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THE BLACKFOOT DEMONSTRATIVE SYSTEM: FUNCTION, FORM, AND MEANING

By

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This thesis presents a comprehensive analysis of the Blackfoot demonstrative system. Previous research on Blackfoot (Uhlenbeck 1938, Taylor 1969, Frantz 2009) identifies sixteen morphemes that make up demonstrative words in the language. I propose a demonstrative template that takes into account the fixed morpheme ordering observed in demonstrative forms. Based on the proposed template, I motivate the analysis of the suffix *-ka* as encoding motion towards the speaker as this accounts for its position together with the suffixes *-ya, -ma,* and *-hka,* each of which encode features of motion or visibility. In describing situational functions of each of the morphemes, I make use of Imai's (2003) inventory of spatial deictic features. I present the first analysis of the morphologically analyzable, but heretofore undescribed suffix *-o* as encoding the geometric configuration feature [interior]. This thesis also offers the first explanation of the syntactic contexts that govern the two identificational suffixes *-ayi* and *-ao'ka*.

Earlier analyses of the Blackfoot demonstrative system focus on the spatial features encoded by situational uses of demonstratives to the exclusion of other pragmatic functions. As a result, the proposals do not address variations in meaning when used in non-situational pragmatic contexts. To address this gap in the literature, I examine non-situational pragmatic functions, as well as symbolic situational demonstrative uses (e.g. deictic projection, wider-context). The result of this study is a comprehensive analysis of the Blackfoot demonstrative system which takes into account both syntactic and pragmatic functions, providing new insights into the meanings of many of the morphemes that comprise the system. It also provides support from Blackfoot for Himmelmann's (1996) claim that there are four universal pragmatic functions of demonstratives, and support for Diessel's (1999) claim that situational uses are the basic demonstrative uses from which the others are derived.

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me regarding questions I had about their earlier work. And I give special thanks to Dr. Frantz and Dr. Inge Genee for sharing relevant unpublished research and Blackfoot textual resources. I would like to add here that any errors in representing their claims, or in relaying data from my consultant are solely my own.

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Abbreviations

3	animate proximate (primary third person)
4	animate obviative (secondary third person)
AI	animate intransitive verb stem
AN	animate noun inflection
AP	attached pronoun
CN	conjunctive nominal (noun from verb stem; Frantz 2009:118)
DCT	deictic preverb; may be locational or temporal (then, there)
DD	distal demonstrative stem
DIR	direct
DIS	discourse marker
DM	medial demonstrative stem
DP	proximal demonstrative stem
DTP	distinct third person pronominal suffix
DUR	durative/imperfective marker
EMPH	emphatic
IC	initial change (Algonquian phonological process, cf. Proulx 2005)
ID	identificational suffix
II	inanimate intransitive verb stem
IN	inanimate noun stem
INCH	inchoative (from Frantz 2009; but may also indicate completive)
INC	inceptive preverb
INST	instrumental preverb
INT	interior geometric configuration
INV	inverse
INVS	invisible; indiscernible
IMPV	imperative
LOC	localizer (Uhlenbeck 1938:221-4)
MA	motion away from anchor
MNR	manner preverb
MT	motion toward anchor
NAF	non-affirmative
NOM	nominalizer
PATH	path preverb
PL	plural
PRO	pronominal suffix
RRC	referent/region configuration
SG	singular
SRC	source
STAT	stationary
SUBJ	subjunctive mode
TA	transitive animate verb stem
THM	thematic morpheme (usually present in transitive verbal forms)
TI	transitive inanimate verb stem
UNQ	unqualified statement; usually translated with ‘just’ or ‘then’

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1 Introduction

Cross-linguistically demonstratives fulfill four pragmatic functions: (1) situational, (2) anaphoric, (3) discourse deictic, and (4) recognitional (Himmelmann 1996; Diessel 1999). Examples of these are given below.

(1) **This** is my thesis. (often accompanied by gesture toward a physical object)
(2) Someone was here, and **that** someone has left a trail of footprints.
(3) I went to Hawaii last week for vacation. **That** was just what I needed.
(4) Did I tell you? I bought **that** car today. (no gesture; the car is known to the addressee)

Demonstrative uses are sometimes categorized as exophoric (or situational, as in (1) above) and endophoric (or non-situational , as in (2) through (4) above). It has been argued that cross-linguistically these four pragmatic categories are universal (Himmelmann 1996; Cleary-Camp 2007), although this claim is not uncontested (Diessel 1999).

Over the course of the last century, there have been three major studies of the Blackfoot demonstrative system (Uhlenbeck 1938, Taylor 1969, Frantz 2009). While each analysis contributes to our understanding of the system, they focus primarily on situational uses, leaving non-situational uses unexplored. The tendency to overlook non-situational demonstratives is not uncommon (Himmelmann 1996:205), but doing so is problematic for two reasons. First, it results in conflating the meanings of different pragmatic uses into one overly broad meaning. Second, it can result in an incomplete analysis as the nuances associated with other pragmatic uses are overlooked or omitted for the sake of providing a simpler, spatially-oriented meaning.

In this thesis I provide an in-depth analysis of the Blackfoot demonstrative system, addressing all of the pragmatic functions that Blackfoot demonstratives serve. In doing so I fill a gap in the Blackfoot literature, offering a more comprehensive account of the Blackfoot demonstrative system than previous proposals. I also motivate the importance of analyzing non-situational uses of

demonstratives as part of the language documentation process, as well as the importance of examining narrative and conversational discourse data in analyzing a demonstrative system.

The data used throughout this thesis comes primarily from Uhlenbeck (1912) which is a collection of stories — both 1st person and 3rd person — narrated in Blackfoot and phonetically transcribed by Uhlenbeck. Uhlenbeck uses a transcription system of his own devising to represent the Blackfoot data phonetically. In addition to the Blackfoot transcription of each story, Uhlenbeck provides an English translation aligned with the Blackfoot text at the paragraph level. These English translations are provided by either the same speaker who narrated the story or Uhlenbeck's primary consultant Joseph Tatsey. The preface to the collection provides a list of the narrators and translators of each story. Within the English translation, Uhlenbeck adds bracketed portions of content to make the English clearer or more natural or to convey some meaning of the Blackfoot text that was not expressed in the English translation provided by his consultant(s).

I also use data from Uhlenbeck's (1938) grammar of Blackfoot, and three portions of the grammar in particular: §17 describes the occurrence of "demonstrative endings" on nouns; Chapters 8 and 9 provide descriptions and examples of demonstrative forms and meanings, as well as English translations of the Blackfoot phrases and the occasional note on the context of the utterance; and Chapter 18 addresses what Uhlenbeck considers adverbial forms, many of which are built from the demonstrative stems.

For the current study, I catalogued 135 demonstrative uses from Uhlenbeck (1912). In my database, for each demonstrative token I identify the following components: the form as it occurs in Uhlenbeck's text, the morphological composition of the form based on Frantz's orthography (number/gender, geometric configuration, referent/region configuration, identificational), the location of the accent, the syntactic category of the word (adnominal, pronominal, adverbial, identificational), the pragmatic function it serves (situational, anaphoric, discourse deixis,

recognitional), and its referent. One field of the database is reserved for comments, uncertainties, or possible alternate analyses.

I began with four shorter traditional stories told by Tatsey (rather than start with the very long story that occurs first in the collection) in order to identify consistent strategies of a single speaker. I then analyzed a number of short and medium-length traditional stories told by other speakers so that the data did not represent only the speech practices of Tatsey.[1] I omitted the stories told by one speaker in particular (Black-horse-rider) because in his speech, the unaccented occurrences of the demonstrative stem *om* were pronounced, and therefore transcribed by Uhlenbeck, as *am*. Because I did not have access to the speaker, I would not have been able to confirm which form was intended. Finally, I added 1st person stories told by a number of younger speakers in which they describe a typical day's activities.

In both Uhlenbeck's texts (1912) and his grammar (1938), the symbol <χ> indicates the voiceless velar fricative, represented by <h> in Frantz's phonemic orthography. This phoneme has an allophone [ç] that occurs when preceded by /i/; Uhlenbeck transcribes this with the letter <x>. Additionally, Uhlenbeck uses the symbols <α> and <å> to represent allophonic variants of /a/ and /o/. The semivowels /j/ and /w/ are written by Uhlenbeck as <i> and <u> respectively.[2] And the diphthong /ao/ is written <au> by Uhlenbeck.

In addition to textual data, I met with Annabelle Chatsis, a speaker of New Blackfoot, in order to compare her use of demonstratives with that found in Uhlenbeck's texts and grammar. In my elicitation sessions I focused on gestural situational uses. I also elicited recognitional uses by describing scenarios in which my consultant and an addressee shared certain knowledge about a referent. I asked my consultant how she would refer to that object upon her next exchange with the

[1] However, because Tatsey helped Uhlenbeck by "repeating the words of an informant, that [Uhlenbeck] might write them down at [his] leisure", Tatsey's influence is likely more prevalent than indicated in the list of narrators and translators in the preface (1912:iii).
[2] For a detailed description of Uhlenbeck's phonetic transcription system, see chapter 1 of his grammar (1938).

addressee. An example of this is given in (105) in §5.1.4. Additionally, I investigated discourse deictic demonstratives by using different demonstrative stems in discourse deixis functions. I attempted to elicit both anaphoric and cataphoric instances. In order to investigate tracking uses of demonstratives, I asked my consultant to recount her own version of a traditional story. My consultant told the story *Iiníísskimm* 'Buffalo-stone' and provided an English translation of the story.

Comparing the textual data with my elicited data proved very beneficial. Uhlenbeck's texts are immensely helpful in beginning to familiarize oneself with the structure of the language. However Uhlenbeck's method of phonetic transcription, rather than phonemic, and the quality of the transcription are not without their problems. Genee(2008:123) points out that Uhlenbeck

> seems to have had trouble correctly perceiving some of the phonetic contrasts that are important to the sound system of Blackfoot; this led to a number of errors and inconsistencies in his writing of the language, especially with respect to voiceless ("whispered") vowels, long vs. short sounds, and glottal stops.

Once one becomes familiar with the differences between his orthographic representations and Frantz's modern orthography, the limitations of Uhlenbeck's phonetic transcriptions are surmountable, but this takes time. An additional drawback of Uhlenbeck's stories (1912) is the layout. While an English translation is provided, it is given in a parallel column and is aligned with the Blackfoot text at the paragraph level, rather than sentence-by-sentence. Without any numbering of the sentences, it is difficult to align the Blackfoot text with its English equivalent. An additional difficulty is that textual data is not the ideal source for information about spatial relationships between the speaker and the referent unless detailed contextual notes are provided. Unfortunately contextual notes in Uhlenbeck's texts are limited. Overall, the textual data is fairly diverse in terms of speakers and discourse content.

Conversely, eliciting situational demonstrative uses from a native speaker is a much more efficient way to investigate spatial features of the system. Clarification questions are not only possible (unlike when working with textual data), but are often extremely productive as hypotheses can be formed and tested on the spot. The use of the textual data to investigate non-situational uses and to form hypotheses about situational uses, combined with elicited data provides a more complete picture than either approach alone. Although each approach has its limitations, none of these is insurmountable, and the benefits of the combined approaches far outweigh the drawbacks.

In Chapter 2, I present a background sketch of the Blackfoot people and language, including some comments of dialectal variation as it pertains to the present study. In this chapter I also provide a brief discussion of linguistic research on the Blackfoot language. In Chapter 3, I provide a synopsis of the relevant literature on demonstratives. This chapter includes a definition of the term "demonstrative" as well as a description of the syntactic and pragmatic taxonomies used in discussion of demonstrative systems. In Chapters 4 and 5, I offer my analysis of the Blackfoot demonstrative system. Chapter 4 begins with an outline of previous research done on the Blackfoot demonstrative system as well as my own analysis of situational uses of demonstratives. Chapter 5 explores the pragmatic functions and syntactic categories of Blackfoot demonstratives. In chapter 6 I conclude the findings of this thesis, discuss the implications of those findings, and outline some topics for further study.

2 The Blackfoot language and speech communities

This chapter provides an overview of the Blackfoot people, language, and relevant linguistic literature. In §2.1 I detail the geographic regions inhabited by Blackfoot speakers and provide a demographic sketch. In §2.2 I describe some characteristic features of the Blackfoot language, especially those relevant to the present study. §2.3 addresses generational and regional variation among Blackfoot speakers. And finally in §2.4 I give an overview of Blackfoot linguistic research with emphasis on descriptions of the demonstrative system.

2.1 Blackfoot demographics and language use

Blackfoot is an Algonquian language spoken primarily in Montana, U.S. and Alberta, Canada. The vast majority of Blackfoot speakers reside on three reserves in Alberta: the Siksiká Reserve, the Kainai Reserve, and the North Piegan Reserve (shown in Figure 1). There is also a small number of mostly elderly speakers on the Blackfeet Reservation in Montana.[3] When the language was first written down by missionaries in the late 1800s, the Blackfoot population was thought to number around 6,000 (Tims 1889;

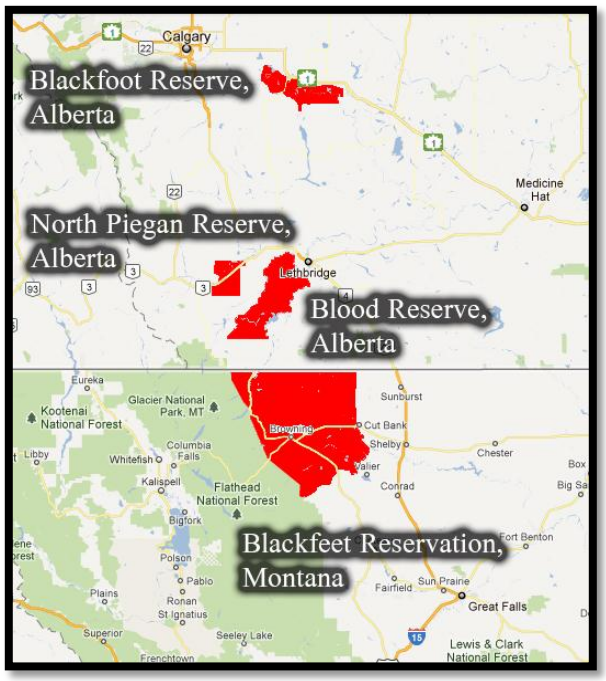

Figure 1 - Map of Blackfoot tribal lands

[3] The language is generally referred to by the name "Blackfoot", as are the communities on the northern-most of the three Canadian reserves. However the reservation in Montana is called the Blackfeet Reservation, and there the people prefer the appellation "Blackfeet", some tribal members applying the name to the language as well. In this thesis, I use "Blackfoot" to refer to the language and the speakers of the language across all speech communities, but I use "Blackfeet" when referring specifically to those people who identify as members of the Blackfeet community in Montana.

Dempsey 1988:12), down from well over 40,000 due largely to two smallpox epidemics in 1845 and 1857 that claimed many lives (Grinnell 2008). Today, there are over 30,000 indigenous people registered with tribal organizations as Blackfoot or Blackfeet members: about 15,000 Blackfoot tribal members in Canada and around 16,500 Blackfeet tribal members in Montana (Statistics Canada 2011; US Census 2010). The 2010 US Census also revealed that over 27,000 Americans self-identify as wholly ethnically Blackfeet (i.e. not a combination of ethnic groups, but solely Blackfeet). An additional 78,000 Americans self-identify as part-Blackfeet (i.e. Blackfeet in addition to another tribal group and/or ethnic group).

Despite a substantial growth in the Blackfoot population over the last century, as of the 2011 Canadian census data, only 2,860 Canadians report speaking Blackfoot as their first language (Statistics Canada 2011). Even though speakers in some communities use the language frequently in the home with their parents and siblings, the younger speakers (ages 45-60) rarely use it with their children and it is seldom used outside the home, except in ceremonial settings (Chatsis et al. 2013). In Montana the situation is more bleak. According to Ethnologue, there are approximately 100 speakers in Montana. However, this estimate is based on information from Goddard 2001 which is now too old to be considered reliable (Lewis, Simmons, & Fennig 2013). Darrell Kipp of the Piegan Institute on the Blackfeet Reservation estimates that Blackfoot speakers in Montana number closer to 50 and that the average speaker age is well over 80 years old (p.c.).

Many community members and leaders have become cognizant of the decline in speakers and have organized language revitalization initiatives. As a result, a number of bilingual and immersion school programs for children have begun both in Alberta and Montana over the last few decades (e.g. the Cuts Wood School in Browning, Montana, founded by Darrell Kipp in 1995). There are also now a number of Blackfoot language classes taught at high schools, colleges, and universities both on and off the reserves/reservation. These classes are often geared towards descendants of speakers. One such program is a series of two Blackfoot language courses offered at

The University of Montana through the Native American Studies department. Another is a series Blackfoot language classes taught at the Blackfeet Community College, a tribal school in Browning, Montana. In addition to primary school, secondary school and college level Blackfoot language classes, a number of university linguistics programs have scholars focused on Blackfoot language research and the creation of pedagogical materials. Among them are The University of Montana, University of Lethbridge, and The University of British Columbia, to name but a few.

2.2 Relevant linguistic features of the Blackfoot language

Blackfoot is a polysynthetic language belonging to the Plains branch of the Algonquian language family (Lewis, Simmons, & Fennig 2013). Although its inclusion in the Algonquian language family is not debated, Blackfoot is the most divergent member of the family (Goddard 1974). While few lexical forms have clear cognates with other Algonquian languages (Mithun 1999), connections to the family are found in a number of grammatical forms (including demonstratives, according to Proulx 1988). Inflectional morphology used to mark person, number, and obviation on nouns and demonstratives are undeniably Algonquian (Uhlenbeck 1914). Possessive prefixes are also clearly cognate with other Algonquian languages (Proulx 1989). Additionally, the polysynthetic nature of Blackfoot and characteristics of the verbal template demonstrate family connections (Proulx 1989, 2003). Most relevant to the present study is Proulx's (1988) proposal that Blackfoot demonstrative stems are the key to a coherent reconstruction of the Proto-Algonquian demonstrative system. The Blackfoot data that form the basis of his analysis are taken from Taylor (1969) and Frantz (1971, p.c.) which are discussed below. Ultimately, because Blackfoot is so divergent from the rest of the family, Goddard (2003) does not factor Blackfoot demonstratives into his own reconstruction, but suggests that the Eastern Algonquian system must first be established, leaving the Plains Algonquian languages for future study.

Blackfoot does not have the grammatical word classes adjective or adposition (Taylor 1969:156). That adjectives and adpositions do not occur in Blackfoot means that demonstratives and nouns are the only forms that occur adnominally. Adjectival notions are usually expressed through stative verbs. Certain descriptive attributes may also be represented by attaching bound morphemes to the nominal stem (called adjuncts in Frantz 2009; Frantz & Russell 1995:xv). These two strategies are illustrated in (5) and (6) below.[4]

(5) Óma imitááwa **síkimiwa**.
om-wa omitaa-wa **sikimi-wa**
DD-3.SG IC.dog-3.SG **be.black.AI-3.SG**
"That dog is **black**."

In (5) the stative verb *síkimiwa* 'it (animal) is black' is used to express the description 'black'.

(6) Óma **sik**ómitaawa áyo'kaawa.
om-wa **sik**-omitaa-wa á-yo'kaa-wa
DD-3.SG **black**-dog-3.SG DUR-sleep.AI-3.SG
"That **black-**dog is sleeping."

In (6) the noun plus adjunct *sik-ómitaawa* 'black-dog' contains the description 'black'. Numbers show a pattern of distribution similar to that of adjectives. Phrases like "there are three birds over there" use a verbal form to express the number three, however as with adjectives, a bound

[4] Throughout this thesis, Blackfoot data is given in the following format:
Line 1: orthographic spelling of the source; if the source is my own elicited data, Frantz's orthography is used and spellings are based on Frantz & Russell (1995)
Line 2: morpheme-by-morpheme analysis is my own, based on morphemes in Frantz (2009) and Frantz & Russell (1995)
Line 3: English glosses corresponding to the morphological analysis in line 2, glosses are primarily based on Frantz (2009) and Frantz & Russell (1995) except where the analysis presented in this thesis differs, as with demonstrative stems and affixes
Line 4: translation as given in original source
Comments, where relevant, are given in a 5th line below the translation.

morpheme may be affixed to a nominal stem. For example, the name *Niisóhkiaayo* "Four-bears", is comprised of the bound form *niisó* 'four' affixed to the nominal *kiááyo* 'bear'.

Adpositional notions are expressed through prefixes to the verbal stem that encode the relationships among verbal arguments (Frantz 2009:86-95) which are sometimes called preverbs in the Algonquian literature (e.g. Bloomfield 1925, Taylor 1969), though Frantz 2009 does not use this term. For example, the verb stem *oo* 'go (AI)' can take preverbs such as *itap* 'toward', *ksiw* 'foot', *iiht-* 'along' or *yiistap-* 'away' to indicate direction to, manner, path, or direction from, respectively, each of which are expressed by adpositional phrases in many languages (e.g. English).

2.3 Dialectal variation in the Blackfoot language

The form of Blackfoot described by Uhlenbeck (1938), Taylor (1969), and Frantz (2009) is representative of the Blackfoot spoken by the oldest living speakers, most of whom are above 70 years of age. Speakers in their 40s, 50s, and 60s recognize that their own speech is different from the older generation (Chatsis et al. 2013). Some speakers distinguish between the speech of older and younger speakers, referring to the varieties as Old Blackfoot and New Blackfoot, respectively. Others refer to the variety used by the younger speakers as Blackfoot and the older variety as High Blackfoot since it is most often heard in religious ceremonies and other official cultural contexts (Chatsis et al. 2013). Aside from differences in vocabulary, the major defining characteristics of the speech of the younger generation are the loss of the fifth person distinction in verbal and nominal morphology and a number of word-initial and word-final phonological changes (Frantz 1999; Kaneko 1999).

In addition to generational variation, there are a number of regional differences across Blackfoot speakers. While there is no detailed study devoted to describing Blackfoot dialectal variation, native speakers who have frequent contact with members of other communities are able to determine which reserve speakers are from based on their speech practices (Frantz n.d.; Chatsis

et al. 2013). Frantz (n.d.) notes regional dialectal differences in vocabulary, morphology, and phonology. He also points out that dialectal variation is not limited to differences between reserves/reservations as there are multiple dialects represented on the Kainai Reserve. Ultimately the existence of dialectal variation is well-known among speakers and researchers but the exact nature of these variations is a topic for further investigation.

In the present study, I identify dialectal variations (both regional and generational) as they are observed in demonstrative forms. Most notably, some demonstrative forms undergo phonetic reduction when the first syllable is not accented. An example of this is shown in (7) below.

(7)	**Ná**	Ayme	iikáísokssiwa
	ann-wa	NAME	iik-á-sok-ssi-wa
	DM-3.SG	Ayme	very-DUR-good-AI-3.SG
	"Ayme is very nice."		

In this example, for my consultant the form /anná/ is pronounced [ná]. Demonstrative words built on the *om* stem may also lose the first vowel /o/ when the accent falls on the second syllable.

2.4 Previous Blackfoot linguistic research

Much research has been done on Blackfoot since the late 19th century, a significant portion of it in the first few decades of the 20th century. Mithun (1999:336-337) provides an overview of the most influential of these works, including many of those that follow. A comprehensive list of published research on Blackfoot up to 1988 (including non-linguistic topics related to Blackfoot art, culture, and history), can be found in Dempsey & Moir 1989. Descriptive grammars of the language include Tims 1889, MacLean 1896, Uhlenbeck 1938, Taylor 1969, Frantz 1971, and Frantz 2009. Dictionaries include Tims 1889, Uhlenbeck & van Gulick 1930, 1934, and Frantz & Russell 1995. Additionally, Geers 1917 provides a detailed description of verbal prefixes, citing examples from

Uhlenbeck's texts. And finally, collections of transcribed Blackfoot narratives with English translations include Uhlenbeck 1911, 1912, and de Jong 1914.

In Chapter 4 below, I present a detailed outline of the Blackfoot demonstrative systems proposed by Uhlenbeck (1938), Taylor (1969), and Frantz (2009). I also reference work done by Genee (2005) who was the first to investigate non-situational pragmatic uses of demonstratives through textual analysis. I describe the analyses of the Blackfoot demonstrative system as provided by each of these researchers and present my own analysis of the system, highlighting the ways in which my proposals differ from this earlier work, but also how my system accounts for the differences among previous analyses. But first I provide an overview of the typological research on demonstrative systems, and especially on two different taxonomic approaches used in describing demonstratives: syntactic and pragmatic.

3 A cross-linguistic synopsis of demonstrative systems

In this chapter I provide an overview of demonstrative systems from a typological perspective. I define relevant terminology and discuss two different taxonomic approaches used in discussions of demonstratives. In §3.1 I provide the working definition of "demonstrative" for the current study. In §3.2 and I discuss the syntactic and pragmatic categorizations of demonstratives and the benefits of these two taxonomic systems for describing and understanding demonstrative functions, forms, and meanings.

3.1 Defining the term "demonstrative"

Cross-linguistically, there are three features that are characteristic of all demonstratives: (i) demonstratives are deictic expressions that serve specific syntactic functions; (ii) demonstratives serve specific pragmatic functions; and (iii) demonstratives minimally encode two contrastive degrees of relative distance (Diessel 1999:2). What follows is a detailed discussion of each of these features.

First, demonstratives are "deictic expressions serving specific syntactic functions" (Diessel 1999:2). Deixis may be broadly defined as "the ways in which languages encode … features of the context of utterance or speech event" (Levinson 1983:54). The referent of a deictic expression is only interpretable in light of when, where, and/or by whom the sentence is uttered. For example, the sentence below has no meaningful interpretation without knowledge of who is speaking and when and where the speech act occurred.

(8) I am here now.

1st and 2nd person pronouns are dependent on the identities of speaker and addressee for their interpretations. Likewise, because locative expressions such as *here* and *there* in English encode position and distance relative to the speaker, their interpretations are dependent on the location of

the speaker at the moment of utterance. Similarly tense encodes the time of the eventuality of the predicate with respect to the speech act. For example, in (8) above the present tense is used to indicate that the state denoted by the predicate is concurrent with the speech act. The temporal adverb *now* also indicates that the state denoted by the predicate is interpreted relative to the speech act.

The syntactic functions that these deictic expressions serve are, according to Diessel, limited to three types: nominal (which is further divided into two types: adnominal and pronominal), adverbial (comprised of several sub-types, discussed in §3.2.1.2 below), and identificational. While some typological studies of demonstratives (Dixon 2003; Anderson & Keenan 1985) describe syntactic functions not accounted for by Diessel (1999), others limit their analyses to nominal types (e.g. Himmelmann 1996).

The second characteristic shared by demonstratives is that they "serve specific pragmatic functions" (Diessel 1999:2). Diessel (1999) and Himmelmann (1996) identify the function of directing the hearer's attention to elements in the physical environment of the speech act as one possible pragmatic feature of demonstratives (referred to as situational uses). Both authors also state that demonstratives may be used to track discourse participants or "organize the information flow in the ongoing discourse" (Diessel 1999:2). Two additional pragmatic uses (discussed below) are found cross-linguistically and are claimed to be universal (Himmelmann 1996, Cleary-Camp 2007). However Diessel (1999) argues that there is not enough cross-linguistic evidence of the pragmatic uses of demonstratives to determine whether these four categories are in fact universally attested.

The third characteristic of demonstratives is that all languages have at least two demonstratives that are deictically contrastive. In other words, all demonstrative systems

distinguish *at least* two different degrees of distance from the deictic center (e.g. 'near' and 'far' from the speaker, as in English *here* and *there*). [5]

3.2 Methods of categorizing demonstratives

Typological studies of demonstrative systems tend to classify demonstrative forms and meanings into either syntactic categories (e.g. Dixon 2003), pragmatic categories (e.g. Himmelmann 1996), or both (e.g. Diessel 1999). The method of categorization is largely dependent on whether the focus of the study is on form and distribution, on function and meaning, or on all of these. On the other hand, language-specific studies of demonstratives are usually organized into syntactic categories, and focus solely on situational uses to the exclusion of other pragmatic functions. In this section I describe these two taxonomic systems and discuss the advantages and disadvantages that each approach offers.

3.2.1 Syntactic categories

Dixon (2003) identifies five types of demonstratives according to syntactic function: nominal (which includes adnominal and pronominal), local adverbial, manner adverbial, temporal adverbial, and verbal. Diessel (1999) divides demonstrative uses into four syntactic categories: adnominal, pronominal, adverbial (including locational and manner, but not temporal), and identificational. A synthesis of these two taxonomic systems and examples of each of these categories are given in (9) - (15) below.

[5] Some languages contain a single distance-neutral nominal demonstrative form (e.g. German *dies* and French *ce*) that must be combined with an adverbial form to express distance contrast. Diessel (1999) argues that although distance-neutral forms are typologically rare, they are best classified as demonstratives (as opposed to determiners) because unlike determiners they are used to orient the hearer to objects in the surrounding physical environment.

(9) Adnominal: Look at **this** book.

(10) Pronominal: Look at **that**.

(11) Locational (or Local) adverbial: He was standing t**here**.

(12) Manner adverbial: He was walking **thus**.

(13) Temporal adverbial: I'm reading it **now**.

(14) Verbal (not used in English, but the equivalent of): He **was doing like so**.

(15) Identificational (not used in English, but the equivalent of): **That's** the guy I saw.

In §3.2.1.1 through §3.2.1.3, I define each of these categories, discuss the criteria for assigning demonstrative forms to them, and weigh their usefulness, both as individual categories and collectively as a taxonomic system for investigating demonstratives.

3.2.1.1 Nominal forms: adnominal & pronominal

As illustrated in (9) above, adnominal demonstratives are those that co-occur with a noun. Pronominal forms like (10) above occur independently of a head noun. In English, the four demonstrative forms *this, that, these,* and *those* are used both adnominally and pronominally without variation in form. The majority of demonstrative systems studied to date use the same forms for adnominal and pronominal functions of demonstratives (Dryer & Haspelmath 2011; Diessel 1999). Because of this, there are proposals that all demonstratives are pronominal (e.g. Van Valin & La Polla 1997) or that they are all adnominal (Abney 1987).

On the other hand, although it is typologically less common, many languages do have different demonstrative forms for pronominal and adnominal functions. The differences in form between adnominal and pronominal demonstratives may be either in the stem (e.g. Halkomelem (Salish), French) or in the morphemes which co-occur with the stem (e.g. Turkish, Tamil) (Dryer & Haspelmath 2011). These variations suggest that pronominal and adnominal forms may belong to two distinct grammatical categories (Diessel 1999:60). In languages whose adnominal and pronominal forms differ, it is often the case that the pronominal forms are morphologically more

complex than the adnominal forms, but the opposite is never true (Himmelmann 1996). Adnominal forms also tend to occur much more frequently, and in less restricted environments than pronominal forms. Himmelmann takes these facts together to mean that pronominal forms are derived from adnominal forms (1996:206). Because some languages distinguish adnominal forms from pronominal ones, the existence of adnominal and pronominal categories of demonstratives must be examined language-internally.

Diessel provides three avenues of investigation for determining whether the distinction between adnominal and pronominal demonstrative uses ought to be maintained or collapsed into a single category (1999:73-74). First, if adnominal and pronominal forms differ in their phonological shape, they may belong to distinct categories. Second, if they differ in inflectional patterns, they may belong to distinct categories. Third, if they pattern together with other word types, such as determiners, 3rd person pronouns, and/or possessives (if such categories exist in the language), there may be evidence either in favor of maintaining or collapsing the two categories. To illustrate the application of these criteria, I turn to the English demonstrative *this*. The first and second criteria indicate that there may be no distinction between adnominal and pronominal uses of *this* as there are no clear phonological or inflectional differences between adnominal and pronominal forms of *this*.[6] However the third criteria provides evidence that the categories may actually be distinct. When the adnominal and pronominal forms of *this* are compared with those of the determiner *the* (17), the 3rd person pronoun *it* (18), and the possessive forms *her/hers* (19), the demonstrative patterns most closely with possessive forms, as seen below.

[6] It may be that an in-depth phonological analysis will uncover some differences in pitch-accent or intonation, though this would more likely surface in pragmatic distinctions than syntactic (cf. Gernsbacher & Shroyer 1989 on unstressed-*this* in English).

	Adnominal	Pronominal	
(16)	**This** book is black.	**This** is black.	
(17)	**The** book is black.	*__The__ is black.	
(18)	*__It__ book is black.	**It** is black.	
(19)	**Her** book is black.	*__Her__ is black.	**Hers** is black.

The only difference between the demonstrative and the possessives is that the phonological form of the latter is dependent on whether it is functioning adnominally or pronominally (19). If Diessel's three criteria are applied to possessives, then adnominal and pronominal forms would fall into separate categories based on the first criteria, that they have different phonological shapes. Even though the phonological form of the demonstrative does not differ across categories, the parallel distribution of demonstratives and possessives provides evidence in support of maintaining two distinct nominal categories for demonstratives.

When beginning the investigation of a language, it is best practice to maintain the separation of categories from the outset. If the distinction proves to be nonexistent/irrelevant in a particular language, then one of the two nominal categories may be abandoned and the nominal forms may be analyzed as belonging to a single category. As I show below (§5.2), the distinction between pronominal and adnominal forms does prove useful in analyzing the differences in pitch-accent patterns that occur in the adnominal and pronominal forms of Blackfoot demonstratives.

3.2.1.2 Demonstrative Adverbs: Locational, Manner, Temporal

The three sub-categories of adverbial demonstratives (locational, manner, temporal) are so named for their ability to specify the location, manner, or time of the eventuality denoted by the predicate as in (11) through (13) above. Although Diessel (1999) combines locational and manner demonstrative adverbs into a single group and omits temporal demonstrative adverbs from this

category,[7] Dixon (2003) separates all three into individual categories. Here I discuss these three adverbial categories and provide rationale for maintaining Dixon's distinction rather than collapsing them into a single adverbial category.

Locational demonstrative adverbs are used to identify the location of the eventuality of the predicate with respect to some point of reference. In English, the point of reference (identified below as the "anchor") is the speaker. English has two locational demonstrative adverbs that specify contrastive distance features with respect to the speaker: *here* and *there*, which encode referents 'near to' and 'far from' the speaker, respectively. These two forms are illustrated in (20) and (21) below.

(20) Kate brought the book **here**.
(21) Kurt left the book **there**.

The difference in the location of the book in (20) and (21) is described in relation to the position of the speaker, the former being near, the latter being far.

However adverbial demonstratives are not always limited to this type of purely adverbial function of describing the location of the eventuality denoted by the verb. In many languages locational demonstratives are used adnominally or in conjunction with other adnominal demonstratives in order to intensify or extend the spatial meaning of a co-occurring demonstrative (Diessel 1999:74). French frequently makes use of locational demonstratives to specify distance features in demonstrative phrases since its adnominal demonstrative form is distance-neutral. This is illustrated here in (22) and (23).

[7] Diessel considers "temporal deictics" to be grammaticalized markers derived from other demonstrative adverbs (1999:165 n. 20).

(22) *cette* *maison-**ci***
DEM house-**here**
'this house **here'**

(23) *cette* *maison-**là***
DEM house-**there**
'that house **there'**

In overt case-marking languages, locational demonstratives may be locative adjectival or pronominal forms (e.g. Ancient Greek *eke-i* 'there' is composed of the distal demonstrative stem *eke* plus the archaic locative suffix *-i,* giving it a literal meaning of 'at that place'). In addition to locative forms, there may also be allative (motion toward) and ablative (motion from) forms. Very recently, and for some speakers it is still the case, the English adverbial demonstrative system included all three of these distinctions:

(24) Locative adverbial demonstratives: *here, there*
(25) Allative adverbial demonstratives: *hither, thither (to here, to there)*
(26) Ablative adverbial demonstratives: *hence, thence (from here, from there)*

But even in languages which do mark case overtly, locational demonstrative forms are often distinct from nominal forms (Diessel 1999:75) providing support for analyzing them as a distinct grammatical category.

The second category of demonstrative adverbs is manner (e.g. English *thus,* Attic Greek *houtoos* 'thus'). These forms may occur in both situational and non-situational uses. When used situationally, they refer to how the eventuality denoted by a predicate occurred, often accompanied by gesture or imitation. In non-situational contexts, they are often used to refer to whole

propositions or quotations.[8] In some languages manner demonstratives are adnominal or pronominal forms that take adverbial morphology as in Attic Greek where *hout-oos* 'thus, in this way' is derived from the demonstrative stem *hout-* 'this' plus the derivational suffix which is used to form an adverb from an adjectival stem *-oos*. In case-marking languages, demonstrative adverbs of manner may also be derived from dative forms of demonstrative pronouns as Attic Greek *eikeene-i* 'thus, in that way' from 'that' plus dative inflectional suffix (Smyth 1920). Manner adverbs may be deictically contrastive as Ancient Hebrew *koh* 'thus-following' and *ken* 'thus-preceding' (Brown, Driver & Briggs, eds. 1951) or deictically neutral as English *thus*, Latin *sic* 'thus', and Spanish *así* 'thus'.

Demonstrative adverbs of manner have been largely ignored in the literature on deixis (Diessel 1999:74). This may be due to the fact that syntactically manner demonstratives are often difficult to distinguish from pronominal demonstratives as demonstrated in (27) and (28) below.

(27) Tom sang **thus**: "Mary had a little lamb…"
(28) Tom sang **this**: "Mary had a little lamb... "

The sentence in (27) places more emphasis on some stylistic aspect of Tom's singing, whereas (28) focuses on the content of his singing. But in languages whose pronominal and adverbial forms are identical, it is difficult to distinguish these two uses. Diessel (1999) states that in some languages (e.g. Finnish) demonstrative forms are not easily delineated into pronominal and adverbial categories and that demonstrative forms may be organized on a cline of adverbiality.

One method for determining whether a demonstrative form is functioning adverbially or pronominally is to investigate how various forms interact with verbal argument structure. In the following examples *thus* may occur with an intransitive verb (29), but *this* may not (30). Conversely, *thus* may not serve as the direct object of a transitive verb (31), but *this* may (32).

[8] This is called 'discourse deixis' and is discussed in detail in §3.2.2.3 below.

(29) Sara smiled **thus**.

(30) *Sara smiled **this**.

(31) *Jackie gave me **thus**.

(32) Jackie gave me **this**.

This method will have varying degrees of success when applied to different languages depending on the degree to which the language under investigation distinguishes arguments from obliques and the strategies employed in doing so. In §5.2.3 I apply this method of analysis to Blackfoot demonstratives.

The third type of adverbial demonstrative is temporal. Dixon (2003) states that spatial features of nominal or locational demonstratives may be extended by analogy to talk about time. Anderson & Keenan (1985) argue that it is quite natural for languages to have temporal adverbs equivalent to English *now* and *then* which express temporal distance features of proximal and distal with respect to the time of utterance. Often these are locational or adnominal forms "imported into the temporal domain without any particular modification" (1985:297). Diessel suggests that because temporal notions are more abstract than spatial, "the development of temporal markers from spatial expressions is a case of grammaticalization" (1999: 139). For the present study, temporal adverbial demonstratives will be classified as demonstrative forms as they are formally identical to other demonstrative categories in Blackfoot.

Since adverbial forms often differ from one another in form and/or meaning, it is beneficial to begin an investigation of a particular language maintaining distinct adverbial categories, just as I argued for pronominal and adnominal forms above (§3.2.1.1). However, since locational forms are sometimes simply case-inflected nominal forms, it may be that there is no evidence for maintaining a distinction between nominal and locational adverbial forms in some languages. Additionally, since manner demonstratives do not seem to be a universal category, there will be languages where the manner adverbial category is not a useful one. But just as with nominal demonstrative categories, it

is best to dispense with a category only after it has been deemed unnecessary for the particular language under investigation. In §5.2.3, I demonstrate that Blackfoot has categories of temporal and locational adverbs, but that pronominal forms are formally indistinguishable from demonstratives in manner adverbial contexts, indicating that the manner adverbial demonstrative category is not utilized in Blackfoot.

3.2.1.3 Identificational Demonstratives

Cross-linguistically, the identificational category has been referred to by various names in reference grammars, but has been largely overlooked in typological and theoretical literature on demonstratives until Diessel (1999). Diessel refers to these demonstratives as "demonstrative identifiers" and suggests that they occur in copular and nonverbal clauses (1999:78-79). He argues that in some languages they are formally distinguished from pronominal forms through phonological or morphological features, and as such form a distinct category from pronominal demonstratives.

English does not have a distinct set of identificational demonstratives, but uses a form of the linking verb *be* with a pronominal demonstrative to express the same meaning, as in e xample (15) above. Some languages have forms that are similar to demonstrative identifiers such as French *voilà* and Latin *ecce*, both of which are sometimes translated as 'look' or 'behold'. French *voilà* is a grammaticalized form derived from the verb *voir* 'to see' with the demonstrative adverb *là* 'there'. Latin *ecce* is derived from an archaic demonstrative particle *ce* (from Proto-Indo-European) and is preserved in fossilized forms such as *ecce* 'behold' and *cedo* 'give me that'.[9] Although both of these examples contain demonstrative forms, Diessel (1999) argues that they are not the same as demonstrative identifiers as they are more often used in isolation and have syntactically distinct

[9] A reflex of this particle occurs in Ancient Greek as well in the distal demonstrative forms, such as *ekeinos* 'that.MASCULINE.NOMINATIVE.SINGULAR' and *ekei* 'there'.

relationships to nominal phrases when they do co-occur. In English, *behold* serves a similar function as that of *voilà* and *ecce*. Like *voilà*, it is not simply the imperative form of a verb. This can be seen by examining the syntactic difference between *behold* and the imperative forms of similar verbs, such as *look*. When *behold* co-occurs with a nominal phrase, that NP is not an argument of the verb, but is, as Diessel phrases it, "loosely adjoined" (1999:79). This is demonstrated in (33) and (34) below.

(33) **Behold**, a bird!
(34) **Look** at the bird!

If the bird in (33) were an argument of *behold*, the definite article *the* would be used as in (34). The use of an indefinite article in (34) would be infelicitous if the speaker had a specific bird in mind.

Diessel states that although demonstrative identifiers differ from words like *voilà* and *ecce* (what Fillmore 1982 calls "sentential demonstratives"), this distinction is not always clear-cut. For the present study, I focus on Diessel's (1999:79) generalization that identificational demonstratives are "embedded in a specific grammatical construction, a copular or nonverbal clause" as the primary motivation for identifying demonstrative identifiers in Blackfoot in §4.6.

3.2.1.4 Verbal Demonstratives

Dixon's (2003) typological study is the only one that identifies verbal demonstratives as a syntactic category. He describes them as forms that have the meaning of "do it like this" and which are often accompanied by a mimicking action (2003:72). He states that this category is relatively rare, citing examples from only two languages. Dixon also argues that a verbal demonstrative may be the only verb in the predicate, or it may co-occur with a lexical verb. Due to the rarity of this type, the dearth of discussion of it in the literature, and the fact that it does not occur in English or Blackfoot, I will not discuss this topic in detail, other than to point out that according to the way Dixon describes

these forms, they are distinct from identificational demonstratives. Whereas identificational demonstratives take nouns or whole propositions as their referents, verbal demonstratives take actions as their referents. However based on Dixon's (2003) description, there is some indication that verbal demonstratives may actually be manner demonstratives with an additional expanded use. First, Dixon states that languages with verbal demonstratives do not have manner adverbial demonstratives (2003:72). Second, the fact that these forms may co-occur with lexical verbs suggests that they may be functioning adverbially. Whether verbal demonstratives should be a distinct category or considered an extension of demonstrative adverbs of manner is an issue for further research. For the present study, I show that Blackfoot possesses demonstrative forms that take verbal inflectional suffixes, but that these demonstratives have as referents nouns and locations but never actions, and so the verbal demonstrative category is not part of the Blackfoot system.

3.2.2 Pragmatic categories

Cross-linguistically demonstratives serve a number of pragmatic functions. While the core meaning of directing the addressee's attention to a particular entity is encoded in each of these pragmatic functions, the type of referent, the addressee's familiarity with the referent, and the knowledge shared by the speaker and addressee are among the factors that vary across the different pragmatic uses of demonstratives. According to Himmelmann (1996) and Diessel (1999), pragmatic functions may be divided broadly into two categories. The first is referred to as situational as this type is used to refer to non-linguistic entities situated in space. This type is sometimes also called *exophoric* as the referent is outside of the discourse itself. The second type is known as non-situational, or *endophoric*, and its uses encode referents that are part of the discourse event. The endophoric category is further delineated into three sub-groups: anaphoric (or tracking) uses; discourse deixis; and recognitional uses.

Although the four pragmatic uses listed above are widely attested in the available cross-linguistic data on demonstratives, that data is severely limited by the fact that most descriptive grammars do not address all of the pragmatic roles of demonstratives. Himmelmann (1996) proposes that the four pragmatic categories above are universally attested. Diessel (1999) argues that Himmelmann's claims are based on too few languages to make an assertion about the universality of pragmatic uses. Although the issue of universality is debated, Diessel's typological study does contain numerous examples of each pragmatic use. To my knowledge, no researcher has yet argued that one of the four pragmatic uses listed above is absent from any specific language.[10]

3.2.2.1 Situational uses & spatial deictic features

Situational uses of demonstratives may be broadly defined as those that point out non-linguistic entities in the physical environment (Diessel 1999:6). Diessel (1999), partly based on Fillmore (1997), categorizes situational uses into gestural and symbolic uses, both of which encode features of spatial demarcation with respect to entities locatable in either the surrounding environment or an imagined physical space. Bühler (1934; cited in Diessel 1999) makes a similar distinction between situational uses that have visible referents versus those that have referents in an imagined setting. Symbolic demonstrative uses often refer to entities in the surrounding environment that are either (i) too large in scope to be completely visible, or (ii) do not have a physical form. Symbolic demonstratives may also be used by the speaker to mentally situate the addressee within the physical environment of a narrative setting. This subtype of symbolic use is referred to by Lyons (1977) as deictic projection. In the analysis of deictic projection in this study, I distinguish between the setting of the narrative event and that of the narration event. I use the term *narrative event setting* to refer to the location where the story takes place as described by the narrator. *Narration*

[10] Cf. Dupraz (2012) who argues in favor of Himmelmann's 1996 proposal that recognitional uses are universal but also claims that there is no observable proof of them in the extant data from Sabellian, an extinct branch of the Italic language family.

event, on the other hand, refers to the location where the speech act participants are physically located when the speaker relays the story to his audience.

In examples (35) through (37) below, I discuss in more detail three subtypes of situational usage: gestural, wider-context, and deictic projection. The subcategorization of these uses is provided in **Figure 2** below.

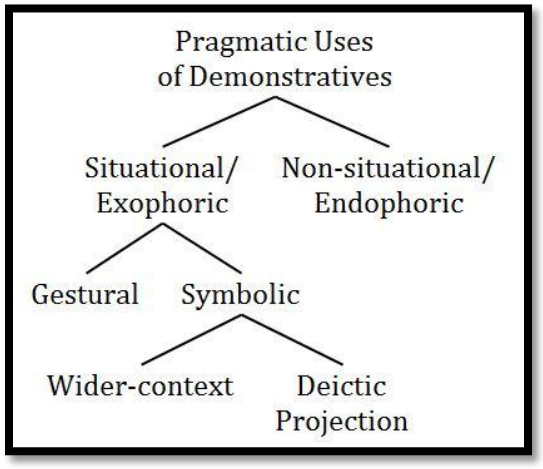

Figure 2 - Situational Uses of Demonstratives based on Diessel (1999)

In (35), an example of a gestural use is given in which the referent of the demonstrative is a physical object.

(35) **This** painting is so great! Gestural

In (35), the demonstrative *this* refers to a painting that the speaker is looking at. In this case, the statement directs the addressee's attention to a physical entity in the surrounding environment. This use could be accompanied by a gesture but is still considered a gestural use regardless of whether the speaker uses an accompanying gesture.

In (36), although the referent of *this* is a physical entity visible to the speaker, it is too large and encompassing for the speaker to gesture toward it.

(36) **This** country is so beautiful! Symbolic (wider context)

The form *this* is used here to indicate that the speaker's location overlaps with the referent even though the referent extends far beyond the visible range of the speaker. Replacing the proximal form *this* with the distal form *that* produces the entailment that the speaker is not in the country to which she refers at the moment of utterance.

The final non-gestural situational usage is deictic projection, demonstrated in (37).

(37) And then he turned **this** way and saw me. Deictic projection

This usage type occurs most often in narrative discourse and serves to orient the audience to the perspective of a character within the narrative, or in the case of first-person narratives, to the perspective of the speaker at the time of the narrative event, rather than the time of the narration event.

Imai (2003) compiles and categorizes the spatial deictic features encoded in demonstrative forms from over 420 languages. The features he describes are those unique to demonstrative forms (that is, he does not address inflectional morphemes that encode e.g. person, number, or case marking as these are not limited to demonstratives). He divides the features into four categories: anchor, spatial demarcation, referent/region configuration, and function. Because each of these categories is relevant to my discussion of Blackfoot situational demonstrative uses below, I discuss them each here.

The anchor is the contextual point of reference to which the referent is related. As all demonstratives by definition encode the location of a referent relative to an anchor, this category is universally attested. Features from the anchor category include [speaker], [addressee], and [speaker & addressee], among others. Most of the languages examined by Imai have the anchor feature [speaker]. For example, English *this* and *that* encode distance contrasts relative to the

speaker. According to Imai (2003), languages with a three-way demonstrative system (e.g. Blackfoot) are divisible into two types of systems: person-oriented and distance-oriented. Person-oriented demonstrative systems use both the speaker and the addressee as anchors, encoding referents that are close to the speaker, close to the addressee, or far from both. Distance-oriented systems on the other hand employ a single anchor, the speaker, and encode a three-way distance contrast from that anchor using the features proximal, medial, and distal. Blackfoot anchor features are encoded in the demonstrative stems (§4.1).

Features of the spatial demarcation category are further divided into four sbucategories: distance, geometric configuration, geographic configuration, and cardinal direction. In Blackfoot, distance features are encoded along with anchor features in the demonstrative stems (§4.1). The distance subcategory encodes relative distance between the referent and the anchor. The only geometric configuration feature found in Blackfoot is [interior] which indicates that the referent is on the inside of an imaginary boundary. Interior geometric configuration is expressed through the suffix *-o* (§4.3).[11] Geographic configuration and cardinal direction features are not encoded on Blackfoot demonstrative forms.

The referent/region configuration grouping includes the following four sub-categories: quality, motion, posture, and visibility. Certain Blackfoot suffixes encode features of visibility or motion, including the feature [stationary] which is not represented in Imai's inventory of features. The suffixes that encode motion and visibility occupy the same position in the Blackfoot demonstrative template and as such are mutually exclusive. Illustrations of these are given in §4.5 below.

[11] The geographic configuration grouping is prevalent in Dene languages, for example, Ahtna (Dene, Alaska). In this language spatial demarcation suffixes encode positions relative to the local river. Morphemes meaning "upriver" and "upland (away from river)" make reference to the speaker's movement relative to the area's primary watershed (Berez 2011). The cardinal direction grouping is used by those languages that describe spatial relationships with an absolute frame of reference, such as Guugu Yimithirr (Pama-Nyungan, Australia) and Tzeltal (Mayan, Mexico) (Levinson 2003).

The final group of features proposed by Imai (2003) is termed "function".[12] The only spatial deixis function feature relevant to Blackfoot is [offerative]. This feature in Blackfoot is encoded by the same suffix that encodes the referent/region configuration feature [motion from anchor], but only does so in the limited contexts when the speaker is handing the referent to the addressee.

Although many of these features convey very precise information (such as the features describing anchor, cardinal direction, or motion), the features related to distance and geometric configuration are much more flexible in that they usually do not define precise, consistent distances. Talmy (2000) suggests that this is to be expected in closed-class forms because it is in their nature to abstract away from Euclidean specifications (e.g. size, shape, path) that are found in open-class terms. Talmy refers to abstractions of size as having "the topological property of being magnitude neutral" (2000:26). In other words, deictic forms often encode schemas that contain boundaries and relative points but no absolute spatial metrics, so that as the context expands, the schema expands with it. This is best illustrated by comparing the following two sentences (from Talmy 2000:25).

(38) **This** speck is smaller than **that** speck.
(39) **This** planet is smaller than **that** planet.

In (38) the distance between the referents is extremely minute, potentially only a few millimeters. However in (39) the distance between the two referents could be half a trillion kilometers (assuming, e.g. the utterance is spoken by someone on Earth and refers to the size difference between Earth and Jupiter while pointing at the latter in the night sky). Furthermore, (39) could be uttered by a speaker on an airplane 30,000 feet above sea level, and because of the astronomical scale of the comparison of planets, the proximal form *this* may still be used to refer to the earth,

[12] These features are not to be confused with pragmatic functions as each of Imai's function features describes specific meaning associated with situational uses of demonstratives.

nearly 6 miles below. There is no difference in the forms of the demonstratives between (38) and (39) that would indicate such a large difference in scale, rather it is the frame established by the lexical items that are being compared. This is what is meant by "relative distance".

Although gestural situational uses are the most frequently identified and described in grammars, even within the situational category of pragmatic usage there is a great deal of variety and complexity that is often underdescribed in the literature. The lack of complexity in descriptive grammars necessarily results in lack of complexity (or at least greater uncertainty) in typological studies.

3.2.2.2 Anaphoric (tracking) uses

In addition to directing the addressee's attention to entities in the physical environment (or a mental representation of a physical environment), demonstratives also serve to direct the addressee's attention to participants throughout the discourse. These uses of demonstratives interact with other tracking devices referred to as anaphora (e.g. personal pronouns, definite and indefinite articles, etc.). Because the term "anaphoric" is applicable in other broader contexts, Himmelmann (1996) prefers the term "tracking" to describe this pragmatic usage. Himmelmann (1996) states that compared to other anaphoric devices, tracking demonstratives are relatively infrequent, and that they are used to reference major discourse participants. Diessel suggests that anaphoric demonstratives are often used to "indicate a referent that is somewhat unexpected and not currently in the focus of attention" (1999:96).

Himmelmann (1996) claims that in a given language, generally one demonstrative is used for tracking purposes and that this is more often the proximal form. However there are too few languages in his sample (five) to draw any firm cross-linguistic conclusions. And there are well-known languages (e.g. Ancient Greek, Latin) that utilize more than one demonstrative form in anaphoric uses. Which demonstrative form is used is based on the last mention of the co-referential

participant. In Ancient Greek, for example, there are three demonstrative forms, two of which are used for tracking purposes. The proximal form *houtos* and the distal form *eikeinos* may each refer back to a preceding participant, but when two participants occur in the preceding clause, *houtos* is used to refer to the more recently mentioned participant (the latter) and *eikeinos* references the earlier mentioned participant (the former) (Smyth 1920:§1261). Thus, Himmelmann's generalizations may not be relevant to demonstrative systems with a three-way distance contrast, as in Blackfoot.

Diessel (1999) demonstrates that anaphoric demonstratives are very frequently used for the second mention of a participant, and that this is especially so in languages without definite articles (e.g. most Algonquian languages). He claims that anaphoric uses may be adnominal or pronominal but are always co-referential with a preceding NP. Further, anaphoric uses always refer back in the discourse to previously mentioned participants (i.e. they are anaphoric), but never refer forward to not yet mentioned participants (cataphoric) (Diessel 1999:102). This means that anaphoric demonstratives by definition are never used in the first mention of a participant. However, there are languages that have special uses of demonstratives that introduce new information (e.g. recognitional use; introductory *this* in English) that may be considered tracking uses. These first mention usage types are discussed below in §3.2.2.4.

3.2.2.3 Discourse deixis

Like anaphoric usage, in discourse deixis usage, demonstratives refer to entities within the discourse itself. However discourse deictic uses differ from anaphoric uses in that the former do not refer to specific NPs, but to whole propositions. Discourse deixis focuses on "aspects of meaning expressed by a clause, a sentence, a paragraph, or an entire story" (Diessel 1999:101). Alternately, anaphoric usage focuses on participants within the narrative. The primary function of discourse deixis is to link the proposition in which the demonstrative is embedded to the proposition to

which the demonstrative refers. An example of this is given in (40) below (adapted from Lyons 1977:668).

(40) Speaker A: I have never seen him before in my life.
Speaker B: **That's** a lie!

Speaker B is objecting to the content of the proposition expressed by Speaker A. The discourse deictic use of *that* has as its referent the proposition immediately preceding and links that proposition with the sentence uttered by Speaker B. The referent of *that* is not a participant in the discourse, but a proposition.

A second distinction between the discourse deixis function and the anaphoric function is that while anaphoric uses of demonstratives are always backward-referring (anaphoric), discourse deixis may refer either backward or forward (cataphoric) as seen in (41).

(41) I don't know much, but I do know **this**: I'm never going back there again.

Diessel (1999) states that the ability to refer backward and forward in the discourse is a defining characteristic of discourse deixis, although as I show in §5.1.3, this may not be a universal feature of discourse deixis.

3.2.2.4 Recognitional uses

Although the recognitional use of demonstratives is first proposed in Lakoff (1974) and referenced in a number of subsequent studies, Himmelmann (1996) presents the first detailed discussion. Recognitional uses of demonstratives have four defining features: they only occur adnominally; they are used to activate specific knowledge that is shared by the speaker and addressee; they refer to information that has not yet been mentioned in the preceding discourse; they refer to entities that are not located in the surrounding environment (Diessel 1999). That is, they are adnominal,

non-situational demonstratives and their referents are hearer-old, but discourse-new. The referent of this type of use is usually a common noun, as in the following examples.

(42) So I saw **that** cat again.

(43) **That** book you ordered is on your desk.

In these examples, if the specific referent that the speaker has in mind is unknown to the addressee then the addressee would likely ask for clarification as to what the speaker intended to convey. In (42) for instance, the implication is that the speaker has told the addressee about a specific cat recently enough (or the story was memorable enough) that of all the cats in the world, one cat is foremost in the shared knowledge between the speaker and his addressee. The use of *that* serves to activate that shared knowledge in the mind of the addressee.

The recognitional function may also be applied to proper nouns when the speaker's view toward the referent is known to or shared by the addressee, as in (44).

(44) **That** Dick Cheney is up to no good.

This sentence is equally grammatical without the demonstrative, but lacks the nuance of emotion or personal opinion that (44) expresses. Notice for example how recognitional *that* is less felicitous in statements of uncontroversial or unremarkable fact, as in (45).

(45) # **That** Dick Cheney was vice-president for 8 years.

With exaggerated intonation, the felicity of the sentence might improve, but the sentence in (45) would likely not be uttered in typical conversation.

Diessel (1999) discusses two additional demonstrative uses that are similar to the recognitional function in that they introduce new information to the discourse, but are distinct in

other ways: determinatives and "unstressed *this*" (also called "introductory *this*" or "new-*this*" Himmelmann 1996). Diessel addresses these uses with recognitional uses because, he claims, they are all non-situational and are used for referents that are discourse-new.

Determinatives differ from recognitional uses in that they do not activate private shared knowledge, but introduce new material in conjunction with a relative clause.

(46) This summer will be hardest on **those** without air conditioning.

Diessel argues that this type of usage does not fit any of the other categories of pragmatic usage and that they are demonstratives in an early stage of grammaticalization toward becoming relative pronouns.

Introductory *this* differs from recognitional usage in that it introduces information that is new to the hearer, as well as the discourse.

(47) I was at the park yesterday and I saw **this** kid throwing rocks at the ducks.

Diessel (1999) proposes that unstressed *this* is also a form on the grammaticalization path. He claims that its function is nearly identical to that of the indefinite article, except that it marks important new topics, whereas the indefinite article places no such value on its referents. Himmelmann (1996) on the other hand proposes that this form is better classified as a symbolic situational use, specifically one of deictic projection. Examples of introductory *this* in the literature are almost always from first-person narratives and often coincide with descriptions of the setting. Although Gernsbacher & Shroyer (1989) offer an intriguing proposal that introductory *this* functions as a cataphoric device whose use parallels that of adnominal anaphoric tracking, I believe the high degree of co-occurrence of introductory *this* with descriptions of setting in first-person

narrative suggest a deictic projection usage more so than a tracking usage.[13] The findings of Gernsbacher & Shroyer (1989) (and cf. Wright & Givón 1987) that participants introduced with *this* rather than *a(n)* are far more likely to recur in subsequent discourse does not necessarily indicate that the speaker anticipates repetition of the referent, but instead that the participant introduced with *this* is more important to the discourse and its repetition may be a natural consequence of its status as a focal participant in the narrative.

3.2.3 Why the pragmatic taxonomy is needed in descriptive grammars

Examining demonstratives based on syntactic functions alone is not sufficient for describing the full range of demonstrative uses and meanings. I illustrate this fact by comparing (48) through (51) below. In (48), the referent is unspecified by the speaker and the demonstrative stands alone as a pronoun. In (49) the referent is overtly mentioned along with an adnominal demonstrative.

(48) Look at **that**! (Accompanied by a gesture toward a bird.)
(49) Look at **that** bird! (Accompanied by a gesture toward a bird.)

Both of these exclamations may be made about the same referent, for instance, a bird that is hanging upside down like a bat from a telephone wire. The first sentence (48) may be interpreted more broadly such that the action of the bird is the referent and not the bird itself, however the same implication is true of (49) since it is not any physical quality of the bird itself that is noteworthy, but the action of the bird. In either case, "that" is functioning in the same way, to direct the addressee's attention to a bird and to indicate that the bird is not near the speaker. In these two cases, one set of semantic features is sufficient to describe both occurrences of "that" even though

[13] However further research is needed to determine quantitatively how frequently introductory *this* occurs in contexts that may be interpreted as deictic projection usage.

the word is functioning pronominally in (48) and adnominally in (49). Now compare (50) and (51), both of which contain adnominal demonstratives.

(50) I bought **that** car this morning. (accompanied by a gesture toward a new car)
(51) I bought **that** car this morning. (no accompanying gesture)

In (50) there is a specific referent visible to the addressee toward which the speaker makes a gesture. In this case, the meaning of *that* is the same as it is in (48) and (49), i.e. it is being used to point out a referent in the surrounding environment that is not near the speaker. However in (51) without an accompanying gesture, the assumption being made by the speaker is that the addressee knows which car the speaker was planning to purchase even though it is not present in the physical environment. The use of *that* in (51) does not say anything about the spatial demarcation of the referent. This is the recognitional use described in §3.2.2.4 above. The meaning of *that* in (51) indicates shared knowledge between the speech act participants, so spatial semantic features are of no use in assigning meaning to *that* as it occurs in this example.

The examples in (49) - (51) are identical syntactically and morphologically but not semantically. On the other hand (48) - (50) pattern together morphologically, pragmatically, and semantically, though not syntactically. As shown above (§3.2.1), a syntactic taxonomy is of great value in typological studies of demonstratives and is appropriate for examinations of morphosyntactic form, especially in languages where nominal, adverbial, verbal, and identificational forms vary in form. However for the purpose of identifying semantic content, a pragmatic taxonomy is required. Ultimately, both are useful distinctions for an in-depth analysis as each taxonomy highlights different aspects of function, form, and meaning.

3.3 Summary

In this section I have provided an overview of the cross-linguistic literature on demonstratives, as well as two organizational systems used in describing demonstratives. I have argued that a detailed description of demonstratives must account for differences in form and function across syntactic and pragmatic categories. I outlined a number of syntactic categories found in the literature and consolidated them into a broad taxonomy of syntactic demonstrative functions, as shown in Figure 3.

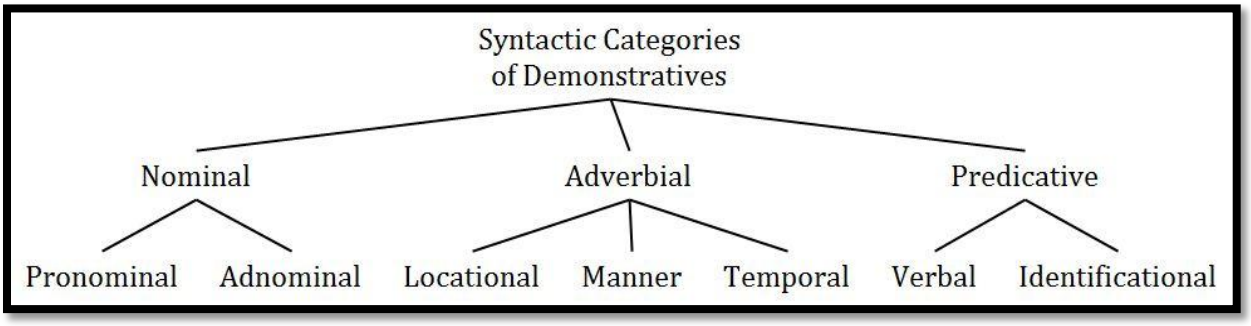

Figure 3 - Syntactic Taxonomy

I then applied the same strategy to pragmatic functions. A summary of the pragmatic taxonomy I adopt for this thesis is represented in Figure 4 below.

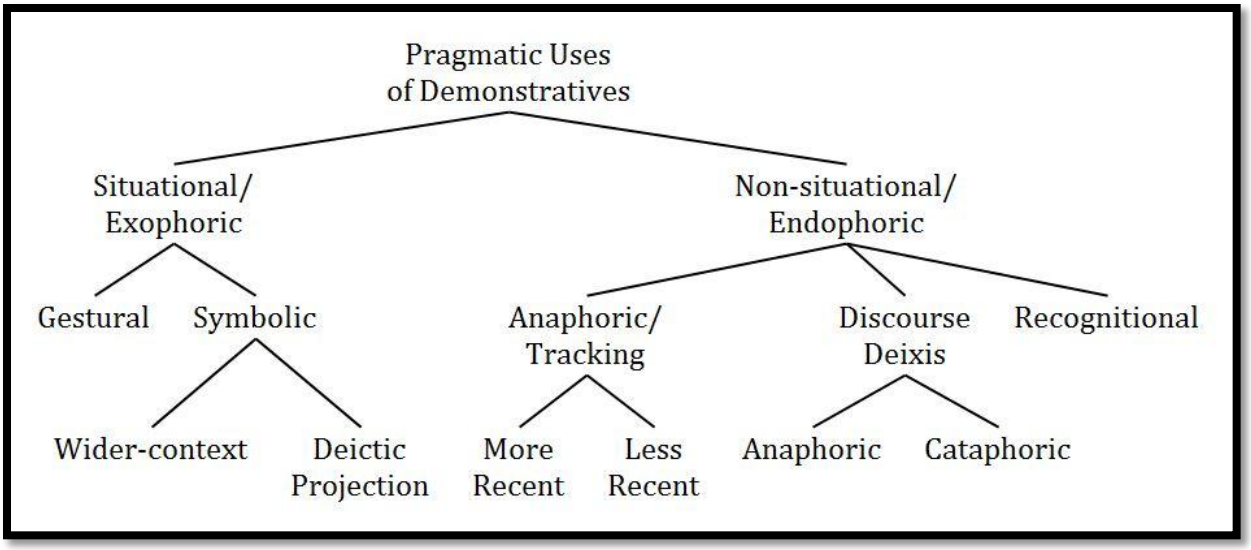

Figure 4 - Pragmatic Taxonomy

In Chapter 5, I apply these taxonomic approaches to the Blackfoot data.

4 The Blackfoot demonstrative system

In this chapter I present my analysis of the spatial features of the Blackfoot demonstrative system, as well as a summary of the analyses of previous researchers. Because the majority of the data in this investigation come from oral narratives transcribed by Uhlenbeck (1912), the system described here is largely based on the speech of an older generation of Blackfoot speakers. The speech of Uhlenbeck's consultants is very similar (although not identical) to the speech of the community that Frantz's (2009) grammar and Frantz & Russell's (1995) dictionary are based on (D. Frantz, p.c).[14] Due to the context-specific nature of — and frequent use of gesture with — situational uses of demonstratives, it is difficult to draw firm conclusions concerning the spatial information conveyed by situational demonstratives as they occur in textual data. Thus situational uses elicited through my own field work will also factor into my analysis of spatial features. While the proposals I put forth are supported by the textual data as well, there are minor differences in form and usage between my consultant and those of Uhlenbeck (1912; 1938) and Frantz (2009). Since little research into generational and dialectal variation has been conducted, issues related to dialectal variation are noted but left for future research.

This chapter contains a discussion of each morpheme, including a summation of previous analyses and explanation of the points where my own analysis differs. Although the focus of this chapter is on defining the various morphemes that comprise the system, it is impossible to completely separate morphological forms from their morphosyntactic contexts, or meaning from pragmatic function. Thus throughout the chapter, in the data used to illustrate the meanings of the various morphemes, the demonstratives necessarily serve a specific syntactic function, as well as a specific pragmatic function (see the definition of the term demonstrative adopted in §3.1). As pragmatic functions exert a stronger influence on meaning than syntactic functions do, I have

[14] This is not a comment on how "correct" or "standard" this variety is, rather it is the most easily accessible form of the language for study as it has the most comprehensive documentation.

attempted to limit the data given in §4 to situational pragmatic uses, however their syntactic functions are varied. Non-situational pragmatic uses are then discussed in §5.1, in which I highlight the importance of textual analysis in investigating non-situational demonstrative uses. Again, because syntactic contexts have less effect on meaning, demonstrative forms serve a number of syntactic functions throughout §5.1. Then, in §5.2, I discuss generalizations that may be drawn by viewing the system in terms of syntactic categories. Although the meanings of demonstrative forms do not vary across syntactic categories, certain morphological and phonological differences are syntactically conditioned.

The Blackfoot demonstrative system is comprised of three stems, five person and number suffixes (which are identical to those found on nouns), four suffixes that are used primarily on demonstratives (but may also occur on nouns to show agreement with a demonstrative), and four suffixes that are used exclusively on demonstratives. In this section, I introduce each of these 16 morphemes by providing explanations of their situational use and meaning as offered by previous researchers. As well, I present my own analysis, paying special attention to those points where my analysis differs from those of previous researchers. I propose that the demonstrative template contains a stem slot and five suffix slots as outlined in Table 1 below. The morphemes analyzed in the following six sections are organized based on their positions in the template so that each subsection represents a slot in the template.

Table 1 - Blackfoot demonstrative template

Stem	Diminutive	Geometric Configuration	Number/ Gender	Referent/Region Configuration	Identificational
am 'proximal with respect to the speaker' *ann* 'medial with respect to the speaker' *om* 'distal with respect to the speaker'	*-sst* 'small; pitiable' (*-ist* in Uhlenbeck)	*-o* 'interior'	*-wa* 'proximate singular' *-yi*[15] 'obviative singular' *-yi* 'inanimate singular' *-iksi* 'animate plural' *-istsi* 'inanimate plural'	*-ma* 'stationary' *-ya* 'moving away from speaker' (*-ia* in Uhlenbeck) *-ka* 'moving toward speaker' *-hka* 'invisible, indiscernible'	*-ayi* 'non-independent identificational suffix' (*-aie* in Uhlenbeck) *-ao'ka* 'independent identificational suffix' (*-auk* in Uhlenbeck)

The three previous analyses of Blackfoot demonstratives discussed in this chapter are Uhlenbeck (1938), Taylor (1969), and Frantz (2009). Uhlenbeck (1938) is the first presentation of the various morphemes that make up the Blackfoot demonstrative system and includes numerous examples of demonstrative usage. Taylor (1969) includes a few additional morphemes which Uhlenbeck does not include and offers a more coherent organizing principle for the group of suffixes that encode referent/region configuration (Uhlenbeck's "restrictive endings"). Frantz (2009) introduces additional morphemes that comprise the system along with a more nuanced account of the meanings of the individual morphemes. In addition to these descriptions, Genee (2005) provides a preliminary investigation into the syntactic, pragmatic, and morphophonological aspects of the system, paying special attention to similarities and differences with other Algonquian languages. While each of these works provides a detailed description of the Blackfoot demonstrative system, the present study seeks to fill in a number of gaps in the literature: first, an

[15] The capital <i> represents what Frantz (2009) calls "breaking-I", an allophone of /i/ that causes affrication when combined with /k/ or sibilation when combined with /x/ at morpheme boundaries, e,g, when the future/modal prefix *áak-* is added:

(i) *áak-* + *Iiyika'kimaawa* 'she tries hard' --> *áa**ks**iiyika'kimaawa* 'she will try hard'

compared with

(ii) *áak-* + *iitsi'poyiwa* 'she speaks Blackfoot' --> *áa**k**iitsi'poyiwa* 'she will speak Blackfoot'.

explanation of the analyzable but previously undefined suffix *-o*; second, a unified account of the four morphemes I have labeled referent/region configuration suffixes which accounts for their mutual exclusivity; third, a description of the identificational suffixes and the syntactic environments in which they occur; fourth, a proposal that the meanings of demonstrative forms are more accurately identified when different pragmatic contexts are taken into account.

4.1 Stems

The three stems that form the foundation of the Blackfoot demonstrative system are *am*, *ann*, and *om.* When used situationally, they encode spatial deictic features of the categories anchor and spatial demarcation (Imai 2003). I demonstrate below that the anchor feature for all three stems is [speaker] and that spatial demarcation in Blackfoot is a three-way distinction of relative distance from the anchor: [proximal], [medial], and [distal]. This is summarized in Table 2 below.

Table 2 - Proposed spatial meanings of Blackfoot demonstrative stems

Stem	Meaning (in situational uses)
am	proximal to the speaker (often within reach)
ann	a medial distance from the speaker (out of reach, but usually no further from the speaker than the addressee is)
om	distal from the speaker

4.1.1 Previous analyses of demonstrative stems in Blackfoot

Uhlenbeck (1938) delineates demonstrative words into categories based on six stems: two of his categories are built on the *am* stem (*amo, amisto*); two on the *ann* stem (*anno, anna*); and two on the *om* stem (*oma, omista*). In his analysis he does not provide glosses for the morphemes *-sst* 'diminutive' (transcribed *-ist* in his own work) or *-o* 'interior', but incorporates their meanings into the definitions of the six stems he proposes. A synopsis of Uhlenbeck's system is provided in Table 3 below.

Table 3 - Spatial meanings in Uhlenbeck (1938)

Stem	Meaning
amo	'this' near speaker
amisto	emphatic form of *amo*; emphasizes proximity to speaker
anno	'this one right here' near speaker
anna/anni	'that one right there' or 'that other one there' (animate/inanimate)
oma/omi	'that' far from speaker (animate/inanimate)
omista/omistsi	emphatic form of *oma* (animate/inanimate)

Uhlenbeck does not analyze *-o* as a separate morpheme, rather, the six stems given above appear to be treated as monomorphemic in his analysis. However his definitions suggest that it is the presence or absence of *-o* that determines the distance information encoded in the form. In English *this* and *that* encode the spatial demarcation features of [proximal] and [distal], respectively. Uhlenbeck defines each form containing *-o* using English *this* and each form without *-o* using English *that*.

In the descriptions of each stem, Uhlenbeck defines the demonstrative words built from *am* and *ann* stems as "having the deixis of the first person" (1938:78, 82, 87) and describes the *om* forms as akin to the third person, i.e. not associated with the speaker or addressee. None of his descriptions make reference to the addressee as a point of reference in determining the relative position of the referent. Thus the speaker is the only anchor explicitly identified. There is at least a two-way distinction in spatial demarcation as seen in the use of the English words 'this' and 'that' in the glosses of *amo* and *oma*, indicating referents close to and far from the speaker, respectively. Uhlenbeck's glosses for *anno* 'this one right here' and *anna* 'that one right there' may also indicate differences in distance from the anchor, in which case Uhlenbeck may have envisioned the system as having a four-way distinction of distance from the anchor. However if this is the case, the exact order of distance from the anchor is unclear and could be represented as either (52) or (53). (In these distance rankings "x < y" represents the statement 'x is closer to the speaker than y'.)

(52) *amo* 'this' < *anno* 'this right here' < *anna* 'that right there' < *oma* 'that'

(53) *anno* 'this right here' < *amo* 'this' < *anna* 'that right there' < *oma* 'that'

Examples of uses of the *amo* and *anno* forms provided in Uhlenbeck (1938) indicate that either ordering is possible, but that (52) is more likely. This is because *amo* is more often used to refer to objects that the speaker is touching. In (54) below, the only possible position of the referent of *amóia* is in the speaker's hand, as indicated by both the contextual note given by Uhlenbeck and the English translation.

(54) **Amó**ia kámiχtàu.
am-o-ya kaamihtan-wa
DP-INT-MA dried.dung-3.AN Uhlenbeck (1938:79)
"**Here** is a buffalo-chip." (Context provided by Uhlenbeck: "said while it was handed over")

The English translation indicates that the utterance is spoken before the referent has changed hands since it would be infelicitous in English to say "here it is" after an object has been handed over. The phrase "there it is" would be expected instead. Comparatively, the sentence in (55) illustrates a situational use of the *ann* stem. In this story, a boy describes an interaction with a customer while he was out selling meat. The buyer instructs him as to which piece she wishes to purchase.

(55) **Ánno**iaiè stsístsinit.
ann-o-yi-ayi it-iistsini-t
DM-INT-IN.SG-ID DCT-cut.TI-IMPV
"Cut it **right here**." Uhlenbeck (1912:231)

The referent of *ánnoiaie* is likely (a) in the addressee's hand (if it is a small piece) or at least (b) close enough for the addressee to touch since he is being instructed where to cut it. If the referent in (55) were in the speaker's hand, it would be an identical context to that of (54), and would warrant

the use of the *amo* form instead. That Uhlenbeck provides distinct definitions for *anno* and *amo* suggests that they do not encode the same contexts. Thus *anno* likely refers to objects further removed than those of *amo* since *amo* encodes referents being held by the speaker; it would be difficult for an object to be any closer to the speaker than that.[16] This interpretation of Uhlenbeck's descriptions for *amo* and *anno* indicates that the ranking in (52) is preferable to that in (53). It also suggests that Uhlenbeck proposes a four-way distance distinction.

Taylor (1969) categorizes demonstrative forms into three basic stem groups: *am, ann,* and *om*. He analyzes *-o* as a morpheme, which he proposes emphasizes the proximity of the referent to the speaker. Like Uhlenbeck (1938), Taylor uses English demonstratives *this* and *that* to describe the spatial information encoded by the stems. Taylor glosses *amo* and *anno* as 'this' and *ann* and *om* as 'that' (1969:206-7, 211-13). Although *ann* is defined differently depending on whether it has the *-o* suffix, the fact that Taylor uses English demonstratives in his glosses points to a distance-oriented system with at least a two-way distinction of spatial demarcation. His proposal may be a three-way distinction if *ann* and *am* encode two different distance features, or possibly a four-way distinction if the *-o* suffix indicates an additional distance feature, but which of these he intended is not clear. The most literal interpretation of Taylor's system is summarized in Figure 5 below.

[16] More will be said about these examples in the discussion of the suffix *-o* in §4.3 below.

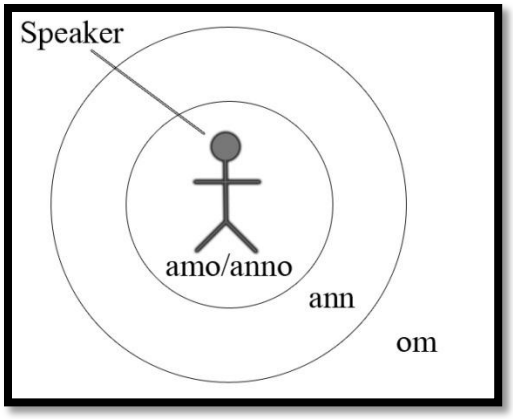

Figure 5 - Spatial meanings in Taylor (1969)

Here *om* is used to refer to objects far from the speaker, *am* and *ann* encode a distance closer to the speaker than *om*, and the use of the *-o* suffix emphasizes the proximity of the referent to the speaker. In terms of Imai's (2003) parameters to Taylor's analysis, *-o* could be said to encode [immediate] or [proximal] distance and *am* and *ann* might encode [proximal] and/or [medial] distance.

Frantz (2009) proposes a system with five basic stems: *am, amo, ann, anno,* and *om* (2009:64). He does not analyze *-o* as a suffix in *amo* and *anno* due to "difficulty in assigning a consistent meaning or function" to the suffix. Furthermore, he states that an under-analysis is preferred to a complicated one given that the intended audience of his grammar is both linguists and non-linguists (2009:64 n.1). Frantz's definitions of the five stems are listed in Table 4 below.

Table 4 - Frantz's (2009:64) five-stem analysis

Stem	Meaning
am	proximity and familiarity to speaker
amo	proximity to speaker but not to addressee
ann	proximity or familiarity to the addressee but no proximity to the speaker
anno	proximity to the speaker and proximity or familiarity to the addressee
om	proximity to neither speaker nor addressee

Frantz's analysis proposes what Imai (2003) calls a person-oriented system in which – depending on which stem is used – [speaker], [addressee], or [speaker & addressee] may be the relative points of reference for the distance features [proximal] and [distal]. In addition to spatial demarcation, Frantz (2009:64) proposes that the stems also encode degrees of "familiarity" which may be viewed as a sort of mental distance (cf. Uhlenbeck 1938:ch. 8). As I argue below (§5), metaphorical notions of distance (e.g. mental, anaphoric) are characteristic of non-situational uses of demonstratives as they refer to the flow of information within the discourse or serve to activate shared knowledge rather than refer to the spatial orientation of objects in the physical environment. Although non-situational uses are essential to a full understanding of the meaning of demonstrative forms, they are better understood when viewed separately from situational uses. Frantz (2009) combines situational and non-situational uses into one overly broad paradigm thus conflating the meanings of demonstrative words as they occur in different pragmatic functions. Setting aside familiarity,[17] the spatial uses of Frantz's stems are illustrated by Figure 6 below.

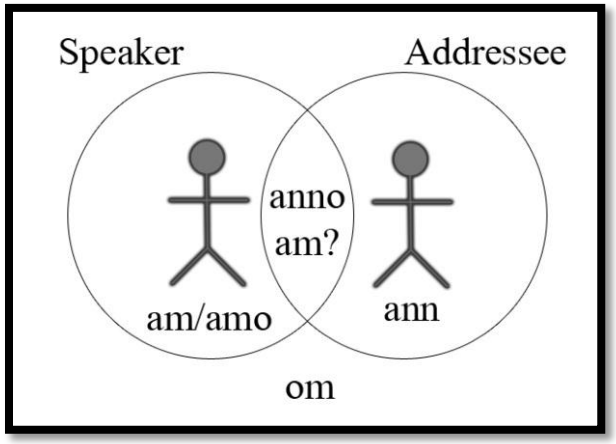

Figure 6 - Spatial meanings in Frantz (2009)

[17] I return to the issue of familiarity in §5.1.4 below.

The proximity to the various anchors in Frantz (2009) is summarized in Table 5.

Table 5 - Spatial meanings in Frantz (2009)

Near speaker	Near Speaker & Addressee	Near Addressee	Distal
amo/am	*anno*	*ann*	*om*

Because the stem *am* is unspecified for proximity to addressee, it is unclear whether it could be used to refer to referents in the overlapping area between the proximal regions of the speaker and addressee as indicated by "am?" in Figure 6. However, in the data I have analyzed, *am* is never used situationally without the suffix *-o*. Because this appears to be a robust generalization, it is not necessary to pinpoint the precise location of *am* on a diagram representing spatial features.

4.1.2 Proposed spatial features of Blackfoot demonstrative stems

The *om* stem is the one most consistently defined throughout the literature. Uhlenbeck (1938) and Taylor (1969) translate it using the English distal form 'that' and Frantz (2009) states that it refers to objects that have proximity to neither speaker nor addressee. In my own fieldwork, my consultant only used the *om* forms to refer to objects on the periphery (i.e. near the walls) or outside of the room (visible through the doorway or a window). Thus I maintain the definitions given by Uhlenbeck (1938), Taylor (1969), and Frantz (2009) which all refer to forms built on the *om* stem as being far from the speaker. In Imai's (2003) spatial deictic terminology, *om* refers to objects that have the distance feature [distal] with respect to the anchor [speaker].

Similarly, *am* is consistently referred to as encoding referents that are near to the speaker. Although Taylor (1969) identifies *-o* as the morpheme that encodes the closest objects to the speaker, I have not observed a situational use of *am* without the suffix *-o* whereas the suffix *-o* is found on the *ann* stem. Thus I would argue that it is the stem that encodes the proximity to the

speaker and that the suffix *-o* serves a different function (see also discussion in §4.3). My consultant only uses the *am* stem to refer to objects that she can physically touch with minimal effort (i.e. if she can lean over to reach the object, she uses *am,* but not if she has to get up and move, or roll her chair, toward the object to reach it). Due to the close physical proximity of referents of the *am* stem, I propose that this stem encodes the distance feature [proximal] with respect to the anchor [speaker].

Definitions of the *ann* stem show the least consensus among previous analyses. However the differences among the definitions provide evidence in support of my proposal that *ann* encodes [medial]. This analysis (along with my proposal for the suffix *-o* below) accounts for Uhlenbeck's glosses of *anno* 'this one right here' and *anna/anni* 'that one right there' since a medial form would have no direct equivalent in English. Instead the referents of *ann* stems may fall within the domain of *this* or *that* in English. For example, in (56) the referent of *ánnamauk* is not close to either speaker or addressee.

(56) Otánikaie: **ánna**mauk.
ot-waanit-ok-wa-ayi **ann-wa**-ma-ao'ka
4-say.TA-INV-3.SG-DTP **MED-3.AN**-STAT-ID
"She (woman 2) said to her (woman 1): **There** he is." Uhlenbeck (1938:92)
Context: two women are talking; woman 1 wants to marry woman 2's son and inquires as to his whereabouts (parenthetical indentifications in the translation are my own)

An analysis of *ann* as [medial] also accounts for Taylor's (1969) use of 'this' to gloss both *am* and *ann*. *Om* aligns with English *that,* but *ann* may refer to referents that are not far enough away to warrant English *that,* leading Taylor to conclude that the referents of *ann* are in some way closer to the speaker than the referents of *om*. Thus the proximal English form *this* is used to translate the *ann* stem forms. This analysis of *ann* also accounts for Frantz's (2009) references to speaker proximity in that a typical face-to-face conversation involves the addressee occupying an area that

is a medial distance from the speaker. I provide a rough depiction of this arrangement in Figure 7 below.

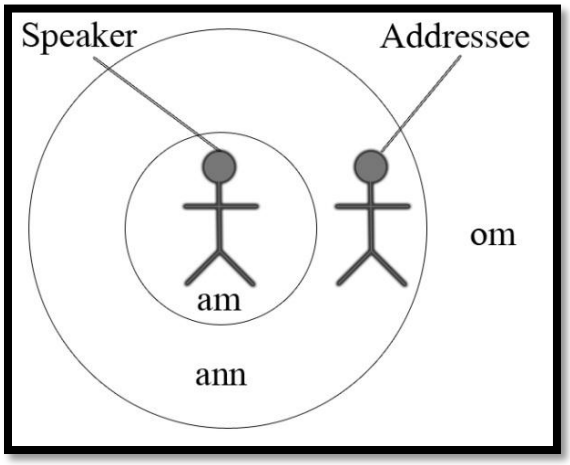

Figure 7 - Three-way distinction of [proximal], [medial], [distal] distances from a single anchor [speaker]

For my consultant, the form *anni* is used to refer to inanimate objects that are not within her own reach, even if they are closer to her than to her addressee as in (57).

(57)	Ma	Ayme,	kókki-t	**ánn-i**	sináákssin.
	DIS	Ayme	give-IMPV	**DM-IN.SG**	writing.IN
	Hey Ayme, bring me **that** book.				

The arrangement of speaker, addressee, and referent is shown in Figure 8. Here Ayme is seated about six feet from the speaker in a chair around a ten-foot-long oval table. The book is on a table about three feet from the speaker, represented by the square in the top left corner.

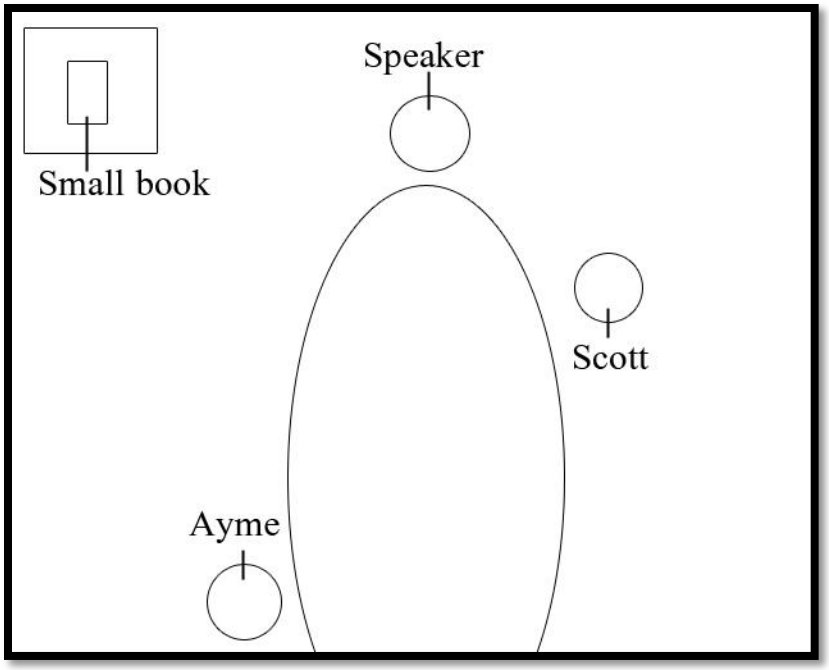

Figure 8 - Elicitation layout in (57) and (58)

In the case of (57), the book is out of the speaker's reach, but is still much closer to the speaker than it is to the addressee. However when the consultant asked Scott to retrieve the book, she used the distal form *oma* to refer to the book, given in (58).

(58)	Ma	Scott,	kókkit	**óm-a**	sináákssin.
	DSC	Scott	give.IMPV	**DD-3.SG**	writing.IN
	Hey Scott, bring me **that** book.				

Examples (57) and (58) have two implications for the anchor and spatial demarcation features. First, *ann* in (57) is used to refer to an object that is not close enough to the speaker to warrant the *am* stem, and also not far enough to warrant the *om* stem, but is closer to the speaker than the addressee, and so cannot be encoding proximity to the addressee as Frantz (2009)

argues.[18] Second, because the two different stems are used to by a single speaker to refer to the same object in the same position, the distance features encoded by the stems must be part of a relative distance framework, i.e. there is not an absolute distance that corresponds to the [medial] spatial demarcation. Rather the use of *ann* and *om* is contextually-determined and is related to the distance between the speaker and addressee.

To summarize, based on my investigation of situational uses, I conclude that the anchor feature for all three demonstrative stems is [speaker] and that the difference between *am, ann,* and *om* is one of spatial demarcation, respectively encoding [proximal], [medial], and [distal] features of relative distance from the anchor. This analysis is compatible with the distance-oriented proposals of Uhlenbeck (1938) and Taylor (1969), as well as aspects of Frantz's (2009) person-oriented analysis, but is preferred because it accounts for all anchor and spatial demarcation features as encoded in the stems which allows for an analysis of the morphologically analyzable suffix *-o* (discussed in detail in §4.3 below).

4.2 Diminutive suffix *-sst (-ist)*

Uhlenbeck (1938) does not describe the diminutive suffix *-sst* (which he transcribes *-ist*) as a separate morpheme, but defines the words *amisto* and *omista* as "emphasized" forms of *amo* and *oma.* This suggests that the *-sst* portion may be responsible for the added emphasis. Taylor (1969) and Frantz (2009) on the other hand identify *-sst* as a 'diminutive' marker. Taylor takes this to include the meanings small, dear, and pitiable, while Frantz (2009) states that this suffix is "used for referents which the speaker views with pathos or affection: generally old persons and children"

[18] However, cf. §2.3 for a brief discussion of dialectal variation and potential semantic shift among speakers of New Blackfoot. Frantz's analysis is much closer to the speech used by Uhlenbeck's consultants than the speech of my consultant (D. Frantz p.c.). So while this thesis proposes a unified analysis of the demonstrative Blackfoot system, it is likely that some forms have shifted in meaning and/or use since Uhlenbeck recorded the stories that comprise my textual data. When those shifts are apparent, I note them throughout the current chapter.

(2009:64). In one example from Uhlenbeck (1912), the speaker using the *-sst* suffix is asking the referent for assistance, given here in

(59).

(59)	am**ist**ói	imitái,	spúmmòkit
	am-**sst**-o-yi	iimitáá-yi	sspommo-ok-it
	DP-**DIM**-INT-4.SG	dog-4.SG	help.TA-INV-IMPV
	"You, this dog here, help me."		Uhlenbeck (1912:104; 1938:82)

In this case, the speaker may be expressing endearment, which Taylor and Frantz suggest is part of the diminutive meaning. However, the diminutive suffix is also used in contexts that appear to contrast with "diminutive", as in (60) below where it is applied to buffalo, referents that are certainly not small.

(60)	einiua	ám**ist**oiauk,	ikakaiim.
	iinii-wa	am-**sst**-o-ya-ao'ka	iik-waakayi-ma
	buffalo-3.SG	DP-**DIM**-INT-MA-IDI	very-be.many.AI-3.SG
	"The buffalo are **close by**; they are many."		Uhlenbeck (1912:8; 1938:82)

In (60) the diminutive does not refer to the size of the herd as the verb of the second clause indicates that the herd is large. It may be the case that the buffalo are viewed with affection, especially given their vital role in pre-contact Blackfoot culture (Schultz 1962). But the *-sst* suffix may also be used to refer to enemies (Uhlenbeck 1912:16), in which case it seems unlikely that pity or endearment are being expressed.

In most cases of accented *ám* + *-sst*, the English translation contains the phrase "close by" and is used to refer to both people and animals. However, in Uhlenbeck's (1938) list of examples, when *-sst* is used with the stems *ann* and *om* or if *am* is unaccented, these forms almost always refer to children or women, and rarely occur in spatial contexts. The suffix occurs even less

frequently in Uhlenbeck's (1912) collection of narratives, showing up only twice in the stories that I analyzed. Because this suffix is extremely rare, its meaning is difficult to analyze. For the present study, I maintain Frantz and Taylor's label "diminutive" with the caveat that further study is needed to elucidate the meanings and uses of this suffix.

4.3 Geometric configuration suffix *-o*

Previous analyses of the Blackfoot demonstrative system have largely overlooked the suffix *-o*. Uhlenbeck (1938) does not recognize it as a separate morpheme. Taylor (1969) suggests that the fact that the suffix *-sst* occurs between the stem and *-o* is evidence in support of analyzing *-o* as a distinct morpheme. He describes the function of *-o* as emphasizing the proximity of the referent to the speaker (207). This is illustrated above in Figure 5. Frantz (2009) likewise recognizes the morphological analyzability of *-o* (based on its position relative to *-sst*) but does not gloss it as a separate suffix. Instead, he identifies two additional stems: *amo* and *anno*. Because previous research has focused on producing wide-ranging descriptions of multiple aspects of Blackfoot grammar, this enigmatic suffix that only appears on demonstrative words has until now been left undescribed. The meaning and uses of *-o* is one of the gaps in the literature that the present study seeks to fill.

In the textual data, the suffix *-o* is found on all of the token occurrences of the stem *am,* occurs on about 12% of the tokens of *ann,* but never occurs with *om*. This distributional fact indicates that the meaning of *-o* is such that it always refers to a referent that is not distal to the speaker. Analysis of the textual data also reveals that *-o* only occurs in situational uses of demonstratives and temporal expressions such as *annohka* 'now'.

In situational uses, whenever *-o* occurs with *ann*, the referent is located between the speaker and the addressee as seen here in (61) repeated from (55) above. Regardless of which

speech act participant is closer, the referent must be in such a position that both speaker and addressee can touch, or at least gesture clearly to a specific portion of the referent.

(61) **Ánno**iaiè stsístsinit.
ann-o-yi-ayi it-iistsini-t
DM-INT-IN.SG-ID DCT-cut.TI-IMPV
"Cut it **right here**." Uhlenbeck (1912:231)
Context: a woman is instructing a meat seller as to which piece she wishes to purchase

I propose that *-o* encodes the geometric configuration feature [interior] (Imai 2003:36), where the conceptual boundary delineating [interior] from [exterior] is an imaginary one defined by the physical locations of speaker and addressee. Any referent that is in the area between the speaker and addressee or within the proximal region of either is marked with *-o*, and any referent outside of that area is not marked with *-o*. To illustrate this, a slight modification must be made to Figure 7 above. The inclusion of *-o* is shown in Figure 9 below.

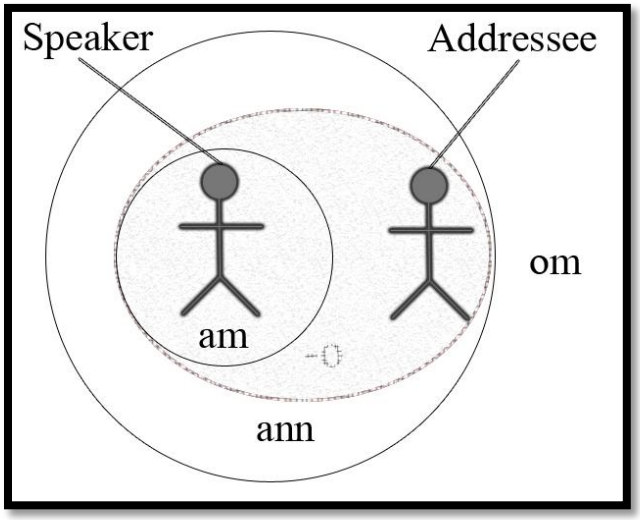

Figure 9 - Interior geometric configuration suffix

Amo applies to referents close to the speaker, and usually within the speaker's reach, including objects immediately behind the speaker that are close enough to touch. But because something immediately behind the speaker cannot be referred to with either *ama/ami* (the animate/inanimate forms of the *am* stem without the *-o* suffix) or *anno*, then the region defined by *-o* must coincide with the boundary of *am* in the area around the speaker. If this were not the case, then either the boundary of *am* would extend beyond that of *-o*, resulting in situational uses of *ama/ami* for referents behind the speaker, or the boundary of *-o* would extend beyond that of *am*, allowing for the form *anno* to reference objects behind the speaker. Neither of these uses are attested in the data. Furthermore, since the portion of the area defined by *-o* that is closest to the speaker coincides with the region that the speaker can easily touch, it is likely that the portion of the area defined by *-o* that is closest to the addressee coincides with the region that the addressee can easily touch. My consultant uses *anno* very infrequently and in such ways that it seems to be a fossilized form reserved only for specific contexts (mostly in locational and temporal uses). For this reason, defining the boundaries of *-o* is left for further research.[19]

4.4 Number/gender suffixes

Demonstrative forms are obligatorily marked for number and gender and agree with the nouns they modify (or substitute for, in the case of pronominal forms). The suffixes used to mark number and gender on demonstratives are identical to those that obligatorily occur on nouns. These are outlined in Table 6 below.

[19] Whether *anno* has become less productive for speakers of New Blackfoot in general, or only for my consultant specifically is unclear. The precise spatial delimitation of the suffix and its combination with the *ann* stem in New Blackfoot speech communities is unclear.

Table 6 - Nominal gender and number markers

Gender	Singular	Plural
Proximate (animate)	*-wa*	*-iksi*
Obviative (animate)	*-yI*	
Inanimate	*-yi*	*-istsi*

For Blackfoot nouns, there is a strong correlation between sentience and grammatical animacy, such that all sentient nouns are grammatically animate, and most non-sentient nouns are grammatically inanimate. Some non-sentient nouns, however, are grammatically animate: e.g. *isttoán* 'knife', *issk* 'pail', *iihtáípii'poyo'p* 'telephone'. For my consultant, the agreement between demonstratives and their nouns is often based on sentience rather than grammatical animacy, especially when the lexical noun is omitted and a pronominal demonstrative form is used to reference the object in question. In (62), the referent of the demonstrative is a telephone (*iihtáípii'poyo'p*) which in Blackfoot is grammatically animate, however the speaker uses an inanimate ending on the demonstrative (in agreement with its non-sentience) and an animate ending on the noun (marking its grammatical animacy).

(62)	Ma	Ayme,	kokkit	ánn**i**	iihtáípii'poyo'p**a**.
	ma	Ayme	kokki-t	ann-**yi**	iiht-á-ipii.-i'poyi-o'p-**wa**
	DSC	Ayme	give.INV-IMPV	DM-**IN.SG**	INST-DUR-far-speak-NOM-**3.SG**
	"Hey Ayme, give me that phone."				

When asked, the consultant comments that the animate ending may also be used on the demonstrative with no change in meaning. Thus agreement based on sentience and agreement based on grammatical animacy seem to be in free variation, at least for my consultant, and very likely many speakers of New Blackfoot (A. Chatsis, p.c.).

In addition to number and gender, Blackfoot distinguishes between multiple animate third persons by a system of obviation. This type of system is common in Algonquian languages and is employed as a method for distinguishing third persons by indicating point of view, topic, or focus

(Mithun 1999:76). In Blackfoot, the obviation system designates either the topic or focus of the clause and a separate (though related) system of direct/inverse marking is used to indicate point of view (Bliss 2005). In a clause with more than one animate third person, the animate object that is the focus or topic of the clause is marked as proximate (3rd person; referred to as major 3rd person by Frantz 2009) and the others are marked as obviative (4th person; termed minor 3rd person by Frantz 2009). Third persons involved in the clause need not necessarily be arguments of the verb to have their obviation status affected. For example, possession also plays a role in the system in that any possessed third person is obligatorily obviative. When a demonstrative is used in conjunction with a possessive noun phrase with an overt possessor, then the demonstrative must agree with the overt possessor, as in (63) in which *ánna* agrees with the possessor *akííwa* rather than the *óomi*.

(63)	Ánn**a**	aakíí**wa**	óom**i**	á'pao'takiyináyi
	ann-**wa**	aakíí-**wa**	o-oom-**yI**	á'páo'taki-yini-áyi
	DM-**3.SG**	woman-**3.SG**	3.POSS-husband-**4.SG**	work.DUR-4.SG-DTP
	"That woman's husband is working."			Frantz (2009:49[f])

However if the possessor is only marked by possessive morphology on the noun stem, then the demonstrative agrees with the possessed noun, seen in (64) in which *anni* agrees with *óomi* rather than the unspecified spouse expressed by the possessive prefix *o-*.

(64)	Ann**i**	óom**i**	á'pistitsiminaistsi	
	ann-**yI**	o-oom-**yI**	á'pistitsim-yini-aistsi	
	DM-**4.SG**	3.POSS-husband-**4.SG**	make.TI-4.SG-DTP	
	"Her husband made them."			Franz (2009:49[k])

A morphophonological variation observed in the number/gender suffixes is the absence of singular morphology when the interior geometric configuration suffix *-o* is present. The forms *amo* and *anno* are used in Uhlenbeck's (1912, 1938) transcriptions as proximate, obviative, and

inanimate singular forms. Uhlenbeck (1938) lists *amoi* as an animate form, however in the examples he gives it is unclear whether the final /i/ is from the obviative suffix *-yI* or the RRC suffix *-ya*. Frantz (2009) on the other hand lists examples of *amoyi* indicating that for his conslutants, the inanimate singular and obviative singular suffixes co-occur with *-o*. However forms with *-o* and *-wa* never appear in any of the previous literature. Additionally, this suffix does not only affect the singular suffixes. Plural forms are still marked with *-iksi* or *-istsi* however the first vowel of the suffix is often absent, yielding *amoksi* and *amostsi*. This alternation is more common with the animate plural form (*-iksi*) than the inanimate plural form (*-istsi*).

4.5 Referent/region configuration suffixes

Uhlenbeck (1938:78) identifies three suffixes that are found primarily on demonstrative stems: *-ya, -ma, -ka*.[20] He refers to these as "restrictive endings" noting that although their meanings require further investigation, their uses add "particular emphasis to the words they are attached to". Uhlenbeck also identifies a fourth ending *-hka* which he labels a relative suffix.[21] Taylor (1969) groups all four of these suffixes together, calling them "suffixes of spatial/temporal proximity". Like Uhlenbeck, Taylor states that their meanings are unclear, but that "distance in space and time from the speaker appear to increase from -ma- through -Ska-" (1969:201). Taylor adds that it is possible that these suffixes encode other categories of meaning, such as qualities of visibility or movement, but that more work is needed to determine their precise meanings. Frantz (2009:66) calls these suffixes "post-inflectional suffixes" referring to their position in the demonstrative template immediately following the inflectional gender/number suffixes. His glosses are presented below in Table 7.

[20] Uhlenbeck lists these suffixes as *-i(a), -m(a),* and *-k(a)* respectively.
[21] Uhlenbeck lists this ending as *-χk(a)*, *-xk(a)*, or *-sk(a)* depending on its phonological context. Taylor spells this ending -Ska-, where capital-S represents a phoneme that has the shape of [s], [x], or [χ], depending on the context.

Table 7 - Frantz's (2009) post-inflectional suffixes

Suffix	Gloss
-ma	'stationary'
-ya	'moving, but not toward speaker'
-hka	'not visible to the speaker'
-ka	'proximity information in the demonstrative is relative to location of the speaker or addressee at a time other than the time of the speech act'

Because these four suffixes occupy the same slot in the demonstrative template, I argue that their meanings ought to share a common property. While two of Frantz's suffix glosses refer to aspects of motion (*-ma* and *-ya*), the other two do not (*-ka* and *-hka*). Imai (2003) groups features of motion together with those of visibility under the heading of referent/region configuration as they both refer to qualities of the referent relevant to its position in the surrounding region. Since Frantz glosses *-hka* as 'not visible to speaker', according to Imai's parameter groupings this suffix is part of the same grouping as the two motion suffixes. Among the 432 languages examined, Imai (2003) finds only one feature similar to Frantz's "other time" gloss provided for *-ka*. In Cebuano (Austronesian, Phillipines), different locational forms are used based on the tense of the verb in the clause. For the future and past forms, the spatial demarcation information refers to times other than the speech act. However these forms differ from Frantz's in that the former indicate specific time with reference to the speech act (namely past and future). Frantz's gloss of *-ka* does not indicate whether the "other time" encoded by the suffix is past or future. For this reason, I propose an alternate analysis of this suffix that forms a more coherent category with the other three suffixes. In §4.5.1 through §4.5.4, I present evidence for analyzing the suffixes *-ma*, *-ya*, and *-ka* as markers of referent/region configuration (RRC) which, when used situationally, encode states of motion. I define *-hka* as a referent/region configuration (RRC) marker that encodes invisibility or indiscernibility in situational uses. My proposal is outlined in the following table.

Table 8 - Spatial meanings of referent/region configuration suffixes

Suffix	Gloss (Situational Uses)
-ma	'motion: stationary'
-ya	'motion: away from anchor, around (to and fro); presentative'
-ka	'motion: toward anchor, back (along a path)'
-hka	'visibility: indiscernible, invisible'

4.5.1 *-ma*: stationary

The suffix *-ma* is by far the most common in the textual data I analyzed, occurring more often than occurrences of *-ya, -ka,* and *-hka* combined. Additionally, *-ma* occurs in situational uses more often than the other referent/region configuration suffixes. That *-ma* refers to the stationary state of its referent can be demonstrated by examining the referents that are found in Uhlenbeck's (1938) examples. The following objects are those that occur with situational uses of demonstratives containing the suffix *-ma*.

(65) forest, lake, lodge, carcass, large rock, tree, large tree, willow, a sitting bird, grazing herd of elk, grazing herd of buffalo, island, mountain, butte, berries, camps, dance (the event, not the activity), moccasin, abandoned wagon, meat, sleeping man

This list is made up largely of immobile entities. Those objects that are mobile are often explicitly described as being in a state of rest or temporary motionlessness (i.e. sitting, sleeping, grazing, camping) as in (66).

(66)	Stámitotò	omím	ikúnaiìiim.[22]
	sotam-it-o'too-wa	om-yi-**ma**	okonnaayi-yi-**ma**
	UNQ-DCT-arrive.AI-3.SG	DD-4.SG-**STAT**	IC.camp.AI.NOM-4.SG-**STAT**
	"He then got to **the** people that were camping."		Uhlenbeck (1938:38)

[22] It appears here that *-ma* is affixed to a verb, however animate intransitive verbs are identical to their nominalized counterparts (Frantz 2009:114). Thus *okónnaayi* 'he camped' and *okónnaayi* 'the one who camped' have the same form. So although *ikúnaiìiim* looks like a verbal form, it is syntactically functioning as the oblique argument of *stámitotò* licensed by the deictic preverb *it-. Omím* is an adnominal demonstrative in agreement with the nominal *ikúnaiìiim*.

The suffix *-ma* is also used with the stem *ann* and the interior geometric configuration suffix *-o* to indicate referents (usually sentient) that "belong" to a certain place, either as residents of that place as in (67), or as naturally occurring there as in (68) below.

(67) ánistsíu annóm matapiuam
waanist-yii-wa ann-o-**ma** matápi-wa-**ma**
tell.TA-DIR-3.SG DM-INT-**STAT** person-3.SG-**STAT**
"He told **these** people **here.**" Uhlenbeck (1912:126; 1938:39)

(68) Stámisksinìm **annóma** máts-its-i-piksì-uats.
sotam-ssksini-ma **ann-o-ma** maat-niit-ipi'ksíí-waatsiksi
UNQ-know.TI-3.SG **DM-CG-STAT** NEG-genuine-bird.IC-3.SG.NAF
"Then he knew, that the bird did not belong to **this country**." Uhlenbeck (1912:65)

Likewise, the English locational adverbs 'here' and 'there' are often found in English translations of Blackfoot stories as equivalents of the words *annóma* 'here' and *omíma* 'there', which are formed from the *ann* and *om* stems respectively and combined with the *-ma* suffix (in addition to gender/number suffixes). Although these are classified as adverbs in English, they are often pronominal forms in Blackfoot and may also be translated with the phrase "at this/that place". I discuss adverbial uses of *-ma* further in §5.2.3.

4.5.2 *-ya*: motion away from speaker

In situational uses, *-ya* is often suffixed to demonstratives that have as their referents objects which are being handed from the speaker to the addressee. One example of this is given here in (69).

(69) Amóia kámiχtàu.
am-o-**ya** kaamihtan-wa
DP-INT.3.SG-**MA** dried.dung-3.AN Uhlenbeck (1938:79)
"Here is a buffalo-chip." (Context: said as it was handed from speaker to addressee)

Imai (2003) refers to this as the functional feature [offerative] which is distinct from the referent/region configuration feature that encodes motion away from the anchor. Although these two features are very similar, the offerative form includes in its meaning the willful delivery of the referent from the speaker to the addressee.

However the Blackfoot suffix *-ya* marks more than just the [offerative] feature. In fact, the offerative function is a secondary feature of this suffix. Its broader function is to indicate movement, and more specifically, movement away from the speaker. In (70) below, the direction of the movement of the coyote in the sentence is unclear, but the contextual note indicates that the coyote is "passing by" which may be understood as movement away from the speaker, even if not in a direct path from the speaker.

(70)	ómai**ia**ie	api'si	
	om-wa-**ya**-ayi	aapí'si	
	DD-3.SG-**MA**-ID	coyote	
	"That is a coyote (passing by)."		Uhlenbeck (1938:86)

In (71) the direction of the movement away from the speaker is made more explicit by the meaning of the verb *ipikssi* 'flee, run away in fright' which implies motion away from the deictic center.

(71)	Amó**i**	einíuai	itsistokipiksiu.	
	Am-o-**ya**	iiníí-wa-ya	it-isttok-ipikssi-wa	
	DP-INT-**MA**	buffalo-AN-MA	then-rhythmic.noise-flee.AI-3	
	"Those buffalo fled noisily."			Uhlenbeck (1938:38)

And in (72) the running man (Napi) in the narrative is described as running toward, past, and then away from the chief who is the speaker of the following statement.

(72) Ánna**ia**uk nápiua
ann-wa-**ya**-ao'ka nápi-wa
DM-3.SG-**MA**-ID old.man-3.SG
"That is the Old Man." (Context: a chief watches Napi run past him, and afterwards realizes who he is) Uhlenbeck (1912:66)

The fact that *-ya* combined with the proximal stem *am* yields the offerative function is a byproduct of the meanings of these two forms. If an object is close enough for the speaker to touch but is moving away from the speaker, it will sometimes be the case that it is the speaker causing the referent to move away as it is handed to another person, especially in the case of inanimate referents. Thus, the [offerative] feature is not the primary feature of the suffix, but results from a combination of the meaning of the proximal stem and the meaning of movement away from the speaker encoded by *-ya*.

4.5.3 *-ka*: motion toward speaker

Determining the situational meaning of the suffix *-ka* presents a few challenges. First, this suffix occurs much more frequently in anaphoric uses than it does in situational ones. This is likely the reason that Frantz (2009) defines *-ka* as an 'other time marker'. Since most Blackfoot narratives are about past events, and *-ka* shows up most often in anaphoric uses, the most identifiable semantic feature of its referents would be past-time. I propose instead that this suffix encodes motion toward the anchor, and has an extended spatial meaning of back or behind which, when used metaphorically in the temporal domain, means past time. These concepts are illustrated in Figure 10 below.

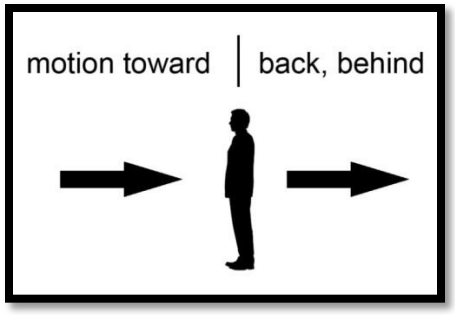

Figure 10 - Basic and extended spatial notions of *-ka*

A situational use of *-ka* is given here in (73).

(73) Itápstò: ámo**k** nimoχtóto.
it-a'pssto-wa am-o-**ka** ni-omoht-o'too
DCT-make.signs.TA-3.SG DP-INT-**MT** 1-SRC-arrive.AI
"He [the leader] made a sign [to the camp]: over **that way** I came." Uhlenbeck (1912:81)

In this example, the translation of *ámok* into English as 'over that way' seems odd for two reasons: first, the use of a distal demonstrative form "that" to describe the path of motion encoded by "come" is awkward if not infelicitous in English; second, the Blackfoot demonstrative stem used is the proximal form *am* which is usually translated into English with "this" or "here" in situational uses. Because gesture is one of the defining characteristics of situational uses of demonstratives (cf. §5.1.1), it is unlikely that this is a non-situational use of *ámok* since the preceding word *itápstò* 'he made a sign' indicates that the speaker is gesturing as he speaks.

In (73) the motion verb *o'too* 'arrive' indicates motion toward the deictic center, as 'come' and 'arrive' do in English. However the Blackfoot verb also has a prefix *omoht-* which indicates 'path' or 'source'. In English the path of motion toward the speaker would usually be expressed with a proximal form, as in (74). This is because the path being referenced is what led to the present location. Thus the endpoint of that path is nearby, if not exactly where the speaker is located.

(74) I came this way.
I came that way.

However, it is more natural to express the source of the motion toward the speaker with a distal form, since a proximal form would indicate that little if any movement actually occurred.[23]

(75) I came from there.
I came from here.

To account for the awkwardness of the English translation provided for the Blackfoot form *ámok*, I propose that the best gloss for *-ka* is 'motion toward the deictic center'. Given this definition of *-ka*, the addition of this suffix allows the demonstrative form to indicate both the path's proximal endpoint as well as its non-proximal origination. Because the prefix *omoht-* signals both path and source, and the demonstrative indicates a proximal path with *am* and a non-proximal source with *-ka*, the English translation must either sacrifice some part of the meaning, or combine the two in an awkward way in order to express the full meaning. The latter strategy is used in the translation of (73).

A similar example of this combination of proximal and distal meanings achieved by adding *-ka* to the *am* stem, this time without the *omoht-* prefix, is given in (76) below.

(76)	Otánik	omí	àké:	**Ám**o**ka**ie	einíu.
	ot-waanist-k-wa	om-yi	akii-yi	**am**-o-**ka**-ayi	iiníí-wa
	4-tell.TA-INV-3.SG	DD-4.SG	woman-4.SG	**DP**-INT-**MT**-ID	be.buffalo.AI-3.SG
	"He was told by that woman: **There** are buffalo **coming this way**."				Uhlenbeck (1912:197)

[23] Contexts in which "I came from here" would be uttered are easily contrived. But in describing a simple movement from point A to point B, where points A and B are not the same point and are more than a few feet apart, "I came from here" is not felicitous in situational uses.

In this example, the Blackfoot sentence does not contain a verb that means "come" but the English translation does. Additionally, the English translation contains the phrase "this way" which is an attempt to capture the full meaning of *ámokaie*. These directional components are a result of the suffix *-ka* encoding motion towards the speaker, in conjunction with the stem *am* encoding the proximal endpoint of the motion. The verb in this sentence is *einiu* 'buffalo', which is both the 3rd person singular noun form and also the animate intransitive verbal form (cf. 'predicate nominatives' in Frantz 2009:24). The use of the dependent demonstrative identificational suffix indicates that this is a verbal form (identificational suffixes are discussed in detail below in §4.6).

An extension of this suffix's meaning of "motion toward the speaker" is "back, behind". These meanings can be understood as logical extensions of "motion toward the speaker" since a referent moving toward the speaker will eventually reach the speaker, and continued motion will result in the referent being behind the speaker. The meaning of "back" is often used when a person is described as going back along a trail the way they came. The sentences in (77) and (78) illustrate this extended use of *-ka*.

(77) ki **amók** ótapisìni**k** itsinóksistotoyiau
ki **am-o-ka** ótapi'sin-yi-**ka** it-inok-istoto-yii-yi-aawa
and **DP-INT-MT** group.people-4.SG-MT DCT-happy-make.feel.TA-DIR-3.PL-AP
"And then they told the happy news to **these** people **behind**." Uhlenbeck (1912:79)

(78) **Ánniksikaie,** kanáitapiua itáutsistsisomau.
ann-iksi-ka-ayi kana-itapi-wa it-á-ot-istsisoma-wa
DM-AN.PL-MT-ID all-people-3.SG DCT-DUR-go.do-hide.AI-3.SG
"**Behind those** [piles of stones] all the people were hiding." Uhlenbeck (1912:39)

A further extension of this use is in temporal phrases with the meaning "long ago", i.e. back in time. While the suffix *-ka* is commonly used in conjunction with the word *apatoχts* 'long ago;

behind', even without overt temporal expressions, when it is affixed to the distal demonstrative stem there is an interpretation of past time. One such example is given here (79).

(79) **Omík**, einíua otsítsakaiχtsiχp,
om-yi-ka iiníí-wa ot-it-saaki-á-ihtsi-hp-yi
DD-IN.SG-MT buffalo-3.SG 3-DCT-still-DUR-be.AI-CN-IN.SG
"**Long ago**, when there were still buffalo,"

nótàsinaniks nitsiíkitokakiχpinàni.
n-ota's-innaan-iksi nit-iik-itokaki-hpinnaan-yi
1-horse-1.PL.POSS-3.PL 1-very-take.good.care-1.PL-3.PL
"we took very good care of our horses." Uhlenbeck (1912:223)

While situational uses of *-ka* most often have the meaning of "motion toward", the extended temporal meaning emerges more often in anaphoric uses.

4.5.4 *-hka*: invisible, indiscernible

Of the referent/region configuration suffixes, *-hka* is the most challenging to define. One reason for this is that in New Blackfoot the use of *-hka* is largely restricted to a few fossilized forms. A second reason is that most of the occurrences of this suffix — both in Uhlenbeck's texts, as well as in the speech of my consultant — are non-situational. As I show in §5.1.4, this suffix is used most frequently as a marker of recognitional and possibly determinative uses. A third reason why *-hka* is difficult to define is the existence of a homophonous morpheme that also occurs on demonstrative forms. I suggest that this homophonous *-hka* must be distinguished from the RRC suffix *-hka*.

Uhlenbeck (1938) distinguishes the suffix *-hka* from the other three RRC suffixes, classifying it as a relative suffix. His analysis of *-hka* as a relative suffix is based in part on its apparent tendency to attach to verbs as well as demonstratives and nouns. However forms with the RRC suffix are often translated with English demonstratives rather than relative pronouns, and in

most cases it is difficult to see how the demonstrative suffixed with *-hka* could be part of a relative phrase, as in (80).

(80) áuauàtsinαm omá**χk**
á-waawatt-ináám-wa om-wa-**hka**
DUR-move-appear.AI-3.SG DD-3.SG-**hka**
"That one is moving." Uhlenbeck (1938:99); cf. Frantz & Genee (n.d.)

Because the sentence is in isolation, there is no matrix clause to which the proposed relative clause may be subordinated. The demonstrative itself is not a separate subordinate clause as there is no identificational morpheme suffixed to the demonstrative stem (see §4.6 for discussion of identificational suffixes).

Taylor (1969:201) is the first to suggest that there are actually two homophonous suffixes, one of them a relative suffix and the other a RRC suffix (his "spatial/temporal proximity" suffixes). Frantz (2009) follows Taylor's treatment of tokens of *-hka* as one of two homophonous morphemes. That there are two different morphemes is seen in (81) where the *-hk(a)* suffix appears out of place in the demonstrative template (i.e. after the identificational suffix instead of before it). Since morpheme order is largely fixed in Blackfoot, the occurrence of a morpheme in multiple slots more likely indicates homophonous morphemes than variable placement within the template.

(81) Ánnauki**χk** omá Nápiua mátα**χ**tapauàuaχka**iiχk**.
ann-ao'k-yi-**hk(a)** om-wa napi-wa matt-oht-a'p-á-waawahkaa-**yi-hk(a)**
DM-ID-IN.SG-**hka** DD-3.SG old.man-3.SG again-PATH-around-DUR-walk.AI-**yi-hka**
"There the Old Man was again travelling about." Uhlenbeck (1912:171)

The function of *-hka* when it is not used to mark referent/region configuration is not clear. In (81) *-hka* does not seem to be functioning like a relative suffix since both the verb and the

identificational demonstrative are marked with it, leaving no verbal element to function as the matrix clause. However, because this suffix is not found primarily on demonstratives and appears to be associated with the verbal domain, an investigation of its meaning and function is beyond the scope of this thesis. Its relevance to the present discussion is that there are two similar if not identical morphemes that must be distinguished in the evaluation of the RRC suffix *-hka*.

Frantz (2009) proposes that the non-relative *-hka* is used to refer to referents that are "not visible to the speaker" (2009:66). Imai (2003) describes two types of visibility features that occur in demonstrative systems cross-linguistically: one is invisibility due to distance [invisible-remote] and the other is invisibility due to an obstacle in the line of sight [invisible-occlusion]. I propose that situational uses of *-hka* encode both types of invisibility, but that the feature [invisible] is broader in meaning in Blackfoot than Imai's definition (2003:55-61). The suffix *-hka* includes not only invisibility, but also uncertainty about the identity of the referent as a result of being unable to see the object clearly. Thus I define *-hka* as encoding the feature [invisible], but that the meaning of this feature is expanded to include referents that although visible, are indiscernible. Example (80) above demonstrates one instance where the meaning of [invisible] must be expanded. The verb *áuauàtsinɑm* contains the verbal root meaning "it appears; it looks like" entailing the referent's visibility. In the story from which (80) is taken, the sentence immediately prior indicates that the speaker is very far from the referent and that he is unsure what the object is. The referent here is an old woman lying along a path. The speaker describes her as "something black on the trail ahead" using the inanimate singular form *omihka* to refer to her, indicating that he is not even aware that it is a person. Thus it is a surprise when that something starts moving. Although the object is visible, its identity is indiscernible due to the distance between the speaker and the referent.

The sentence in (82) below demonstrates the [invisible-remote] feature encoded by *-hka*.

(82) Ki ómaχkauka Nápiua. Áuksiksisò.
ki om-wa-**hka**-ao'ka napi-wa á'-ok-iksi's-oo-wa
and DD-3.SG-**INVS**-ID old.man-3.SG INCH-just-out.of.sight-go.AI-3.SG
"And there the Old Man went. He had gone out of sight." Uhlenbeck (1912:170)

The English translation here is revealing in that it adds a motion verb in the past tense to account for the invisibility encoded by *-hka*. Without *-hka* the identificational demonstrative *ómauk(a)* would usually be translated "there he is/was". Additionally, the following clause explicitly states that Napi[24] had just passed out of sight. Thus the suffix *-hka* is used to indicate that Napi is no longer visible. Rather than pointing out his location, the identificational demonstrative points out the direction Napi went before he left the field of vision, expressed by the English phrase "there he went".

An example of *-hka* encoding the [invisible- occlusion] feature is provided in (83).

(83) Ámoχkauk, nitsíniχtatau.
am-o-**hka**-ao'ka nit-innihtat-aa-wa
DP-INT-**INVS**-ID 1-boil.TA-DIR-3.SG
"Here it is, I put it in the pot." Uhlenbeck (1912:194)
(Lit.: Here it is. I boiled it.)

The referent here is meat from an antelope that the speaker (Napi) claims to have just killed and cooked. Although the referent is very close to the speaker (hence the *am* stem), it is in a pot of boiling liquid and therefore difficult to see, if not obstructed completely by a lid. Furthermore, in the story, Napi did not actually kill and cook an antelope, but is cooking the children of his addressee. This provides further evidence for the indiscernibility of the referent, as the parents of the children do not realize what it is that is actually in the pot.

[24] *Napi* means 'old man' in the generic sense but also 'Old Man' referring to a trickster-creator character in Blackfoot traditional stories. Thus when Old Man is capitalized in Uhlenbeck, I refer to him as Napi as he is more commonly known in literature on Blackfoot traditions and stories.

In addition to these two types of invisibility, I also propose that *-hka* encodes a third type: invisibility due to the nature of the object, namely supernatural entities that are invisible in their normal state. This is illustrated in (84).

(84)	Itstsíi	istαχpéksiks.	Ánnik**ska**ie	nitáistunnoanàniau.
	itstsii-yi	isstahpikssi-iksi	ann-iksi-**hka**-ayi	nit-á-sstonno-aa-nnaan-yi-aawa
	exist.AI-3.PL	haunting.spirits-3.PL	DM-3.PL-**INVS**-ID	1-DUR-fear.TA-DIR-1.PL-3.PL-AP
	"There are haunting spirits. That are those, we are afraid of."			Uhlenbeck (1912:58)

In this case, it is neither distance not occlusion that causes the imperceptibility of the referent, but a quality of the referent itself. I term this feature [invisible-quality]. Given that both [invisible-remote] and [invisible-occlusion] may apply to referents that are visible but indiscernible, it is likely that [invisible-quality] may be used to refer to objects that are naturally visible but indiscernible, such as very small items. However I have not yet observed *-hka* used to refer to such objects and must leave evaluation of this hypothesis to future research.

4.6 *-ayi* and *-ao'ka*: identificational suffixes

The last slot in the demonstrative template is occupied by the suffixes *-ayi* and *-ao'ka*. These two suffixes most often occur in nonverbal clauses (which, as discussed above in §3.2.1.3, is characteristic of demonstrative identifiers). Uhlenbeck refers to demonstratives with these suffixes as "verbalized demonstratives" but does not offer any explanation as to the difference between the two forms (1938:78). In Taylor's data, these suffixes do not occur very frequently such that he does not identify *-ao'ka* at all and leaves the definition of *-ayi* for further research, adding that its use is optional in most syntactic environments (1969:212). Frantz states that these two suffixes are used in "equative and existential clauses without a verb" and that this usually results in English translations with the verb "be" (2009:68).

My analysis of Uhlenbeck's texts conforms with Uhlenbeck and Frantz's generalization that these suffixes are frequently found on demonstratives in nonverbal clauses, but I would add that they do not occur exclusively in nonverbal clauses. Whereas previous descriptions have not captured the distinction between the two identificational suffixes, I propose that there is a syntactic condition that determines which of the two forms is affixed: *-ayi* is used when the demonstrative phrase is a part of the argument structure of another clause; *-ao'ka* is used when the demonstrative is itself an entirely independent clause. This distinction is demonstrated in (85) through (90) below. In (85), the identificational demonstrative acts as the subject of the following verb.

(85)	Ámok**aie**	nitápaskok	
	am-o-ka-**ayi**	nit-a'pássko-ok-wa	
	DP-INT-MT-**ID**	1-chase.TA.DUR-INV-3.SG	
	"Here **comes** one chasing me."		Uhlenbeck (1912:189; 1938:88)

Often, phrases with identificational suffixes are translated into English using a form of the verb "to be", however in this case, the suffix *-ka* indicates motion toward the speaker. I suggest that this is why "comes" is used rather than "is": to convey the sense of motion expressed by *-ka*. Because noun phrases containing demonstratives with the *-ayi* suffix are part of the argument structure of the following verb, their English translations often involve a relative phrase or participial phrase in order to connect the two clauses. Without the *-ayi* suffix in (85), the translation would likely be "This one is chasing me."

Another example is given in (86). In this example, the identificational phrase is again the subject of the following verb *itáukunàiiu* 'he was camping there'.

(86) Annám**aie** nínau Punákiksi itáukunàiiu.
ann-wa-ma-**ayi** ninaa-wa Punakiksi it-á-okonnaayi-wa
DM-3.SG-STAT-**ID** chief-3.SG Cut.Bank.River DCT-DUR-camp.AI-3.SG
"Long ago[25] there **was** a chief, [who] camped on Cut-bank river." Uhlenbeck (1912:64)

In (86), the English translation provided by Uhlenbeck contains two clauses linked by a relative pronoun 'who'.[26] However both the chief and the demonstrative identifier that introduces him are marked with the proximate singular ending *-wa*. That the verb is also suffixed with *-wa* indicates that the chief is a verbal argument. Since the verb is intransitive, the chief must be the subject as it is the only argument position available.

In (87) on the other hand, the demonstrative with the *-ao'ka* suffix is a completely independent clause.

(87) Itanístsiua amí ponokáistamiki: Ki ómam**auka** kitoχkémana'a.
it-waanist-yii-wa om-yi ponoka-stamik-yi ki om-wa-ma-**ao'ka** kit-ohkiimaan-wa
DCT-tell.TA-DIR-3 DD-4.SG elk-bull-4.SG and DD-3.SG-STAT-**ID** 2-wife-3.SG
"He told the elkbull: And over there **is** your wife." Uhlenbeck (1912:96)

Although there is a verb in (87) in addition to the demonstrative phrase, the verb *itanístsiua* 'he told him' sets up a direct quotation. Within the direct quotation, there is no verbal form aside from the demonstrative identifier (whose verbal properties are discussed below). Although Blackfoot verbs may be derived from nouns by the addition of verbal morphology, this is not the case for *kitoχkémana'a*. On Blackfoot nouns, *kit-* marks 2nd person possession, but on verbs *kit-* indicates

[25] The "long ago" of the English translation seems to come from the non-situational use of the demonstrative. As discussed below in §5.1.2, *ann* usually does not introduce new information, but its use at the first mention of the first character of a narrative seems to be a formulaic phrase that some storytellers used to begin a new story, like the English phrase "once upon a time". In the data I analyzed, there are three such occurrences, all from the same speaker.
[26] The fact that the relative pronoun is in brackets indicates that this word was not provided by the consultant but was added by Uhlenbeck to make the English sound a little more natural (see prefaces of Uhlenbeck 1911; 1912; 1915).

that there is a 2nd person argument in the clause. If *kitoχkémana'a* were a verb, then the possessive prefix *kit-* would have to be interpreted as person agreement morphology. Because the noun is already suffixed with the 3rd singular morpheme -*wa*, any additional person agreement morphology would require a transitive stem. However Frantz (2009:24) points out that verbalized nouns are intransitive verbs. Thus, *kitoχkémana'a* is a noun and the identificational demonstrative is not an argument in another clause. Another example of the independent identificational suffix is given in (88).

(88)	Nisámi	ámoi**auk** ,	kítoχkot.	
	ni-saaám-yi	am-o-yi-**ao'ka**	kit-ohkot	
	1-medicine-IN.SG	DP-INT-IN.SG-**ID**	2-give.TA	
	"Here **is** my medicine, I give it to you."			Uhlenbeck (1912:57)

Although the two clauses in (88) are punctuated as a single sentence, in Blackfoot the two clauses are independent of one another. Usually *kítoχkot* 'give' requires only an animate subject and another animate argument who is the recipient; the object given need not be specified in the same clause.[27] The "it" in the translation is necessary because "give" is a double object predicate in English, but it need not correspond with any overt pronominal in Blackfoot. Thus the two clauses in (88) are independent of each other. Furthermore, as in (87) above, that *nisámi* is not a verbalized noun is evidenced by the presence of the possessive prefix *ni-*. If *nisámi* were a verbal form, it would mean "I am medicine" which is not what is expressed in the English translation provided by Uhlenbeck.

Although the English translations provided often offer clues to the Blackfoot structure, in sentences with identificational suffixes, the English translations may be misleading. For example,

[27] According to D. Frantz (p.c.), the verb *ohkot* 'give' may occur with a third (oblique) argument without any additional verbal morphology. I have not found an example of this construction with this verb in my textual data. There is a verb *okot* 'give' that takes transitive animate morphology and an object (Uhlenbeck 1912:78). This verb may either be related to *ohkot* or be the same verb with some phonological variation.

(85) above (repeated here as (89)) and (90) below are translated in very similar ways, although structurally they are different in Blackfoot.

(89) Ámok**aie** nitápαskok
am-o-ka-**ayi** nit-a'p-á-ssko-ok-wa
DP-INT-MT-**ID** 1-around-DUR-chase.TA-INV-3.SG
"Here **comes** one chasing me." Uhlenbeck (1912:189; 1938:88)

(90) Ámok**auk** omáma óχkotoki áukskasakiua
am-o-ka-**ao'ka** om-wa-ma óóhkotok-yi á-okska'sat-ok-iwa
DP-INT-MT-**ID** DD-3.SG-STAT rock-IN.SG[28] DUR-run.after.TA-INV-3>21
"Here **comes** that rock running after us (inclusive)." Uhlenbeck (1938:81)

In (89), the identificational phrase is the subject of the verb *nitápaskok* 'he is chasing me'. The identificational phrase in (90) on the other hand is separated from the second clause by another noun phrase which serves as the subject of the verb *áukskasakiua* 'he is running after us'. The noun phrase *omáma óχkotoki* is not part of the identificational phrase as evidenced by the presence of two different RRC suffixes on the demonstrative forms. The *-ka* on the first demonstrative and the *-ma* on the second indicate that although they may point out the same referent, they are not part of the same clause. To convey the difference between *-ayi* and *-ao'ka* in English, a more literal translation of (89) might be "Here comes that one who is chasing me" and of (90) "Here it comes — that rock is running after us."

Two final illustrations are provided to demonstrate the different syntactic contexts of the two forms. In (91) the fact that the identificational clause is independent from the first clause is seen in the shift in obviation morphology.

[28] The rock in this sentence is inanimate, but the adnominal demonstrative form that accompanies it has the animate singular suffix *-wa* rather than the inanimate singular suffix *-yi*. I believe this is because the rock is being personified in this sentence. Likewise for my consultant (cf. §4.4), agreement based on sentience outranks agreement based on grammatical animacy.

(91)	Omá	nínau	sotámsksinoyiuaie.	Ánnai**auk**	nápiua.
	om-wa	ninna-wa	sotam-sksino-yii-wa-ayi	ann-wa-ya-**ao'ka**	napi-wa
	DD -3.SG	chief-3.SG	UNQ-know.TA-DIR-3.SG-DTP	DM-3.SG-MA-**ID**	old.man-3.SG

"That chief$_3$ then knew him$_4$: That$_3$ **is** the Old Man$_3$." Uhlenbeck (1912:66)

In the first sentence in this example, the chief is marked with proximate singular suffix *-wa* and the Old Man is marked with the obviative suffix *-yi*.[29] However in the identificational phrase, the Old Man that the chief saw running by is marked with the proximate ending *-wa*. If the two clauses were part of a single sentence, then the obviation morphology would be consistent throughout. The shift in obviation status indicates that the two clauses are independent of one another. Thus the identificational suffix *-ao'ka* is used because the identificational demonstrative is not a verbal argument of the first clause.

On the other hand, in (92) the identificational phrase is part of a verbal clause with *áistuyimstàu* 'he is causing the cold weather'.

(92)	Sotámssksinoàu:	Ómaχk**aie**	áistuyimstàu.
	sotam-sksino-aa-wa	om-wa-hka-**ayi**	á-sstoyíímsstaa-wa
	UNQ-know.TA-DIR-3.SG	DD-3.SG-INVS-**ID**	DUR-cause.cold.weather.AI-3.SG

"Then he was known: That **is** he that makes the cold weather." Uhlenbeck (1912:67)

The structure of the first verb here is similar to the first verb in (91).[30] However the identificational suffix *-ayi* is used because *ómaχkaie* is an identificational phrase, but is also the subject of *áistuyimstàu*, making it an argument of that clause.

In addition to their distinct syntactic environments, *-ayi* and *-ao'ka* also differ in that *-ao'ka* can take certain verbal suffixes, whereas *-ayi* cannot. In (93) below, the identificational

[29] Obviation morphology is discussed above in §4.4.

[30] The only difference between these two verbal forms is that in (92) the "unspecified subject" form is used, indicated by the lack of first and second person morphology and the presence of the direct morpheme *-aa* which is used when there is only one third person participant. A more literal English translation of the first clause would be "someone then knew him".

demonstrative takes the 3rd person plural nominal suffix before the identificational suffix, as well as the 3rd person plural verbal suffix after the identificational suffix.

(93)	Ki	ómikskauk**iau**	tάmoχtapauàuaχkàiau.
	ki	om-iksi-hka-ao'k-**yi-aawa**	sotam-oht-a'p-á-waawahkaa-yi-aawa
	and	DD-3.PL-INVS-ID-**3.PL-AP**	UNQ-PATH-around-DUR-walk.AI-3.PL-AP
	"And, they then were walking about."		Uhlenbeck (1912:134; 1938:86)

Both the 3rd person plural suffix *-yi* and the attached pronoun *-aawa*[31] are strictly verbal elements. Their occurrence on demonstrative identifiers formed with *-ao'ka* provides further evidence for the independent nature of clauses that contain demonstratives marked with *-ao'ka*.

[31] "Attached Pronouns" are used when a 3rd or 4th person argument of a verb appears before the verb or is not overtly realized. They may also refer to oblique arguments. See Frantz (2009: ch. 9) for further discussion.

5 Taxonomic categories

Up to this point the data presented have been gestural situational uses of Blackfoot demonstratives. As stated in Chapter 4, because it is impossible to analyze meaning apart from pragmatic function, I limited the discussion of the morphemes in §4 to situational uses. Additionally, since previous research on Blackfoot demonstratives focuses on situational uses, I restricted the analysis of the individual morphemes to situational uses in order to more easily introduce and evaluate the spatial claims that have been made in the literature. In this chapter, I address additional pragmatic uses of Blackfoot demonstratives and provide an analysis of the system that accounts for different pragmatic functions (§5.1) as well as variations in morphophonetic form based on syntactic context (§5.2).

5.1 Pragmatic categories

In this section, I describe all four pragmatic uses of Blackfoot demonstratives in detail. I begin with situational uses, providing a review of gestural uses already covered and discussing the more abstract symbolic situational uses. Next I describe the non-situational uses, beginning with anaphoric, followed by discourse deictic, and finally recognitional uses. Whenever possible, anaphoric and discourse deictic examples are taken from a single story in order to better illustrate the strategies used to organize discourse information. This story is entitled *The Thunder-bird* (Uhlenbeck 1912:65-66) and the entire text is provided in Appendix A. In the sections that follow, examples from this story are designated "TB" along with the row number from the table in Appendix A, after the citation "Uhlenbeck (1912:65)".

5.1.1 Situational uses

Chapter 4 focused on situational uses, and more specifically, gestural situational uses. I proposed that in situational uses the demonstrative stems *am, ann,* and *om* encode the anchor feature

[speaker] and the spatial demarcation features [proximal], [medial], and [distal] respectively. The suffix *-o* is used when the referent is located in a space shared by the speaker and the addressee — Imai's (2003) [interior] geometric configuration parameter. This suffix only occurs in situational uses and temporal expressions such as *annohka* 'now'. The suffixes *-ma, -ya, -ka,* and *-hka* encode spatial deixis features of referent/region configuration related to motion and visibility. In addition to the motion and visibility features, these suffixes have secondary extended or metaphorical uses. The suffix *-ma* is frequently used to refer to a specific place, the position of which in relation to the speaker is determined by the stem. The suffix *-ya* 'motion away from speaker' is also used in offerative cases when the speaker is handing the referent to the addressee. The suffix *-hka* 'invisible, indiscernible' occurs consistently in temporal contexts, especially in the form *annóhka* 'now'. Each of the non-temporal functions fall under the subdivision of gestural situational uses (see §3.2.2 for detailed discussion of this type). The temporal uses are better defined as symbolic situational uses, discussed in detail below.

Because the present-day reader knows little about the audience or the circumstances of the narration event, it is often difficult to determine exactly how symbolic situational demonstratives function in the textual data. For example, in (94) below it is not clear whether the storyteller is using the proximal demonstrative form (i) as a means of situating himself and his audience within the narrative setting (deictic projection) or (ii) because he is physically near the river discussed in the story and is equating the narrative setting with the setting of the narration event (wider-context).

(94)	Ksiskɑniáutunìi	ototoå´χkàni,	**amóia**	niétɑχtaii	áitòtò.
	ksisskanáótonni-yi	oto-otowoohkaa-n-yi	**am-o-ya**	niítahtaa-yi	á-it-o'too-wa
	morning-IN.SG	go-find.horse.AI-NOM-IN.SG	**DP-INT-MA**	river-IN.SG	DUR-DCT-arrive-3.SG

"In the morning, when he went for the horses [to bring them into camp], he came to **this** river." Uhlenbeck (1912:65)

Since the river was mentioned by name earlier in the story, this suggests that deictic projection is a more likely explanation. If the river were close enough that it could be referred to by means of a gestural or wider-context use, then it is likely that that strategy would be used to introduce the river into the narrative. Using the river's name in the first mention suggests that the river is one whose name is recognizable, but which is not near enough to gesture toward or to be considered part of the wider-context identified by the *am* stem. Thus it is most likely that the deictic projection use of the proximal stem to refer to the river in (94) is a narrative strategy employed to make the audience feel a part of the story, though without a description of the setting of the narration event, this is not verifiable.

In (95) there is a similar example in which a lake is referred to with the proximal stem *am*. But this time, the proximal stem is used on the first mention suggesting a wider-context use, rather than a deictic projection use.

(95)	**Amóm**	ómaχksikimìm	kináutamisò
	am-o-ma	omahk-ikim-yi-ma	ikkina-á-ot-waamis-oo-wa
	DP-INT-STAT	big-water-IN.SG-STAT	slow-DUR-go.do[32]-up-go.AI-3.SG
	"He went slowly up to a lake **in this country here**."		Uhlenbeck (1912:180)

The presence of the *am* stem at the first mention of the lake and the translation of *amóm* with the phrase "in this country here" both suggest a wider-context symbolic use. Because this is the first sentence of the story and no lake or setting has yet been described, the function of *amóm* must be to ground the story in the setting of the narration event (wider-context symbolic use) rather than bringing the audience into the setting of the narrative (deictic projection symbolic use). The use of the phrase "in this country here" in the English translation is likely intended to capture this pragmatic function of the demonstrative. Additionally, since many of the narratives in Uhlenbeck's

[32] Geers (1917:100) lists *ot-* and *aut-* as "cognate with" *oto-* 'go to do (something)'.

collection speak to the Blackfeet people's connection to the land and its resources (especially the buffalo herds), it is very likely that many of these stories are set in a region to which the storyteller feels he belongs. Thus I analyze non-gestural uses of the *am* stem which refer to geographical features without an overtly expressed setting as wider-context symbolic uses. Conversely, when the *am* stem is used with geographical referents in stories where the setting has been explicitly described (usually by means of place names), I analyze these as deictic projection symbolic uses, as is the case in (94) above.

In wider-context uses of *amóm*, as in (95), the geometric configuration suffix *-o* seems to have a different meaning than it does in deictic projection or gestural uses. In Uhlenbeck (1938), the English phrases "around here" or "in this country here" are always represented in the Blackfoot text with *annom(a)* or *amom(a)*. The words *annam(a)* and *annim(a)* are translated using the English distal form "there". Thus, I propose that *-o* in wider-context symbolic situational uses expands with the boundaries of *ann* and *am* such that it no longer necessarily refers to entities in the shared space between/around speaker and addressee but to larger spaces that the speaker and addressee feel they are a part of. This accounts for the consistent translations of *annom(a)* or *amom(a)* with English phrases containing the word "here", as well as the use of the word "there" in translations of *annam(a)* and *annim(a)*. This is a result of the phenomenon of relative magnitude discussed above in §3.2.2.1.

5.1.2 Anaphoric uses

Anaphoric uses are the most common in textual data I analyzed from Uhlenbeck (1912) and comprise almost two-thirds of 135 demonstrative tokens. About 61% of these anaphoric uses contain the stem *om* and the other 39% are built from the *ann* stem.

The distal stem *om* is used to introduce new information, though there is no statistically significant correlation between *om* and discourse participants that are the current topic or focus of

their clause.[33] Introductory-*om* functions similarly to introductory-*this* in English in that its referents seem to be more likely to recur throughout the narrative.[34] An example of introductory-*om* is given in (96).

(96)	**Omík**	kitsímik	káuaiχtsiu.	
	om-yi-ka	kitsímm-yi-ka	ikawaihtsi-wa	
	DD-IN.SG-MT	door-IN.SG-MT	be.open.II-3.SG	
	"**The** door lay open."			Uhlenbeck (1912:65); TB22

Before the sentence in (96) no mention of a door has yet been made. While the setting of this section is Four-bears' lodge, and it could be considered common knowledge that there is a door, this is the first overt mention of it in the story. It is likely that the door is overtly mentioned here because its state of being open is relevant for the next few clauses.

The stem *om* is also used to refer to previously mentioned discourse participants that are temporarily relevant. In Blackfoot, anaphoric uses of *om* bear much of the tracking load shared by pronouns and definite articles in other languages. Thus *om* is often translated with English articles "the" and "a(n)", and sometimes with the English distal demonstrative "that". However unlike English determiners and demonstratives, Blackfoot demonstratives do not encode definiteness or specificity (Glougie 2000, Genee 2005). For example, in (97) *omá* refers to a man, Four-bears, who was not an argument in the previous three clauses, but who was previously introduced in the narrative.

[33] This analysis is based on the definition of focus given by Lambrecht (1994:207) that focus is the element in a proposition's assertion that differs from its presupposition. Comrie (1989:63) describes "focus" as "the essential piece of new information carried by a sentence" and topic as "what the sentence is about". Bliss (2005) argues that Blackfoot uses proximate/obviative morphology to mark focus and topic. Since the *om* stem takes both proximate and obviative morphology, it is likely that anaphoric uses of *om* serve some other function than to mark topic or focus.

[34] Further quantitative research focused specifically on comparing the recurrence rates of new information introduced by *om* with new information introduced without *om* is needed to confirm this initial observation.

(97) **Omá** Nisóχkyaio áisɑmò itsiksískaχkuyìuaie.
om-wa niisó-kiááyo-wa á-isamo-wa it-iksisskahko-yii-wa-áyi
DD-3.SG four-bear-3.SG DUR-be.a.long.time.II-3.SG DCT-nudge.TA-DIR-3.SG-DTP
"After a long while, Four-bears pushed it." Uhlenbeck (1912:65); TB20

Omá serves to temporarily emphasize Four-bears, even though the bird is still the main character of this portion of the narrative. In fact, after this clause the bird is the only actor for the remainder of the story.

The medial stem *ann* does not introduce new participants but is only used to refer to previously given information that has been recently mentioned in an overt NP whereas *om* is used more in long-distance tracking. Anaphoric uses of *ann* co-occur with identificational suffixes in about 67% of the tokens. All but one of these identificational forms takes the suffix *-ayi* indicating that anaphoric demonstratives are frequently verbal arguments (cf. §4.6). When the *ann* stem is used, the first mention of the referent is often in the same sentence. Occasionally the anaphoric use of the demonstrative links a nominal in the left-detached position to a clause, a position that often contains focal or topical arguments (see Van Valin & LaPolla 1997 for discussion of the significance and use of this extra-clausal position). In the textual data, when the *ann* form and its referent are not in the same sentence, the referent is in the sentence immediately preceding. An example of this use of *ann* is presented below in (98).

(98) Akimóχtsim **ánnimaie** itáupiu omá pìksíu.
akim-ohtsi-ma **ann-yi-ma-ayi** it-á-opii-wa om-wa pi'ksii-wa
place.of.honor-LOC-STAT **DM-IN.SG-STAT-ID** DCT-DUR-sit.AI-3.SG DD-3.SG bird-3.SG
"The bird sat at **the** upper end of the lodge." Uhlenbeck (1912:65); TB16
Literal translation: "The place of honor, **that is** where the bird sat."

In (98), the anaphoric demonstrative refers to information that was just mentioned the word before in a left-detached position. The emphasis on where the bird sat is relevant to the setting and the later visual imagery of the bird flying across the lodge and out through the door.

In Uhlenbeck's (1912) texts, there are three exceptions to the generalization that anaphoric uses of *ann* do not introduce new information, each of which occur in the opening line of a narrative. The first sentence in the story of *The Thunder-bird* is one such example, given here in (99).

(99)	**Annámaie**	nápiua	ánistau	Nisóχkyaio.
	ann-wa-ma-ayi	napi-wa	waanist-aa-wa	niisó-kiááyo
	DM-3.SG-STAT-ID	old.man-3.SG	say.TA-DIR-3.SG	four-bear

"Long ago **there was** an old man, [who] was called Four-bears." Uhlenbeck (1912:65); TB01

This seems to be a formulaic method for beginning a story in Blackfoot as the English translation includes the phrase "long ago", which has no direct equivalent in the Blackfoot sentence. Other stories whose translations in English begin with the phrase "long ago" contain some variation on the Blackfoot word *apatóχtsi* 'behind, back, long ago', or the distal demonstrative stem *om,* both of which are often accompanied by the RRC suffix *-ka* (cf. §4.5.3; Uhlenbeck 1938:221). The expression in (99) seems to be used only when a specific person is introduced.

The *am* stem does not seem to function anaphorically. There are instances of *am* that might be analyzed as anaphoric uses, however each of these cases are better understood as symbolic situational uses (cf. §5.1.1).

5.1.3 Discourse deictic uses

In Blackfoot, only one stem is used for discourse deixis: the *ann* stem. Blackfoot demonstratives functioning as discourse deictics often have identificational suffixes and are always accented on the stem. The function of discourse deixis is to link the proposition in which the demonstrative is

embedded to the proposition to which the demonstrative refers (Diessel 1999:101-102). This is different from the tracking function in that the referents of discourse deixis are entire sentences or propositions rather than noun phrases. This is illustrated in (100).

(100)	**Kɛ́nnyaie**	mátanistsinoàu	ksistsikúma.	
	ki+ann-yi-ayi	matt-aanist-ino-aa-wa	ksiistsikomm-wa	
	and+DM-IN.SG-ID	also-MNR-see.TA-DIR-3.SG	thunder-3.SG	
	"**That way** the thunder was seen."			Uhlenbeck (1912:65); TB26

In this example, the discourse deictic use of *kɛ́nnyaie* refers to the preceding five sentences of the story which describe how the bird was responsible both for the flashes of lightning as well as the sound of thunder. The demonstrative does not refer to any specific NP as it does in its anaphoric usage, but to the event as a whole (cf. §3.2.2.3).

Blackfoot frequently uses phrases containing discourse deictic demonstratives as formulaic endings to stories as in (101). This example is the conclusion to a short story about some young men who play a trick on a group of old women.

(101)	**Kɛ́nniaie**	nanístsksinoàii	ámoksisk	kipitákeks.	
	ki+ann-yi-ayi	n-aanist-ssksino-aa-yi	am-o-iksi-hka	kipita-akíí-iksi	
	and+DM-IN.SG-ID	1-MNR-know.TA-DIR-3.PL	DP-INT-3.PL-INVS	aged-women-3.PL	
	"**And that is** all I know about these old women."				Uhlenbeck (1912:204)

In this example, the discourse deictic *kɛ́nniaie* refers to the entire preceding story, linking it with the proposition that the speaker has shared all his knowledge on the topic.

Although Diessel (1999) states that discourse deixis is both anaphoric (backward-referring) and cataphoric (forward-referring), in the textual data I analyzed, Blackfoot discourse deixis is always anaphoric and never cataphoric. While further investigation may uncover instances

of cataphoric uses in the text, thus far there is no evidence from Blackfoot texts to support the claim that cataphoric reference in discourse deixis is universal.

Based on the evidence above, I propose that the Blackfoot demonstrative system may be typologically unusual in that demonstratives do not function cataphorically in discourse deixis. Cataphoric reference is described as one of the features that distinguishes the anaphoric pragmatic category from the discourse deixis category (Diessel 1999, Levinson 1983), but how common cataphoric reference is cross-linguistically requires further examination. The lack of typological generalizations regarding cataphoric reference is due in large part to the absence of descriptions of pragmatic demonstrative uses in descriptive grammars. This reveals the need for further research into discourse deictic uses in individual languages.

5.1.4 Recognitional uses

Recognitional uses serve to activate information that is new to the discourse, but already known to the addressee and not common knowledge to the larger speech community (§3.2.2.4). As noted in §4.1.1 above, Frantz describes the *ann* stem as encoding "familiarity to the addressee" in addition to proximity features (2009:64). I suggest that notions of familiarity arise from the use of the *ann* stem in recognitional uses. Thus, the distance features conveyed by *ann* in situational uses and the familiarity to the speaker expressed by *ann* in recognitional uses are not simultaneously expressed in each use of the stem *ann* but are a result of two different pragmatic functions.

In the textual data I examined, *annáhka* is the only form that appears in recognitional uses. In other words, recognitional forms are non-situational, non-anaphoric, non-temporal instances of the *ann* stem with the RRC suffix *-hka* and without the geometric configuration suffix *-o* . Further research is needed to determine whether recognitional demonstratives only occur with proximate

animate nouns, or whether this is a result of a limited corpus and the relative rarity of this pragmatic use.[35]

Recognitional uses are difficult to identify because it is not known what information was common knowledge to the narrators of Uhlenbeck's (1912) stories and their audiences.[36] The portions of the texts that do contain identifiable recognitional uses involve two characters within the narrative engaged in dialogue. Thus the recognitional uses described below are all from similar contexts in which (i) a demonstrative form is used to introduce new information in an exchange between two characters within the narrative and (ii) the narrator has indicated that the referent of the demonstrative is already known to the addressee prior to its mention. One such example is given below in (102).

In this example, a woman has indicated that she loves a man named Round-cut-scabby-robe. Her public confession of affection causes Round-cut-scabby-robe to become embarrassed and leave. As he does so, he asks a friend to relay to him later what the women says about him after he leaves. Later, when Round-cut-scabby-robe reunites with his friend, he asks the following question.

(102)	Áuke,	tsánìu		**annáχk**	àkéuaχk.
	óki	tsá	waanii-wa	**ann-wa-hka**	akíí-wa-hka
	DIS	what	say.AI-3.SG	**DM-3.SG-INVS**	woman-3.SG-INVS
	"Now, what did **that** woman say?"				Uhlenbeck (1912:73)

In the story, Round-cut-scabby-robe and his friend are apart for an unspecified length of time, but a sufficient enough amount that when they meet back together, the conversation begins a new discourse event. The use of *annáχk* to refer to the woman whom they had previously discussed is

[35] But since, by definition, recognitional uses introduce information that is new to the discourse, they frequently function as the focus of their clause. Based on Bliss's (2005) proposal that proximate forms are used to encode focus, it is possible that recognitional forms are always proximate.
[36] I.e. it is unclear whether Uhlenbeck was the sole audience member, or whether other Blackfeet community members were the audience and Uhlenbeck was a third party observer.

not characteristic of anaphoric usage since she has not been mentioned recently. Thus the referent (the woman) is known to both discourse participants, but is new within the discourse event.

An alternative analysis would be classifying the demonstrative in (102) as a wider-context symbolic situational use. However I demonstrate above that situational uses of *-hka* encode instances of invisibility in which the referent is (i) visible but indiscernible, (ii) has moved out of sight but has done so recently and whose direction of travel is still identifiable through gesture, or (iii) has invisibility as a regular attribute (such as ghosts). The use of *-hka* in (102) does not fit any of those descriptions. Additionally, the English translation does not contain the phrase "in that country" or "around there" which is characteristic of wider-context uses of the *ann* stem without the interior geometric configuration suffix *-o*. It is also unlikely that *annáχk* is an instance of deictic projection situational use since the referent is not present in the scene and therefore cannot be used to make the audience feel a part of the narrative setting.

Another example of the recognitional use is given in (103) below. This time, the recognitional demonstrative is used in conjunction with a situational demonstrative and shows that the *-hka* suffix encodes some meaning other than the feature [invisible] when used in non-situational contexts.

(103)	ámauk,	**annáχk**	nínna
	am-o-ao'ka	**ann-wa-hka**	n-inn-wa
	DP-INT-ID	**DM-3.SG-INVS**	1-father-3.SG
	"Here is **that one** who is my father."		Uhlenbeck (1938:80)

Although the context is not given, the translation suggests that the speaker's father is being introduced to the addressee, in which case the father is visible.[37] This provides support for my claim that *-hka* serves a function other than encoding invisibility. The significance of the relative clause in the English translation is not clear. This might have been the English sentence provided by Uhlenbeck's consultant Tatsey, or, more likely, it may be Uhlenbeck's own attempt at representing the *-hka* suffix in the translation in accordance with his analysis of *-hka* as a relative suffix. I suggest that a more literal (albeit less idiomatic) translation, accounting for the independent nature of the *-ao'ka* suffix as well as the recognitional use of the second demonstrative, would be "Here he is; **that** father of mine."

One final illustration of recognitional use comes from a story in which a girl befriends a bear in the forest. In this story, the girl's "meddlesome" younger sister tells their father that her older sister is always playing with a bear. The father gathers a hunting party and kills the bear. The older sister blames her younger sister for the bear's death and sends her on an errand that will result in the younger sister's demise. Part of her instructions is given in (104).

(104)	Istάpot	**omím**	itsínitαχpi	**annáχk**	kyáio
	itap-oo-t	**om-yi-ma**	it-i'nit-hp-yi	**ann-wa-hka**	kiááyo-wa
	toward-go.AI-IMPV	**DD-IN.SG-STAT**	DCT-kill-CN-IN.SG	**DM-3.SG-INVS**	bear-3.SG
	"Go **over there** where **that** bear was killed."				Uhlenbeck (1912:103)

Here the referent (the dead bear) is known to both speech-act participants and the situational use of *omím* excludes the possibility of situational interpretations of *annáχk*, since they employ two different stems to refer to the same location. Similarly, the presence of *-hka* to refer to a lifeless, and therefore stationary, bear rather than *-ma* which is used to describe the location of the bear,

[37] If a stem other than *am* were used, then it could be the case that the father is out of sight. However *am* is only ever used situationally to refer to objects very nearby, so it is unlikely that the father in (103) is not visible.

indicates that recognitional uses may not take RRC suffixes other than *-hka*. The bear had not been previously mentioned in any conversation between the two girls, so it is new to their discourse. And because the last overt mention of the bear in the overall narrative is ten clauses prior to the clause in (104), even within the context of the overall narrative, this could not be an anaphoric use of *annáχk* since *om* is the stem used for long-distance information tracking (§5.1.2).

In New Blackfoot, the *ann* stem is often reduced to [n] when the stem is not accented, thus the recognitional form *annáhka* is often pronounced ['naxka]. For my consultant, this is the form used in recognitional uses. To elicit this form, I asked my consultant to imagine a scenario in which she sees a cat in the parking lot at work and then tells me about it soon thereafter. Then I asked her to imagine that this sequence of events happens four days in a row. I asked her how on the fifth day, after telling me about it each of the four previous days, she might say, "I saw that cat again." Her answer is provided in (105) below.

(105)	Mátto'too	**nááhka**	poos.
	matt-o'too-(wa)	**ann-wa-hka**	poos-(wa)
	again-arrive.AI-3.SG	**DM-3.SG-INVS**	cat-3.SG
	"**That** cat came again."		

Because my consultant also uses the *-hka* suffix to encode deictic projection situational uses (§5.1.1) it was not immediately clear which was the intended use here. However when the *-hka* suffix is used situationally, it always has the form ['nahke] rather than ['nahka] the latter of which is found in recognitional uses. I suggest that this is because the former contains a fossilized instance of the identificational suffix *-ayi*, a form that does not seem to occur in her speech apart from deictic projection situational usage. Thus I argue that the form in (105) is a recognitional use, and that for my consultant, recognitional uses are formally distinguished from deictic projection uses by an additional morpheme in the latter.

The presence of recognitional uses in Blackfoot is predicted by Himmelmann (1996) who claims that the four pragmatic categories described above are universal (see also Cleary-Camp 2007). Blackfoot recognitional forms in the textual data also support Diessel's (1999) claim that recognitional forms are derived from situational forms. His claim is based on the proposal that recognitional uses have limited distribution and are morphologically restricted. Blackfoot recognitional forms are the least common pragmatic usage and they are morphologically restricted to forms with the *ann* stem, with the RRC suffix *-hka*. and without the geometric configuration suffix *-o*.

5.2 Syntactic categories

Although the meanings of demonstratives are largely determined by pragmatic function and are therefore best identified through a pragmatic taxonomy of demonstrative uses, differences of form and nuances of meaning may also be uncovered through a syntactic organizing principle. I suggest above (§3.2.1) that it is preferable to begin an investigation of a language's demonstrative system having familiarized oneself with all the documented syntactic categories of demonstratives. I propose that although some distinctions do not exist in individual languages, it is best practice to start with every category available and only to eliminate irrelevant categories once it has been determined that they are not relevant in the language under examination (e.g. Mithun 1987 argues that Tuscarora lacks an adnominal category). To not do so is to risk overlooking morphophonological patterns that correspond to specific syntactic contexts (such as accent in Blackfoot), neglecting a syntactic category that is rare or underrepresented in the data, or assigning a form into a syntactic category to which it does not truly belong (e.g. calling pronominal demonstratives adverbial simply because they are translated with an adverb in English).

The remainder of this subsection examines adnominal, pronominal, adverbial (including manner, temporal, and locational), and identificational demonstratives in Blackfoot. Although in

Blackfoot only the identificational category is obligatorily marked with morphology that distinguishes it from other syntactic types, I show that there are other syntactic contexts that have strong correlations with the use of particular RRC suffixes. Additionally, I propose that accent patterns of Blackfoot demonstratives are in part determined by syntactic function. While Taylor (1969) and Frantz (2009) have noted that accent may shift in demonstrative forms as a product of emphasis, this is the first study that attempts to describe syntactic motivations for these shifts in accentuation.

5.2.1 Adnominal demonstratives

Adnominal demonstrative forms are those that co-occur and agree in number/gender with an adjacent noun. In Blackfoot these are by far the most frequent in the textual data I have analyzed, comprising more than half of the demonstrative tokens. In Blackfoot, adnominal demonstratives always appear immediately before the nouns they modify (i.e. nothing else intervenes between the demonstrative and the noun). Adnominal demonstratives are comprised minimally of a stem and a number/gender suffix. Noun-demonstrative agreement requires that the same number/gender suffix on the demonstrative also occurs on the noun it modifies. The one exception to this is when the interior geometric configuration suffix *-o* occurs on the *am* or *ann* stem and the referent is singular. In textual data from Uhlenbeck (1912, 1938), the *-wa, -yi,* and *-yI* suffixes do not co-occur with *-o*, although these three morphemes (each of which encode singular number) are still marked on the nominal form (see §4.4 for further discussion). However, in Frantz (2009), the inanimate singular *-yi* and obviative singular *-yI* are suffixed after *-o*; it is only *-wa* that does not appear in that position.

In addition to number/gender agreement between the demonstrative and its noun, a referent/region configuration suffix (*-ma, -ya, -ka* and *-hka*) affixed to the demonstrative may also occur on the noun, but this type of agreement is not obligatory. Uhlenbeck refers to this as

"congruence between the noun and its pronominal attribute" (1938:37). What follows are examples of noun-demonstrative congruence, in this case with *-ya* 'motion away from anchor' (106) and non-congruence of *-ma* 'stationary' (107).

(106)	amó**i**	einiua**i**	itsístokipiksiu	
	am-o-**ya**	iiníí-wa-**ya**	it-isttok-ipikssi-wa	
	DP-INT.3.SG-**MA**	buffalo-3.SG-**MA**	DCT-rhythmic.noise-flee.AI-3.SG	
	"These buffalo fled making noise with their feet."			Uhlenbeck (1938:38)

(107)	áiiksìsɑmo	itsitótò	omí**m**	mistɑ́ki	
	a'-iik-isamo	it-it-o'too-wa	om-yi-**ma**	miisták-yi	
	INCH-very-long.time	DCT-DCT-arrive.AI-3.SG	DD-IN.SG-**STAT**	mountain-IN.SG	
	"After a very long time he came to that mountain."				Uhlenbeck (1938:40)

The difference in meaning (if any) expressed by marking the noun with RRC suffixes is unclear and warrants further investigation.[38]

Frantz (2009) and Taylor (1969) both state that the accentuation pattern of Blackfoot demonstratives is not yet well understood and that multiple factors may be involved. In the textual data I analyzed from Uhlenbeck (1912), the most significant factor in predicting the occurrence of pitch-accent on the stem is whether the demonstrative is pronominal or adnominal. The pitch-accent in adnominal uses of demonstratives tends to fall on the second syllable, especially in non-situational uses. Pronominal forms more often are accented on the stem. Another factor involved in accent placement is the focus or topicalization of the referent, often coinciding with the placement of the demonstrative to the left edge of the clause. In (108) for example, there are two adnominal demonstratives, *omím* and *annáχk*, neither on the left edge and neither accented on the stem.

[38] It does seem that the pattern of non-congruence occurs less often in situational uses. However it remains to be seen whether pragmatic use predicts congruence or whether other variables play a role.

(108)	Istάpot	**omím**	itsínitαχpi	**annáχk**	kyáio
	itap-oo-t	**om-yi-ma**	it-i'nit-hp-yi	**ann-wa-hka**	kiááyo-wa
	toward-go.AI-IMPV	**DD-IN.SG-STAT**	DCT-kill-CN-IN.SG	**DM-3.SG-INVS**	bear-3.SG
	"Go **over there** where **that** bear was killed."				Uhlenbeck (1912:103)

Although *itsínitaχpi* is derived from a verbal stem, it is a nominalized form indicating the location where the bear was killed. Because *omím* agrees in number/gender with *itsínitaχpi*, the demonstrative is an adnominal form.

Compare the demonstratives in (108) with *ámoma* (109). Here, *ámoma* is accented on the first syllable even though it is an adnominal form.

(109)	**Ámoma**	omaχkáuχtokama,	ánnamaie	ákitsikaχtsopa.
	am-o-ma	omahk-pahtóók-wa-ma	ann-wa-ma-ayi	áak-it-ikahtsi-o'pa
	DP-INT-STAT	big-pine.tree-3.SG-STAT	DM-3.SG-STAT-ID	FUT-DCT-gamble.AI-21
	"We shall gamble about **this** big pine tree **here**."			Uhlenbeck (1912:97)
	Literally: **This** big pine tree, that is what we will gamble about.			

I propose that the shift in accent is due to the topicalization of "this big pine tree", accomplished by placing the NP on the left edge.

I propose that unmarked adnominal demonstratives are accented on the syllable immediately following the stem and that an adnominal demonstrative with accent on the stem is an emphatic form. Whether this emphasis is consistently one of focus, topicalization, or — as Frantz (2009:66) suggests — an emphasis on the "proximity features which distinguish the basic stems" requires further study.

5.2.2 Pronominal demonstratives

Pronominal forms in Blackfoot are morphologically identical to adnominal forms. However as noted in the previous section, accent falls more often on the stem in pronominal forms. This tendency is

even stronger in situational uses and anaphoric uses in which the referent was just mentioned in the previous clause. There are exceptions to this pattern, most often when the pronominal demonstrative is not the focus or topic of the sentence (see f.n. 33), or when the demonstrative occurs in a subordinate clause. An example of a pronominal demonstrative that has the topic as a referent is given in (110).

(110)	**Ánni**	ánistsiu:	Kimáuksauχkàipαskaχks?
	ann-yi	waanist-yii-wa	ki-máo'k-saw-ohko-á-ipásska-hks
	DM-4.SG	tell.TA-DIR-3.SG	2-why-NEG-PRPS-DUR-dance.AI-hks

"To **that one** he said: Why don't you go and dance?" Uhlenbeck (1912:73)

In (110) the referent is last mentioned in the previous sentence where she becomes the topic of this section of the discourse and her relationship to the speaker of the statement in (110) is described. The accent in this example falls on the stem.

In (111), the referent is neither the topic nor the focus of the sentence. The *akíks* 'piles of stones' are the focus, and the method of hunting buffalo is the topic throughout most of the discourse.

(111)	**Amóm**	aiksístoχtòs,	mátsitaumatapakiχtsiua	akíks
	am-o-ma	á'-iksist-ohto-si	matt-it-á-omatap-wa'kiht-yii-wa	a'k-iksi
	DP-INT-STAT	INCH-finish-?-3.SG.SUBJ	also-DCT-DUR-INC-pile.TA-DIR-3.SG	stones-4.PL

"When they had completed **this** [corral], then they began to put up small piles of stones."

Uhlenbeck (1912:39)

In (111) the pronominal demonstrative is not accented on the stem either because it is part of a subordinate clause[39] or because another full NP is the focus of the sentence. As Fleischman

[39] This clause is in the subjunctive mode, often used for the protasis of conditional statements and certain subordinate temporal clauses (Frantz 2009:110-111).

(1990:28) points out, subordinate clauses often encode background information, supporting the analysis that the referent of the pronominal demonstrative *amóm* is not the focus or topic of the sentence. This sentence marks a shift in topic from the buffalo corral discussed prior to (111) to the pile of stones introduced in (111). These piles of stones play a vital role in the description of how the Ancient Peigans chased the buffalo into the corral. This may indicate that focus and/or topic are factors in determining accent placement in demonstratives. However in the textual data, the correlation between stem-accent and syntactic category is stronger than that between stem-accent and focus or stem-accent and topic.

The pattern that emerges from the data is that pronominal forms are accented on the stem unless another argument in the clause is the focus or topic of the clause. Because pronominal and adnominal forms are usually formally distinguished by accent placement, I maintain that they belong to distinct syntactic categories of demonstratives in Blackfoot.

5.2.3 Adverbial demonstratives

Although Uhlenbeck (1938) describes demonstrative adverbs of location, time, and manner, these forms are formally indistinguishable from pronominal forms (i.e. there are no morphophonological variations that correlate with nominal vs. adverbial uses). Thus I use evidence from argument structure as a primary means of determining whether there are adverbial demonstratives in Blackfoot. Examples of demonstratives serving the syntactic functions of adverbs are explored in (112) through (118) below.

Examples (112) through (114) show demonstratives functioning as locational demonstrative adverbs. In (112), *ámo* indicates the current location occupied by the speaker and addressee, as indicated by the suffix *-o* which encodes the geometric configuration feature [interior].

(112) **ámo** **st**ópit
am-o **ist**-opii-t
DP-INT **DCT**-stay.AI-IMPV
"Stay **here**." Uhlenbeck (1938:224)

The command in (112) demonstrates the role of the verbal prefix *it-* glossed as "DCT" (deictic preverb) which surfaces as the allomorph *(i)st-* when affixed to imperative forms. This prefix is one of the ways Blackfoot licenses oblique arguments that are temporal or locational in nature. Another strategy for licensing oblique arguments is the preverb *omoht-* which can indicate source, path, means, instrument, or content (Frantz 2009:92). This form is seen in (113) below, repeated from (73) above.

(113) Itápstò: **ámok** ni**moχt**óto.
it-a'pssto-wa **am-o-ka** ni-**omoht**-o'too
DCT-make.signs.TA-3.SG **DP-INT-MT** 1-**SRC/PATH**-arrive.AI
"He [the leader] made a sign [to the camp]: **over that way** I came." Uhlenbeck (1912:81)

In (113), the demonstrative refers to a path taken to the speakers location at the time of utterance, licensed as an oblique by the preverb *omoht-*. Other locational preverbs include, but are not limited to, *itap-* 'toward' and *poohsap-* 'toward the speaker'. While these preverbal elements each allow for an additional oblique argument, they do not alter the valency of the verb.[40]

The question in (114) shows that it is possible to have locational demonstratives without one of the locational preverbs.

[40] In Blackfoot, each verb stem falls into one of four categories: animate intransitive, inanimate intransitive, transitive animate, transitive inanimate. Different inflectional paradigms are used depending on whether the verb is transitive or intransitive, and in the case of transitive verbs, whether the object is animate or inanimate. For example, *ihkssoyi* (AI) 'be dry (an.)', *ihkitsi* (II) 'be dry (in.)', *ihkssaki* (TA) 'dry someone', *ihkssi* (TI) 'dry something' (Frantz 2009; Frantz & Russell 1995).

(114) kitáikixp **ómim**?
kit-á-ikii-hpa **om-yi-ma**
2-DUR-do.AI-NAF **DD-IN.SG-STAT**
"What were you doing **over there**?" Uhlenbeck (1938:224)

While it is common for the RRC suffix *-ma* to be affixed to demonstratives that function as locational adverbs as in (114), examples in (112) and (113) show that this is not always the case. Additionally, the demonstrative in (114) is more adverbial than pronominal in that it is not part of the argument structure of the clause. The verb is intransitive and there is no preverb to signal the presence of an oblique phrase. I propose that this is a function of the RRC suffix *-ma*; when pronominal demonstrative forms are suffixed with *-ma* and are not part of the argument structure of the clause (core or oblique), then they are locational adverbial demonstratives. By contrast, demonstratives co-occurring with locational preverbs are not demonstrative adverbs, but demonstrative pronouns, even if the *-ma* suffix is present.

In (115) and (116), the bolded demonstratives are functioning as demonstrative adverbs of manner.

(115) omá akéu **ánni** nitsináusiu.
om-wa akíí-wa **ann-yi** niit-inao'si-wa
DD-3.SG woman-3.SG **DM-IN.SG** MNR-dress.a.certain.way.AI-3.SG
"That woman dressed **that way**." Uhlenbeck (1912:73)

(116) **Ánni** nitoápiksimàists.
ann-yi niit-o-aapiksi-mi-aistsi
DM-IN.SG MNR-?-throw.TI-3.PL-PRO.IN.PL
"**This way** they threw them." (Uhlenbeck's contextual note: "Blood showed me … how they were thrown") Uhlenbeck (1912:34)

As with the locational forms above, the manner adverbials are associated with an oblique-licensing preverb: *niit-* 'manner'. Unlike the locational demonstratives above, there are no occurrences of a manner demonstrative without a corresponding preverbal element in the corpus I examined. Thus I propose that Blackfoot has no adverbial demonstrative of manner, but that this function is expressed through the pronominal demonstrative *ánni* in conjunction with the manner preverb *niit-*.

In examples (117) and(118), the bolded forms are functioning as temporal demonstrative adverbs.

(117) **Annóχk** kinítuksk, kitsikím.
ann-o-hka ki-ni'tókskaa kit-ikimm-o
DM-INT-INVS 2-one.AI 2-pity.TA-DIR
"**Now** you are the only one, I pity you." Uhlenbeck (1912:55)

(118) Ki **annóχk** ánetoyi imitáiks
ki **ann-o-hka** waaniit-oo-yi imitáá-iksi
and **DM-INT-INVS** scatter-go.AI-3.PL dog-3.PL
"And **now** the dogs have separated." (=traditional end to a story) Uhlenbeck (1912:63)

Unlike the previous two adverbial categories, temporal demonstrative uses do not regularly co-occur with a preverbal element. The deictic preverb *it-* may be used to indicate that the eventuality expressed by the verb occurred "at that place; there" or "at that time; then",[41] however when *it-* is used temporally, there is usually no demonstrative oblique present. That is, temporal *it-* functions independently of temporal demonstratives. Thus, unlike demonstrative co-occurrences with the locational or manner preverbs, a temporal demonstrative may be used without a temporal preverb.

[41] If the speaker wishes to express both temporal and locational notions, the prefix may be used twice, as in ***its-it-a-yissko-yiiwayi*** "**then** she was pinning him **there**" (Frantz & Russell 1995:s.v. yissko). Uhlenbeck (1938:176) states that the first *it-* is temporal and the second locative, but the two uses are phonologically identical, so it is unclear how this is determined.

However when non-demonstrative temporal noun phrases are used, the preverb *it-* is prefixed to the verb as in (119).

(119) … kokúyi ák**its**itotòaie.
ko'kó-yi áak-**it**-it-o'too-wa-áyi
night-IN.SG FUT-**DCT**-DCT-arrive.AI-3.SG-PRO
"… **in** the night they would come up to [the camp]." Uhlenbeck (1912:29)
Literally: At night, **then** they would come there.

Because oblique temporal NPs are licensed by a preverb and demonstrative temporal phrases are not, I argue that this is evidence in favor of analyzing temporal demonstrative uses as adverbial rather than pronominal. Thus I propose that Blackfoot possesses a temporal demonstrative adverb category. However, as with locational adverbs, when a temporal preverb is present, the temporal demonstrative is better analyzed as a pronominal form.

Although *annóhka* (*annóχk* in Uhlenbeck) is the most frequently occurring temporal demonstrative in the textual data, temporal expressions may also be built from the demonstrative stems *am* and *om*. When these stems are used in temporal expressions, they are more often found in adnominal contexts. Regardless of which stem is used, temporal demonstratives nearly always have the RRC suffix *-hka* (e.g. (117) and (118) above). The temporal nature of *-hka* is evidenced not only by its use in the adverbial form *annóhka*, but also by temporal expressions as in (120).[42]

(120) **Amóχk** istuyíiχk ánniaie niétaχtau iχtauámisàmiu.
am-o-hka sstoyi-yi-hka ann-yi-ayi niítahtaa-wa iiht-á-waamis-sáami-wa
DP-INT-INVS cold.II-IN.SG-INVS DM-IN.SG-ID river-II.3.SG SRC-DUR-up-hunt.AI-3.SG
"**That** winter there was a river, they[43] would go up from to hunt." Uhlenbeck (1912:66)

[42] However, cf. §5.1.4where I discuss the determinative use of demonstratives and the potential existence of this category in Blackfoot which could allow for a different analysis of *am* + *-hka*.
[43] The English translation here gives a plural subject, however collective groups of people are usually referred to in the singular in Blackfoot, which accounts for the appearance of the singular suffix *-wa* on the Blackfoot

My consultant suggests that temporal demonstratives built from the *ann* stem signal events in the present, whereas the *am* and *om* stems are used to refer to past events. This is consistent with temporal uses of demonstratives such as (120) above.

5.2.4 Identificational demonstratives

The identificational category is the only one for which there is morphological evidence that demonstrative identifiers comprise a distinct syntactic category. As discussed above (§4.6), two suffixes are used to form demonstrative identifiers: *-ayi* and *-ao'ka*, the former used when the identificational phrase is also a verbal argument, the latter when the identificational phrase is an independent clause. Examples of these are given in (121) and (122), repeated from (91) and (92) above.

(121)	Omá	nínau	sotámsksinoyiuaie.	**Ánnaiauk**	nápiua.
	om-wa	ninna-wa	sotam-ssksino-yii-wa-ayi	**ann-wa-ya-ao'ka**	napi-wa
	DD -3.SG	chief-3.SG	UNQ-know.TA-DIR-3.SG-DTP	**DM-3.SG-MA-ID**	old.man-3.SG
	"That chief$_3$ then knew him$_4$: **That$_3$ is** the Old Man$_3$."				Uhlenbeck (1912:66)

(122)	Sotámssksinoàu:	**Ómaχkaie**	áistuyimstàu.	
	sotam-ssksino-aa-wa	**om-wa-hka-ayi**	á-sstoyíímsstaa-wa	
	UNQ-know.TA-DIR-3.SG	**DD-3.SG-INVS-ID**	DUR-cause.cold.weather.AI-3.SG	
	"Then he was known: **That is** he that makes the cold weather."			Uhlenbeck (1912:67)

Because morphological evidence is sufficient for proposing the existence of a syntactic category, there is no need to examine the evidence from argument structure. However doing so provides further support for my proposal that *-ayi* encodes referents that are part of the argument structure of a verb as shown in (123) in which the perverb *iiht-* licenses an oblique instrumental argument.

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verb. This pattern is especially common with the NP *Ákai-Pekáni* 'Ancient Piegan' who are the subject in this case.

(123) Kɛ́nnistsiaie **iχt**áukoyìau.
ki+ann-istsi-ayi **iiht**-á-okooyi-yi-aawa
and+DD-IN.PL-ID **INSTR**-DUR-have.house.AI-3.PL-AP
"**With** them they made their lodges." Uhlenbeck (1912:42)

Here the demonstrative identifier is not a core argument of the verb as the verb is intransitive (shown by the use of the animate intransitive (AI) verb stem) and requires an animate subject. However the demonstrative is inanimate as its referent is the grammatically inanimate buffalo hides that were dried and prepared for use in lodge construction. Thus, even as an oblique argument licensed by the perverb *iiht-*, the demonstrative identifier is still a verbal argument and takes the identificational suffix *-ayi* rather than the independent form *-ao'ka*.

For my consultant, the identificational suffixes have largely fallen out of use. The only tokens I have encountered are instances of *-ayi* on deictic projection symbolic situational uses in narrative discourse (discussed below in §5.1.1). However these are not translated with the semantic force of an identificational form which leads me to conclude that in these cases the suffix is part of a fossilized form serving this pragmatic function. This conclusion is supported by the fact that the form *annáhkayi* (pronounced ['naxke] by my consultant) is the only form of the word used in this context.

Since the identificational suffixes are not used by my consultant, in order to identify an object in a specific location, my consultant uses a demonstrative form without an identificational suffix. This is shown in (124).

(124) **Óma** Ayme.
om-wa Ayme
DD-3.SG Ayme
"**There's** Ayme." (accompanied by gesture)

Here the demonstrative is functioning as an identifier as there is no verb in the clause. But because it is morphologically and phonologically identical to pronominal forms, there is no justification for a separate identificational category in my consultant's dialect. However further investigation is needed to determine whether this categorical difference is prevalent across speakers and dialects of New Blackfoot or limited to certain communities, age groups, or speakers.

5.3 Summary

In this chapter I described the morphemes that are used in Blackfoot demonstrative words, their meanings as described by previous researchers, and my own analysis of the system both from a pragmatic and syntactic point of view.

By investigating the pragmatic uses of Blackfoot demonstratives, I showed that a pragmatic approach addresses a number of semantic distinctions that are not apparent through a syntactic analysis, or an examination of situational uses alone. I demonstrated that the suffix *-o* functions differently in wider-context symbolic situational uses than in the other situational uses. The suffixes *ann* and *om* were shown to function in distinct anaphoric contexts; the former used in short-range tracking and emphasizing the referent, the latter for long-range tracking and introducing new arguments. I presented evidence that Blackfoot discourse deixis forms do not have cataphoric referents as Diessel (1999) suggests is common for discourse deictic forms. In addition to this, I argued that recognitional forms in Blackfoot provide support for the claim put forth by Lyons (1977) and Diessel (1999) that among pragmatic uses, situational uses are basic and non-situational uses are derived from them.

I then demonstrated that an analysis of the Blackfoot demonstrative system vis-à-vis syntactic categories highlights patterns of pitch-accent placement, as pronominal demonstratives are more often accented on the stem and adnominal forms are accented on the first post-stem syllable. I established locational and temporal adverbial word types based on language-internal

morphological and distributional criteria, and in doing so provided additional semantic features of the RRC suffixes *-hka* and *-ma* which are often used in temporal and locational expressions, respectively. I also demonstrated that the manner adverbial category is not a relevant category in Blackfoot, but that pronominal forms are used in conjunction with a manner prefix instead of an adverbial demonstrative of manner.

6 Conclusions, implications, and issues for further research

It has been the goal of this thesis to provide a detailed description of the Blackfoot demonstrative system, to demonstrate that analyses that are restricted to situational pragmatic uses overlook important aspects of meaning encoded by Blackfoot demonstratives, and to highlight the importance of investigating the variety of pragmatic uses of demonstratives in addition to their morphosyntactic characteristics. In this chapter, I recount the most significant proposals of the present study, discuss the wider implications of these findings, and some areas for future investigation.

6.1 Major proposals and their implications

This thesis is the first detailed description of pragmatic uses of Blackfoot demonstratives. Although Genee (2005) provides a preliminary analysis of tracking uses, to my knowledge no study has investigated discourse deixis or recognitional uses in Blackfoot, nor have previous studies distinguished between subtypes of situational uses. The examination of pragmatic uses allows for a more nuanced description of the meanings of the various morphemes that comprise the system. Notions of symbolic spatial proximity, mental proximity, and familiarity are understood as semantic extensions that are byproducts of pragmatic uses.

By analyzing the Blackfoot demonstrative system via pragmatic functions, three significant implications emerge. First, Himmelmann's (1996) four pragmatic uses are all represented in Blackfoot, providing support for the claim that these are universal categories. The establishment of all four pragmatic categories as universal has not yet been demonstrated due in large part to the lack of discussions of pragmatic usage in descriptive grammars. This thesis provides such a description for Blackfoot.

Second, although Diessel (1999) proposes that cataphoric reference is a distinguishing factor of discourse deixis, Blackfoot demonstratives do not serve this syntactic function. When

discourse deictic demonstratives occur, they always refer backward to previously mentioned propositions and never forward. This finding indicates that cataphoric reference may not be a universal characteristic of discourse deictic demonstrative usage.

Third, the extensions of spatial meaning expressed by non-situational uses (e.g. the use of the distal stem *om* in long-distance tracking) provide evidence for Diessel's (1999) claim that situational uses are the basic uses of demonstratives from which non-situational uses are derived. While Himmelmann (1996) claims that all four pragmatic categories are universal and that each is equally basic, others maintain that non-situational uses are derived from situational uses (Diessel 1999; Lyons 1977). Diessel (1999) argues that in some languages non-situational uses possess additional morphology not present on situational forms, but that the opposite is not true. Diessel uses this argument from markedness to propose that situational uses are the basic forms from which non-situational forms are derived. In Blackfoot, recognitional forms are always suffixed with *-hka*. Although this suffix may also occur on situational forms, it is not obligatory in situational uses as it is in recognitional uses. Thus *ánna* 'that (medial)' is a perfectly acceptable situational form, but would not be an acceptable recognitional form. This suggests that the latter is derived from the former.

Uhlenbeck (1938), Taylor (1969), and Frantz (2009) together identify all the morphemes that comprise the Blackfoot demonstrative system, but have never been previously described in terms of templatic ordering in previous literature. This thesis is the first study to propose a demonstrative template. The template also serves to confirm the proposal of Taylor (1969) that the demonstrative morpheme *-hka* has a homophonous counterpart, both of which may suffix to demonstrative stems. That these are two different suffixes is seen in that they occur in different places in the demonstrative template (see §4.5.4).

This study also provides the first analysis of the spatial deictic features of gestural situational uses in Blackfoot. Using features identified by Imai (2003), the suffixes *-ma, -ya, -ka* and

-hka are defined in such a way that explains their grouping into a single slot in the demonstrative template and their mutual exclusivity in demonstrative forms. The suffix *-ma* is shown to encode the referent/region configuration feature [stationary], a feature not found in Imai's study but that is logically connected to Imai's RRC features of motion. Imai's spatial deictic features are also used to provide a definition of the morphologically analyzable, but heretofore undefined, suffix *-o* as a marker of interior geometric configuration. In addition to proposing new meanings for each of these suffixes using spatial deictic features, a syntactic distinction determining the respective uses of the identificational suffixes *-ayi* and *-ao'ka* is also proposed here for the first time.

6.2 Further Research

Notions of focus and topic as they relate to demonstratives are relatively underdescribed in Blackfoot (though see Bliss 2005). A quantitative analysis of focalization and topicalization strategies and the correlation between the stems *om* and *ann* with these strategies may clarify the use of demonstratives in tracking functions, specifically the difference between the introduction of new narrative participants with the demonstrative stem *om* versus those without a demonstrative. It was also noted in §5.2.2 that focus and topic may be factors in demonstrative accent placement. Thus an investigation of the interaction between topic, focus, and demonstratives in Blackfoot would be beneficial in addressing these issues.

While semantic features have been established for describing situational uses (Imai 2003), I am unaware of any similar features for defining demonstratives serving non-situational functions. But just as the stem *ann* encodes the spatial demarcation feature [medial] with respect to the speaker, *ann* can be said to encode the tracking feature [given], or more specifically [recently given] with respect to the discourse. *Om* on the other hand may be described as serving two different tracking functions in which it encodes one of two tracking features: [new] or [relevant]. Other possible features encoded by anaphoric and discourse deictic demonstratives include [focus],

[topic], [former], or [latter]. Recognitional demonstratives may be said to encode the features [discourse-new] and [common ground]. The development of a system of semantic features for describing non-situational demonstrative uses would be an important resource by which pragmatic demonstrative functions could be analyzed in both individual languages and cross-linguistically.

As noted throughout this thesis, regional and/or generational dialectal variation in Blackfoot may account for differences between previous analyses of the demonstrative system, as well as differences between examples from Uhlenbeck (1912) and my consultant. Since the details of dialectal variation in Blackfoot are largely undescribed, much research is needed in this area, for example, investigation of the reduction of /anná/ to [na:]. This type of reduction affects the medial and distal demonstrative forms of my consultant, but to my knowledge does not occur with the proximal stem *am*. Through the creation and analysis of a modern Blackfoot corpus, and through comparison of a modern corpus with Uhlenbeck's (1911; 1912) and De Jong's (1915) texts, the token frequency of adnominal demonstrative forms may provide avenues of explanation for this type of phonetic reduction in New Blackfoot. Additionally, a comparison of the demonstrative uses in the speech of New Blackfoot speakers who use Blackfoot regularly with those who are unable to speak Blackfoot regularly, may provide insight into processes of language change as they relate to spatial and textual deixis.

Finally, an area of particular interest to anthropological linguistics is the use of the *am* stem with the referent *iiníí* 'buffalo' in Uhlenbeck's (1912) texts. Whenever buffalo are mentioned in conjunction with a demonstrative form, the stem is always *am* and often has the suffix *-sst*, the meaning of which is unclear due to its relatively infrequent use. For the purposes of this study, I analyzed such occurrences as symbolic situational uses, however the *am* stem is never used in wider-context symbolic uses, but is only used symbolically in deictic projection. In certain cases the context makes a deictic projection reading unlikely, such as instances where the buffalo are explicitly described as being far from the people, but the *am* stem is still used. Thus it may be that

the buffalo herds are unique in some way with respect to the way demonstratives function with *iinií* as a referent. This uniqueness may be a result of the significant role the buffalo played in Blackfoot life prior to their sudden eradication in the 19th century. Further research into the language used to describe the location of the buffalo may help to illuminate this difficulty in analyzing situational uses of *am* referring to buffalo. Such an examination may reveal a second type of psychological distance (namely, affection) in contrast to Imai's (2003) psychological distance feature which encodes disgust by means of the distal form.

Appendix

The Thunder-bird (Uhlenbeck 1912:65-66)

	Blackfoot	English
1	**Annámaie** nápiua ánistau Nisóχkyaio.	**Long ago there was an** old man, [who] was called Four-bears.
2	Otánikapis, Pekáni Ponokáisiαχtài **άnniaie** itáukunàiin.	When he was a young man, the Peigans (sic) were camping on Elk river. (lit: …Elk-river, **that is** where they were camping)
3	Nepúaie.	It was in summer.
4	Misάmsotaii itótstsiu.	The long-time-rain had commenced.
5	Ksiskαniáutunìi ototoά´χkàni, **amóia** niétαχtaii áitòtò.	In the morning, when he went for the horses [to bring them in into the camp], he came to **this** river.
6	Itsinóyiu **omím** pìksíin ítsàupìin.	He saw, there was **a** bird, [that] was sitting [near the edge of the water].
7	Itsitápoχtoòaie.	He walked towards it.
8	Otάsαmαχsàie, stάmisksinìm **annóm** mátsitsipiksìuats.	When he was looking at it, then he knew, [that] the bird did not belong to **this country**.
9	Okúyistsaii kαnáuomianistsinàtsiaii, oχksisísaii kúmonuinàtsiuaie, oχkάtsistsaii nitúyi nitsinátsiau.	Its feathers were all of different colours, its bill was green-coloured, its legs were coloured the same.
10	Niuókskaukitsìnai.	It had three claws.
11	Mátαsαpìuatsinai.	It would not open its eyes [literally: look].
12	Itótoyiuaie.	He then took it.
13	Stάmaχkàpiuaie.	Then he took it home.
14	Otáipisi, nínaiks itαχkάnnauαmàii.	When he entered, all the chiefs were invited.
15	Áukαnaitàipimiàiks.	They all entered.
16	Akimóχtsim **άnnimaie** itáupiu **omá** pìksíu.	**The** bird sat at **the** upper end of the lodge. (lit: The place of honor, **that is** where **the** bird was sitting.)
17	Ánistsiu **amóksi** nínaiks :	He told **these** chiefs :
18	Áuke , **ámomaie** pìksíu, káχkitsαmmàuau, tsáχtau anistάpsiuaχtauts.	Now , **here is a** bird , that you may look at it [to know], what it is.
19	Mátonoàuats.	It was not known [nobody could tell what kind of bird it was].
20	**Omá** Nisóχkyaio áisαmò itsiksískaχkuyìuaie.	After a long while Four-bears pushed it.
21	Ótsàpsaie, stάmipapùminai.	When it opened its eyes [literally: looked], then it flashed lightning.
22	**Omík** kitsímik káuaiχtsiu.	**The** door lay open.
23	Itsíppotauanìnai.	It flew towards the door.
24	Omátsàpsaie, mátsipapùminai.	When it opened its eyes [literally : looked] again , then it flashed lightning again.
25	Otsipótaniai, itàχkúmiua ksistsikúma.	When it flew, then the thunder roared.
26	**Kénnyaie** mátanistsinoàu ksistsikúma.	**That way** the thunder was seen.

Bracketed portions are added by Uhlenbeck. Parenthetical comments are my own.

Works Cited

Abney, Steven Paul. 1987. *The English noun phrase and its sentential aspect.* PhD dissertation, MIT Press.

Anderson, Stephen & Edward Keenan. 1985. Deixis. *Linguistic typology and syntactic description: Grammatical categories and the lexicon, vol. 3*, ed. by Timothy Shopen, 259-308. Cambridge: Cambridge University Press.

Berez, Andrea. 2011. *Directional reference, discourse, and landscape in Ahtna*. PhD dissertation, UC, Santa Barbara.

Bliss, Heather. 2005. Topic, focus, and point of view in Blackfoot. Paper presented at *WCCFL 24, Simon Fraser University, Vancouver, Canada.*

Bliss, Heather & Jennifer Glougie. 2010. Speaker variation and the phonetic realization of Blackfoot obviation marking. *Proceedings of the 14th Workshop on the structure and constituency of languages of the Americas*, ed. by H. Bliss & R. Girard, 13–26. Vancouver: UBC Working Papers in Linguistics.

Bloomfield, Leonard. 1925. Notes on the Fox language. *International Journal of American Linguistics* 3.219-232.

Brown, Francis, S. R. Driver, & Charles A. Briggs (eds.) 1951. *A Hebrew and English lexicon of the Old Testament*. Oxford: Clarendon Press.

Chatsis, Annabelle, Mizuki Miyashita, & Deborah Cole. 2013. A documentary ethnography of a Blackfoot language course: Patterns of variationism and standard in the organization of diversity. *The persistence of language: Constructing and confronting the past and present in the voices of Jane H. Hill*, ed. by S. Bischoff, D. Cole, A. Fountain, & M. Miyashita. Amsterdam: John Benjamins.

Clark, Eve Vivienne. 1978. From gesture to word: On the natural history of deixis in language acquisition. *Human growth and development*, ed. by Jerome S. Bruner & Alison Garton, 85-120. Oxford: Oxford University Press.

Cleary-Camp, Jessica. 2007. Universal uses of demonstratives: evidence from four Malayo-Polynesian languages. *Oceanic Linguistics* 46.325-347.

Comrie, Bernard. 1989. *Language Universals and Linguistic Typology.* Chicago: University of Chicago Press.

De Jong, J. P. B. De Josselin. 1914. *Blackfoot texts: From the southern Peigans Blackfoot reservation, Teton County, Montana*. Amsterdam: Johannes Müller.

Dempsey, Hugh. 1988. *Indian tribes of Alberta*. Calgary: Glenbow-Alberta Institute.

Dempsey, Hugh & Lindsay Moir. 1989. *Bibliography of the Blackfoot*. Native American bibliography series 13. Metuchen, New Jersey: Scarecrow Press.

Diessel, Holger. 1999. *Demonstratives: Form, function and grammaticalization*. Amsterdam: John Benjamins.

Dixon, R. M. W. 2003. Demonstratives: a cross-linguistic typology. *Studies in language* 27.61-112.

Dryer, Matthew S. & Martin Haspelmath (eds.) 2011. The world atlas of language structures online. Munich: Max Planck Digital Library. 3 March 2013. Online: http://wals.info.

Dupraz, Emmanuel. 2012. *Sabellian demonstratives: Forms and functions*. Leiden, The Netherlands: Brill.

Fillmore, Charles. 1982. Towards a descriptive framework for spatial deixis. *Speech, place, and action: studies in deixis and related topics*, ed. by R. J. Jarvella & Wolfgang Klein, 31-59. New York: Wiley.

Fillmore, Charles. 1997. *Lectures on deixis.* Stanford: CSLI Publications.

Fleischman, Suzanne. 1990. *Tense and narrativity: From medieval performance to modern fiction*. Austin: University of Texas Press.

Frantz, Donald G. 1971. *Toward a generative grammar of Blackfoot.* SIL Publications in Linguistics and Related Fields #34. Norman, OK: SIL International.

Frantz, Donald G. 1999. Notes on the linguistic history of Blackfoot. 15 April 2013. Online: http://people.uleth.ca/~frantz/blhist.html.

Frantz, Donald G. 2009. *Blackfoot grammar, 2nd edition*. Toronto, Ontario: University of Toronto Press.

Frantz, Donald G. n.d. The Blackfoot language. 31 March 2013. Online: http://classes.uleth.ca/201203/bkft2210a/dialects.html.

Frantz, Donald G. and Inge Genee. n.d. An old woman left behind. MS.

Frantz, Donald G. and Norma J. Russell. 1995. *Blackfoot dictionary of stems, roots, and affixes, 2nd Edition*. Toronto: University of Toronto Press.

Geers, Gerardus Johannes. 1917. *The adverbial and prepositional prefixes in Blackfoot*. Leiden: N. V. Boekdrukkerij.

Genee, Inge. 2005. Blackfoot demonstratives. Invited presentation at The University of Alberta Linguistics Colloquium, Edmonton, Alberta. 1 April 2005.

Genee, Inge. 2008. From the armchair to the field and back again: C.C. Uhlenbeck's work on Blackfoot. *Canadian Journal of Netherlandic Studies* 29/30.105-127.

Gernsbacher, Morton Ann & Suzanne Shroyer. 1989. The cataphoric use of the indefinite *this* in spoken narratives. *Memory & cognition* 17.536-540.

Glougie, Jennifer R. S. 2000. Topics in the syntax and semantics of Blackfoot quantifiers and nominals. MA Thesis, The University of British Colombia.

Goddard, Ives. 1974. Review of *Toward a generative grammar of Blackfoot: With particular attention to selected stem formation processes*, by Donald G. Frantz. *Language* 50.601-604.

Goddard, Ives. 2001. The Algonquian languages of the plains. *Plains*, ed. by Raymond J. DeMaille, *The Handbook of North American Indians, vol. 13*, ed. by William Sturtevant. Washington, D.C.: Smithsonian Institution.

Goddard, Ives. 2003. Reconstructing the history of the demonstrative pronouns of Algonquian. *Essays in Algonquian, Catawaban, and Siouan linguistics in memory of Frank T. Siebert, Jr.*, 37-102.

Grinnell, George Bird. 2008. *Blackfeet lodge tales: The story of a prairie people*. Forgotten Books.

Himmelmann, Nikolaus P. 1996. Demonstratives in narrative discourse: A taxonomy of universal uses. *Studies in anaphora*, ed. by Barbara Fox, 205-54. Amsterdam: John Benjamins.

Imai, Shingo. 2003. *Spatial deixis*. PhD dissertation, SUNY Buffalo.

Kaneko, Ikuyo. 1999. A metrical analysis of Blackfoot nominal accent in Optimality Theory. MA Thesis, The University of British Colombia.

Lakoff, Robin. 1974. Remarks on 'this' and 'that'. *Chicago Linguistics Society* 10.345-356.

Lambrecht, Knud. 1994. *Information structure and sentence form: Topic, focus, and the mental representation of discourse referents.* In Cambridge Studies in Linguistics 71. Cambridge: Cambridge University Press.

Levinson, Stephen C. 1983. *Pragmatics*. Cambridge: Cambridge University Press.

Levinson, Stephen C. 2003. *Space in language and cognition: Explorations in cognitive diversity*. Cambridge: Cambridge University Press.

Lewis, M. Paul, Gary F. Simons, and Charles D. Fennig, eds. 2013. *Ethnologue: Languages of the world, 17th edition*. Dallas, TX: SIL International.

Lyons, John. 1977. *Semantics,* 2 volumes. Cambridge: Cambridge University Press.

Maclean, John. 1896. The Blackfoot language. *Transactions of the Canadian institute* 5.128-165.

Mithun, Marianne. 1987. The grammatical nature and discourse power of demonstratives. *Proceedings of the Thirteenth Annual Meeting of the Berkeley Linguistics Society*, 184-194.

Mithun, Marianne. 1999. *The languages of native North America*. Cambridge: Cambridge University Press.

Pederson, Eric & David Wilkins. 1996. A cross-linguistic questionnaire on 'demonstratives'. *Manual for the 1996 Field Season*, ed. by Stephen C. Levinson, 1-11. Nijmegen: Max Planck Institute for Psycholinguistics.

Proulx, Paul. 1988. The demonstrative pronouns of Proto-Algonquian. *International Journal of American Linguistics* 54.309-330.

Proulx, Paul. 1989. A Sketch of Blackfoot Historical Phonology. *International Journal of American Linguistics* 55.43-82.

Proulx, Paul. 2003. The evidence on Algonquian genetic grouping: A matter of relative chronology. *Anthropological Linguistics* 45.201-225.

Proulx, Paul. 2005. Initial change in Blackfoot. *Calgary Papers in Linguistics* 26.1-26.

Schupbach, S. Scott. 2013. Situational demonstratives in Blackfoot. *Coyote Papers* 21. Online: http://arizona.openrepository.com/arizona/handle/10150/270993

Smyth, Herbert Weir. 1920. *Greek Grammar*. Cambridge, MA: Harvard University Press.

Statistics Canada. 2011. 2011 Census of Population. 25 March 2013. Online: http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/tbt-tt/Rp-eng.cfm?LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=0&GK=0&GRP=1&PID=103328&PRID=0&PTYPE=101955&S=0&SHOWALL=0&SUB=0&Temporal=2011&THEME=90&VID=0&VNAMEE=&VNAMEF=.

Talmy, Leonard. 2000. *Toward a cognitive semantics,* volume I. Cambridge: MIT Press.

Taylor, Allan R. 1969. *A grammar of Blackfoot*. PhD dissertation, UC Berkeley.

Tims, J. W. 1889. *Grammar and dictionary of the Blackfoot language: In the domain of Canada.* London: Society for Promoting Christian Knowledge.

Uhlenbeck, C. C. 1911. *Original Blackfoot texts: from the southern Peigans Blackfoot reservation, Teton County, Montana*. Verhandelingen der Koninklijke Akademie van Wetenschappen te Amsterdam, Afdeeling Letterkunde, Nieuwe Reeks 12.1. Amsterdam: Johannes Müller.

Uhlenbeck, C. C. 1912. *A new series of Blackfoot texts: from the Southern Peigans Blackfoot Reservation, Teton County, Montana*. Verhandelingen der Koninklijke Akademie van Wetenschappen te Amsterdam, Afdeeling Letterkunde, Nieuwe Reeks 13.1. Amsterdam: Johannes Müller.

Uhlenbeck, C. C. 1914. Some general aspects of Blackfoot morphology: a contribution to Algonquian linguistics. *Verhandelingen der Koninklijke Akademie van Wetenschappen te Amsterdam, Afdeeling Letterkunde* 14.5. Amsterdam: Johannes Müller.

Uhlenbeck, C. C. 1915. *Philological notes to Dr. J. P. B. de Josselin de Jong's Blackfoot texts*. Verhandelingen der Koninklijke Akademie van Wetenschappen te Amsterdam, Afdeeling Letterkunde, Nieuwe Reeks 16.1. Amsterdam: Johannes Müller.

Uhlenbeck, C. C. 1938. *A concise Blackfoot grammar*. Amsterdam: North Holland Publishing Company.

Uhlenbeck, C. C. & R. H. Van Gulick. 1930. *An English-Blackfoot vocabulary: based on material from the South Peigans.* Verhandelingen der Koninklijke Akademie van Wetenschappen te Amsterdam, Afdeeling Letterkunde, Nieuwe Reeks, Deel 29. Amsterdam: Noord-Hollandse Uitgevers-maatschappij.

Uhlenbeck, C. C. & R. H. Van Gulick. 1934. *A Blackfoot-English vocabulary: based on material from the South Peigans.* Verhandelingen der Koninklijke Akademie van Wetenschappen te Amsterdam, Afdeeling Letterkunde, Nieuwe Reeks, Deel 33. Amsterdam: Noord-Hollandse Uitgevers-maatschappij.

U.S. Census. 2010. The American Indian and Alaskan Native population: 2010. 13 April 2013. Online: http://www.census.gov/prod/cen2010/briefs/c2010br-10.pdf.

Van Valin, Robert D. & Randy J. LaPolla. 1997. *Syntax: structure, meaning, and function*. Cambridge: Cambridge University Press.

Wilkins, David. 1999. The 1999 demonstrative questionnaire: 'this' and 'that' in comparative perspective. *Manual for the 1999 Field Season*, ed. by David Wilkins, 1-24. Nijmegen: Max Planck Institute for Psycholinguistics.

Wright, Sue Ellen & Talmy Givón. 1987. The pragmatics of indefinite reference: Quantified text-based studies. *Studies in Language* 11.1-33.