

SEMANTICALLY RELATED VOWEL GRADATION IN SUNWAR AND CHEPANG

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1. INTRODUCTION

This study examines the relationship between vowel gradation in words of various grammatical classes, and certain semantic features, for the Chepang language of Nepal.¹ Marlene Schulze (1987) has described such a vowel gradation for a subclass of adverbials in Sunwar.² As I will show, for Chepang the use of vowel gradation extends beyond the adverbial class. Before discussing the situation in more detail, however, it is necessary to define some of the terms involved, since they tend to be used with a variety of meanings.

2. ONOMATOPOEIA

In common usage onomatopoeic forms are those that are sound-imitative, such as 'crack', 'bang' and 'tinkle' in English. Sound-imitative roots can be found in words of different grammatical classes – adjectives, nouns, verbs and adverbs, as for example:

¹ For a more complete description of the Chepang language see Caughley (1982) and Caughley (forthcoming).

² The phonemic inventories of Sunwar and Chepang languages are:

	Sunwar					Chepang				
Stops	<i>p</i> <i>ph</i> <i>b</i> <i>bh</i>	<i>t</i> <i>th</i> <i>d</i> <i>dh</i>	<i>t̥</i> <i>t̥</i> <i>d̥</i> <i>dh̥</i>	<i>k</i> <i>kh</i> <i>g</i> <i>gh</i>	'	<i>p</i> <i>ph</i> <i>b</i> <i>bh</i>	<i>t</i> <i>th</i> <i>d</i> <i>dh</i>	<i>k</i> <i>kh</i> <i>g</i> <i>gh</i>	?	
Affricates			<i>ts</i>					<i>c</i> <i>j</i> <i>ch</i> <i>jh</i>		
Fricatives		<i>s</i>	<i>sh</i> <i>dz</i>	<i>h</i>			<i>s</i>		<i>h</i>	
Nasals	<i>m</i>	<i>n</i>		<i>ŋ</i>		<i>m</i>	<i>n</i>		<i>ŋ</i>	
Liquid		<i>l</i>					<i>l</i>			
Flap		<i>r</i>					<i>r</i>			
Glides	<i>w</i>	<i>y</i>				<i>w</i>	<i>y</i>			
Vowels	<i>i, ii</i> <i>e, ee</i> <i>a, aa</i>		<i>u, uu</i> <i>o, oo</i>			<i>i</i>	<i>e</i> <i>a</i>	<i>ə</i> <i>o</i>	<i>u</i>	
Tone	' before word = high tone (for Sunwar)									

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'a banging door'

'It went off with a bang.'

'He banged the door.'

'The cracker went off bang!'

In many languages, including those of South Asia, sound-imitative roots occur most commonly as a subset of the class of adverbs. That is, they function as modifiers of verbs, or forms derived from verbs, but they are often distinguished phonologically and/or syntactically from other adverbs. This adverbial subclass is often called 'onomatopoeic' (e.g. Emeneau 1969). However an examination of the data shows that, while many roots in this subclass are indeed sound-imitative, a considerable number have no reference at all to sounds. To use some of Emeneau's own examples (from Kota, Emeneau 1969):

<i>dag dag</i>	(flame) to burn brightly
<i>taṛ taṛ</i>	(sun) rises or sets
<i>taṇ taṇk</i>	(skin) feels smooth and satiny
<i>gam gam</i>	to be fragrant

It will be noted that the first two of these examples involve visually sensed events, while the third example has to do with the sense of touch and the fourth to the sense of smell. None of these can be related easily to sounds in any respect. Emeneau (1969:284), of course, was aware of this and states: "We are dealing only in the most marginal way with blatantly sound-imitative forms (like the English 'choochoo' or the like). Perhaps it would be more just to say the class denotes various types of sensation..."

Partly for this reason words of this category have been given a variety of names by different authors – including 'ideophones', 'expressives' and 'phonaesthemes'. Because of the close association of the term 'onomatopoeic' with sound-imitation, I will henceforth use the term 'ideophone' for this special subset of adverbs which includes both sound-imitative and non-sound-imitative roots. Matisoff (1989), following Japanese tradition, divides 'reduplicated sound symbolic expressions' into two major classes: *giseigo* 'sound-imitative', and *gitaigo* 'attitudinals or imitate-attitude words'. As I will show further below, such a dichotomy does not well represent the situation in Chepang (and possibly not for many languages). All ideophones are, in a more general sense, 'attitudinal' in that they normally occur in speech when the speaker has emotionally involved himself in what he is talking about – that is probably why such expressions are usually absent from unemotionally expressed speech, and from writing. In other words ideophones are used to help the speaker convey his feelings and impressions concerning the situation.

Chepang ideophones fall into at least three major classes: sound-imitative, visual imitative and emotive (this last being closest to the *gitaigo* attitudinals).

Visual-imitative expressions may be divided into two subclasses, representing movement and static images respectively. In the first of these subclasses are words like *phiŋ* 'take off like a rocket/get away smartly', where the plosive initial represents the sudden take off and the continuant final the more gradual disappearance into the distance. Another example is *pyolololo* which represents a trotting motion (as of a jackal). In neither case is any sound necessarily involved, rather the sound pattern of the word reflects the visual pattern of movement. In the second subclass are expressions like *kriniŋ kranəŋ* 'stand upright together – one small person and one large' where the contrast in vowels represents the contrast in size,

and *grugu thugu* which represents the visual impression of people crouched or huddled around food or a fire.

3. SOUND SYMBOLISM

Closely associated with the category described above is what has been called 'sound symbolism', in which certain sounds (or the physical gestures that produce them) are associated with particular physical features of the concept referred to. In fact, as Gregerson (1984, fn.4) points out, 'sound iconism' would be a better term for this relationship because of the non-arbitrariness of the sign-referent relation.

In particular, as Gregerson and others have shown, the size of the vocal cavities used to produce the sounds may be directly related to the physical size of the referent. Moreover, the occurrence of such a relationship is very widespread – it is found in Africa as well as in Asia (Gregerson 1984). Sapir (1929) raises the question whether the basis of this symbolism is acoustic or kinesthetic or both. It seems likely, however, that the starting point at least for such iconism is acoustic, since small cavities, like small objects, tend to produce high-frequency sounds. For a complex cavity such as the vocal tract the position is, of course, more complicated. Nevertheless a vowel sound made with the tongue in a high forward position does have most of its energy concentrated in the high frequency section of the spectrum and the best imitation of the 'clinking' of a coin or the 'tinkling' of a small bell is made with the oral cavity reduced in size.

Semantically determined vowel gradation is one expression of this sound iconism; another expression of this is found in consonant variation (Gregerson 1984, Schultze 1987). This paper seeks to examine the first of these – semantically related vowel gradation.

4. SUNWAR

According to information given in Schulze (1987:64) ideophones in Sunwar are themselves divided into two kinds:

(1) Words which correspond very closely to ideophones as defined above – a subset of adverbials, many of which are sound-imitative, and which are syntactically marked. Words of this subclass (which Schultze calls 'onomatopoeic') are always followed by *'pa* (< *'pa.tsa* 'to do'). Many of her examples are sound-imitative:

<i>shap shap 'pa phiiktsa</i>	to sweep with a swish
<i>dok dok 'pa kruptsa</i>	empty a big bottle ^d

The examples also include reduplicative representation of repeated action:

<i>'koron 'pa dim.tsa</i>	(for a tree) to fall of its own accord
<i>'koron 'koron 'pa dim.tsa</i>	(for two trees) to fall of their own accord)

Both of these features involve non-arbitrary relationships of sign and referent.

(2) Another subset of ideophones Schulze terms 'intensifiers'.

These differ from the 'onomatopoeic' subset in that:

- i. they can occur readily in formal speech, where the 'onomatopoeic' words are less appropriate;
- ii. they are more consistent in form and meaning than the onomatopoeic set, which tends to be subject to ideolectical variation;
- iii. the significance of reduplication, and the phonological forms it can take, are more restricted;
- iv. unreduplicated forms are always monosyllabic, in contrast to those of the onomatopoeic set, which are often polysyllabic (as for the example 'koron' given above).

Both subsets exhibit a magnitude symbolism (or iconism) related to vowel position and also to consonant type.

The relation of magnitude to vowel position is given as: decreasing vowel height or fronting correlates with increasing magnitude of reference.

Vowel height correlation with magnitude $i < e < a; u < o < a$

Vowel fronting correlation with magnitude $i < u; e < o$

The referent may be either the subject participant or the object or else the magnitude may relate to the intensity of an action or a condition. Most examples of vowel gradation occur in contrastive pairs, though occasionally sets of three are found. In combination with consonant variation, however, sets of four, five or more can occur.

Examples are:

Intensifiers occurring with:

- i. *thaakta* 'cut off a strip of bark' are (Schulze pers.comm.):

pre (very small piece)
bre (small piece)
bro (big piece)
bra (very big piece)

Intensifiers occurring with:

- ii. *hemtsa* 'fall off with a bump' are (Schulze 1987:73):

brel (very small fruit, etc.)
brol (ripe plums)
bral (large fruit such as apples)

5. CHEPANG

Chepang has a large set of ideophones which are distinguished from other adverbs through being almost always followed by *tə* 'such, in such a way'. The set of non-ideophonic adverbial roots is, in fact, very small indeed – the only important ones are *ʔanə*

'much' and *bələ* 'a little', with the function of adverbs (and adjectives) being carried out normally by words derived from what are syntactically verb roots, or by ideophones. For example, the attributive verb root *jok-* 'fast, vigorous' can be used as an adverb or adjective in the following way:

Adverb	<i>ʔowʔ jok.to jyal.ʔa</i>	He went away fast.
Adjective	<i>ʔowʔ jok.ʔo manta.leʔ</i>	He is a vigorous person.

An ideophonic adverb, corresponding approximately to *jok-*, would be the word *phiŋ* given above, as in:

Ideophonic	<i>ʔowʔ phiŋ tə jyal.ʔa</i>	He got clean away.
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As has already been pointed out, for Chepang, as for other languages, many (indeed most) ideophones are not sound-imitative. Many are visual-imitative, with the sound pattern (especially reduplication) of the ideophone imitating the visual pattern of the referent. For example:

<i>Pyolololo tə wah.naʔ.</i>	(The jackal) trots off.
<i>Ŋənəna tə wah.naʔ.</i>	(The elephant) walks swaying.
<i>Ŋici ŋacya tə cyuŋʔ.naʔ.cə.</i>	The two are sitting up straight (one small, one large).

Moreover, magnitude-related vowel gradation occurs freely in all kinds of ideophones, including those that are non-sound-imitative, as for example:

<i>grigi thiŋi tə parʔ.ti mu.naʔ</i>	sit crouched around (small persons)
<i>grugu thugu tə parʔ.ti mu.naʔ</i>	sit crouched around (medium sized persons)
<i>grəgə thəgə tə parʔ.ti mu.naʔ</i>	sit crouched around (large sized persons)

and

<i>kiŋcidiŋ tə cyuŋʔ.naʔ</i>	sit crouched (very small persons)
<i>keŋcedəŋ tə cyuŋʔ.naʔ</i>	sit crouched (small persons)
<i>kuŋcuduŋ tə cyuŋʔ.naʔ</i>	sit crouched (medium persons)
<i>kəŋcədəŋ tə cyuŋʔ.naʔ</i>	sit crouched (large persons)

Note that in these examples there is a magnitude–vowel position relation similar to that of Sunwar:

least *i < e < u < ə* greatest

5.1 VERB ROOT VOWEL GRADATION

The above examples are taken from the ideophone set. What is highly unusual (and perhaps unique) about Chepang, however, is that non-sound-imitative verb roots also exhibit magnitude-related vowel gradation, as the following examples show:

<i>krin-</i>	pick out small burrs, etc.
<i>krən-</i>	pick out medium burrs, etc.
<i>kran-</i>	pick out large burrs, etc.

<i>sim</i> [?] -	subside slightly (fever)
<i>syum</i> [?] -	subside somewhat (fever)
<i>sem</i> [?] -	subside much (fever)
<i>səm</i> [?] -	subside completely (fever)

A sentence using an example from the second set would be:

ʔowʔ.kayʔ ʔəy.ʔo simʔ.ʔa.thəy His fever subsided slightly.

Here we have the gradations:

smallest *i* < *ə* < *a* largest object referent

and

least *i* < *yu* < *e* < *ə* greatest degree of the state referred to.

Another set is:

<i>phep</i> -	have very small blister
<i>phəp</i> -	have small blister
<i>phop</i> -	have large blister

This gives the gradation:

smallest *e* < *ə* < *o* largest subject referent.

This gradation is consistent with the fact that, in the dialect of Chepang from which this set comes, /o/ is a low back vowel whereas /ə/ is mid central in position. There are many sets of verb roots showing this type of sound iconism in Chepang, usually pairs or sets of three. Some very common words show vowel gradation, such as *mi*- 'very small' and *məy*- 'small'.

Although there is a large number of sets of this sort the process is apparently no longer productive.

6. SUMMARY

Chepang, when compared with Sunwar, shows a considerably increased use of vowel gradation in formal language to indicate magnitude of referent or intensity of action, where these two features are related probably through sound imitation – a large object tends to produce a louder sound than a smaller one when it falls (or is struck).

Sunwar has its set of intensifiers which are indeed a class of ideophone, but are unusual in that they have become more fixed in usage and acceptable in formal speech. It is worth noting that, while Sunwar evidently does not have this vowel gradation in actual verb roots, the intensifiers that do have such gradation are often clearly related to verbs.

In contrast, for Chepang, vowel gradation is found not only in ideophones but also quite commonly in verb roots. These, of course, can occur freely in formal, unemotive speech. Such a feature, if productive, could be a prolific source of word families (see Matisoff 1978:16ff.) since it gives rise to sets of roots that are very closely related, both phonologically and semantically.

In conclusion then, semantically related vowel gradation or magnitude symbolism/iconism does appear to be a universal phenomenon, with this universality extending even to the particular way in which magnitude and vowel position are related (small objects with high and front vowels, large objects with low and back vowels). However, languages vary considerably in the extent to which this phenomenon can be used in more formal speech.

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