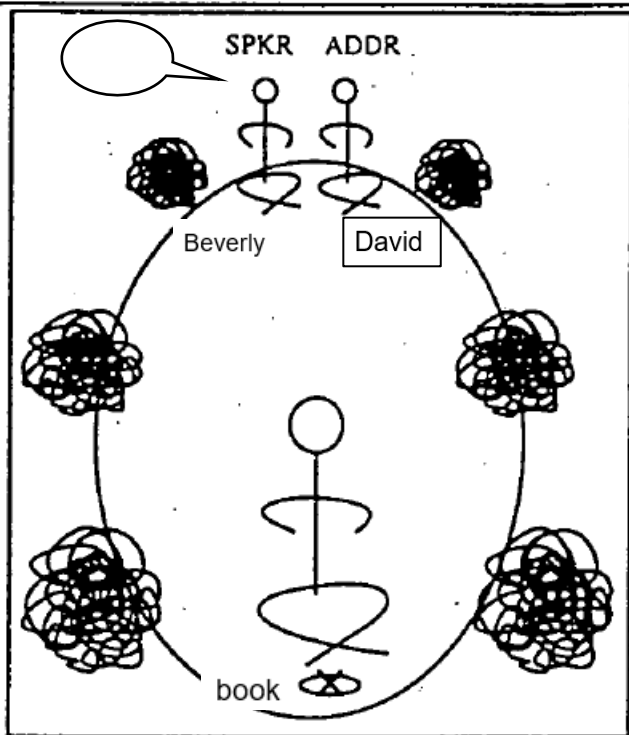
b. If Hiro and Liang have **already** discussed the book, how would Hiro say "I like \_\_\_ book"?

5. Q: Does Hiro have to point?

a. If Hiro **does** point, how would he say (1)?

b. If Hiro **does not** point, how would he say (1)?

Scene 15



15. Two friends, Beverly and David are sitting at the end of a large clear field. There is a book in front of the stranger who is facing away from Beverly and David. Beverly and David can't see the book, but Beverly knows it's there.

1. How would Beverly say " \_\_\_ book is a good one"?

2. How would Beverly say "I wonder where he got \_\_\_ book"?

3. Q: Does it make a difference if David has his attention drawn to the book or not?

a. If David is **already looking at the book**, how would Beverly say (1)?

b. If David is **looking at his phone**, how would Beverly say (1)?

4. Does it make a difference if Beverly and David have already discussed the book?

a. If Beverly and David have **not** discussed the book, how would Beverly say "I like \_\_\_ book"?

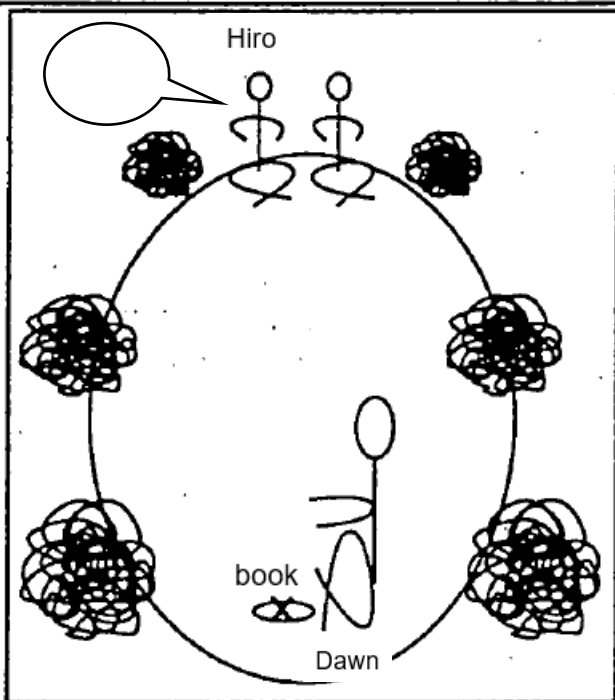
b. If Beverly and David have **already** discussed the book, how would Beverly say "I like \_\_\_ book"?

Q: Does Beverly have to point?

a. If Beverly **does** point, how would she say (1)?

b. If Beverly **does not** point, how would she say (1)?

Scene 16



16. Two friends, Hiro and Dawn are sitting at two ends of a large clear field. Hiro has to shout to talk to Dawn. There is a book right in front of Dawn that Hiro is able to see.

1. How would Hiro say " \_\_\_ book is a good one"?

2. How would Hiro say "Is \_\_\_ book yours"?

3. Q: Does it make a difference if addressee has her attention drawn to the book or not?

a. If Hiro and Dawn have **not** discussed the book, how would Hiro say "I like \_\_\_ book"?

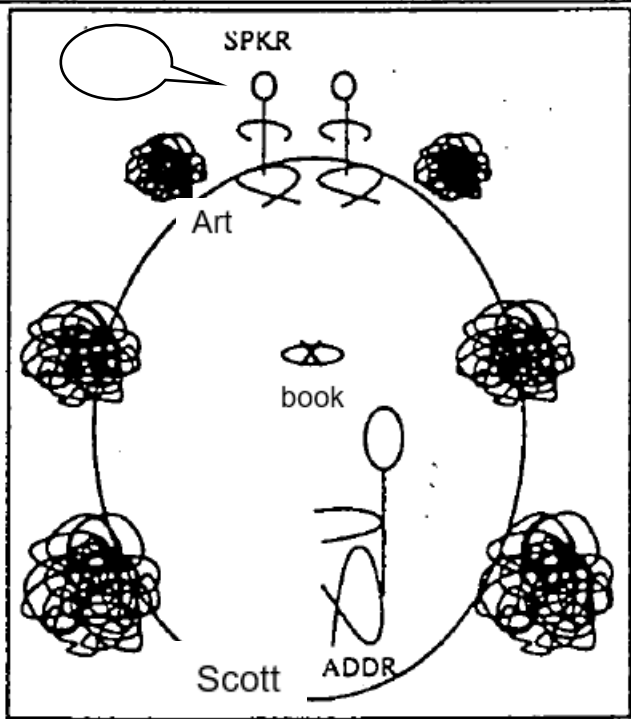
b. If Hiro and Dawn have **already** discussed the book, how would Hiro say "I like \_\_\_ book"?

4. Q: Does Hiro have to point?

a. If Hiro **does** point, how would he say (1)?

b. If Hiro **does not** point, how would he say (1)?

Scene 17



17. Two friends, Art and Scott are sitting at two opposite ends of a large clear field. Art has to shout to talk to Scott. There is a book in the middle of the field equidistant from both Art and Scott.

1. How would Art say " \_\_\_ book is a good one"?

2. How would Art say "Is \_\_\_ book yours"?

3. Q: Does it make a difference if Scott has his attention drawn to the book or not?

a. If Art and Scott have **not** discussed the book, how would Art say "I like \_\_\_ book"?

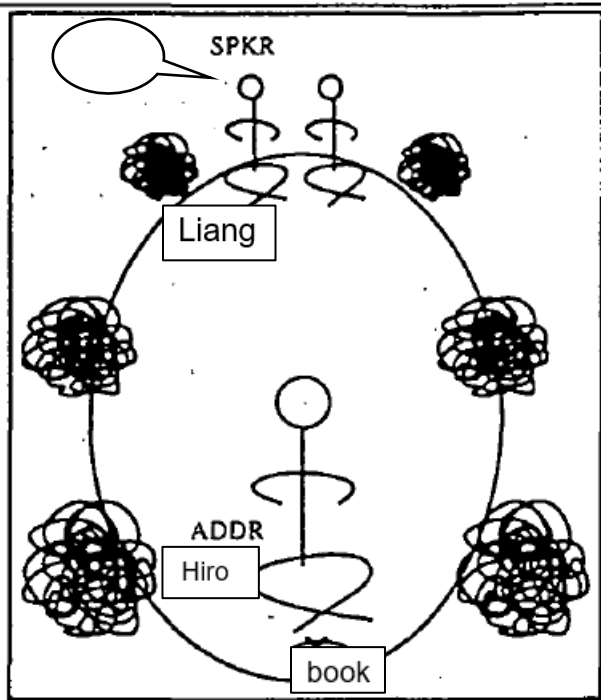
b. If Art and Scott have **already** discussed the book, how would Art say "I like \_\_\_ book"?

4. Q: Does Art have to point?

a. If Art **does** point, how would Art say (1)?

b. If Art **does not** point, how would Art say (1)?

Scene 18



18. Two friends, Liang, the speaker and Hiro, the addressee are sitting at two ends of a large clear field. Liang has to shout to talk to Hiro. Hiro is facing away from Liang. There is a book in front of Hiro which is not visible to Liang, the speaker. Liang knows the location of the book in front of Hiro.

1. How would Liang say " \_\_\_ book is a good one?"?

2. How would Liang say "Is \_\_\_ book yours"?

3. Q: Does it make a difference if the speaker, Liang does not know of existence of object, but conjectures existence from the actions of the addressee, Hiro.

a. If Liang actually saw the book before, how would she say "What's \_\_\_ book you are reading?"?

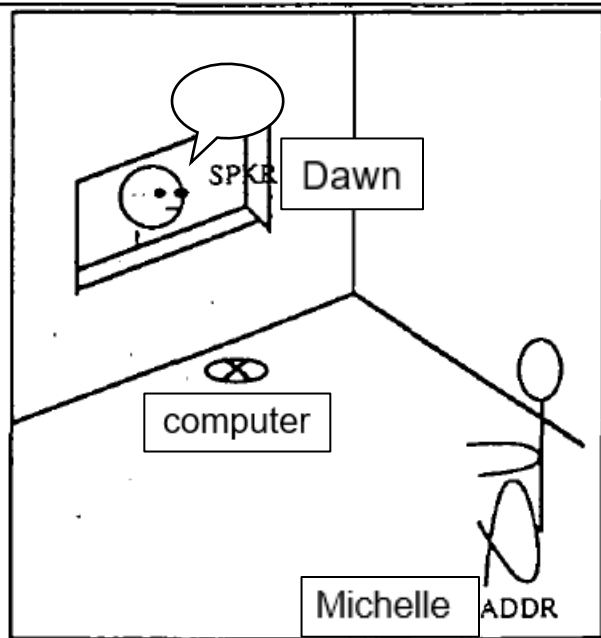
b. If Liang just guesses that Hiro is reading because he is looking down and supposes there is a book, how would she say "What's \_\_\_ book you're reading?"?

4. Q: Does Liang have to point?

a. If Liang **does** point, how would Liang say (1)?

b. If Liang **does not** point, how would Liang say (1)?

Scene 19



19. Two friends, Dawn and Michelle are planning to meet at Michelle's house. When Dawn arrives, she stands in the window of Michelle's house to surprise her. Michelle is sitting on her couch at the other end of the room Dawn is looking into. Dawn sees a new computer on the floor right on the other side of the window. The computer is closer to Dawn than Michelle.

1. How would Dawn say "Is \_\_\_ your new computer"?"

2. How would Dawn say "I like \_\_\_ new computer"?"

3. Q: Does it make a difference if Dawn points?

a. If Dawn **does** point, how would she say "I like \_\_\_ computer"?"

b. If Dawn **doesn't** point, how would she say "I like \_\_\_ computer"?"

4. Q: Does it make a difference if object has been mentioned before?

a. If earlier Michelle told Dawn that she was getting a new computer today, how would Dawn say "I like \_\_\_ computer"?"

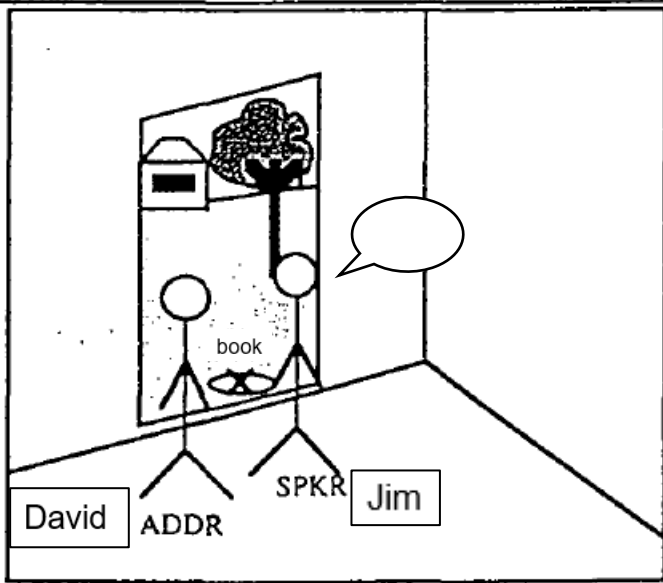
b. If earlier, Michelle **did not** tell Dawn about the computer, how would Dawn say (2)?"

5. Q: Does it make a difference if Michelle has her attention on the computer or drawn to it?

a. If Michelle is already looking **at the computer**, how would Dawn say "I like \_\_\_ new computer"?"

b. If Michelle is looking **at her phone**, how would Dawn say (2)?"

Scene 20



20. Two friends, Jim, the speaker and David, the addressee are standing inside of a house, looking out an open door. They are near the doorway. There is a book right outside the door. The book is easily reachable to Jim and David and is the same distance from both of them.

1. How would Jim say “I like \_\_\_ book”?

2. How would Jim say “Whose book is \_\_\_”?

3. Q: Does it make a difference if Jim points?

a. If Jim **does** point, how would he say “I like \_\_\_ book”?

b. If Jim **doesn't** point, how would he say “I like \_\_\_ book”?

4. Q: Does it make a difference if David, the addressee has his attention drawn to the book or not?

a. If David is looking **at the book**, how would Jim say (1)?

b. If David is looking **at his phone**, how would Jim say (1)?

5. Does it make a difference if Jim or David are closer to the door?

a. If **Jim** is closer to the door, how would Jim say (1)?

b. If **David** is closer to the door, how would Jim say (1)?

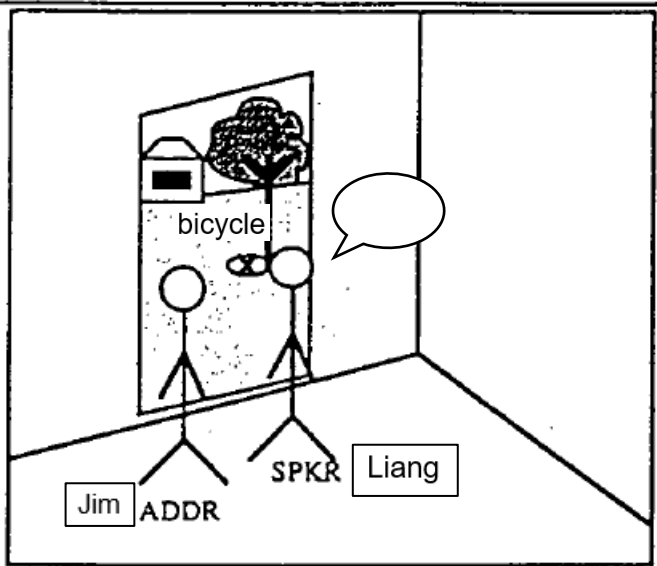
6. Does it make a difference if the book is closer to the door?

a. If the book is **close** to the door, how would Jim say (1)?

b. If the book is **farther** from the door, how would Jim say (1)?



Scene 21



21. Two friends, Liang and Jim are standing inside of a house looking out an open door. They are both near the doorway. There is a green bicycle next to a tree outside. The bike is technically closer to Liang since the bike and the tree are on her side of the house.

1. How would Liang say “I like \_\_\_ bike”?

2. How would Liang say “Whose bike is \_\_\_?”?

3. Q: Does it make a difference if Liang points? Must she point?

a. If Liang **does** point, how would she say (1)?

b. If Liang **doesn't** point, how would she say (1)?

4. Q: Does it make a difference if the bicycle has been mentioned before?

a. If Jim **did** tell Liang about a bike that was outside earlier, how would Liang say (1)?

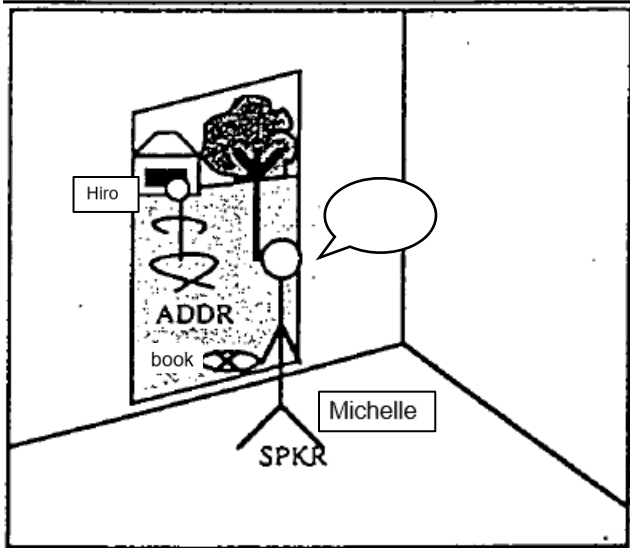
b. If Jim **did not** tell Liang about the bike earlier, how would Liang say (1)?

5. Q: Does it make a difference if Jim has his attention drawn to the bike or not?

a. If Jim is looking **at the bike** already, how would Liang say (1)?

b. If Jim is looking **at his phone**, how would Liang say (1)?

Scene 22



22. Michelle, the speaker is inside a house looking out the open door. Hiro, the addressee, is sitting outside a few meters away. There is a book just outside the door. It is technically closer to Michelle.

1. How would Michelle say “Is \_\_\_ your book?”?

2. How would Michelle say “I like \_\_\_ book?”?

3. Q: Does it make a difference if Michelle points? Must she point?

a. If Michelle **does** point, how would she say (1)?

b. If Michelle **doesn't** point, how would she say (1)?

4. Q: Does it make a difference if the book has been mentioned before?

a. If Hiro **did** tell Michelle about a book he is going to bring earlier, how would Michelle say (1)?

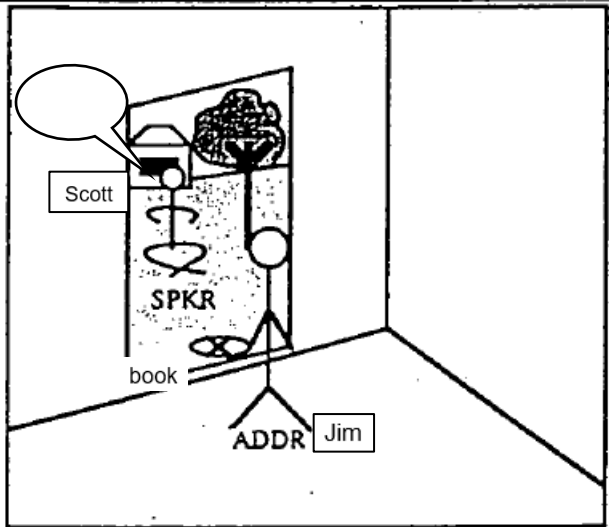
b. If Hiro **did not** tell Michelle about the book earlier, how would Michelle say (1)?

5. Q: Does it make a difference if Hiro has his attention drawn to the book or not?

a. If Hiro is looking **at the book** already, how would Michelle say (1)?

b. If Hiro is looking **at his phone**, how would Michelle say (1)?

Scene 23



23. Scott, the speaker, is outside a house a few meters away looking in the open door. Jim, the addressee, is standing inside the house looking out the open door. There is a book just outside the door. It is technically closer to Jim.

1. How would Scott say “Is \_\_\_ your book?”?

2. How would Scott say “I like \_\_\_ book?”?

3. Q: Does it make a difference if Scott points? Must he point?

a. If Scott **does** point, how would he say (1)?

b. If Scott **doesn't** point, how would he say (1)?

4. Q: Does it make a difference if the book has been mentioned before?

a. If Jim earlier **did** tell Scott about a book he is going to be holding, how would Scott say (1)?

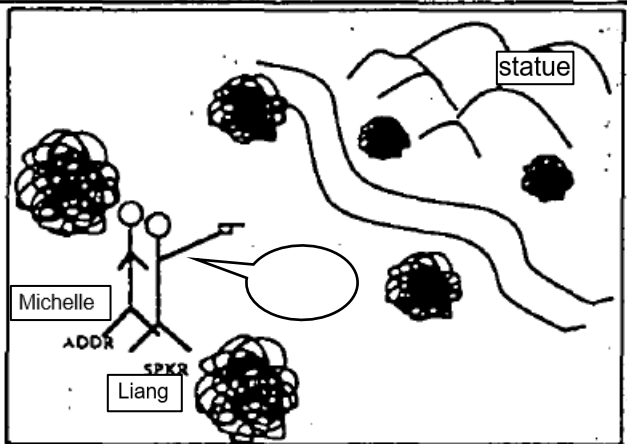
b. If Jim **did not** tell Scott about the book earlier, how would Scott say (1)?

5. Q: Does it make a difference if Jim has his attention drawn to the book or not?

a. If Jim is looking **at the book** already, how would Scott say (1)?

b. If Jim is looking **at his phone**, how would Scott say (1)?

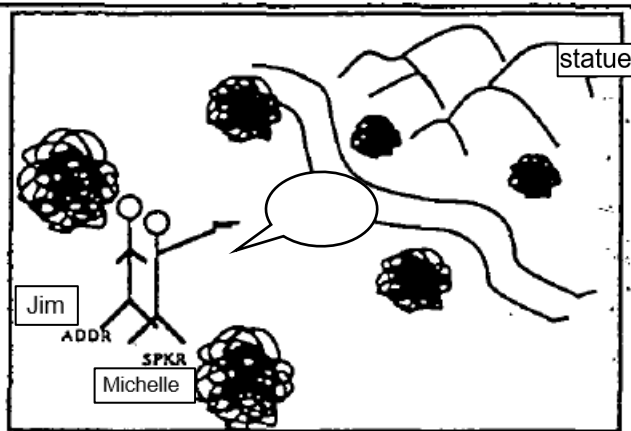
Scene 24



24. Two friends, Liang, the speaker, and Michelle, the addressee, are in a large park. They are looking across a river some kilometers away at some hills. In the hills, they can both see a large statue.

1. How would Liang say “I’ve climbed to \_\_\_ statue”?
2. How would Liang say “Have you been to \_\_\_ statue”?
3. How would Liang say “Look at \_\_\_ statue”?
4. Q: Does it make a difference if Michelle has her attention drawn to the statue or not?
  - a. If Michelle is looking **at the statue** already, how would Liang say (1)?
  - b. If Michelle is looking **at her phone**, how would Liang say (1)?
5. Q: Does it make a difference if the statue has been mentioned before?
  - a. If Liang earlier **did** tell Michelle about a statue in the hills, how would Liang say (1)?
  - b. If Liang **did not** tell Michelle about the statue earlier, how would Liang say (1)?

Scene 25



25. Two friends, Michelle, the speaker, and Jim, the addressee, are in a large park. They are looking across a river some kilometers away at some hills. Somewhere in the hills, there is a statue. However, neither of them can see the statue currently.

1. How would Michelle say “I’ve climbed to \_\_\_ statue”?

2. How would Michelle say “Have you been to \_\_\_ statue?”?

3. How would Michelle say “My father made \_\_\_ statue”?

4. Q: Does it make a difference if Jim knows the statue is there or doesn’t know the statue is there?

a. If Michelle knows that **Jim already knows** about the statue, how would Michelle say (1)?

b. If Michelle thinks that **Jim doesn’t already know** about the statue, how would Michelle say (1)?

5. Q: Does it make a difference if the statue has been mentioned before?

a. If Michelle earlier **did** tell Jim about a statue in the hills, how would Michelle say (1)?

b. If Michelle **did not** tell Jim about the statue earlier, how would Michelle say (1)?

6. Q: Does it make a difference if Michelle points? Must she point?

a. If Michelle **does** point, how would she say (1)?

b. If Michelle **doesn’t** point, how would she say (1)?

## Appendix II: Aissen 2015 Elicitation Items

Each table below contains elicitation items based on *Documenting Topic and Focus*, a handout and article by Judith Aissen (2015), presented as part of the 4<sup>th</sup> International Conference on Language Documentation & Conservation (ICLDC4).

Participants should first be presented with the scene description, and then asked for translations of the sentences **based on the context established in the scene description**.

### Focus

(1)	argument focus (location)
scene	<i>Two friends, Beverly and Liang are talking about their friend, Dawn. Beverly knows that Dawn is driving somewhere tomorrow but she doesn't remember where. Dawn is driving to Indianapolis. She asks Liang.</i>
sentences	1. Beverly: Where will Dawn drive tomorrow? 2. Liang: Dawn will drive to Indianapolis tomorrow
note	[to Indianapolis] is the argument focus
other forms	[the city] [this place]

(2)	argument focus (agent)
scene	<i>Two friends, Jim and Dawn are talking about driving to Indianapolis. Jim knows that someone else he was just talking to told him that they will drive to Indianapolis tomorrow, but he can't remember who. In fact, Hiro will drive to Indianapolis and Dawn knows this. Jim asks Dawn.</i>
sentences	1. Jim: Who will drive to Indianapolis tomorrow? 2. Dawn: Hiro will drive to Indianapolis tomorrow.
note	[Hiro] is the argument focus
other	[the teacher] [this teacher]

(3)	VP focus
	<i>Two friends, Scott and David are talking about their friend, Michelle. She can't hang out with them tomorrow and Scott doesn't know why. Scott asks David. David tells him it's because Michelle is driving to Indianapolis tomorrow.</i>
	1. Scott: What will Michelle do tomorrow? 2. David: Michelle will drive to Indianapolis tomorrow.
	[drive to Indianapolis] is the VP focus

(4)	Sentence focus
	<i>Two friends, Hiro and Beverly are talking about their friend, Art. Their other friend, Jim comes by and hears them talking about Art. Jim asks Hiro and Beverly about what Art is doing and they tell him that he will drive to Indianapolis tomorrow.</i>
	1. Jim: What's going on? 2. Beverly: Art will drive to Indianapolis tomorrow.

	[Art will drive to Indianapolis tomorrow] is the sentential focus
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(5)	Correction focus
	<i>Two friends, Dawn and Michelle are talking about their friend, Jim. Dawn mistakenly says that Jim will drive to Cleveland tomorrow. Michelle corrects her, saying that Jim is driving to Indianapolis tomorrow.</i>
	1. Dawn: Jim will drive to Cleveland tomorrow. 2. Michelle: No, Jim will drive to Indianapolis tomorrow.
	[Indianapolis] is the corrective focus
	[the city] [this place]

(6)	Contrastive focus
	<i>Two friends, Jim and Hiro are talking about their friends, Dawn and Scott. Jim knows that they are both traveling tomorrow but not where. Jim asks Hiro, who tells him that Dawn is driving to Indianapolis and Scott is driving to Cleveland.</i>
	1. Jim: Who is driving where tomorrow? 2. Hiro: Dawn is driving to Indianapolis and Scott is driving to Cleveland.
	[Dawn] and [Scott] are contrastive focus participants

(7)	argument focus (recipient)
	<i>Art and Michelle are talking about a book they are reading for class. One of their classmates, Hiro, is going to lend his book to another student. Art does not know who Hiro will lend the book to. Art asks Michelle, who tells him that Hiro will give the book to Beverly.</i>
	1. Art: Who will Hiro give the book to? 2. Michelle: Hiro will give the book to Beverly.
	[to Beverly] is the recipient focus

(8)	argument focus (recipient)
	<i>Dawn and Liang are talking about a book they are reading for class. One of their classmates, David, is going to lend something to Jim. Dawn does not know what David will give Jim but Liang knows that it is a book. Dawn asks Liang, who tells her that David will give Jim a book.</i>
	1. Dawn: What will David give Jim? 2. Liang: David will give Jim a book.
	[a book] is theme focus

(9)	Subject focus
	<i>Jim has been eating grapes at a lunch table across from Michelle. Jim gets up and leaves. Hiro comes to the lunch table that Jim was sitting at and Michelle is currently sitting at. Hiro sees a bowl of grapes on the table. He asks Michelle who is eating the grapes. Michelle tells him that Jim is eating the grapes.</i>
	1. Hiro: Who is eating the grapes? 2. Michelle: Jim is eating the grapes.
	[Jim] is the subject focus

(10)	Object Focus
	<i>Liang and David are talking about their friend, Art. Art recently got a lot of money from selling his car. Liang knows that Art got a lot of money from selling something, but she doesn't know what. She asks David, who tells her that Art sold his car.</i>
	1. Liang: What did Art sell? 2. David: Art sold his car.
	[his car] is the object focus

(11)	New Information Focus
	<i>Michelle and Beverly meet at school in the early morning. Michelle wants to start the conversation and asks Beverly what she ate for breakfast. Beverly tells her she ate eggs.</i>
	1. Michelle: What did you eat for breakfast? 2. Beverly: I had eggs.
	[eggs] is new information

(12)	Selective Focus
	<i>Jim and Dawn meet at school in the early morning. Jim wants to start the conversation and asks Dawn what she ate for breakfast. He knows that she either eats rice or eggs, and usually nothing else. Dawn tells Jim that she had rice.</i>
	1. Jim: What did you eat rice or eggs for breakfast? 2. Dawn: I had rice.
	[rice] is selective focus

(13)	Corrective Focus
	<i>Scott and Liang meet at school in the early morning. Scott is making small talk with Liang by asking her what she ate for breakfast. He is guessing that she ate eggs since this is a typical thing to eat for breakfast, but he isn't sure that she did. In fact, Liang did not have eggs for breakfast, she instead ate rice for breakfast.</i>
	1. Scott: Did you eat eggs for breakfast? 2. Liang: No, I had rice.
	[rice] is corrective (or replacive) focus

(14)	Expanding Focus
	<i>Art and Michelle meet at school in the early morning. Art is making small talk with Michelle by asking her what she ate for breakfast. He is guessing that she ate eggs since this is a typical thing to eat for breakfast, but he isn't sure that she did. In fact, Michelle did have eggs for breakfast, but she also had rice, too.</i>
	1. Art: Did you eat eggs for breakfast? 2. Michelle: Yes, and I had rice, too.
	[rice] is expanding (or additive)

(15)	Exhaustive Focus
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	<i>David and Dawn meet at school in the early morning. David is making small talk with Dawn by asking her what she ate for breakfast. Dawn had eggs for breakfast and nothing else.</i>
	1. David: What did you eat for breakfast? 2. Dawn: I only had eggs.
	[eggs] is exhaustive focus

(16)	Unexpected Focus
	<i>Beverly and Hiro meet at school in the early morning. Beverly is making small talk with Hiro by asking him what he ate for breakfast. Usually, Hiro has something typical like eggs but today he actually ate snails, which is uncommon. He expects that Beverly would be surprised by this.</i>
	1. Beverly: What did you eat for breakfast? 2. Hiro: You know what? I had snails for breakfast.
	[snails] is unexpected focus (Hartmann and Zimmerman 2009)

### Topic

(17)	Topic Marking
	<i>This morning, Liang was driving to campus and was behind a school bus full of children. The bus made frequent stops to pick up more children and this caused Liang to arrive to campus later than expected. Later, she is telling Scott about the bus of children. She tells him that the bus finally stopped in front of a museum and all the children got off the bus at once. Scott asks what happened next. Liang tells him that the children went into the museum.</i>
	1. Scott: What did the children do next? 2. Liang: The children went into the museum.
	[The children] is the topic and [went into the museum] is the comment

(17b)	Topic Marking
	<i>This morning, Liang was driving to campus and was behind a school bus full of children. The bus made frequent stops to pick up more children and this caused Liang to arrive to campus later than expected. As she gets out of her car, she sees Scott and tells him about the delay caused by the bus. She points to the bus which is still down the road, saying that these children are all getting on the bus. Scott <b>points to</b> the bus and asks what will happen next. Liang tells him that the children will probably go to school.</i>
	1. Scott: What will these children do next? 2. Liang: These children will probably go to school.
	[These children] is the topic and [will probably go to school] is the comment. This form includes a demonstrative phrase to check topic marking on demonstrative phrases.

(18)	Contrastive Topic Marking
	<i>This morning, Hiro was driving to campus and was behind a school bus full of children. The bus made frequent stops to pick up more children and this caused</i>

	<i>Hiro to arrive to campus later than expected. Later, he is telling Dawn about the bus of children. He tells her that the bus eventually stopped in front of a zoo and later stopped in front of a school. Dawn asks what happened. Hiro tells her that the boys went to the zoo and the girls went to the school.</i>
	1. Dawn: Who went where? 2. Hiro: The boys went to the zoo and the girls went to the school.
	[The boys] and [The girls] are two contrastive topics

(19)	Continuing (familiar) Topic
	<i>Beverly and Michelle are talking about their friend, Dawn. Dawn is driving to Indianapolis with her sister the next day. Beverly and Michelle know that Dawn hasn't been able to spend time with her sister for a long time, so she must be excited.</i>
	1. Beverly: Dawn is driving to Indianapolis with her sister tomorrow. 2. Michelle: Dawn must be excited.
	[Dawn] continues to be the topic in both sentences.

(20)	Topic Definiteness
a.	<i>David is looking into a room where there is a dog chasing a cat. David does not know where this cat and this dog came from. They are making a lot of noise. Scott walks by in the hallway, hearing the noise, but not looking in the room. Scott asks what's happening. David thinks that Scott also does not know where the cat and dog are from. He tells Scott that a dog is chasing a cat.</i>
	1. Scott: What's going on? 2. David: A dog is chasing a cat
b.	<i>David is looking into a room where there is a dog chasing a cat. He knows the dog because there is always a dog hanging out in that room. The cat and dog are making a lot of noise. Scott walks by in the hallway, hearing the noise, but not looking in the room. Scott asks what's happening. David knows that Scott also knows of the dog that is hanging out in the room. He tells Scott that a dog is chasing a cat.</i>
	1. Scott: What's going on? 2. David: The dog is chasing a cat.
c.	<i>David is looking into a room where there is a dog chasing a cat. He knows the dog because there is always a dog hanging out in that room and he knows the cat because it also hangs out in the room. The cat and dog are making a lot of noise. Scott walks by in the hallway, hearing the noise, but not looking in the room. Scott asks what's happening. David knows that Scott also knows of the dog and cat that hang out in the room. He tells Scott that a dog is chasing a cat.</i>
	1. Scott: What's going on? 2. David: The dog is chasing the cat.
note	

(21)	Non-subject topic
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	<i>Beverly and Art are at their friend Liang's house. In the house, all of their friends are chatting with each other but in the garden in the backyard, there is a dog chasing a cat. Art and Beverly are inside and Beverly can look out the window to see the garden in the backyard. She seems interested and Art asks her what is happening.</i>
	1. Art: I know what's going on in the house, but what's going on outside? 2. Beverly: In the garden, a dog is chasing a cat.
	[In the garden], the location is the topic as opposed to the matrix subject

(22)	Contrastive topic
	<i>Jim and Liang are talking about what just happened in the backyard</i>
	1. "[chizawh cu] uico nih a dawi" -> means "As for the cat, the dog chased it" or "The dog chased the cat (not the rabbit)" ? 2. "uico nih [chizawh cu] a dawi"-> means "As for the cat, the dog chased it" or "The dog chased the cat (not the rabbit)" ?
	this tests location and <i>cu</i> -marking

### Appendix III: Jenks 2015 Elicitation Items

Each table below contains elicitation items based on the Noun Phrase Interpretations Questionnaire, designed by Peter Jenks (2015), presented as part of the 4<sup>th</sup> International Conference on Language Documentation & Conservation (ICLDC4).

Participants should first be presented with the scene description, and then asked for translations of the sentences **based on the context established in the scene description**.

#### Definite (strong, referential)

(1)	Definite (strong, referential)
	Liang and Hiro are talking about a party that Liang held at her apartment last week. Liang tells Hiro that she bought all kinds of fruits to serve at the party but when she went to the store, there was only one mango left, which she bought. She knows that Hiro really likes mangoes, so she hopes that he was the one who got to eat it. However, when she asks Hiro if he ate the mango, he says that he didn't eat it. Liang asks why he didn't eat it.
	1. Liang: Why didn't you eat the mango? 2. Hiro: The mango had been eaten by another person.
jenks (1a)	[the mango] is definite in subj. position

(2)	Definite (strong, referential)
	Beverly and Jim are talking about a party that Liang held at her apartment last week. Beverly tells Jim that Liang bought a single mango to serve at the party. Beverly knows that Jim likes mangoes. However, when she asks Jim if he ate the mango, he says that he didn't eat it. Beverly asks why he didn't eat the mango.
	1. Beverly: Why didn't you eat the mango? 2. Jim: David had eaten the mango.
jenks (1b)	[the mango] is definite in obj. position

#### Demonstrative (strong, referential)

(3)	Demonstrative (strong, referential)
	Art and Michelle are at a party that Art is holding at his apartment. Art is chatting with Michelle and tells her that he bought a lot of food and drinks to serve at the party. He wonders if the drinks he bought will be enjoyed by the party guests. Michelle sees that at least one of the bottles of juice has been opened. She tells Art.
	1. Art: Do you think everyone will like the drinks? 2. Michelle: That juice has been opened.
jenks (2a)	[that juice] is a demonstrative in subj. position

(4)	Demonstrative (strong, referential)
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	David and Dawn are at a party that David is holding at his apartment. David is chatting with Dawn and tells her that he bought a lot of food and drinks to serve at the party. He wonders if the drinks he bought will be enjoyed by the party guests. Dawn saw earlier that Liang has opened one of the bottles of juice. She tells David.
	1. David: Do you think people like the drinks? 2. Dawn: Liang has opened that juice.
jenks (2b)	[that juice] is a demonstrative in obj. position

### Strong Quantificational (strong, quantificational)

(5)	Strong Quantificational (strong, referential)
	Liang and Beverly are at a party that Beverly is holding in her apartment. Beverly is a little worried that she doesn't have enough apples and asks Liang to see if there are any apples left to eat. Liang returns and tells Beverly that the apples have all been eaten.
	1. Liang: Are there any apples left? 2. Beverly: Nope. Every apple has been eaten.
jenks (3a)	[Every apple] is a strong quantificational referent in subj. position

(6)	Strong Quantificational (strong, referential)
	Liang and Beverly are at a party that Beverly is holding in her apartment. Beverly is a little worried that she doesn't have enough apples and asks Liang to see if there are any apples left to eat. Liang goes to the kitchen and sees Hiro eating the last apple. She asks him if others got to eat apples and he says he ate every apple. Liang returns and tells Beverly that the apples have all been eaten by Hiro.
	1. Beverly: Are there any apples left? 2. Liang: No, Hiro has eaten every apple.
jenks (3b)	[Every apple] is a strong quantificational referent in obj. position

### Specific Indefinite (weak or strong, wide-scope referential)

(7)	Specific Indefinite (weak or strong, wide-scope referential)
	Hiro and Jim are at a party that Hiro is holding at his apartment. There is a lot of food on the table in the kitchen for people to eat, including a bowl of bananas. Hiro is looking through the bananas and Jim notices that he seems upset and worried. Jim asks Hiro what's wrong. Hiro says he is upset because one of the bananas was still green and he wanted to eat that one because he likes green bananas.
	1. Jim: What's wrong? 2. Hiro: A (certain) banana has been eaten. It was my banana.
jenks (4a)	[a (certain) banana] is a specific indefinite in subj. position.

(8)	Specific Indefinite (weak or strong, wide-scope referential)
	David and Art are at a party that David is holding at his apartment. There is a lot of food on the table in the kitchen for people to eat, including a bowl of bananas. David is looking through the bananas and Art notices that he seems upset and worried. Art asks David what's wrong. David says he is upset because one of the bananas was still green and he wanted to eat that one because he likes green bananas. He saw Beverly eating a green banana earlier and assumes that it was the one he had planned on eating.
	1. Art: What's wrong? 2. David: Beverly ate a (certain) banana. It was my banana.
jenks (4b)	[a (certain) banana] is a specific indefinite in obj. position.

### Existential Indefinite (weak, quantificational or predicative)

(9)	Existential Indefinite (weak, quantificational or predicative)
	Liang and Dawn are at a party at Liang's apartment. There are many kinds of fruits to eat at the party. Liang is worried that people are not going to eat the fruit she bought. She asks Dawn to check out the kitchen table where she laid out the fruit. Dawn goes to check and sees that there is a bowl of grapes on the table with the other fruit. Dawn notices that there are fewer grapes in the bowl than there were earlier. She returns and says to Liang:
	1. Dawn: Several grapes have been eaten.
jenks (5a)	[several grapes] is an existential indefinite in subj. position.

(10)	Existential Indefinite (weak, quantificational or predicative)
	Jim and Scott are at a party at Scott's apartment. There are many kinds of fruit to eat at the party. Scott is worried that people are not going to eat the fruit he bought. He asks Jim to check to see if people are eating the fruit. Jim goes and sees that there are many kinds of fruit on the kitchen table. Jim notices that there are fewer grapes in the grape bowl than there were earlier. He sees Art eating many of the grapes. He returns and says to Scott:
	1. Jim: Art has eaten several grapes.
jenks (5b)	[several grapes] is an existential indefinite in obj. position.

### Predicative (weak, predicative)

(11)	Predicative (weak, predicative)
	Liang and Art are at a party at Beverly's apartment. On the kitchen table, there are many kinds of fruits for guests to eat. Liang tells Art she is excited that Beverly provided longyan. Art doesn't know what longyan is and asks Liang. She tells him:
	1. Art: What is longyan? 2. Liang: Longyan is a fruit.

jenks (6a)	[a fruit] is predicative
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### Generic (weak, narrow-scope referential)

(12)	Generic (weak, narrow-scope referential)
	Scott and Hiro are at a party at Jim's apartment. On the kitchen table, there are many kinds of fruits for guests to eat. Scott tells Hiro he is excited that Jim bought lychee. Hiro doesn't know what lychee is and asks Scott. He tells him:
	1. Hiro: What is lychee? 2. Scott: Lychee is a fruit.
jenks (7a)	[lychee] is a generic referent in subj. position

(13)	Generic (weak, narrow-scope referential)
	David and Beverly are at a party. There are many kinds of fruits on the kitchen table, including lychee. David knows that their friend, Scott, loves lychee and tells Beverly that Scott must be excited. Beverly doesn't know why Scott would be excited. David tells her:
	1. Beverly: Why would Scott be excited? 2. David: Scott loves lychee.
jenks (7b)	[lychee] is a generic referent in obj. position

### Kind-level (weak, narrow-scope referential)

(14)	Kind-level (weak, narrow-scope referential)
	Jim and Liang are at a supermarket in Ohio and they are looking at the fruits. One of them is a spiny, tan fruit with an interesting smell. Jim does not know what it is and Liang tells him it is durian. Jim says he has never even seen durian before. Liang tells him:
	1. Liang: Durian usually grows in Asia.
jenks (8a)	[Durian] is a kind-level referent

(15)	Kind-level (weak, narrow-scope referential)
	Hiro and Michelle are at a supermarket in Ohio and they are looking at the fruits. One of them is a spiny, tan fruit with an interesting smell. Michelle does not know what it is, and Hiro tells her it is durian. Michelle says she has never even seen it before and guesses that it is unappetizing because of the smell. Hiro tells her:
	1. Hiro: Many people in Asia like to eat durian.
jenks (8b)	[durian] is a kind-level referent

### Existential Construction

(16)	Existential Construction
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	Jim and Michelle are at a party in Art's apartment. Jim tells Michelle that he is very hungry but all Art has at the party are drinks. Michelle sees that there is a mango on the table, next to some of the drinks. She thinks that Jim could eat the mango. She tells Jim:
	1. Michelle: There is a mango on the table. 2. Michelle: A mango is on the table.
jenks (9)	[a mango] is part of an existential construction (Milsark 1977)

### Inalienable possession with 'have'

(17)	Inalienable possession
	Dawn and Hiro are at a party at Jim's apartment. Jim has bought all sorts of fruit for guest to eat and has placed them on the table. Dawn tells Hiro that she loves cherries and is going to see if Jim has prepared some. Dawn finds cherries on the table and she carefully eats them one by one. Hiro has never had cherries before and asks why she eats them one at a time. Dawn replies, explaining that a cherry has a seed and she doesn't want to eat the seed.
	1. Hiro: Why do you eat cherries that way? 2. Dawn: An cherry has a seed. I don't want to swallow the seed.
jenks (10)	[a seed] is an inalienable possession

### Presuppositionality

(18)	Presupposition of existence
	Liang and Michelle are at a party at Hiro's apartment. Liang and Michelle are in the kitchen looking for something to eat. Michelle is looking for a mango because she likes mangoes, and she thinks Hiro probably bought one for her. She cannot find any mangoes, however. She tells Liang that she can't find any mangoes. Later, Liang tells Hiro that she is having fun at the party. She also tells him that Michelle did not see any mangoes on the kitchen table. Hiro explains that he didn't buy any, so there were no mangoes.
	1. Liang: Michelle says she didn't see a mango in the kitchen. 2. Hiro: Michelle didn't see a mango, because there were no mangoes.
jenks (11)	[a mango] is a non-existent referent

### Definite vs. strong quantificational

(19)	Scope Relative to Negation
	David and Scott are at a party at Michelle's apartment. Their friend, Dawn, is looking for durian since she likes to eat durian. David and Scott watch Dawn leave after Dawn says that there is no durian to eat. Scott can see that there is durian on the table and asks David why Dawn said that there was no durian.
	1. Scott: Dawn didn't see <i>every</i> fruit. 2. Scott: Dawn didn't see the fruit.
jenks (19)	[every fruit] is subject to scope (not>every)



(20)	Scope Relative to Negation
	Art and Hiro are at a party in Liang's apartment. Their friend, Jim, is in the kitchen. He is looking in the refrigerator, he is looking in the cabinets, he is looking around the kitchen, but not at the table where there is some fruit. Jim tells Art and Hiro that there is nothing to eat at the party and leaves. Art asks Hiro why Jim couldn't eat some of the fruit on the table. Hiro replies:
	1. Hiro: Jim didn't see <i>every fruit</i> . 2. Hiro: Jim didn't see the fruit.
jenks (19)	[every fruit] is subject to scope (every>not)

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## Curriculum Vitae

### EDUCATION

- 2015-2023    PhD. in Linguistics, Indiana University Bloomington  
Dissertation: *Topics in Hakha Lai Nominal Marking*  
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- 2013-2015    M.A. in Linguistics, Indiana University Bloomington
- 2006-2010    B.A. in Specialized Studies, Ohio University Athens

### RESEARCH INTERESTS

Broad: Field linguistics, semantics, pragmatics, morphology, sociolinguistics, Sino-Tibetan languages, syntax

Narrow: Nominals, morphological encoding of deixis, semantics-pragmatics interactions, definiteness

### PUBLICATIONS

- 2023    Berkson, K., **J. Wamsley**, S. Lotven, S. Chelliah, K. Van Bik, S. Champlin, K. Sakhong, S. H. Par, A. Matthews, A. Bohnert. 2023. "A developing community of collaboration in Indiana." solicited for inclusion in *Now What? Forced Migration and Higher Education*. M. Höhn, B. Murray, & M. Brill-Carlat, (Eds.). Brill.
- 2022    Wamsley, J. Hakha Lai Definites. 2022. *Proceedings of (F)ASAL 10*. eds. Ishani Guha, Sana Kidwai and Martha Schwarz. available at:  
<https://ojs.ub.unikonstanz.de/jsal/index.php/fasal/article/view/248/142>
- 2020    Matthews, A. & **Wamsley, J.** 2020. A Brief Report on the Demonstrative System of Hnaring Lutuv. *Indiana Working Papers in South Asian Languages & Cultures (IWPSALC)* 2(1).  
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- 2019 Berkson, K., S. Lotven, P.H. Thang, T. Thawngza, Z. Sung, **J. Wamsley**, F. Tyers, K. Van Bik, S. Kübler, D. Williamson, and M. Anderson. 2019. Building a Common Voice Corpus for Laiholh (Hakha Chin). *Proceedings of the 3rd Workshop on Computational Methods for Endangered Languages*: Vol. 2, Article 2. Available at: <https://scholar.colorado.edu/scil-cmel/vol2/iss1/2>
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#### CONFERENCE PRESENTATIONS AND INVITED TALKS

- Accepted Wamsley, J. 2023. “Two Types of Definite Expressions: A Case Study from Hakha Lai”. Paper to be presented at Triple A 10. June 2023.
- 2023 Zathang, R., Iang, D., Em E., Par, S.T., Sung, B., Tial, A., Bawi, P., Vang, R., Gray, R., Berkson, K., Kay, J., Bohnert, A., Par, S.H., Smith, D., **Wamsley, J.C.**, & Ziegler, G. 2023. “Speaker-Led Research: A Novel Methodology of the Chin Languages Research Project” Paper presented at The 8<sup>th</sup> International Conference on Language Documentation & Conservation (ICLDC 8) (presented online). March 2, 2023.
- 2022 Wamsley, J. 2022. “An investigation of polyfunctional discourse particle *cu* in Hakha Lai” Paper presented at the Interaction of Means and Functions in the Coding of Reference Workshop at the University of Sonora in Hermosillo (presented online). November 14, 2022.
- Wamsley, J. 2022. “An investigation of polyfunctional discourse particle *cu* in Hakha Lai” Paper presented at The 31<sup>st</sup> Conference of the Southeast Asian Linguistics Society at the University of Hawai’i at Mānoa (presented online). May 19, 2022.
- 2021 Wamsley, J. 2021. “Conducting Semantic Fieldwork on Hakha Lai”. Presented at the California State University Fullerton Linguistic Colloquium Series. (presented online). December 3, 2021.

- Wamsley, J. 2021. "Definite Expressions in Hakha Lai". Presented at the 9<sup>th</sup> Central Kentucky Linguistics Conference. (presented online). April 10, 2021.
- 2020 Wamsley, J. 2020. "Definite Expressions in Hakha Lai." Paper presented at International Conference on Sino-Tibetan Languages and Linguistics (ICSTLL) 53, University of North Texas on October 2, 2020.
- Wamsley, J. 2020. "Definite Expressions in Hakha Lai." Paper to be presented at (Formal) Approaches to South Asian Languages (FASAL) 10, Ohio State University on March 21, 2020. [cancelled due to COVID-19 pandemic]
- 2019 Wamsley, J. 2019. "Researching Sichuanese Mandarin". Invited Talk in Introduction to Chinese Linguistics on October 22, 2019.
- Thawngza, T., **Wamsley, J.**, and Berkson, K. 2019. "Hakha Lai acquisition and attitudes." Poster presented at IU's Summer 2019 Undergraduate Research Symposium, Indiana University Bloomington on July 25, 2019.
- 2018 **Wamsley, J.** & Botne, R. "Effects of Nasal Deletion in Nyere Kikuyu." Paper presented at New Interdepartmental Conference on Linguistics Area Studies, Indiana University on April 13, 2018.
- Wamsley, J.** & Botne, R. "Effects of Nasal Deletion in Nyere Kikuyu." Paper presented at Annual Conference on African Linguistics (ACAL) 49, Michigan State University on March 23, 2018.
- 2017 **Wamsley, J.** & Botne, R. "Effects of Nasal Deletion in Nyere Kikuyu." Paper presented at 22<sup>nd</sup> Mid-continental Phonetics & Phonology Conference, Ohio State University on September 30, 2017.

#### **PROFESSIONAL SERVICE**

- 2020-2022 Research Assistant, Linguistically Underserved Communities and Health project (NSF grant #2031060)
- 2016-2018 Program Assistant, Indiana University East Asian Studies Center
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#### **AWARDS AND FUNDING**

- 2022-2023 College of Arts & Sciences Dissertation Research Fellowship
- 2021 Graduate School Grant-in-Aid of Doctoral Research

- 2020-2021      Research Assistant Fellowship with IU Department of Linguistics
- 2017            SGIS Fellowship with the IU East Asian Studies Center
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#### **TEACHING EXPERIENCE**

- 2019-2020      English instructor, VIPKid
- 2019-2020      Associate Instructor, P-155 *Public Oral Communication*
- 2018            Graduate instructor (instructor of record)  
Linguistics L-203 *Introduction to Linguistic Analysis*
- 2016-2017      Graduate instructor (instructor of record)  
Second Language Studies T-101 *Speaking Fluency*  
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- 2015-2016      Foreign instructor, METEN English
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##### **Languages**

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- Mandarin Chinese (TOCFL Level 3)
- Hakha Lai (research, beginner speaking ability)
- Lutuv (research)
- Nyere Kikuyu (research)

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