**Linguistics Problem Set: Past Tense Formation in Nuu-chah-nulth and English**

**Past Tense Formation in Nuu-chah-nulth**

Nuu-chah-nulth is still spoken by perhaps a hundred people on the west coast of Vancouver Island. It, like many languages of the region, is a *polysynthetic* language, meaning that most words are made up of a lot of morphemes. Consider, for example, the following two “sentence-words:” the word *saapniqiiłitʔiš* contains the morphemes for ‘bread’ and ‘make,’ as well as the markers for past, 3rd person (*she*), and other markers. And *čiiłčiiyamitʔiš* contains the morphemes for ‘carve,’ the marker for a repetitive action, and others. The words are shown in the context of longer sentences below.

saapniqiiłitʔiš Kay

bread-stem-make-past-3.indicative Kay

‘Kay made bread yesterday.’

čiiłčiiyamitʔiš Ken

carve-repetitive-past-3.indicative Ken

‘Ken was carving.’

There are quite a few letters in these Nuu-chah-nulth used to represent sounds. Knowing those sounds or how to produce them won’t affect what you need to know for this problem-solving activity, but it’s kind of fun to know a bit about how to say the words. The ʔ is called a glottal stop. Say the word *uh-oh*; the sound in between the two parts of the word is a glottal stop. The č is a “ch” sound like in *chip*. The š represents the “sh” sound of *ship*, and the ł, called a barred “l”, is kind of like a “hissed l,” like in *clear* or *athlete*. Try to say some words! Find some more pronunciation guidelines here: <http://www.kwistuup.net/alphabet/000.html?1>.

Let’s explore a pattern of morpheme variation that occurs in Nuu-chah-nulth. In the following sentences, pay special attention to the first word in each example, the predicate. Each of those first word-sentences contains a morpheme that marks past tense. It shows up sometime as -*mit-* and other times as *-it*. Your tasks are to first find all the past tense morphemes and then study them in the context of the word to figure out what determines which form (-mit- or -it-) occurs and why.

saapniqiiłitʔiš Kay ʔamiimitʔi

‘Kay made bread yesterday.’

čiiłčiiyamitʔiš Ken

‘Ken was carving.’

wikitʔiš haawihaƛ nunuuk

‘The boys weren’t singing.’

kumaapitʔisitʔiš Ken nuuʔiz qv aaqh wawaa ʔin ʔaanumit nunuuk

‘Ken led the song a few times, but he said he was the only one singing.’

jamihtamitʔiš Ken haʔuk

‘Ken ate properly.’

hahiijamitniš

‘We were gathering chitons.’

ʔačatwiimith hasiik načaał haa načaałyakʔi

‘Which of them finished reading the book first?’

*Form a hypothesis that accounts for past tense formation in Nuu-chah-nulth.*

**Hypothesis—**

The past tense morpheme in Nuu-chau-nulth shows up as *-mit-* when

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and as *-it*- when \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Past Tense Formation in English**

English has similar variations in its past tense forms. The regular rule for the past tense of verbs in English is to add -*ed* to a verb root. While there are plenty of irregular forms in the English language, such as *run/ran* and *sell/sold,* we are concentrating on the regular rule here.

 **root + affix = past tense**

talk + -*ed* = talked

In reality, however, we never say /ed/. We say one of three different endings. These three different forms of the regular past tense ending are called *allomorphs.*

/t/ as in plopped /plopt/

/d/ as in filled /fild/

/id/ as in sanded /sandid/

Working with your class as a whole or in small groups, generate a list of verbs with regular past tense endings. Categorize them according to their allomorph--/t/, /d/, or /id/.

Verbs that end in…

 /t/ /d/ /id/

Now form a hypothesis that accounts for past tense formation in English. As you do so, pay special attention to the ends of the verb roots. How do we produce the sounds that end the root word? Consider the articulators of the oral cavity, the parts of the vocal tract that produce the sounds of language—the lips, the tongue, the nasal palate, and the vocal folds found within the larynx.

**Hypothesis—**

**Language Typology**

Linguists divide languages into two broad categories, based on how they express grammatical relationships: **synthetic** and **analytic.** **Synthetic** languages form words by affixing morphemes (meaningful words or word pieces, such as *cat* or the *–s* that marks plural on *cat****s***) to a basic root morpheme. Word order is less important in these languages because the affixes, rather than the position of the words in the sentence, indicate grammatical relationships. Synthetic languages’ words are more complex, made up of content root morphemes with one or more affixes. Most European languages are synthetic and have both prefixes and suffixes.

Examples of highly synthetic languages, also called *polysynthetic*, which can have several morphemes that attach to a root morpheme, are Turkish, Swahili, Nuu-chah-nulth, Japanese, among many others. Here are examples of a Lushootseed (Salish) sentence and one from Swahili. Notice the many morphemes within the verb and that each has a unique meaning (illustrated by the hyphens separating the distinct morphemes):

 sqwəbayʔ tiʔəʔ sugwəčəb

 sqwəbayʔ tiʔəʔ s-u-gwəč-əb

 dog determiner noun prefix-punctual-look for-middle-3rd person object

‘The one he is looking for is the dog.’

 (Thom Hess, personal communication)

Hawàtasóma kitabu

Ha-wà-ta-sóma kitabu

negative-3rd person plural-future-read book

‘They will not read the book.’

In an **analytic** language, by contrast, grammatical information is conveyed by distinct words with no affixes, and relies much more on word order than affixes to express grammatical information. In an analytic language, such as Vietnamese, the form of the verb is the same regardless of the subject of the verb, and no tense or other agreement marking is expressed on the verb. Consider the verb *ãn*, meaning ‘eat’ in the following paradigm:

tôi ãn I eat chúng tôi ãn we eat

anh ãn you eat các anh ãn you (pl.) eat

anh â’y ãn he eats ho ãn they eat

chi â’y ãn she eats

nó ãn it eat

 (Denham and Lobeck 2013, p. 189)

English has features of both analytic and synthetic languages. The affixes like the past tense marker *–ed* and the plural ­*–s* are synthetic features, but the fact that English relies on separate words to express future (I *will eat. I am going to eat.)* or *t*o express negation (*The student is not**eating lunch)* are examples of how grammatical information is expressed by separate words and word order rather than morphology. So in these ways, English has features of an analytic language.