Examination of narrative discourse from Chiricahua, Mescalero, Jicarilla, and Plains Apache shows that repetition is particularly frequent in these languages. We find both repeated instances of stems with varying prefix strings and the repetition of particular prefix sequences with different stems.

This frequent repetition functions as a way of allowing both fluent production and ready comprehension of new information. Repetition serves as a cohesive device as well as a means of emphasizing links between speaker and hearer understanding. The adult discourse pattern also serves to support the learning process of younger members of the speech community. What serves as a memory device and a marker of topic continuity and discourse cohesion in the adult language serves as a bootstrapping device in first- and second-language learning.

“This is the way that we do, we do it. So today I done this kind there with my people and here on my Grandpa’s farm. My grandpa give me all that he had and today I’m telling it here on my Grandpa’s lot, my Grandpa’s allotment. Some day, you know, some day, my children and their children and the tribe, no telling how far this will be existing. And I hope that somebody will, will hear it. Me on this when they got no names.” (Alfred Chalepah. Anadarko, Oklahoma. 1997)
1 Introduction

From ancient Greek epic poetry to English nursery rhymes, both literate and oral cultures have used the poetics of memory to pass down cultural information as well as language skills. One of the most prominent of these poetic or rhetorical devices is the strategy of repetition.

Repetition is an important strategy in oral narrative cross-linguistically, but the ways in which it is manifested in particular cases differ depending on the morphological type of the language. Examination of narrative discourse from Apache languages shows frequent repetition of morpheme clusters and of verbal paradigms. Samples taken from Chiricahua, Mescalero, Jicarilla, and Plains Apache texts demonstrate the frequency of repetition across the family. The kinds of repetition seen in these texts are the recurrence of verb stems with different prefix strings and the recurrence of prefix strings with different verb stems. These patterns represent strategies that are available in a polysynthetic language such as Apache but not in English or other, more isolating languages. The result is a high degree of partial or sub-word repetition, the study of which adds to our understanding of the types of repetition strategies that are available cross-linguistically.

We suggest that this kind of frequent repetition functions as a way of allowing both fluent production and ready comprehension of new information presented within semantically and lexically less dense discourse. Repetition serves as a cohesive device, linking utterances and showing relationships between concepts and/or referents. Further, repeating sentence frames and morphological patterns serves as a means of emphasizing links between speaker and hearer understanding. We hypothesize that a language with as complex a morphological structure as Apachean will use this strategy of repetition as a way of ensuring comprehension and also as a means of supporting the learning process of younger members of the speech community. For
language learners, repetition can enhance the learner’s ability to segment and categorize the sounds and morphemes of the speech stream and assist in the building of a scaffold for language learning.

We begin with a look at the literature on the function of repetition in language learning and in adult interaction. From there we present an overview of the structure of Apachean languages, followed by a discussion of how the uses of repetition are made manifest in these polysynthetic languages. We conclude with a look at the implications of this rhetorical strategy for developing language-revitalization programs.

2 The Functions of Repetition

2.1 Language Learning

Language learners, says Menn (1996:1-4), learn language according to the accumulated positive evidence of what people say, and they make categorial judgments on the basis of probabilistic information. We know that children categorize sounds, words, morphemes, and phrases as tokens of a type based on the patterns of co-occurrence within the grammatical type and on the patterns of related forms that occur with each representative token of the type. With the input of positive examples, they learn to recognize, for example, a verb by the other word forms that occur with it and by the morphemes that attach to it. As will be demonstrated below, repetitions of familiar tokens with accompanying phrasal or morphological information allow the child to form a hypothesis about the type that allows the prediction that other tokens will probably be associated with the same grammatical forms.
We can see the teaching function of repetition at work in children’s rhymes, which, in addition to teaching important cultural information, encourage the child or learner to focus on important parts of the lesson at hand. The child language learner begins with categorizing speech sounds. Certain aspects of pronunciation—stress, pitch, pause—help to set off or sequence speech sounds, and repetition can serve to emphasize this prosodic information. When one repeats words or phrases, one is also repeating a pitch contour and a stress pattern, and in children’s rhymes there is a particular sing-song pitch contour or cadence that children seem especially to welcome. That cadence aids memorization of children’s verses. Learning a repertoire of verses contributes to the process of discrimination and categorization of key sound structures of language. Repetition, particularly in the form of alliteration in initial segments of words, also enhances children’s ability to segment words (Gibson Geller).

2.2 Repetition in Adult Interaction

Tannen (1987) shows that repetition is a strategy used in both literary and conversational discourse to involve the audience in the speaker/writer’s theme and to effect their participation in creating or negotiating meaning:

Each time a word or phrase is repeated, its meaning is altered. The audience reinterprets the meaning of the word or phrase in light of the accretion, juxtaposition, or expansion; thus it participates in making meaning of the utterances. (576)

This participation of the audience in meaning-making facilitates the cognitive effect of comprehension by creating coherence (the link between structure and meaning) in the discourse.

Like anaphora, repetition serves to tie referents to the prior discourse and provides cohesive ties. Coherence within the discourse allows the interlocutors to understand the
discourse as a connected whole and thus to focus on the new or salient information within the pieces of the discourse. This use of repetition as a cohesive device has been studied within a variety of languages and dialects (see Tannen [1987] for a detailed list of such studies) as well as in English (e.g., Halliday and Hasan, 1976).

Tannen claims four purposes for repetition:

1) Production - The automaticity of repetition allows a speaker more efficient and more fluent production of language

2) Comprehension - Repetition allows for semantically/lexically less dense discourse with less new information

3) Connection - Tannen, like Halliday and Hasan (1976), refers to the “referential and tying function” (583) of repetition: its ability to link utterances and show relationships between concepts or referents. She also points to the evaluative use of repetition, allowing the speaker to point to what is important by focussing attention simultaneously on both the similarities and differences between instances of a repeated utterance.

4) Interaction - Repetition is a strategy for conversational management, e.g., for linking speakers’ and hearers’ ideas and for ratifying contributions. It acts to tie participants to the discourse and to one another.

In addition to its pervasiveness in conversation, repetition is also widely used in narrative discourse. Bakker (1989) gives the following functional definition of repetition as it occurs in Homeric verse:

Repetition ... may involve the exact, verbatim recurrence of a given phrase, but it may also involve the recurrence of a rhythmical pattern. ....repetitions may be
ordered by degree of linguistic sameness. ... (mere metrical repetition) to maximal linguistic sameness (verbatim repetition). In between, we may localize repetitions with linguistic sameness on the level of category (parts of speech).

(159)

In oral poetry and rhetoric (e.g., speeches and sermons), formulas, of which repetition is but one kind, serve the function of allowing the systematic reference to an ideal or to a character who exemplifies the ideal. Repetition is often the foundation of the referential structure as it allows the segmenting of the sound string into (repeated) metrical feet and lines, permits (repeated) calling forth of the name of an important character or of an activity performed by that character, and secures the learning of new information by (repeatedly) calling the learner’s attention to it.

3 Overview of Apachean Language and Grammatical Structure

Navajo and the Apache languages comprise the group of Southern Athabaskan languages spoken in the Southwest. The Athabaskan languages, along with Tlingit and Eyak, make up the larger Na Dene language family. There are three major geographical groupings of Athabaskan languages:

1. Northern Athabaskan – including about 25 languages spoken in Alaska and Canada.

2. Pacific Coast Athabaskan – including Hupa and Tolowa, in California, and Tututni, in Oregon.

3. Navajo and Apache – including seven Apachean languages divided into two main groups (Hopijer, 1938): 1) the Western group, including Navajo in one branch and a second branch divided into the San Carlos group (San Carlos, White Mountain,
Cibecue, etc.) and the Mescalero-Chiricahua group, and 2) the Eastern group, divided into a branch containing Jicarilla and Lipan and a second branch containing Plains Apache.

The data presented here come from Hoijer’s (1938, reprinted in 1980) work on Mescalero and Chiricahua Apache and his (undated) texts of Jicarilla, from Gatschet’s (1884) work on Plains Apache, from our own fieldwork in September of 1997 with Plains Apache consultant Alfred Chalepah, and from our more recent work with our Jicarilla Apache lexicography team, Wilhelmina Phone, Maureen Olson, and Matilda Martinez.

Before demonstrating the use of repetition in the four Apache languages to be considered here, let’s begin with a brief overview of Athabaskan verb structure. The Athabaskan verb is made up of a stem plus prefixes. The stem is composed of a root plus suffixes (and/or ablaut, and/or lengthening) indicating aspect, mood, and aktionsart (AMA). Prefixes indicate person, status, gender, AMA, adverbials, and transitivity. The prefix complex of Athabaskan languages can be analyzed as a template comprised of basic positions or zones (see Kari, 1988) preceding the stem. The prefix chart in Figure 1, adapted from Young (1999), will give a general idea of the ordering of elements. Note that the stem is in position zero, and subject prefixes are in positions 2 and 5, with AMA in 3, and direct object in 6. Figure 2 provides an example of a Jicarilla Apache verb aligned with the prefix chart of Figure 1.
Some of the prefixes noted above are obligatory in the sense that the particular position they occupy must be filled by one of the possible variants of that prefix class in every derivative of the verb. These obligatory prefixes are the person, AMA, and classifier prefixes. Other prefixes, e.g., gender, adverbial, or status, are optional—the positions they occupy may or may not be filled depending on the meaning of the derivative. Sometimes one or more of the qualifier prefixes are thematic, that is, they are lexicalized and are present in every derivation of a particular verb. These thematic prefixes in combination with the classifier prefix and the root of the verb are referred to as the verb theme.

Verb forms derived from themes have, in addition to the root and thematic, or lexical, prefixes, inflectional prefixes (person, gender, etc.) and derivational prefixes (aspect, mood, aktionsart, etc.). As noted before, these prefixes are arranged in relatively fixed positions.
preceding the stem (i.e., the aspectually modified root). The following examples from Jicarilla (1) and Navajo (2) show a theme and an example verb derived from that theme.

1. Theme: \( di + \emptyset + kos \)  
   ‘boil O’

   Example verb: \( dishkos \)  
   ‘he/she is boiling it’

   Analysis: \( di + \emptyset + sh + \emptyset + kos \)

   Thematic + imperfective + 1 sing. subject + valence + stem

2. Theme: \( ha + l + géésh \)  
   ‘cut O (object) out’

   Example verb: \( hadeilgéésh \)  
   ‘we’re cutting it out’

   Analysis: \( ha + da + \emptyset + \emptyset + l + géésh \)

   Thematic # distr.plural # 3sing.dir.obj. + imperf. + 1sing.subj. + valence + stem

Aspect and Mood

There are seven aspects/moods in Apachean, describing activity as incomplete, complete, ongoing, future, potential, customary, or recurrent. Examples of the verb ‘ask’ in Jicarilla in the imperfective and perfective aspects are shown in example 3:

3. Imperfective: \( naa'édishki \)  
   ‘I’m asking’

   Perfective: \( naa'édéeâki \)  
   ‘I asked’

Aktionsart
Aktionsart describes the manner in which an activity or event is carried out over time—whether it happens once, repeatedly, or at length. There are about twelve aktionsarts in the Apachean languages, and they allow the expression of such distinctions in meaning as: ‘I am red’ vs. ‘I turned red’ and ‘I am chewing it’ vs. ‘I bit it’ (Young and Morgan with Midgette, 1992).

Example 4, from Navajo, shows the verb ‘talk’ in three different aktionsarts:

4. Durative: \( yáshtí' \) ‘I’m talking’
   
   Momentaneous: \( ayániishtééh \) ‘I’m starting to talk’
   
   Repetitive: \( yádíshtih \) ‘I’m chattering’

Notice in examples 3 and 4 that both the prefix string and the stem can change according to aspect, mood, and aktionsart. The final syllable of the verb word is the stem, though it may be followed by an enclitic with a subordinating or other discourse function.

4 The Functions of Repetition in Apachean

4.1 Language Learning

Pinker (1984) establishes six steps that a first-language learner must go through in order to acquire the grammar of his/her target language:

   Step 1: segmenting the sound string
   
   Step 2: semantic bootstrapping
   
   Step 3: adding words to the lexicon.
Step 4: building a scaffold of phrases

Step 5: overgeneralization of rules.

Step 6: removing items that break observed constraints.

With a language structure as morphologically complex as Apachean, it is unlikely that children would begin by “segmenting the sound string” in order to compare it with some internalized, analytic verb-prefix template as shown in Figure 1. Rather, we suggest that repetition of constructional “chunks” in the speech stream allows language learners to segment or recognize those larger constructions in building a scaffold for language learning. According to Tomasello (2003), children learning English also learn grammaticized patterns of usage in frequent utterances. Language acquisition is said to be guided by the following principles: 1) children learn meaningful constructions, 2) language development is gradual, piecemeal, and context-sensitive, and 3) categories are emergent and language particular.

There has been some research into how the polysynthetic Apachean verb is learned by children. In a study of five Navajo children aged 13 to 42 months old, Saville-Troike (1996) found that the mean length of verb used by these children was related to the quantity of Navajo input and interaction rather than to the quality of adult speech (141). Even the youngest of her four older subjects (2:11) was using “the full range of prefix positions in the verb complex” (142).

Her most important findings indicated that parts of the Navajo verb structure are learned as morphologically complex but unitary lexical items, while other components of the verbal complex are learned as more generalizable templates. The verb stem is the first element of the verb complex to be acquired, and the children in this study demonstrate the ability to make the correct selection of the appropriate stem variant according to mode and aspect by the age of
three. Aspectual verb-stem alternation, thematic prefixes that invariably occur with that stem, and the appropriate aspect/mode prefixes appear to be acquired and stored in relation to specific verbal roots rather than as general grammatical principles, and these combinations are stored as discrete, complex lexical units.

Similarly, adverbials, pronominals, aktionsart prefixes, and valence markers seem to be learned as general templatic positions in the verb complex, that is, as separate constructional units, regardless of verb stem. “There was no utterance by any subject in which a valence marker was produced in an inappropriate position in the verb complex (i.e., out of sequential order)” (149). In fact, Saville-Troike found not a single instance of inverted order among prefixes or of borrowings from English being inserted within the verb complex. As we might expect, aktionsart prefixes that have relatively consistent forms and unambiguous functions were used correctly and with a variety of verb roots for all her subjects.

This accords with research by Tomasello and others on the learning of constructions by English-speaking children. Children learn constructional schemas, says Tomasello (2003), one verb at a time. More frequent verbs are the ones that become tied to schemas earlier. In structural priming tests with novel verbs, we see that children learn verbs as parts of constructions. While adults are primed by a particular construction, children are primed by a construction only when it has the same lexical item. Learning of constructions gets only more abstract and less tied to lexical items as the child gets older, and this process happens more rapidly with more frequent constructions.

Saville-Troike’s findings are also consistent with the kinds of repetition we see in Apache discourse. The most common patterns of repetition in the narratives we examined include repetition of a particular verb root with alternating, aspectually derived prefix combinations.
Another pattern used frequently is the repetition of a particular verb-prefix complex used with different verb roots. The kind of acquisition patterns noted by Saville-Troike match these patterns of repetition: stems are repeated with their required mode prefixes, but varying combinations of inflectional prefixes and particular combinations of classifier, adverb, and aspect prefixes are repeated with different roots in early language.

Johnstone (1987) claims that “the grammatical structure of Arabic makes repetition strategies especially available to speakers.” We believe that this is also the case in Apache: the structure of the verb lends itself to repetition and, because verb roots can be repeated with different prefixal derivations and prefixal derivations can be repeated with different verb roots, Apachean allows such repetition without excess redundancy.

We begin our examination of repetition in Apache with a portion of an Apache nursery rhyme told to us by Alfred Chalepah. This rhyme tells the story of a white man and a terrapin who had a race:

“But this turtle, you know, he don’t mind, you know, because he’s thinkin’ to spend the night anywhere he please because everything is inside his shell and if he gets caught somewheres to bed down all he has to do is just fold it up and spend the night inside his own dwelling, you know? And, uh, we decide, they decide to make a song for themselves and I think, uh, every creation, everything that’s existed, they got their own music. They got their own language. They got their own time on this earth. So this terrapin decides to make a song for himself so Apaches, Apaches and they somehow they heard it or seen it. So I’m gonna sing it.... A turtle, it’s a song, jogging along a sandy place even though the high wind blows up the dust but still he still going. Still jogging along.”

Ts’its’steela ghajateya aaghajati.
Turtle is going, jogging along.

Sei nahataas ku
Even though the sand blows up

aaghajati zaaghajati.
he’s jogging along, jogging along (through the sand).

Ts’its’steela aaghajati aaghajati.
Turtle is jogging along, jogging along.

Sei nahataas ku
Even though the sand blows up

aaghajati zaaghajati.
he’s jogging along, jogging along (through the sand).

Mr. Chalepah’s rendition of the turtle race story was part of an explanation about his surname and what it means. He explained to us the importance of this information as children need to know who they are and who they come from. But more importantly, as one of the last two speakers of his language, Mr. Chalepah was concerned that the names of his people—and the cultural importance of those names—would not survive. He suggested that nursery rhymes about names were important in teaching children who were trying to learn Plains Apache. The fact that, many years later, Alfred Chalepah was able to recall in great detail the repetition in the turtle-race nursery rhyme that his mother sang to him was the impetus for the current investigation into the importance of rhyme for language learners.

4.2 Repetition in Apachean Narrative Discourse

In spite of the tremendous amount of research that has been done on Athabaskan grammar, including phonology, morphology, and syntax, there has been surprisingly little work done on Athabaskan discourse. What research has been done has focused on topicality, voice, and pronoun use (e.g., Willie and Jelinek, 1998; Thompson, 1989; Thompson, 1998). There has also been work on the cultural meaning and use of Athabaskan discourse (e.g., Scollon and Scollon,
Toelken, Basso). McCreedy (1989) comes closest to our own approach in her examination of cohesive devices such as pronominal reference and lexical repetition, synonymy, and collocation in three genres of Navajo texts.

For us, the most striking feature of Athabaskan discourse is the amount of repetition. In text counts we find that repetition accounts for about 30% of the total number of verbs. For example, in the first three stanzas (or paragraphs) of the Mescalero folk tale, “Coyote and the Turtle,” there are 32 main verbs. Of these, ten are repetitions. The 27th stanza of “Coyote and the Creation,” offered below as an example (17), contains a total of seventeen verbs. Of these, ten represent new verb roots, and seven are repeated instances of one or another of those ten. By contrast, lexical repetition in English prose is generally much lower. The first three paragraphs of Jane Austen’s Emma, for example, contain 22 verbs, and only three (13%) of them are repetitions (of the verb ‘to be’). Repetition is much more frequent, however, as a cohesive strategy in English oral narrative. In the first two paragraphs of Book 1 of Studs Terkel’s Working (Pierce Walker, Farmer), for example, there are 31 verbs; of these, ten (or 32%) are repetitions. What differentiates repetition in English and Apachean languages is the type, rather than the frequency, of repetition, and this accords with their differing morphological processes.

In addition to complete duplication of form, in Apache narrative we also find the repetition of verb roots with different prefixes and the repetition of strings of prefixes with different roots.

There are numerous instances of nominal repetition in Apache narrative. In the Plains-Apache nursery rhyme above, we see the use of verbal repetition. The examples presented below also focus on verbal repetition since it is the verbal part of the Apache lexicon that is most complex and robust. The examples are grouped into four sections: I) parallel stanzas, II) repetition of identical verb forms, III) repetition of a verb root with a different prefixal
derivation, and IV) repetition of verb prefixes with a different root. In the first section, examples 5a and 5b show instances of parallel structure—stanzas, separated from one another by some lines of text, that repeat whole segments of the story:

I. Parallel stanzas

5a. Mescalero—Hoijer 4.35 “Coyote and the Turtle”

‘ákoo, nách’iyeeyóó, tágheji yaanách’iit’i.
Then, turning around, he jumped into the water.

tó’ičh’á’dázaayá ‘édaach’iisdii.
He disappeared in a splash of water.

5b. Mescalero—Hoijer 4.39 “Coyote and the Turtle”

‘ákoo’a tágheji yaanách’iit’i.
Then he jumped into the water.

tó’ičh’ánáánáándáyá ‘ínááshdóót’i.
He went away again in a splashing of water.
In the second section, examples 6 and 7 present examples of repeated verb forms where each instance is identical.

II. Identical verb forms

6. Mescalero—Hoijer 4.3 “Coyote and the Turtle”

‘ilóodií yi’aał ná’a
Roasted corn he was chewing it it is said

dúhútide yi’aał ná’a
Quickly he was chewing it it is said

7. Mescalero—Hoijer-4.36 “Coyote and the Turtle”

‘ákoo baach’ín’ii.
Then he [Turtle] gave it to him [Coyote].

nágo’a nát’ohí yiidisgó yaasidá.
Then he [Coyote] rolled a cigarette and sat next to him.

ko’í baach’ín’ii.
He [Turtle] gave him a light.
Examples (8-12) in the next section illustrate the repetition of verbal roots in different derivatives. This is the most frequent pattern of repetition we find in the data.

III. Repeated root, in different derivatives

8. Mescalero—Hoijer 4.12 “Coyote and the Turtle”

\[dá́ndásé\; \text{kee’niilghal} \; ná’a.\]
He went right on eating him

\[’\text{alghal}\; ná’ago,\]
When he had finished eating.

\[“\text{xóohgo’ooshghal!” ndiná’a.}\]
“\text{I have eaten well!” he said.}\]
Mescalero—Hoijer 4.24 “Coyote and the Turtle”

\[“shódé!” \; \text{bích’indi} \; ná’a\]
“Coyote!” they said to him.

\[“\text{ch’énándzí!” \; bích’indi} \; ná’a.\]
“\text{Wake up!” they said to him.}\]

9b. Mescalero—Hoijer 4.25 “Coyote and the Turtle”
‘ákoo’a **ch’énádzi** ná’a.

Then he woke up.


*Béshilcha* **bilaldééshtézhuh**.

The Kiowas were fighting.

*Déáts’e*’a **xaltité’e** **liszhéna** **bilakuditézhuh** yula.

Comanches soldiers buffalo-black fought wars.

*Na’eishah* **yilaldééshtézhuh** Katsáághé Darááshhas.

Na’ishah fought Cheyennes Pawnees.

11. Plains—Gatschet, p. 50 “Apache Dance”

*Ná’ishah* **kukultas** ááltchita.

Na’ishah dance all times of the year.

*chétsiltas* **tátín’áya**

They dance in the forenoon.

*tindá la’* **lákut’ísh** **dághes’áya**

Many people dance in the afternoon.
12. Jicarilla—Hoijer, text 8, lines 73-76 “The Woman who Became a Deer”

*Shá'ii’áíhi bich'iiyéo biké' gooltsáh dááko'aaah *hnkeenélká*'.

I saw their tracks going to the west and I started to trail them.

*Yéé’aah dáléédih naagóó’áh yéé’aah *naanélká*'.

Then there was an arroyo and I trailed them across it.

*Yéé’aah áshí'ná' naakih b'ii biké' dá'hát'áo *hishkah*.

And, after that, there were three deer tracks so I trailed them on.

*Ndóghwo'yéé naanáágóó’áh *naanáánélká*'.

Farther on was another arroyo: I trailed them across again.

Example 13 shows perhaps the most common type of this pattern of repetition. In this example, the first line expresses the inception of an activity, and the second expresses the completion of that activity. Compare this with examples 12, from Jicarilla, 14, from Chiricahua, 15, from Plains Apache, and 16, from Jicarilla Apache.

13. Mescalero—Hoijer 4.45 “Coyote and the Turtle”
. . . náideesgí ná’a bikooghání bich’iigo.

. . . he **started to carry it** back to his camp.

*bikooghayá dāhátide ná’ígi ná’a.*

He quickly **carried it** back to his camp.

14. Chiricahua—Hoijer 2.7 “The Killing of the Giant”

*ní’jil‘ah ná’a.*

They **began to butcher it.**

*níjiis’ah ná’a.*

They **finished butchering it.**


*dedechiyasiji*

They were **heading out (on a hunt).**

*nachasiji.*

They **go out (on a hunt).**
16. Jicarilla—Hoijer, text 3, lines 9-14, “Coyote Eats a Meadow Mouse”

*Dákwéé’ah higáľgoh át’ínáh yénéhiyágok’ah deestl’ínáh.*

As he had gone about halfway, he began to fart.

*Ináádi’isgoh nááditl’ínáh.*

Every time he took a step he farted.

*Dáá’kohgha idéeneeskánáh dáá’koh hitl’ílnáh hikasyéh.*

Then he began to run but kept on farting as he ran.

*Ndeenńndego’ah hnnyánáh.*

When he got tired, he stopped.

*Doonaahihnágo’h sızínáh.*

He stood without moving.

*Nááhidí’nágo’ah dándásih nááditl’ínáh.*

As soon as he moved he farted.

Example 17 presents the long stanza mentioned earlier, which has over 40% repetition. Note the first and second lines, which have the verb root *-tí*, ‘go swiftly.’ This verb root is repeated three more times (in lines 16 f, h, and m) in this episode. Notice also the verb indicating
the stretching out of a ridge (*nandasitá* and variants) in lines 16 b, d, g, and k. Finally, note the repetition of the verb stem –*ya*, ‘go by foot,’ in lines 16 p and q.

17. Mescalero—Hoijer 5.27 “Coyote and the Creation”

a. ‘áshí ndásá *ch’at’i* ná’a.

   From there he went on farther.

b. *dá’ítsé* nandasitá ee *ch’int’i* ná’a.

   He came to the first ridge.

c. ‘áshí ndásá náádeesgal ná’a.

   From there he looked ahead.

d. ‘áá’dó *li* nandasitá.

   There was another ridge.

e. *yich’igo* nááhiitsee ná’a.

   He went toward it also.

f. ‘áá’ *náách’ínt’i* ná’a.

   He got there too.
g. ‘áshí ndásé ‘it’ah ³i’ nandahndánástá ná’a.
   Beyond it also was still another ridge.

h. ‘áá’dó náách’ínt’i ná’a.
   He also got to that one.

i. bigháshí hanáánásdzá ná’a.
   He went to the top of it also.

j. ‘ákaa náádees’i ná’a.
   He looked over yonder again.

k. dákee’è nandasitái ná’godzii ná’a.
   Just one more ridge remained.

l. yich’iigo hiíltee ná’a.
   He went toward it.

m. dáhátide ch’at’i ná’a.
   He went quickly.

n. lahde ‘édeenáánáta ná’a.
   Sometimes he ran.
o. *lahdedó holdlosh ná’a.*

Sometimes also he trotted.

p. *‘ákoo, dá’ákoo, yéhiiyá ná’a.*

Then, at last, he got to it.

q. *bighádéshí haayá ná’a.*

He climbed to the top of it.

The fourth pattern of repetition, the repeating of a prefix complex but with a different root, is also illustrated in example 17: compare lines 17c with 17j), where the prefix sequence *nadees-* is repeated with two different roots, *-gal* and *–’i*. More examples of repeated derivatives with different verb roots can be seen in the following section, in examples 18a and 18b, from Mescalero, 19, from Jicarilla, and 20, from Chiricahua.

IV. Repeated prefixes with different roots

18a. Mescalero—Hoijer 4.35 “Coyote and the Turtle”

*‘ákoo, nách’iyeeyóó, tágheeji yaanách’iit’i.*

Then, turning around, he jumped into the water.
tö’ič’h’á’dzayá  ‘édaach’iisdiį.

He disappeared in a splash of water.

18b. Mescalero—Hoijer 4.39 “Coyote and the Turtle”

‘ákoo’a  tágheeji yaanách’iit’i.

Then he jumped into the water.

tö’ič’h’anáánáándáyá  ‘inááshdóót’i.

He went away again in a splash of water.

19. Jicarilla—Maureen Olson “Pear Story”

Mits’á’ nkeenákai.

Away from him they started off walking again.

Dá’ko  bigo  nkeenánlbas.

Then he also he started off bicycling again.

20. Chiricahua—Hoijer 2.7 “The Killing of the Giant”

koyá njínjaa ná’a.

They had put it [grass - a mass object] down right there.
bikáyá, ‘itsiií njín’á ná’a.

On it, they had put the meat [solid round object].

These examples demonstrate the frequency and variety of repetition in Apache narrative. We can see that repetition is a strategy that provides cohesion and facilitates comprehension in narrative. Repetition is also used in conversational discourse to acknowledge and ratify a previous speaker’s contribution and to indicate a continuation of that speaker’s topic. We offer one last example that shows this function. The example is from a version of Pear Story (see Chafe, 1980), told collaboratively by Jicarilla speakers Wilhelmina Phone, Maureen Olson, and Matilda Martinez. As in other collaborative and conversational contexts, we see here that the second speaker, Mrs. Phone (21b), repeats the verb used by Mrs. Olson at the end of her immediately preceeding turn (21a). In doing this, she validates Mrs. Olson’s telling of the story. Mrs. Martinez then contributes a sentence (21c), which Mrs. Phone follows (21d) by repeating her own verb from her previous turn:

21a. Mrs. Olson:

\[
\begin{align*}
Dá & \quad dāla’ée’įį \quad ch’al & \quad mich’i & \quad mich’i \quad náyaa’al. \\
\text{Then} & \quad \text{the one hat} & \quad \text{f.s.} & \quad \text{to him} & \quad \text{he carries/gives it back to him.}
\end{align*}
\]

Then he carried the hat back to him.

\[
\begin{align*}
Dá’ko & \quad máñain’á,
\end{align*}
\]
Then he brought it back for him.

He gave it back to him,

21b. Mrs. Phone:

*maanain’á.*

he gave it back to him.

he gave it back to him.

*Yik’édée béela yainjeii.*

To return favor pears he gave some to them.

In return, he gave them some of the pears.

21c. Mrs. Martinez:

*Đá* *hts’a’yé nkeenát’ásh.*

Then away from each other they two walked on.

Then those two walked on away from each other.

21d. Mrs. Phone:

*Dáó’ tsilkeei éí éígo béela’í dá’hls’áchí yain’á.*

Then boys-the those those also pear-the to both of them he gave it to them
Then he gave a pear to each of the other boys.

In this example we see the use of repetition in an interactive context. Notice that Mrs. Phone changes the verb stem in 20d to –‘a, ‘give a solid round object,’ from the stem indicating plural objects, –jeii, in her previous turn, in 20b. In this way she signals the resumption of her topic and adds a slightly different perspective in elaborating on the close of the episode that Mrs. Martinez has contributed.

5. Rhetorical Structure and Language Revitalization Programs

Mithun (1989) hypothesizes that children aren’t able to process as much phonological information as adults and first produce those syllables of larger words that carry stress. In Iroquoian, she says, the stressed syllables first produced by young children often happen to be stem syllables. We hypothesize that second-language learners will do that same thing—attend to phonological information, particularly when it is highlighted by repetition. In this way, they are drawn by the phonology to the discovery of the morphology. Learners also attend to what occurs frequently in the discourse. In Apachean, we find repeated instances of stems with varying prefix strings. This must assist in isolating and processing stem shapes, the repetition serving to mark the stem as a constructional unit. Similarly, the repetition of prefixal chunks with different stems serves both to mark the constructional status of the prefix sequence as well as the autonomous constructional status of the stem and its required valence and aspect/mode prefixes. What serves as a memory device and a marker of topic continuity and discourse cohesion in the adult language serves as a bootstrapping device in second-language learning. It is not, or not
only, phonological stress, but rather the pragmatics of narrative structure that provide cues to language learners about how to segment chunks of speech.

A crucial distinction between first- and second-language learners is that first-language learners are also learning what the point of speech is. Second-language learners have a different reason for attending to phonological information. They already understand the principles of word-building and that the parts of words have recombinant possibilities. They’re listening for cues to see how language here is done, rather than, as with first-language learners, to see that language is done.

Conclusions

As linguists interested in language preservation and curriculum development, we need to focus on devising materials based on fuller, more unified descriptions of language, including facts about discourse, pragmatics, and culture. Instead of asking how sentences or verbs are constructed, we need to ask, “How are verbs and sentences used?” “How are discourses structured and organized?” “What rhetorical patterns are appropriate in a given context or within a given cultural group?” Current methodology has emphasized meaningful language activities, including the elicitation of stories and student dictation of stories to the teacher/recorder. There are two important emphases here: 1) grammar and style should be taught indirectly and contextualized in whole-language activities, and 2) emphasis must be on natural discourse forms.

Saville-Troike (1989: 258) has said, "That meaningful context is critical for language learning has been widely recognized. There has not been adequate recognition, however, that this context includes understanding of culturally defined aspects of a communicative event...."
As Kramsch (1993:8) puts it, "culture is often seen as mere information conveyed by the language, not as a feature of language itself; cultural awareness becomes an educational objective in itself, separate from language. If, however, language is seen as social practice, culture becomes the very core of language teaching. Cultural awareness must then be viewed both as enabling language proficiency and as the outcome of reflection on language proficiency. As Halliday (1989) points out, culture is anchored in the grammar we use, the vocabulary we choose, and the metaphors we live by.

In middle-class families educated in American schools, parents begin early to scaffold interactions with infants in ways that will facilitate children's ability to narrate (Hedberg and Westby, 1993:286). In general, the child will produce some minimal utterance, to which the adult responds with a request for additional information. Further information from the child is again matched by an additional request for information from the adult. This type of vertical scaffolding provides the child with “the structure to produce a coherent narrative" (287). Not all cultural and ethnic groups engage in this kind of scaffolding conversation. In particular, Scollon and Scollon (1981), among others, have noted that this type of conversation does not occur in Athabaskan families. It may be that the repetition in Athabaskan stories and conversation serves as a facilitating device in the absence of this other ‘statement - request for more information’ strategy, and it may be a facilitating device more appropriate for the particular structure of these languages. Examples 21a through 21d above show that interaction includes repetition as a way of scaffolding the narrative under construction, and we believe it is also a strategy used in language between children and caregivers.

Given this, we want to stress the need to incorporate the kind of repetition we find in Apache narratives into the dialogue models of second-language curricula. Of the Athabaskan
languages, all but Navajo are moribund, with little if any intergenerational transmission. Even Navajo, with close to 150,000 speakers, is threatened. *Ethnologue* reports that there are 148,530 Navajo speakers, of whom 7,616 are monolingual speakers (Gordon, 2005). The number of first-language speakers among first graders has declined dramatically over the past 35 years or so (30% in 1998 versus 90% in 1968 [Platero, 1992]). There are language-revitalization and -maintenance programs in progress in most of the Apache communities. These programs include curriculum development and second-language pedagogy for both adults and children in Headstart programs, daycare, kindergarten, and elementary schools.

The evidence we find of the important part that repetition plays in Apache narrative leads us to the conclusion that it is essential to use real nursery rhymes, songs, narratives, and conversation as the basis for lessons and practice. An emphasis on storytelling and repeating games is also supported by the data presented here.

Scollon and Scollon’s (1981) research also suggests the importance of having native speakers as teachers in the classroom, particularly those who are older and more steeped in traditional patterns of talk. Michaels and Cazden (1986) note that the dissonance between a child's style and the teacher's style and expectations can "affect the quality of teacher/child collaboration in ways that, cumulatively, deny certain children access to key learning opportunities in the classroom (132). By collaboration, they refer to those "connected stretches of discourse in which, jointly, teacher and child develop an elaborated set of ideas on a particular topic" (133). These collaborative exchanges assist children in learning to focus, clarify, and expand their discourse in much the same way that parent-child interaction serves as a model for early acquisition of narrative style. Having native speakers as teachers and models in the
classroom will ensure the use of facilitating strategies, of scaffolded and supported interactions, that are appropriate both for the cultural traditions and for the language structure.
References


