1. Noisiveletian

Noisiveletian is the national language of Noisivelet, and as such is spoken by about 2 million people. Possibly an additional 100,000 people in neighboring Dnaloidar speak Noisiveletian as a second language (Smith, 1997). Noisiveletian is a Tsacdaorbic language of the Aidemic family, and is closely related to Dnaloidarese within the Tsacdaorbic subgroup.

Charles Noisivelvo, my consultant for this paper, is a native speaker of Noisiveletian. He was raised in Noisitown, the capital city of Noisivelet, and is a speaker of the Noisitown dialect, which is the standard form of Noisiveletian. He also speaks English. He is currently an undergraduate at UCLA, and has been in the U.S. for the past two years. Although he mainly speaks English now, he does speak Noisiveletian regularly with his roommates from Noisivelet.

I used just one source in preparing this paper, Smith (1997). Most of the examples were taken from Smith, though there were a few words that Charles didn’t know, so I got him to think of phonetically similar words by himself. In general, Charles seems to speak a dialect of Noisiveletian rather like the Smith dialect, but with an important difference noted below.

2. Consonants

Noisiveletian has ten consonant phonemes, shown in the chart below. The chart also includes (in parentheses) some allophones that will be described latter in the paper.

<table>
<thead>
<tr>
<th></th>
<th>Labial-velar</th>
<th>Bilabial</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Palatal</th>
<th>Retroflex</th>
<th>Velar</th>
<th>Uvular</th>
</tr>
</thead>
<tbody>
<tr>
<td>stops</td>
<td>voiceless</td>
<td>p</td>
<td>t</td>
<td>c</td>
<td>k</td>
<td>q</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fricatives</td>
<td>voiced</td>
<td>(β)</td>
<td></td>
<td>(j)</td>
<td>(ɣ)</td>
<td>(ι)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>nasal</td>
<td>voiced</td>
<td>(δ)</td>
<td></td>
<td>p</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>taps and flaps</td>
<td>voiced</td>
<td>r</td>
<td>(t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>approximants</td>
<td>central</td>
<td>w</td>
<td>j</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>lateral</td>
<td>l</td>
<td>(l)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The consonants are shown in word-initial position before the vowel /a/. The first five items of the word list illustrate the voiceless stop consonants, which are the bilabial /p/, the alveolar /t/, the palatal /c/, the velar /k/, and the uvular /q/. The examples below are given in the order they occur on the recording. Note that except where otherwise indicated, the phonemic form of these words is identical with the phonetic transcription given.
1. ['pári] ‘speak’
2. ['tá] ‘goat’
3. ['cá] ‘sincerity’
4. ['káði] ‘home’
5. ['qá] ‘colorless’

The next four items in the word list illustrate four of the other consonants, /ɾ/, /l/, /w/, and /j/:

6. ['rá] ‘furious’
7. ['lá] ‘flying’
8. ['wá] ‘plane’
9. ['já] ‘chocolate’

The last consonant in the inventory is the single nasal phoneme, which is described by Smith (1997) as being an alveolar /n/. Despite this description, Charles clearly says a palatal nasal ([ɲ]) instead, in all phonetic contexts. The items below are given to support this claim about place of articulation. These examples show the nasal in several phonetic contexts (e.g. position in the word; preceding and following vowel) but in all of these cases the pronunciation is of a palatal, not an alveolar, nasal. Thus Noisiveletian is an unusual language in having its only nasal consonant at the palatal place of articulation.

10. ['ná] ‘but, yet’
11. ['triɲo] ‘brand of drain cleaner’
12. ['âɲpá] ‘truth’
13. ['flùɲ] ‘rodent species’

3. Vowels

There are four vowel phonemes in Noisiveletian, shown in the following chart:

<table>
<thead>
<tr>
<th></th>
<th>Front unrounded</th>
<th>Central unrounded</th>
<th>Back rounded</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>(upper) i</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>Low</td>
<td>(lower) a</td>
<td>u</td>
<td>o</td>
</tr>
</tbody>
</table>

The next set of words in the word list illustrates these four vowel phonemes.

14. ['píp] ‘vanilla’
15. ['páp] ‘strawberry’
16. ['púp] ‘pistachio’
17. [' póp] ‘coffee’

All of the vowels are easily distinguished from one another, with the exception of /u/ and /o/. Examples 16 and 17 above form a minimal pair proving that /u/ and /o/ are separate phonemes. Further minimal pairs are the following:

18. ['tú] ‘lemming’
19. ['tú] ‘turnip’
20. [' pó] ‘axle’
21. ['pú] ‘meditation’

Noisiveletian also has two diphthongs, formed by combining /a/ with either /i/ or /u/:

22. ['páip] ‘chocolate’
23. ['páóp] ‘sherbet’
In Noisiveletian, stress always falls on the first syllable of a word. Therefore no special items illustrating stress are included in the word list, since the pattern is illustrated by every word.

4. Tones

In Noisiveletian, tone is phonemic: every vowel bears either a High or a Low tone. Below I give minimal pairs, first for the two possible monosyllables, then for every logically possible disyllabic combination.

24. [ˈɲá] ‘mother’  
25. [ɲá] ‘horse’

26. [ɲòmò] ‘buy’  
27. [ɲòmò] ‘sit’

28. [ˈɲòmó] ‘sell’  
29. [ɲòmó] ‘shout’

5. Allophones

Possibly because of the small number of phonemes, most phonemes of Noisiveletian have several allophones. Thus the phoneme charts do not give a fair indication of the variety of segment types that are found in Noisiveletian.

First consider the stop consonants. The consonant chart lists five voiceless stop consonants, but no voiced consonants and no fricatives. In fact, however, each voiceless stop has as an allophone a voiced fricative between two vowels. This kind of variation is reminiscent of the fricative allophones of voiced stops in Spanish. Below, I give the phoneme in slant brackets, and the allophones (that is, the phonetic transcription) in square brackets. Note that while [t] is alveolar, its allophone [θ] is dental.

30. /áp/ [ˈáp] ‘apple’  
31. /ápá/ [ˈáθá] ‘jug’  
32. /ìt/ [ˈìθ] ‘spoon’  
33. /ìtà/ [ˈìθá] ‘funnel’

34. /àk/ [ˈàk] ‘quince’  
35. /akó/ [ˈàkó] ‘bed’  
36. /uq/ [ˈuq] ‘tree’  
37. /uqú/ [ˈuθú] ‘tree-dative’

Furthermore, final consonants may be released or unreleased, apparently in free variation. Notice, for example, that of the two repetitions of item #14, the first has a final released [p], but the second has a final unreleased [p]. Charles said that the released [p] seems to him to be the allophone that more suited to careful speech; this perhaps explains why he first said a released /p/, then an unreleased one; the less careful variant is more suitable for when the listener already knows what the speaker is saying.

The free variation in releasing final stops is shown in the following spectrogram of #14:
The release of the first word-final [p] is plainly visible. The spectrogram also shows that initial voiceless stops are unaspirated; I measured the VOT’s of the two initial [p]’s as 21 and 18 msec., respectively.

To sum up, each voiceless stop phoneme has as allophones a released voiceless stop, an unreleased voiceless stop, and a voiced fricative.

The two liquids of Noisiveletian are mainly alveolar in their place of articulation, but each has one retroflex allophone, that is, [ɾ] and [ɻ], which occurs after the high back vowel /u/. Perhaps the backing of the tongue for this vowel makes the retroflex place of articulation easier to produce. Examples which illustrate the alveolar variants after /i/ and /a/, and the retroflex variants after /u/, are given below:

38. /piɾ/ [ɾiɾ] ‘grapefruit’
39. /puɾ/ [ɾuɾ] ‘cucumber’
40. /pàl/ [ɻaɻ] ‘mango’
41. /púl/ [ɻuɻ] ‘rambutan’

There are vowel allophones as well in Noisiveletian. All of the vowels have nasalized allophones: when a vowel occurs before the nasal consonant [n], it is nasalized. If a diphthong occurs next to a nasal consonant, only the second half of the diphthong, which is closest to the nasal, is nasalized. Examples of nasalized allophones are as follows:

42. /aŋ/ [aŋ] ‘kiwi fruit’
43. /àŋ/ [ãŋ] ‘lemon’

Additional variations in vowel quality can be observed in the items on the word list. For instance, in stressed position I think the high vowels /i/ and /u/ sometimes diphthongize just a little a bit, as [i] and [u] respectively. (See for instance the first repetition of items 28 and 29, which sound diphthongized to me.) There does not seem to be any systematic pattern behind this variation, and no source that I consulted mentioned allophonic variation in vowel quality.

6. Sentence

At the end of the recording (#38) is a Noisiveletian sentence, which Charles and I made up so it would contain some of the words described above. I give the sentence first in phonemic, then in phonetic form.
I was intrigued to notice that the [β] allophone of /p/, which (it will be recalled) occurs between vowels, is found even when the vowels are in separate words, as in [náííbiliidáŋá ] ‘Noisiveletian speak’. Compare the same verb in #1 above, [pári] ‘speak’, where there is no preceding vowel and so we get [p] instead.

Reference