THE SYNCHRONIC AND DIACHRONIC BEHAVIOR OF PLOPS, SQUEAKS, CROAKS, SIGHS, AND MOANS

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0. Introduction
1. The synchronic behavior of Iroquoian expressive vocabulary
2. The diachronic behavior of expressive vocabulary

0. It has been noted on a number of occasions that exceptions to regular sound change seem to be concentrated in a particular portion of the lexicon. Words for noises, animal cries, mental states, and physical states and actions, termed by Fudge “expressive vocabulary,” seem particularly resistant to regular phonetic change. In the Iroquoian languages, as in others, such words behave differently from other vocabulary both synchronically and diachronically, but this divergence can be shown to be systematic and the logical result of their function.

The idea that expressive vocabulary differs fundamentally from the rest of the lexicon is not new. The distinctive phonological, morphological, and syntactic behavior of such words has been reported for a number of languages, such as Salishan, Finnish, Semai, Bahnar, Garo, Chadic, and the Bantu languages Nguni, Shona, and Yao. The elaboration of this segment of the lexicon appears to vary from language to language, although this apparent variation may be due in part to the difficulties associated with its elicitation, another indicator of the special

1 I am grateful to Alan Bell, Wallace Chafe, and Michael Foster for very helpful comments on earlier drafts of this article, and to Myrtle Peterson of the Allegany Reservation, Mary Macdonald of the Akwesasne Reservation, Reginald Henry of the Six Nations Reserve, and Annette Jacobs of the Caughnawaga Reserve, for fruitful discussions of the data.

2 See, for example, Bloomfield (1933:390), Anttila (1972:86), and Campbell (1975).

3 See Fudge (1970). A number of different labels have been used for vocabulary of this type. Diffloth (1976) defines ideophones, which he considers a subclass of expressives, as “words displaying phonological symbolism of any kind (acoustic, articulatory, structural) and having distinct morpho-syntactic properties.” Those which display acoustic symbolism he terms onomatopoetic. Anttila (1977) labels words for animal cries and noises “onomatopoetic,” those for physical states and actions “descriptive,” and those for mental states “affective.” For other terminology in this area consult Anttila and Samarin (1970).

status of this set of words. Although it is likely that few grammarians make a conscious decision to omit expressive words from linguistic descriptions, most grammars contain no mention of them. When first consulted, most speakers of the Iroquoian languages discussed below felt that there were no such words in their languages. Once the words were pointed out in use, however, speakers were amazed at how many more they could supply.

1. In the Iroquoian languages, as elsewhere, expressive terms are characterized by special syntactic, morphological, and phonological patterns. Their syntactic patterns are quite limited. They do not enter into the same kinds of grammatical constructions as other lexical items. Instead, they occur either as complete, independent utterances, or as the objects of a verb like say.

Their morphology is quite simple. While most Iroquoian words are highly inflected and quite long, expressive terms are not inflected and consist of only one or two syllables. The examples below are taken from Mohawk (M), Oneida (Oe), Cayuga (C), and Seneca (S).

M., Oe., C., S. hao? ‘okay, let’s go’
M., Oe., C., S. kwe: ‘hey there, hello’
M., Oe., C., S. tsi: ‘buzz’ (sound made by a fly or bee)

These languages are spoken in New York State, Quebec, Ontario, Wisconsin, and Oklahoma. The data cited here come from my own observations and those of Native language teachers of each. They were collected over periods of several years and each expression was verified by groups of fifteen to forty speakers, with little dissent. It was my experience that large, convivial groups could come up with many more such expressions than the same number of speakers working individually. The transcription is phonemic unless otherwise specified. The symbols represent their approximate IPA values, except that obstruents are automatically voiced before vowels and resonants.

Examples from the other Northern Iroquoian languages, Onondaga, Huron, and Tuscarora, have not been included here because my corpora of spontaneous expressive vocabulary are not as extensive as for Mohawk, Oneida, Cayuga, and Seneca. The modern Onondaga data I do have, from Mrs. Audrey Shenando of Onondaga, New York, and Mr. Reginald Henry of Six Nations, Ontario, my modern Tuscarora data from Mr. Elton Greene of Lewiston, New York, and Mr. Robert Mt. Pleasant of Six Nations, Ontario, as well as the eighteenth-century Onondaga from Zeisberger (1887) and the seventeenth-century Huron from Sagard (1632), amply demonstrate that these languages contain the same expressions and follow the same general principles in this domain as the languages cited in the article. The first expression cited, for example, hao?, is the same in modern Onondaga, is iau? in Tuscarora, and is cited as Aoo in seventeenth-century Huron by Chaumonot (Grammar of the Huron Language by a Missionary of the Village of Huron Indians at Lorette; see Fraser 1920:appendix II). Allan Taylor (personal communication) points out that this particular expression extends beyond the Iroquoian family well into the Great Lakes region.
Syllables imitative of repeated sounds are often reduplicated, a process not found elsewhere in the languages.

M., Oe., C., S. kā'kāʔ call of crow
M., Oe., C. tshitsitshisi noise made by a mouse
Oe., C. tsyoktsyoktsyok chicken's clucking
C., S. tahiahtah 'knock knock knock' (on door)

The stress patterns of expressive vocabulary are also distinctive. Stress in the Iroquoian languages is generally penultimate, but two-syllable exclamations and longer names for sounds frequently exhibit ultimate stress.

M., Oe., C., S. akē: 'oh dear'?
M., Oe., C. aki: 'ouch'
M., Oe., S. otsi: 'boo' (said to frighten children)
M. winy'k 'horse's neigh
Oe. kitkitkititak chicken's cackle
C., S. kwiyé:k kwiyé:k hawk's cry

The inventory of sounds found in expressive vocabulary differs from that in the rest of the lexicon, but it differs in systematic ways. All of the consonants found in regular vocabulary occur in ideophones. All vowels in each language also appear in their expressive vocabularies. Mohawk, Oneida, Cayuga, and Seneca all contain oral vowels i, e, a, and o throughout their entire lexica. Seneca contains an additional vowel, æ, which appears in its expressive vocabulary as well. This extra front oral vowel does not appear in the expressive vocabulary of the other three languages.

S. æ?: 'yuk' (response to something nasty)
S. kwé:k 'rip' (as of pants)

An additional back oral vowel, u, has an extremely limited distribution in Seneca, is somewhat frequent in Cayuga, and does not occur in the regular vocabulary of Oneida or Mohawk. The u appears in the expressive vocabulary of Seneca and Cayuga, but very rarely in Oneida and Mohawk.

6 This is true of Mohawk and Oneida with the provision that epenthetic vowels are not counted and stress shifts rightward under certain conditions in Oneida. In Cayuga and Seneca, syllable count from the beginning of words and syllable structure can also affect stress placement. None of the languages except Onondaga shows ultimate stress in nonexpressive vocabulary, however, aside from French borrowings and shortened words in Mohawk, stress-shifted words in Oneida, and utterance-medial forms in the western languages: M. toré 'bull' (from French taureau); M. akwé: 'all' (from Mohawk akwé:k 'all'); Oe. thiká 'that' (result of Oneida accent shift).

7 This is not to be confused with another exclamation, akē, used for fatigue and exasperation.
C. *khulkuhluh, S. *kukuuku 'glug glug glug' (as liquid coming out of a jug); but Oe. *kokoko, M. *kokoko?

In each language, the nasalized vowels in the expressive vocabulary match those in the rest of the lexicon. In the eastern languages these are ɐ̈ and ǚ, in the western languages, ē and õ (or ơ).

M., Oe., ?uh, C., S. ?uh 'uh' (groaned when lifting something heavy)
M. wawărâ:, Oe. wawalâ:, C. mblâo, S. krôkrôk frog's croak

Expressive vocabulary is subject to most of the same automatic phonological rules as the rest of the lexicon. Most permissible phonological combinations are the same in both sets of words. Obstruents do not immediately precede resonants r, l, or n in Mohawk in either expressive or regular vocabulary, but such clusters occur freely in both kinds of vocabulary in the other languages. Because of a historic loss of intervocalic r in Cayuga and Seneca, and intervocalic h in Seneca, many more vocalic combinations occur in these languages than in Mohawk and Oneida, but they occur in expressive vocabulary as well. C., S. hai?k 'look out!', but M., Oe. he?

Automatic phonological alternations are the same in both sets of vocabulary. Obstruents are regularly voiced before vowels and resonants in Iroquoian. This alternation is regular in expressive vocabulary as well and is extended to govern the otherwise nonoccurring obstruents p and b.

s is normally palatalized before y and this, too, occurs in ideophones.

8 A regular Seneca and Cayuga rule eliminates k before word-final s: PNI *tbraks 'he eats'; S. tus, C. ihas. This rule does not affect expressive words such as: C., S. ka?ks 'snip'; C., S. kwa?ks 'splat'.

9 The loss of *r is more extensive than this in both languages. They share the following shifts:

S, C.  
\[ *r > y \mid i \mid -V \]
\[ w \mid \{o\} \\rightarrow -V \]
\[ n \mid -y \]

In addition, Seneca underwent the following:

S.  
\[ *r > y \mid Ob(h) \rightarrow \{o\} \]
\[ *a > æ: \]
\[ *r > ø \]

Cayuga shows these:

C.  
\[ *r > : \mid V \rightarrow h \]
\[ õ \mid V (\{h\}) \rightarrow \{v\} \]
M., C. šya:, S. šyae: ‘oh nuts’ (uttered, for example, when losing a game)\(^\text{10}\)

In addition to the sounds in the regular lexicon of each language, expressive vocabulary also contains sounds which do not occur elsewhere. All of the languages lack a labial stop series in regular vocabulary, but labials occur freely in expressive terms.

- M. boths ‘pow’ (noise of someone being hit in the head)
- C. mbláó frog’s croak
- S. phlotst ‘plop’ (sound of something mushy dropping on the floor, like jello or a raw egg)

Except in ideophones and taboo words, / does not occur in Cayuga, Seneca, or Caughnawaga Mohawk.

- C. mbláó ‘croak’, kluklukluk ‘glug glug glug’
- S. blæts sound of fat legs slapping together

Except in expressive vocabulary and taboo words, r does not occur in Seneca.

- S. krökrötk croak of a frog

These additional sounds appear to be not completely random, but rather occupy marked gaps in the symmetry of the various phonological systems. The lack of a labial stop series, for example, is relatively unusual in languages in general. The p and b found in Iroquoian expressive vocabulary not only fill this gap, but also undergo voicing and tenseness alternations parallel to those of the alveolar, velar, and labio-velar series. The absence of liquids is relatively unusual, but those languages lacking them in regular vocabulary have them in expressive vocabulary. The presence of u in expressive vocabulary could also be seen as a tendency toward symmetry in phonological inventories. Seneca contains the sound in only one “regular” lexical item, the verb root -u?iu- ‘be tiny’.

- S. niwùtuh ‘it is tiny’, nikanōhsūtuh ‘tiny house’; cf. S. niwá?a:h ‘it is small’, M. niwá:?ah ‘it is small’

Although this root behaves like a regular, productive lexical item, it too has an expressive function.\(^\text{11}\)

For some speakers of Cayuga, u is an

\(^{10}\) Michael Foster (personal communication) comments on the ceremonial use of this term in Cayuga during the Bowl Game as follows: “It is called out in a loud, sustained voice, by the players opposite those who are throwing, as a kind of spell on the peach pits so that they will not turn up a scoring combination. At the same time those making the call hold two fingers forward pointing insistently at the bowl.”

\(^{11}\) Sound symbolism can be observed to a certain degree in the ideophones. Words in my corpus referring to high-pitched sound are pronounced with high pitch and contain high
integral member of the regular phonological inventory, corresponding to
\( o \) in the other languages and other dialects of Cayuga. It does not
appear to be phonologically conditioned and may well represent a
retention of a distinction lost in the other languages. As noted above, it
does not occur in Oneida or Mohawk. The frequency of \( u \) in Seneca
(and Cayuga) expressive vocabulary, and its rarity in Oneida and
Mohawk (encountered as a variant in only one form), is not surprising
in the light of the regular vowel inventories of the languages:

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The presence of an additional high back vowel in Seneca expressive
vocabulary evens the back and front sets. Cayuga extends its normal \( u \)
into ideophones, as expected. Oneida and Mohawk are already so back-
heavy that the absence of an additional back vowel is not surprising.
For some speakers, the front inventories of Cayuga, Oneida, and Mohawk
could be claimed to be augmented in expressive vocabularies because of
a frequent expression \( hach? \) ‘huh?, what?’, but this is the only form
containing \( \ddot{a} \) I have encountered in these languages.

Another distinctive characteristic of expressive vocabulary reported
for a number of languages can be observed in Iroquoian. This is the
lack of what Diffloth terms lexical discreteness, noted by him in Semai
and Bahmar, by Anttila in Finnish, and by Samuels in English (among
others).\(^\text{12}\) Sets of expressions can be found which differ by one vowel but
have similar meanings. (Iroquoian has no general ablaut rules.)
M. to?to?to? ‘knock knock knock’ (as on a door), ta?ta?ta? ‘tap tap tap’
M. bo?, ba? sound of knocking someone on the head
M. tak?tak tak?k, tak tak tak?k rooster’s crow

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vowels: M. \( \ddot{i}k \), Oe., C. \( ki\text{k}ks \), M., S. \( i\text{ks} \) sound made by a creaking door; M. \( kwik \), Oe.
\( kwik-wik \) pig’s squeal; M., Oe. \( ik \), M., Oe., C. \( tshishishi \) mouse’s squeak.

Low-pitched sounds contain lower vowels and are pronounced with lower tone. See the
frog croaks in the text. Sudden sounds made by something hitting a hard surface end with
\( -\ddot{\text{lbs}} \): M., Oe., C., S. \( \ddot{\text{kwa}}\ddot{\text{kbs}} \) ‘splat’ (sound made by an egg falling and breaking on a hard
surface); M., Oe., C. \( \ddot{\text{ywa}}\ddot{\text{kbs}} \) ‘smack’ (sound of a slap or kiss); M., Oe., C., S. \( \ddot{\text{ka}}\ddot{\text{kbs}} \) ‘snip’
(sound of scissors cutting paper). Sounds made against softer surfaces often end with \( m \):
M. \( samsamsam \) sound of light steps on a forest path, M. \( tamtam \) sound of heavier
steps. Sounds involving water generally contain sibilants: M. \( kw\text{i}$\text{s} \) ‘squish’, M. \( s\text{ydo} \)
‘splash’, Oe. \( t\ddot{\text{yhyhyhyhyh}} \) ‘splash splash splash’.

\(^{12}\) See the sources listed in n. 4 and Samuels (1972).
In nonexpressive vocabulary, a change in a single vowel produces an entirely different word with a completely different meaning. In ideophones, however, the variants simply refer to slightly different noises. This type of alternation is quite logical in the light of the function of the sounds as imitative rather than distinctive.

Iroquoian expressive vocabulary is thus an integral part of each language, subject to most of the phonological patterns and constraints particular to each. It is at the same time distinct from the rest of the lexicon in significant ways. Bilingual speakers will often use Iroquoian interjections while speaking English and be unaware of a code switch. Children of Iroquoian speakers who grow up speaking only English often learn and use Iroquoian expressive vocabulary, unaware that it is not English. Within the Iroquoian languages themselves, such vocabulary does not enter into regular syntactic constructions, except as the object of a verb like say. Morphologically, it exhibits reduplication rather than affixation. As pointed out by Ives Goddard (personal communication), expressive vocabulary is generally accompanied by several secondary phonological characteristics, in particular expressive length and pitch and frequent pharyngealization. While these are not distinctive in themselves, they signal the shift into an “expressive mode.” In addition, such vocabulary violates normal rules of stress placement and contains sets of gap-filling sounds not found in the rest of the lexicon. Crucially, it does not exhibit lexical discreteness, but shows submorphemic alternations not present in other lexical sets. Such idiosyncrasies should not be compatible with the general processes of regular sound change observable throughout the rest of the lexicon.

2. The distinction between expressive vocabulary and the rest of the lexicon does in fact extend to contrasting diachronic behavior of the sets. Expressive vocabulary, particularly exclamations, seems highly resistant to replacement in Iroquoian languages. Most of the same exclamations can be found in all of the languages, even where there is little contact among communities. They do not always exhibit the sound correspondences expected among cognates, however.

The examples cited in 1 show that the vowels in expressive vocabulary have shifted phonetically right along with those in the rest of each language. In some cases, however, vowels in possibly cognate forms are phonetically similar but are not reflexes of the same protoform. The following pairs of similar expressions point to quite different reconstructions:

M., Oe. kwà:ks ‘rip’ suggests PNI **kwà:ks; S. kwàe:ʔks ‘rip’ suggests PNI **kwaraʔks
M., C. šya: 'oh nuts' suggests PNI **syə; S. šyə: ‘oh nuts’ suggests PNI **syəra

A different kind of discrepancy appears in another set of expressions. The cries of pain and surprise below are uttered in each language when something too hot or cold is touched. CM represents the Caughnawaga dialect of Mohawk here, and AM the Akwesasne dialect. CM., AM., Oe., C., S. [adžyǔ:] ‘ouch’

The words are phonetically equivalent in all of the languages. They do not exhibit the expected sound correspondences for cognates, however. Each points to a different protoform.

The Seneca form [adžyǔ:] indicates a protoform PNI **atływː: /t/ is palatalized before /y/ and the cluster is voiced intervocally. If the protoform were in fact **atyːː, the Cayuga and Akwesasne Mohawk forms should be different, since PNI *t > k / −y/ in these dialects. PNI **atływː should become C., AM., *[agyː:]. Speakers do not use these in either.

The Cayuga form [adžyirl points to a protoform PNI **atšyːː: In Cayuga, the affricate /tʃ/ is regularly palatalized before /y/ and the cluster is voiced intervocally. The protoform **atšyːː would yield different reflexes in Caughnawaga Mohawk and Seneca, however, where PNI *y > 0 / tʃ − Y. PNI **atšyːː should become S., CM. *[adžuː]. Speakers do not use this form, either.

The words used for the sound of a smack present the same dilemma: CM., AM., Oe., C. [džyaʔks] ‘smack’ Caughnawaga Mohawk [džyaʔks] should come from PNI **tyaʔks, but this would yield Akwesasne Mohawk and Cayuga *[gyaʔks], which does not occur. Akwesasne Mohawk [džyaʔks] should be the reflex of PNI **tyaʔks, but that would yield Caughnawaga Mohawk *[dzaʔks], which does not occur either. Although both of these expressions predate the sound shifts described above, they constitute exceptions to them.

The presence of the nasalized vowels ʷ in Mohawk and Oneida expressive vocabulary corresponding to ʲ in Cayuga and Seneca

13 There is an interesting alternation between [adžyː:] and [adžyǔ:] in Mohawk. This second variant is the only expression encountered in Mohawk with [u]. Many speakers never use this form. Others, who were initially unaware that they did, used it when touching something surprisingly hot. After thinking it over, they decided they used [adžyːː] when cold or touching something cold and [adžyǔː] when burned. The expression [adžyːː] is used by Senecas only when cold objects are touched. When burned, they cry *[agaː:] ‘ouch’.

14 Mohawk, Cayuga, and Huron all exhibit dialectal variation here. Each has a dialect whereby t > k / −y and each has one in which t remains in this context.

15 The change of PNI *t > k / −y in Akwesasne Mohawk can be dated at about 1900 on the basis of extensive written records from the time.
suggests that sounds in this special segment of the lexicon shift right along with those in the regular vocabulary. The presence of \( æ \) in Seneca expressive terms suggests that vowels shift even more freely in this domain. Once the vowel has become an integral part of the phonological inventory, it spreads to other expressive items. The apparent failure of the consonants to shift their points of articulation according to regular phonological rules indicates a tendency converse to the extension of \( æ \): the retention of expressive sounds in the face of changes that would normally have weakened or removed them. In the light of the function of the sounds in these words as imitative rather than distinctive, this apparently unruly behavior is completely reasonable. They constitute a special class within the lexicon, with its own synchronic and diachronic behavior. Special effort should be made to recognize and record this elusive material while it is available, in order to uncover both language-specific and universal patterns in its semantic structure, grammatical functions, phonology, and change through time, which will enrich our understanding of the lexicon and the processes of linguistic change.

REFERENCES


