RECENT LANGUAGE CHANGE IN SHOSHONE: STRUCTURAL CONSEQUENCES OF LANGUAGE LOSS

by

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ABSTRACT

This dissertation provides a detailed case study of language endangerment-induced language change in the Shoshone community of Duck Valley, a Shoshone and Paiute reservation where the native languages have lost ground to English significantly over the past decades. The analysis incorporates factors from individual speaker backgrounds and sociolinguistic histories in determining language endangerment-induced language change and variation and indicates how these variables show that extensive contact with English and decreasing use of Shoshone have led to structural simplification in the nominal morphological features examined in this study.

This dissertation examines structural changes in Shoshone, a language whose community is undergoing language shift. Shoshone is an endangered Uto-Aztecan language with approximately 2,000 speakers spoken in the Great Basin area: Nevada, Utah, Idaho, and Wyoming. There is a large dialect chain of Shoshone speakers over this geographical area. Miller conducted extensive fieldwork throughout the Shoshone-speaking community during the 1960s and 70s. His vast collection of texts and grammatical work, the Wick R. Miller Collection (WRMC), is housed at the University of Utah. The availability of this collection for comparison with present-day data that I collected during a three-week field trip to the reservation provides a picture of language change over a period where the language has gone from relatively viable to extremely endangered.

This analysis focuses on nominal morphology motivated by the existence of crosslinguistically marked features, the anecdotal or preliminary observations of changes in progress, and to build on the findings of previous case studies into endangered language nominal morphology. Descriptive analysis of each feature is presented with examples from present-day speakers of various language proficiency levels and compared with the texts from the WRMC. The features discussed are the accusative case allomorphy, number marking and agreement, and proximity indication in demonstrative stems. The analysis of the sociolinguistic data on language use, gender, age, and social network indicates that these factors interact with age being the most relevant factor in retention or innovation in the features presented here.

CONTENTS

LIST OF FIGURES

LIST OF TABLES

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CHAPTER 1

INTRODUCTION

Languages are going extinct at an alarming rate. Michael Krauss (1992:4-10) has claimed that within the century, 90% of today's nearly 7000 languages will be extinct or terminally endangered. Even if this is taken to be a high estimate, it is clear that the world's linguistic diversity is severely at risk. There are numerous social, cultural, and scientific impacts for each language lost or even endangered. One area of research that has developed out of work in endangered-language communities investigates the effect of language obsolescence on linguistic structure (Miller 1971; Hill 1973; 1978; Dorian 1973; 1981; 1989; Dressler and Wodak-Leodolter 1977; Schmidt 1985; Campbell and Muntzel 1989; Mithun 1989; 1990; Fox and Campbell 2011). This dissertation presents an investigation into such language endangerment-induced changes for the Duck Valley community of Shoshone speakers.

Endangered languages face numerous and varied challenges. Some threats are challenges for the individual. These include, for example, family members not teaching, acquiring, or learning the language at home and individuals not having the motivation to speak the language. Other threats are community challenges, for example, the absence of a community of practice, the diminished economic opportunity associated with the language, and lower prestige in speaking the language. The social, cultural, and emotional effects of language loss are difficult to quantify or represent. In addition to that, we might ask what the structural loss and the loss to the world's linguistic diversity might be. How does language death proceed through a language or a language community? By answering these questions, we may become better equipped to understand the process of language death and to create techniques to combat it.

The goal of this project is to examine structural changes in Shoshone language, the community of which is undergoing language shift. The focus for this study is two-fold: first, I will examine particular morphosyntactic structural changes in Shoshone; second, I will evaluate the social and linguistic forces affecting its structure. Throughout this work, I also highlight current efforts to revitalize the use of Shoshone including the Shoshone

Youth Language Apprenticeship Program (SYLAP), a program which I designed to provide Shoshone and Goshute high school students opportunities to learn Shoshone language and participate in language documentation and revitalization efforts.

This study reports a picture of the state of Shoshone today in a reservation community, Duck Valley, Nevada. In the community, one may overhear some Shoshone being spoken between elders at the market or the Senior Center. This is a rare occasion. Most community members are realistic about the future of Shoshone. The generation of elders grew up speaking only Shoshone and remain fluent in the language, although they rarely practice it. Some younger adults have limited or passive knowledge of Shoshone. Very few young people speak Shoshone nor are we aware of any children acquiring the language at home. In the community, it is clear that the language is in danger of being lost in the next forty years.

It seems that extinction of Shoshone is imminent. Despite the fact that there are a handful of revitalization and teaching efforts in the community, it is indisputable that the language is spoken much less than it was in its most vibrant state. The goal of this project is to investigate some of the morphological changes in Duck Valley Shoshone concurrent with increased language endangerment. There have been various claims as to why the structure of an endangered language will change in a different way from viable languages. The evidence that I present in this dissertation outlines the state of endangerment of Shoshone as compared to the descriptions and recordings of the conservative, viable Shoshone of the 1960s and 1970s. I argue that contact with English has led to loss of grammatically marked morphological features in the Shoshone of younger speakers. This largely supports the generalizations based on previous case studies that endangered languages experience greater rates of change and often in the direction of assimilation to the dominant language (Hill 1973; 1978; Dorian 1973; Schmidt 1985; Campbell and Muntzel 1989; Mithun 1989; 1990).

This work provides an analysis of the innovative Shoshone of present-day Shoshone speakers in Duck Valley in 2010; it also provides an analysis of the social and linguistic forces at play in the sociolinguistic situation of language death and how these factors work together to influences changes in the morphological features of the Shoshone language. In Chapter 2, I provide a background of the Shoshone language and communities. I specifically focus on a description of the community in which I worked and on a grammatical sketch of the Shoshone language as described in its healthy state. In Chapter 3, I review the literature, past case studies, and present theories about language endangerment-induced

structural loss. Chapter 4 describes my methodology and fieldwork experience in Owyhee, Duck Valley Reservation. In Chapter 5, I describe three changes in progress that are occurring in the community as a direct result of the language endangerment situation. In Chapter 6, I examine speaker histories and language proficiency in relation to the observed morphological changes among the study's speakers. Finally, I conclude with a summary of Chapters 3-6 in terms of what this case study contributes to the literature on structural obsolescence in language death.

Dressler (1981:10) cautions that it is not feasible "for a linguist after performing the task of identifying, describing, classifying, and trying to explain such phenomena of language decay, to lean back and leave all the other problems of language death (and language shift) to the sociolinguist or sociologist." The investigator is faced with the challenge of explaining language change. This has been the focus of a number of case studies in endangered languages for a diverse sample of languages. Such studies that investigate language endangerment-induced changes include Miller (1971), Hill (1973), Dorian (1973), Dressler and Wodak-Leodolter (1977), Schmidt (1985), Campbell and Muntzel (1989), Mithun (1989), and Mithun (1990). This dissertation provides an additional case study of structural changes in Shoshone nominal morphology.

Language death occurs in a language contact situation when a minority speech community gradually stops using its heritage language in favor of the language of the dominant society. The principal mechanism responsible for this outcome is the decline or absence of natural transmission of language competence from older to younger generations. In these situations, there are complicated social factors that necessarily become associated with each language. For example, Dorian (1981) reports the macrolevel social situation of East Sutherland Gaelic in which patterns of association with traditional or modern culture are reflected in the use of Gaelic and English. Use of Gaelic is viewed as a demonstration of local pride and solidarity among the fisherfolk of Sutherland. However, these local values are often weakened or impeded by the education of young children through which they are encouraged to speak English in order to enhance their potential for economic success outside of the fishing community. This is very similar to the situation in Duck Valley Shoshone where there are conflicting attitudes towards the preservation of the language and culture and the increased economic opportunity associated with leaving the reservation and pursuing a mainstream education. The socioeconomic and sociohistorical realities of language death are important factors for any situation of language shift, as Gal (1979), Dorian (1981), and Schilling-Estes and Wolfram (1999) show. Individual attitudes toward

both the heritage and dominant languages are inevitably affected by these forces. However, there is no standard direction of influence in language death situations. Each community and each individual reacts to such socioeconomic pressures and local identity issues differently.

This study considers these important social and biographical details for each speaker and presents an analysis of Shoshone language change that is closely tied to the speakers' exposure to the two languages and sustained membership or nonparticipation in the traditional Shoshone community and activities.

The results of this study have implications for practical language revitalization and for linguistic theory. Scholars who work in language revitalization will be interested in the types of shifts and observed changes in Shoshone. Evidence for the loss of structures as a result of endangerment strengthens arguments for maintaining a viable language community. The specific forces postulated to be linked to accelerated change may be more directly addressed in language revitalization efforts. Researchers engaged in fieldwork on endangered languages might gain a greater insight into the potential kinds of shifts to expect in such documentation.

This study's results contribute to linguistic theory via increased knowledge about the kinds of natural occurrences expected in dying languages. Current linguistic theory posits certain attributes of language as universal, part of the innate mental grammar for all humans. This study adds to our understanding of what is innate by investigating what is lost when a language's structure begins to diminish. In this way, this project addresses a broad interest in the field of linguistics, with both theoretical and practical language applications.

The resources available for Shoshone at the University of Utah and my opportunity to conduct fieldwork in the Duck Valley community have provided a timely test case for an initial investigation into the phenomenon by studying the structural consequences of language loss. Future work and testing of this study and others like it may lead to a novel perspective for studies of endangered languages. The unique Shoshone situation makes this project a perfect starting point for such a research program.

CHAPTER 2

THE SHOSHONE LANGUAGE

2.1 Shoshone Language Introduction

Shoshone is an endangered Northern Uto-Aztecan language of the Numic branch with approximately 2,000 speakers of an ethnic population of about 7,000 (ethnologue.com). Although this number of speakers is relatively high for a North American language, most of the speakers are over the age of sixty and about half of these are described as nonfluent by Golla et al. (2007). Thus, the language is under extreme danger of becoming moribund within the next few generations. The grandparent generation is typically quite fluent in the language, but today's parents may have only passive knowledge of Shoshone. Very few young people speak Shoshone and I am not aware of any children acquiring or learning the language as a first language at home.

Dialects of the language are spoken in about twenty small communities throughout the Great Basin, primarily in Nevada, Utah, Idaho, and Wyoming. There is a large dialect chain of Shoshone speakers over this vast geographical area; all dialects are mutually intelligible with little trouble and speakers are quite accustomed to communicating with those speaking different dialects (Miller 1970). The Shoshone communities today are each quite different in character. They range in population from 50 to 2,000 people. Some *colonies* are situated within a non-Shoshone city, such as Ely and Elko, Nevada. Others are reservations, almost entirely separated from mainstream White culture such as Duck Valley (Owyhee, Nevada) and Fort Hall, Idaho. These two major reservations are shared with Northern Paiute tribes. Still other colonies like Ibapah, Utah are very small rural areas (population fewer than 100 people) with largely Shoshone populations. This variety of the present-day Shoshone communities has some impact on the current status of the language in each community.

In the precontact society, the Shoshone people traveled throughout the Great Basin in small family groups (Crum 1994:1-10; Miller 1970). These small bands would consist of one or two extended family groups consisting of parents, children, grandparents, aunts, uncles, and cousins. Marriage was culturally required to be outside of the extended family group.

Thus, within the small family band, speakers would often represent different dialect areas. That is, one member from each married couple would be from outside of the band and therefore, might speak a different dialect.

As there were limited natural resources in the Great Basin, these small Shoshone bands necessarily roamed throughout the area to make the best use of their environment. Bands roamed throughout a smaller area of the Great Basin following seasonal resources, always tied to the availability of water in a central location, e.g., a valley, mountain range, etc. (Crum 1994:3-4). At certain points throughout the year, many family bands would come together for group hunts or other gatherings. These events included pine nut harvests, rabbit hunts, and antelope surrounds; such events were accompanied by round dances, prayers, and ceremonies (Crum 1994:3-6). During these events, young men and women would meet and become couples.

Miller (1970) reported on the complex dialectology of the Western Shoshone and focused on the linguistic implications of the traditional Shoshone culture, e.g., that marriage and nomadic practices led to children living in small, linguistically heterogeneous groups with very few peers. For many speaker that Miller profiled, the extended family typically included speakers from different Shoshone dialect areas and even speakers who were multilingual in other Numic languages. Thus, children experienced many dialect influences, a broad linguistic network, and a large degree of tolerance for and facility in different dialects. Today, the use of and exposure to varieties of Shoshone language is greatly reduced.

Modern Shoshone life is quite different from the aboriginal way of life described above. As a consequence of the formation of reservations and Indian colonies by the United States government, today the Shoshone people are split into more than ten distinct tribes. However, the people of these tribes still share cultural practices and the Shoshone language. The Shoshone dialect situation is still unique in that typical Shoshone speakers continue to have family members in many different communities and individuals regularly travel between communities. Our recent work at the University of Utah with various dialect groups suggests that since the settlement of Shoshone people on reservations, the regional dialects have become more distinct. There is not as much intermarriage between the reservation groups as was traditional, partly because the groups are larger. Thus, exogamy is not dictated by band membership. Furthermore, as the language has become more endangered, speakers relate more strongly to a specific dialect symbolic of their personal identity. They seem to be more protective of their particular way of speaking Shoshone than earlier generations described in the literature.

2.2 Uto-Aztecan Language Family

Shoshone is a Central Numic language of the Uto-Aztecan language family. Uto-Aztecan is one of the largest Native American language families, both in geographic area and number of languages. Uto-Aztecan languages are spoken across large regions of the Western United States, Mexico, and El Salvador, where Pipil is on the verge of extinction and once reached as far south as Nicaragua and Costa Rica.

Numic is a branch of Northern Uto-Aztecan primarily spoken in the Western U.S. The Numic languages are particularly closely related (Miller 1983). There are three branches of Numic: Western, Central, and Southern. Each branch consists of a 'core' language, spoken in Southern California, and a 'peripheral' language or dialect chain, spoken in the Great Basin. These grouping are given in Table 2.1, adapted from Campbell (1997:134).

The main point of discussion in Numic classification has been internal relationships among the three closely related branches. The three are typically given as three parallel branches (e.g., Miller 1983). However, Freeze and Iannucci (1979) propose a Western Numic and an Eastern Numic with a subsequent split of Eastern Numic into Central and Southern branches. Conversely, Langacker's (1976) focused study of nondistinct arguments in Uto-Aztecan found suggestive evidence for a closer relationship between the Western and Central branches, with Southern Numic as the more distant branch. A complicating issue among Uto-Aztecan languages is the degree of contact between the languages, particularly in the Numic branch, in which speakers of the various languages have long histories of bilingualism and extensive contact which complicate the task of identifying proto-structures (e.g., Babel et al. 2013).

Approximately 35 Uto-Aztecan languages survived contact with Europeans long enough

Table 2.1. Numic Subgrouping

Numic	
Western Numic & Mono (California)	
	Norhtern Pauite (Idaho, Orgon, Nevada)
Central Numic & Panamint (California)	
	Shoshone (Nevada, Utah, Wyoming, Idaho)
	Goshute (Nevada, Utah)
	Comanche (Oklahoma)
Southern Numic & Kawaiisu (California)	
	Ute (Utah, Colorado)
	Southern Paiute (Nevada, Utah, Arizona, California)
	Chemehuevi (Arizona, California

to be documented; Campbell (1997:133-135) mentions approximately 20 other possible Uto-Aztecan languages that are now extinct. Uto-Aztecan languages are frequently characterized by wide dialectal variation; this is particularly true for Numic (Miller 1984). This fact has given rise to difficulty in classification of a particular variety as a language or dialect. Although some of the Southern Uto-Aztecan languages, such as Nahuatl[1] and Tarahumara, are relatively stable, many of the Southern and the Northern languages have fared significantly worse; some are now extinct (Miller 1983). Most Uto-Aztecan languages have lost significant numbers of speakers since European contact; endangerment is the norm. Many of the languages are moribund or obsolescent (Campbell 1997:134). The Numic languages are all endangered, with the strongest languages, Northern Paiute, Shoshone, and Ute, spoken by perhaps a few thousand speakers each (Campbell 1997:134; ethnologue.com).

As mentioned in Section 2.1, Shoshone consists of a diverse dialect chain spoken by members of small communities which are spread throughout the American Great Basin: California, Oregon, Idaho, Nevada, Utah, and Wyoming (Miller 1970; Silver and Miller 1997). The Shoshone dialect continuum exhibits considerable lexical and phonological variation, yet there is also considerable mutual intelligibility throughout the community (Miller 1970; 1971). Many speakers of Shoshone note that Comanche, the near relative of Shoshone spoken in Oklahoma, it is also mutually intelligible though often classified as a distinct language.

The bulk of what we know about the structure of Shoshone comes from the voluminous works of Wick R. Miller, John Dayley, and their productive collaborations with Beverly and Earl Crum, Western Shoshone tribal members, and language and culture experts. Much of the work is based on the language variety of the Crums, speakers of the Owyhee dialect (Crum and Dayley 1993; Crum, Crum, and Dayley 2001). Other works focus on the dialects of consultants from Goshute (Miller 1996), Fort Hall (Gould and Loether 2002), and Panamint (Dayley 1989). In addition to these published works, the University of Utah houses a large collection of Shoshone recordings from Miller's extensive fieldwork in the 1960s and 70s, the Wick R. Miller Collection (WRMC). Work at the University of Utah over the past decade has aimed to complete transcription and translation of the approximately 400 text recordings collected by Miller during his fieldwork in the late 1960s. This ongoing project is now overseen by Prof. Marianna Di Paolo[2]. I worked with Prof. Di Paolo and

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[1]However, Nahuatl is significantly threatened in many places and already extinct in many places where it was once spoken, despite still having about 1 million total speakers.

[2]This work was supported from 2003 to 2007 by a grant from the National Science Foundation, NSF

Prof. Mauricio J. Mixco facilitating the work of native speakers and linguists on the WRMC from 2007 to 2012. Translations and transcriptions have been completed for most of the texts in the WRMC and morphological analysis by Prof. Mixco has continued until recently. In this section, I summarize the work from these authors and researchers in order to provide background for the grammatical categories investigated in the following chapters.

2.3 Grammatical Sketch

2.3.1 Lexical Categories

Shoshone has nouns and pronouns that are inflected for case and number, e.g., *satii* 'dog', *ko'i* 'hill, peak', and *ne* first person singular subject[3]. Nouns are also inflected with an absolutive suffix. This label is possibly misleading, as it has nothing to do with ergative-absolutive case marking. Instead, the absolutive markings occur on classes of nouns that are roughly based on semantic concepts. These vague classes of nouns, discussed further in Section 2.3.6, are not semantic classes in modern Numic; however, there is evidence that a noun class system existed in Proto-Uto-Aztecan (henceforth PUA) (Dayley 1989; Miller 1996). The absolutive marking interacts with the case marking of nouns; particular particular object (or accusative) case morphemes correspond to particular absolutive markers. Case marking and absolutive suffixes are discussed further below, in Section 2.3.4.

Shoshone verbs can be intransitive, transitive, or ditransitive, with one, two, or three arguments, respectively.

(1) ne eppei-ka(n)
     (I sleep:SG-ASP:STAT)
     'I am sleeping.'

(2) ne takka-pi(n)-tta tsaa-tsaa-suan-na
     (I snow-ABS-ACC good-good-think-ASP:GEN)
     'I like snow.'

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[3]Throughout this paper, I use the Shoshone orthography developed by Wick R. Miller and Beverly Crum unless otherwise indicated. This orthography is phonemic and most of the characters correspond to IPA, except for 'e' which represents the high, central vowel, /ɨ/. There are also some stems and morphemes that affect the morpheme that is adjacent to them. In the Shoshonean literature, these are called final features. The Miller-Crum orthography represents these as (n) for the Nasalizing feature, (h) for the Preaspirating feature, and " for the Geminating feature. None of these have surface realizations on the bare form; they only surface as the above processes when followed by a stop consonant.

(3) pen-e(n)　　　　kwattsa-ppeh-a　　　　u-"kuh　　　　u-n
((s)he:own-POSS pine:nut:porridge-ABS-ACC NEW:that:INVIS-LOC it-POSS
tsaa-wama-kante(n)
INST:GRASP-place-ASP:STAT)
'He put his porridge there.'

Maude Moon, WRMC_001_01, ln 69

Shoshone has predicate adjectives, incorporated adjectives, and nominal compounds in which nouns modify other nouns, e.g., *satii tuu-pih-ten*, (dog black-ABS-PRO) 'black dog', *eke-kwasu*, (new-shirt)'new shirt', <u>a</u>inka'ai-pi(n) *kahni*, (pink-ABS house) 'pink house'.

Postpositions describe position, direction, location, time, and other semantic concepts. These postpositions can combine with most other lexical categories, including verbs, nouns, and pronouns, e.g., *mia-ttun*, (go:SG-THROUGH) 'go through', *kahni-kuppa*, (house-IN) 'within the house', *pen-ka*, ((s)he:own-AT) 'at his'. Auxiliary verbs are also suffixes. These are shortened versions of full verbs that combine with the main verb as a clitic, e.g., *kate-pite*, (sit:SG-ARRIVE) 'come to sit'. Auxiliary verbs are semantically bleached from the meanings they bear in isolation. *pite* means 'arrive' as an independent verb, and is a resultative when used as an auxiliary. The auxiliary verbs are a closed set that primarily consists of motion and positional verbs. Adverbs of time and place in Shoshone can be free lexical items; adverbial notions can also be expressed with postpositions or aspect suffixes, e.g., *imaa yeikka*, (tomorrow evening) 'tomorrow evening', *yekwi-'i*, (say-PER) 'said again and again'.

The Shoshone demonstrative system is complex. Demonstratives are specified for new or old referent, relative location/distance of the referent from ego (5 possible distinctions), and case. Demonstratives can also act as pronouns, full DPs, or determiners, e.g., *s-u-te(n) wa'ippe*, (OLD-that:INVIS-PRO woman) 'that woman'. This system is described further below.

2.3.2　Basic Word Order

Intransitive sentences of Shoshone have an SV word order as seen in (4), examples taken from WRMC texts.

(4) ne t<u>a</u>ikwa"-tu'i
(I speak-FUT)
'I will speak.'

Albert McGill, WRMC_038_04, ln 1

Transitive sentences usually show SOV word order as in (5) and (6):

(5) s-a-te(n)　　　　semme imaa　　ma　　puih-pite-kuh　　wihnu
　　(OLD-that:FAR-PRO one　　morning OLD:this see-ARRIVE-ADV:AS then)
　　'Then, he went to see him one morning.'

　　Burt Bullcreek, Jr., WRMC_087_06, ln 5

(6) neme　　hin-peh-a　　　　　to'i"-peh　　　tekka-ku-se(n)
　　(people something-ABS-ACC cattail:root-ABS eat-ASP:MOM:COMPL-RES)
　　'We used to eat the roots of cattail bushes.'

　　Ed Stevens, WRMC_087_08, ln 3

Exceptional word orders do occur, often for stylistic or narrative purposes. Subjects do not always appear as the leftmost constituent, as in (7) and (8). Shoshone can also have a zero subject, where the surface order is OV, but when a subject occurs, it is on the left in its basic position.

(7) kaim"-a　　s-u-te-weh　　　　　　　soon　tsa"-himah-ka
　　(bird-ACC OLD-that:INVIS-PRO-DU many INST:GRASP-take:PL-ADV:THEN)
　　'As they (2) were holding many birds in their hands.'

　　Johnny Dick, WRMC_064_01, ln 17

(8) 1866　s-u-pai　　　　　　　s-u-te-weh　　　　　　newe-ma'ai(n)
　　(1866 OLD-that:INVIS-EXT OLD-that:INVIS-PRO-DU person-WITH
　　na-mo'o-tsai-ppeh　　　　　s-ai-ma'ai(n)　　　　taipo-nee-ma'i
　　UNSP-INST:HAND-seize-ASP:PRF OLD-this:NEAR-WITH white:man-PL-WITH)
　　'It was in 1866 when they both shook hands with the white people.'　LeSalle

　　Pocatello, WRMC_067_01, ln 8

(7) and (8) respectively show the object *kaim* 'bird' and an adverb of time *1866 supai* 'in 1866' appearing before the subject, *suteweh* 'they.dual' in both cases. The translation in (8) suggests a cleft construction where the year 1866 is in topic position. The order observed in (7) is possibly comparable to the English example, *Beans, I like*, where the object is topicalized for emphasis or contrast.

2.3.3 Morphological Typology

Shoshone is predominantly suffixing. Suffixes tend to be inflectional, but there are also some derivational suffixes. The following morphemes are suffixes in Shoshone:

- Nominal Suffixes: {number}, {case}, {nominalizer}

- Verbal Suffixes: {aspect}, {tense}, {modal} (some modal notions are expressed with free morphemes), auxiliary verbs, directional verbal notions, Subject-Verb Agreement, {verbalizer}

- Postpositions

There are also some verbal prefixes that express more consistently derivational affixing, such as:

- {passive} or unspecified subject

- {reciprocal} also formed with the unspecified subject prefix

- {antipassive} or indefinite object

- instrumentals

The following sentence gives some examples of Shoshone affixes:

(9)   muuta'-a   na-te-noo-teki-'i-ten   u-pa'an
     (mule-ACC UNSP-INDF:ACC-back:carry-PLACE-PER-ASP:HABIT it-UP
     to'ih-kwan
     emerge:SG-ASP:MOM:COMPL)
     'It (the saddle) was placed on the mule and (he) mounted it.'
     Maude Moon, WRMC_002_01, ln 12

Shoshone also has some morphemes that are expressed by gemination and reduplication. Typological generalizations that these morphemes are often iconic hold for Shoshone (see Whayley 1997); gemination expresses durativity and reduplication expresses plurality, and distributive.

(10)   wene
      (stand:SG)
      'stand (singular)'

(11)   wenne
      (stand:SG:DUR)
      'be standing (singular, durative)'

(12)   tai
      (hole)
      'hole'

(13)   tsi"-ta-ta-wene
      (INST:POINT-hole-hole-stand:SG)
      'punch holes all over (distributive)'

(14)   mia
      (go:SG)
      'go (singular)'

(15) mimia
(go:PL)
'go (dual, plural)'

As an agglutinative language, Shoshone has a large number of polymorphemic words; however, given their analytic tractability, these do not approach polysynthesis, in which complete utterances are formed by phonologically complex affixation. See the following examples in which pronominal subjects may be dropped, but objects usually are not and verbs are complex, often involving more affixation than English verbs.

(16) haa'a nuun ne s-u-"ka   hanni-mi'a-'i, mai
(yes   MOD I   OLD-that:INVIS-ACC do-go:SG-PER QUOT)
"'Yes! That's what I go (about) doing," he said.'

Maude Moon, WRMC_001_05, ln 135

(17) u-"ka   u(n) waiha"-kwan-'yu   a-"kuh-tun
(NEW:that:INVIS-ACC it   burn-DIR:AWAY-ITER NEW:that:FAR-LOC-THROUGH
tsi"-pa<u>i</u>tta'i
INST:POINT-throw)
'(He) was burning it over that way, throwing it.'

Maude Moon, WRMC_017_03, ln 269

(18) s-a-te(n)   wihnu ma-"tun
(OLD-that:FAR-PRO then   OLD-this:THROUGH
hapih-tai"-kwan
lie:down:SG-COMP-ASP:MOM:COMPL)
'Then he just lays down (paralyzed) through it.'

Maude Moon, WRMC_011_03, ln 63

(19) amasu'an-tsi-na-te-kwina"-pe(h)   kate-kate-nei"-na
(spider-ABS-UNSP-INDF:OBJ-tell-NOM:ABS sit:SG-RND:TRP-ASP:GEN)
'Little Fabled Spider was sitting there (sitting around).'

Maude Moon, WRMC_020_02, ln 13

The above examples also show the highly agglutinative nature of Shoshone, as the morphemes are easily segmentable, as in *amasu'an-tsi-na-te-kwina"-pe*, (spider-ABS-INDF:ACC-tell-PRO), where each morpheme is separate.

2.3.4   Case Marking: Nominative-Accusative

Shoshone is a Nominative-Accusative language. All subjects are marked the same way (transitive and intransitive). Shoshone grammars typically label this with the subjective case (Dayely 1989; Miller 1996). However, it is apparently the same as the canonical

nominative case. Objects are marked in the objective case. Again, this seems to be no different than the accusative case. I use nominative and accusative labels here. See examples for demonstration of this pattern (20)-(23),

(20) u-n   tutua <u>ai</u>-"kih   ko'i-katte
      ((s)he-POSS son:PL NEW:this:NEAR-LOC peak-SIT:DUR:SG)
      'His own (duck's) children were in a pile, right here'

(21) s-u-p<u>ai</u>   s-u-te(n)   pen-en   tutua-i,
      (OLD-that:INVIS-EXT OLD-that:INVIS-PRO (s)he:own-POSS son:PL-ACC,
      s-<u>ai</u>-"kih   u-t-ee-n   pehe-i
      OLD-this:NEAR-LOC NEW:that:INVIS-PRO-PL-POSS hide-ACC
      tsa"-noo'i-'yu,   tsa"-noo'i-'yu
      INST:GRASP-pluck-ITER INST:GRASP-pluck-ITER)
      'Then, he started to pluck the feathers from his children.'

      Maude Moon, WRMC_011_04, ln 173-174

(22) s-u-te-weh   kahni-nai"-peh-neweh   <u>ai</u>-"tu(n)
      (OLD-that:INVIS-PRO-DU house-MAKE-ASP:PRF-DU NEW:this-NEAR-THROUGH
      ten-pi"-ta   hanni"-peh-neweh, <u>ai</u>-"tu(n)
      rock-ABS-ACC do-ASP:PRF-DU,   NEW:this-NEAR-THROUGH)
      'Those two (my parents) built a house and they made the house out of stone.

      Maude Moon, WRMC_006_05, ln 1

(23) ten-pi   s-<u>ai</u>-"tu(n)   naa-tu'i
      (rock-ABS OLD-this:NEAR-THROUGH be-ASP:FUT)
      'The stones would be placed through here.'

      Maude Moon, WRMC_006_05, ln 3

The nominative case is unmarked, typical in nominative-accusative languages. The allomorphy of the accusative case varies depending on the nominal category or final sound of the noun. It can be expressed as *-a, -i, -tta*, or *-∅*. The relevant nominal categories are the underdefined notion of absolutive suffix. There are six absolutive suffixes with "little or only vague meaning" (Miller 1996:46). Each of the absolutive suffixes corresponds roughly to a semantic class:

- *-pi(n)* most common, natural phenomenon and plants

- *-ppeh* most common, forms nouns from verb roots, body parts, natural phenomena, and plants

- *-ppe* found with only a few human nouns

- *-ttsih* used with small animals and diminutives

- *-pittsih* rare, used with predator-like animals

- *-mpih* rare, used with plants to distinguish between the berry and the plant

This is a rough classification; it is speculated that the absolutive suffixes may derive from PUA classifiers (Dayley 1989; Miller 1996). They are no longer thought to function as classifiers in Shoshone. Further investigation is needed into the function of these suffixes and their possible relationship with the Nominative case marker. There may be some evidence of the absolutives as an optional case marking for Subjects. At this point, most evidence points to semantic bleaching of classifiers and some grammaticalization as part of the nominal for certain roots. For instance, *toya-pin* 'mountain' and *wai-ppe* 'woman' almost never occur without their absolutive marker, whereas other nominals rarely, if ever, occur with an absolutive suffix, such as *pia* 'mother' and *itsa* 'wolf'.

Each absolutive suffix generally correlates with a specific Accusative case form. Nominals in object position may occur with the Accusative marker, with or without an absolutive marker. Otherwise, the Accusative marker is determined by the final sound of the noun.

- *-tta* follows absolutive *-pin*

- *-∅* follows final [i] and [e]

- *-a* follows *n* and sometimes elsewhere

- *-i*, elsewhere

2.3.5   Number Agreement in VPs

As shown in Section 2.3.4, Shoshone is a canonical nominative-accusative language. However, there is one instance of possible evidence of ergativity in the language – crucially not in the case-marking system, but in the direction of plural/singular number agreement. Lindsey (2000) discussed apparent ergative verbs in Shoshone. These are a possible instance of lexical ergativity, in which certain transitive verbs trigger number agreement with the object of a clause, rather than the subject. It is not straightforward lexical ergativity, as described in McGregor (2009). This author describes verbs that semantically group S and O, e.g., 'march' in *The warden marched the prisoners* and *The prisoners marched*. McGregor mentions that many typologists see this pattern as unremarkable and not comparable to ergativity. I agree that the *march* examples appear to be a causative alternation and not a

type of ergativity. The Shoshone verbs may or may not be similar.

It is not clear whether the relevant Shoshone verbs are participating in a type of causative or passive alternation which appears to be agreement ergativity. At first glance, it seems that these verbs assign Nominative case to the Subject and Accusative case to the Object, but agree with the Object in number. Although this pattern has been described in many Uto-Aztecan and other Native American languages (e.g., Zepeda 1983 for Tohono O'odham and Thornes 2003 for Northern Paiute), it may be theoretically unexpected because [case] and [phi] features are believed to be assigned by the same head in the syntax. However, the pattern does seem to be borne out in the few verbs where it is possible. This pattern is only predicted to occur in a few verbs, since only about 25 Shoshone verbs have plural forms. Shoshone verb number paradigms combine some reduplication and some suppletion, as seen in Table 2.2.

Dayley (1989:73-75) groups the number marking verbs into three categories: (i) suppletive verbs which can have three-way suppletive distinction between singular, dual, and plural or just a two-way distinction usually between singular and dual/plural[4]; (ii) internal stem changing verbs which can be sound change, reduplication, or some combination of reduplication and sound change; and (iii) plural suffixation, for which Dayley (1989) describes three suffixes: *-ppeh*, *-iih*, and *-iah*. Many of the verbs that get the plural suffix *-iih* are those whose roots end in *-a(h)*. There is also a fourth type which combines the pluralization strategies described by Dayley; a common paradigm marks singular and plural with suppletion and the dual is formed through reduplication of either the singular or plural form. Table 2.2 shows some examples of these paradigms, Types 1-4[5].

The consistent involvement of suppletion in these verbs leads Lindsey to conclude that the verbs were semantically stipulated to have plural objects, not agreement but semantic consistency with plural objects, as in the English 'massacre' or 'scatter'.

2.3.6   Pronouns

Shoshone pronouns distinguish three persons (first, second, and third) and three numbers (singular, dual, and plural). In addition, for the first person, an inclusive versus exclusive

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[4]The only instance I came across displaying a singular/dual versus plural distinction was in Dayley's (1989) description of *kill*, as *paikkah* for sg/du and *wase* for just plural. However, Miller (1996) describes the distinction for *kill* as given in Table 2.2. This may be a dialect difference or an error in analysis. See the further discussion of dual below for discussion of inconsistencies.

[5]Examples from Dayley 1989:73-75, Miller 1996:35-36, and Lindsey 2000:278-279

Table 2.2. Suppletive/Reduplicative Plural Paradigm

TYPE		SINGULAR	DUAL	PLURAL	GLOSS
1: Suppletive	3-way Suppletive	wene	tsatsakkih	topoih	'stand'
	2-way Suppletive SG-DU/PL	kate"	yekwi"	yekwi"	'sit'
		taikwa"	niwene"	niwene"	'speak'
		hapi	kwapi"	kwapi"	'lie down'
		paikkah	wase"	wase"	'kill'
2: Stem Change	Sound Change	eppeih	ekkoih	ekkoih	'sleep'
		mia	mimia	mia	'walk, go'
	Reduplication	nahna"	nanahna	nahna"	'grow up'
		potso"		potsotso	'drip'
	Reduplication & Sound Change	wayan		wawayonoo"	'burn'
3: Suffixation	*-iah & -ppeh*	annih	anniah	annippeh	'fall over'
		kepah		kepiih	'break'
	a(h) → -iih	temah		temiih	'lock in'
		tompokkah		tompokwiih	'fasten'
	other + *-iih*	tawin		tawiih	'make a hole'
4: Combination	DU based on SG	yaih	yayaih	waiku"	'enter'
	DU based on PL	yetse"	yoyoti"	yoti"	'get up, fly'
		tiy<u>ai</u>h	kokoih	koi"	'die'
	either base	nemi	nenemi	yenka	'move, live'
			yeyenka		

distinction is made. Shoshone pronominals also have distinct forms for nominative and accusative case. The Shoshone pronominal paradigm is presented in Table 2.3

The significant generalization in this paradigm is the deficiency in third-person forms which only exist for singular, accusative. The distinction between *ma* and *un* is described variously as a proximity distinction (Miller 1996; Mixco p.c.), a distinction in definiteness, or a human versus nonhuman tendency (Dayley 1989). Dayley (1989:130) writes,

> the different alternates seem to be largely interchangeable; there is a tendency to use the *ma* forms for humans and the *u* forms for nonhumans, but this certainly is not a hard and fast rule.

In addition to the third-person pronominals *ma* and *un*, Shoshone regularly uses demonstratives as third-person pronouns. The demonstrative system is as complex as the first and second-person pronouns, which are inflected for dual and plural, for subject and object (Table 2.4). They also include a five-way proximity-to-speaker distinction with sound-symbolic vowel gradients, beginning at /i-/ for 'right here, close enough to touch', the lower and backer vowels indicate distance concluding with /-u/, 'invisible'. Demonstratives are also inflected for new or previously introduced referent with the addition of an /s-/ prefix.

Table 2.3. Shoshone Pronouns

		1P		2P		3P	
		NOM	ACC	NOM	ACC	NOM	ACC
SG		ne	ne-i	e, en	emmi	∅	un, ma
DU	INCL	ta-weh	ta-hi	me-weh	me-hi		
	EXCL	ne-weh	ne-hi				
PL	INCL	tammen	tamm-i	memmen	memm-i		
	EXCL	nemmen	nemmi				

Table 2.4. Shoshone Demonstratives

Pronoun	SG-NOM	SG-ACC	DU-NOM	DU-ACC	PL-NOM	PL-ACC
RIGHT HERE	(s)-i-ten	(s)-i-kka	(s)-i-teweh	(s)-i-teh-i	(s)-i-ten	(s)-i-te-i
CLOSE	(s)-ai-ten	(s)-ai-kka	(s)-ai-teweh	(s)-ai-teh-i	(s)-ai-teen	(s)-ai-te-i
MID-DISTANCE	(s)-o-ten	(s)-o-kka	(s)-o-teweh	(s)-o-teh-i	(s)-o-teen	(s)-o-te-i
FAR, IN SIGHT	(s)-a-ten	(s)-a-kka	(s)-a-teweh	(s)-a-teh-i	(s)-a-teen	(s)-a-te-i
INVISIBLE	(s)-u-ten	(s)-u-kka	(s)-u-teweh	(s)-u-teh-i	(s)-u-teen	(s)-u-te-i

2.3.7   Valence, Tense, Aspect, and Mood

Shoshone's valence-changing morphemes *na-*, *te-*, and the pronoun *ta(n)* indicate an 'unspecified argument'. Shoshone passives are formed with the unspecified argument verbal prefix *na-*. They are often straightforward passives; this morpheme also functions to add an unspecified argument in the reflexive, reciprocal, and marking of personal possession.

(24)   s-u-te(n)   wihnu, k<u>ai</u> u-te-i
       (OLD-that:INVIS-PRO then,   not NEW:that:INVIS-PRO-ACC
       na-nanka-kneh-ka
       UNSP-hear-APPL-ADV:THEN)
       'And then, no sound was heard.'

       Maude Moon, WRMC_012_02, ln 92

(25)   na-p<u>ai</u>kka-tai"-peh   wihnu s-u-te(n)   u-n
       (UNSP-kill:SG-COMPLETELY-ASP:PRF then   OLD-that:INVIS-PRO (s)he-POSS
       tua"-tsi-'a   m<u>ai</u>
       son-DIM-ACC QUOT)
       'It is said that his son was already dead.'

       Agnes Pinole, WRMC_120_07, ln 30

(26)   poo'naih na-to'i-te(n)   s-u-"kuh
       (mouse   UNSP-emerge:SG-ACC OLD-that:INVIS-LOC)
       'The mouse emerged there'

       Maude Moon, WRMC_012-013$_0$3-01, ln 35

(26) is an unusual sentence where the subject, 'mouse' appears to be an overt subject that is an agent. However, given the discourse context of that utterance (27), it is clear that 'mouse' is a patient of the verb, 'emerge' as he was brought to the location by a bird carrying him.

(27)   u(n) noo"-kwa(n)   <u>ai</u>-wa'ih   u(n) noo"-kwa(n)
       (it   back:carry-DIR:AWAY NEW:this:NEAR-MANNER it   back:carry-DIR:AWAY)
       'He (bird) carried it (mouse) off like that!'

       <u>ai</u>-"tun...   s-u-pai   u(n) mee"-nu   u(n)
       (NEW:this:NEAR-THROUGH OLD-that:INVIS-EXT it   do-ASP:SLOW:COMPL it
       naa"-kan-ku
       be-ASP:STAT-ADV:AS)

       'Right through here, he did it in that position...'

       toya-pi"-ta   <u>ai</u>-"ni   naa"-kan-ku
       (mountain-ABS-ACC NEW:this:NEAR-MANNER be-ASP:STAT-ADV:AS
       s-u-"kuh-ma   noo-kwan   to'ih-kwan
       OLD-that:INVIS-LOC-ON back:carry-DIR:AWAY emerge:SG-ASP:MOM:COMPL)

'There nearby was the mountain; he flew up climbing over the mountain.'

hin-ni   naha-noo naha-noo
(some-MANNER do-MOVE do-MOVE)

'He went along that way.'

s-u-te(n)   neme-nee s-u-"kuh-ti   hin-peh
(OLD-that:INVIS-PRO person-PL OLD-that:INVIS-LOC-AT:AREA something-ABS)

'That's where the people were at.'

poo'naih na-to'i-te(n)   s-u-"kuh
(mouse   UNSP-emerge:SG-ACC OLD-that:INVIS-LOC)

'The mouse emerged there'

Maude Moon, WRMC_012-013_03-01, ln 30-35

In addition to the passive morpheme na-, Shoshone also has the indefinite pronoun *ta(n)*, 'indefinite subject' and the prefix *te-*, 'indefinite object'. There is some debate in the literature as to the nature of these morphemes. Miller (1996) describes the effect of *ta(n)* as "in effect a passive" for clauses in which the subject cannot be omitted (embedded clauses). The indefinite object is used with some transitive verbs to form intransitives. Dayley (1989) describes these morphemes as an additional passive and an antipassive. Further investigation into these structures is necessary to determine whether they are truly valence changing operations. If they are best described as valence changing devices, this would challenge some typological generalizations such as claims that a language will not have both a passive and an antipassive morpheme unless it is split ergative in some way.

(28)   a-pea͟ise(n)"-tsi   sua-pa͟itai"-na,   tapu   ta(n)
     (NEW:that:FAR-already-DIM think-CONSCIOUS-ASP:GEN cottontail INDF:SUBJ
     pa͟ikkah kwa'i
     kill:SG   ADV:SO)
     'After a while, the one that Cottontail had killed came to.'

     Maude Moon, WRMC_009_01, ln 150

(29)   neme   te-wase"-nu-si,   yuhu na-takapono'in-te(n), yuhu
     (person INDF:OBJ-kill:PL-ASP:SLOW:COMPL-RES fat   UNSP-ball-ASP:HABIT fat
     na-takapono'in-te(n) ma͟i   yekkwi
     UNSP-ball-ASP:HABIT QUOT say:DUR)
     'When Indians killed some game, they'd play fat ball! They'd play fat ball!'

     Maude Moon, WRMC_003_01, ln 70

Shoshone has a morphological applicative verbal suffix, *-nken*, which adds another argument. This applicative suffix appears before aspect and other inflectional suffixes.

(30)   ne witsa   kwa'ih   na-kahni-pan-ti   pui"-kwa(n)"-tsi   wihnu
        (I   should ADV:SO UNSP-house-AMONG-AT:AREA see-ASP:MOM:COMPL-SUB then
        tepi-tsi   mi'a-nu,   m<u>ai</u>   u(n) sua-nken-na,   m<u>ai</u>
        very-SUB go:SG-ASP:SLOW:COMPL QUOT it   think-APPL-ASP:GEN QUOT
        s-u-te(n)
        OLD-that:INVIS-PRO)
        ' "I should check to see if he is inside of my house or has really left", he said (he thought about him)'
        Maude Moon, WRMC_001_01, ln 102

This example shows the applicative adding an argument 'to think'. The subject of the sentence is someone who thinks the entire CP [I should see if he's inside my house or has really left]. The *un*, 'him' is another argument, whom this thought is about. The applicative may also be used as a causative construction adding a *causer* to a verb (Dayley 1989).

Tense in Shoshone is to a large degree inseparable from the larger TMA system. Shoshone verbal morphology has been described as consisting of four classes of suffixes in the order shown in 31.

(31)   Root $\rightarrow$ Auxiliaries $\rightarrow$ Directionals $\rightarrow$ Prefinal Aspect $\rightarrow$ Final Aspect

The set of elements within each class is given in Tables 2.5 and 2.6 (Dayley 1989; Crum and Dayley 1993; Miller 1996; Mixco p.c.). Tense notions are mostly within the final aspect category. Aspects like 'completive' and 'finish V-ing' are represented by *-tai"* and *-mma*, respectively, which are prefinal aspect suffixes. Shoshone has no overt past tense marking and the notion of past is often expressed with the perfective suffix or combined with the stative suffx *-kante(n)* to mean 'remote past'. For example *kwase-ppeh* (cook-ASP:PRF) is translated as 'cooked'. The perfective also combines with the stative suffix, *-kanten* to mean 'remote past'. The difference between *-(nu)hi* and *tu-ih* is one based on degree of certainty; Mixco (p.c.) analyzed *-(nu)hi* as less definite future, 'might happen'. Examples of the usage of these TMA morphemes can be seen in the following examples:

(32)   na-p<u>ai</u>kka-tai"-peh   wihyu s-u-te(n)   u-n   tua"-tsi-'a
        (UNSP-kill:SG-ASP:COMPL-ASP:PRF then   OLD-that:INVIS-PRO (s)he son-DIM-ACC
        mai
        QUOT)
        'It is said that the boy was already dead'

Table 2.5. Shoshone Prefinal Suffixes

Suffix	Gloss
-mmi	habitual, iterative
-'i	periodic, repetitive
-kih, -k<u>ai</u>, -ka	continuous, repetitive
-mma	finish
-tai"	completely
-waih	able to
-pei	durative
-nuh	slow completion (also final)

Table 2.6. Shoshone Final Suffixes

Suffix	Gloss
-ten	habitual, continuous, progressive
-ppeh	perfective
-kante(n)	stative
-penni	progressive
-nuh	slow completion (also prefinal)
-kwan	momentaneous completion
-tu'ih, -to'ih	future
-nuhi	irrealis future
-nekki	must

(33)   nanah pe<u>ai</u>se(n) i-"ka
       (just   already   NEW:this:HERE-ACC
       ke"-ka'ah-kwan-tu'i
       INST:MOUTH-cut:SG-ASP:MOM:COMPL-ASP:FUT)
       'just about ready to bite'

       Maude Moon, WRMC_021_03, ln 45

(34)   tamme-n   nan-peh-tun   nukki-kin-ten   tamme-i
       (we:INCL-POSS shoe-ABS-THROUGH run:SG-HITHER-ASP:HABIT we:INCL-ACC
       wase-kwan-tu'ih-kante(n),   m<u>ai</u>   s-u-te(n)
       kill:PL-DIR:AWAY-ASP:FUT-ASP:STAT QUOT OLD-that:INVIS-PRO)
       'Coyote said "big wolf's wife will follow in our tracks and she will kill all of us"'

       Maude Moon, WRMC_021_03, ln 154

As mentioned above, directionals precede the prefinal aspect. This can be seen in (34), *nukki-kin-ten*, (run:SG-HITHER-ASP:HABIT). Other directional suffixes are *-kwan* 'away' and *-kwain* 'random direction'.

Negation in Shoshone is marked by a particle which precedes the verb phrase, as in (35). The negative particle can be used as in (35) to negate the VP. It can also be used in compounds with adverbs or indefinites to form a negative compound, 'not good', as in

(36). A third use is movement to the left edge of the clause to form a yes/no question, as in (37).

(35) tepi-tsi(n) na-te'eyan-te(n)   pakka"-pe   k<u>ai</u> pen-pa
      (very-SUB UNSP-fear-ASP:HABIT ice-NOM:ABS NOT REL:PRO-up
      wenne(n)-wa'ih-te(n)
      stand:DUR-ABLE-ASP:HABIT
      'You cannot stand on ice, it's too slippery'

      Maude Moon, WRMC_004_02, ln 174

(36) k<u>ai</u>-tsaan
      not   good
      ('not good, bad')

      (Crum, Crum, and Dayley 2002, p. 176)

(37) k<u>ai</u> ukka s-u-te(n)   te<u>ai</u>"-pe-te(n)-tsi
      (not if   OLD-that:INVIS-PRO little-NOM:ABS-PRO-DIM
      u-teh-i   wase"-kwa(n)
      NEW:that:INVIS-PRO:DU-ACC kill:PL-ASP:MOM:COMPL)
      'Didn't that little baby kill those two?"

      Maude Moon, WRMC_001_04 ln 94

2.4   Shoshone History and Present in Duck Valley

For this study, I conducted my fieldwork on the Duck Valley Reservation. This location is ideal because it is one of the largest Shoshone communities, where I would be able to contact a significant number of participants representing multiple age groups and language backgrounds. Furthermore, Miller conducted a significant portion of his fieldwork in the Owyhee area, providing a more consistent dialect representation for comparison. For this study, I focus the comparison on present-day speakers and Miller's conservative texts with speakers who are from this area, minimizing the complication of the broad Shoshone dialectal differences discussed above.

In contrast to the precontact, nomadic Great Basin lifestyle described in Section 2.1, in modern times, the Shoshone and Goshute people have been settled in reservations and colonies throughout their ancestral lands. Many of these communities are quite small, less than 100 residents. There are a couple of larger reservations, Duck Valley and Fort Hall, which were the sites of major relocation efforts as the Shoshones began to come into more constant contact with White settlers in the Northern Nevada and Utah deserts.

The frequent travel and contacts between the various Shoshone communities has continued to some degree. People still travel to festivals and other events throughout the Great

Basin. Families are often spread between the various Shoshone communities and people visit regularly. However, there has been some consolidation into distinct groups around the various Shoshone communities; these are loosely related or have developed out of, in some cases, the ancestral tribal groups that were loosely associated with a general region of the Great Basin.

Owyhee is the town on the Duck Valley Reservation with a population of around 950 people, approximately split between Shoshone and Paiute heritage; however, much intermixing of the two groups has occurred over the past 100 years.

The Duck Valley Reservation was established in 1877 after a series of negotiations between the leadership of a handful of Western Shoshone bands (those in Northern Nevada) with James Doty, the Utah Superintendent of Indian Affairs and Governor Nye of Nevada (Crum 1994:25). The Western Shoshone had been fighting with the White soldiers and settlers. The groups peacefully resolved the conflicts through the creation of the Ruby Valley Treaty which established, among other things, the agreement that Shoshones would settle on reservations. Although some accounts portray a peaceful treaty, the oral history in the area (related to me by Ellison 'Bambo' Jackson, this study's Speaker 2) holds that the Shoshone Captains were forced to watch their people being killed one by one in an effort to intimidate them into signing the treaty.

Many of the Western Shoshone who relocated to Duck Valley were initially located in Carlin Farm near Ruby Valley. Over the ensuing years, Shoshone people were gathered up from the Great Basin and relocated to either Duck Valley or Fort Hall, in southeast Idaho. Many families from that original relocation to Duck Valley remain in the area. Most have relatives both in Duck Valley and Elko, Nevada, the closest non-Native town to Owyhee, 93 miles away. Many of the present-day Shoshone residents of Duck Valley are related to this band of Western Shoshone. Many Duck Valley residents also claim ancestry through marriage between multiple Shoshone tribes.

Groups of Northern Paiutes, specifically the Paddy Cap Paiutes, have been settling on the Duck Valley Reservation since 1884 after its creation. There were once extreme tensions between the Shoshones and Paiutes on the reservation, with the Shoshones accepting the Paiutes' right to be on the land only grudgingly and sometimes not at all. These attitudes still remain among some elders on the reservation. I heard a lot of clarification and argument about where the Paiute land on the reservation is and/or should be and some discussion about which particular Northern Paiute bands have the right to live on this reservation and which groups do not. It is generally the case that Shoshones live on the Nevada side of

the reservation and Paiutes life on the Idaho side. Among the younger people, this division seems to have lessened.

Many of the younger people have mixed Shoshone and Paiute ancestry. Although they all seem to be aware of each of their peers' ancestry, social divisions do not fall along tribal lines. Among elders, it is not clear to what degree tribal affiliation affects their personal relationships. It apparently varies by individual; some Shoshone elders are happy to associate with their Paiute peers; others may associate with the other tribe, but always note that there are significant differences between the two groups.

Owyhee is one of the most remote communities in the United States. It is 93 miles from Elko, NV and 94 miles from Mountain Home, ID. Other than these somewhat distant small cities, there is one small community, Mountain City, that is just south of the reservation border. This used to be a sizable mining settlement with hundreds of people in the late 1800s. Now, there are only about 20 residents and it is often classified as a ghost town. These residents are all non-Native.

Mountain City used to provide needed supplies to the residents of the reservation; it was the location of stores, restaurants, hotels, etc. Now it is mostly abandoned with only the bars still in business. Alcohol is prohibited on the Duck Valley Reservation. Consequently, Mountain City stays active in the evenings only by providing alcohol to Duck Valley residents coming to the bars there.

Most people in Owyhee take frequent trips to Elko or Mountain Home, about once or twice a week to do shopping and visit doctors. There is a store and gas station in Owyhee, which is run by the Tribe, so it is not necessary to leave. There are also a hospital, two cafes, and schools from head start to high school, three churches, the Community Center, Senior Center, tribal offices, and BIA offices. These public buildings are all along the Mountain City Highway within a 7-mile stretch.

There are two residential areas of a somewhat high density along that stretch: Dogtown and Newtown. Dogtown is the old part of town on the South side of Owyhee near the Senior Center and Community Center. It consists of 3 streets, about 100 yards long each with small, one or two-room houses on each lot. This was the original settlement in Owyhee when electricity was introduced to the area. Residents here are mostly elderly, single men. Newtown is on the North side of Owyhee, near the Nevada-Idaho state line. It is a somewhat recent development with about 70-100 modern, two and three bedroom homes. Duck Valley residents outside of these areas live on farmsteads, averaging about 40 acres. These 40-acre plots are distributed by the tribal land committee to tribal members when they turn 18 or

when one becomes available. The primary Shoshone areas for these farm plots are Boney Lane and Chinatown. I spent most of my time in the Nevada settlements.

Most men work as ranchers; this has been the case since the beginning of the reservation. There are many productive alfalfa plots and ranging cattle. Both men and women used to pitch in to work the fields; this is still the case with some families. There is little subsistence farming on the reservation, although historically, this was more common. Now, people mostly buy their food from the tribal store or in the nearby towns. Other large employers on the reservation include the Tribe, the schools, and the hospital. There is some unemployment, but it seems to be more common among the younger people who do not want to work on the ranches.

Most Shoshone residents of Duck Valley have deep roots in that area, but it is also common that one parent or grandparent is from another Shoshone community. It is not common for young people to leave the reservation for college after high school. In the 2009 graduating class of about 25, 10 went to college and five have since returned to the reservation after two years without completing a degree. Most youth stay on the reservation and help their families, but some are unemployed. Drug and alcohol use is problematic among the younger generations. Many elders whom I spoke to feel that embracing the traditional language and culture will help to combat these issues.

Most of the men over 50 on the reservation have served in the military between WWII, Korea, and Vietnam. Although a few people remarked to us that the Duck Valley Shoshone were lucky not to have lost many boys in those efforts, this period of service did have a major effect on the community. Many men told us that when they returned, they felt differently about using the Shoshone language. Their time in the military had encouraged them to speak English; Shoshone was discouraged. During those times, boarding schools and relocation programs had a major impact on the community, taking young people away from the reservation. These active federal policies of enforced assimilation had ended by the time this study's participants had entered school. However, they were affected by it, as many of their parents were in boarding school and forced to assimilate to mainstream American culture. These lessons persisted within families. Employment relocation programs took young Native adults to vocational training programs throughout the United States. This program was similar to the one involving boarding schools; the goal was to urbanize the youth and assimilate them culturally.

Many of the speakers in our study left the reservation for some extended period of time with these government programs or to attend college. From what they report, it had varying

effects on their maintenance of Shoshone language and culture.

2.5   Shoshone Language Status and Shift

Since the beginning of extended contact by the Shoshone people with White settlers in the mid-1800s, use of English has steadily increased as compared to the native language. Miller (1971) reported still encountering some monolingual Shoshone speakers, but these were always the oldest people. Among the younger generations, English bilingualism was the norm. Miller (1971:116) described evidence of a shift from Shoshone to English as the primary home language between 1940 and 1970 on the Owyhee Reservation.

Until sometime between the 1960s and 1970s, both Native languages were spoken regularly on the reservation; many people were fluent in both Shoshone and Northern Paiute. The influence of English seems to have set in as a result of the compulsory boarding schools and various relocation and assimilation efforts which began in the 1890s and ran through the 1920s (Crum 1994:54-55). With these school programs, it was the government's objective to remove children from their home environments, encouraging rapid assimilation to mainstream White culture and the use of English as a primary language. These efforts have had lasting effects today in the community but they were not immediate.

Crum (1994:55) cites that although many Western Shoshone young people were forcibly removed from Duck Valley for placement in boarding schools, nearly all of them returned to the reservation for the remainder of their lives and continued to speak primarily Shoshone. Everyone that I interviewed in Owyhee today over the age of 60 (born before about 1950) said that they spoke only the Indian languages in their homes as children and only learned English when they went to school. Community members between 40-50 years old remembered that no one spoke Indian languages when they entered elementary school. They observed that there may have been some kids who knew some Shoshone or Northern Paiute, but it was not the case that any of them did not know English or preferred to speak an Indian language with their schoolmates. This is consistent with the observation noted by Wick Miller (1971:116) during his work in Owyhee in the late 1960s.

> According to the teachers at the school, almost none of the children who entered the first grade 30 years ago [born about 1935] spoke English. Today [born about 1965], almost all of them arrive speaking fairly fluent English. Probably all of them understand the native language, but only a minority of them speak it.

Between these two ages (today's 80-year olds and 50-year olds), there is some variation in language backgrounds. It would vary between families, and sometimes within a family, which children were raised with Shoshone as a first language and which were raised with

English.

Much of the documentation of Shoshone and the tradition of working with this community at the University of Utah began with the work of Miller from the 1960s to 1970s (Miller 1971; 1983; 1984; 1996). Wick Miller conducted extensive field work throughout the Shoshone-speaking territory during the 1960s and 70s. He collected over 400 stories, songs, and oral histories from speakers of various Shoshone dialects. His collection is housed at Shoshoni Language Project at the University of Utah. The availability of this collection for comparison with present-day data collected for this study makes Shoshone an ideal language for investigation of language change over a period in which the language has gone from being relatively viable to extremely endangered.

The WRMC is a unique resource in the field of Native American linguistics. Miller's data are extensive and provide a huge resource for linguistic and cultural work with the Shoshone. Some of Miller's informants were monolingual Shoshone speakers or had learned English as a second language. Miller's recordings were largely collected from conservative speakers who primarily used Shoshone in their daily lives. Thus, the Shoshone recorded in these texts represents a conservative form of the language with minimal influence from English and, more than likely, with few of the effects of language obsolescence. The analysis of the existing texts in the WRMC will provide a baseline for comparison with the contemporary Shoshone collected and analyzed in this project that is much more affected by endangerment.

Shoshone is in a relatively promising position for language preservation. There is a substantial community of speakers and a few dedicated language activists. There is some intergenerational use of the language in families that are keeping their language alive. The language is still used in some broader community contexts and a few educated people are literate in Shoshone. There are two primary orthographies, one developed at the University of Utah and the other developed at Idaho State University. The speakers and status of the language places the different communities of Shoshone between stages five and six on Joshua Fishman's (1991) continuum of language loss.

Despite the relatively large number of Shoshone speakers in Owyhee, the language is rarely spoken in public. From time to time, elders will greet each other around town and have a brief conversation in Shoshone at the grocery store or post office. Usually, English is the only language that is heard. This is partially attributable to the standard custom that when non-Shoshone speakers are present, it is considered rude to speak Shoshone around them. We heard from many speakers that they speak to their peers and siblings in Shoshone when they get together. The Owyhee Senior Center is a possible location for

this. We frequently heard some Shoshone spoken without prompting at the Senior Center while we were there.

The genre that is most likely to be heard in Shoshone is that of humorous stories and jokes. Elders frequently commented to us that Shoshone is much funnier than English; that 'jokes just sound better' and there are so many funny expressions in Shoshone. When asked what they talk about in Shoshone, speakers often recounted examples of jokes they had recently told. Most people said that they just laugh and laugh when they speak Shoshone. This feeling was reported slightly more frequently among the women than the men. The men reported that they talked about work in the fields and other goings on around town.

One-third of the speakers in this study are married to speakers of Shoshone. These couples reported that they speak Shoshone to each other in their homes. Partners in a Shoshone speaking household seemed to have the most opportunity to speak Shoshone. Most speakers used the language somewhat regularly in these contexts: talking to a spouse, peers, or siblings, in the limited domains of jokes and discussing work in the fields or other gossip about town. As a generalization, the speakers who use it often share some combination of the following traits: (1) the speaker is more comfortable in Shoshone, having learned English later in life, (2) there are other Shoshone speakers in their home to talk to, and/or (3) they are passionate about language preservation.

Anyone who is not already a speaker of Shoshone does not encounter Shoshone being spoken around the reservation much. They may overhear a short conversation or a few words now and then; however, as I mentioned there is an explicit effort to include all potential participants in the conversation. Most of the working-age population of Duck Valley are not speakers. Consequently, little commerce or public services are conducted in the language. Some members of the Tribal Council speak Shoshone and/or Paiute, but many elders observed that the amount of language used in Tribal Council has significantly declined in recent years to almost nonexistent. Typically, young and middle-aged people may know a few words e.g., taboo words, some kinship terms. The language is used from time to time for prayers. However, active members of the Native American Church reported that most prayers in these meetings are now in English due to the majority of young people who are there.

The attitudes about the language on the reservation are diverse, but generally positive. We encountered some younger people who identify the Shoshone language as something the older people are interested in and regard it with a general lack of interest. There were other younger people who were very saddened by the loss of the language and felt that they were

missing something. Many of these people do not know what to do about it. Others were trying their hardest to learn the language, but with such infrequent natural uses of the language in the community, most learners find it to be very challenging. We heard some feedback that speakers are critical of imperfect Shoshone being spoken by younger speakers. Some learners or young speakers have commented that their attempts at speaking Shoshone have been stifled by such criticism.

During my time in Owyhee, I frequently observed elders reacting to younger people who were interested in speaking the language with overwhelming praise. Elders were ecstatic to hear younger people speaking the language and are supportive of learners. We did not encounter prescriptivism or other criticism among the speakers that we interviewed. Sometimes people would comment that younger people or speakers of other dialects say things differently or 'wrong'. However, this is tolerated as normal language variation and not intended to be taken as stifling.

There are language classes in the high school and efforts to use more Shoshone in the Head Start preschool program. Owyhee also has a community language class for all ages. It is well attended and has been going on for many years. However, they have no funding and little outside support. The teachers are volunteers; they have no regular building for the classes and frequently have to meet in a different location each meeting.

In general, there is a strong desire to maintain the language among the elders and a majority of younger people. It is in this context that the Wick R. Miller Project at the University of Utah has continued to consult and assist in revitalization efforts. We work closely with language activists throughout the Shoshone community to help address their goals for revitalization. The primary language activism leader in Owyhee, Beverly Crum, received a masters degree in Linguistics at the University of Utah and has published a number of books on Shoshone, including a grammar and collections of stories and songs (Crum and Dayley 1993; Crum, Crum, and Dayley 2001). The Shoshone Language Project at the University of Utah is involved in assisting these efforts including consultation on Shoshone language curricula and lesson plan development, hosting teacher-training workshops, and collaborating in the development of teaching materials for Shoshone. Since 2009, the Project has hosted the Shoshone Youth Language Apprenticeship Program (SYLAP), a six-week language program for high school students developed by the author in 2008. The multiple goals of SYLAP are to introduce Shoshone adolescents to a university environment, to their ancestral language, and to tools to advance their community's language conservation goals. At the time of writing, approximately 60 Shoshone teenagers have participated in SYLAP

as part of their language learning goals.

Although preservation and revitalization efforts are ongoing, Shoshone is still clearly in danger of being supplanted by English over the next few generations. Previous work suggests various effects and forces that apply pressure to the structure of endangered languages. There are remaining questions and issues in this regard, in particular, how to evaluate the contributions of the many linguistic and social factors involved. This dissertation will provide an additional case study to add to our knowledge and understanding of linguistic loss in endangered languages.

The goal of this dissertation is to examine structural changes in Shoshone, a language whose community is undergoing language shift. The focus for this study is two-fold: first, I will examine particular morphosyntactic structural changes in Shoshone; second, I will evaluate the social and linguistic forces putting pressure on this endangered language. In investigating the social and linguistic variables related to the observed changes, I will focus on these questions: are there changes in the morphology and syntax of Shoshone that may result from contact with English? Or, can they be connected to ongoing historical processes motivated by internal factors in Numic and other Uto-Aztecan languages? How have decreased language usage and linguistic input for learners influenced the resulting language? Finally, how does the membership of particular speakers in certain social networks relate to observed structural changes?

CHAPTER 3

ENDANGERMENT AND STRUCTURAL CONSEQUENCES

3.1   Language Death and Endangerment

Although language death is a natural part of the process of language change in human history, as some languages expand their usage, others may contract and sometimes become extinct. In recent years, the rate of language death and endangerment has dramatically accelerated. Language death is a significant problem in its scale and in the impact that each lost language has on the world's knowledge and linguistic diversity. Some estimates claim that less than 10% of the world's languages are safe from extinction in this century (Krauss 1992; Grenoble and Whaley 1998).

Stemming the tide of mass language extinction is a focus of linguistics today and we are recently starting to generalize the processes undergone by dying languages through a growing literature of language-endangerment case studies. Studies have often focused on the documentation of the most endangered languages in order to document the precious linguistic data during the last years of some of the languages most in peril. This is indeed crucial work that has been the primary focus of linguistic study of Shoshone. A smaller number of studies have looked at the social and linguistic processes of language death and fewer yet have focused on the communities on the brink of endangerment to understand precisely what their languages and people are facing. What are the social and linguistic forces that contribute to language death situations? What structural consequences are there to language death?

There have been a small number of studies to address this question, beginning with Miller (1971), Hill (1973), Dorian (1973; 1981; 1989), Dressler and Wodak-Leodolter (1977), Schmidt (1985), and Campbell and Muntzel (1989). These studies have identified cases in which the structure of a language has changed dramatically in situations of language endangerment. These works lay the ground for a more complete understanding of the effects

on the structure of an endangered language. Many have noted the need for more such case studies to enhance our understanding of these processes and allow us to begin to combat them. A deeper understanding of what social and cognitive forces are at play in these situations will be knowledge from which both linguistic theory and language communities can benefit.

Many communities that come into contact with another language must confront language shift: the process by which a bilingual speech community gradually chooses to speak one of its two languages rather than the other. The current trend of language endangerment is a consequence of language shift in favor of majority languages of the dominant cultures and away from a community's ancestral, minority language. There are many sociolinguistic, socio-economic, and political factors that contribute to this process. These range from outright genocide of speakers to the protracted process of explicit assimilation programs along with the decreasing economic opportunity for speakers of minority languages.

Nettle and Romaine (2000) suggest three primary reasons for language loss: (1) explicit language shift legislated policies and programs, (2) perceived economic opportunity provided by the mainstream language, and (3) loss of social prestige and positive ethnic identity attributed to speaking one's ancestral language. The first is caused by government policies that target minority peoples or minority languages. These policies range from formal attempts to assimilate speakers into the dominant culture to the unabashed persecution and even genocide of the speakers of a language. Shoshone and other American Indian children were forced from their homes and enrolled in English-only boarding schools to assimilate them into European culture and enforcing English as their only language, often through physical punishments (Crum 1994; Hinton 2001). In El Salvador beginning in 1932, all people identified as Indian were killed, exterminating a large percentage of the Pipil-speaking native population and frightening others into speaking only Spanish and abandoning all marks of ethnic identity such as traditional attire (Campbell 1985). The above are examples of forced shift or when a dominant group forcibly eradicates a minority language (Nettle and Romaine 2000).

The perceived economic advantages provided by the mainstream language is a large contributor to voluntary shift. When the community believes that they would be better off speaking a different language, it stops speaking the native tongue (Nettle and Romaine 2000). Many Native American parents encourage their children to focus on improving their English in order to do well in school and increase their chances of getting a good job. In this case, voluntary shift is somewhat of a misnomer, as the economic opportunity provided

by an education and access to modern metropolitan employment are not so much a choice as a necessity for economic viability.

One of the primary reasons that minority languages can thrive is the covert prestige associated with speaking the language of your community (Mesthrie, Swann, Deumert, and Leap 2000). The covert prestige of Native American languages has been and continues to be threatened by the overwhelming overt prestige associated with potential economic success that comes with speaking a metropolitan language. In any case, the decision is hardly voluntary; the majority culture has made it an economic and social reality that success is only possible for speakers of the majority language. Furthermore, this reality was drilled into many indigenous people in mass assimilation efforts, such as in the boarding schools.

Shoshone in Owyhee is an example of all three types of language shift, through explicit government programs, decreased economic opportunity, and loss of language prestige. As discussed in Chapter 2, the Shoshone were subjected to boarding school and relocation policies. This period in Shoshone history has left a significant impact on the language's speakers. As mentioned, the attitudes and orientation toward a minority language represent a huge determining factor to its likely survival. Many people interviewed for this study opined that attitudes toward the Shoshone language were greatly affected by the programs of assimilation and the generally low value associated with a Native American identity during this time. The programs and attitudes of the teachers, government officials, and eventually their peers on the reservation have left lasting effects on Shoshone youth.

The language suffered along with the Shoshone people through their negative orientation toward their heritage. This contributed to a feeling of inferiority regarding the language. However, it is a general opinion of the elders we interviewed that cultural preservation efforts such as language revitalization can contribute to an alleviation of the modern social ills that confront people on the Duck Valley Reservation today, including alcoholism, substance abuse, suicide, and broken families. Language revitalization efforts for Shoshone today aim to combat the pressures of this history; a greater understanding of the interplay of those forces and their specific effects on the language structure will enhance these efforts.

From a theoretical perspective, endangered languages contain critical language data that will further inform our understanding of the range of the possible diversity of structure of the world's languages; through the trend toward language death, this diversity is being eroded. The study of the structural consequences of language death is at an intersection of the linguistic processes with social processes of language death. These are interrelated and complicated processes that have so far proven difficult to sort out. Thus, there is theoretical

interest in the consequences of obsolescence for the structure of the dying language. Is it possible to generalize concerning the structural changes and social situation of language death or is each case so unique that generalization is not expected? Is there a pattern or stages of language structural decay on their way to extinction? Is language death similar to other known linguistic situations such as first language acquisition, pidginization, or creolization?

No consensus has developed in the field as to the causes of these changes. In large part this is due to the fact that language death involves many diverse areas of linguistics, including language contact, historical linguistics, sociolinguistics, language acquisition, and language attrition, among others. This variety of influences has led different scholars to argue for a role for each of these factors as the source of variation and change in obsolescent languages. The issue is complicated by the demonstrated interaction between all of these factors; isolating the roles of each for even one single community may be nearly impossible (Dorian 1993). For each community, the precise sociolinguistic and political situations may be quite different. At the present state, it is not clear whether homogeneity is expected in the causes and effects of language endangerment-induced change, or whether each community's situation can be expected to be unique.

3.2 Consequences of Language Death on Linguistic Structure

There are instances of language death that can show change in almost any area of a language's structure: lexicon, phonology, morphology, syntax, pragmatics, discourse styles, etc. This variety of observed effects has led scholars to question whether any overarching patterns exist in such contexts. Although by no means undisputed, there are a handful of specific morphological and syntactic structures commonly cited as susceptible to change in language death situations, including case marking (Dorian 1981; Huffines 1989; Maandi 1989), pronominal systems (Bavin 1989; Bavin and Shopen 1991), number marking (Campbell and Muntzel 1989; Mithun 1990), classifier systems (Schmidt 1985; Childs 2009), loss of agreement marking, e.g., noun-verb agreement, adjective-noun agreement (Campbell and Muntzel 1989), movement toward a smaller number of syntactic forms (Dorian 1981), and reduction in dependent clause use (Hill 1973; 1978; 1989; Voegelin and Voegelin 1977). This inventory of common changes raises further questions. Are there specific structures that are susceptible to loss or change in language death? Are there patterns in the general direction or type of language change, e.g., optional processes becoming obligatory or vice versa, movement toward semantic transparency, loss of marked forms in favor of unmarked

forms, simplification or increasing complexity? Researchers have observed these patterns in various language situations. In this section, I will discuss these structural changes and patterns. I will then review the accompanying sociolinguistic factors that contribute to these changes.

One general process that has been observed in a number of studies is the loss of distinctions or structures. Dorian's (1981) pioneering work on East Sutherland Gaelic examined three groups of speakers: older fluent speakers, younger fluent speakers, and semi-speakers. In younger fluent speakers and semi-speakers, she found losses in morphosyntactic distinctions including case syncretism, weakening of gender distinctions, and reduction in the possible ways of expressing passive voice, among others. Case marking in conservative East Sutherland Gaelic included nominative, accusative, dative, genitive, and vocative cases. Dorian (1981:129-136) observed case syncretism in the dative, genitive, and vocative cases; in each case, the conservative oblique case morphemes were variable with an innovative variant that was identical to the conservative nominative-accusative form (nominative and accusative marking are identical, marked by nasalization of the initial consonant).

She observed that the older fluent speakers represented the most conservative usage with the most differentiation between the five cases. Younger fluent speakers and semi-speakers used more innovative forms. For example, older fluent speakers used the conservative dative marker, lenition of nominal-initial consonants, in 87% of their dative constructions. In the other 13%, they used a form indistinguishable from the nominative-accusative marking. On the other hand, younger fluent speakers used the conservative dative marker only 51% of the time and the nominative-accusative marking in 49% of dative constructions (Dorian 1981:129-132). Dorian suggested that contact with English was partially responsible for these changes; she also attributed change to decreased use of the language and to semi-speaker acquisition, discussed below. However, one of Dorian's primary points was that the types of changes observed in East Sutherland Gaelic were not of a different kind from 'healthy' languages, but may differ in quantity and speed of change, as discussed further below.

Schmidt's (1985) study of 'Young People's Dyirbal' is one of the best-known studies of language death. Her study examined speakers of Young Dyirbal (YD), a variety of Dyirbal with "departure from traditional linguistic norms," and the linguistic correlates of this variety. The Dyirbal noun class system, first described by Dixon (1972), is categorized based on four central notions to the four noun categories and many additional nouns that do

not fit the central concepts. In the traditional system, Class I contained males and animals; Class II contained females, some animals, and some natural phenomena; Class III related to edible plants and European goods; and Class IV consisted of everything not classified as I-III. Noncentral notions were categorized based on cultural knowledge and experiences of the Dyirbal society. For example, the animals in Class II are exceptional, such as the platypus and echidna. These were exceptionally in Class II, instead of Class I in order to mark their oddity. Words for 'fishing line' and 'fish spear', although neither male nor animals, were in Class I due to their association with 'fish'.

Schmidt (1985) found that the language death situation in the YD speaking community had led to restructuring of the classifier system according to gender and animacy instead of the traditional classes. The exceptional and dangerous animals are now in YD Class I, male/animate; 'fishing line' and 'fish spear' are in YD inanimate Class IV; and only female animates receive Class II marking. It remains unclear whether inadequate acquisition of the noun classes led to this restructuring; it could also be a natural movement toward semantic transparency or due to a loss of cultural knowledge necessary to maintain the linguistic distinction. Schmidt (1985:158) notes that "it is possible that they [YD speakers] are familiar with some of these beliefs but do not codify them linguistically." The speakers that Schmidt interviewed varied in proficiency from fluent in YD to semi-speakers who "could make themselves understood in Dyirbal on some topics" (1985:42). Schmidt notes that further distinction within the proficiency of YD speakers led to some patterns. More fluent speakers did not show all of the innovations and less fluent semi-speakers had the more simplified version described above, indicating that inadequate acquisition played a role in the observed restructuring. Childs (2009) found similar changes in Mani, an endangered language of West Africa in which "the noun class system seems in total disarray, showing extreme variation across speakers and even within speakers" (2009:113).

Syntactic simplification frequently includes discussion of movement toward a smaller number of syntactic forms (Dorian 1981) and reduction in relative clause use (Hill 1973; 1978; 1989; Voegelin and Voegelin 1977). Relative clause reduction has been researched extensively by Hill for the Uto-Aztecan languages Cupeño, Luiseño, and Mexicano (Nahuatl). Hill (1973) found reduction in frequency of relative clauses in speakers of Cupeo who had stopped speaking the language around age twelve. She compared usage of relative clauses for these speakers with speakers of the same age, recorded telling the same texts, fifty years before. Hill hypothesized that the speakers who had stopped using the language would not have adequately acquired the complex sentence forms. Although they learned Cupeño

as children, their movement away from the language as young adults may have limited their exposure to complex sentences in language input. As a result, speakers developed a 'monostylistic' system, favoring simple sentences. However, Hill maintained reservations as to this reasoning. Citing the occurrence of complex sentences in the creolization of pidgin languages, she wondered why this process would not occur in the language obsolescence situations, leading to 'recreolization' of relative clauses. She posits that the presence of the dominant language may prevent recreolization, providing an alternative means for communication not present in instances of creolization.

Hill's later work (1989) examines frequency of relativization in Cupeño and Mexicano, with the goal of evaluating possible explanations for reduction of the complex sentences. Hill finds that her primary Cupeño informant used very few relative clauses, but that the deficiency was in usage, not her lack of competence in the language. The speaker in question had spoken Cupeño until her early teens (a similar age as the informants in Hill 1973). Hill (1989:154) characterizes this as "no evidence for disruption in her acquisition of Cupeño" and therefore her low frequency of relative clauses cannot be inadequate acquisition. However, she notes the possibility of language attrition and the difficulty in establishing the speaker's detailed linguistic history. However, we should also consider the possibility raised by Voegelin and Voegelin (1977) that some frequency of usage of complex sentences beyond teenage years may be necessary for a speaker to interiorize the structure. Hill (1989) goes on to analyze relativization in Mexicano, for which two social groupings of speakers allowed for evaluation of the social function hypothesis - one group uses Mexican for a conversational variety and Spanish for public communication, the other group uses Mexicano for both purposes. The hypothesis states that low relativization rates in language obsolescence is comparable to other instances of low relativization in pidgins and creoles, working-class varieties, and oral versus written language. The proposed reason for the lower frequency of relative clauses in each of these forms is "low social distance and low power differential between interlocutors" (Hill 1989:151). The social function hypothesis was supported by the Mexicano data, in which Hill finds Mexicano, used as a conversational variety, has significantly less relativization than the Spanish used by that group. The group that does not have the conversational-public distinction between the two languages shows no such differentiation in relativization[1]. However, the social function argument could not be tested

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[1]Hill indicates that this difference in relative clause frequency could also be related to a loss-of-styles argument where the more formal style of Mexicano that contains relativization has been lost in top-to-bottom language death.

in Cupeño, as there was no social structure that allowed for obvious community-based correlates of low social distance.

3.3 Common Sociolinguistic Pressures in Language Death Situations

Throughout the growing research in the area of language death, these studies have described structural changes in progress occurring in language death situations. What remains to be shown is the presence (or absence) of predictability or pattern in those changes and what the common causes of those changes may be, if any. Specifically, if change in obsolescent languages differs in sort from the changes that occur in healthy languages, what are the sociolinguistic and cognitive correlates of this change? In the following sections I review the various arguments case by case as to the forces and origins of changes in language death situations. I include arguments espousing the view that intensified language contact is responsible for increased variability and change in endangered languages (Maandi 1989; Dorian 1993; Aikhenvald 2002). These are considered in opposition to claims that observed changes are specific to a language death situation because of either declining use or incomplete acquisition (Hill 1973; Andersen 1982; Dorian 1982; Schmidt 1985; Mithun 1990).

3.3.1 Internal or External Pressures (or Both)?

In all cases of language endangerment, some degree of social pressure comes from the presence of an expanding majority language. Extensive contact and bilingualism with the majority language is often cited as a source for innovations in an endangered language (e.g., Dorian 1981; Campbell 1987; Meyers-Scotton 1998; Sankoff 2001). These innovations are often assimilation of the structures of the majority language, as Babel (2008) showed for the younger generations of Northern Paiute speakers. Her work showed that younger Northern Paiute speakers phoneme categories were assimilating to an English-like representation, although they retained distinct categories. For example, the conservative Northern Paiute palatal fricative, /ç/, is pronounced as the English-like post-alveolar fricative, /ʃ/, in younger speakers.

Most languages come into contact with other languages, whether they are endangered or not; there are accounts of borrowings of essentially any linguistic feature from one another. Other languages, both endangered and healthy, are known for an aversion to borrowing. Aikhenvald (2006) discusses lexical, pronominal, phonological, morphological, syntactic, and discourse-based borrowings. For this study, the concern is to identify possible differences in

contact phenomena between viable and endangered languages. Aikhenvald (2006) discusses a number of sociolinguistic factors that can be associated with the process of borrowing: multilingualism, language attitudes toward both the native and the outsider language, the overt displacement of a minority language through officiall policies or by economic pressures, and a variety of other social factors. In endangered language situations, intensification of these factors could lead to a distinct result of language contact.

Campbell and Muntzel (1989) make the point that contact effects may be independent of language endangerment. They discuss the change in Pipil from *wan* 'with' as a relational noun to a preposition due to contact with Spanish. They claim that this change cannot be attributed to language endangerment because similar changes occur in nonendangered dialects of Nahua, a related language also found in Central America.

In the immigrant Estonian population of Sweden, Maandi (1989) discusses some possible effects of contact with Swedish. Estonian object case marking makes use of more distinctions than Swedish. The nominative, genitive, or partitive cases can be used to mark direct objects depending on the positive/negative status of a statement, the completion of the verb, and the total or partial effect on the direct object. However, Maandi found that Estonians in Sweden are now moving toward a simpler object case marking, one more like the simple object marking in Swedish. However, Maandi notes that Estonian spoken in the home country may also be showing less distinction between the genitive and partitive markers of the direct object. Thus, contact may not be the only possible account for the observed change. There may also be forces internal to the language at work.

Aikhenvald (2002) discusses language change in endangered Tariana, an Amazonian language in the Vaupès linguistic area. In this case, extensive contact between Tariana and the other languages of the region has led to the *creation* of new categories in Tariana. In addition to loss of some structures, which Aikhenvald attributes to language attrition, there are notable expansions in the structure of Tariana, such as addition of new morphemes in the evidential system and the semantic shift of existing morphemes to accommodate meanings in the primary contact language, Tucano. Aikhenvald shows that loss of structures is not the only change characteristic of language death situations. Rather, she claims that grammaticalization is 'sped up' by extensive contact and language obsolescence. Again, relative rate of language change in endangered versus 'healthy' languages is referenced as a primary difference between the two types of language change. This issue is discussed further below. Nevertheless, Aikhenvald's discussion of Tariana adds the creation of new categories and structures to the potential consequences of language endangerment.

Sasse (1992b) argues that contact-induced borrowing can be separated from changes due to language simplification by identifying possible source structures in the contact language. In the absence of a source for the creation of categories or loss of structures, Sasse argues that one can safely postulate that 'language decay' is the source for the change. This is a simplistic view, however, and does not consider natural language change without contact or the possibility that contact and obsolescence can combine, resulting in the observed changes. In fact, sorting out solely internally or externally motivated language change is a much more complex matter than identifying potential source structures in the contact language. Thomason and Kaufman (1988) point out that it is quite possible that internal processes within a language were progressing toward such a change before contact. The change may only appear to be convergent. Dorian (1993) argues that the categorical distinction between internally and externally motivated change is a false dichotomy that may lead to inaccurate conclusions about the effects of contact languages on language obsolescence. Dorian's (1993) point serves as a warning that the influences of language change are rarely straightforward and may not be obvious without massive amounts of data over a long period of time. Acknowledgement of that complication further muddies the waters in determining the source of language change in obsolescent languages, but it is necessary to understand the range of possibilities in contact situations.

Changes due to language contact will take place in endangered languages, as they do in viable languages. As we have seen in the previous discussion of Pipil, Estonian, and Tariana, language contact leads to change in a variety of linguistic situations. It would be difficult to show that the effects are different in an endangered-language setting than in contact situations involving nonendangered languages. A situation in which an endangered and a nonendangered variety are in similar contact situations would provide a good test case for this claim.

A primary issue with evaluation of language obsolescence is the challenge of establishing that observed changes are indeed a result of the endangerment situation and are not internal changes that were ongoing in the language independent of its number of speakers. It is rarely ever clear how to isolate the source of a language change. Studies of language obsolescence must be critical about possible sources of language change and careful not to attribute structural loss to language obsolescence without considering nonendangerment-related causes. Silva-Corvalán (1994) examined a number of innovative strategies in the Spanish of Los Angeles County that were originally hypothesized to be the result of language contact with English. English contact was cited as a possible explanation for tense-mood-aspect

morphological simplifications in the L.A. Spanish-English bilingual community. However, comparison with the control group of Spanish first language immigrants showed that the change was consistent across the groups. Crucially, the TMA simplification in L.A. Spanish was in progress before contact with English. Silva-Corvalán showed that such changes were more reflective of language internal processes, independent of English contact.

> This observation supports the hypothesis that in language-contact situations a number of changes affecting the secondary language [i.e. the heritage language] have an internal motivation in that (a) they are in progress in the 'model' monolingual variety before intensive contact with another language occurs and/or (b) they may be spurred by such language-specific features of the secondary language as the semantic opaqueness of certain forms or the relative complexity of a given paradigm.
> (Silva-Corvalán 1994:208)

Similar explanations are given for some changes in endangered languages. Campbell and Muntzel's (1989) survey of a range of changes in various endangered languages posits a variety of causes for different endangered language situations. This work clearly reveals one of the complications in this area of research: specifically, that each case is unique to a particular language and community context and generalizations are difficult to extract. Campbell and Muntzel (1989) discuss voiceless approximants in Teotepeque Pipil, for which the remaining semi-speakers generalize devoicing of /l/. The rule prior to the drastic decrease in speakers was devoicing of /l/, /w/, and /y/ word-finally. Now, the devoicing has been regularized to include all occurrences of /l/ while the devoicing of final /w/ and /y/ is just lost. Extension of some phonological rules and loss of others is often observed historically; however, a change from an unmarked voiced [l] to voiceless [L] everywhere has not been observed as a typical change in a healthy, viable languages. In this case, Campbell and Muntzel (1989:187) concluded that the generalization of voiceless [L] was extremely unlikely in a fully viable language and that this change was due to language endangerment. Another example discussed by Campbell and Muntzel (1989) shows the result of imperfect learning of glottalization in Jumaytepeque Xinca. In this case, semi-speakers generalized the application of glottalized consonants, replacing nearly every possible consonant with a glottalized version. Campbell and Muntzel argue that the speakers had failed to learn the glottalization rule correctly. They point out that the glottalized consonants are 'exotic' from the point of view of Spanish and cite markedness as a reason the feature may be poorly acquired. They characterize these changes as 'internal acts of creation' in that they appear to stem from imperfect learning of the moribund language and have nothing to do with Spanish" (Campbell and Muntzel 1989:189).

Bavin's (1989) work on Warlpiri, an indigenous language of Australia, cites semantic

opaqueness as a natural motivation for observed change. Bavin examined changes in the language of children acquiring Warlpiri as a first language. Warlpiri pronouns traditionally have a singular/dual/plural distinction for number. Movement toward semantic transparency in the paradigm was observed in the innovative forms for the dual pronouns. Traditionally, the Warlpiri dual pronominals were not semantically transparent; the forms were irregular: *nyuntu, nyumpala*, and *nyurrula* for singular, dual, and plural second-person pronouns. Young speakers in Bavin's study used innovative forms that are more semantically transparent, consisting of the singular second-person pronoun with the suffixed regular dual and plural markers from elsewhere in the grammar: *nyuntu-jarra*, '2nd.person.(SG)-dual' and *nyuntu-rra*, '2nd.person(SG)-plural'.

Bavin concludes that the changes in the Warlpiri spoken by the younger generation are expected simplifications, which move toward semantic transparency in the forms. The regularization of the dual pronoun has no analogue in English; therefore, she does not attribute this change to contact with English or any other force specific to minority languages. Instead she concludes that they are internal changes within the linguistic system toward semantic transparency[2].

The theory of diachronic change in language does not predict that the processes will a priori behave differently in an endangered language situation. Therefore, discovery of internal changes in progress is entirely expected, but crucially, the presence of natural change does not discount the possibility that there are language obsolescence-specific changes or processes in addition.

3.3.2 Rate of Change

Dorian's (1981) work on East Sutherland Gaelic described changes that were not of a different kind from 'healthy' languages, but may differ in quantity and speed of change. Change in endangered languages may be qualitatively the same, but quantitatively different. Schmidt (1985:213) agreed in her work with Dyirbal, observing that one striking pattern is "that vast amounts of change are compressed into a short time-span of about 25 years." Similar claims have been made in other situations (Campbell and Muntzel 1989; Aikhenvald 2002; Childs 2009), but rate of change is difficult to evaluate since there is no consensus in historical linguistics concerning speed of language change (e.g., Nichols 1995; Dixon 1997;

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[2]There are many potential complications in this study, including the possibility that the observed regularizations would eventually be replaced by the irregular forms in the process of these children's normal language development. It is not clear from my shallow overview of Bavin's work to what extent the natural processes of regularization in child language are taken into account.

Campbell 1998; Nettle 1999). Languages historically diverge at drastically varying rates; combinations of language contact, social factors, and internal processes of language change contribute to instances in which languages have remained relatively unchanged over long periods of time as opposed to instances of drastic change in a short period of time. An impressionistic judgement may be sufficient if the amount of change is drastically different from nonendangered situations. However, a more consistent, reliable measure is desirable. It is possible that the socioeconomic and historical variables in an endangered language situation often lead to a sociolinguistic setting in which language change is favored.

If claims that language change is 'sped up' in endangered language contexts are supported, we should expect some social correlates to language death that motivate increased rates of change. That is, explanatory variables that could account for the impressionistic valuations of high rates of change, such as Schmidt's and Dorian's, should be isolated and tested. A combination of the likely social correlates to language endangerment could be defined as a specific *sociolinguistic situation* favoring change or the common *External Setting* including the range of sociological, ethno-historical, economic, and other factors which trigger language shift (Sasse 1992b). Possible correlations between social variables and increased change in endangered language contexts could include:

1. Intense language contact and the overt displacement of a minority language by educational, economic, and political pressures (Aikhenvald 2006),

2. Intensified identity associations with marked features of the endangered language or dialect, i.e., dissipation or concentration (Shilling-Estes and Wolfram 1999; Wolfram 2002),

3. Possible diffusion of social networks, and language communities where weak social networks facilitate change (Milroy and Milroy 1985; Grace 1992),

4. Small communities, that favor increased rates of change and borrowing (Nettle 1999), and

5. Lack of a standard and of "self-appointed language monitors of grammatical norms," (Dorian 1981:154).

These evaluations remain questionable, as any evaluation of rates of change continues to be. Nevertheless, these proposed sociolinguistic correlates to endangered language contexts have been suggested as facilitators to change. It is likely that endangered language communities display a majority of these attributes, although there are also reported cases of quite

the opposite of these social situations in dying languages: sudden language death of large communities, small communities of speakers remaining structurally stable, and semi-fluent elders acting as language monitors in dying languages. It may be challenging or impossible to identify an endangered language situation. However, some combination of a subset of these factors may at least contribute to the observed uniqueness of changes. By examining these social factors, we may be able to refine the notion of increased rate of change specific to endangered languages.

3.3.3   Language Learning/Use Issues

Apart from borrowing and internally-motivated language change, there are also claims attributing structural obsolescence to the actual speech behavior of language communities. In Voegelin and Voegelin's (1977) study of younger generations of Tübatulabal speakers, they found decline in the use of complex sentences compared to Voegelin's work on the language forty years earlier. They asked (1977:355),

> does this mean that [speakers who don't produce complex sentences] had stopped acquiring their first language while young children when, as theories of language acquisition would have it, we all use simple sentences?... Or would their acquisition of the use-comprehension of complex sentences in Tübatulabal have been insufficiently interiorized by the time (before their teens) they switched to English?

Voegelin and Voegelin set up one of the questions that still drives research in this area: is language simplification in moribund languages due to inadequate acquisition or decrease in usage of a speaker's fluent grammar and how can we test for these causes? This issue raises important questions for our understanding of mental grammar. Specifically, what is necessary for the acquisition and maintainance of knowledge of a language? A handful of recent studies have begun to investigate this question for endangered languages; Putnam and Sanchez (2013) argue that inadequate acquisition and decrease in use in these communities jointly affect the comprehension and production processes of acquisition. Specifically, they argue that collaboration between comprehension and production is involved in the acquisition of grammatical irregularities (Putnam and Sanchez 2013:479).

Further case studies arguing for language use and acquisition issues discussed in this paper include Dorian (1982), Mithun (1990), Hill (1973), Schmidt (1985), and Cook (1989). Cook (1989) discusses phonological change in two dying languages, Chipewyan and Sarcee. He finds a merger between /t/ and /k/ in younger Chipewyan speakers. In Sarcee, Cook discusses the modern speakers' rule to optionally delete final /n/, when traditionally, the final /n/ was obligatorily deleted. In both cases, he observed a loss in phonological

distinctions. For both, Cook attributed the innovation to inadequate acquisition of the distinction or the rule.

Attrition is the loss of structures from an individual speaker's grammar due to a decrease in usage of the language; this individual attrition also has repercussions at the community level. Language attrition is discussed rather frequently in the context of immigrant languages (Andersen 1982; Seliger and Vago 1991). Immigrant languages have often been compared with language obsolescence and some treat the two situations as identical for most purposes (e.g., Andersen 1982; Dorian 1989b). The language attrition model applies to formerly fluent speakers. In her study of Gaelic, Dorian (1981) included these speakers in the semi-speaker category with individuals who had never acquired fluency in the language as children. This issue is a potential complication in the general discussion of language obsolescence: differing levels of speaker proficiency are not adequately categorized. However, the various situations may be extremely difficult or, in fact, impossible to separate, given language data from only one point in time. They may also be better characterized as a continuum rather than as discrete categories. I return to this important discussion below.

Andersen's (1982) detailed exploration of language attrition considered evidence from immigrant languages, language obsolescence, pidgins and creoles, and language acquisition with the goal of determining linguistic correlates of reduction of language use. He cites two general strategies used by speakers with reduced grammars: (1) "Whenever possible, use free morphemes (or at least syllabic morphemes) strung together linearly in the most transparent fashion to express your meaning," (2) "Whenever there are different devices to express the same basic meaning, use only one of these devices" (1982:100ff). The second strategy was later equated with the One-to-one Principle, an established principle in language acquisition accounting for tendencies for one linguistic form to be mapped to one intended meaning (Andersen 1989). In an endangered language community, Andersen says, the One-to-one Principle does not have enough language data to be overridden, leading to 'simplification' of possible forms (cf. Putnam and Sanchez 2013).

Andersen also identifies three primary areas of interest for language attrition study, the areas where the greatest effect of decreased usage can be observed. These are:

1. Quick retrieval of appropriate vocabulary and idiomatic phrasing in ongoing speech. Andersen concludes that this area "far outweighs" morphosyntactic and phonological aspects of attrition.

2. Language "weak points" or complexities, late-acquired forms and constructions, that will be the first part of the competence to be affected (besides the lexicon), cf.

Deacquisition, below.

3. Socio-affective factors and their interaction with linguistic and cognitive factors that affect a speaker's confidence in communication, i.e., linguistic insecurity.

Andersen's second area is related to Voegelin and Voegelin's observations; loss of a language will mirror language acquisition in the order of structures lost and acquired. Cook (1989) makes a similar observation, that the stages of language acquisition will be reversed in language death. It may be the case that those structures that are frequently lost or simplified in endangered language situations overlap with the structures acquired later in language learners. It may not be that imperfect learning due to inadequate input in an endangered language is the necessary cause for such simplification based on a One-to-one Principle model. Rather, languages may often move towards the semantic goal of one form to one meaning as motivation for some changes in any language, endangered or not.

Dorian's (1981; 1982) semi-speaker category in her study of East Sutherland Gaelic consisted of formerly fluent speakers and some speakers who never entirely acquired the language. She did not initially separate these groups and noted that it was interesting that the two types of speaker histories patterned together for most features, although there were differences in proficiencies within the group. The semi-speakers showed loss in feminine pronoun replacement and the genitive case - features that were in general decline from older to younger speakers, suggesting natural language change was responsible for these changes. They also showed decline in the tense system and reduction in ways of expressing the passive voice - features that showed a drastic drop between younger fluent speakers and semi-speakers, suggesting their semi-speaker status was related to the loss of structures for these features. The reduction in strategies for expressing passives is a potential instance of the One-to-one Principle. In Dorian's later analysis (1982), she isolated the performance of the one true, formerly fluent speaker and found that that speaker did not show loss of syntactic options, e.g., the passive voice; and did not favor analytic structures over synthetic ones, contra Andersen's strategies. On the other hand, the formerly fluent speaker showed no differences from the semi-speakers in her tendency toward analogical leveling. This suggests that there may be some quantifiable differences between the two nonfluent speaker groups. Further work with more speakers and various languages is necessary to adequately understand the distinction.

Mithun's (1989) work on Cayuga, an Iroquoian language spoken in two communities in Ontario and Oklahoma, provides further possible support for patterns of simplification in language attrition. However, Mithun also cites internal change as a possible cause for

findings. Specifically, among the Oklahoma community, where there are considerably fewer speakers and less use of the language, productivity of polysynthetic verbs was receding. That is, an Oklahoma Cayuga speaker would use all of the affixes available, but hesitated to combine them into polymorphemic words. Instead, she would use periphrastic constructions with free morphemes to express the meaning. This is reminiscent of the One-to-one Principle; since the speaker had an adequate strategy to express certain meanings, she would not acquire or, at least, use the polysynthetic form as well. Mithun also notes that in Mohawk, a related language, children acquiring the language as an L1 use a similar strategy. They also avoid long combinations of morphemes, opting for particles to represent meaning or leaving some minor meanings out entirely, possibly supporting the deacquisition hypothesis.

Mithun's (1990) analysis of Central Pomo describes the reduced language of six formerly fluent speakers of the language. The speakers varied in proficiency and language history; they had all used the language into their teens, but the more fluent speakers had used it more recently, up to five to ten years prior to the study. Mithun found attrition in the less fluent speakers in expressions of case, number, a defocusing construction, complex clause formation, and reduced lexicon. However, her analysis emphasizes that the less fluent speakers also produced standard or traditional examples of the same structures. In addition, all of the less fluent speakers began to sound more fluent as they practiced and communicated more in Pomo; the distinguishing deficiencies of their nonfluent speech began to disappear. Perhaps this is the crucial difference between language attrition and never having acquired certain structures; we may expect formerly fluent speakers to be able to regain lost structures with increased exposure to natural conversation in the language. If this were the case for the majority of language obsolescence claims, it would have drastic implication for language revitalization efforts. Communities would be compelled to begin using their language in natural ways immediately to quickly recover the former fluency in their language.

An obvious possible effect of a rapid decrease in the number of speakers of a language is the lack of adequate input for acquisition in the younger generation of learners. It is clear that primary language data are necessary for language acquisition; however, it is not clear precisely how many data are necessary. Meakins and Wigglesworth (2013) and Loakes et al. (2013) begin to test the quantifiable difference in language input for lexemes to be acquired in an endangered language situation. Loakes et al. (2013:699-700) find that in Yakanarra, a multilingual community in which Walmajarri, Australian Kriol, and

Australian English are spoken, 11.3 % of the language input to the study's participants was in Walmajarri, where 87.5% was in Kriol and 1.2% in English. However, the children in the study only produced Walmajarri 4.9% of the time. Although the children hear and can understand the Walmajarri, they are not producing it as much. Although Loakes et al. do not make any claims about a specific benchmark of language input for fluency, this research begins to address the question. Meakins and Wigglesworth (2013) address this quantifiable input/performance relationship in their study of Gurindji. Here they found a relationship between lexical recall and frequency of use in the child's input.

Endangered languages can lose footing on usage in a community, domain by domain. Thus, the formal domains can be entirely lost while the other domains persist - *top-to-bottom death* (Hill 1973; Mougeon and Beniak 1989; Campbell and Muntzel 1989). In such instances, the language of formal domains such as education, business, and ritual, is replaced with the dominant language. In the opposite case, the minority language can be reserved for ceremonial or formal purposes, which Campbell and Muntzel (1989) term *bottom-to-top death*. In such a case, there is no longer adequate input in the home or in familiar conversation for home-oriented domains of the language to be acquired.

Top-to-bottom death was described for Breton by Dressler and Wodak-Leodolter (1977). Breton is an indigenous language of Brittany, where Dressler and Wodak-Leodolter found the varying styles that had been used in different domains were merging into one monostyle that all Breton speakers used for all situations. They drew a parallel with pidgin languages in that these have small vocabularies and variability in grammatical rules. The comparison with pidgins is merely a parallel that Dressler and Wodak-Leodolter draw between two types of reduced languages. Romaine (1989) reiterates the claim that dying languages are similar to pidgins and creoles; both are a result of colonization and both challenge the concept of a 'speaker' of a language, and, she says, both undergo the same types of structural simplification. Such structural similarities include an abundance of analogical forms, a preference for analytical syntax, and reduced phonological inventories. Other studies have considered the stronger possibility that inadequate acquisition of particular structures will be grammaticalized by the Universal Grammar in a process similar to actual creole formation. Trudgill (1978) referred to language death as 'creolization in reverse,' in that it involves loss of native speakers of a language whereas creolization involves creation of native speakers. Trudgill takes the analogy a bit further claiming that Arvanitika, a variety of Albanian spoken in Greece, is more similar to a pidgin because its process of language death includes *restriction* and *reduction*. Arvanitika suffers restriction due to

its being largely replaced by Greek and it suffers reduction because linguistic structures are being lost. Crucially, Trudgill stops the analogy here and does not claim that the regularizing *simplification* or grammaticalization takes place in obsolescent languages, as it does in creoles.

3.3.4   Speaker Proficiency and a Timeline of Language Obsolescence

Issues of speaker proficiency levels have been present throughout this discussion and are central to a theory of structural consequences of language death. Various studies focus on fluent speakers, younger fluent speakers, formerly fluent speakers, and semi-speakers of all levels of proficiency. Dorian (1989a:1f.) urges that our terminology must be adequate to distinguish between those who,

> can understand a language but not speak it; dredge up a few fossilized ex-
> pressions and/or some lexical items; say the little they can say in socially
> appropriate but linguistically flawed fashion; say little in flawed linguistic fashion
> but socially inappropriate as well; speak readily at some length but with many
> and obvious deviations from the conservative norm; speak easily in a strikingly
> modified 'young people's' version of an ancestral tongue; be conservative in
> lexicon but not in phonology or morphology; be conservative in phonology but
> not in morphology or lexicon; speak in a fashion different from their age-mates
> an ancestral tongue in which they were once fully fluent but which they have
> latterly had almost no occasion to use; and so on through the nearly limitless
> possibilities of combination and recombination of 'capacities.'

Some authors specifically address the issue. Cook (1989) does not include formerly fluent speakers and Mithun (1990) only includes formerly fluent speakers. Dorian (1977) examines the issue of semi-speaker proficiency. She finds that community assessments of a semi-speaker's relative proficiency level are reliable. She discusses the illuminating example of a brother and sister who were one year apart in age; the community judged the older brother to be fluent in Gaelic while it viewed the younger as less than fluent. This judgment was generally supported by data on passives, irregular plurals, and the consonant mutations of Gaelic. However, the distinction between formerly fluent speakers and semi-speakers is still vague and challenging to establish. As discussed in Section 3.3.3, the observable differences in performance between the formerly fluent and semi-speakers may be minimal, given data from a single point in time. In fact, it is not entirely clear whether the language performance of these two classes should be considered to be different speaker groups. Dorian (1981) found similar results when combining nonfluent speakers of varying backgrounds, but Dorian (1982) points out some differences in patterns of language change between the two. However, this distinction is extremely difficult to evaluate methodologically given the lack of adequate data and the likely similarity in the performance data from the two groups. Or,

as Childs (2009:113) poetically stated, "a question of telling the dancer from the dance."

It is quite probable that all of the linguistic and extralinguistic forces discussed in these studies are not in opposition, but are stages or optional processes on a timeline of language death and a proficiency continuum for speakers. Each theory - internal language change, increased speed of language change, language attrition, and inadequate acquisition - can be associated with a range of speaker proficiencies. As a language is spoken less frequently, the effect of speaker proficiency will increase. Sasse (1992a) describes a model of language death called the GAM, the Gaelic-Arvanitika Model, as it is based on studies of those two languages, which considers external factors, speech behavior, and structural consequences. The structural consequences occur primarily as a result of external factors and speech behaviors. They include lexical loss and stylistic simplification at the onset of complementary distribution of bilingualism; increased interference of the contact language as socioeconomic pressures and negative attitudes toward the heritage language increase; and "pathological reduction phenomena in the speech of semi-speakers," as parents abandon the language and no longer teach it to their children (1992a:11ff.). GAM takes into account speaker proficiency, sociohistorical factors, and time as important variables in a model of language obsolescence.

A general conclusion of this survey is that identifying the motivation for structural change is the primary question remaining in all of these studies and is precisely the most difficult answer to uncover. Considering the ongoing presence of internal change, the lack of adequate language data, and the necessity for thorough evaluation of historical trends in the language, language histories of each speaker, and other in-depth social data, these proposed divisions within the study will be extremely difficult to uphold in real language case studies. Nevertheless, it is valuable for researchers in this area to emphasize that language death deals with many different microsystems in a language community and to recognize this fact in terminology and theory.

Questions remain as to whether universal trends are expected, the relative rate of change in endangered languages versus healthy ones, and the expected direction of change (complication or simplification), if any. Unifying a single theory of structural effects on language death has been complicated by the need to account for many and varied factors across language death case studies, including inadequate acquisition by younger speakers, contact with the majority language, reduction in styles, decline in usage of the language, and other factors associated with an endangered language community. This study will investigate such structural changes and the associated linguistic and social forces that have

contributed to this change in Shoshone, asking:

1. What changes have occurred and/or what variation exists in Shoshone morphosyntax from the 1960s to today, and

2. What linguistic and social forces contribute to these changes? Extensive contact with English, language attitudes, speaker language histories, language use, social networks, speech community, etc.

It will contribute another in-depth case study of a language death situation to build upon the range of about two dozen such situations. Shoshone provides an interesting sociolinguistic context for this investigation with the availability of rich data over a relatively long period of time. Its displacement has been relatively well documented, which allows for a uniquely long historical and sociolinguistic perspective. This breadth of historical data provides a continuum of speakers of differing proficiencies in Shoshone and English as well as quite dramatically different sociolinguistic backgrounds. The oldest speakers from the WRMC were monolingual in Shoshone; they were raised in a completely traditional Shoshone way with limited contact with White people and little to no adaptation of Western culture. The youngest speakers interviewed for this study included a few who were self-described as only minimally conversant in Shoshone, not fluent at all. The two young men (under 35 years old) interviewed during this study were raised by elders - one by his grandparents and one by older adoptive parents. Both reported that they were the only one of their peers with any knowledge of Shoshone. Their peers are aware of many aspects of Shoshone traditional culture; they are definitely members of a unique Shoshone culture. This broad continuum of language proficiency and sociolinguistic experience provides a deep sample for investigation into Shoshone structural changes as well as the personal linguistic and social backgrounds that are considered here as potential factors in the degree of language shift.

CHAPTER 4

METHODOLOGY

There are clearly many factors that must be investigated in evaluating structural changes and their contributing sources in an endangered languages. A number of investigations into language death have identified changes in progress (e.g., Dorian 1981; Schmidt 1985; Campbell and Muntzel 1989). Dressler (1981:10) cautions that it is not feasible "for a linguist after performing the task of identifying, describing, classifying, and trying to explain such phenomena of language decay, to lean back and leave all the other problems of language death (and language shift) to the sociolinguist or sociologist." The investigator is faced with the challenge of explaining language change. To do so, the documentarian must become a sociolinguist. Addressing this intersection of language change and the sociolinguistic environment is quite different in endangered language situations than in majority language studies. Specifically, endangered language communities do not often provide the documentarian with the amount of social stratification and language data typically used to investigate the source of sociolinguistic language change. As Nagy (2000:148) explains,

> the paucity of such research [that includes adequate sociolinguistic information] is partially due to the lack of speakers to record in moribund language contexts. Yet, it is exactly this dearth of speakers that makes it important to collect data from a wide variety of speakers in order to understand the behavior of endangered and moribund languages.

Furthermore, language-death situations present additional complications such as language change that is directly related to the decline in usage of the heritage language, intensified language attitudes, lack of government and institutional support, and other unique factors (Gal 1979; Dorian 1981; 1989; Schilling-Estes and Wolfram 1999).

This study seeks to evaluate relationships between the observed linguistic changes and the varied social factors unique to an endangered-language situation through collection and analysis of naturalistic data from many speakers, representing different social cohorts within a community in the tradition of American Indian cultural and linguistic documentation. My aim is to describe the changes in linguistic structures and the relevant changes in culture

surrounding the Shoshone language in order to better understand this community and its language.

This study tests the dependent variables accusative case and absolutive lexicalization, number marking, and demonstrative pronouns in two discourse styles of Shoshone: connected speech and sentence translation. The variables are then compared against the sociolinguistic variables for each speaker to determine which linguistic variants correlate with which social variables. Data on the social variables were collected through administration of a speaker interview targeting each participant's family history, language history, language attitudes about Shoshone and English, and social network memberships. The personal questionnaire is discussed below in Section 4.1.1.

This social information was compared with rich language data, collected through both targeted elicitations and connected, naturally-occurring speech (in so far as these tasks were possible in this situation of very low language use) from each speaker in the study. Together, these two sources will give a more complete picture of the sociolinguistic environment for speakers of Shoshone in Owyhee.

Sociolinguistic and documentary linguistic methodologies often prefer naturally-occurring speech as a data source for linguistic analysis. Some researchers warn that translation tasks can effectively test a speaker's translations skills rather than their actual language use (Dressler 1981; Mithun 1990). Dressler (1981:15) observed that semi-speakers' "metalinguistic competence is often much worse than their productive competence." Furthermore, Mithun (1990) notes that for small, understudied languages, it is often difficult to evaluate the structures of the language in advance to design an adequate translation task.

Despite the emphasis on natural data, complications of language loss and the desire to collect specific structures has led many studies of language death to rely heavily on sentence translation tasks. Further, it has been noted that it is difficult to obtain sufficient tokens of morphological and syntactic variables in spontaneous speech (Rickford et al. 1995). The departure from naturalistic data is possibly a necessity in studying such variables to elicit data on these morphosyntactic structures and provide sufficient amounts of data for analysis of these proposed trends in language obsolescence. For these reasons, I use both naturalistic language data and translation tasks for this study.

4.1   Fieldwork and Methodology

The fieldwork for this study was completed during one three-week field trip in the Summer of 2011 in Owyhee, Nevada on the Duck Valley Shoshone-Paiute Reservation. I

chose Owyhee as a fieldwork site primarily because of my existing contacts and relationships in the community. Secondary benefits were a) the large population of Shoshone speakers, relative to other areas and b) the existing recordings by Wick R. Miller that contained a significant number of speakers from Owyhee for comparison with the present-day speakers. Many people in Owyhee remember Wick Miller or are familiar with his work documenting the Shoshone language during the 1960s and 70s and the continuing language revitalization work based on his materials at the University of Utah.

The precedent set by Miller was an early example of community collaboration in anthropological linguistic fieldwork. He made a commitment to working ethically and responsibly with the Shoshone communities envisioning the greater effort of Shoshone language preservation. For example, he distributed copies of all recordings he made and he worked with a Shoshone community member, Beverly Crum, on developing an orthography and on educating the communities about this effort. My work with the Shoshone people of Owyhee is indebted to his work both in that my research builds directly on his and in the community relations that he established during his long period of work with the Shoshone language.

Despite this positive history of collaboration between the University of Utah and the Shoshone people, there is still some suspicion and resentment of outside researchers capitalizing on Shoshone cultural resources. I was told that there are generally two opposing schools of thought on the matter. There are people who are happy to work with and share information with interested outsiders toward the greater goal of education and preservation of traditional culture. Conversely, there is an equally passionate faction that feels that any dissemination of traditional knowledge to outsiders contributes to the dismantling of a purely Native way of life, i.e., that outsiders are not entitled to this knowledge and their awareness of it is dangerous as they do not share the community values and relationships. During my field trip to Owyhee, I did not encounter any expressions of this latter opinion. Quite the contrary, most people whom I encountered were happy to share their language and cultural knowledge with us and considered their participation in the study a point of pride (although I am sure that I was being intentionally sheltered from some known uncooperative speakers by my hosts).

I believe that any suspicious or negative reaction toward my work was mitigated by a few factors. First, I have been working on Shoshone language preservation projects with various members of the Duck Valley Tribes for the past five years. My existing relationships with these community leaders gave me some legitimacy through their endorsement of our work. Second, and most importantly, one of these contacts is the Owyhee community member,

Stephanie Tabibian, a college student who served as my research assistant throughout the field trip. Stephanie was one of our students in SYLAP during 2009. Since then, she has continued to work with the Shoshone language projects at the University of Utah and recently completed her Bachelors degree at the University of Oregon. Furthermore, she is recognized in the Owyhee community as one exemplary young person who is dedicated to the preservation of traditional Shoshone language and culture.

A third factor was that I stayed with Stephanie's family during my field trip to the Duck Valley Reservation. While I was there, I participated in the local culture as a participant observer. I was fully immersed in the local lifestyle. In addition to that, the oddity of our research was mitigated by the fact that Stephanie and I both positioned ourselves as learners of the language (Nagy 2000). This is entirely true for Stephanie and was a major goal of mine as well. This benefited our research in creating relationships with the speakers and motivation for our questions. We would try to speak Shoshone to speakers all over town, during gatherings and visits to speakers' homes. We asked about words that came up in conversation. This seemed to alleviate some fears people had about speaking to us in Shoshone.

The Shoshone language is not generally used for daily conversation. In particular, it is not used around outsiders or people who are known not to speak Shoshone. There is a general fear on the reservation that when you talk in an Indian language, people will suspect that you are saying something bad about those who cannot understand you. Since Stephanie and I frequently initiated some part of the conversation in Shoshone, as language learners, this suspicion was significantly mitigated and it allowed speakers to use Shoshone with us. Although I was only on the Reservation for three weeks, these factors allowed me to function in the community with little suspicion. An additional factor that was pointed out to me on several occasions was that I physically look like a Native American person. Although I am not Native, it was noted that my appearance was nonthreatening because it was familiar. All of these factors may have alleviated some possible concerns that I was not genuine in my desires to assist in maintenance of the Shoshone language.

Furthermore, I was conscious to be clear and open with all people that I encountered about my intentions for my research. Stephanie and I also encouraged community members to share their ideas and questions about ongoing language preservation efforts. This focus on open communication and joint authorship of the larger Shoshone language preservation projects led to the development or growth of productive, honest relationships between all stakeholders.

As the external researcher in this field experience, it is important to highlight my own and the various roles of community members. Since I work with many of the Owyhee community members on ongoing language revitalization efforts, I was playing three roles during my time on the reservation: researcher, language preservation consultant (representative of the now-defunct C.A.I.L.), and language learner. These three roles overlapped and informed each other, contributing to a productive blend of the joint goals. I took the overall research approach of community-based research (Rice 2006; Czaykowska-Higgens 2009; Leonard and Haynes 2010). That is, community members contributed to the research process, gained skills in language preservation methodology, and participated in an active exchange of ideas and needs with my team and me.

There were several examples of this during the trip. Most salient was the partnership between Ms. Tabibian and myself. As mentioned above, she served as my research assistant and host during the field trip. As a community linguist and language learner, Stephanie was trained during her research assistantship on many useful linguistic and language conservation skills such as (1) approaching and recruiting possible speaker-collaborators, (2) technical practice in recording language material, (3) administering linguistic tasks such as sociolinguistic interviews and elicitation, and (4) building relationships and interest in the community for ongoing or possible language projects.

Through this process, Stephanie became better equipped to engage in the types of language work she is interested in carrying forward without the assistance of an external researcher. The training developed over the course of the two-week field trip from Stephanie's role being mainly observational to her acting as the primary interviewer during some later interviews. The education was not one-way only; I learned a great deal from Stephanie about working in her community. For example, she often commented on my tendency to be too timid about discussing language issues. She encouraged me to be upfront and abrupt with people when talking about the death of the Shoshone language. Whereas I was cautious not to offend speakers when claiming the language was dying or losing structure, Stephanie always encouraged me to tell people the whole problem so that they would know what the community is facing. She was a great example of a young person taking control of the language death situation in her home community. She was brave to point out the negative effect of prescriptivism and language purism on language learners. She told elders outright that it was their obligation to talk to younger people. Since she is a member of this culture, I was able to learn about how to talk about language issues by working side by side with her. Furthermore, the funding I received from two grants, the Floyd A. O'Neil Scholarship

from the University of Utah American West Center and the Native Voices Endowment Grant from The Endangered Language Fund, allowed me to compensate Stephanie for this important role.

A second example of community-based research on this trip was the *Newe Taikwappeha Yeitekkappe*, 'Shoshone Language Dinner' that Stephanie, Stephanie's mother Jennifer Eisele, and I planned and hosted. This was a dinner open to the community, during which community members were given the opportunity to hear about our research (both for this trip and in other areas), provide feedback on ongoing projects, and suggest future directions. Through this dinner, we hoped to make it clear that the language research was a community endeavor, not owned or controlled by any one community member or outsider. It also served as a way for me to introduce myself to the community at large and as a recruitment tool for speakers interested in participating in this study. Through this exchange, we received a number of suggestions for future projects and were able to answer some existing questions about our short-term and long-term research goals. We also took this approach to informational exchange in our individual meetings with speakers, often hearing valuable suggestions for future work in our one-on-one interviews. Since Stephanie and I are both actively engaged in language revitalization efforts for Shoshone, we have the ability to pursue many of these suggestions and keep the community members involved in the process with the hope that we can train other community members to lead some of these projects.

Another important aspect of community-based research is the right of return of materials. This goal was addressed through a couple of different initiatives over this field trip. First, our team made sure that community members whom we spoke to were aware of the WRMC of tapes and the materials that have been made by our team at The University of Utah since 2007. We informed people of their relatives' recordings and made copies of any requested audio recordings for the community members. There have been many other efforts to redistribute this information and we committed to continuing that effort. We were able to distribute over 100 CDs from the WRMC to family members and interested speakers/learners as a result of our contacts on this trip. Surely, these redistribution efforts will continue for many years.

Secondly, we redistributed the recordings gathered on this research trip to the speakers we recorded, both in their raw unedited versions and in the edited excerpts of each Shoshone storytelling or song. During the consent phase of data collection, we received permission from each speaker to distribute their contribution and asked whether they would like their

name associated with the story as author/contributor. These three aims: community member training, active exchange of ideas, and redistribution of materials were a guiding focus of this field trip and we hope this leads to more positive results for long-term language revitalization and community involvement in ongoing projects. Community-based research is a growing focus in language documentation and revitalization situations (Rice 2006; Czaykowska-Higgens 2009; Leonard and Haynes 2010). This study is one such example of the varied benefits of such an approach.

Since my focus throughout this process was to gather the relevant information to determine what structural changes have occurred in Shoshone over the past fifty years and what social factors contribute to the observed changes, I collected data using a variety of methods building on the tools and techniques used in previous studies investigating change in endangered languages. To evaluate these relationships, this study utilized a simplified version of the data collection methodology used by Schmidt (1985) in her study of Young Dyirbal. She collected language data through English-to-Dyirbal translation in sentences and wordlist form, Dyirbal-to-English translation, comprehension tasks, storytelling, and conversation. Collection of a breadth of styles and domains of usage from a given speaker should be a goal, when available. Such a variety of data gives the researcher an opportunity to interpret the social meaning and function of variation within the community and/or speaker. Data collection for this study included: (1) a sociolinguistic interview, (2) connected Shoshone speech, and (3) a targeted sentence translation task. Translations and elicitations provide the opportunity to target less frequently occurring variables and address the proposals that some homogeneity exists among observed changes across language death situations. Naturalistic data are important to control for biases as a result of the contact language's structure or the language task itself. Furthermore, collection of texts and stories will allow for more direct comparison to the data from conservative speakers in the WRMC.

4.1.1   Speaker Interviews

It is preferable to collect naturalistic language data reflective of the language spoken in the absence of an interlocutor. The interviews designed for this study are based on sociolinguistic techniques for collecting vernacular speech that aim to reduce the effect of an observer's presence by limiting the attention paid to speech and approximating a conversational style or other natural speech events (Milroy and Gordon 2003). The standard sociolinguistic method of data collection outside of endangered language communities is the sociolinguistic interview. This is an interview style that is designed to be flexible

and approximate casual conversation, with interview topics rather than ordered questions (e.g., Labov 1984; Milroy and Gordon 2003). For this study, the sociolinguistic interview was conducted in English. As such, the language data itself are not direct data for this study's research question. However, it is still important to emphasize natural speech and comfort-level of the speaker in this personal history data collection in order to get the most honest and natural answer to these sensitive questions about language use and attitudes [1].

The sociolinguistic interview focused on demographic information and language use history such as birthplace, family history, language use patterns now and as a child, opinions about the future of Shoshone language, and social network memberships. The interview questions were modeled on Dorian's (1981) questionnaire for East Sutherland Gaelic and modified to be more relevant to the Shoshone community in Owyhee. The personal information questionnaire provided a basic set of questions and topics to be included for comparable data between speakers. We used the techniques of a sociolinguistic interview when possible, avoiding asking questions in a rigid order. We rarely used the written form directly; we relied on our knowledge of the interview topics to create a naturally flowing conversation. The interviews were conducted jointly, alternating between Stephanie and myself; she usually asked approximately 25%-30% of the questions. Her involvement added to the natural, conversational setting of the interviews. Since this is a very small community, many of the speakers we worked with were Stephanie's relatives, or had known her for many years. She was a familiar interlocutor; this helped to mitigate the formality of the setting.

The interview typically lasted from half an hour to an hour. Each interview varied as it was important and appropriate for us to follow up on any answer with additional clarification questions that gave us a more detailed picture of the speaker's views and background. For this portion of the interview, we acted as ethnographers, collecting personal and community history as it related to language. As discussed in Section 3, previous studies have identified language attitudes, speaker proficiency, social network membership, and recent language use as relevant factors in structural loss. Thus, the sociolinguistic interview focused on questions of this sort.

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[1]This was particularly clear in many of the interviews with Stephanie's family members. Since Stephanie had a close relationship with her relatives and because we approached the interview with the goals of natural communication in mind, we were able to collect extremely honest and sensitive feedback from these speakers about their personal experiences with language and Native American identity.

4.1.2   Connected Shoshone Speech

The second part of the interview involved storytelling in Shoshone. Stephanie and I asked the speaker to provide a story that he/she heard as a child or talk about an event or a time in his/her childhood, letting them talk freely and uninterruptedly. During this portion, we avoided controlling the subject matter of the story or imposing much interview structure on the participant, allowing the speaker to share something that is comfortable for him/her to talk about and elicit more natural speech. We usually needed to ask questions or give prompts to speakers to give them an idea of what types of stories they could tell, but these were within the structure of a sociolinguistic interview and typically built on something the speaker had mentioned during the natural course of the conversation.

We recorded a sample of personal narratives as well as some traditional stories. As a story was mentioned in English, we would ask for it to be retold or expanded upon in Shoshone. For example, we would ask, "Can you tell us, in Shoshone, about ___?" Where the blank was the topic they had discussed in English, e.g., *how Coyote won all the illnesses in a bet, or what it was like to grow up with your brothers and sisters?* Usually, a speaker provided one genre or the other, not both. The Shoshone traditional stories make up a rich oral history of the creation and legends. They are central in Shoshone culture. Although it has been reported that historically any member of the tribe was authorized to tell these stories, there is also a status that comes from being a particularly good Storyteller. This status remains and today is a bit more polarized to the point where Stephanie and I encountered people who identified as being 'a good Storyteller' and would therefore tell us many stories or people who said they do not remember or know how to tell any of them.

The recordings from the WRMC are a mix of personal narratives and traditional stories as well. The traditional stories are part of the Shoshone traditional belief system; they are part of an oral history that explains how the earth came to be how it is, including the peopling of the Americas, reasons for why animals are the way they are, warnings about dangerous beings, etc. (Crum 1994). These stories were also a large part of the traditional culture in that stories were traditionally told in the evenings during the winter. There were taboos against telling them in the summer, specifically people warn that the snow will come early if the stories are told in the wrong season. Parents and grandparents would gather the children together in the evenings and share the traditional stories. The speakers we talked to reported that these were engaging storytelling events at which children would laugh or be very frightened by different stories.

There was also a custom to indoctrinate young children into telling the stories: a child

would be expected to repeat each line of the story, word-for-word, after their elder, otherwise the snow would come. This tradition demonstrates the sacredness of this oral tradition and highlights it as a specific genre of oral literature. These stories are no longer told to younger family members. Consequently, they have ceased to be transmitted to the younger generations. As a result, many of the older speakers have forgotten them as well.

This has implications for this study's data collection and analysis. First, only about half of the speakers whom we interviewed said that they knew these traditional stories. This seemed to be a significant and distinct characterization; one is either a *Storyteller* or not. Most of the Storytellers were older, over 70, but some older people were not Storytellers. Older men were very likely to be Storytellers; five of six male speakers over 70 told stories. Women were less likely to be Storytellers; only two of five female speakers over 70 told stories. The *emic* relevance of Storyteller status was supported by other community members who would suggest good Storytellers to us as potential participants. I hypothesize that this ability may be a significant factor when evaluating a speakers' language attitudes because Storyteller status seemed to be a marker of a good speaker or a traditional speaker, i.e., someone who knows and uses the traditional ways. It was not the case that non-Storytellers were ashamed to have forgotten the stories. Usually, they remarked that they had simply forgotten them. Although, many would also comment that they wished they could remember stories.

A second and related implication for this study is to recognize that these stories are a specific genre of oral literature. Therefore, the language variety observed in the stories is expected to be different from those observed in personal narratives; oral histories have "a permanence which colloquial language does not" (Chafe 1982:49). It is possible that the stories represent a more conservative variety and that the vocabulary used in these stories is a window into the more conservative Shoshone language. This possibility is supported by the tradition of teaching the stories; younger speakers were expected to recite the stories using the exact same words as their elders did. This tradition, to the extent that it has survived, could be a force to maintain the conservative variety reserved for these stories. Non-Storytellers would not have access to these prescribed, conservative forms. Therefore, they would be less likely to maintain conservative variants. It is possible that even the Storytellers would use a less conservative variety when telling their personal narratives. Thus, during analysis, this study will consider Storyteller status and storytelling as a specific domain as possible sociolinguistic variables, expected to contribute to the structure of observed linguistic variables.

The data gathered through the connected speech task were extensive; 38 stories total, ranging from 20 seconds to 12 minutes long. This material should be examined in great depth and surely contains rich data to inform a more complete investigation into contemporary Shoshone structure. The treatment here is selective in order to focus on description of a few nominal morphological features - accusative case and absolutive lexicalization, number marking, and demonstrative pronouns. As mentioned above, this focus is motivated by the conclusions of earlier studies in the field of language obsolescence and descriptions of variation, complexity, and loss in Shoshone.

4.1.3 Sentence Translation Task

For the final part of the interview, participants completed an English to Shoshone translation task. The sentence translation task was only completed by 14 of the 21 study speakers. Some of the conditions that led to exclusion of some speakers from this task included lack of proficiency to do such a task, lack of interest on the part of the speaker, or the group setting was not appropriate for translations. Although all speakers interviewed are bilingual, translation between English and Shoshone does not seem to be a well-developed skill. There is not much of a need for direct translation in the community, so this task was somewhat difficult for many reasons. Speakers of an endangered language have been shown to be affected by factors other than their actual language knowledge, which can interfere with their translation. For example, linguistic insecurity is a well-known and often-cited consequence of semi-speaker status (e.g., Andersen 1982; Schmidt 1985). Dorian (1981) noted that semi-speakers completing the translation task for East Sutherland Gaelic were sometimes stressed and often tried to do a word-for-word translation from the English. This was also the case for some speakers in this study; these results are discussed further below.

We introduced the translation providing participants with some background on the goals of this type of task. For example, we explained that it is easier to see how Shoshone puts sentences together with some isolated examples, that it would be helpful for teaching to have example sentences and, and that it would be good to document how you say these sentences. Attitudes about the task varied. Some speakers quite enjoyed the task, laughing and asking us if they were right after every response. They treated it like a game. Others were reluctant and insecure throughout the task. My responses varied accordingly; I would press for more information and the boundaries of grammaticality at times, but if the speaker was reluctant and unsure, I would typically accept the response they gave and carried on limiting the 'language test' feeling as much as possible. The translation task consisted of 50

sentences. They were read to the speaker in English and they were asked to say the same sentence back in Shoshone.

The translation task was designed to include the significant nominal morphology and agreement variables identified for this study. One unintended consequence of this design was that the task included quite a few animal names. This was the case because animals are countable (to target the plural morphology), many of the animals names have absolutive suffixes, and animals could serve as agentive arguments. However, we quickly discovered that these animal terms are rarely used in present-day Shoshone. This may be a result of the fact that people are not living in the same proximity to the animals and that they do not regularly tell traditional stories that deal with animal characters. If a speaker could not recall the lexical item we elicited, Stephanie and I would attempt to remind the speaker of the vocabulary item. There were generally two reactions to this. Either people remembered the word right away after being reminded or no amount of our suggestion could affect whether the person knew the word or not (in other words, we were saying it and they did not believe us.) Thus, although we reminded people of the word, there was an observable difference between being remindable and seemingly not having any knowledge of the word.

4.2   Speaker Recruitment

This study's participant pool aims to represent speakers who learned Shoshone as a first language and remain somewhat active speakers today as well as speakers who self-identify as less than fluent. Speakers who are largely unaffected by language endangerment will be represented by speakers recorded in the WRMC. For this study, speakers were recruited using a snowball sampling design. Participants were recommended to me through Stephanie's and my existing contacts in the Shoshone community. Many of the speakers we contacted for this study were relatives of students we had had in the SYLAP program. This existing relationship with the families of eight local teenagers resulted in a number of contacts with speakers. Another productive source of participants was through Stephanie's family and friends. Through contacts that developed from these relationships, speaker recruitment went relatively smoothly.

As one goal of this study's participant selection was to have representatives of a variety of speaker proficiencies and language backgrounds, we hoped to recruit some speakers who would self-identify as less than fluent. However, with the special significance that is attached to being a speaker of Shoshone in this endangered language community, it was challenging to locate such speakers; usually only people who were considered "good speakers" were

recommended to us. These were usually the oldest speakers, people who self-identified as Storytellers, and those who used English the least. This reflects the cultural expectation in the community that the elders are good speakers, anyone younger than that almost never claims to know the language. It was a challenge to contact any younger speakers of Shoshone. As discussed in Section 2.4, as a generalization, speakers under 55 years old did not seem to be comfortable representing themselves as Shoshone speakers. That is seen as the right of their parent's generation. Exceptionally, we did interview one 24-year old and one 32-year old speaker. We noticed an age-graded cline shown in Table 4.1: speakers over 70 were generally fluent in Shoshone; Shoshone community members younger than age 55 report that they have some passive knowledge, but do not speak it; the vast majority of people younger than 40 years old claim that they have no knowledge of the language at all. However, those young speakers who do have knowledge of the language, minimal as it may be, proudly report being (less than fluent) speakers of the language and were happy to participate in the study. This range gives the below picture of general language ability and attitudes of the population of the Duck Valley community.

I identified categories of speakers to be included in the study and sought out a quota of speakers to represent those categories. This method, Quota Sampling, allows for selection in the field rather than random sampling of a large group. Milroy and Gordon (2008) stress that well-designed quota sampling must be based on a theoretical framework that justifies the selection rationale. Most sampling in language death studies is done by quota sampling, with the relevant social category being language proficiency and/or age (e.g., Dorian 1981; Schmidt 1985). The quota was based on obtaining, as far as possible, a mixed sample of ages, genders, various language backgrounds, and diverse levels of involvement in language revitalization efforts and/or other current uses of the language.

The total number of speakers in a study of this sort is typically limited by the available speaker pool. For example, Mithun (1990) interviewed six Central Pomo speakers. This is a small subject pool, but considering Mithun (1990:2) estimates only "perhaps a dozen

Table 4.1. Age Gradation of Language Proficiency

Under 40 years old	40-55 years old	55-70 years old	Over 70 years old
None to little language knowledge	Limited language knowledge	Shoshone speakers	Shoshone speakers
Lack of linguistic insecurity	High linguistic insecurity	Linguistic deference towards elders	Accepted status as language conservators

relatively fluent Central Pomo speakers," this small sample is quite representative of the speaker community. In total, we interviewed 21 speakers. Throughout speaker recruitment, we kept in mind the quota goal of interviewing a representative sample of ages. However, we did not go out of our way to recruit middle-aged people who were reluctant to identify as Shoshone speakers, despite the likelihood that they were semi-speakers on some level. Because of the emotional and identity defining significance of speaking the Shoshone language, we anticipated that any pressure we applied for passive speakers to participate in the study would be culturally inappropriate. Therefore, our goal was to make sure we found some younger speakers who did not necessarily represent the fluent elder category. This was a challenge. Despite these difficulties, we did end up with a diverse speaker sample (Table 4.2).

The participant sample is not quite evenly divided between age and gender; for instance, we did not interview any 'young' female speakers. Practical considerations inhibit the requirement of a participant pool strictly divided on social factors because of the size of the community and the time it would take to complete such an extensive study. Hill (1973) did conclude that gender was a factor in her study of Cupeño and Luiseño subordinate clauses. Men were more likely to use subordinate clause structures than women. She hypothesized that this was reflective of local cultural norms, but Hill also notes that there were data from only one male Cupeño and one female Luiseño speaker due to the limitations of speaker availability in the small communities.

Furthermore, as suggested by Stanford and Preston (2009), it is not clear that social class and race play the same role as sociolinguistic factors in indigenous communities. Many non-Western societies have more egalitarian social structure where speaker stratification by employment or education level is not always feasible. Dorian (1981) notes that all East Sutherland Gaelic speakers are fisherfolk. There is no social class variation among them. Although we did not set a quota for social class, education level, or occupation, after my experience as a participant-observer in the Duck Valley community, I believe that roughly two social levels exist among the community: the uneducated rancher or laborer and the educated worker who is typically employed by the Tribe, hospital, or school. Women who

Table 4.2. Speaker Sample

	Under 40	40-70 years old	Over 70
Male	2	3	7
Female		3	6

are not educated, but married to educated men, are included in this second group. This study's participants are roughly split between these groups: 13 rancher/laborers and 8 educated workers. This may or may not be a critical factor in language variation.

Race was not investigated as a factor among this participant pool; most are Shoshone or Shoshone/Paiute or Native/White mixed. One interesting observation is that the two younger speakers we interviewed are both less than half Shoshone. These two speakers phenotypically appear to be White. This suggests that these individuals may use their knowledge of Shoshone language as additional group membership indicators since they phenotypically appear to be outsiders. Although race among this study's pool of subjects was not a variable examined here, it is possible that the symbolic power of language in an endangered language community is a sociolinguistic factor that is somewhat unique to such situations (e.g., Huffines 1989). It is quite likely that other social factors, not typically considered in sociolinguistic studies of "healthy" languages, will be relevant in non-Western societies. However, since the primary research agenda of language death studies is to determine the effects of endangerment on structure, age and speaker proficiency are the variables of primary importance.

As discussed in Chapter 3, previous studies have analyzed semi-speakers as a subset of a group whose knowledge of the target language is sub-fluent by either their own assessments or the assessments of their peers. These various studies clearly illuminate the challenge of separating speaker history groups into delimited categories where there is a nondiscrete range of speaker histories and language proficiencies. It is unclear whether it is possible or even desirable to distinguish those who were formerly fluent from those who may have never come to proficiency by their self-assessments, peer-judgments, or linguistic aptitude of the conservative variety. Aside from distinguishing categories within the semi-speaker group, one further complication with speaker proficiency is that the argument can be somewhat circular. We identify semi-speakers as those speakers who are less than fluent in the endangered language, then we analyze their varieties against some conservative standard of the language; finally, the semi-speaker varieties are found to be deficient when compared to the conservative standard, proving our initial assumption that some people in the community are less than fluent. This is a dangerous trap for studies of language obsolescence to fall into.

Therefore, the approach taken in this study will not focus on equal representation of speakers along some proficiency matrix. We focused on contacting speakers with a range of social backgrounds in each of the potentially relevant social variables. We aimed to talk

to some people who were not designated by community members to be "good Storytellers" or "speakers of the old way"; some people who were involved in the revitalization efforts and others who were not involved; some speakers who participated in the Native American Church and other traditional activities and some who were more assimilated to mainstream Western American culture. Through this methodology, I aimed to make the fewest assumptions possible at the time of data collection and had the goal to represent a diversity of language backgrounds.

4.2.1   Speaker Segmentation

The speaker age and gender gives only a very partial picture of the range of linguistic and extralinguistic features that contribute to speaker proficiency. A number of short biographical sketches, collected during the sociolinguistic questionnaire, illustrate the characteristics of the speaker segments used for this analysis.

1. Speaker 1 was born in 1932 in Owyhee, Nevada. Both of her parents were from Duck Valley. She married a Shoshone man from the area; they both work on their ranch and have never lived off the reservation. She learned at home and began to learn English at school. She remembers being punished at school for speaking Shoshone, but still spoke it with her peers and received the punishments when caught. She remembers that by 4th or 5th grade, she was speaking mostly English at school. She and her husband are both speakers and they still speak primarily Shoshone at home but she did not teach any of her children the language, a fact about which she did not express any strong feelings. Nowadays, she speaks Shoshone regularly with her husband, siblings, and with any older people around the reservation whom she knows to be speakers. She states that she has forgotten some things that come back to mind when around other Shoshone speakers.

2. Speaker 2 was born in 1934 in Owyhee. Both of his parents were from just south of the Owyhee area. He moved around to a couple of different Shoshone communities during his working years as an itinerant horse rancher. Over thirty years, he spent time in Owyhee, Elko, and Fallon, Nevada. He spoke only Shoshone as a child and remembers that he, "didn't know a lick of English" at the time and that he went to school where he was punished for speaking Shoshone. His children speak some Shoshone, though he did not explicitly teach them. He is well known in the community for knowing a lot of the traditional Shoshone stories and songs. Although he remains fluent and singing, storytelling, and language are generally important to him, he does not have

strong feelings about the loss of the language in the younger generations. He lives in Dogtown today and goes to the Senior Center daily where he still speaks Shoshone with his peers regularly.

3. Speaker 3 was born about 1930 in Owyhee, Nevada on the Duck Valley Reservation. Her mother was from Ruby Valley and her father was from Elko. She spoke Shoshone as a child and learned English at school age. She continued to speak Shoshone throughout her childhood, including during play-time at school with her classmates. She does not recall being punished for speaking Shoshone or even being told not to speak it. She left the reservation for California to attend school in 1945, married a non-Native man there, and stayed in California for 30 years where she raised her family and worked as a nurse. Throughout her time off the reservation, she stayed in close touch with her family, spoke Shoshone regularly to them, and claims that she didn't forget much of the language and that she still describes herself as fluent. She has been back in Owyhee since the late 70s and regularly speaks Shoshone to her family and peers. She has learned to read and write in Shoshone and sometimes participates in preservation efforts.

4. Speaker 4 was born in 1951 in Owyhee where his mother was from. He spoke only Shoshone at home and learned English at school. He left the reservation for the military during the Vietnam War. He was enlisted for two years when he spoke English only. However, he doesn't think he forgot any of the language and still describes himself as fluent. He rarely talks to anyone in Shoshone or English, since he spends most of his time alone. He has many health and financial concerns and language preservation is not a priority for him.

5. Speaker 5 was born in 1954 in Owyhee. She and her family spent a good deal of time away from the reservation while she was a child, living in Idaho during her teens and twenties. She returned to the reservation in her 30s. She spoke Shoshone all the time with her family and remembers no negative influences from family or teachers about speaking the language. However, she always spoke primarily English outside of her family and describes her language knowledge as having forgotten a lot. For the past decade or so, language preservation has been her primary pursuit. In addition to strengthening her own language skills through practice and mentorships with elders, she has become literate and now teaches language classes on the reservation. She is not a language purist and understands the value of speaking the language, even in less

than fluent forms. She speaks Shoshone to everyone who will listen to her, especially her sisters.

6. Speaker 6 is the youngest speaker in this study's sample. He was born in 1987 in Owyhee and he was adopted by an elderly Shoshone couple who spoke only Shoshone at home and discouraged speaking his English. However, he does not describe himself as fluent. Rather, he "knows enough to have a conversation." He speaks Shoshone mostly to the elders with whom he interacts through the Native American Church and at work on the family ranch. He has never had any peers who spoke the language. He left the reservation for school for a few years in Elko and Idaho where he had little to no exposure to the Shoshone language. He is a prolific singer of both traditional Shoshone music and modern Country Western music. He is quite proud of his reputation as the youngest speaker of Shoshone on the reservation.

4.3   Recording Sessions

Some of the speakers were recorded in groups with their family members and/or friends. This was dictated by the speakers' availability or their comfort level speaking in a more natural setting. Nine of 21 speakers were interviewed in a group setting with other Shoshone speakers present. This is an ideal situation for sociolinguistic recordings since it more closely approximates a natural speech setting, rather than an artificial interview.

The interviews were recorded on an M-Audio MicroTrack 24.96 mobile digital recorder with an omnidirectional microphone. Non-ideal recording conditions were sometimes unavoidable. We did our best to minimize background noises such as washing machines, radios, fans, etc. But the comfort of the speakers was our primary concern. For example, one speaker's wife had been taken to the hospital the previous night and was recovering in their house. It was not possible for us to go into his house to record and he was very limited in his mobility since he is blind. We recorded this speaker in his front yard. On the tape, wind and rustling of leaves can be heard. However, since the focus of this study is not phonetic analysis, I was able to use his recordings for final analysis.

CHAPTER 5

STRUCTURAL CHANGES IN
ENDANGERED SHOSHONE

As discussed crosslinguistically above, the types of morphosyntactic structures that have been analyzed as being affected by language obsolescence include subordinate clauses, nominal classifiers, agreement systems, gender, case systems, negation, possession, adpositions, verb alignment, etc. (Hill 1973; Dorian 1981; Schmidt 1985; Huffines 1989; Bavin 1989; Campbell and Muntzel 1989; Mithun 1990; Wolfram 2002; Romaine 2010). The effects of English contact on Shoshone structure can be investigated in essentially any structure of morphology or syntax that differs between the two languages. I have chosen to focus my analysis primarily on nominal morphology for three reasons: first, simplification of nominal morphology such as case and number marking have been observed in previous studies of language obsolescence (Dorian 1981; Schmidt 1985; Campbell and Muntzel 1989); second, certain structures of Shoshone nominal morphology are crosslinguistically marked or rare, such as dual number marking and the six-way proximity distinction in demonstratives (Comrie 1989; Dayley 1989; Croft 1990). Crosslingusitcally marked structures are hypothesized to be susceptible to simplification toward an unmarked variant; third, these features have been observed to demonstrate variation in anecdotal accounts and/or initial observations, such as Miller's (1971) statement about variation in Shoshone object-case marking, and may have thus been in the process of shift while Miller was conducting his fieldwork.

For each variable, I first give an overview of the expected conservative forms and existing variation from the published grammars. I then investigate change in the specific nominal morphological variable in the sentence translation task. This has allowed me to begin with a hypothesis observed in a controlled task. For this analysis, I analyzed data from ten of the 14 speakers who completed this task. These speakers were chosen to highlight a range of sociolinguistic backgrounds. For example, Speakers 5 and 12 are sisters with very similar life experiences; I chose to include only Speaker 5 for the translation task analysis as a representative of their similar sociolinguistic background. For each variable, once a pattern

is observed in the elicitation data, I provide examples in the context of connected speech from the WRMC and from this study's participants to further demonstrate the observed shift.

5.1   Case Marking and Absolutives

The Central Numic languages have a particularly complex accusative case allomorphy, with reflexes of four of the five forms reconstructed for the PUA accusative by Langacker (1977). For example, in Panamint Shoshone, the five accusative allomorphs are -*a* (from -a), -i (from Proto-Northern Uto-Aztecan *-yɨ), -*tta* (from -t-a), -*nna* (a combination of final nasalization and -a), and -∅ (Langacker 1977; Dayley 1989). Miller (1996) describes a similar situation for Western Shoshone and Goshute, with the same accusative allomorphs as Panamint aside from -*nna*. The occurrence of each allomorph is partially predictable phonologically and from the absolutive suffix of the noun stem, but there is considerable overlap in the environments and variability (Dayley 1989). Table 5.1 shows that -*tta* primarily occurs with the absolutive suffix -*pin* (a) and (b), but exceptions also occur, for example, (c) and (d):

Miller (1996) notes that there is individual and dialectal variation in usage of the -*a* and -*i* allomorphs. In general, -*i* most commonly occurs with nouns ending in back vowels /a/, /o/, or /u/; -*a* most commonly follows front vowels /i/, /ɨ/, and /e/ and final /n/, when n is not part of an absolutive suffix, as seen in Table 5.2 (Crum and Dayley 1993).

Dayley (1989:180) observed a possible change in progress toward increased transparency

Table 5.1. Accusative -*tta* Distribution

Nominative	Accusative	Gloss
a. mupin	mu-pi-tta	'nose'
b. sokopin	soko-pi-tta	'earth, land'
c. toyapin	toya-pi-tta / toya-pi-a	'mountain'
d. wihi	wihi-tta	'knife, metal, iron'

(Dayley 1989:178)

Table 5.2. Accusative -*i* and *a* Distribution

Nominative	Accusative	Gloss
e. hupa	hupa-i	'soup'
f. wako	wako-i	'frog'
g. aan	aan-a	'horn'
h. wa'ippeh	wa'i-ppeh-a	'woman'

(Miller 1996:44)

in the complex Central Numic accusative allomorphy; "The suffix *-a* is by far the most common objective case marker, and it seems to be the one being generalized, taking over territory previously held by other forms."

The *-∅* marking has an even murkier environment. Miller hypothesizes that it is possibly related to the *-i* allomorph which is then assimilated to the word-final front vowel, i.e., *-i* → ∅/+front_. Dayley (1989) cites the tendency for accusative *-∅* to occur with nonhuman nouns. The complex accusative allomorphy of Central Numic is unique among Numic languages; others have a more straightforward case marking system. Shoshone accusative case allomorphy provides an excellent opportunity to observe morphological change in language death because of its complexity and previously documented variation.

In order to gauge structural change, the same set of elicitation sentences was presented to each speaker to translate into Shoshone. Elicitation sentences were constructed to target a variety of representative object nouns – some that had previously been cited as variable and others that had not. Thirteen sentences with the transitive verbs *see, hold, kill, throw, create, break,* and *point to* were presented with 14 different object nouns (see Appendix A). The object nouns varied in other semantic features; some were animate, human, plural, or pronominal. This provided a range of semantic and grammatical contexts in which to test accusative allomorphy; the [+human +plural] objects were expected to show the plural accusative suffix, *-nii*, rather than any of the singular accusative case allomorphs. In the literature, number marking on Shoshone nouns is described as optional and largely restricted to human nouns. The plural suffix is *-nee* (nominative) and *-nii* (accusative); dual is marked with *-neweh* (nominative) and *-nihi* (accusative) (Miller 1996). Number is discussed further below in Section 5.2; however, it is relevant here as the number, accusative, and absolutive suffixes interact with each other.

Shoshone accusative allomorphy is partially dependent on the noun's absolutive marking, particularly for determining the context of *-tta*. This section therefore describes observed changes in these two systems as they relate to each other. The Uto-Aztecan absolutive is best described by its environments of occurrence. It occurred on nominal stems in isolation and when occurring without other affixes, e.g., when not possessed, compounded, or occurring with postpositions (Langacker 1977). In Shoshone, the absolutive suffixes are *-ttsih, -pittsih, -pin, -ppeh, -ppieh,* and *-mpih* (Miller 1996). Freeze and Iannucci (1979) point out that the limited regularity and unclassifiable irregularities of the system are characteristic of a breakdown in a grammatical system. Table 5.3 shows examples of variation in absolutive suffixes in which certain nouns can occur with either *-ppeh* or

Table 5.3. Variation in Absolutive Suffixes

Shoshone Variant 1	Shoshone Variant 2	Gloss
pisa-ppeh	pisa-pi(n)	'red ochre'
soko-ppeh	soki-pi(n)	'earth, land'
tukum-ppeh	tukum-pi(n)	'sky, heaven'
wihi-ppeh	wihi-pi(n)	'knife, metal, iron'

-pin. Table 5.3 demonstrates examples of the type of variants I expected to encounter in evaluating the retention of the Shoshone absolutive system (Crum and Dayley 1993; Miller 1996).

5.1.1 Changes in Accusative and Absolutive Marking

Five patterns are observed in the accusative case marking changes in present-day Shoshone: (i) retention of a conservative form, (ii) innovative -∅ allomorph, (iii) innovative -a allomorph, (iv) novel forms/forgetting, and (v) unexpected number marking. I will describe the observed results for each conservative allomorph.

5.1.1.1 *-tta* allomorph

The accusative allomorph *-tta* is described in the grammars as occurring after the absolutive suffix *-pin*, with some exceptions (Crum and Dayley 1993; Miller 1996). Six of this study's accusative elicitation sentences expected the conservative form *-tta*. One of those, *soko-pin-tta* 'earth' has an expected variation that is dependent on a variation in the absolutive form, *soko-ppeh-a*. For the responses when *-tta* was the expected conservative form, 61% of responses retained *-tta*. This variation was largely split between speakers rather than mixed within a single speaker's grammar. Speakers 1, 2, 4, and 7 used only *-tta* for each of these sentences. Speakers 3, 5, and 9 had innovative forms for four conservatively *-tta* forms. Speaker 8 had all innovative forms. Speaker 10 had four conservative forms and only one innovative form. Speaker 6 is a true less-than-fluent speaker and was only able to provide one answer for these six sentences. In that single response, he did not provide the conservative *-tta* form. The detail of responses to these prompts is given in Table 5.4.

Table 5.4 shows that *-tta* is either largely retained for a particular speaker or it is being replaced by either -a or ∅. There are a few exceptional forms outside of that generalization. First, Speaker 3's answer for 'mountains' is just *toya*. This is the only example in these data in which the absolutive suffix is entirely dropped. Nor does she add any accusative form, so it is an innovative -∅. Second, *toyapintta* was elicited in a plural context with the sentence 'Our father created many mountains'. The traditional descriptions of Shoshone state that

Table 5.4. Accusative Forms in Expected *-tta* Objects

SP	mupin-tta 'nose'	huuppin-tta 'sticks'	toyapin-tta 'mountains'	tempin-tta 'rock'	wihi-tta wihippeh-a wihipin-tta 'knife'	sokoppin-tta sokoppeh-a 'land'
1	-tta	-tta	-tta	-tta	wihi-tta	sokoppeh-a
2	-tta	-tta	-tta	-tta	wihi-tta	sokoppin-tta
3	-an	-∅	toya	-tta	-∅	tepia
4	-tta	-tta	-tta	-tta	wihi-tta	sokoppin-tta
5	-an	-tta	-∅	-∅	-∅	sokoppin-tta
6	–	–	-∅	–	–	–
7	-tta	-tta	-tta	-tta	wihi-tta	sokoppin-tta
8	-an	-∅	-nii	-∅	-∅	tepia
9	-tta	-∅	-∅	-na	-∅	sokoppeh-a
10	-a	-tta	-tta	-tta	-tta	tammen pia

number marking on nouns is optional and largely restricted to human nouns. Speaker 8 uses the plural accusative marker *-nii* in her response. This form is not ungrammatical given the descriptions of conservative Shoshone plurals as being more common in human nouns. However, it is unexpected since 'mountains' is nonhuman. It may be that contact with English has affected the use of overt plural marking for this speaker. Number marking will be discussed further in Section 5.2. There was significant lexical variation in the elicitation of *sokoppintta* or *sokoppeha* 'land'. *tepia* is a synonym which also means 'land, earth' and *tammen pia* means 'our mother' which is a common way of referring to earth. The two variants described for *soko-* in the grammars reflect differences in the absolutive form. It is notable that the variation described in grammars is also observed in this study's data and that there were no innovative accusative forms given for either of the variants. In that way, *soko-* is the most stable form in the dataset. *wihi-* 'knife, metal, iron' was the other stem in this set that had been described with variation in the absolutive suffix: *wihippeh, wihipin,* and *wihi*. However, this study's speakers only used the form without an absolutive suffix; no variation was observed.

It seems that *-tta* is losing ground to -a and -∅ for Speakers 3, 5, 6, 8, and 9 who use *-tta* only in 18% of the expected contexts. Speakers 1, 2, 4, 7, and 10 retain *-tta* in 96% of the expected contexts (Table 5.5). For the second set of speakers, the relationship between the absolutive marker *-pin* and the accusative case allomorph *-tta* seems to remain intact. However, for the set of speakers who do not use *-tta*, it seems to be being replaced by -∅ in most cases, except for *mupin* 'nose' which is typically *-a(n)*. These speakers mostly retain the absolutive marker -pin; it is just not associated with *-tta* as an accusative form for this

Table 5.5. Retention of the *-tta* Allomorph

	Speakers 3, 5, 6, 8, 9	Speakers 1, 2, 4, 7, 10
Conservative *-tta* allomorph	18%	96%

group. Absolutive marking remains largely intact across the entire speaker set with one notable exception, namely, *wihi* which has no occurrences of its absolutive-marked variants.

Similar patterns are observed with *-tta* objects in the connected speech collected in this study and from the WRMC. Innovative speakers do not always use the *-tta* allomorph when more conservative speakers would.

(38) wihyu u-n   pee"-pin-tta   hipi-'i-yu,   m<u>ai</u>
 (then (s)he-POSS blood-ABS-ACC drink-PER-ITER, QUOT)
 'It is told, (he) then would drink its blood'

 Jack Simms, born 1899, WRMC_080_01, ln 5

(39) u-n   pee"-pin-tta   wihnu a-"kuh   hanni-'i-ten
 ((s)he-POSS blood-ABS-ACC then   that:FAR-LOC do-PER-ASP:HABIT)
 '(he) placed his blood over there'

 Speaker 13, Alvin Simms, born 1928, son of Jack Simms, 'Antelope Story', ln 7

(40) peaisen s-a-"ka   eke'i-inte-sen tem-pin-tta
 (already OLD-that:FAR-ACC hot-?-RES   rock-ABS-ACC
 tsi-yaan-pite-kwan
 INST:GRASP-pick.up-ARRIVE-ASP:MOM:COMPL)
 '(he) went and quickly picked up a hot rock'

 Speaker 14, Lom Hooper, born 1942, 'Tsoapittseh', ln 38

(41) teheya-an   tua s-u-ten   k<u>ai</u>pp<u>a</u>ittsi s-u-"ka   tem-pin-∅
 (deer-POSS son OLD-that:INVIS-NOM quickly   OLD-that:INVIS-ACC rock-ABS-ACC
 pa'an to'ih-sen,   nemmi pui-"kan
 on   climb-RES, us   see-STAT)
 'That fawn jumped onto some rocks quickly and looked back at us.'

 Speaker 17, Murray Sope, born 1966, 'Val Story', ln 11

Speaker 17 omits the expected accusative marking *-tta*. Thus, he patterns with speakers 5 and 8 and with the innovative speakers generally. Speakers 13 and 14 retain the conservative form in *peeppintta* 'blood' and *tempintta* 'rock'. These older male speakers still reflect the documented norm from Miller (1996). Speaker 13's father, Jack Simms, was one of Miller's consultants for this work. (38) is from his telling of 'An Eagle Story' in that collection.

These examples are consistent with the pattern observed in the sentence translation task. The conservative form is retained by some speakers and is being lost by others. This

distribution does not fall entirely along the age distribution of the speakers, but it is a factor. Any speaker younger than 60 years old at the time of the data collection had experienced loss of the –*tta* allomorph. This can be seen in Table 5.6, where the shaded columns represent speakers affected by the loss of –*tta*. Speakers 8 and 3 are outliers. These two women may share some social and/or linguistic characteristics that cause them to pattern more with the younger and less fluent speakers. This will be discussed further below.

5.1.1.2 -*a* Allomorph

The accusative allomorph -*a* is described as following front vowels /i/, /ɨ/, and /e/ and final /n/, when n is not part of an absolutive suffix (Miller 1996). Five of the accusative elicitations in this study were expected to receive -*a*. One of those was a variant of *soko*- 'land', discussed above. Another, *nam-ppeh-a* 'shoe' has an expected variation nampai-∅. For the responses for which -*a* was the expected conservative form, 64% of the responses retained -*a*. The distribution of innovative forms for -*a* nouns was more lexical than individual speaker-based. In all cases where the correct noun stem was given with an innovative accusative form, -*a* was replaced by -∅. This was most common in the noun *teheya* 'deer', in which only Speakers 3 and 7 used the conservative -*a* accustive marking. *tainna* 'man' showed a distribution more like that observed in -*tta* variation, where a subset of speakers had innovation. Speakers 7, 8, and 9 lost -*a* for -∅. Further detail is in Table 5.7

Speakers 6, 8, and 9 use conservative -a in only 37.5% of expected contexts. Where the remaining Speakers retain -a in 73% of expected contexts. The phonological context described in the grammars for the -*a* allomorph is largely retained. For all cases in which -*a* is documented, it follows /ɨ/ or final /n/. For *teheyah/teheyan* 'deer', the descriptions noted -*a* for both variants although the phonological context for -*a* only holds for the variant ending in /n/. Those speakers who have the final /h/ variant, *teheyah*, specifically seem to have lost its association with the -*a* allomorph and it more frequently occurs with the -∅ allomorph, even for the more conservative speakers. This can be analyzed as a regularization away from the exception. However, if this change were to follow the expected pattern, we would expect -*a* to be replaced by -*i*, since it is the expected allomorph following back

Table 5.6. Age of Speakers and -*tta* Loss

SP	6	17	5	9	4	13	8	10	7	2	1	3	12
Age	24	45	57	59	60	69	71	75	76	77	79	81	83
Gender	M	M	F	F	M	M	F	M	F	M	F	F	M

Table 5.7. Accusative Forms in Expected -*a* Objects

SP	pikappeh-a 'buckskin'	nampeh-a nampai-∅ 'shoe'	sokoppeh-a sokoppin-tta 'land'	teheyah-a teheyan-a 'deer'	tainnan-a tainna-i 'man'
1	-a	nampeh-a	sokoppeh-a	teheyah-∅	tainnan-a
2	-a	nampeh-a	sokoppin-tta	teheyah-∅	tainnan-a
3	teheyan pehi	nampai-∅	tepia	teheyan-a	tainnan-a
4	-a	nampeh-a	sokoppin-tta	teheyah-∅	tainnan-a
5	-a	nampeh-a	sokoppin-tta	teheyah-∅	tainnan-a
6	–	–	–	teheya-∅	tainna-ppeh
7	pehi	nampeh-a	sokoppin-tta	teheyan-a	tainnan-∅
8	-a	nampeh-a	tepia	teheyah-∅	tainnan-∅
9	–	nampai-∅	sokoppeh-a	teheyah-∅	tainnan-∅
10	-a	nampeh-∅	tammen pia	teheyah-∅	tainnan-a

vowels. Thus, it may not be a true regularization, but just a lexical pattern. Regardless, it is overwhelmingly exceptional. As Table 5.8 shows, if *teheyah* is removed from the results, Speakers 1, 2, 3, 4, 5, 7, and 10 use conservative -*a* in 90% of expected cases and Speakers 6, 8, and 9 retain -*a* in 60% of cases. A similar pattern is observed for *tainnan/tainna* 'man', though less advanced. This variation is similar in that a variation on the stem noun seems to affect the accusative case marking. For 'man', when the speaker has the final /n/ noun stem, accusative -*a* is retained. Yet when the speaker has the final /a/ noun stem, a change is observed where conservative -*i* allomorph is replaced with -∅. These two patterns hint that the distribution of -*i* may be decreasing since it is not occurring in the phonological contexts in which it is expected.

Again, there were some responses that fall outside of the allomorphic variation. Speakers 3 and 7 said *pehi* instead of *pikappeha* for 'buckskin'; *pehi* or *pehe-i* means 'fur' or 'skin' in the accusative form. Speaker 6, the nonfluent semi-speaker responded *tainnappeh* for 'man'. This is a word that means 'old man' and Speaker 6 gives the nominative form rather than the grammatical accusative *tainnappeha*.

Speakers 3 and 5 pattern with the more conservative speakers for retention of the -*a* allomorph, when they had patterned with more innovative speakers for -*tta*. Overall, -*a* seems to retain its role stronger than was observed for -*tta*.

The retention and expansion of -*a* is also displayed in the texts collected for this study. Speaker 9 tells a story about Coyote losing his eyes. In this story, there are three instances of 'eyes' occurring in object position; in all three sentences, Speaker 9 uses the expected -*a* accusative allomorph. Even though Speaker 9 showed some loss of -*a* in the elicitations,

Table 5.8. Retention of the -*a* Allomorph

	Speakers 6, 8, 9	Speakers 1, 2, 3, 4, 5, 7, 10
Conservative -*a* allomorph	37.5%	73%
Excluding *teheya*	60%	90%

it appears to be grammatical for her in most of her connected speech. The WRMC has examples of this allomorph as well; (46) shows a conservative use of -*a* by Earl Dean Harney, Speaker 9's father.

(42) pe-n   puih-a   tsa"-kea,   mai
       (REL.PRO-POSS eye-ACC INST.GRASP-take.out, QUOT)

'It is told, he tool out his own eyes'

pe-n   puisih-a tsa"-kea
(REL.PRO-POSS eye-ACC INST.GRASP-take.out)

'He took his eyes out'

s-a-"kuh-tun   pe-n   puih-a   wii-ten
(OLD-that:FAR-LOC-THROUGH REL.PRO-POSS eye-ACC throw-ASP:HABIT)

'He flung his eyes up'

Speaker 9, Martha Seahmer, born 1952, daughter of Earl Dean Harney, 'Coyote's Eyes', ln 6-8

(43) itsappeh-a   maa-nanku kwakkuh"-kwan
       (coyote-ACC FAR-side   win-ASP:MOM:COMPL)
       'They beat Coyote by far'

Earl Dean Harney, born 1918, WRMC_075_02, ln 32

(44) soni-ppeh-a   noo"-kante(n), nemme-n kuttsun-a makkah
       (hay-ABS-ACC carry-ASP:STAT we-POSS   cattle-ACC feed-DUR)
       'We carried hay and fed our cows'

Speaker 5, Laurie Gibson, born 1954, 'Just Talking', ln 21

(45) soni-∅ wookkah
       (hay   work)
       'working the hay'

Speaker 6, Kendall Shaw, born 1987, 'About work', ln 1

Although -*a* remains relatively strong in present-day Shoshone, there are still instances of its replacement by -∅, particularly for Speaker 6, the youngest speaker in this study. (45) shows that even compared to Speaker 5, he has lost the absolutive and accusative marker for *soni*- 'hay'.

5.1.1.3 *-i* Allomorph

The *-i* allomorph is described as occurring after back vowels /a/, /o/, and /u/ (Miller 1996). I expected accusative *-i* for just three tokens in this elicitation task, *ta̱inna-i* 'man', *ne-i* 'me', and *awe-i,* 'cup/dish', as seen in Table 5.9. In this study's translation task, there were no observed instances of the *-i* allomorph. *ta̱inna(n)* 'man', described above in Section 5.1.1.2, was described in the conservative grammars to occur with either *-a* or *i* (Miller 1996). In this study, it occurs with *-a* or *-∅* in all instances of an accusative marker. This suggests that the *-a* allomorph is retained for *ta̱inna(n)* while the *-i* allomorph is replaced with ∅. The same pattern is true for *ne-i*, where *-i* is replaced with ∅, making the accusative first-person pronoun homophonous with the nominative first-person pronoun for all speakers, *ne.*

Speaker 3 did not attempt to translate *awe-*i 'cups, dishes' because it was inadvertently left out of the elicitation. Speaker 6 did not know the word. As mentioned above, Speaker 6 often did not know the Shoshone words and just picked sentences that he could translate. This resulted in him answering 5 of the 15 accusative targeted sentences. For the other speakers, *awe-i* 'cups, dishes' was elicited in a plural context, "you all broke your dishes". Similarly to *toyapinii* discussed above, plural marking is not expected for an inanimate noun; however, Speakers 1 and 5 give a plural form here. Speaker 2 uses the *-a* allomorph, consistent with the phonological distribution but not with conservative descriptions. The remaining speakers have *-∅* which replaces *-i* in 95% of the responses (excluding the unexpected plural markings). A detailed breakdown of responses is in Table 5.9.

However, this subset of *-i* tokens must not be entirely representative of the state of the *-i*

Table 5.9. Accusative Forms in Expected *-i* Objects

SP	ne-i 'me'	awe-i, awe-∅, awo-∅ 'cups, dishes'	ta̱innan-a ta̱inna-i 'man'
1	∅	-nii	ta̱innan-a
2	∅	-a	ta̱innan-a
3	∅	–	ta̱innan-a
4	∅	∅	ta̱innan-a
5	∅	-nii	ta̱innan-a
6	–	–	ta̱inna-ppeh
7	∅	∅	ta̱inna-∅
8	∅	∅	ta̱inna-∅
9	∅	∅	ta̱inna-∅
10	∅	∅	ta̱innan-a

allomorph all together as *-i* is observed elsewhere in the elicitation task. As discussed above, two speakers gave the synonym *pehe-i* 'fur, skin' when asked to translate 'buckskin'. This form shows the expected conservative allomorph *-i* for Speakers 3 and 7. Similar evidence comes from Speakers 2 and 3's production of *newe-i*, the accusative form for Indian. This was elicited in a plural construction, thus *newenii* is expected; however, Speakers 2 and 3's production of the singular, accusative *-i* allomorph shows further evidence that it still occurs in present-day Shoshone. This example demonstrates the dangers of doing this sort of analysis when relying solely on translation tasks. As many have noted, translation tasks can lead to skewed conclusions for many reasons, including selection of a subset of words that may not represent the entire grammatical distribution of a variable (Dorian 1981; Schmidt 1985; Mithun 1990).

However, many of this study's speakers were less likely to use the *-i* allomorph in the connected speech as well, where it is clearly common in the texts from the WRMC. (46) and (47) show present-day Speakers 5 and 12 using forms for *awo* 'cup, dish' and *hupa* 'soup' that have a -∅ object suffix, rather than the conservative *-i*.

(46) ne awo-∅   kotsoih-'i-nenne
      (I dish-ACC wash-PER-STAND)
      'I would stand there and was the dishes'

      Speaker 5, Laurie Gibson, born 1954

(47) u   hupa-∅   wihyu hanni-si
      (that:INVIS soup-ACC then   do-RES)
      'We take the soup from it'

      Speaker 12, Millie Thomas, born 1951

5.1.1.4   -∅ Allomorph

Zero marking in accusative case allomorphy is described as occurring following /i/ or /e/ (Miller 1996). As described above, there were many instances of -∅ marking documented in this study. Expanding distribution of the -∅ allomorph is particularly prominent in Speakers 3, 5, 6, 8, 9, and 10. Speakers 1, 2, 4, and 7 have far fewer. These expansions are not necessarily consistent with the conservative environment, following /i/ and /e/, seen in Table 5.10.

As mentioned above, overt plural marking is more commonly marked on human nouns and less so for nonhuman nouns (Miller 1996). Plural marking is a suffix, *-nee/-nii* (nominative/accusative). For the two forms in this task where an overt plural was expected, it occurred 78.5% of the time. In the plural nonhuman nouns discussed above, only three

Table 5.10. Expansion of the -∅ Allomorph

Conservative allomorph	Speakers with the -∅ variant
ta̲inna-i	7, 8, 9
huupin-tta	3, 8, 9
wihi-tta	3, 8, 9
nampeh-a	10
toyapin-tta	3, 5, 6, 9
tempi-tta	5, 8
awe-i	4, 7, 8, 9, 10
teheyah-a	1, 2, 4, 5, 6, 8, 9, 10
ne-i	1, 2, 3, 4, 5, 7, 8, 9, 10

occurrences of unexpected plural were documented. *newe-nii* 'people, Indians' was marked plural by Speakers 1, 4, 5, 7, 8, 9, and 10. Speakers 2 and 3 used the grammatical singular accusative allomorph -*i*. Speaker 6 attempted this sentence, providing a novel form that reduplicated the ending of the word, *nemememe*. It is unclear where this innovation could have originated, possibly related to *nananewenee(n)*, 'relatives' (Crum, Crum, and Dayley 2001). In the context, it seemed to me to be a novel attempt to satisfy my request to translate more sentences rather than a productive plural reduplication in this speaker's grammar. For various reasons, only four speakers provided translations for *antatpittseh-nii* 'strangers'. This sentence was at the end of the task and some speakers had lost interest in the activity by that point. In any case, all speakers who provided a translation gave the expected plural accusative form, -*nii*, as seen in Table 5.11.

Plural accusative marking for human objects remains largely intact, with only Speakers 2 and 3 providing singular forms.

Table 5.11. Accusative Forms in Expected -*nii* Objects

SP	newe-nii 'people, Indians'	antapittseh-nii 'strangers'
1	-nii	-nii
2	-i	–
3	-i	–
4	-nii	–
5	-nii	-nii
6	-meme	–
7	-nii	-nii
8	-nii	-nii
9	-nii	–
10	-nii	–

The described changes in accusative case allomorphy show an interesting picture.

1. *-tta* is losing ground to *-a* and *-∅* for some speakers (3, 5, 6, 8, 9).

2. *-i* is losing ground to *-∅* across all of the speakers for the tokens included in this task.

3. *-a* and *-∅* are expanding their distribution in other environments as well, particularly for Speakers 3, 5, 6, 8, 9, and 10.

4. Certain lexical items have undergone change across the speaker proficiency range (*teheyah* and *ne*).

5. Plural marking in the accusative in human nouns is largely retained with some variation that does not seem to pattern lexically or by speaker.

These variables pattern across the speakers, suggesting a range of variation indicative of a speaker proficiency continuum, given in Table 5.12

I will discuss the social and linguistic background factors shared by these groups of speakers further in Chapter 6. Table 5.13 shows an overview of the speaker continuum groups by age, gender, and social network where the more innovative speakers are shaded grey. As described in Section 2.4, the sociological landscape of the Duck Valley Reservation is complex. However, one primary distinction resonated with the researcher regarding the sociolinguistic factors that might affect the loss or retention of language structure. This is the broad social network of ranchers and laborers compared to the educated class who work for the tribal government, hospital, or schools. These are the two career paths that are typical on the reservation: 'ranch' and 'government'. Those who work on ranches have typically not left the reservation for any extended period. Whereas, the government-workers class has more commonly received an education off of the reservation and has had more frequent contact with outsiders. For the purposes of this feature, I included women who

Table 5.12. Accusative Allomorphy Speaker Continuum

Semi-Speaker	Affected Speaker	Less Affected Speaker	Older Fluent Speaker
• knows few words • novel forms • no conservative forms	• loss of *-tta* • reduced use of *-a* • increase in *-∅* marking	• loss of *-tta* • increase in *-∅* marking • retention of *-a*	• retention of *-tta* • retention of *-a* • only lexically determined changes
Speaker 6	Speakers 8,9	Speakers 3, 5, 10	Speakers 1, 2, 4, 7

Table 5.13. Sociolinguistic Traits of Speakers and Accusative Marking Loss

SP	6	5	9	4	8	10	7	2	1	3
Age	24	57	59	60	71	75	76	77	79	81
Gender	M	F	F	M	F	M	F	M	F	F
Social Network	ranch	gov't	gov't	ranch	gov't	ranch	gov't	ranch	ranch	gov't

were married to government employees in the 'government' social network as a woman's husband's social status dictated his wife's peers and social circles.

This analysis suggests a pattern of loss in which age is the most relevant social factor leading to retention of the most conservative forms. Younger speakers are more likely to be innovative; older speakers are more likely to be conservative. It is also the case that the social network of the speaker may contribute to conservative-form retention, with the rancher class more likely to retain conservative forms. This is consistent with the hypothesis that this marked feature has lost complexity as bilingual speakers use English more often in Duck Valley.

5.2   Number

Shoshone has a three-way number distinction (singular, dual, and plural). Number is marked on pronouns, full nominals (more common in human nouns), and in verbal agreement. The PUA pronominal system distinguished singular and plural number and first- and second-person (Langacker 1977). Third-persons are typically represented by the complex demonstrative paradigm (see Section 5.3). Langacker (1977:124) notes that "the pronoun systems of the daughter languages have undergone extensive modification, so that definitive reconstruction will have to await extensive research." The author proposed the tentative reconstruction in Table 5.14.

The pronominal and demonstrative systems for the Numic branch retain many features of the proposed PUA system: accusative case marking, demonstratives servings as third-person pronouns, and many conservative forms. However, in other features they exhibit extensive innovations in the number of distinctions represented in these systems.

Table 5.14. PUA Pronominal System (Langacker 1977)

	SG	PL
1P	*(i-)nɨ	*(i-)ta(mɨ)
2P	*ɨ(-mɨ)	*ɨ-mɨ
3P Human	*pɨ	*pɨ-mɨ

For all Numic languages, demonstratives contrast multiple proximal/distal values; these are discussed further below. Numic pronominal systems typically distinguish between three numbers: singular, dual, and plural; and for first-person, they distinguish inclusive and exclusive categories (Freeze and Iannucci 1979). Babel et al. (2013) reconstruct the pronominal system for Proto-Numic (henceforth PN) as given in Table 5.15.

These proposed forms show relatively straightforward reflexes of Langacker's (1977) PUA pronominals. The functions of particular morphemes have been extended or shifted to accommodate the increase in distinctions for PN. The singular forms are largely retained as well as the second-person plural. *ta, PUA first-person plural, has shifted to PN first-person dual inclusive; plural inclusive is distinguished with the proposed suffix *-ŋwa. The plural suffix *-mmɨ creates an exclusive plural from the first-person singular stem and plural from the second-person singular stem.

In the Numic daughter languages, nɨ(ɨ) is retained as the first-person singular pronoun and ɨ(ɨ) as the second-person singular (Babel et al. 2013). Mono extended the *-ŋwa suffix to all plurals. In Central and Southern Numic, the dual inclusive pronoun acquired a form of a plural suffix, either a reflex of *-ŋwa or *-mmɨ. The first-person plural inclusive, for all Numic daughter languages, are some reflex of *ta-*ŋwa or *ta*-mmɨ. The first-person plural exclusive form of Central and Southern Numic and Northern Paiute is conservative; all having something resembling the form nɨmmɨ (Mono differs only in the plural ending -ŋwa). A final innovation shared by Central and Southern Numic in the Babel et al. (2013) reconstruction is the development of initial /m/ for second-person plural pronouns, so it takes a form like mɨmmɨ, rather than the Western Numic, conservative ɨmmɨ.

Dual marking was innovated for full nominals in NUA languages, other than Takic (Langacker 1977). Overt number marking is largely restricted to animate nouns in UA languages; this pattern can be reconstructed for PUA (Langacker 1977). Plural marking on UA nouns is reconstructed as involving two processes: plural suffixation of *-mɨ and/or reduplication (Langacker 1977). Hill and Hill (2000) argue that plural suffixation of *-mɨ should be reconstructed as the unmarked plural marking and they provide evidence that reduplication as plural marking is restricted to a small set of marked human nouns, including women, doctors, and elderly people.

Table 5.15. PN Pronominal System (Babel et al. 2013)

	1SG	1DL INCL	1PL INCL	1 PL EXCL	2SG	2PL
PN	*nɨ	*ta	*taŋwa	*nɨ-mmɨ	*ɨ	*ɨ-mmɨ

Shoshone pronouns distinguish three persons (first, second, and third) and three numbers (singular, dual, and plural). In addition, for the first-person, an inclusive versus exclusive distinction is made (Dayley 1989; Crum and Dayley 1993; Miller 1996). Shoshone pronouns also have distinct forms for subject and object case. The Shoshone pronominal paradigm is represented in Table 5.16.

Langacker (1977) notes most UA languages have at least a few verbs which are suppletive for number. For such verbs, number agreement is triggered by the subject of intransitive clauses and the object of transitive clauses. For example, Langacker (1977:127) cites a number of such suppletive verb paradigms from UA languages, including examples of Shoshone dual forms seen in Tables 5.17 and 5.18.

This type of ergative alignment in UA languages has received some focus, as such an agreement pattern is somewhat unexpected in nominative languages (Baker 1985; Durie 1986; Bliss 2004). However, it is not unique among Native American languages. Mithun (1999) argues that this type of verbal number is distinct from nominal number in that it expresses a plurality of events or states. This conception of verbal number places suppletive

Table 5.16. Shoshone Pronouns

		1P		2P		3P	
		NOM	ACC	NOM	ACC	NOM	ACC
SG		ne	nei	e, en	emmi	∅	u, ma
DU	INCL	taweh	tahi	meweh	mehi		
	EXCL	neweh	nehi				
PL	INCL	tammen	tammi	memmen	memmi		
	EXCL	nemmen	nemmi				

Table 5.17. Uto-Aztecan Suppletive Verbs, Intransitive Subject Agreement

Language	SG	DU	PL	Gloss
Mono	niwi		moo	'walk, go, wander'
Shoshone	wini	tatsakkihka	topoihka	'stand'
Shoshone	kati	yikwi	yikwikka	'sit'
Hopi	qati		yeese	'sit'
Luiseño	pokwa		ŋoora	'run'

Table 5.18. Uto-Aztecan Suppletive Verbs, Transitive Object Agreement

Language	SG	PL	Gloss
Tarahumara	mi'ri	go'i	'kill'
Papago	wua	sulig	'put down'
Southern Paiute	yaa	yu'a	'carry'

alternation as a lexical specification of the verb, rather than straightforward agreement, similar to the distinction in English between *kill* and *massacre.*

The interaction between nominal number and verbal agreement in Shoshone is an interesting area for investigation for this study because both dual number and complex suppletive verbal agreement are crosslinguistically marked features. Various accounts of structural change in obsolescent languages point to loss of marked structures as a common pattern of change. I will follow the same format of analysis as above. Elicitation sentences were constructed to target such dual and agreement structures. Sixteen sentences with the suppletive verbs *lie down, hold, throw, kill, ,walk,* and *sit* were presented to the speakers with a variety of singular, dual, and plural arguments in both subject and object position (see Appendix A). Again, the arguments varied in animacy, human/nonhuman, pronoun/full noun in order to elicit the various contexts that have been described as determining overt number marking.

5.2.1   Changes in Number Marking

This study investigated changes in number marking and agreement in pronouns, full nominals, and in the verbal agreement pattern. Conservative number marking in pronouns seems to be largely retained, including the dual which is the crosslinguistically marked form. There was some evidence that overt number marking on full nominals is expanding beyond the human arguments, possibly via contact with English. The suppletive verb paradigm is most affected in the younger and less fluent speakers. Each number-related variable is described in detail below.

Number marking in pronouns was elicited in the first-person, subject case: *ne* 'I', *neweh* 'we two, excluding addressee' or *taweh* 'we two, including addressee', and *neme* 'we three or more, excluding addressee' or *tammen* 'we three or more, including addressee.' The inclusive/exclusive distinction was not a target of the elicitation task; therefore, speakers interpreted the nonsingular pronouns variably between inclusive and exclusive. For the evaluation of retention of number marking, inclusivity/exclusivity can be disregarded. The elicitation sentences that targeted this variable are given in (48 - 50). Table 5.19 shows the subject from each speaker's response.

(48)   I see the man

(49)   We two hear you

(50)   We are sitting

Table 5.19. Observed First-person Pronouns

SP	ne '1st person, sg subj'	neweh/taweh '1st person, du subj'	newe/tamme '1st person, pl subj'
1	ne	neweh	neme
2	ne	neweh	neme
3	ne	neweh	tammen
4	ne	neweh	tammen
5	ne	neweh	neme
6	ne	–	e
7	ne	neweh	neme
8	ne	meweh	tammen
9	ne	tammen	neme
10	ne	nai'yaneweh	tammen

Despite some lexical differences in the responses, the number marking is consistent with the grammars' description of number marking in pronouns except for Speaker 6 and Speaker 9. The expected number marking was used 93% of the time. Speakers 8 and 10 gave exceptional responses to (55), but they are both grammatical duals. Speaker 8 responded *meweh ne nankaka(n)*, reversing the referents she replied 'you two hear me'. This is a conservative usage of second-person dual. Speaker 10 responded *iten nai'ya-neweh ne nankaka(n)* 'these two girls hear me'. Again, he retained me, the elicitor, as the hearer rather than directly translating the elicitation sentence. Both speakers 8 and 10 gave grammatical dual responses although they were not the first-person dual I had targeted.

Speaker 6 is the young, nonfluent speaker. He did not give a response for the dual elicitation and in the plural, he used the second-person singular pronoun and the singluar verb *e kate*, saying something more like 'you sit' in a bare form. Speaker 6 did not use any duals or plurals in his free speech either. There were no instances of ungrammatical singulars; rather, he only spoke about singleton arguments, as shown in (51).

(51)　a-te(n)　　　　　　wa'ippe, a-te(n)　　　　　tsaannapuite wa'ippe
　　　(NEW:that:FAR-NOM woman　NEW:that:FAR-NOM good:looking woman
　　　kimma"-ki"-na
　　　come-HITHER-ASP:GEN)
　　　'That woman, that beautiful woman was walking towards me'

　　　ai-se(n)　　　　　　　e　　hakai nanihante(n)?
　　　(NEW:this:NEAR-PRED you how　called)

　　　'What is your name?"

　　　'Kendall', mai'
　　　(kendall　QUOT)

'Kendall, I told her'

Speaker 6, Kendall Shaw, 'Just Talking' ln 1-3

It is possible that Speaker 6 does not have a good grasp on number marking in Shoshone or perhaps he has such a simplified grammar that it has no overt number marking. This would be consistent with all of his responses throughout the study; however, I did not explicitly test the extent of Speaker 6's awareness of conservative dual and plural number.

Speaker 9 gives the plural, exclusive pronoun instead of the expected dual. This suggests a possible loss of dual in her grammar. However, she does use the second-person dual in an expected context in her free speech segment.

(52) s-u-ten   wihnu, me-weh   pinna ko'ai-se(n) i-kkih
      (OLD-that:INVIS-NOM then   you-DUAL then   return-RES NEW:this:HERE-LOC
      Duck Valley-ka"-tun   ko'ai-ttsi, s-u-kka   i-kka
      Duck Valley-AT-THROUGH return-SUB OLD-that:INVIS-ACC NEW:this-ACC
      tutua-nii   s-u-kka   ma-tei teniwaah-kan-tu'i
      child-PL:ACC OLD:that-ACC it-ACC teach-ASP:STAT-FUT)
      'Then you two will come back here to Duck Valley and teach that to our youth.'

      Speaker 9, Martha Seahmer, 'Teach the Language' ln 3

It is clear that Speaker 9 still has a productive dual in her grammar. However, it may be in variation depending on some factors that remain unclear currently. Perhaps the second-person dual is retained while the first-person is lost. Unfortunately, I do not have data to answer this question at this time. Other than Speakers 6 and 9, the three-way number distinction is intact (Table 5.20).

Overwhelmingly, the conservative number marking for singular, dual, and plural has been retained in pronouns as described in the grammars. Examples (53 - 54) give further evidence that the pronominal dual, although crosslinguistically marked, has not been heavily affected by the endangerment of Shoshone.

(53) taha-n   papi-neweh-ma'ain   ne tease(n)
      (we:DUAL-POSS older:brother-DUAL-WITH i   also)

Table 5.20. Retention of the Three-Way Number Distinction

	Speakers 1, 2, 3, 4, 5, 7, 8, 10	Speaker 9	Speaker 6
Expected number	sg, du, pl	sg, pl	sg
Unexpected number	–	du	du (no response), pl

'I was always with our two older brothers, too'

Speaker 5, Laurie Gibson, born 1954, 'Just Talking' ln 42

(54) neme wihnu teteihyunte, ne pehna   s-u-pai'   ten years old, I can't
      (we:PL then   small-DRV:N, I   because OLD-that:INVIS-EXT ten years old, I can't
      say it
      say it)
      'We were all small, I was *only ten years old* [English] at that time'

      neme wihnu Eddy-mai'ai, ne-weh   wihnu s-a-kka(n)   takkaapin-kaapa
      we:PL then   Eddy-WITH, we-DUAL then   OLD-that:FAR-ACC snow-AMONG
      nuhi-'i-yu
      play-PER-ITER

      'We would all play together and Eddy and I would play in the snow'

      Speaker 8, Charlotte Atkins, 'Memories' ln 13-14

Overt number marking on full nominals was discussed to some extent in Section 5.1.1 where in the object case, -nii, the plural object marker was observed in 78.5% of expected cases. Speakers 2 and 3 provided a singular form. Adding the subject examples, we see the further evidence for retention of overt plural marking on full nominals. The expected plural marker was given in 93.75% of expected cases of human, plural subjects.

It is also notable that in a handful of examples, present-day speakers used plural marking for inanimate objects. This is unexpected as overt plural marking is only typical on human nouns. Speakers 1, 5, and 9 gave plural, inanimate responses.

(55) e   awo-nii   weppiyu'ih
      (you dish-PL:ACC break:PL)
      'You broke the dishes'

      Speaker 1, Gerry Jones

(56) ne awo-nii   tappihah-kwa(n)
      (I dish-PL:ACC break:SG-ASP:MOM:COMPL)
      'I broke the dishes'

      Speaker 5, Laurie Gibson

(57) ne wihi-nii   paiti"-ku
      (I knife-PL:ACC throw:PL-DIR:AWAY)
      'I throw many knives'

      Speaker 9, Martha Seahmer

There appears to be some expansion of plural marking to occur with nonhuman nouns. Speakers 1, 5, and 9 show some loss of this semantic distinction. However, no speaker in this

study gave the plural morpheme in every case of a nonhuman argument. For each of these innovative speakers, they gave an overt plural marking for one out of 5 plural, nonhuman arguments in the elicitation task, as shown in Table 5.21.

Speakers 5 and 9 are among the younger speaker set and were among the Affected and Less Affected speaker groups in the analysis of the accusative variable. Speaker 1 is one of the older speakers in the group. She has patterned with the most conservative speakers thus far; this single aberrant plural marking may be an exception in her otherwise Older Fluent Speaker grammar.

The final aspect of Shoshone number investigated for this study is suppletive verbal agreement. The verbs that display this agreement pattern are a closed set of verbs that have plural forms, some of which also have dual forms. Other verbs do not show any alternation for number agreement. There are between 25 and 50 verbs that have been described having this pattern (Miller 1996; Lindsey 2000). These verbs are some of the most frequent Shoshone verbs. Although the precise set of verbs participating in number inflection may be slightly different between sources and dialects of Shoshone, and no grammar claims to list an exhaustive set of the plural agreement verbs, a few general paradigms can be described. The verb paradigms combine some reduplication and some suppletion. Dayley (1989:73-75) groups the number marking verbs into three categories: (i) suppletive verbs which can have three-way suppletive distinction between singular, dual, and plural or just a two-way distinction usually between singular and dual/plural[1]; (ii) internal stem changing verbs which can be sound change, reduplication, or some combination of reduplication and sound change; and (iii) plural suffixation, for which Dayley (1989) describes three suffixes: *-ppeh, -iih*, and *-iah*. Many of the verbs that get the plural suffix *-iih* are those whose roots end in *-a(h)*. There is also a fourth type which combines the pluralization strategies described by Dayley; a common paradigm marks singular and plural with suppletion and the dual is formed through reduplication of either the singular or plural form. This study

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[1]The only instance I came across displaying a singular/dual versus plural distinction was in Dayley's (1989) description of 'kill', as *paikkah* for sg/du and *wase* for just plural. However, Miller (1996) describes the distinction for 'kill' as sg versus du/pl. This may be a dialect difference or an error in analysis.

Table 5.21. Unexpected Nonhuman Plurals

	Speakers 1, 5, 9	Speaker 2, 3, 4, 7, 8, 10
Percentage of nonhuman, plural arguments marked with *-nee/-nii*	20%	0%

tested primarily the suppletive verbs with one example of a reduplicative stem change. The verbs paradigms in Table 5.22 were elicited in this study.

There are many synonyms or near synonyms for these verbs which were sometimes provided by the speakers during the elicitation task. Eleven of the elicitation sentences in this study targeted number agreement. For the responses in which a singular verb was the expected conservative form, 100% of the responses were grammatical singular verbs or synonyms with no inflection for number. For the one response when a dual verb was the expected conservative form, 88% of the responses gave the expected reduplication for the dual. For the responses where a plural was expected, the plural or another grammatical response was given 75.9% of the time. Table 5.23 shows these responses in further detail.

Speaker 6 is exceptional again. He gives only five responses to the ten elicitations and none of them reflect the expected conservative form. He provides the singular form *kate* for 'sit, plural'. This was briefly discussed above. His other responses are not the lexical item targeted in the task. His response for 'you are walking' *e ko'itu'isen* is a close semantic approximation to the elicited sentence. It is possibly the stem *ko'ih* 'come back, return', but it is not a standard inflection of that verb. For the verb 'to kill', he says *tiyaih* the intransitive verb 'to die'. It is interesting to note that 'to die' has a plural form *koi"*; Speaker 6 uses the singular form for both singular and plural 'kill'.

There is a clear pattern within the fluent speakers. Speakers 2, 5, 6, and 9 show significant loss of the number distinction in these verbal paradigms. Speaker 2 patterns with the more innovative speakers for this variable while he had patterned with the Older Fluent Speakers for accusative allomorph retention. This pattern is shown in Table 5.24.

The observed changes in number marking show the following pattern.

1. Retention of three-way number distinction in pronouns, except for in Speaker 6. Speaker 9 shows some variation in dual usage, possibly demonstrating some loss of the first-person, dual pronoun.

Table 5.22. Shoshone Verb Paradigms (Dayley 1989:73-75; Miller 1996:35-36; Lindsey 2000:278-279)

Gloss	Singular	Dual	Plural
'sit'	kate	yekwi	yekwi
'hold'	yaakkan	himakkan	himakkan
'throw'	tahwi	(ta")-pa<u>i</u>ti	(ta")-pa<u>i</u>ti
'walk'	mi'a	mimi'a	mi'a
'lie down'	hapi	kwapi	kwapi
'kill'	pa<u>i</u>kkah	wase	wase

Table 5.23. Observed Forms in Verbal Number Agreement

SP	yekwi 'sit:pl'	yaakkan 'hold:sg'	himakkan 'hold:pl'	himakkan 'hold:du'	(ta")-paiti 'throw:pl'	mi'a 'walk:sg'	mimi'a 'walk:du'	kwapi 'lie down:pl'	paikkah 'kill:sg'	wase 'kill:pl'
1	yekwi	yaakkan	yakkan	himakkan	tappaiti	mi'ami'a	mimi'a	kwapi	paikkah	wase
2	yekwi	yaakkan	tsaikkan	yaakkan	tahwi	mi'ami'a	mimi'a	kwapi	paikkah	wase
3	yekwi	tsaikkan	himakkan	himakkan	paiti	mi'a	mimi'a	kwapi	paikkah	wase
4	yekwi	–	tsaikkan	tsaikkan	tappaiti	mi'a	mimi'a	kwapi	paikkah	wase
5	yekwi	tsaikkan	tsaikkan	tsaikkan	tahwi	mi'a	mi'a	kwapi	paikkah	paikkah
6	kate	–	–	–	–	ko'itu'isen	ko'itu'isen	–	tiyah	tiyah
7	yekwi	tsapuikkan	himakkan	yaakkan	paiti	mi'a	mimi'a	kwapi	paikkah	wase
8	–	tsaikkan	himakkan	hannihka	takkuhnaikkwan	mi'a	nunukkimi'a	kwapi	paikkah	paikkah
9	kate	–	yaakkan	yaakkan	paiti	mi'a	mimi'a	hapi	paikkah	paikkah
10	yekwi	tsaikkan	himakkan	tsappui	paiti	mi'a	mimi'a	kwapi	paikkah	wase

Table 5.24. Loss of Number Agreement

	Speakers 1, 3, 4, 7, 8, 10	Speakers 2, 5, 9	Speaker 6
Percentage of conservative plural/dual forms	92.8%	57.1%	0%

2. Overt plural marking in subject and object position is largely retained with some lexical variation that does not seem to pattern by speaker.

3. Expansion of plural marking on full nominals beyond the traditional human argument environment for some speakers: Speakers 1, 5, 9.

4. Loss of suppletive verbal paradigm for Speakers 2, 5, 6, and 9 was observed. The singular form of the suppletive verb paradigm is more likely to survive in speakers affected by language loss.

5. Speaker 6 did not display any dual or plural marking in any of the recordings collected in this study. He also gave semantic near-matches on many occasions, not providing the typical lexical item for many of the elicitations.

These variables pattern across the speakers in a range of variation indicative of a speaker proficiency continuum, shown in Table 5.25.

The continuum is somewhat consistent with the pattern observed in Section 5.1.1, but the speakers show different stages in innovation for this feature than for accusative allomorphy. Speakers 6, 5, and 9 show the most change in this feature which is consistent with an age gradation explanation for this shift. The conservative group consists of speakers who were older than 60 years old at the time of data collection; these speakers retained dual and plural marking in both nominal and verbal paradigms. This can be seen in Table 5.26, where the shaded columns represent speakers who are least conservative in number marking.

Speakers 1 and 2 are among the older speakers, but they have experienced some structural changes in their grammars compared to the conservative descriptions of number. These two speakers may share some social and/or linguistic characteristics that cause them to pattern more with the younger and less fluent speakers. In this case, it appears that membership in the ranching community, rather than the educated tribal leadership and/or government social class, may be the common factor. This is not entirely clear because

Table 5.25. Number Marking Speaker Continuum

Semi-Speaker	Affected Speaker	Less Affected Speaker	Older Fluent Speaker
• no dual or plural marking • lexicon gaps • no suppletive verbal agreement	• expansion of overt plural • no suppletive verbal agreement	• either expansion of overt plural *or* no suppletive verbal agreement	• retention of dual and plural in noun and verb paradigms • only lexically determined changes
Speaker 6	Speakers 5,9	Speakers 1, 2	Speakers 3, 4, 7, 8, 10

Table 5.26. Sociolinguistic Traits of Speakers and Number Marking Loss

SP	6	5	9	4	8	10	7	2	1	3
Age	24	57	59	60	71	75	76	77	79	81
Gender	M	F	F	M	F	M	F	M	F	F
Social Network	ranch	gov't	gov't	ranch	gov't	ranch	gov't	ranch	ranch	gov't

Speaker 10 patterns with Speakers 1 and 2 on age and social network and yet he belongs to the conservative group. Furthermore, this is unexpected because the ranch group would intuitively be expected to be more conservative in their Shoshone grammars since they have less exposure to mainstream, non-Native culture and less formal education in English. It is also inconsistent with the findings in 5.1.1 on accusative allomorphy retention where the ranch group was generally more conservative. Gender does not appear to be a major contributor to this variable. These sociolinguistic patterns will be discussed further in Chapter 6.

5.3   Demonstratives and Third Person Pronouns

As mentioned above, Shoshone third-persons are typically referred to with the complex demonstrative paradigm. Some Numic languages, including Shoshone, have innovated 3rd-person pronouns which can be traced to a demonstrative origin (Dayley 1989). Langacker (1977) does not discuss the role of PUA third-person pronouns; he claimed that third-persons are referred to using the demonstrative system. He later reconstructs *pɨ-ma and *a-ma as probable PUA demonstratives, with the reconstructed meaning 'that one', (*ma, 'one'). Langacker proposes that perhaps an animate versus inanimate distinction existed between *pɨ and *a, but this is partially inconsistent with his tentative analysis of

the pronominal paradigm as distinguishing human versus nonhuman.

Langacker (1977) reconstructs *i and *u as the basis of the primary UA demonstrative system, with proximal and distal specification, respectively. Some daughter languages have retained a two-way distinction only whereas others have elaborated the system, often through incorporation of *pɨ and *a. Langacker observes that in addition to proximal and distal, a visible versus invisible distinction is part of the elaborated demonstrative system of some UA languages, such as Southern Paiute and Cora. UA demonstratives are inflected for number and accusative case in those languages that retain accusative inflection. Langacker (1977) proposes *-mɨ for 'plural' and *-kV for 'accusative' as the probable reconstructions for PUA demonstrative inflection. Langacker (1977) also describes the UA demonstrative as occurring before the noun that it modifies and notes that in some daughter languages, the demonstrative has evolved into an article. In some cases, the article has retained proximity distinctions in its article function (e.g., Southern Paiute) and in others (e.g., Nahuatl), it has undergone extensive semantic bleaching of its deictic value.

The pronominal and demonstrative systems for the Numic branch retain many features of the proposed PUA system: accusative case marking, demonstratives serving as third-person pronouns, and many conservative forms. However, in other features they exhibit extensive innovations in the number of distinctions represented in these systems.

Shoshone and Panamint have limited the occurrence of third-person pronouns to accusative environments. For the nominative, these languages have ∅ third-person pronouns (Dayley 1989; Miller 1996). Shoshone also has a reduced inventory of third-person pronominals, with only *u* and *ma*, (Panamint has *u, ma*, and *a*) (Dayley 1989; Miller 1996). Additionally, Shoshone and Panamint lack overt accusative or number morphemes for their limited third-person pronouns. Instead, the proximal prefix occurs in its bare form invariably. This pattern suggests that although there is evidence that PN used all available proximal prefixes as third-person pronouns with inflections for number and case, Central Numic has reduced this system. It is possibly an indication that, for Shoshone (and, to some degree, Panamint), third-person pronouns are semantically bleached of their demonstrative value and have been lexicalized as third-person pronouns.

For full demonstratives, Numic languages contrast multiple degrees of deixis; for example, Shoshone distinguishes five distal specifications with *proximal prefixes* which indicate varying spatial distance with singular vowel prefixes: *i-* 'right here', <u>*ai*</u>- 'here, not close enough to touch', *o-* 'there, mid-distance', *a-* 'there, far, visible', and *u-* 'there, out of sight' (Crum and Dayley 1993; Gould and Loether 2002). When used in Numic noun phrases, each

of the relevant proximal prefixes is inflected with nominative or accusative case suffixes. In addition to occurring as pronominals or otherwise head nouns, UA demonstratives occur as modifiers in noun phrases, at the left edge of the NP (Langacker 1977). Other demonstrative stems can include the locative and other prepositional or directional notions (Miller 1996). The Northern Shoshone proximal prefix paradigm is the most complex, with the five distal specifications listed above plus the neutral distance stem *ma-* (Crum and Dayley 1993). Some dialects of Shoshone and Panamint do not use the form *o-* for 'mid-distance'. These facts indicate that perhaps the Northern dialects of Shoshone, spoken in Duck Valley and Fort Hall, Idaho, innovated the *o-* proximal prefix. The hypothesis that *o-* is innovative may be inconsistent with anecdotal evidence that *o-* is currently merging with *a-* (Bryan Hudson, p.c.). In either case, this system is a promising place for further investigation in Shoshone structural change in the sociolinguistic situation of language endangerment. Due to their complexity and previously observed variation, Shoshone demonstratives were chosen as the third variable for this study's investigation.

Demonstratives are also inflected for a new or previously introduced referent with the addition of an *s-* prefix meaning 'previously introduced/old referent', as shown in Table 5.27.

To target this variable in elicitation, this task provided a variety of visual-spatial cues to elicit varying proximal-distal demonstratives to test the retention of the described five-way demonstrative distinction in Shoshone. Participants were shown images of a child or two children and one deer that were created by Shoshone teens, participants in the summer research apprenticeship program (SYLAP). During the elicitation task, my research assistant or I showed each speaker six pictures in which the deer was in varying positions in relationship to the children in the image (e.g., Figures 5.1 and 5.2). For each image, one of the children had an empty speech bubble over his head, indicating the speaker. We asked the participant to describe the picture using the phrase *'I see this/that deer'.*

During elicitation, we used the appropriate English demonstrative *this* or *that.* It is

Table 5.27. Shoshone Demonstratives

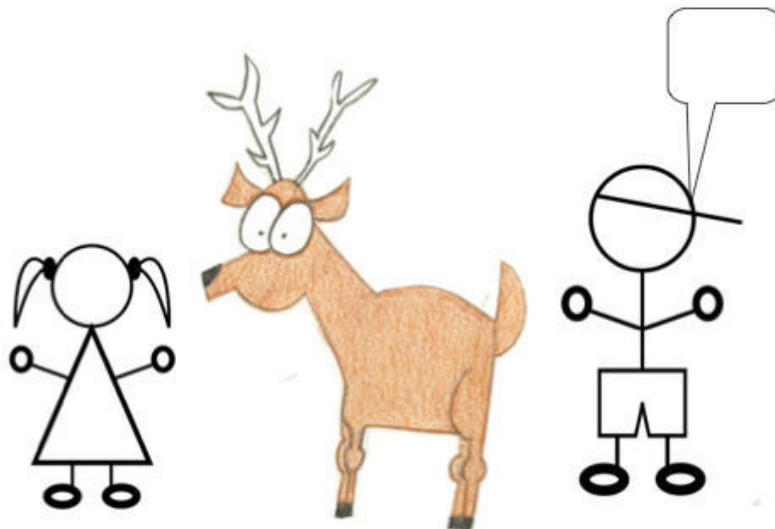| Pronoun	SG–NOM	SG–ACC	DU–NOM	DU–ACC	PL–NOM	PL–ACC
RIGHT HERE	(s)-i-ten	(s)-i-kka	(s)-i-teweh	(s)-i-teh-i	(s)-i-ten	(s)-i-te-i
CLOSE	(s)-<u>ai</u>-ten	(s)-<u>ai</u>-kka	(s)-<u>ai</u>-teweh	(s)-<u>ai</u>-teh-i	(s)-<u>ai</u>-teen	(s)-<u>ai</u>-te-i
MID-DISTANCE	(s)-o-ten	(s)-o-kka	(s)-o-teweh	(s)-o-teh-i	(s)-o-teen	(s)-o-te-i
FAR, IN SIGHT	(s)-a-ten	(s)-a-kka	(s)-a-teweh	(s)-a-teh-i	(s)-a-teen	(s)-a-te-i
INVISIBLE	(s)-u-ten	(s)-u-kka	(s)-u-teweh	(s)-u-teh-i	(s)-u-teen	(s)-u-te-i

Figure 5.1. Elicitation image depicting the object, *deer*, between the speaker and hearer. 'I see this (between us) deer'
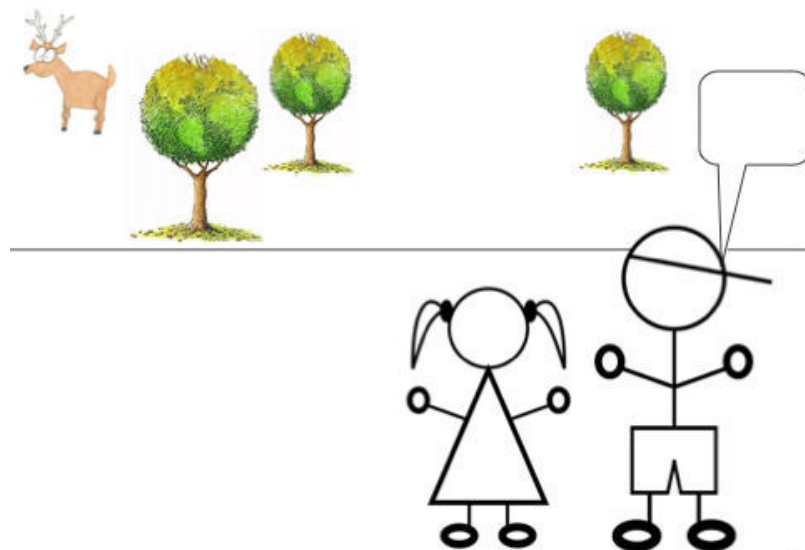

Figure 5.2. Elicitation image depicting the object, *deer*, far off on the horizon but still within sight of the speaker and hearer. 'I see that (far off beyond the trees) deer'

possible that our use of a proximal or distal English demonstrative may have affected the speakers' responses. This is a challenge of translation tasks that must be considered as a factor in analysis. The demonstrative image description task differed somewhat from the straightforward translation task; it was also the final task of the elicitation portion of the interview. For these reasons, a few of the elderly speakers did not complete the task

due to fatigue or difficulty completing the image descriptions; consequently, Speaker 3 is omitted from this analysis. It was also clear that many of the speakers were surprised that I was apparently asking them to repeat the same sentence three or four times; some even made comments to that effect. Already, we saw evidence of loss in distinctions for the demonstrative system with these types of comments. Each of the target demonstratives was expected to occur in the singular, accusative environment - *(s)-V-kka*.

Since the proximal-distal distinction is indicated only by a vowel prefix, in the cases where I was unsure of my own perception of the vowel, I measured the first and second formants (F1 and F2) for each vowel. This was done at the midpoint of each vowel in a PRAAT-generated spectrogram to obtain the most accurate reading unaffected by formant transitions. Although I am not aware of literature for establishing the expected F1 and F2 values for Shoshone vowels, in all cases the format measurements enhanced my confidence in my manual transcription of the vowel.

5.3.1 Changes in Demonstratives

Participants in this study revealed a demonstrative system that is significantly changed from the descriptions in Shoshone grammars. Three innovative patterns are observed: (i) loss of the *i-*, proximal prefix, (ii) spread of the *u-*, distal prefix, and (iii) significant variation in individual speakers and across speakers including all of the conservative proximal prefix forms. The demonstrative system of the least affected speakers displayed a paradigm that is somewhat innovative but largely consistent within the speaker's own grammar and supportive of simplification of the conservative five-way distinction. Among the most affected speakers, I observed proximal-distal inconsistencies within the speaker's responses and even reduction of the entire system to one variant for all tested distances. The responses of each of the speakers are illustrated in Table 5.28 which lists the response for each of the six elicited demonstrative sentences. To highlight the differences and similarities in this study's responses with the expected conservative descriptions, I have bolded the proximal variants, *i-* and <u>*ai-*</u>. These variants were expected in the first three columns. I will describe the observed results for each demonstrative context.

5.3.1.1 *i-* and <u>*ai-*</u> Proximal Prefixes

The proximal prefix *i-* is described as occurring when the referent is closest to the speaker, that is, 'this right here' or 'near'. <u>*ai-*</u> (orthographically) or [e] phonetically is described as 'not so near', a bit further away than *i-* (Crum and Dayley 1993; Miller 1996). Since these demonstratives have only been described with approximate, relative definitions,

Table 5.28. Observed Demonstratives (Conservative Proximal Variants in Bold)

SP	Image 1	Image 2	Image 3	Image 4	Image 5	Image 6
	(s)-i-kka 'this (touching)'	(s)-<u>ai</u>-kka 'this (close)'	(s)-<u>ai</u>-kka 'this (between speaker and addressee)'	(s)-o-kka or (s)-a-kka 'that (other side of room)'	(s)-o-kka or (s)-a-kka 'that (just outside)'	(s)-a-kka 'that (far off beyond the trees)'
1	sukka	sukka	**sikka**	sukka	sokkuh	sokkuh
2	sukka	sukka	sukka	sukka	–	–
4	penka	suten	**a<u>i</u>kka**	**a<u>i</u>kka**	ukka	–
5	**sikka**	**sikka**	**sikka**	ukka	ukka	ukka
6	aten	suten	a	–	–	aten
7	**sa<u>i</u>kka**	**sa<u>i</u>kka**	**sa<u>i</u>kka**	sukka	sakka	**sa<u>i</u>kka**
8	akka	**a<u>i</u>kka**	**a<u>i</u>kka**	okka	okka	okka
9	**sa<u>i</u>kka**	**sa<u>i</u>kka**	**sa<u>i</u>kka**	ukka	ma<u>i</u>ten	sukka
10	**a<u>i</u>kka**	**a<u>i</u>kka**	**a<u>i</u>kka**	okka	ma<u>i</u>ten	akka

I could not be certain which contexts would elicit which forms[2]. For the first three images, I expected either of the proximal prefixes, *i-* or *<u>ai</u>-*. For these elicitations, in (1-3) the deer in the image was shown as either being touched by the speaker (1) or close enough to touch (2-3). The difference between sentences (2) and (3) was the presence of an addressee in image (3) who was equidistant from the deer as the speaker. Image (1) was designed to be the closest possible physical proximity where *i-* would be expected.

For the responses where *i-* or *<u>ai</u>-* were expected, 59% of the responses used one of these forms. However, *<u>ai</u>-* was much more common. For Image (1), where *i-* was the expected conservative form, only Speaker 5 used *i-*. She used *i-* for all three proximal contexts, apparently having merged the contexts to the most proximal form. The results reveal a similar pattern of proximal merger for Speakers 7, 8, 9, and 10. These speakers largely replied with one proximal prefix, but unlike Speaker 5, they have retained the *<u>ai</u>-* prefix and used that form for all of the proximal responses.

This is a significant pattern because it suggests two shifts in these speakers' grammars for the proximal demonstrative paradigm. First, the two proximal 'near, close enough

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[2]Although demonstratives are often not definitive categories and can vary in grammaticality depending on context, relative comparisons, and temporal or psychological distance, this task was presented to all speakers with the same context and description. Therefore, I assume that differences in responses are indicative of differences in the speakers' underlying grammars and not in their contextual interpretation of spatial distance. Support for this assumption was observed during the elicitation task in that (1) many speakers gave varying responses often reflecting the expected distal distinctions, (ii) some speakers specifically pointed out observations like 'that one is the same as the last one', and (iii) patterns were observed in the task results. I recognize that much more targeted elicitation could be done on this feature to fully understand the boundaries and grammatical contexts that contribute to proximal prefix use.

to touch, touching' and 'not quite as near, close but not touchable' have merged for these speakers, leaving fewer overall distinctions in the demonstrative system. This is a notable similarity to English where English would use 'this' in these contexts as opposed to 'that'. It is possible that contact with English has affected the proximal demonstrative gradation for these Shoshone speakers. Second, the majority of the speakers use *ai-* for these contexts which suggests that the variant is expanding its environments to include all proximal contexts. Only Speaker 5 uses *i-*, the conservative proximal form.

There were two notable exceptions to these observed generalizations. As mentioned, Speaker 5 uses *sikka* for all proximal contexts. Speaker 5 is a Shoshone language teacher and has had significant exposure to the written grammars and conservative canonical forms for demonstratives. It may be that she has learned this form as a prescriptive variant for the proximal demonstrative from these sources. Second, Speaker 8 used the proximal prefix *a-* for image (1). This is unexpected and inconsistent with both conservative descriptions of the system and her use of *ai-* as 'this, close enough to touch'. By all grammatical descriptions, *a-* should be more distal than *ai-*; making this an unexpected transposition of the two prefixes. It is possible that Speaker 8 uttered [aka] as a phonetic variant of [eka]. Otherwise, she has drastically rearranged the system so that *a-* is more proximal than *ai-*. This is quite possible as other speakers display the same internal inconsistencies in their responses. In any case, it is clear that she uses two different vowels for these three responses. See Figures 5.3 - 5.5. The spectrograms of her responses show a back mid vowel /a/ for image (1) and a mid central vowel /e/ in *saikka*, for Figures 5.4 and 5.5.

Speakers 1, 2, 4, and 6 used one of the two conservative proximal prefixes in only 16.7% of the expected cases. These speakers were more likely to use one of the traditional distal prefixes in most cases. Speaker 6, the true *less than fluent speaker* in this study, indicated that he knew there were different forms and that they were related to proximity but his intuitions were not consistent with the expected conservative paradigm. For example, for image (2) Speaker 6 responded, *suten teheya pia puikkanten*, (OLD-that:INVIS-NOM deer big see-ASP:STATIVE) 'That (out of sight) deer big seeing', using the most distal form, U-, 'out of sight, invisible'. He went on to explain his answer, "cuz he's not trying to touch him, he's not pointing at him, he's just looking at him." This response indicates that he has some notion of the relevant features expressed in the various demonstrative forms. However, he used only *u-* and *a-* stems for all responses and clearly does not have the underlying five-way proximity distinction in his underdeveloped grammar.

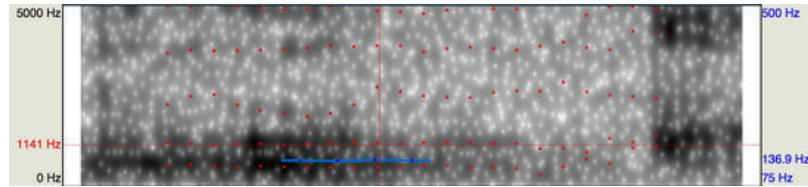The rarity of *i-* and the spread of *ai-* in the proximal contexts is also supported in the

Figure 5.3. '*akka*' Speaker 8's response to image (1), *I see this (touching it) deer.* F1 = 478.6 Hz, F2 = 1141 Hz
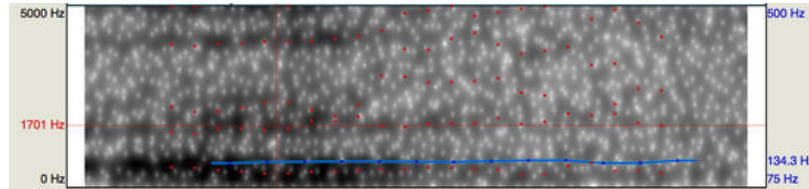

Figure 5.4. '*s<u>a</u>ikka*' Speaker 8's response to image (2), *I see this (close enough to touch) deer.* F1 = 457 Hz, F2 = 1701 Hz
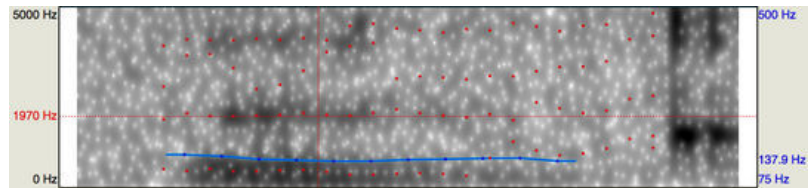

Figure 5.5. '*s<u>a</u>ikka*' Speaker 8's response to image (3), *I see this (close, between speaker and addressee) deer.* F1 = 476 Hz, F2 = 1970 Hz

connected speech collected in this study compared to the WRMC recordings. The historical speakers recorded in the WRMC use *i-* as described by the grammars (Crum and Dayley 1993; Miller 1996; Gould and Loether 2002). For example, the speakers in (58 - 59) describe a close physical contact or proximity.

(58) s-o-te(n)   wihyu semmai suan-na,   "ne hakai naa-te(n)
      (OLD-that:MID-PRO then   thus   think-ASP:GEN, "I   why be-ASP:HABIT
      s-i-"ka   ma-nanku   noo-mi'a?"
      OLD-this:HERE-ACC OLD:this-SIDE back:carry-GO?")
      'Then, he thought, "why am I carrying this on my back for so long?"

      Earl Dean Harney, born 1918, WRMC_077_02, ln 35

(59) s-u-t-ee(n)   wihyu, u   tetepinni, "haka-"ni"-ku   enne
      (OLD-that:INVIS-PRO-PL then,   him inquire:PL what-MANNER-ADV:AS you
      s-i-"ka   e-n   ten-pai   hannih-ka,"   mai   u
      OLD-this:HERE-ACC you-POSS mouth-ABS do-ADV:THEN," QUOT him

nii-kwi”-na
INST:VOICE-say-ASP:GEN)
'Then they asked him, "what did you do to your mouth?" they said to him'

Jack Simms, born 1899, WRMC_080_01, ln 62

These examples provide some context for the findings from the image description task. The WRMC speakers use *i-* for a range of proximal specifications from carrying something on one's back and therefore touching it to pointing to the addressee's mouth which is probably not 'close enough to touch'. There were examples of the proximal prefix I- in the present-day speakers from this study; however, they were infrequent in noun phrases, more commonly in the adverbial construction 'like this' *i-nni* or *i-wa'ih* as in (60) or the locative 'right here' *ikkih* as in (61). Speaker 9, Martha Seahmer, used *i-* in a noun phrase, but this example displays inconsistent number marking, using a singular demonstrative stem and a plural head noun.

(60) s-u-te(n)   wihyu, s-o-te(n)   s-u-"kuh-ti
      (OLD-that:INVIS-PRO then,   OLD-that:MID-PRO OLD-that:INVIS-LOC-AT:AREA
      pui-te(n)   box i-wa'ih-te(n),   box kate
      see-ASP:HABIT box NEW:this:HERE-MANNER-ASP:HABIT, box sit)
      'Then, he went in, he saw a box and looked inside of it, like this.' Speaker 15,
      Lorraine Simms, 'Mouse Story', ln 11

(61) s-u-te(n)   wihyu, me-weh   pinna ko'ai-si,   i-"ki
      (OLD-that:INVIS-PRO then,   you-DUAL then   return-SUB, NEW:this:HERE-LOC
      Duck Valley-kahtu ko'ai-ttsi   s-u-"ka,   i-"ka
      Duck Valley-TO   return-SUB OLD-that:INVIS-ACC, NEW:this:HERE-ACC
      tutua'-nei,   s-u-"ka   ma-tei   teniwaah-kan-tu'i
      child-PL:ACC, OLD-that:INVIS-ACC OLD:that-PL:ACC teach-STAT-FUT)
      'Then, you two will come back here to Duck Valley and teach that to our youth'

      Speaker 9, Martha Seahmer, 'Teach the Language', ln 3

From the stories collected in this study and comparison with the WRMC, it is clear that the demonstrative prefix *i-* is still in use although <u>*ai*</u>- is more frequently used. It is not clear whether this is a semantic expansion of the <u>*ai*</u>- environment or a continuation of a historical paradigm that has not yet been a focus of rigorous testing. The results of this study suggest that *i-* is being lost in favor of <u>*ai*</u>-; this is indicated particularly clearly from the image description task.

5.3.1.2   *o-, a-, u-* Distal Prefixes

The proximal prefixes *o-*, *a-*, and *u-* describe the same spatial distance as English 'that'. The three distinctions are somewhat underdefined. *u-* is consistently defined as a referent

that is not visible or 'out of sight' where *a-* is 'far, but within sight' (Crum and Dayley 1993; Miller 1996; Gould and Loether 2002). *o-* is less clearly defined. Miller (1996) did not describe this variant in his grammar. Gould and Loether (2002) describe the difference between *o-* and *a-* as 'there' and 'over there', respectively, indicating that *o-* is more proximal. Again, I could not be certain which proximal prefix to expect paired with each image because of this lack of specification in the grammars.

For images (4-6), the deer in the image was shown increasingly further away. Image (4) had the deer within the same room, but on the far side of the room. Image (5) showed the deer outside of the building, seen just outside of the window. Image (6) was Figure 2 with the deer shown beyond some trees on the horizon. For these, I expected the demonstratives, *(s)okka* or *(s)akka* for images (4-5) and *(s)akka* in image (6). I did not elicit any contexts where the deer was 'invisible', the described environment where *u-* is expected.

For images (4-6), the expected distal prefix contexts, speakers responded with one of the three distal prefixes 90% of the time. However, the specific prefix varied in different ways across speakers. As described above, no images were shown with an 'out of sight' referent. However, *u-* was given many times. This suggests an expansion in progress of the *u-* stem, conservatively described as the 'distal, invisible' prefix. It is now possibly expanding to additional contexts. This trend is shown in Table 5.29. Speaker 2 demonstrates this indiscriminate use of *u-* in all contexts; he responded with *sukka teheya'a* in all of the responses he gave[3]. However, Speaker 2 used a variety of proximal prefixes in his connected speech as in (62). Therefore, it is likely that the context of the image description task affected his natural speech.

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[3]Speaker 2 ultimately stopped the task, asking for a break in the interview. I assume this was because he noticed that I had just asked him to repeat the same exact sentence for six different pictures.

Table 5.29. Observed Demonstratives - *u-* Expansion

SP	(s)-i-kka 'this (touch-ing)'	(s)-<u>ai</u>-kka 'this (close)'	(s)-<u>ai</u>-kka 'this (between speaker and addressee)'	(s)-o-kka or (s)-a-kka 'that (other side of room)'	(s)-o-kka or (s)-a-kka 'that (just outside)'	(s)-a-kka 'that (far off beyond the trees)'
# of *u-* responses	2	4	1	5	2	2

(62) i-se(n)   s-i-te(n)   painkwi witsa   wa'ai-ppeh
      NEW:this:HERE-PRED OLD-this:HERE-PRO fish   should woman-ABS
      naa-kwa(n),   mai   s-u-te(n)   sua"-kwa(n)
      be-MOM:COMPL, QUOT OLD-that:INVIS-PRO think-MOM:COMPL
      ' "This fish should transform into a woman", he thought.'

      Speaker 2, Bambo Jackson, 'Creation Story', ln 17

Aside from Speaker 2, there is still evidence that *u-* is expanding semantically to cover visible referents. A total of 14 instance of *u-* were recorded during this task, where zero were expected. This is consistent with a general pattern in Shoshone where the *u-* proximal prefix is actually used as the generic in many forms, e.g., third-person pronoun, *u*; the common discourse phrase *suten wihyu* 'and then', and other unspecified distal contexts. Matsumoto-Gray (2010b) argues that *u-* 'invisible, out of sight' is the unmarked proximity value. It is by far the most common proximal prefix and lacks overt specification of relative distance to the participants that the other proximal prefixes require. It is possible that Speaker 2 and others who responded with *u-* were providing the unmarked variant as an acceptable form for each image. Each of the six images had at least one speaker respond using a form of *u-*.

For Speakers 1, 5, 7, 8, 9, and 10, distal context responses were largely within the expected back vowel range, including /u/, /o/, and /a/. However, there was no clear pattern of variation observed in the present-day speakers for these distal contexts. Speakers 9 and 10 both respond with *maiten* to image (5) where the deer is outside of the building. *maitenkah(ten)* means 'outside' so they are essentially saying 'the outside deer'. This response aside, there were three general patterns observed. Speaker 10 displayed the expected conservative demonstrative paradigm. He varied his responses and these were entirely consistent with the expected forms according to the proximity of the referent in the images. Speakers 5, 8, and 9 used the same stem for all three distal contexts (although between speakers this was either *o-* or *u-*). For these three speakers, it appears that they are moving to a two-way proximity paradigm similar to English, rather than the conservative Shoshone system. Speakers 1, 4, 6, and 7 varied the stem but not necessarily in line with the expected grammatical paradigm. For Speaker 1, *u-* is closer than *o-*. Speaker 7 reverses the expected paradigm from image (4) to image (6). Speaker 1 showed a similar pattern to Speaker 2, using the unmarked *u-* in many contexts; she only gave a proximal response to image (3). Other than that, she varied between *u-* and *o-*, where *o-* seemed to be more distal in her system. Speaker 4 gave the grammatical but unexpected response *penka teheya*, 'his own deer' for image (1). For the other images, he varied between *u-* and *ai-*, but the

variation was not cued by proximity.

These findings show a pattern of simplification in the present-day Shoshone demonstrative system. However, it is clear that the demonstrative system is still more diverse in present-day speakers' connected speech than the elicitation task would suggest. It is possible that the image description task used for investigation of the demonstrative system affected the speakers' responses since the task was an artificial elicitation of deixis. Speaker 11, in his introduction to a short story about how the ancestors populated the American West, demonstrates the active, discourse value of the proximal prefixes. Notably, he uses only two of the conservative forms, except for the unmarked *u-* in *sup<u>ai</u>*: *<u>ai</u>-* for proximal and *a-* for distal.

(63)   a-pai'-sen   ai-t-ee(n)   himpeha,   ai-te(n)
       NEW:that:FAR-EXT-PRED this:NEAR-PRO-PL some-ABS-ACC, NEW:this:NEAR-PRO
       itsa-ppeh   ma'ai a-te(n)   wonko-pai, a-"kuh   him-peh-ka,
       coyote-ABS with   that:FAR-PRO pine-HAVE, NEW:that:FAR-LOC some-ABS-AT
       Alaska-ka, s-a-"kuh   kahni-pa'i
       Alaska-AT, OLD-that:FAR-LOC house-HAVE
       'A long time ago, there were those, that coyote had a house up in the pines in Alaska'

       s-a-te(n)   a-"kuh   u-n   paa-n-kema-ka
       OLD-that:FAR-PRO NEW:that:FAR-LOC it-POSS water-POSS-EDGE-AT

       'He lived near the water's edge'

       s-a-te(n)   u-n   papi'   itsa-ppeh-a semmai u
       OLD-that:FAR-PRO it-POSS older:brother coyote-ABS thus   he
       nii-kwi"-na,   "ne puih ne puih-nukki en   time-tuasen, ne waka
       INST:VOICE-say-GEN, "I   see   I   see-RUN:SG you time-??,   I   toward
       pite"-nuhi-nukki, <u>ai</u>-te(n)   s-u-pai'
       arrive-RUN:SG,   NEW:this:NEAR-PRO OLD-that:INVIS-EXT

       'He, Coyote's older brother, told him, See me, whenever you have time, you must come to visit me, like that.'

       Speaker 11, Bennie Tom, 'The West', ln 2-4

These findings suggest an ongoing structural change in present-day Shoshone toward the simplification of the proximity distinction from five values to two or three. This study's speakers represent the following stages of demonstrative paradigm simplification in Shoshone.

1. Speaker 10: Retention of the system except loss of *i-* as 'close, touching' most proximal value

2. Speakers 1, 7, and 11: Retention of three proximal prefixes which may have some inconsistencies and overlaps in which distances they refer to.

3. Speakers 5, 8, 9: Simplification to a two-way proximity distinction which aligns with English 'here' and there'. Allomorphs for the two proximity values are chosen from the historical set of proximal and distal values; this choice differs between speakers

4. Speakers 4 and 6: Use of more than one proximal prefix, but no discernible proximity pattern predicts the usage.

5. Speaker 2: Wholesale replacement of the paradigm with a single form

These observations are consistent with three states of the change in progress, represented in Table 5.30.

Revisiting the sociolinguistic matrix, we find a pattern that is unlike the previously discussed variables. For the demonstrative paradigm, three out of five male ranchers fall into the most affected speaker category with the most innovations; that is, they are using only a single demonstrative form or exhibiting unpatterned variation between two demonstrative prefixes. As discussed above, Speaker 2 did display more demonstrative variation in his connected speech. However, this group of male ranchers clearly accepts a drastically simplified demonstrative system. Speakers 10 and 11 are notable exceptions. These are the remaining male ranchers in the group; Speaker 10 was the most conservative of all the speakers in this study. This is a possible counterexample to the observed generalization. However, it is worth considering the fact that Speaker 10 did his interview with his wife in the room. She is a fluent Shoshone speaker and had just given her responses immediately before his. Evaluating her responses, she gave the same answers as her husband, Speaker 10. Speakers 10 and 11 are married while the other male ranchers in the group are bachelors. It is quite possible that Speaker 10 and his wife retain a more conservative variety of their

Table 5.30. Demonstrative Paradigm Speaker Continuum

Affected Speaker	Less Affected Speaker	Older Fluent Speaker
• Simplification to a single demonstrative form or unpatterned variation between two demonstrative prefixes	• Simplification to a two-way proximity distinction or unpatterned variation among three demonstrative prefixes	• retention of four proximity classes • loss of one proximal variant
Speaker 2, 4, 6	Speakers 1, 5, 7, 8, 9, 11	Speaker 10

speech through their relationship. That may be why Speaker 10 is an outlier in this study; he could have given more conservative responses because his wife was present and had recently responded herself or she may act as a 'language monitor', preserving a prescriptive conservative norm.

The women all fall into the same group with Speaker 11, regardless of social network. They all demonstrated some loss in distinctions in the demonstrative system, but retained more than the most innovative, male ranchers, as shown in Table 5.31.

Table 5.31. Sociolinguistic Traits of Speakers and Number Marking Loss

SP	6	5	9	4	8	10	7	2	1	3	11
Age	24	57	59	60	71	75	76	77	79	81	85
Gender	M	F	F	M	F	M	F	M	F	F	M
Social Network	ranch	gov't	gov't	ranch	gov't	ranch	gov't	ranch	ranch	gov't	ranch

CHAPTER 6

SOCIOLINGUISTIC PATTERNS AND
STRUCTURAL LOSS IN DUCK
VALLEY SHOSHONE

This study has outlined a number of grammatical innovations in nominal morphology that could possible be attributed to structural loss due to language endangerment in the Duck Valley community of Shoshone speakers. Accusative allomorphy, number marking and agreement, and the demonstrative paradigm all show changes in progress. The major contributing factors to these changes are age and, closely related to age, exposure to English as the speaker's primary language. Each of the observed patterns of structural change are consistent with contact effects from English. Traditionally, the Shoshone structures analyzed in this study differed from English considerably, in each case, the Shoshone conservative feature represented a crosslinguistically marked form compared to English and the innovative forms observed were more similar to English.

The accusative allomorph in Shoshone took one of four forms in the conservative descriptions. This was largely retained by this study's most conservative speakers except the lexically determined loss of certain accusative markers in favor of the unmarked allomorph. Throughout the age and proficiency continuum for this feature, *-tta* is losing ground first to unmarked and then *-a* appears to lose ground after that. Speaker 6, the true semi-speaker, did not provide any expected conservative forms.

The traditional number marking and agreement system in Shoshone included singular, dual, and plural number marked on pronominals, human nouns, and expressed through agreement with a closed set of suppletive verbs. The most conservative speakers retained dual and plural marking in most of the expected contexts with only lexically determined changes. Gaining ground across the speaker continuum were two innovative forms: lacking suppletive verbal agreement and expansion of overt plural marking on nonhuman nouns. Older innovative speakers displayed just one of these innovations and younger innovative

speakers (under 60 years old) displayed both innovative forms. Again, Speaker 6 gave drastically simplified variants, using no overt number marking or agreement for dual or plural.

The Shoshone demonstrative system has a five-way proximity distinction that appears to be in the process of simplification to either a two-way distinction, similar to English 'here' and 'there'. Each speaker had individual preferences for certain proximal prefixes, but none provided the full range described in the grammars. The most conservative speaker provided each of the proximal prefixes in the expected contexts except *i-kka* 'this, right here, close enough to touch'. For this, he used the form <u>*ai*</u>-*kka*, which indicates lesser proximity than the *i-* prefix. The continuum of speaker proficiency continued that pattern with speakers using fewer of the traditional forms of demonstrative proximal prefixes. *u-*, the 'out of sight, invisible' prefix was seen to be gaining ground across the speakers.

Table 6.1 presents the data for conservative and innovative forms for the three variables across the speaker sociolinguistic continuum for the 10 primary participants in this study. For the purposes of trend analysis, I have simplified some of the subjective judgements of conservative and innovative to a simple score based on the percentage of conservative responses in Table 6.1. Where there were multiple innovations operating, for example in the spread of overt plurals on nonhuman nouns and the loss of conservative plural marking, either type of innovative plural marking is counted as nonconservative. For the demonstrative image description task, I considered either *i-* or <u>*ai-*</u> as grammatical responses for proximal and either *o-* or *a-* as grammatical responses for distal. This simplistic score does not address the nuanced interpretation of this study's findings. Rather, it aims to put a quantitative value on the trends described in Chapter 5. Overall, more preservation of traditional forms by older speakers than by younger speakers marks these as changes in progress.

These findings demonstrate structural loss in the three features examined in this study. Although some individual speakers retained some conservative forms, each speaker showed at least 25% loss of traditional forms. Duck Valley Shoshone provides yet another case study in support of the trend of structural loss in endangered languages. OFSs points of retentions, as shown in Table 6.1, appear to maintain conservative Shoshone number marking and the accusative *-tta* allomorph in more contexts than younger speakers. YFSs displayed largely the same patterns of structural simplification, but to a greater degree than their older fluent counterparts. Age is a clear factor in the preservation or innovation of structures. Table 6.1 shows a delineation of speaker proficiency across this study's participants in

Table 6.1. Percentage of Conservative Accusative, Number, and Demonstrative Forms in the Sentence Elicitation Task

SP *age* gender social network	Conservative accusative score			Conservative number score			Conservative demonstrative score		Total
	-tta	-a	-i	1STP	PL nouns	verbs	proximal	distal	
6 *24* M. rancher	0%	0%	0%	33%	0%	0%	0%	33%	4%
5 *57* F. gov't	33	75	33	100	80	42	50	50	57.9
9 *59* F. gov't	16	25	0	66	30	44	66	50	37.1
4 *60* M. rancher	100	75	0	100	100	100	33	33	67.6
8 *71* F. gov't	0	50	0	100	100	90	66	66	59
10 *75* M. rancher	80	50	0	100	100	100	66	100	74.5
7 *76* F. gov't	100	66	0	100	50	90	66	33	68.1
2 *77* M. rancher	100	75	0	100	100	70	0	100	68.1
1 *79* F. rancher	83	80	33	100	80	90	33	66	70.6
3 *81* F. gov't	20	100	0	100	100	100	–	–	70

OFS	
YFS	
SS	

which the speakers who were 75 years old and older at the time of data collection receive a conservativity score of greater than 68%. Speakers between 57 and 71 years old receive a score between 37.1% and 67.6%. Speaker 4, the only male and only rancher in the YFS age range, is almost as conservative as the Older Fluent Speaker group. Speaker 6 is the youngest in the group; he is a self-described semi-speaker. When asked if he is a fluent speaker, he replied, 'No, I know enough to have a conversation but I'm no Storyteller'. He only received a conservativity score of 4%.

This study has shown that structural loss is indeed in progress in Duck Valley Shoshone nominal morphology. Speakers show a pattern of simplification in many of the aspects of marked nominal morphological features. In particular, speakers under the age of 75 displayed a more dramatic simplification. In Chapter 3, I raised the question of possible explanations for such changes. Various case studies have argued for the primary influence of language contact, inadequate language acquisition, accelerated language-internal changes in progress, and a handful more factors. The following discussion considers this study's speakers' language and their sociolinguistic histories. I propose that language contact, weakening of linguistic communities, and inadequate acquisition played roles in the situation documented in this study.

6.1   Age and Speaker Proficiency

As discussed in Chapter 3, studies in language death have observed structural changes in progress in language death situations around the world. One generalization that is largely consistent across the studies is that the structural changes progress in an age gradated pattern. That is, older speakers retain a more conservative form of the grammar while younger speakers represent an innovative form. Therefore, a change in progress can be observed by comparing the age groups (Labov 1963). This basic principle of variationist sociolinguistics sheds light on the role of language endangerment in changes observed in obsolescent languages. The corollary for language death situations is that older speakers are expected to reflect a time period where the language was more stable, while younger speakers have experienced more of the sociolinguistic pressures of language endangerment. In this way, we can observe the effects of language death on the language's structure by comparing speakers of different age groups.

As found in many previous studies (e.g., Hill 1973; Dorian 1973; 1981; 1989; Schmidt 1985; Campbell and Muntzel 1989), the structural loss observed in this study followed an age gradation pattern. Table 6.1 shows this pattern; the speakers are segmented into groups, indicated by shading of the cells. I follow the language established by Dorian (1973) and label the speakers Older Fluent Speaker (OFS), Younger Fluent Speaker (YFS), and Semi-Speaker (SS). There are complications associated with this speaker proficiency designation that I discussed in Section 4.2. However, these are quite relevant for describing the pattern observed in this study. Rather than designating each speaker as one of these proficiency classes prior to the analysis based on their self-reported proficiency, this study's methodology aimed to collect a range of social and linguistic data from speakers with divergent backgrounds with the intent of segmenting the speakers based on their linguistic patterning after analysis. This analysis showed three groups:

1. Older Fluent Speakers: Speakers 1, 2, 3, 7, and 10 are 75 years of age or older. Each of them grew up speaking Shoshone as his or her primary language until school age. When asked, they describe themselves as fluent. Speakers 3 and 7 spent many adult years away from the reservation. Speakers 1, 2, and 10 have been in Duck Valley or nearby areas their entire lives.

2. Younger Fluent Speakers: Speakers 4, 5, 8, and 9 are under 75 years of age. Each of them learned Shoshone as a first language and learned English only when he or she began attending school, similar to the OFSs. However, this group does not describe

themselves as fluent. Instead, they say they have forgotten a lot and have to practice, think hard, and/or be around good speakers to remember.

3. Semi-Speaker: Speaker 6 grew up with a very different sociolinguistic situation than the older speakers in this study. He is 24 years old and never experienced a thriving, Shoshone-speaking community. He does not describe himself as fluent or a 'forgetter'. Rather, he acknowledges that he has never fully learned all of the language.

These groups are motivated both by shared self-reporting and sociolinguistic histories as well as through the observed linguistic patterns described in this study. Further factors are at play within the age groups which I will discuss below.

Although the patterns of nominal morphology complexity progress through this speaker continuum from most complex (OFS) to least (SS), it is not necessarily the case that accusative marking, number marking and agreement, and demonstrative specification are on a path to disappear through any future generations of Shoshone speakers. There are many relevant sociolinguistics forces at play which contribute to the trajectory of these changes. Speaker 6 has a greatly simplified grammar for the variables investigated in this study. However, his sociolinguistic history points to inadequate acquisition of the full grammar as a key contributor. The decline in conservative forms among YFSs provides evidence for language contact as a key contributor, given their language acquisition and use histories.

6.2   Language Contact and the Sociolinguistic Situation of Language Death

Language contact situations provide a rich environment of sociolinguistic forces and linguistics processes for investigation. Many previous works have attributed language loss in language death situations to contact affects (Thomason and Kaufman 1988; Campbell and Muntzel 1989; Dorian 1993). Saase (1992b) argues that it is necessary to distinguish contact-induced changes from 'language decay' or simplification. However, in this study, it may be impossible to differentiate these potential influences.

For the case study of Duck Valley Shoshone, the expanding contact language, English, is morphologically simple in comparison. For the three nominal morphology features examined in this study, simplification and negative borrowing influenced by English would have the same results. Negative borrowing describes the situation where structures are lost as a result of the contact language lacking that structure. Crucially, sociolinguistic evidence suggests negative borrowing from English language contact as a significant factor in the YFS group. The structural changes associated with the YFS speaker group are: fewer

conservative accusative allomorphs and an increase in -∅ accusative marking, minimal simplification of the number marking and agreement paradigm, and dramatic simplification of the demonstrative paradigm from a five-way distinction to a two-way distinction. Each of these shifts is consistent with negative borrowing or loss to match the structure of English as English has -∅ accusative marking, a less complex number agreement paradigm, and a two-way demonstrative paradigm. These changes could also be characterized as language simplification. However, two facts point to English contact as the critical factor in this case: (i) lack of historical Numic motivation for continuations of patterns of simplification and (ii) evidence of increased English contact associated with decreased retention of conservative forms.

6.2.1   Lack of Evidence for Internal Processes in Progress

Shoshone is a unique language in which to investigate language death and structural effects of language loss. It has a relatively well-documented historical literature in Uto-Aztecan studies and PN reconstructions (e.g., Langacker 1977; Heath 1978; Freeze and Iannucci 1979; Hill 1983; Haugen 2004; Babel et al. 2013). Furthermore, descriptions of the precontact (or early contact) variety are also relatively complete (Dayley 1989; Crum and Dayley 1993; Miller 1996; Gould and Loether 2002). The access to the breadth of recordings in the WRMC provides further rich data in which to investigate historical perspectives on changes in Shoshone. Throughout Chapter 5, the observed changes in this study were situated in a discussion of the feature's origin in PN and PUA. In each case, the conservative, precontact variety did not show signs of simplifications in progress.

PUA accusative allomorphy was similarly complex to traditional Shoshone. Central Numic languages have reflexes of four of the five PUA accusative forms (Langacker 1977; Dayley 1989). Although Miller (1996) and Dayley (1989) described some inconsistencies and variation in the accusative system based on their work with the early contact varieties of Shoshone and Panamint, the drastic loss in accusative allomorph complexity does not appear to stem from language internal simplification in progress.

Proto Northern Uto-Aztecan (henceforth PNUA) innovated dual number marking which was retained into its daughter Numic languages (Langacker 1977; Babel et al. 2013). Shoshone had retained that complexity through the period of early contact with English descriptions. Historical reconstructions also hold that some verbal number suppletion existed in PUA and its daughters (Langacker 1977). Present-day Shoshone shows signs of loss in dual marking; this change is not as widespread as some other innovations. Only

Speakers 6 and 9 show loss of the dual. YFSs, particularly the younger female YFSs Speakers 5 and 9, showed drastic loss in the verbal suppletion paradigm. Again, these features do not seem to be a continuation of historical changes in progress.

The demonstrative system simplification is perhaps the clearest demonstration that internal linguistic forces were reversed in the Shoshone language death situation. The traditional Shoshone demonstrative system was innovatively complex compared its parent languages. There was even suggestive evidence that Shoshone had recently innovated an additional distinction between the *o-* 'mid-distance' distal prefix and *a-*, the 'far, within sight' distal prefix (Crum and Dayley 1993). However, this innovative trend did not continue. This study documented its erosion to a simplified, variable system. YFSs seemed to be aligning some subset of the traditional prefixes to a simplified two-way distinction: proximal versus distal, similar to 'here' and 'there'. Table 6.2 shows these findings which argue against ongoing internal changes in progress.

It was not the case that speakers from the WRMC showed a similar pattern of structural loss to the present day speakers. Rather, these early contact Shoshone speakers who experienced few effects of English contact represented the conservative Shoshone structures

Table 6.2. Reversal of Language Internal Trends, Morphological Complexity Retention (Langacker 1977; Dayley 1989; Crum and Dayley 1993; Miller 1996; Gould and Loether 2002; Babel et al. 2013)

	PUA	PNUA	Traditional Shoshone	Present-Day Shoshone YFS
Accusative	*-ci *-kV *t-a *yɨ	*kV *-a *-yɨ *-t-a	-tta -i -a -∅	- loss of -i -tta reduced - increase in ∅
Number	- sg/pl distinction - some verbs suppletive for number	innovation of dual	- sg/du/pl - some verbs suppletive for number	- signs of dual loss - decrease in verbal suppletion
Demonstrative	*i *u	innovation of multiple degrees of deixis	i- <u>ai</u>- o- a- u-	- reduction in i- - decrease in degrees of deixis

described in the grammars (Dayley 1989; Crum and Dayley 1993; Miller 1996; Gould and Loether 2002). If it were the case that simplification was in progress before significant English contact, we would expect to observe evidence of that change in the WRMC recordings as well.

It is still possible that with more rigorous study, such indications would be isolated in the WRMC speaker; however, this study did not find significant evidence of change in progress.

6.2.2 Evidence for Significance of English Contact

The second factor that suggests English contact over internal simplification processes lies within the YFS group. Speakers 5, 8, and 9 have sociolinguistic histories that include a greater degree of English language use than Speaker 4. Speaker 4 lived on the Duck Valley reservation for most of his life, except when he was enlisted in the military, serving in the Vietnam War. After he returned from service, he worked various odd jobs around the reservation. He did not have a career or a social network that required him to speak English regularly. Speakers 5, 8, and 9 worked for various tribal organizations - the hospital, education, and the housing authority. These are jobs that require education and formal communication primarily with English speakers. Although these four speakers have similar language backgrounds, their social networks and gender separate them. This distinction also plays out in their linguistic forms. Speaker 4 is the most conservative of the YFSs, perhaps indicating that his male, laborer/rancher social network contributed to his preservation of conservative forms. Conversely, Speakers 5, 8, and 9, the more innovative speakers, participate in an English-dominated, tribal government social network. At this point, this is interpreted as support that increased contact with English contributes to the innovative grammars of YFSs, particularly those who are members of the tribal government, institutional social network.

There were no observed changes in this study that were significantly different than the sorts of changes expected in healthy language environments. Similar to the conclusions of Dorian (1981), Schmidt (1987), and Aikhenvald (2006), the study provides further support that the types of changes found in a language death context are the same processes observed in healthy languages. Present-day Shoshone shows the same sorts of changes that linguists have observed in decades of study of internal language change, e.g., allomorphic reduction and simplification of marked systems. As Dorian (1981:151) noted in East Sutherland Gaelic (ESG):

> Dying languages, to judge by ESG, show much the same sorts of change we are

familiar with from perfectly ordinary change in 'healthy' languages: analogical leveling reduces the number of allomorphs for some morphemes... 'a native distinction not shared by the speakers' second language is given up...

Her findings were supported by the results of this study. One does get the impression that the quantity of change observed in this study is markedly unique, however, compared to healthy languages. Each of the speakers in this study showed some structural simplification, each to varying degrees. Taken together, the simplifications in nominal morphology over three generations is striking. No speaker exceeded 75% of expected conservative forms. The younger generation was closer to 50 to 60% of conservative forms. Dorian (1981) notes that this degree of change could possibly be expected in a healthy language if there were commensurate changes observed in the language's phonological system, leading to an associated reorganization of its morphology. No such phonological or phonetic environment was involved in the grammatical changes of Shoshone. Although it is perhaps challenging to make claims about a 'normal' rate of change or an accelerated one, this conclusion has been suggested by many studies in language death (Dorian 1981; Schmidt 1987; Campbell and Muntzel 1989; Aikhenvald 2002; Childs 2009). This Duck Valley Shoshone case study is no different and provides further evidence that increased rate and quantity of structural change is a characteristic of endangered languages.

Aikenvald (2006) argued for Tariana that extensive language contact leads to this increased rate of structural change. Bilingualism and extensive contact with English appears to be a major differentiating quality among this study's YFSs. Andersen (1982:97) has argued that the grammars of bilingual speakers 'match' structures between the two languages which can lead to loss of forms that do not have a match between the languages. This is surely a plausible explanation of the structural changes observed in this study; at least, a likely contributor. The sociolinguistic situation of language death has many complex factors that accompany increased bilingualism and the expanding use of English which may lead to dramatically increased rates of change when taken together. In Section 3.3.2, I summarized some of the proposed social variables that may contribute to incubated structural change:

1. Intense language contact and the overt displacement of a minority language by educational, economic, and political pressures (Aikhenvald 2006),

2. Intensified identity associations with marked features of the endangered language or dialect, i.e., dissipation or concentration (Shilling-Estes and Wolfram 1999; Wolfram 2002),

3. Possible diffusion of social networks, and language communities where weak social networks facilitate change (Milroy and Milroy 1985; Grace 1992),

4. Small communities, where small communities favor increased rates of change and borrowing (Nettle 1999), and

5. Lack of a standard and of "self appointed language monitors of grammatical norms," (Dorian 1981:154).

(1-5) have been suggested by various researchers as situations that favor high degrees of change in language structure. I discussed (1) above. This study clearly points to intense language contact and overt displacement as a primary factor in the observed changes. For the Duck Valley Shoshone case study, (3) and (5) also appear to play contributing roles.

Diffuse social networks and weak language communities do appear to have contributed to increased loss of structural complexity in Shoshone. In this study's sociolinguistic interviews, many participants noted that they had to seek people out to speak Shoshone. As described in the community sketch, Shoshone is rarely spoken in public. English is typically the only language heard and it is the language of tribal meetings and business communications in the community. Nettle's (1999) point that small communities favor speedier borrowing and change may also be relevant here. Although Shoshone was always spoken in small communities, the reinforcing force of a language community has dwindled over the past 40 years. Social networks are the network of relationships in a community. A dense, close-knit network is one in which many people are connected through multiple connections. A weak network connects many people with minimal links between network members. Milroy and Milroy (1985) discuss the role of social networks in language change. They give two general principles that are likely to be relevant to the present discussion:

1. Linguistic innovators are likely to be individuals who have multiple loose social network ties, and

2. (a) A community with many close, overlapping network ties will inhibit change;

   (b) A community with concomitant weakening of ties will facilitate change

These principles rest on the underlying pattern that changes will be spread through weak ties, connecting various networks with particular linguistic norms. Although Milroy and Milroy's work focused on monolingual language change, social networks have been established as a factor in language shift in bilingual communities as well (e.g., Steossel 2002). Grace (1992) applied Milroy and Milroy's analysis of social networks to challenging

reconstructions of historical relationships. In order to account for certain languages' vast differences from the proposed proto-language, Grace posited that weak network ties in these languages historically led to quicker rates of change. Building from the work of these scholars, we can observe similar patterns in language death communities, specifically in Duck Valley Shoshone.

Although social networks are quite dense in Duck Valley, the broad intersection of social networks that includes Shoshone speakers can rightly be characterized as intersections of many weak networks. Shoshone is typically only spoken in small gatherings where it is established that all individuals present are Shoshone speakers. This does not happen regularly and is typically sought out. This study's YFSs all noted that they had forgotten a good deal of their Shoshone language knowledge due to inactivity. They also cited increased use of the language as helpful to recover their forgotten fluency. It is clear that these YFSs were fluent at one point since they all reported not knowing English until their school years as well as continued use of Shoshone as a primary language throughout their school years. This finding is similar to Mithun's (1990) analysis of Central Pomo where she observed that formerly fluent speakers recovered some of their traditional structures after practice and increased use of Pomo. It is a significantly encouraging finding for language revitalization efforts that increased use of the language and strengthened language communities may lead to recovery of unique, conservative structures of an endangered language.

Milroy and Milroys' principles would suggest that weakening social networks in support of an endangered language may be a significant factor in increased rate of grammatical innovation. As an individual speaker's strong, dense social network chooses to speak the expanding language more often, the established linguistic community which acts to preserve the conservative variety weakens. The result is that the minority language is isolated into fewer and fewer uses to the effect that it exists in a weak, diffuse network which allows innovation to flourish and accelerate. It is quite possible that this pattern of weakening language communities is typical of language death situations and has some effect on the increased rate of change observed in studies of such communities. Further case studies of structural obsolescence will support or disconfirm this hypothesis.

I also believe that lack of a standard and, as Dorian (1981:154) noted, lack of "self appointed language monitors of grammatical norms" has possibly accelerated the structural loss in Shoshone. Only anecdotal evidence leads me to this suspicion. Steadily decreasing use of Shoshone in favor of English, as described by the speakers in this study, also leads to lack of a standard variant and lack of a strong network of speakers to enforce that standard.

This factor may also account for the increased rate of change in language death communities. For example, I regularly heard references to a correct way of speaking along the lines of so and so is a great speaker; however, the actual behavior that I observed provided no evidence of language monitors or grammatical norms. Rather, Shoshone speakers regularly collaborated to remember words and laughed together about misspeaking; they were quick to congratulate me on my Shoshone capabilities (which are basic at best). The culture surrounding speaking Shoshone in Duck Valley was open and accepting of variation and deficiency, not highly monitored and enforced. Even the speakers who are known as 'great speakers' did not correct others from what I observed. This provides further support for Dorian's (1981) suggestion that a relaxation in grammatical monitoring may be typical in language death situations.

Intensified identity associations clearly existed, particularly among the male OFSs and Speaker 6, this study's semi-speaker. Speakers 2, 6, and 7 identify with Shoshone tradition, storytelling, and traditional singing. They are known widely around the reservation as Shoshone language experts, Storytellers, and singers - a high honor in the community. However, this did not correlate with any innovative expansion or retention of marked Shoshone features. Shilling-Estes and Wolfram (1999) and Wolfram (2002) profile language minority communities in which speakers of a minority variety of English have higher percentages of distinctive dialectal phonological features than older speakers did. Thus they enhance the distinction of their dialect, concentrating it as it became more endangered. This sort of effect was not seen in this study.

These sociolinguistic factors seem likely candidates for distinguishing features in the sociolinguistic situation of language death. Where many studies have concluded that the linguistic changes observed in obsolescent languages are the same sort of changes that we expect in healthy languages, there is clearly a distinct sociolinguistic situation in which these changes are played out. At the same time, many researchers point out that the rate of change appears to be dramatically accelerated for endangered languages. Sociolinguistic forces observed in Shoshone and noted in other language death situations are likely to be consistent characteristics of such languages, such as extensive language contact, weakening language communities, and absence of an enforced standard. Case studies in language obsolescence continue to isolate these factors as characteristic of language death; Duck Valley Shoshone provides another case study in support of these arguments.

6.3 Inadequate Acquisition

In addition to the above sociolinguistic factors, a speaker's language acquisition history is often cited as a likely factor in structural change in language death. Speakers affected by inadequate acquisition are a result of the sociolinguistic factors discussed above: decreased use of the language in public domains, weakening language communities, and lack of conservative standards. Speaker 6 exemplifies the characteristics of a semi-speaker in many ways. He was raised by adoptive parents who were traditional Shoshone elders. They spoke Shoshone in the home but he never had a peer group that spoke Shoshone; his peers only spoke English. Thus, Speaker 6 had a limited amount of Shoshone linguistic input (primarily in conversations with his parents); he also had limited contexts for Shoshone input (e.g., the domains of home and family, rather than formal domains and/or large dynamic group settings). His semi-speaker Shoshone is a reduced linguistic system compared to all of the fluent speakers in this study. He displayed drastic morphological simplification to a striking degree: zero morphemes for accusative contexts, significant lexical attrition/reduced vocabulary, no number agreement on full nominals or suppletive verbs, and use of two out of five demonstrative prefixes in mostly innovative contexts. Of the structured investigated in this study, he showed only 4% retention of conservative forms.

Speaker 6's language acquisition history is intriguing; he shows a surprising simplification of morphological complexity for having Shoshone input primarily in the home. In this way, his sociolinguistic history is similar to the young Dyirbal speakers in Schmidt's (1987) profile of that community. She found many morphological systems were dramatically simplified in the speakers of 'young people's Dyirbal'. Schmidt (1985:214) also noted that Young Dyirbal lost many features and did not replace them with expansion of other linguistic device, resulting in a greatly simplified variety. This is quite similar to Speaker 6's structural simplification. This pattern in language death is often compared to pidginization in that a morphologically simplified and lexically reduced variant is formed by the children of fluent parents. There are obvious differences between the two, particularly in that pidginization involves a high degree of language mixing whereas endangered language semi-speakers do not. As Schmidt (1985:217) notes:

> A pidgin, by definition, is the first stage of a new language, which grows through the needs of two or more mutually-exclusive groups to communicate, i.e., a pidgin is an embryonic stage of language evolution.
> In contrast, language death involves an extinction process that results from one of the two contact languages dominating and gradually replacing the less prestigious language over its entire functional range. Thus, although both a dying language and a pidgin result from the language contact phenomena, each

involves a radically different network of political, sociocultural and psychological factors.

This is a very critical distinction. However, in so far as pidginization involves a massive degree of simplification and reduction, the analogy appears to be an interesting one. Schmidt (1985) and others argue against equating language death with pidginization despite some structural similarities. In language death, often structural complexities persist or increase.

It is significant to note that Speaker 6 does not consider himself to have gained fluency in Shoshone. Returning to Voegelin and Voegelin's (1977:355) question, have semi-speakers "stopped acquiring their first language while young children or insufficiently interiorized by the time they switched to English?" Speaker 6 seems to be a case of the former, never having acquired Shoshone as a first language fully. Beyond that, Speaker 6 did not have the opportunity for Shoshone production in a vibrant language community that Putnam and Sanchez's (2013) work suggests as necessary for acquisition of fluency.

An interesting question remains, what strategies must a speaker rely on in this context? This question gets to the heart of the persistence of the pidginization analogy. Where a speaker has an incomplete understanding of a language's grammar, he is faced with two options. First, fill in the remaining gaps with 'defaults' determined by the Universal Grammar. Or second, fill in remaining gaps with knowledge of another first language. It is interesting to note that in this study, Schmidt's (1985) study of Dyirbal, and in Dorian's (1981) work in East Sutherland Gaelic, English is the dominant language in all cases. Although Schmidt and Dorian both identified structural changes that were not attributed to English contact, any similarities observed in morphological simplification that can be attributed to English as a substrate language (the grammar in a bilingual brain that may influence his second language) may be due to this phenomenon. In the case of Shoshone, the evidence suggests that Speaker 6 relies on his knowledge of English to inform his Shoshone grammatical gaps since the grammatical simplification observed in this study is consistent with English contact effects. However, Speaker 6 is only one example of such a speaker. It remains to be shown that his sociolinguistic background and associated linguistic variety is a common phenomenon is Duck Valley Shoshone. Young speakers of Shoshone are quite rare but promising language revitalization may lead to an increase in young people learning and speaking Shoshone. In any case, Speaker 6 shows commonalities with his counterparts in other endangered language communities. The growing number of studies in this area continue to confirm the semi-speaker's status in language death situations; future work will add to our understanding of this phenomenon.

Chapter 3 dealt with the linguistic and sociolinguistic factors frequently associated with

language death and structural obsolescence. Various case studies have suggested a number of contributing causes to the sociolinguistic situation regularly documented in language death. Duck Valley Shoshone displays many of these shared characteristics. A speaker proficiency continuum exists ranging from Older Fluent Speakers to Semi-Speakers that is characterized by a decrease in conservative Shoshone structures. My conclusion for the changes in nominal morphology in this study, as discussed in Chapter 5, is that negative borrowing from English contact has led to a loss of complex Shoshone nominal allomorphy. Under this hypothesis the YFSs represent a generation of speaker for whom the increased use of English in their lives has greatly affected their simplification of Shoshone nominal morphology. The OFS group shows the same general pattern, but is less affected because of their age relative to the increasing expansion of English as a primary language in Owyhee. Conversely, Speaker 6 represents a generation of speakers for whom English is the dominant language and the contexts in which Shoshone is used have drastically vanished. These sociolinguistic factors served to accelerate the rate of change in the Duck Valley community over the last four decades.

It is important to note that each language death situation has differing historical, social, and political influences at play that have been shown to shape the degree and direction of language loss and structural obsolescence. These situations may or may not contribute to generalizations regarding the effects of language endangerment on a language's structure. Future studies will add to the body of work that investigates this topic and these findings will ultimately contribute to a theory of structural obsolescence in language death.

6.3.1 Conclusion

This dissertation has compared nominal morphological features of Shoshone produced by speakers with varying language histories and speaker proficiencies. The research goals, restated from Chapter 2, are two-fold: first, I examined particular morphosyntactic structural changes in Shoshone; second, I evaluated the social and linguistic forces putting pressure on this endangered language. In investigating the social and linguistic variables related to the observed changes, I focused on these questions: are there changes in the morphology and syntax of Shoshone that may result from contact with English? Or, can they be connected to ongoing historical processes motivated by internal factors in Numic and other Uto-Aztecan languages? How have decreased language usage and linguistic input for learners influenced the resulting language? Finally, how does the membership of particular speakers in certain social networks relate to observed structural changes?

The differences in retention of the conservative forms between speakers point to language change associated with language endangerment in the Duck Valley Shoshone community. The results of this study show decrease in retention of conservative forms based on speaker age and language history. Specifically, this study's participants fell into three groups: Older Fluent Speakers with high retention of conservative forms; Younger Fluent Speakers who showed a greater degree of innovation, particularly among the women; and one Semi-Speaker who displayed the most affected grammar.

These results were expected based on previous research showing similar loss of complex or crosslinguistically marked nominal morphological structures in a language-endangerment situation (e.g., Dorian 1981; Schmidt 1985; Mithun 1990). This study suggests that the language endangerment-induced changes in Shoshone support arguments that negative borrowing from the majority language, English, greatly contribute to the structural changed in language endangerment (e.g., Aikhenvald 2002). These results do not necessarily refute arguments that distinguishing between internally and externally motivated change is possibly a misguided effort (e.g., Thomason and Kaufman 1988; Dorian 1993). However, it does provide a case study that supports the necessity to consider the dominant language as a possible source of structural loss. The endangerment situation of Shoshone is shown to have accelerated the effects of negative borrowing from English. This is consistent with the conclusions of Dorian (1981), Schmidt (1985), and others.

6.3.2   Implications and Future Research

This research highlights the urgency for language revitalization efforts to reach out to all age groups and involve OFSs, YFSs, Semi-Speakers, and language learners in language revitalization activities. It bears mention that OFS grammars should not necessarily be considered the 'best' or 'most correct' way to speak; this is a danger that has halted some language learners in their tracks. Limiting participation in such efforts to 'the most fluent speakers' is likely to have negative effects on language revitalization programs because it presents an environment of exclusion. Instead, communities should recognize that YFSs and Semi-Speakers are critical sources of endangered knowledge; revitalization efforts should seek to be inclusive of all ages and speaker proficiency levels.

The SYLAP program has been one success story in Shoshone language revitalization efforts. In part due to its involvement of speakers of all ages and proficiency levels. SYLAP shows that Language Apprenticeship Programs (LAP) can be successful in involving teens in a language revitalization effort. The benefits of such a program, giving teens experience in

professional skills, involving community members in documentation projects, and building relationships between community, linguists, and universities, should be translatable to other language revitalization situations.

Involvement of teens in language revitalization is important. Partially, because every age group would ideally be involved in such efforts. Furthermore, teens have the energy and enthusiasm to carry on the effort once inspired and educated about language endangerment. As the upcoming leaders of their communities, they can champion language efforts for future generations. An LAP is designed to target teens by incorporating employment, university life, and language. It also provides a controlled opportunity to experience life away from home and meet other students with shared interests. The group of SYLAP participants have formed a cohort of language activists who stay in touch and share their experiences. Many of the SYLAP former participants have returned to the program to be mentors to younger students. At the time of writing, one group of former SYLAP participants is forming a foundation focused on Shoshone language and cultural revitalization and is currently applying for grants to fund their efforts. Another group of SYLAP families, both participants and parents, have formed a nonprofit organization to pursue language revitalization programs in Owyhee. One goal of this group is to reinstate Shoshone language classes at the Owyhee High School. An LAP, by design, brings the language learners of all backgrounds together and brings the language into the domains of work, education, and socializing for these teenagers, giving it increased domains of usage outside of the home or family.

This model can be replicated similarly to SYLAP or in adjusted formats for different language situations. SYLAP should be entirely replicable in many situations for linguists; it requires a partnership between linguists, universities, and communities. This is often a baseline for language documentation research for many linguists working with such languages. To structure an LAP with these groups, a number of things are desirable: (1) an energetic staff, (2) adequate funding, (3) community collaboration, and (4) university collaboration.

This dissertation's findings also have implications for the study of language endangerment-induced change and contribute to understanding the nature of bilingualism and the role of language universals or universal grammar in language acquisition and maintenance. It is argued in this dissertation that contact with English has been a major factor in language endangerment-induced morphological simplification in Duck Valley Shoshone. In this case, the morphological changes discussed were all classified as simplification. As cited above, it

is quite difficult to distinguish between contact-induced changes and internally motivated changes, such as an inherent preference toward simplification in endangered languages. This study only goes as far as to conclude that simplification was observed and it was consistent with negative borrowing from English as a dominant language.

However, this conclusion raises additional questions about the possibility of isolating the role of either internal simplification or language contact. This is particularly difficult to isolate due to the fact that most of the literature providing case studies of endangered language simplification describes situations where English is the dominant language such as Dorain's (1981) work on East Sutherland Gaelic and Schmidt's (1985) work on Dyirbal. The expected contact effects of English, where English is crosslinguistically quite bare in nominal morphology, would look a great deal like universal tendencies toward morphological simplification. There are also many case studies that examine language communities where Spanish is the dominant language (e.g., Campbell and Muntzel 1989; Aikhenvald 2002); these situations show similar patterns to the case studies examining English-contact situations. Additional case studies where the dominant language and endangered language do not dramatically differ in morphological complexity would shed further light on this interesting question.

Much has been made about whether researchers should expect generalizable patterns in language endangerment-induced change or whether each situation is expected to be unique. This dissertation's findings are in line with many in the literature suggesting that some generalizable patterns may exist; particularly, simplification of marked/complex features and language contact-induced change. It is also important to note that this study's Semi-Speaker was found to be affected by different forces than the YFSs were. Although both groups experienced loss of structures, it was on a different scale of magnitude and was attributed to insufficient acquisition for the Semi-Speaker and to lack of community of practice and language contact for the YFSs.

Varying levels of speaker proficiencies motivate different claims about structural change for those speakers. Over time, as a language loses footing to the dominant language, there are particular effects expected as sociocultural pressure increases on the minority language community, such as heightened social associations with the language and community prestige. Then, as use of the language continues to decrease, individual speakers may experience language attrition of some structures and semi-speakers who did not fully learn the language will begin to appear in the speaker community. Different structural effects are expected with these nonfluent speakers.

During the early stages of language contact between a minority language and a dominant language, changes due to normal internal forces of language and contact influences are expected as in any bilingual community. The rates of natural change could be increasingly affected by the social stigmas of the endangered and majority communities and the levels of prestige that come to be associated with certain linguistic features, both convergent and divergent from the contact language. These effects are not expected to be of a different sort from healthy language change and they are not expected to be consistent or predictable across languages, as every language will have different source languages and different sociolinguistic reflexes of language attitudes. This is perhaps the stage of language contact reflected in the grammars of this study's OFSs in which some variation and loss is observed but the majority structures are retained.

As the minority language loses ground to the dominant language, scenarios that specific to language death take effect. That is, loss of a community of practice leads to individual language attrition of the minority language. Concurrently, the dominant language for the community becomes the speaker's primary language, leading to increased likelihood of contact-induced changes. The types of changes found in these situations will be illuminating to the study of language universals and universal grammar because they speak to the effects of social variables on facilitation of language change, the amount of language input necessary for acquisition, and the types of structures (marked or difficult) that may be susceptible to loss by attrition or through inability to be acquired.

For semi-speakers who never experience a functional speech community and suffer from inadequate acquisition, it is expected that changes will show greater degrees of simplification and contact effects. These changes could reveal interesting patterns due to inadequate acquisition related to language contact and/or aspects of the universal grammar, e.g., marked structures, complex forms, or a tendency toward regularization.

6.3.3   Future of Shoshone

Shoshone is in a somewhat promising state, considering its history and the alarming trend of language extinction throughout the world's indigenous communities. There are a promising amount of speakers, but these individuals are spread throughout weak social networks that span a large geographic area. There is some intergenerational use of the language, like Speaker 6's family. However, the cumulation of social and political threats to the language creates a powerful force which favors language shift toward English. The speakers and status of the language places Shoshone between Stages five and six on Joshua

Fishman's (1991) 8-stage continuum of language loss. This is discouraging for the future of Shoshone.

While current attitudes and revitalization efforts in Duck Valley indicate an increased interest in preservation and revitalization of Shoshone, the present state is one that is difficult to reverse. As previously discussed, there are a handful of revitalization efforts in progress for Shoshone which are promising. This study also suggests that YFSs can continue to improve their grammatical recall through continued practice and increased use of the language. Since Shoshone is used in limited contexts today, expansion into the domains of education, government, media, business, and general public discourse could greatly improve the status and awareness of the language.

For the Shoshone community members with whom I worked, Shoshone language is a significant indicator of Shoshone identity. The language's future is closely tied to the community's prosperity and self-control of their education, leadership, and opportunities. With language loss, cultural identity and retention of Shoshone cultural traditions are affected accordingly. That is not to say that Shoshone culture and language cannot exist separately from each other, but it is the case that its viewed this way by the community. Charlotte Atkins, Speaker 8 in this study, gave the following insight on the need for the language.

> [The Shoshone language] is a big part of our being Indian. Back in the sixties, I guess fifties, sixties, I kind of lost my Indianness because the dominant society was trying to get us to be like them. And so, we couldn't speak our language, we couldnt be Indian. And I lost mine.

Statements like this speak to the strong association between language and identity. I have encountered many young people who have stories similar to this. Many of them have expressed commitments to learn and revitalize the language. There is encouraging progress in these young community members, but the challenges that face them are not trivial. Regardless of the language preservation efforts, the community of Duck Valley Shoshone is resilient and determined which bodes well for their future. In order to have a positive effect on increased use of the language, they will need to act quickly.

APPENDIX A

ELICITATION TASK

1. I see the man

2. The man sees me

3. We (2, excluding you) hear you

4. You hear us two (excluding you)

5. Skunk is running

6. You're lying down

7. You are walking

8. We're sitting (including you)

9. We're running (including you)

10. He points to his own nose

11. We all (including you) hold a buckskin

12. We all (including you) hold sticks

13. He holds sticks

14. Robin has eggs in her nest

15. The husband hears the woman

16. You all throw a knife (one each)

17. You (singular) throw many knives

18. Those two are walking (on the horizon)

19. Those two are lying down (out of sight)

20. Uncle held two shoes

21. The owl held the spider

22. Our father created many mountains

23. Our father created the land

24. Our father created the owl

25. Robin hit a tree

26. The owl hit many branches

27. The enemies hit many strangers

28. Nephew broke his wrist

29. You all broke your dishes

30. My friend broke the rock

31. Older sister throws rocks

32. He killed one deer

33. He always kills a deer (every time he goes hunting)

34. The Indians killed the enemies

35. The enemies massacred the strangers

36. The bear killed many Indians

37. Coyote stored some pine nuts

38. Bobcat placed some flowers there

39. These two placed their own blankets in the house

40. Older sister placed a blanket in the house

41. Grandpa (on dad's side) points to that mountain (far off in the distance)

42. Grandson (on son's side) points to that mountain (right in front of me)

43. I see this deer (touching)

44. I see this deer (here)

45. I see that deer (between you and me, close)

46. I see that deer (between you and me, on the other side of the room)

47. I see that deer (in the corner of the room)

48. I see that deer (outside of the room, visible)

49. I see that deer (way off in the distance)

APPENDIX B

ABBREVIATIONS AND GLOSSES

1P	First person
2P	Second Person
3P	Third Person
ABLE	Able to
ABS	Absolutive
ACC	Accusative
ADV:AS	As
ADV:SO	So
ADV:THEN	Then
AMONG	Among
APPL	Applicative
ARRIVE	Arrive Auxiliary
ASP:FUT	Future
ASP:GEN	General Aspect
ASP:HABIT	Habitual Aspect
ASP:MOM:COMPL	Momentaneous Completion
ASP:PRF	Perfective
ASP:SLOW:COMPL	Slow Completion
ASP:STAT	Stative Aspect
AT	At
AT:AREA	At Location
COMPLETELY	Completive Aspect
DIM	Diminutive
DIR:AWAY	Directional, Away
DRV:N	Derivational Noun
DU	Dual
DUR	Durative
EXCL	Exclusive
EXT	Extant
FAR	Far, Distal Referent
HERE	Close
HITHER	Directional, Toward/Hither
IN	In
INCL	Inclusive
INDEF:OBJ	Indefinite Object

INVIS	Invisible Referent
INST:GRASP	Instrumental, Grasp
INST:MOUTH	Instrumental, With Mouth
INST:POINT	Instrumental, Pointed Object
ITER	Iterative Aspect
LOC	Location
MAKE	Make
MANNER	Manner
MID	Middle Distance Referent
MOD	Modal
MOVE	Move
NEAR	Near, Proximal Referent
NEW	New Referent
NOM	Nominative
NOM:ABS	Nominative Absolute
OLD	Old Referent
ON	On
PER	Periodic
PL	Plural
POSS	Possessive
PLACE	Place, Put
PRO	Pronominal
QUOT	Quotative
REL:PRO	Relative Pronoun
RES	Resultative
RND:TRP	'Round Trip', Go and Return
SG	Singular
SUB	Subordinate
THROUGH	Through
UNSP	Unspecified Argument
UP	Up
WITH	With

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