

On the origin of affixal polysemy/homonymy in Bengali*

Shishir Bhattacharja

In Bengali, words endowed with a variety of semantic readings and categorical affiliation end in an isophonic suffix, a phenomenon known as affixal polysemy (or homonymy) in the literature. In this article, we account for this phenomenon in the light of W(hole) W(ord) M(orphology) (elaborated in Ford, Singh, and Martohardjono 1997). WWM claims that any morphological relationship between two words of a language can be described by a W(ord) F(ormation) S(trategy) licensed by a set of semantically related pairs of words showing the same formal difference and categorical affiliation. We claim that each new output of a particular WFS manifests a unique semantic relatedness with the input. Consequently, each new pair (constituted of the input and the output) may subsequently serve as a different model to form some other new words. If some of the outputs and inputs of such WFSs undergo categorical changes, new WFSs based on different categorical affiliations also come into being. These are some of the factors that motivate multiplication of WFSs that are based on the same formal difference. As other models of morphology describe certain formal differences (manifested in different sets of word-pairs) as affixes, they see the multiplication of WFSs based on those formal differences as affixal polysemy or homonymy.

1. Preliminaries

As in many other human languages, different words endowed with a variety of semantic readings and categorical affiliations end in an isophonic suffix in Bengali.¹ For example, in (1-15), as many as 15 different nouns and adjectives endowed with different semantic readings end in the suffix {i}.² The question that naturally arises is why in human languages, isophonic affixes are found in a variety of words?³ There may reasonably be a debate (see Plag 1997:236) about whether the same polysemous suffix appears in words of this kind, or if each one of them contains a different homonymous suffix.⁴ In this article, we shall attempt to answer this question and try to contribute to the debate in the light of W(hole) W(ord) M(orphology) (elaborated in Ford, Singh, and Martohardjono 1997).
NOUN-ADJECTIVE

2 *Shishir Bhattacharja*

(1) 'Who/which has X (X = base)' [- dynamic, - material]⁵
shukh 'happiness' → *shukhi* 'happy'

(2) 'Of X' [- dynamic, - material]
japan 'Japan' → *japani* 'of Japan'

(3) 'Made of X' [- dynamic, + material]
reshom 'silk' → *resh(o)mi* 'made of silk/silken'

(4) 'Which has the colour of X' [- dynamic, - material]
golap 'rose' → *golapi* 'rose-coloured/rose/rosy'

(5) 'administratively concerning X' [- dynamic, - material]
nirbacon 'election' → *nirbaconi* 'electoral'

(6) 'Which does X' [- dynamic, - material]
binash 'destruction' → *binashi* 'destructive'

(7) 'Which follows or supports X' [- dynamic, - material]
marksbad 'Marxism' → *marksbadi* 'Marxist'

(8) 'Which measures or weighs X' [- dynamic, - material]
paNc fuT 'five feet' → *paNc fuTi* 'five feet long'⁶

ADJECTIVE-NOUN

(9) 'X-ness' [- dynamic, - material]
calak 'clever' → *calaki* 'cleverness'

NOUN-NOUN

(10) 'Who does X' [+ dynamic, + material]
khun 'murder' → *khuni* 'murderer'

(11) 'Who uses X as an instrument' [+ dynamic, + material]
kOrat 'saw' → *kOrati* 'sawer'

(12) 'Activities of X' [- dynamic, - material]
mashTar 'teacher' → *mashTari* 'teaching'

(13) ‘Money/present given as a token of X’ [– dynamic, + material]
shomman ‘respect’ → *shommani* ‘honorarium’

(14) ‘Done with X’ [– dynamic, – material]
phaNsh ‘a slip knot’ → *phaNshi* ‘death or practice of killing by hanging’

(15) ‘Made of X’ [– dynamic, + material]
baNsh ‘bamboo’ → *baNshi* ‘flute’

It does not seem to be possible to treat {i} in the same way as Plag (1997) treats the suffix {ize} in English. According to Plag, most of the words that end in {ize}, including about 300 types of neologisms he mentions, have the same underlying *lexical semantic structure*. He (1997:235) concludes from this that concatenating {ize} to different base words is a “semantically transparent polysemous process.” However, on the basis of a synchronic and diachronic analysis of a variety of Spanish words ending in the suffix {azo}, Rainer (2003:204) demonstrates that the attempt to derive all such words as contextual variants of one single abstract meaning suffers from serious defects. Similarly, the semantic and categorical diversity of the derived words in (1-15) cannot be handled with one single process, or with one single underspecified meaning like ‘related to X’ or ‘of X’.

Following Lieber (2004), although we have provided the examples (1-15) with semantic features of the affix {i}, we will not present any semantic or pragmatic analysis of this or any other affix in the present description. We shall not do this because there is no model that we know of which would allow us to do such an analysis satisfactorily. Lieber (2004) demonstrates that different existing models of semantic analysis (e.g. Jackendoff 1990, Pustejovsky 1995, Wierzbicka 1996 and Szymanec 1988) among others) are not adequate for handling affixes. However, there are examples among (1-15) which pose problems for Lieber’s (2004) own model. This is because her model does not allow a particular affix to create both concrete [+ material] and abstract [– material] nouns. But, as we see in the examples above, {i} can appear in both abstract and concrete nouns ((9) and (10)), and adjectives ((6) and (3)) respectively. We find that, contrary to Lieber’s (2004) predictions, both stative (13) and activity nouns (12) can end in the same suffix {i}.

2. Whole word morphology

We will now briefly describe the model WWM in what follows, before we move on to demonstrate how words with a variety of semantic reading and categorical affiliation happen to end in an isophonic suffix in Bengali. According to Singh (2006:578)

“All that needs to be said about word structure in any language (of any type whatsoever) can and must be said by instantiations of the schema in (S1). These instantiations are referred to as Word Formation Strategies (WFSs) because, as generalizations drawn from known particular facts, they can be activated in the production and understanding of new words. WFSs must be formulated as generally as possible, but – and this is crucial – only as generally as the facts of the matter permit.

S1. $/X/_{\alpha} \leftrightarrow /X'/_{\beta}$ where

1. $/X/_{\alpha}$ and $/X'/_{\beta}$ are words and X and X' are abbreviations of the forms of classes of words belonging to categories α and β (with which specific words belonging to the right category can be unified or on to which they can be mapped).
2. ' represents (all the) form-related differences between $/X/$ and $/X'/_{\beta}$ that fall outside of automatic phonology.
3. α and β are categories that may be represented as feature bundles.
4. The \leftrightarrow represents a bidirectional implication (if X then $/X'/_{\beta}$, and if $/X'/_{\beta}$, then X).
5. The interpretation of $/X/_{\alpha}$ is a semantic function of $/X'/_{\beta}$ and vice versa.
6. ' can be null iff $\alpha \neq \beta$.”

As Singh (2006:578) expresses it, WWM sees morphology, “not as a combinatorics of morphs or morphemes but as a system of generalized and abstract bidirectional correspondence among patterns instantiated by sets of whole words that exploit the same contrast.” Singh (2006:578) goes on to state that some advocates of WWM (e.g. Ford, Singh, and Martohardjono 1997) take the ‘dissociative’ view of morphology and “postulate the existence of rules of interpretation associated with WFSs”, whereas others (e.g. Neuvel 2003) subscribe to the ‘associative’ view *à la* Corbin (1987) and require the said contrast to be “both formal and semantic.”

In the present article, we will adopt the dissociative view of morphology in the sense that each WFS has to be licensed by a set of semantically related pairs of words showing the same i) formal contrast and ii) categorical affiliation. For example, (16) instantiates a WFS of English because it is licensed by a set of semantically related word-pairs which

manifest the same i) formal contrast: X/X□□ and iii) categorical affiliation: Noun/Adjective, but not necessarily the ‘same’ semantic contrast. Each WFS is provided with an ad hoc rule of interpretation (e.g. ‘/X/-like’) in the present article. The bidirectional arrow implies that a WFS can be activated both ways by using either of the pair-mates as the input.

- (16) /X/_N ↔ /X□□/_{Adj} ‘/X/-like’
friend ↔ *friendly*; *man* ↔ *manly*

According to WWM, words have no internal (non-phonological) hierarchical structure. However, if a particular word is mapped onto some relevant WFS it can be analyzed into two subcomponents, a *variable* (*friend/man*) and a *constant* (/□□/). Subcomponents can be represented by any phonic element: single phoneme, meaningless sound cluster, words, and discontinuous or continuous segmental as well as supra-segmental means like stress and tone (variables, however, cannot be exclusively supra-segmental). For example, if the Hebrew word /*hagdala*/ ‘enlargement’ is mapped onto (17), the variable will be represented by the discontinuous sequence of consonants: /h/-/gd/-/l/, and the constant by the discontinuous sequence of vowels: /a/-/a/-/a/. Equally, if the Chinese word /*ts^h•³⁵*/ ‘a plough’ is mapped onto (18), the constant will be represented by the rising tone while the variable will be represented by the sequence of segments.

- (17) /CaCCaCa/_N ↔ /CiCCiC/_V ‘Action of doing /CiCCiC/’
/hagdala/ ‘enlargement’ ↔ */higdil/* ‘enlarge’
/haxtaba/ ‘dictation’ ↔ */hixtib/* ‘dictate’ (Data:Booij 2005:38)

- (18) /CV¹¹/_V ↔ /CV³⁵/_N ‘To do the action by using /CV³⁵/’
/m•¹¹/ ‘to grind’ ↔ */m•³⁵/* ‘a grind’
/ts^h•¹¹/ ‘to plough’ ↔ */ts^h•³⁵/* ‘a plough’ (Data:Yu 2007:191)

3. Multiplication of WFSs based on the same formal difference

We will now move on to see how different words happen to end in an isophonic suffix. It may be claimed that one of the reasons behind this phenomenon is that, some model WFSs are split into other different WFSs in the course of time. To begin with, one may consider (19) which had been a part of the morphological module of Bengali for quite some time but had remained quite unproductive until very recently.

- (19) /X/_N ↔ /Xkheko/_{Adj/N} ‘X/-devourer’ [– dynamic, +/ – material]
 /manush/ ‘human being’ ↔ /manushkheko/ ‘man-eater’
 /kOlje/ ‘liver’ ↔ /kOljekheko/ ‘who eats (human) liver’

Between November 2006 and January 2009, (19) became comparatively more productive, possibly because of the indirect influence of socio-political incidents in Bangladesh (when the fourth care-taker government in power engaged itself in some sort of ‘corruption-cleansing’ activities). At the beginning of this period, a word with the particular semantic reading of ‘forest-devourer’ /bonkheko/ was formed, we suppose, by mapping /bon/ ‘forest’ onto (19). It was followed by the formation of another new word /nodikhkeko/ ‘river-devourer’. We assume that these two pairs: /bon/~ /bonkheko/ and /nodi/~ /nodikhkeko/ license a new WFS (20) with a rule of interpretation which is different from the rule of interpretation found in (19). Several other neologisms like /bhumikhkeko/ ‘land-devourer’, /shomudrotOtkheko/ ‘sea-beach devourer’ were formed with (20) in the recent times.

- (20) /X/_N ↔ /Xkheko/_{Adj/N} ‘A disgusting person who illegally takes some public property /X/ in his possession and makes every possible misuse of it’ [– dynamic, +/ – material]
 /bon/ ‘forest’ ↔ /bonkheko/ ‘who misuses a forest by selling off trees, etc.’
 /nodi/ ‘river’ ↔ /nodikhkeko/ ‘who takes a river in his possession and misuses it’

In the above, one needs to be aware of the fact that some speakers may merge (19) and (20) by adjusting their rule of interpretation to some extent. However, it is equally possible that other speakers may not do so because unlike /manushkheko/ ‘man-eater’, /bonkheko/ ‘who illegally misuses a forest’ is not an animal, but a human being, more specifically, a high government official in charge of the forest (and also because, for a tiger the act of devouring human beings cannot be considered to be illegal or disgusting). One may also argue that /bonkheko/ was in fact formed after /manushkheko/ and not necessarily by activating (19).⁷ However, we assume that the Bengali journalist who coined /bonkheko/ did it by activating (19), but he could also have coined it after /manushkheko/ ‘man-eater’ if his lexicon lacked other words ending in [kheko], and/or if (19) was not part of his morphological module. Words can be formed through various other means, but if a particular WFS is a part of the morphological module of a speaker-hearer, it is more likely that he will activate the WFS

for creating a new word. We do not claim that WFS is the only tool for creating new words. We simply claim that it is a tool among many others.

It can be claimed that each new output of a particular WFS manifests a more or less unique semantic relatedness with the input, or, to put it in Aronovian (1976) terms, each output of a WFS is a unique function of its input. For example, unlike */bonkheko/*, a */nodikheko/* is not a government official, but rather a local political leader or an influential hooligan. It is quite likely that in the near future (20) will also split into two different WFSs. Each new pair has, to some extent, the potential to license a different WFS so that whenever a set of pairs with a similar semantic relatedness becomes available, the model WFS is split to create a new WFS endowed with a different rule of interpretation.⁸

If some of the outputs and inputs of a particular WFS undergo categorical changes, a new WFS based on different categorical affiliations can also come into being. As a result, the number of WFSs, each based on the same formal difference, but endowed with different rule of interpretation and/or categorical affiliation continues to multiply. As other models describe particular formal differences like [i] and [kheko] manifested in different sets of word-pairs as *affixes*, they see the multiplication of WFSs based on these formal differences as affixal polysemy (or homonymy). For a model that considers affixes as lexical entries (such as Lieber 1992), (1-15) or (19-20) can be seen as multiplication of the number of isophonetic affixes, each one endowed with a different shade of meaning and (probably) different argument structures.

This paper shall now proceed to focus on another case which clearly shows how splitting becomes imperative due to the diversity of semantic relatedness manifested in different word-pairs licensing a particular WFS. One can assume that (21) has been part of Bengali morphology since the time that the Bengali speaking society in conjunction with other Indic language speaking societies in South Asia, used to consider women to be the property of respective husbands while an army was the property of the commander. The reason behind such an assumption is that unless one postulates (21) it is difficult to explain how the sequence [poti] could appear in words like */shenapoti/* ‘army commander’ and */koTipoti/* ‘millionaire’.

- (21) $/X/N \leftrightarrow /Xpoti/N$ ‘Who owns /X/’ [+ material, – dynamic]
/shita/ ‘Sita, heroine of the epic *Ramayana*’ \leftrightarrow */shitapoti/* ‘husband of Sita/god Rama’
/bhogni/ ‘sister’ \leftrightarrow */bhognipoti/* ‘husband of one’s sister/brother in law’

/koTi/ ‘ten million’ ↔ */koTipoti/* ‘owner of ten million rupees/millionaire’
/shena/ ‘soldier, army’ ↔ */shenapoti/* ‘army commander’
/shilpo/ ‘industry’ ↔ */shilpopoti/* ‘industrialist/owner of an industry’
/bicar/ ‘justice’ ↔ */bicarpoti/* ‘judge’
/nOgor/ ‘city’ ↔ */nOgorpoti/* ‘owner of the city/a king’

It is possible that words like */shitapoti/* ‘husband of Shita/god Rama’, */bhognipoti/* ‘brother in law’, etc. are the oldest among these words and */nOgorpoti/* ‘King’, */shenapoti/* ‘army commander’, etc. are later creations because etymologically, */poti/* is the person who gives birth to */Opotto/* ‘children/siblings’.⁹ However, in the then Bengali speaking society */poti/* ‘husband’ was also considered the master of his wife/wives, and some speaker-hearer(s), based on this second meaning of */poti/*, could have coined words like */nOgorpoti/* ‘King’, */kulpoti/* ‘a patriarch’, etc. As a consequence, (21) was established as a WFS. Be that as it may, in the course of time, the meaning/use of some of the outputs of (21), such as */bhognipoti/*, */shenapoti/*, */nOgorpoti/*, etc. underwent changes, and consequently two other WFSs (22-23) came into being, each endowed with a different rule of interpretation. We may presume that this happened because of changes in the Bengali speaking society: a */bhognipoti/* could never own somebody’s sister anymore than a */nogorpoti/* or */bicarpoti/* could own the city, or own justice.

(22) $/X/N \leftrightarrow /Xpoti/N$ ‘Husband of X’ [+ material, – dynamic]
/bhogni/ ‘sister’ ↔ */bhognipoti/* ‘husband of one’s sister/brother in law’
/shoci/ ‘Shoci/wife of the god Indra’ ↔ */shocipoti/* ‘husband of Shoci/god Indra’

(23) $/X/N \leftrightarrow /Xpoti/N$ ‘Who is in charge of /X/’ [+ material, – dynamic]
/shena/ ‘soldier/army’ ↔ */shenapoti/* ‘army commander’
/bicar/ ‘justice’ ↔ */bicarpoti/* ‘judge’
/nOgor/ ‘city’ ↔ */nOgorpoti/* ‘owner of the city/a mayor’

Although (21) still remains a part of Bengali morphology, it has undergone two changes: i) presently it is licensed with a subset of word-pairs that used to license it in the earlier period of time, and ii) words like */bicarpoti/* ‘judge’ or */bhognipoti/* ‘husband of one’s sister’ cannot be formed or analyzed with it anymore. We note here that a WFS can survive until there is in the lexicon, the required number of adequate pairs.

At the very beginning of the process of splitting, split WFSs may be metaphorically and metonymically linked with each other (cf. Rainer 2003). However, with the passage of time, such links are usually lost. We

can note that the semantic features (*à la* Lieber 2004) that we have provided in (21-23) are the same, as it is possible to show that these WFSs manifest a common, underspecified rule of interpretation: ‘related to /X/’. Nevertheless, as we can realize, the relations of a millionaire with his money, of a husband with his wife, and of a judge with justice are semantically (and also pragmatically) too diverse to handle the outputs of (21-23) with one single WFS (24). For example, (24) will not be of much help if a speaker-hearer wants to analyze a previously unencountered word like *shOrpopoti* which means either ‘King of snakes’ or ‘who owns a lot of snakes’, both manifesting the underspecified meaning ‘related to snakes’. To analyze the word morphologically, the speaker-hearer must have (25) and/or (26) in his morphological module.

- (24) * /X/_N ↔ /Xpoti/_N ‘related to /X/’ [+ material, – dynamic]
 /koTi/ ‘ten million’ ↔ /koTipoti/ ‘owner of ten million rupees/
 millionaire’
 /bhogni/ ‘sister’ ↔ /bhognipoti/ ‘husband of one’s sister/brother in law’
 /bicar/ ‘justice’ ↔ /bicarpoti/ ‘judge’
- (25) /Xo/_N ↔ /Xopoti/_N ‘King of /Xo/s’ [+ material, – dynamic]
 /shOrpo/ ‘snake’ ↔ /shOrpopoti/ ‘king of snakes’
 /mOtsho/ ‘fish’ ↔ /mOtshopoti/ ‘king of fishes’
- (26) /X/_N ↔ /Xpoti/_N who owns a lot of /X/ [+ material, – dynamic]
 /shOrpo/ ‘snake’ ↔ /shOrpopoti/ ‘who owns a lot of snakes’
 /Oshsho/ ‘horse’ ↔ /Oshshopoti/ ‘who owns a lot of horses’

When a regular word (e.g. /*poti*/ ‘husband’) appears as the constant in some WFS, it enters the process of grammaticalization. In the course of time, it may lose its original meaning/use, and finally, its form, becoming something that other models call an *affix*. The sequence [poti] in (22-23) and (25-26) cannot be listed as a full word anymore because (27) sounds odd and (28) is simply not acceptable. In our view, the outputs of (22-23) are problematic for any model which claims to handle compounds in syntax with one of the following mechanisms: i) Movement (Roeper and Siegel 1978), ii) Incorporation (Baker 1988, Shibatani and Kageyama 1988, Kageyama 1991), iii) Argument linking principles (Lieber 1992), and iv) Coindexing (Lieber 2004).

- (27) ?/tini amar bhognir poti
 he my sister’s husband

‘He is my sister’s husband’

- (28) **tini* *shilper* *poti*
 he industry’s owner
 ‘He is the owner of some industry’

If words ending in [poti] are formed in syntax, it is unclear why no other synonym of /poti/ (e.g. /shami/, /bOr/, etc.) can replace this sequence **/shilposhami/* ‘industrialist’ or **/koTibOr/* ‘millionaire’. Sequences like [poti] in (22-23) are not generally considered as suffixes either. It is unclear how words like */shilpopoti/* ‘industrialist’ or */bicarpoti/* ‘judge’ can be handled in morpheme-based models like that of Lieber (1992) or Kiparsky (1996) unless they can accommodate categories like *affixoids* (cf. Booij 2004) or ‘becoming affix’ and consider [poti] as such.

We claim that no such problems arise in a WWM account of the outputs of (1-15), (19-20) and (21-23) because the model attributes no status to [i], [kheko] or [poti] which appear as the constant in those words. One has the impression that [poti] in */bicarpoti/* is a separate entity, merely because this sequence is isophonetic with the full word */poti/* ‘husband’. However, the fact that the sequence [poti] is isophonetic with the regular word */poti/* or [i] is isophonetic with the constant of some other WFSs is irrelevant for morphology *à la* WWM. What is indispensable here is that, on the one hand, there is one set of nouns in the lexicon that end in these sequences, while on the other hand, another set of nouns (or adjectives) is also there that lack these sequences. Morphology *à la* WWM will take care of the rest. Hence, we have a variety of words that end in the sequence [poti] because (21-23) and (25-26) allow us to form these words while the unavailability of words like **/shilposhami/* or **/koTibOr/* is due to the fact that our morphological module lacks the relevant WFSs.¹⁰

4. Conclusions

In this article, we have attempted to show how the number of WFSs based on the same formal contrast multiply in the course of time. As other models of morphology describe certain formal differences (manifested in different sets of word-pairs) as affixes, they see this phenomenon as affixal polysemy or homonymy. However, we claim that multiplication of WFSs based on the same formal contrast, but where each is endowed with a different semantic interpretation could be one of the reasons why a variety of words happen to end in a polysemous/homonymous affix in Bengali.

Acknowledgements

I am grateful to Professor Rajendra Singh and to the reviewers whose thought provoking comments and suggestions have been very helpful. Usual disclaimers apply. I thank my senior colleague Dr. Dil Afroze Quader who has read several versions of this paper during the last four years and tightened up my prose. I must thank Professor Taro Kageyama, my Post-doc research supervisor in Japan and Professor Peter Hook for their helpful comments. I also thank Professor Monsur Musa, another senior colleague who sometime in the late eighties drew my attention to various {i}s in Bengali. For financial support, I gratefully acknowledge the beneficence of the Japan Society for the Promotion of Science (JSPS) and University of Dhaka, Bangladesh, while for logistic support, I am indebted to the Kwansai Gakuin University and the National Institute for Japanese Language and Linguistics, Tokyo, Japan.

Notes

*An earlier version of this article was presented in *Theoretical contribution from lesser-studied languages and language varieties*, conference organized by Rice linguistic society, at Rice University, USA, 21-22 February 2009.

1. Although we have used traditional terms like *affix*, *suffix* or *root* throughout this article to ease discussion, there would in fact be no need for this if we adopted the WWM framework.
2. {i} is also used as a derivational suffix for forming feminine nouns (a) and as an inflectional suffix for 1st person singular or plural (b). These two uses are not the concern of the present article.
 - (a) ‘Wife/feminine of /X/’ [- dynamic, + material]
mama ‘maternal uncle’ → *mami* ‘wife of maternal uncle’
 - (b) ‘I do the action referred to in /X/’ [+ dynamic, – material]
pOr ‘read!’ → *pori* ‘I read’
3. For similar cases in other languages, see Booij (1986) for Dutch, Beard (1990) for Russian, English, German and Serbo-Croatian, Lehrer (2003) for English and Rainer (2003) for Spanish.
4. Chatterji ([1926] 1970:671) (volume 2, chapter 1 entry 418) describes {i} as “a secondary affix, forming nouns and adjectives”. According to him “Three

separate affixes of OIA seem to converge into this single NIA form: (i) <<-ī < -in >>; <<mālin > NIA māli *gardener* : but the force of the nominative form seems to have been only of secondary importance in the evolution of the NIA. affix; (ii) << -īya >> : <<dēśīya > NIA. dēśī >> *native*; and (iii) <<-ika >>: <<grāmika >> > gāi >> *village name, clan name*: the feminine form of this <<-ikā >> is also <<-ī , -i >>, which is the most popular feminine affix of NIA.” Chatterjee (ibid.) also states that “Later in NIA. this affix was strengthened by the <<- ī >> of Persian.”

5. Examples in (1-15) are provided with an ad hoc semantic reading of the words along with the semantic features of the suffix {i} following Lieber (2004) who claims that most affixes can be classified by using only three features i) [+/- material], ii) [+/- dynamic] and [+/- IEPS (Inferable Eventual Position or State)]. According to her (2004:24) [+/-material] “defines the conceptual category of SUBSTANCE/THINGS/ESSENCE, the notional correspondence of the syntactic category Noun. The positive value denotes the presence of materiality, characterizing concrete nouns. Correspondingly, the negative value denotes the absence of materiality; it defines abstract nouns.” The feature [+/-dynamic] on the other hand, “signals an eventive or situational meaning, and by itself signals the conceptual category of SITUATIONS. The positive value corresponds to an EVENT or Process, the negative value to a STATE.” [+/-IEPS] denotes mainly change (s) in position or state.
6. In (9), {i} is concatenated to a phrase having the measure word /fuT/ as its head and the numeral /paNc/ as a modifier. Hence /paNc fuTi/ can be compared with ‘Queen of England’s’ in which the genitive suffix {s} is concatenated to a phrase and not to a word.
7. One of our reviewers reminds us that ‘no matter which morphological theory one espouses, there must be other means of creating words than those that belong to morphology proper. There may now be a ‘gate’ morphological strategy for creating names for political scandals, but the first word coined after ‘Watergate’ cannot logically be the output of morphology.’ We completely agree with the fact that the very first word formed after *Watergate* (as far as I remember it was *Irangate* formed in the mid-eighties) was not an output of morphology. However, there is a difference between *Irangate* and /bonkheko/. No WFS like /X/_{N,country} ~/Xgate/_N ‘political scandal related to /X/’ preceded the creation of the former, whereas it can be claimed, on the basis of attested pairs, that (19) was part of Bengali morphology much before /bonkheko/ came into existence.
8. Another reviewer has found our idea of splitting of WFSs ‘troubling’ because, as (s)he expressed it: ‘Once new words are learned or coined, they become ‘alive’ to a point where it is no longer possible to generate them using the WFS

that created them. If, by some luck, another word created by the same WFS were to 'evolve' in exactly the same way, then, yes, these new word pairs would license the creation of a new WFS. But how likely is that?' In answer, we say that such a phenomenon could not take place randomly, which in turn could be the reason why affixal polysemy (or homonymy) does not pervade the language(s) in question.

9. Words like /poti/, /Opotto/, /napat/ (>/nati/ in Bengali/Hindi) 'grand children' and English *nephew*, *nepotism*, *potent*, *power*, *possible* have derived from the same Indo-European root which probably meant 'to give birth' (see <http://www.etymonline.com>).
10. One of our reviewers expresses the opinion that, for handling the problem of isophonic affixes, WWM is not fundamentally a better choice than the traditional Item-and-Arrangement analysis. According to him/her, 'the approaches one can take are essentially the same: one can posit several isophonic affixes, rules or strategies or one can posit a single affix, rule or strategy with an underspecified meaning relation.' If we look at (1-15) only, we cannot but agree with him/her. However, examples given from Spanish in Reiner (2003) and (24-26) convincingly show that a common underspecified rule of interpretation cannot satisfactorily account for all semantic relatednesses manifested in different pairs. Examples like (19-20) and (21-23) suggest that the splitting of some word formation process is basically triggered by the uniqueness of the semantic relatedness between two whole words whereas it is unclear whether *items* like [kheko] or [poti] or their *arrangements* have any impact on the splitting of the word formation rules which would involve those items

References

- Aronoff, Marc
1976 *Word Formation in Generative Grammar*. Massachusetts:
The MIT Press.
- Baker, Mark
1988 *Incorporation: a Theory of Grammatical Function Changing*.
Chicago: The University of Chicago press.
- Beard, Robert

- 1990 The Nature and Origins of Derivational Polysemy. *Lingua* 81:101-140.
- Booij, Geert
 1986 Form and meaning in morphology: the case of Dutch 'agent nouns'. *Linguistics* 24: 503-517.
 2004 Compounding and derivation, evidence from construction morphology. In *Morphology and its Demarcations*, Wolfgang U. Dressler, Dieter Kastovsky, Oslar E. Pfeiffer, and Franz Rainer (eds.), 109-131. Amsterdam: John Benjamins Publishing company.
 2005 *The grammar of Words*. Oxford University Press, Oxford.
- Chatterji, Sunitikumar
 1970 *The Origin and Ddevelopment of the Bengali language* (3 vols). London: George Allen and Unwin Ltd. Original edition, Calcutta University, 1926.
- Corbin, Danielle
 1987 *Morphologie Derivationelle et Structuration du Lexique*. Tübingen: Niemeyer.
- Ford, Alan, Singh Rajendra, and Gita Martohardjono
 1997 *Pace Panini, towards a Word-based theory of Morphology*. New York: Peter Lang.
- Jackendoff, Ray
 1990 *Semantic Structures*. Cambridge, MA:MIT Press.
- Kageyama, Taro
 1991 Light verb constructions and the syntax-morphology interface. In *Current English Linguistics in Japan*, Heizo Nakazima (ed.), 169-203. Berlin: Mouton de Gruyter.
- Kiparsky, Paul
 1996 Allomorphy or morphophonology. In *Trubetzkoy's Orphan*, Rajendra Singh (ed.), 13-31. Amsterdam: John Benjamins.
- Lehrer, Adrienne
 2003 Polysemy in derivational affixes. In *Polysemy, Flexible Patterns of Meaning in Mind and Language*, Brigitte Nerlich, Zazie Todd, Vimala Herman, and David D. Clarke (eds.), 217-232. Berlin: Mouton de Gruyter.
- Lieber, Rochelle
 1992 *Deconstructing Morphology: Word Formation in Syntactic Theory*. Chicago/London: The University of Chicago press.
 2004 *Morphology and Lexical semantics*. Cambridge: Cambridge University Press.
- Neuvel, Sylvain
 2003 *Metamorphology: A word-based account of polysynthesis and other multivalent morphological relations*, Ph.D. diss., Department of Linguistics, University of Chicago.

- Plag, Ingo
1997 The polysemy of –ize derivatives: on the role of semantics in Word formation. In *Yearbook of Morphology*, Booij Geert, and Jaap Van Marle (eds.), 219-242. Dordrecht: Kluwer.
- Pustejovsky, James
1995 *The Generative Lexicon*. Cambridge, MA: MIT Press.
- Rainer, Franz
2003 Semantic fragmentation in word-Formation: The case of Spanish –AZO. In *Explorations in Seamless Morphology*, Rajendra and Stanley Starosta (eds.), 197-211. New Delhi: Sage Publications.
- Roeper, Thomas, and Muffy E. A. Siegel
1978 A Lexical transformation for Verbal compounds. *Linguistic Inquiry* 9:1999-260.
- Shibatani, Masayoshi, and Taro Kageyama
1988 Word formation in a modular theory of grammar: postsyntactic compounds in Japanese. *Language* 64: 451-484.
- Singh, Rajendra
2006 Whole word morphology. *Elsevier Encyclopedia of Linguistics*, 2nd ed., 578-579.
- Szymanek, Bogdan
1988 *Categories and Categorization in Morphology*. Lublin: Catholic University Press.
- Wierzbicka, Anna
1996 *Semantics: Primes and Universals*. Oxford: Oxford University Press.
- Yu, A. C. L.
2007 Understanding near mergers: the case of morphological tone in Cantonese. *Phonology* 24-1:187-214.