

Lesson in reading tone

Santo Domingo Zapoteco

by Marjorie J. Buck

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[Topics: tone: teaching]

As observed by Marjorie J. Buck, Mitla, Oaxaca, January 5, 1972.

Teacher: Eunice Pike

Pupil: Juan de Dios Martínez, age 22, speaker of Santo Domingo Zapotec. He has had six months of school and had never read Zapotec before coming to Mitla in December 1971, to work as language informant for Art Yates.

1. First lesson

Eunie gave Juan his first lesson in reading tone yesterday. She started with a typewritten sheet which had a list of Zapotec words on tone 1; a list of words on tone 2; a list of words on tone 21 and a list of words on tone 12. She had Juan read down through each of these lists.

1.1. Purpose

To let him know there are only four possible tone patterns in his language on one-syllable words.

(1973). *Notes on Literacy*, 15.

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Juan was fascinated to learn that his language had a specific system, and that the music was not just something sprinkled over it.

2. Second lesson

Step 1

Eunie gave Juan *a key of all possible one-syllable tones*. This was on a piece of paper approximately 4 inches x 6 inches, with the words written on it as follows:

<i>pajp</i>	¹ / <i>pájp</i>	<i>papa</i>
<i>yag</i>	² / <i>yàg</i>	<i>arbol</i>
<i>lam</i>	¹² / <i>lâm</i>	<i>patrón</i>
<i>gid</i>	²¹ / <i>g ĭd</i>	<i>polio</i>

The words were written with both numbers and diacritics because Juan had been helping with linguistic material and was used to seeing diacritics.

Eunie read a Zapotec one-syllable word (something other than one of the four keywords) and asked Juan to tell the tone number of that word. He had the key in front of him to refer to. In giving the number, he would say 1, 2, 12, or 21.

When he made a mistake, Eunie would refer him back to the key.

She read many words asking him to give the correct tone number.

Step 2

Eunie next used flashcards of minimal pairs. The flashcards were small pieces of paper, approximately 1 inch x 3 inches, with one word written on each. She had one card for each of the two words. For example:

gid²

gid²¹

She would put one card on the table in front of Juan. He had the key in front of him to refer to. After he read the word, she picked the card up and shuffled it in her hand with the other card and lay one of them down on the table for him to read. She continued doing this until he had had sufficient practice reading the two words correctly.

At one point Juan turned the key over and no longer used it. Later he started using it again.

Eunie did the same kind of flashcard drill with three nonsense syllables.

bil¹²

bil²

bil²¹

Eunie commented that nonsense syllables are harder to read, but if the pupil can read them it indicates that he is really reading the tones.

Step 3

Next Eunie gave Juan *a key of all possible two-syllable patterns*. Usually, with a less-advanced informant, she would start with just two patterns. For example, she would start with just *hua*² *lidx*² and *pa*² *yajs*².¹ She might have them on flashcards rather than in a list.

This was the key of all possible two-syllable patterns

*hua*² *lidx*² *nuera*

*pa*¹ *yajs*² *payaso*

gib
12

² *nil*

anillo

na
21

² *dox*

afilado

na
2

¹ *rojɸ*

madrastra

du ž
12

¹ *lam*

nuestro patrón

do

²¹ *bi*

¹ *maguey*

žu
2

²¹ *kan*

mi músculo

du ž
1

¹ *pajɸ*

nuestra papa

Eunie commented that it is easier to read tone on one-syllable words than on two-syllable words. She hopes that Juan will not have to refer to the two-syllable word chart for long, but that he will equate the tones of the two-syllable words with the tones of the one-syllable word key.

After giving him the key she had him read through the list of the two-syllable words. Then she had him go through the list again, whistling the tones.

Then she began reading two-syllable Zapotec words and asked him to give the tone numbers of the two syllables. Sometimes he would make a mistake but realize it immediately and begin to check his key further.

One time he figured out the tone of the first syllable but had trouble with the second syllable. Eunie pointed to the matching word on the key and had him whistle it. Then, she had him whistle the word she was saying. He could immediately hear that their tones were the same.

Or, sometimes when he made an error, she would have him first whistle the word she was saying and then have him whistle the correct example as she pointed it out. This way he could see that they were the same.

Eunie kept encouraging him by saying, “It’s difficult but you can do it.” Especially when she would begin something that she knew would be difficult for him, she would tell him that it was difficult.

As Eunie continued asking him the tones of the two-syllable words, he picked up his one-syllable key and used it as a ruler to guide him down through the two-syllable word list as he was trying to decide the tone of the word Eunie was saying. He would put the top of the key paper under the first word on the two-syllable word key, then under the second word, going down through the list looking for the word with the matching tones. Sometimes he would whistle the tones to himself.

Once when he could not find the correct tone, Eunie had him whistle these three words:

<i>pa</i>	² <i>ya</i> <i>js</i>	¹
<i>gib</i>	² <i>nil</i>	¹²
<i>na</i>	² <i>dox</i>	²¹

Then, she asked which one of these three matched the tones of the word she was saying.

Eunie commented that when there is a semi-consonant, or glottal stop (for example /h,w,y,ʔ/) between the two syllables, it is harder for the reader to hear the tone than when there is a stop or fricative between syllables. In some languages, such a word may be whistled with one punch instead of two.

Eunie commented that, by his making mistakes, she learns things about the language and about the orthography. For instance, she read *š* *kyah* ¹*sil* ² and he said it was tones 2 and 1. This puzzled Eunie, until she asked him to whistle the word and he whistled 2–1–2. Then, Eunie realized that this was a three-syllable word, that is, the first consonant was syllabic.

<i>š</i>	² <i>kyah</i>	¹ <i>sil</i>	²
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At this point, Eunie let the informant rest from reading tone for awhile and talked with Art about verb conjugations, eliciting data from Juan.

Step 4

After awhile, Eunie continued the tone-reading lesson by reading more two-syllable words and having Juan give the correct tone numbers as he referred to his key. Most of the words she read were two-syllable stems. Once she said a word which was a stem plus a clitic. She commented that this might be harder for him to hear the tones because the rhythm of the syllables is not the same. Words with change of stress are

also difficult. It was difficult also for Juan to figure out the tone number on a word whose first syllable was on tone 1 since most of the first syllables were on tone 2.

Step 5

Next, she used flashcards of one-syllable words. The first set was a minimal pair, one of tone 1 and the other on tone 2.

bijx²

bijx¹

She had several cards of just these two words, about 10 cards for each. She would lay them on the table one by one for him to read.

Then, she did the same with three nonsense syllables which she had written on a lot of cards:

bil²¹

bil¹²

bil²

Next, she had him read the following two words, each of which was written on a separate card:

la²yan¹

la²¹yan¹

She would lay one down for him to read and then mix the two cards and lay one of them down again, doing this a number of times.

She did the same with:

(1973). *Notes on Literacy*, 15.

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ba²al²ya¹

ba²al²¹ya¹

3. Homework

The lesson was over and Eunie gave Juan a sheet of homework. This was a 9½ inch x 11 inch piece of paper with a double-spaced list of two-syllable words. To the right of these Zapotec words was the Spanish equivalent. Eunie had left a space between the two syllables of the Zapotec words and Juan was to write the correct tone numbers on each syllable. Eunie left the key with him for reference. By this time, Joan was referring to the key as his “diccionario.”

Eunie plans to teach Juan three-syllable words next. By then he should be able to read by syllable rather than having to compare the entire word.

She will also give him two-syllable nonsense words to read. If he can read those, then she will know he is really reading the tones.

After teaching the three-syllable words, she will give him sentences. In two to three weeks, he should be a great help to the translator in writing tone.

I asked Eunie if she thought Juan did or would equate the tones 1 and 2 with 12 and 21. I had noted that he read 12 and 21 as 12 and 21, and not as one-two and two-one.

She said that the Mazatecs equate the tone levels with the glides. She said that when Fortino Cortez writes Mazatec, he writes the syllables by halves. For instance, when writing *ti*,⁴² she hears him saying *ti-i-i*,⁴² drawing out the *i* on tone 4 and writing 4, then continuing to draw out the *i* on tone 2 and writing the 2.

In Santo Domingo Zapotec there are four tones—high, low, rising, [and] falling, written as follows:

high¹

low²

rising²¹

falling¹²

I asked, then, if the latter two could be written with 3 and 4? She said that is how she had advised writing them for awhile. However, she changed back to 12 and 21.

One reason for using 12 and 21 is because of the tone sandhi. Some tones are dropped when a following word is added. For example:

<i>lam</i>	¹²	<i>patrón</i>
<i>lam</i>	¹ <i>gye</i>	² <i>patrón aquí</i>
<i>gid</i>	²¹	<i>polio</i>
<i>gid</i>	¹ <i>gye</i>	² <i>pollo aquí</i>

If one decided to write the tone change in the orthography, you would just be dropping the 2 and the 1 would remain; whereas, if you used number 3 for the glide, you would be changing from 3 to 1.

Regarding whether to write the tone change or not in these cases, Eunie guesses that you would write the tone as it occurs on the word in isolation. However, it would depend on how conscious the informant is of the tone change. Beginning readers often go through a sentence very slowly and use the isolation tone; then when they know what it is saying, they whiz through it using the tones that occur in each specific environment. Therefore, the isolation tone would be the one that would be helpful to them.

In Santo Domingo Zapotec there are just four possible tonal differences on a syllable. In a language like Huautla Mazatec which has many more possibilities, she would not begin with all of them at once. She would start with a couple of tones only, and probably with two-syllable words. At the top of the desk, she would put flashcards with keywords written with their tones. On separate cards, she would have many words which had the same tone sequences as the keywords, but without the tones written. One by one, she would read the word on a flashcard and hand it to the reader. (She would read it aloud to make sure that she and the reader were thinking of the same word.) Then, the reader would place it under one of the keywords. After there were quite a few words lined up under each keyword, she would have the reader read down through each list. If he had put a word in the wrong list, he would often pick up his own mistake.