

TWO SYLLABLES ARE BETTER THAN ONE: A PROSODIC TEMPLATE FOR BENGALI HYPOCORISTICS

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INTRODUCTION

This paper explores hypocoristics (also known as nicknames) found in Bengali in order to demonstrate how Prosodic Morphology (McCarthy and Prince, 1986) can provide a unifying framework for the analysis of a variety of hypocoristic types including suffixation, 'clipping' and non-contiguous forms. I begin with a brief survey of hypocoristic formation in the language in order to characterize the prosodic forms in terms of syllable shape. Next, I examine how similar forms in English and Spanish have been analyzed within the theory of Prosodic Morphology. Finally, I investigate their transferability for Bengali and propose a template to account for hypocoristics in the language.

In Bengali,¹ personal names can be divided into two types: *bhalo nam* 'good names' and *dak nam* 'calling names' or pet names. Sircar (1994: 117) maintains that "every² Bengali individual has at least two names", a *good name* used for school and other formal purposes and the *calling name* which is used by close friends and family.

Calling names may be either a) derivatives of the formal name or b) a nickname which has no relationship with the formal name. For instance, a female whose 'good name' is Anjali /ɔnjɔli/ may could have a pet name /ɔnju/ or /ʃɔna/ 'gold'. Moreover, nicknames are not always chosen for their meaning, it is also common to opt for a pet name simply on the basis of "sweetness of sound, rhythm or just for fun" (Dil, 1975: 63). The remainder of this paper will be concerned with derivatives of the formal names, termed 'hypocoristics', and not those which root from unrelated sources.

Little study of the linguistic structure of Bengali has been carried out and less yet has considered the nature of hypocoristics or derivative nicknames. Approximately half (118 forms) of the data examined was provided by three articles (Dil, 1971; Dil, 1972; Dil, 1975) on the topic of the Hindu and Muslim Dialects of Bengali. The remaining hypocoristics were collected from five informants: four Bengali-Canadian females (77 forms) and one Bangladeshi male (32 forms) for a total of 227 forms.

TYPES OF HYPOCORISTIC FORMATION

Bengali employs a number of processes to form hypocoristics, including truncation (with and without) suffixation, reduplication and non-contiguous mapping. However the most productive type by far is truncation with suffixation.

Suffixation

Examples (1) through (9) demonstrate the extensive use of suffixation in Bengali. Suffixes attach to forms that are left-aligned before truncation (1 - 4) as well as those forms aligned with a medial syllable (5, 6). Medial syllable alignment is less common but productive, without any restrictions. The most common suffix is /-u/ (1, 2, 5) followed by /-i/ and then /-a/ which are all also diminutive suffixes.

Table 1: Left-Edge Alignment

(1)	haʃna	>	haʃ.n + u
(2)	indrani	>	in.d + u
(3)	julekha	>	ju.l + i
(4)	ganeʃ	>	ga.n + a

¹ Bengali (the colonial English designation for the language) or Bangla (as it is known by its speakers) is a language of the Indo-Iranian branch of the Indo-European family, closely related to Hindi.

² "Except perhaps vagabonds and destitutes who exist on the periphery of society" (Sircar, 1994: 108).

(5)	šumon	>	mo.n + u
(6)	šumon	>	mo.n + i

Dil (1975:16) also records two additional suffixes /-ai/ and /-ua/ as denoting “diminutive” and “affective” meanings (below 7 - 9).

(7)	shahin	>	sha.n + a i
(8)	shahin	>	sha.n + ua
(9)	kanak	>	kan.a + ia

While neither /-ai/ or /-ua/ appear in the hypocoristic data provided by my informants, a third suffix /-ia/ did appear (see (9) above). These suffix seem to be rare and limited to the Bengali spoken in Bangladesh though the suffixes /-ai/ and /-ua/ are both attested in adult speech during baby talk. Such cases include /ʃuta/ ‘shoes’ or /dhɔn/ ‘treasure’ which may become /ʃutua/ and /dhɔnai/ respectively (Dil, 1975:16).

Truncation without Suffixation

As noted above, hypocoristics may also be formed through a prosodic process of circumscription without subsequent suffixation. Not unlike the hypocoristic presented above, non-suffixed forms may be left aligned or medial syllable aligned as illustrated in both (10) and (11) the process of left aligned truncation is clearly prosodic and not morphological.

(10)	jitendra	(jit(a) + indra)	>	jiten
(11)	šumita	(šu + mita)	>	šumi

The base name in (10) /šumita/ is composed of two morphemes, a prefix /šu-/ meaning ‘beautiful’ and a free morpheme /mita/ ‘sweet, delicious’, yet the circumscribed residue crosses the morphological boundary to generate the hypocoristic /šumi/. This same process is repeated in (11) whereby /jiten/ becomes is derived from /jitendra/, a base name composed of two free morphemes /jit/ and /indra/.

Morphological Truncation

On the other hand, another non-prosodic process may be at work. The example shown in (12) illustrates the derivation of a hypocoristic through what may be interpreted as either a prosodic or a morphological process.

(12)	indrajit	(indra + jit)	>	indra
(13)	indrajit	(indra + jit)	>	jit

The base name /indrajit/ is created from the compounding of two free morphemes /indra/ and /jit/. The derivation of the hypocoristic /indra/, at first glance, appears to follow the same process of left edge alignment and truncation as (10) and (11). However unlike these products of prosodic truncation, the truncation presented (12) and (13) does not sever any morphological units in order to conform to a certain prosodic shape. Each of the two morphemes /indra/ and /jit/ are left fully in tact, just as they were before the compounding.

The process of disassembling compounds is common. Base names are often composed of a suffix plus a free morpheme or two free morphemes. Each of the twenty medial-syllable aligned hypocoristics resulting from my corpus are instances of such “breaking-up” of compounds into their component pieces or morphological truncation.

Non-Contiguous Mapping

Bengali presents rarer forms of hypocoristic formation (shown from (14) to (25) below). All of these forms show some type of non-contiguous mapping and, in many cases, are accompanied by segmental change as well as reduplication (in (24) and (25)).

(14)	Kušum	>	kum + i
(15)	Deben	>	din + u
(16)	Rehana	>	ren + u
(17)	Rehana	>	rin + a
(18)	Gurupriya	>	gu + pi

(19)	Binodini	>	bin + di
(20)	Kuřum	>	kuřm + i
(21)	Goneř	>	Gonř + a
(22)	Komol	>	koml + i
(23)	Putul	>	putl + i
(24)	Disha	>	diř-miř
(25)	Rafiq	>	rafu-kafu

Vowel Alternations

There are many cases where hypocoristic formation corresponds with vowel alternations. Often the suffixation of the /-i/ or /-u/ suffix appears to trigger the raising of root vowel. Dil (1975: 70) summarizes the possible vowel alternation in a chart, reproduced below in (26). Some of these changes are also found in other aspects of the language. For example, in the pronominal paradigm, we see the alternation between /u/ and /o/. In the Bengali second person pronouns³, /tumi/ 'you (sg. neutral)' and /tui/ 'you (sg. intimate)', the medial vowel /u/ lowers to [o] when followed by the high vowel /-i/.

(26)

	Front	Central	Back
High	i		u
Mid	e		o
Low		a	o

1. /i/ > /u/, /u/ > /i/
2. /i/ > /e/, /e/ > /i/
3. /a/ > /i/
4. /u/ > /e/
5. /u/ > /o/, /o/ > /u/

SYLLABLE SHAPE

The previous examples clearly demonstrate that Bengali hypocoristics are overwhelmingly disyllabic. This disyllabic foot varies, permitting heavy syllables (initial and final syllables) in addition to the most common type of a disyllabic foot with two light syllables. My data offered only six cases of truncation to a monosyllable. However, the examples appear to represent two distinct phenomena.

(27)	rupa	>	Rups
(28)	dipu	>	Dips
(29)	sanji	>	Sanj
(30)	jafrin	>	Jaaf

The first, exemplified by /rupa/, /dipu/ becoming /rups/ and /dips/ respectively, reveal the influence of an informant's second language, English. This process of hypocoristic formation is frequent in English whereby a name is truncated to a monosyllabic stem and then in some cases, is suffixed with the voiced fricative /-z/.⁴ Moreover, Bengali does not permit word-final consonant clusters (Cole-Fitzpatrick, 1990: 158) so we can exclude /rups/ and /dips/ along with /sanj/ from the analysis as they are instances of the use of a recognized process of hypocoristic formation in English (Weeda, 1992), but not in Bengali.

The second process appears to be, as argued in Section 2.3, morphological truncation. The formal names /indrajit/ and /indranil/ are both compound names composed of two morphemes, /indra/ being the first morpheme of each name.

³ The second person paradigms (neutral and intimate) are formalized as:

	<i>Singular</i>	<i>Plural</i>		<i>Singular</i>	<i>Plural</i>
<i>Nom</i>	/tumi/	/tomra/	<i>Nom</i>	/tui/	/tora/
<i>Acc/Dat</i>	/tomake/	/tomader/	<i>Acc/Dat</i>	/toke/	/toder/
<i>Gen</i>	/tomar/	/tomader/	<i>Gen</i>	/tor/	/toder/

⁴ Examples of this widespread and fairly productive process include: Maggie > Mags, Deborah > Debs, Carol > Kaz, William > Wills (McCarthy & Prince, 1986; Weeda, 1992).

(31)	indrajit	>	(male)	jit
(32)	indranil	>	(male)	niil

Thus when truncated from the left edge, the hypocoristic divides along morphological lines allowing two nicknames, /indra/ or /jit/ (or /nil/). It is only in cases of morphological truncation that we find mono-morphemic nicknames. Being that this paper is only concerned with prosodic truncation, these forms will not be discussed any further.

PROSODIC MORPHOLOGY

McCarthy and Prince (1986, 1995) set out a theory which attempts to explain the relationship between morphology and phonology. More specifically, they describe how prosodic units of mora (μ), syllable (σ), foot (Ft) and prosodic word (PrWd) influence and regulate templatic and circumscriptional morphology (McCarthy & Prince, 1995: 319). McCarthy and Prince (1995:318) develop three claims:

- (1) *Prosodic Morphology Hypothesis*
 - a. *Templates are defined in terms of the authentic units of prosody: mora, syllable, foot or prosodic word*
- (2) *Template Satisfaction Condition*
 - a. *Satisfaction of the templatic constraints is obligatory and is determined by the principles of prosody, both universal and language-specific*
- (3) *Prosodic Circumscription*
 - a. *The domain to which morphological operations apply may be circumscribed by prosodic criteria as well as by the more familiar morphological ones*

Basically, McCarthy and Prince's theory of prosodic morphology asserts that templates must be expressed with reference to prosody. Moreover, the theory stipulates that templatic mapping and circumscription "must respect the well-formedness requirements of prosody" (McCarthy and Prince, 1995, 318).

This is significant for the Bengali hypocoristics in that it provides a framework which should characterize the prosodic shape of hypocoristics in Bengali and more generally, provide greater insight into status of the minimal word in the language.

MINIMAL WORD

In Bengali, the smallest independent word is a bimoraic foot. Fitzpatrick-Cole (1990:157) argues that the minimal word in Bengali is enforced through a minimal foot constraint. This constraint blocks certain phonological processes while also "trigger[ing] a repair rule of vowel lengthening" to ensure the conformity of sub-minimal words (i.e. mono-moraic) with a well-formedness condition. In short, the process of "vowel lengthening is the result of active template satisfaction" (Fitzpatrick-Cole, 1990: 167).

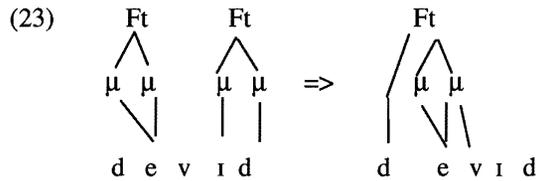
If Fitzpatrick-Cole is correct, then we can see that most Bengali hypocoristics correspond exactly to the requirements of a minimal word. They must be disyllabic, containing two moras. The syllables may end in consonants but this is of no consequence for the foot as coda consonants are not moraic and thus do not add syllable weight⁵ (Fitzpatrick-Cole, 1990).

⁵ Fitzpatrick-Cole (1990:158) characterizes Bengali prosody as insensitive to any heavy – light distinction. It may be thus argued that what truly matters is that a foot is bimoraic or disyllabic. Hayes (1985) finds that "quantity-insensitive feet are overwhelmingly trochaic in labeling" (McCarthy & Prince, 1995: 245). This finding is supported by McCarthy and Prince (1995: 246) who state that languages, which (a) do not recognize distinctions of quantity and (b) also present balanced feet, are necessarily trochaic. In essence, trochaic feet are of the default.

MAPPING TO A TEMPLATE

Monosyllabic Template (Template [σ] plus /-i/)

As suffixation seems to be the most pervasive means of forming hypocoristics in Bengali, I will begin by characterizing this process. Weeda (1992) examines a productive strategy for hypocoristic formation in English whereby a base name is truncated to monosyllabic stem which is optionally concatenated with a /-y/ suffix. For instance, in (33), the English name ‘David’ /devid/ is truncated to a heavy monosyllable, ‘Dave’ /dev/ and this stem permits the appendage of a suffix /-i/ to create another possible hypocoristic ‘Davy’ /devi/.



Weeda’s (1992:104) description of English hypocoristics remains within the theory of prosodic morphology (McCarthy & Prince, 1986) as he analyses this phenomena as the mapping of a “bimoraic syllable template ... to the word from left to right”. Following the analysis of Weeda (1992), the process of hypocoristic formation in Bengali can be characterized as the maximal mapping of a syllable (CVC) to a monosyllabic stem. However, unlike English which exemplifies the two productive processes of hypocoristic formation (“bare-stem apocope” and stem plus –y suffix), Bengali does not present a productive strategy of simple ‘bare-stem apocope’. I will thus only pursue the second strategy of truncation with suffixation which is involved in the same process of template mapping.

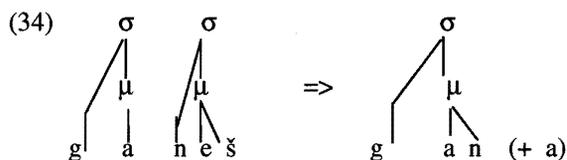
Bengali Hypocoristics as a Monosyllabic Template

The most basic hypocoristic template in Bengali may be characterized by a template which is a monosyllable of the form CVC.

The mapping of the stem melody to the template would take the following steps:

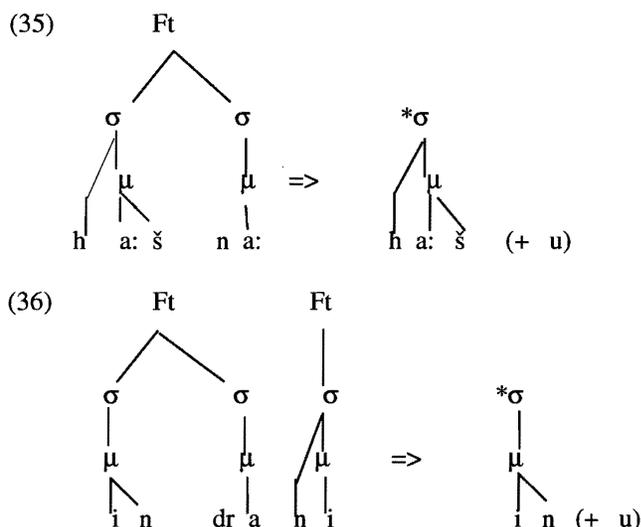
- (i) The first mora of a morpheme (associated with a left or medial edge) is mapped to a mono-syllabic template regardless of base syllabification. The syllable may include a coda consonant.
- (ii) Onset clusters (of the form obstruents + liquid) are truncated through the loss of liquid
- (iii) A number of vowel alternations may occur but they likely occur after mapping to the template and subsequent to the addition of a suffix which triggers a process of vowel harmony

The association would occur in a left to right direction (as expected for suffixes) from the beginning of a morpheme, whether word initially or medially. (34), below, shows how a template-driven left to right association would account for the phonological shape of the stem /gan-/ prior to suffixation. Here, the base name /ga.neʃ/ is mapped to one syllable regardless of its base syllabification. Note that the nuclear vowel receives a mora but the coda consonant does not as coda consonants are non-moraic⁶ in Bengali (Fitzpatrick-Cole, 1990: 167).



⁶ Vijarakrishnan (2002: 3) describes such an analysis of codas as moraic and monosyllabic lengthening as the consequence of a minimality requirement (also followed by Ghosh, 1996) as simplistic instead citing a forthcoming paper by Mitra (in preparation) who implements a catalectic solution to monosyllabic lengthening within Optimality Theory.

A template should produce a well-formed syllable as specified by universal and language-specific constraints such as an important prosodic constraint in Bengali which requires that codas are without consonant clusters. This is evidence by the absence of coda clusters in all Bengali words (Fitzpatrick-Cole, 1990; Ray, 1966). Mapping to a mono-syllable is expected to fill the template only to the extent of a well-formed syllable. This template predicts (35) /haʃ-u/ and (36) /in-u/ will be derived from the base names /haʃna/ and /indrani/. However, neither are hypocoristics that are realized in the language. Therefore, hypocoristic formation cannot be analyzed as resulting from a monosyllabic template.



Moreover, as Weeda (1992) demonstrates, the sonority sequencing can be a factor in the maximization of template mapping. The Sonority Sequencing Principle (SSP) states that since vowels are more sonorous than consonants, onset clusters should rise in sonority as the nucleus approaches and the cluster in the coda should fall in sonority. This would suggest that consonants in the coda should be preceded by a segment of higher sonority (i.e. nasals should precede obstruents). However, the syllable final sequence such as /ʃn/, generated from the mapping to monosyllabic template, violates this universal sonority ranking.

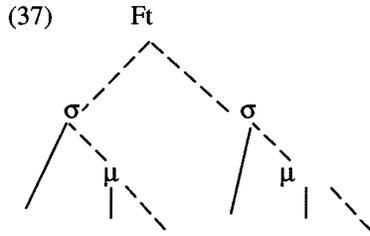
Furthermore, we might expect a hypocoristic template of the form CVC to provide examples of monosyllabic hypocoristics of the shape CVC. Yet in Bengali, we find only four cases of such hypocoristics, all of which have already been excluded because they result from an English template or are truncated with respect to morphological boundaries without consideration of the prosodic processes described above.

For all of the reasons stated, it is not possible to derive all hypocoristics or even the most productive type of hypocoristics with a monosyllabic template as this template does not comply with the Template Satisfaction Condition (McCarthy & Prince, 1995: 318) which requires that the template is determined by universal and language-specific principles of prosody. The next section considers an analysis of Bengali hypocoristics as the consequence of a foot-level template.

A Foot Level Template

McCarthy and Prince (1986) as well as Weeda (1992) argue against an analysis of English hypocoristics as the product of a suffix-inclusive disyllabic template. However, unlike English, which rarely⁷ truncates to a disyllabic foot, Bengali hypocoristics fervently conform to a disyllabic foot. This section develops an analysis that posits Bengali hypocoristics as derivatives of a foot-level template. Unlike Japanese (Poser 1984; Poser, 1990; Mester, 1990) which concatenates a suffix to the bimoraic foot template, the Bengali template contains a vocalic element which is linked to the final mora in the minimal (disyllabic) word. Such a template has the potential to embrace a great range of hypocoristics including those which (a) receive suffixation and (b) contain a suffix but still hold to a disyllabic template (including right-edge alignment or edge-in mapping). (37) illustrates a tentative disyllabic target template for mapping.

⁷ English does present a few examples of truncation to a disyllabic foot such as such as Ebenezer > Eben, Alexander > Alex, Leonard > Leo (Weeda, 1995, 182).



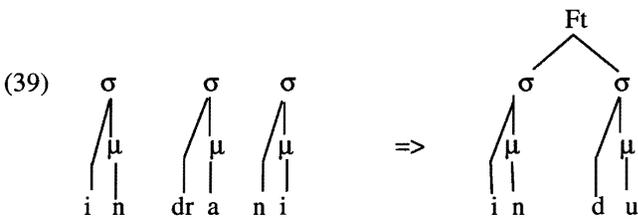
What is more, this template parallels the minimal word for Bengali (as described in Section 6). Cross-linguistically, it has been reasoned that templates commonly make reference to the minimal word (McCarthy & Prince, 1999: 244). Furthermore, while the “minimal word has no actual status as a primitive template” it has been depicted as the most agreeable form of the “prosodic word under the metrical constraints – PARSE SYLL and ALL-FEET-RIGHT/LEFT” (McCarthy & Prince, 1995: 245).

Suffixation as a Strategy for Hypocoristic Formation

Bengali hypocoristics in their most basic shape are of the form CV.CV. However, it has been shown that the first syllable commonly permits a coda consonant and in rare cases the second syllable permits a closed syllable as well. The hypocoristic template is characterized by a foot consisting of two syllables which pre-specifies the final mora as a vocalic suffix (/ -u/, / -i/ or / -a/). The syllables of suffixed hypocoristics are either of the form CV.CV (if all words are assumed to have onsets) or CVC.CV. Similar to Spanish hypocoristics (Lipsky, 1995: 391), both of the two syllables are open with the exception of the “first syllable which ends in a nasal, homorganic with the following consonant”. The mapping of the stem melody to the template follows the steps summarized in (38):

- (38)
- (i) The name undergoes prosodic circumscription to a monosyllable
 - (ii) The monosyllable (associated with a left or medial edge) is mapped to a foot level template regardless of syllabification.
 - (iii) A number of vowel alternations occur but they are likely to occur after the addition of a suffix which triggers a process of vowel harmony

If the hypocoristic template is indeed a foot level template (suffix-inclusive), then there should be mapping of more than one post-vocalic consonant. This is exactly what we find. However, the contiguous mapping is limited to a consonant preceded by a homorganic nasal which is likely licensed by the consonant onset. Additionally, as a coda consonant is non-moraic, a second consonant would not disturb the weight of the syllable. This template would justify the most common shape of hypocoristic which is of the form CVN.CV (N being a homorganic nasal) such as /indrani/ which retains the homorganic nasal in its hypocoristic form /indu/ illustrated in (39) below. However, the problem remains as to why the hypocoristic is not of the form */indru/. This suggests that prosodic circumscription takes place first in order to get the monosyllable and then there is mapping to a template.



Circumscription as a Strategy for Hypocoristic Formation

In addition to suffixed hypocoristics, Bengali also productively generates disyllabic non-suffixed forms, as illustrated in (40) and (41).

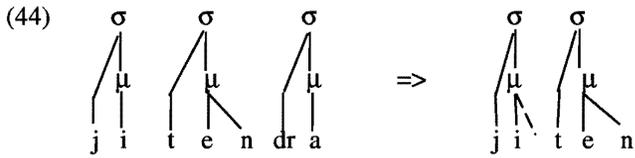
- (40) jitendra (jita + indra) > Jiten
- (41) godindra > gabin

These Bengali hypocoristics are clearly prosodic (as the truncated form crosses a morphological boundary) but do not end in a vocalic suffix. Some of these examples of circumscribed forms do end in vowel such as those in (42) and (43).

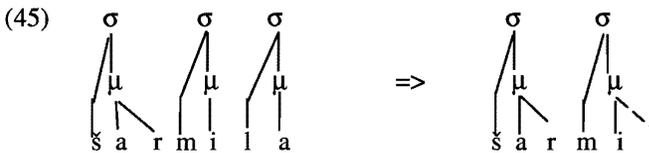
- | | | | |
|------|--------------------|---|-------|
| (42) | šarmila | > | šarmi |
| (43) | šumita (šu + mita) | > | šumi |

However, their status as suffixed ‘clippings’ is somewhat ambiguous. The description of the most productive strategy of suffixing truncated forms in Section 3.1 excludes this form as its rhyme final consonant is not a homorganic nasal. Moreover, the final vowel of the hypocoristic remains the same as the vowel of the base name.

Bengali allows the circumscription of a bimoraic foot (including non-moraic coda consonants) as demonstrated in (44) and (45).



The first two syllables of a morpheme (associated with a left edge) are circumscribed to two syllables. As demonstrated with other hypocoristics⁸ previously, any onset cluster (of the sequence obstruents + liquid) is expected to be simplified through the loss of the liquid.



Edge-In Strategy for Hypocoristic Formation

Another⁹ possible strategy for hypocoristic formation includes what Lipsky (1995) in the tradition of McCarthy and Prince (1996) termed *edge-in mapping*. This process, while less common than simple suffixation and “clipping”, is quite productive. While the space constraints of this paper do not allow a detailed discussion of each of these sub-types, an analysis modeled on that of Lipsky (1995) should account for the three related phenomena illustrated by the examples of non-contiguous mapping in (46) to (51).

- | | | | |
|------|-----------|---|----------|
| (46) | kušum | > | kum + i |
| (47) | rehana | > | ren + u |
| (48) | gurupriya | > | gu + pi |
| (49) | binodini | > | bin + di |
| (50) | kušum | > | kušm + i |
| (51) | gɔnəš | > | gɔnš + a |

The result of the non-contiguous mapping appears indistinguishable from the strategy of suffixation developed in Section 4.2 as the template is a mapping target which pre-specifies a vocalic element for the final mora. However, unlike contiguous mapping, the first syllable is not required to be open or end in a nasal, homorganic with the

⁸ The template however does not allow complex onsets as demonstrated by the distinguishing feature of morphological and prosodic processes of hypocoristic formation.

(1) /indrajit/ > /indra/ exemplifies truncation based on morphology.

(2) /indrani/ > /indu/ typifies a prosodic process which includes the mapping to a foot template.

⁹ One last less productive type is that of reduplication seen in examples such as /diša/ > /diš miš/ and /rafiq/ > /rafu kafu/. These too should be able to be analyzed within a foot template.

following consonant. Yet, Lipsky's (1995) dissection of non-contiguous hypocoristics in Spanish should provide a starting point for the analysis of similar Bengali hypocoristics within a disyllabic foot. An expanded discussion of this strategy will be deferred for argument in future papers.

CONCLUSION

In this paper, I have provided an analysis of a wide range of hypocoristics in Bengali. I argued that these hypocoristics can be accounted for within a theory of Prosodic Morphology. I demonstrated that a monosyllabic template is unsuitable for Bengali hypocoristics and instead proposed a disyllabic, bimoraic foot as the template for mapping which explains the shape of hypocoristics derived through prosodic processes while excluding those which present truncation along morphological lines. I have also established that this template corresponds to the minimal word, the "most harmonic form of the prosodic word under metrical constraints" (McCarthy & Prince, 1995: 245).

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