# One Form - Opposite Meanings?
# Diminutive and Augmentative Interpretation of
# Full Reduplication in Bikol[*]

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Productive full reduplication in Bikol can have augmentative meaning (plural and intensive) on the one hand, and diminutive meaning (attenuative and imitative) on the other. That is, one single, highly iconic, morphological operation produces various, even opposite meanings. However from a cognitive point of view this apparent homonymy of diametrically opposed meanings is highly motivated and moreover does not lead to ambiguity in language use.

I will begin by identifying distinction between full reduplication for diminution and pluralization, and repetition for intensification. The latter tends to become neutralized in most cases. Secondly I will discuss some models which try to explain the relatedness of repetition and reduplication with plural, diminutive and intensive by one basic semantic concept, namely CHANGE OF QUANTITY. Thirdly I will demonstrate how the semantics of the reduplication base together with the semantics of the morphological process interact to lead to the correct interpretation. The remaining homonyms between intensity and diminution are disambiguated by the cotext and context. Finally I will argue for the non-arbitrariness of the realization of all these meanings by one form and show that the polysemy of full reduplication and reduplication in Bikol supports the hypothesis that polysemy is a cognitively ideal strategy of grammar.

## 1. Reduplication in Bikol

Bikol is a Central Philippine language, spoken in Southern Luzon. It has both full and several partial reduplication types (for plural, imperfective aspect, derivation, etc.), though in this paper I only discuss the productive full reduplications. Partial reduplication has relatively transparent functions and even regular grammatical usages. The meaning and usage of full reduplication, however, is very variable and therefore difficult to describe systematically.

The data I will present here comes partly from an extensive analysis of the reduplicated forms collected by Malcolm Mintz and José Del Rosario Britannico in their Bikol-English Dictionary from 1985. I tested this data with my native language assistants for productivity and transparency. Other examples come from my own corpus, collected during a fieldwork trip to the Bikol region in 2005 and with my Bikol consultant in Graz.

## 2. Forms and Functions of Bikol Full Reduplication

### 2.1 Meanings

At first glance, full reduplication in Bikol appears to have a very wide range of possible interpretations. It is used to express intensity, plurality (i.e. iterativity, reversativity, distributivity, …), diminution (i.e. attenuation, similarity, imitation) and furthermore has several lexicalized derivations, where the reduplicated form designates something more specific from what is designated by the simplex form (i.e. *turog* 'sleep' – *turog~turog* 'mimosa').

Examples:[1]

(1) plural / distributive: *búlan* 'month' – *bulán~búlan* 'every month'
    Nag-du~duman            siya       bulan~bulan.
    BEG.AG-IMPFV~DEM.DIST   3SG.AF    PL~month
    'S/he goes there every month.'

(2) plural / grouping:    *limá* 'five' – *limá~limá* 'five at a time'
    Lima~lima    ang   lapis=ko     sa     kamot.
    PL~five        PB     pencil=1SG  LOC   hand
    'I have five pencils in each hand.'

(3) iterative / continuative: *batók* 'bark' – *batók~bátok* 'continue to bark'[2]
    Nag-batok~batok  su      ayam sa     bilog  na    banggi.
    BEG.AG-PL~bark    PB.SPEC dog  LOC    entire  LK    night
    'The dog was barking the whole night long.'

(4) iterative / reversative: *balík* 'return' – *balík~bálik* 'come and go repeatedly'
    Balik~balik    ako.
    PL~return      1SG.AF
    'I always return to the same place.'

(5) intensive:
        a.  *dangóg* 'hear' – *dangóg~dángog* 'hear exactly'
    Danog~dangog=ko ang    istorya-han   ninda.
    INT~hear=1SG        PB     story-UG     3PL
    'I heard exactly what they were saying.'

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[1] The glosses in this text are: AF=ang-form, AG=agent voice, ARG=argument marker, BEG=begun, DEM=demonstrative, DERIV=derivation, DIM=diminutive, DIST=distal, EXIST=existential, FUT=future, IMM=immediateness marker, IMPFV=imperfective, INT=intensive, LK=linker, LOC=locative, MED=medial, PART=particle, PB=predicate-base marker, PL=plural, SPEC=specific, SG=singular, ST=stative, UG=undergoer voice.
[2] Not to be confused with imperfective aspect which is expressed by CV-reduplication, e.g. *nag-ba~batok* 'is barking'.

a'. *sáray* 'keep' – *saráy~saráy* 'store carefully'

| … two years apter | […] na-hiling=niya | su | lighter | […] | saray~saray=niya |
|---|---|---|---|---|---|
| two years after | ST-see=3SG | PB.SPEC | lighter | | INT~keep=3SG |

'two years after … he found the lighter … he kept it very well'

[Paul's stories: 1:32]

(6) diminutive:

    a. *bása* 'read' – *basá~bása* 'read a little bit / skim over'

| Mag-basa~basa=ka | na | ngona | diyan | habang | pig-a~halat=mo. |
|---|---|---|---|---|---|
| AF-DIM~read=2SG.AF | PART | for a while | DEM.MED.LOC | while | BEG-IMPFV~wait=2SG |

'Browse [the journals] over there, while you are waiting for me!'

    a'. *alóy* 'time span' – *alóy~alóy* 'short time span'

| … pag-aloy~aloy | - | bados | na |
|---|---|---|---|
| FUT-DIM~time | - | pregnant | already |

'only a short time – already pregnant again'

[agom: 3:10]

(7) imitative[3]: *túrog* 'sleep' – *turóg~turóg* 'pretend to sleep'

| Nag-tu~turog~turog=ka | man | sana. |
|---|---|---|
| BEG.AF-IMPFV~DIM~sleep=2sg.af | PART | just |

'You are just pretending to sleep!'

(8) pragmatic attenuation:

    a. *gútom* 'hunger'

| Gutom~gutom | na | ako |
|---|---|---|
| DIM~hunger | already | 1SG.AF |

'I am already somewhat hungry!'

    a'. *halát* 'wait'

| Halat-halat! |
|---|
| DIM~wait |

‚Wait a little!'

(9) marking of politeness:

    a. *bágay* 'suit well'

| Bagay~bagay | su | bado | saimo. |
|---|---|---|---|
| DIM~fit | PB.SPEC | dress | 2SG.LOC |

'This dress suits you well !'

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[3] The term imitative includes meanings like 'something that looks like X', 'something that is a replica of X', 'pretend to do / be X'.

a'. *mahál* 'expensive', *mas-mahál* 'more expensive',
but uttered in a joke in association with 'Christ' the normal comparative *mas-mahal*
would be absolutely inappropriate:

| Mahal~mahal | man | su | Pilipinas | kesa | ki | Kristo. |
|---|---|---|---|---|---|---|
| DIM~expensive | PART | PB.SPEC | Philippines | than | ARG | Christ |

'So the Philippines were more expensive than Christ!'

[pilipinas: 6:09]

## 2.2 Forms: The *Curu*-allomorph

Full reduplication in Bikol has an allomorph which conditioned prosodically. Bases with three or more syllables or bisyllabic bases with an internal consonant cluster select the prefix *Curu-* (i.e. reduplication of the initial consonant plus *-uru-*[4]) instead of the fully reduplicated base.

(10)  *balyo* 'change, transfer' – *buru~balyo* 'keep on changing'  [bisita: 3:06]
(11)  *banggi* 'night' – *buru~banggi* 'every night'
(12)  *karabasa* 'pumpkin' – *kuru~karabasa* 'small pumpkin'
(13)  *dakula* 'big' – *duru~dakula* 'somewhat big'
(14)  *sampulo* 'ten' – *suru-sampulo* 'ten at a time / ten each'

Full reduplication in Bikol is an example of one highly iconic form which has various, different and contrary meanings ('a little bit / somewhat' (designates less than the simplex form) – 'many / often / much' (designates more than the simplex form)).

(15)  *lugad* 'wound(ed)' – *lugad~lugad* 'small wound' / 'heavily wounded'
a.

| Lugad~lugad | man | sana! |
|---|---|---|
| DIM~wound | PART | only |

'It's only a small wound!'

a'.

| Lugad~lugad | siya | na | nag-uli. |
|---|---|---|---|
| INT~wound | 3SG | PART | BEG.AG-return |

'He returned heavily wounded.'

(16)  *laog* 'inside' - *laog-laog* 'just inside' / 'completely inside'
a.

| Nasa | laog~laog | lang | ang | bola. |
|---|---|---|---|---|
| PREP | DIM~inside | PART | PB | ball |

'The ball is just inside (the goal).'

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[4] Alternatively also the vowel is reduplicated, only *-r-* remains as fixed segment in the prefix. At the present state I am not able to identify if this is a free alternation or a ongoing change.

a'.
Nasa laog~laog(-on) ang bola.
PREP INT~inside PB ball
‚The ball is straight inside (the goal).'

Thus the question arises of whether full reduplication in Bikol can mean EVERYTHING, or if there are any formal or semantic criteria to distinguish between the possible interpretations.

## 3. Criteria for the distinction of meanings

### 3.1 Accent pattern

There are two accent patterns associated with full reduplications, namely raising-falling (xX-Xx) and raising-raising (xX-xX). Intuitively, it seems to be reasonable to expect that this prosodic distinction would also distinguish between different meanings. And this is indeed the case in some other languages. For example in Sranan, a Jamaican Creole, verbs are fully reduplicated in order to express diminutive-pejorative-imperfective as well as augmentative and iterative meaning. But 'The three verbal types are accentually distinguished from each other, …' (Adamson and Smith 2003: 87). Kusma (2004) looks for a comparable prosodic distinction in Tagalog, analyzing some of Blake's examples (1925) as intensive and plural where they occur with a raising-falling accent and diminutive where they occur with a parallel accent pattern. Reanalyzing Blake's examples however, this prosodic distinction of meanings doesn't hold. Blake himself tentatively assumes that '… these reduplicated forms have sometimes an emphatic, sometimes a diminutive meaning, sometimes either according as they are pronounced with more or less emphasis.' (Blake 1925: 53).

For Bikol, there is no systematic description of reduplication. Mintz (1971: 149-50) notes that intensive 'repetition' has initial stress in the second constituent, whereas diminutive 'repetition' has parallel accent pattern[5]. But in his dictionary (Mintz and Del Rosario Britanico 1985) numerous counterexamples to that classification are listed, as for example:

(17) *bungóg* 'deaf' – *bungóg-búngog* 'to feign deafness' (p. 261)
(18) *labí* 'overdone' – *labí-labí* 'very much overdone' (p. 356)

Lobel and Tria (2000: 90) only mention the imitative function of full reduplication, without any reference to accent. Thus little information about any coherent prosodic differentiation of meanings is available from the literature. My corpus of spontaneous speech also contains contradictory data in this respect. See for example (4b) *saráy-saráy* 'keep carefully' and (5b) *pag-alóy-alóy*[6] 'only a little later'.

When confronted with two segmentally equal but differently stressed reduplications, the consultants usually do not associate different meanings. And vice versa, when confronted with one form, they often provide both augmentative and diminutive meanings. In the test situation

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[5] The terminology of REPETITION and REDUPLICATION is rather burdened by the long discussion about the classification of repetition and reduplication in the current theories on reduplication (cf. Hurch 2005). Here I am citing Mintz' terminology which does not correspond with my own classification (see below 3.2.2).
[6] Prefixes in Bikol do not have any influence on the stress pattern of the base. Suffixes however cause a leftwards shift of stress.

they sometimes produce different prosodic forms to emphasize the difference between diminutive and intensive, but only in direct contrast. In spontaneous speech, embedded in a whole phrase or sentence, the accent pattern seems to be neutralized.

The first result of my analysis of a long list of full reduplications (by elicitation, by spontaneous speech, by accounting Mintz' dictionary entries) is that in Bikol both stress patterns are documented with all meanings. That is Bikol does not, at least synchronically, prosodically differentiate between the diminutive and the augmentative interpretations.[7]

### 3.2 The *Curu*-allomorph distinguishes between two types of full reduplication

After the examination of full reduplication of bisyllabic bases, I focused on the analysis of the distribution of the *Curu*-allomorph. As described above, the *Curu*-allomorph is selected by prosodic conditions (cf. chapter 2.2). The *Curu*-allomorph does not have all the meanings described for full reduplication, however. It can be used to express numeral augmentation, i.e. plurality of events, states or numeral and temporal terms (iterative, distributive, continuative), attenuation (diminution and imitation), but it CANNOT be used to express intensive augmentation. Therefore it is possible to express the diminutive as well as plural and intensive meaning of a bisyllabic word by full reduplication, but this is not the case with *Curu*-reduplication[8]:

(19)     *mahal* 'expensive, dear' – *mahal-mahal* 'somewhat expensive' OR 'very expensive'
(20)     *barato* 'cheap' – *buru-barato* 'somewhat cheap' BUT not *'very cheap'
(21)     *malisioso* 'malicious' – *muru-malisioso* 'somewhat malicious' but not *'very malicious'

In some related languages, for example Hiligaynon and Cebuano, the same allomorph (*Culu-*) alternates with full reduplication. Wolfenden (1971: 101) gives only one function for this prefix in Hiligaynon: diminutive, i.e. 'less intensity'.

(22)     *hambal* 'talk' – *hulu~hambal* 'chit-chat'
(23)     *tawo* 'person' – *tulu~tawo* 'puppet'

So, when the functional constraint for the *Curu*-allomorph is taken into consideration, we can distinguish between two different types of full reduplication: One reduplication type for plurality and diminution on the one hand and another reduplication type for intensity on the other hand. I decided to refer to this type as REPETITION and exclude it from the category REDUPLICATION, due to a missing allomorph for bases with three or more syllables or bases with internal consonant cluster for intensity, and because of its highly pragmatic character. Note that these two word forms also appear as homonyms[9] on the surface in case of bisyllabic bases, which are the most frequent cases. According to this, the semantic network of Bikol full reduplication and repetition can be represented as follows:

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[7] I am absolutely aware that for a definite conclusion a thorough prosodic examination would be necessary.
[8] To intensify the meaning of words with the prosodic conditions which exclude full reduplication, the highly productive suffix *–on* is used.
[9] The term HOMONYM is not used in the sense of arbitrariness. Later I will demonstrate, that this homonymy can be analyzed as motivated (cf. Leiss 1997: 137).

**Figure 1. Semantic categorization of Bikol full reduplication and reduplication**
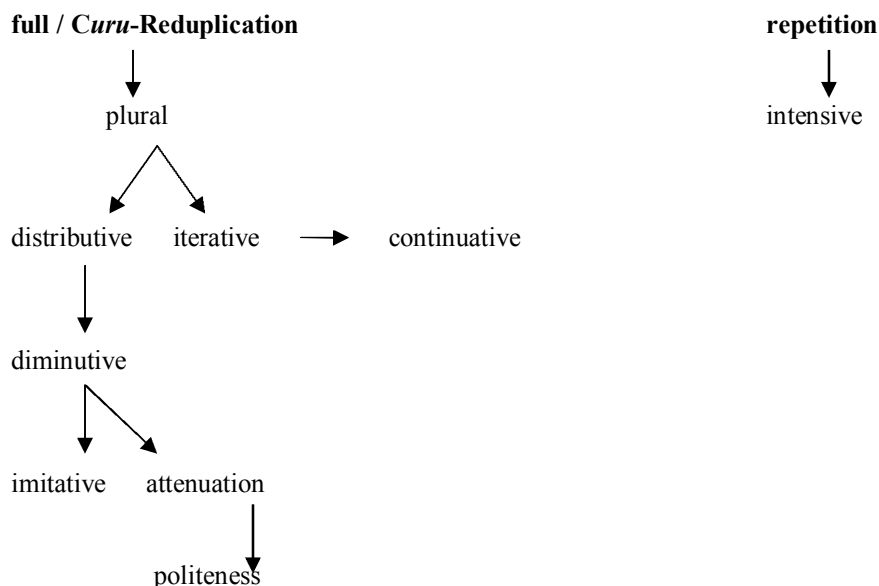


Repetition as a means of intensification is optional[10] and seems also to express emphasis, or the connotation of not only 'more' or 'bigger' than the base meaning but also 'more than appropriate'.

(24)    *gabos* 'all'
Gabos-gabos    niya    k-in-ua    su    mga    prutas
INT-all    3SG    {BEG.UG}    PB.SPEC    PL    fruit
'S/he has taken the whole fruit!' (and was not supposed to)

(25)    *tulo* 'three'
May    tulo-tulo    agom    niya.
EXIST    INT-three    husband    3PL
'She has three husbands.'

Crucially the result of this analysis is that Bikol does not conceptually distinguish between MORE (intensive, plural) on the one hand and LESS (diminutive, imitative) on the other which might be expected and occurs in many other languages. Rather Bikol distinguishes between PLURALITY (and DISTRIBUTIVITY with its semantic extension DIMINUTION) and INTENSITY. This is important evidence for the hypothesis that the above meanings are very closely related, and that MORE and LESS are not necessarily diametrically opposed categories.

Interestingly, the categorization of these meanings is slightly different in related languages. In Ilokano for example, plural and intensive are represented by CVC-reduplication (*pusa* 'cat' –

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[10] Intensive augmentation is usually expressed by the suffix *–on* (*mahal* 'expensive' – *mahal-on* 'very expensive') which itself can be affixed recursively to enforce the augmentation (*mahal-on-on-on* 'very, very, very expensive').

*pus~pusa* 'cats') whereas diminution is expressed by CV-reduplication (plus prefix) (*sangit* 'to cry' - */agin-sa-sangit* 'pretend to cry') (Hayes and Abad1989). In Tagalog full reduplication (plus suffix) is used to express the imitative (*bulaklak* 'flower' – *bulaklak~bulaklak-an* 'artificial flower'), whereas intensive (*baliktad* 'upside down' – *bali~baliktad* 'all topsy-turvy'), plural (*hiwalay* 'separated' – *hiwa~hiwalay* 'thoroughly scattered') and diminutive (*ma-talino* 'intelligent' – *ma-tali~talino* 'rather intelligent') are formed by bisyllabic reduplication (Schachter and Otanes 1972). In Hiligaynon full reduplication (with an allomorph Culu-) expresses plural (*balay* 'house' – *baláy~baláy* 'every house') and diminutive (*lakat* 'walk' – *lakat~lakat* 'walk slowly') (Wolfenden 1971). In Cebuano again, full reduplication has the same broad variation as in Bikol. Attenuative (*abhung* 'bad smelling' – *abhung~abhung* 'somewhat bad smelling'), imitative (*balay* 'house' – *balay~balay* 'doll house'), intensive (*awas* 'overflow' – *awas~awas* 'overflow abundantly') and event plurality (*bakak* 'lie' – *bakak~bakak* 'lie repeatedly') (Buyne and Yap 1971).

## 4. Specification of the intended meaning

'What is communicated is more definite than "what is said".' (Atlas and Levinson 1981: 35-36)

Even after having established the distinction between repetition and reduplication there still remain a lot of homonyms and/or polysemes (see above) and we have not yet explained how the hearer can correctly interpret the meaning intended by the speaker. Botha (1984) has observed an analogous coincidence of divergent meanings in one form in Afrikaans, as did Kouwenberg and LaCharité (2005) in Caribbean Creoles. Thus the grouping of augmentation and diminution with plurality is not a unique phenomenon in Bikol. What seems to represent high semantic complexity in one form reflects, under more detailed examination, only slightly different realizations of one underlying concept, namely a CHANGE OF QUANTITY (in contrast to the quantity of the simplex form). Kiyomi (1995: 1151) identifies the two contrary meanings of reduplication in Malayo-Polynesian languages as 'two manifestations of the same semantic principle of "a …er degree of …", which is projected in the opposite directions', although she considers plural reduplication as an iconic process but diminutive reduplication as a non-iconic process.

### 4.1 Interaction of the semantics of the base and reduplication / repetition

The exact meaning of the reduplicated word is a result of the combination of the semantics of the base and the semantics of the reduplicative procedure (or the repetitive respectively). This means that with one single semantic interpretation of full reduplication, all meanings that are listed above (examples 1–9), can be described if we take into consideration that the function of reduplication interacts with other conceptual devices. These devices are provided primarily by the semantic components of the base, what can be seen in the following list[11]. Therefore the term

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[11] I exclude intensification here, because, as already argued in chapter 3.2 intensity is expressed by repetition rather than reduplication. This can result in homonymy with diminution, as shown by the examples in (15), (16) and (19), but I will get back to that problem later in 4.2.

homonym is not appropriate and should be better replaced by POLYSEME because of the strong semantic relationship[12].

- with bounded/punctual/telic events or actions (e.g. *batok* 'bark', *balos* 'revenge', *patak* 'split'): plural (iterative / continuative) [13]

- with numerals, time indications (e.g. *apat* 'four', *sampulo* 'ten', *banggi* 'night', *taon* 'year'): distributive[14]

- with things: (e.g. *harong* 'house', *bukid* 'hill', …): diminution (attenuation, imitation)

- with unbounded/non-punctual/atelic event or actions (including states and properties) (e.g. *basa* 'read', *turog* 'sleep', *samod* 'weep', *dangog* 'hear', *tumog* 'wet', *buta* 'blind', *pagal* 'tired', …): diminution (attenuation, imitation)

This classification is very similar to the analysis of Afrikaans accomplished by Botha (1984). Whether the discussed meanings of reduplication and repetition can be universally associated with the semantic types of bases is open for further research.[15] Botha (1984: 126) mentions that diminutive interpretation is excluded for bounded/punctual/telic events for logical reasons, because 'events/acts that have the property of finality cannot occur/be performed less intensely.'

Of course this semantic analysis does not directly account for lexicalized meanings, which frequently occur (e.g. *halo* 'mix' – *halo~halo* refers to a specific dessert), and for non-referential meanings like politeness and respect (cf. 8 and 9) which must be understood as pragmatic extensions of diminution (cf. Jurafsky 1993, Dressler and Barbaresi 1994).

Levinson (2000) reexamines Botha's results within the framework of his theory of GENERALIZED CONVERSATIONAL IMPLICATURES. He calls I-IMPLICATURES the information about the general (i.e. default or stereotypical) meaning of a linguistic expression that is at the recipient's disposal and that enables her or him to correctly interpret the utterance of the speaker who seeks for the most simple expression (in unmarked situations). Levinson's M-PRINCIPLE however denotes that marked expressions are used for referring to abnormal or non-stereotypical situations. One typical morphological procedure that is used to satisfy this M-principle is repetition and reduplication. It gives the recipient the signal that the meaning of the expression deviates from the unmarked (normal) meaning, which would be communicated by the simplex form. By the interaction of I- and M-inferences, Levinson describes how the recipient correctly identifies the exact meaning of the reduplicated expression, although reduplication itself carries a very general meaning (quantity, deviating from the normal one in the case of Bikol): 'whether the inference goes in the intensity / increase direction or the attenuation / limited dimension

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[12] C.f. chapter 6 below.

[13] Plurals with action words are always referring to the plurality of the action itself. Plurality of actors or undergoers are expressed by the infix *-Vr-*.

[14] One consultant spontaneously translated *muro'~muro'* with 'every finger', others refuted this interpretation and accepted only the imitative interpretation. The distributive might result from the association of fingers with counting.

[15] This is one aim of the typological research project on reduplication in Graz.
Cf. http://ling.uni-graz.at/reduplication/.

seems to depend on the direction of I-inference from the unreduplicated form, the reduplication then picking up the complement.' (Levinson 2000: 153) Dressler in his work on verbal plurality in 1968 already points out, that verbal plurality always is ambiguous, i.e. it contains the possibility of expressing different nuances (Dressler 1968: 58). He assumes: 'Diminutive und intensive Nuancen rühren wohl vom Doppelgesicht der Pluralität her, der Unterteilung und Vermehrung.' [Diminutive and intensive nuances presumably originate from the Janus face of plurality, division and augmentation.] (Dressler: 1968: 83)

In Bikol this view can be further supported by examples which clearly show that diminution and plurality cannot always be separated from each other anyway, as for example:

(26)     *bagáy* 'things, stuff' - *bagáy-bágay* 'odds and ends, several small things'
(27)     *gapó'* 'stone, rock' – *gapó'~gapó'* 'small stones (in the rice)'


## 4.2 Context

Even if there is no difficulty distinguishing between plural and diminution through the semantics of the base, there still remains the ambiguity between intensive and diminutive interpretations with bisyllabic bases (i.e. the homonymy between reduplication and repetition).

Examples:
(28)   *dangog* 'hear' – *dangog~dangog* 'hear very clearly' or 'hear by gossip'
(29)   *tumog* 'wet' – *tumog~tumog* ,soaking wet' or 'wettish'
(30)   *lugad* 'wounded' – *lugad~lugad* 'heavily wounded' or 'a little bit wounded'

Miller (1978) in his article on the semantic relations of words asks himself how it is possible that people are obviously able to quickly and accurately recognize which meaning a word expresses on a particular occasion. He concludes that the point of disambiguation of polysemes must be the context or the situation in which the words are uttered: 'Most words can be accurately disambiguated on the basis of information in sentences in which they occur.' (Miller 1978: 98) Comparing sentences in Bikol in which one reduplicated or repeated word expresses diminution in one case and intensity in the other case makes clear that gradation particles (*na, pa, man, lang, sana* ...) seem to play an important role in disambiguating of the meaning.[16]

Examples:
(31)   a.
       Tumog~tumog   na     siya    dahilan   sa    uran.
       INT-wet       IMM    3SG.AF  because   LOC   rain
       'S/he is soaking wet because of (walking in) the rain.'

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[16] Of course there are a lot of other contextual and situational features that contribute to the unambigous interpretation. The scope of this paper however is not the exact analysis of the context of reduplication, therefore I go not into further detail here.

a'.
Tumog~tumog    pa       ang   ni-lab-han.
DIM-wet            still    PB   DERIV-wash-BEG.UG
'The washing is still somewhat wet.'

(32)   a.
Lugad~lugad     siya      na    nag-uli.
INT-wound        3SG.AF   LK   BEG.AF-return
'S/he came back heavily wounded.'

a'.
Lugad~lugad     man    sana!
DIM-wound        also    just
'It's just a little wound!'

*man* (~ 'also'), *lang* (~ 'only') and *sana* (~ 'just') trigger a diminutive interpretation, whereas *na* 'already/immediateness marker' and *pa* 'still' can trigger both, again depending on the interaction with the semantics of the base.

Disambiguation of repetition and reduplication with bisyllabic bases is supposedly additionally possible through emphatic intonation (as Blake 1927: 53 assumes for Tagalog), and / or by extralinguistic factors like facial expression and gesture. The consultants I work with do consider this factor as very important, however I have not examined it systematically.

The combination of the semantics of the base, the context of the utterance, and perhaps intonation and gesture, rules out real ambiguity between plural, intensive and diminutive appears in actual speech.

## 5. Semantic and Cognitive explanations for polysemy of plural and diminutive
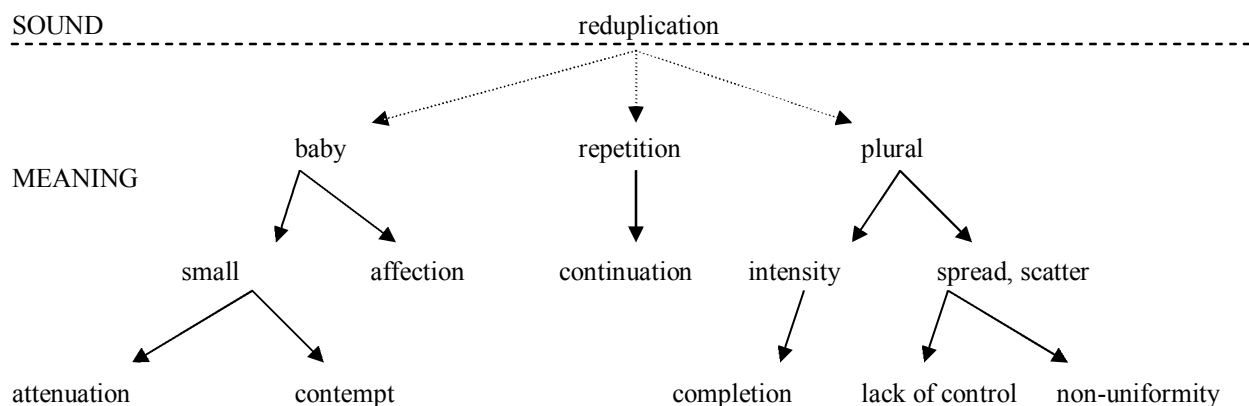
In the preceding sections I demonstrated how the disambiguation of the various meanings of full reduplication and repetition works. Obviously semantic meaning and context provide enough information to guarantee the correct interpretation of the utterance. Nevertheless why the concepts of intensity, plurality and diminution are encoded almost or completely identical remains unclear. Even different prosodic patterns which might distinguish between meanings seem to be neutralized in spontaneous speech. This coincidence is also found in other related and non-related languages. This is strong evidence that all the mentioned meanings are based on one cognitive concept.

Regier (1998) has developed a semantic network model to explain the cross-linguistically typical variation of meanings of reduplication, without referring to formal differences. He assumes intensity to be a semantic extension of plurality. Kouwenberg and LaCharité (2005) on the other hand assume another path of semantic extension, where diminution is a logical subcategory of the feature DISTRIBUTIVITY of plural.

## 5.1 Regier

Regier (1998) explains the cross-linguistical frequency of co-occurrence of certain meanings with reduplication by the interaction of iconicity and semantic extension. He takes smallness ('baby'), repetition, and plurality to be the three basic iconic meanings of reduplication. From these basic meanings, all other semantic variants are the result of semantic extension (to e.g. attenuation, contempt, continuation, intensity, lack of control etc.).

**Figure 2 Regier's model: The interaction of iconicity and semantic extension (Regier 1998: 888)**

SOUND           reduplication

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                    baby          repetition        plural

MEANING

           small        affection   continuation   intensity    spread, scatter

 attenuation      contempt                    completion   lack of control   non-uniformity
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This model is a good description of a possible relationship between the respective meanings. However the exact directions of extension of the variants of meanings may be mapped in different ways, as can be seen from another model, formulated by Kouwenberg and LaCharité (2005).

## 5.2 Kouwenberg and LaCharité

Kouwenberg and LaCharité (2005) developed another model, based on the assumption that diminution is an extension from plurality via the feature dispersive/discontinuous/distributive/scattered. Their data of evidence comes from Creole languages, where only the full reduplication type exists.

**Figure 3. Kouwenberg and LaCharité's model (Kouwenberg and LaCharité 2005: 540)**

Extending iconic dispersive interpretations:
Discontinuous occurrence > attenuation, tentativity > approximation, similarity

Further explanations of the extension from diminution to imitation and to pragmatic attenuation and politeness, also independent of the process of reduplication exist for example from Jurafsky (1993) and Dressler and Barbaresi (1994).
The classification in 3.2.2 of Bikol reduplication and repetition reflects the path illustrated by Kouwenberg and LaCharité rather than by Regier, because in the former diminution is

considered to be a logical extension of plurality, i.e. plurality and diminution are semantically/cognitively closely related to each other. This would explain the formal equality of the two meanings in Bikol (and other languages). But I do not consider the two models as competing explanations but rather as illustrations of two possible semantic realizations of one general concept. The appearance of different meanings in one form does not automatically presume a common evolution. Both paths of development are conceivable: The separate development of two forms which have merged into one, or the origin of one form which has developed various meanings.

Independent of the origin of congruent forms, the apparent synchronic homonymy, which has already been identified as motivated, allows us to get insight to the cognitive organization of the concept CHANGE OF QUANTITY.

## 6. Polysemy as a strategy in optimization of language

Haiman (1980), Levinson (2000) and Leiss (1997, 2005) all attempt to explain, WHY polysemy (not only in reduplication) is not a flaw of language but can be analyzed as an economic strategy of the speaker, not to unnecessarily load the mental lexicon.

Levinson (2000) assumes that morphemes with semantic generality are preferred over maximal overt marking, because language seeks optimization by storing/giving as minimal information as required. It is the usual strategy of the recipient to 'enrich "what is said" by reshaping the range of possible states of affairs associated with "what is said" to a narrower range of possible states of affairs associated with "what is communicated". (cf. Levinson 2000: 116). As we have seen in the case of Bikol, full reduplication, I-inferences (see section 4.1), and context are sufficient for reaching the appropriate interpretation of full reduplication or repetition. It is not necessary for the speaker to be more explicit.

Haiman (1980: 516) calls the neutralization of forms (which I suppose for full reduplication and repetition in Bikol) itself as iconic: 'Similar morphological shape or syntactic behavior of (apparently disparate) categories may be an icon of their underlying semantic homogeneity'. He demands linguistics to demonstrate that 'homonymy is only apparent, and that the superficially disparate categories mapped onto the same form are in fact semantically related …'. (Haiman 1980: 527/28). Of course also others demand explanations of striking homoymies. For example there is a ongoing discussion on the widespread syncretism of case-morphemes in Indoeuropean languages.

Leiss (1997 and 2005) also focuses on the search for explanations of (apparent) homonymies[17], however she goes one step further. She accounts for the high functional elasticity of morphemes by UNDERSPECIFICATION, i.e. the 'overt marking of just one part of the compositional meaning of a functional category' (Leiss 2005: 1), and argues that this is motivated by reasons of cognitive economy. She even states that the polysemy of functional morphemes is normally the case and not at all exceptional. Polysemes do not create problems for the language use, because they are rendered monosemes by their context. The interaction of the semantics of the base and reduplication and/or via the context and the cotext was discussed here in the preceding sections as a function of the 'monosemation' in Bikol. Leiss does not only consider polysemy and syncretism as normal but as an optimal strategy of language, even more adequate than the one-to-one correspondence of form and meaning. This claim is in opposition to

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[17] Somewhat provokingly she argues for example for the semantic uniformity of the –s-morpheme in English (Genitive, Plural and 3rd person singular indicative) by the features [whole] an [parts of the whole]. (Leiss 1997)

the old and largely unchallenged claim of the one-to-one correspondence of form and function (i.e. the non-arbitrariness of the sign, as already discussed by Plato and de Saussure). But if we manage to reduce the various functions of one form to one underlying general function, as I exercised for full reduplication in Bikol, we have again a one-to-one correspondence anyway. Therefore I consider the view as very realistic, that polysemy and syncretism are not an 'accident' of language which speakers of the language can handle somehow, but that it is rather an advantageous conceptual organization principle. But of course one cannot neglect that there are still arguments in favor of the existence of both tendencies in language, i.e. the formal differentiation of single semantic features (e.g. the almost perfect one-to-one correspondence in some agglutinating languages).

In my opinion both strategies can play a role in language. Deciphering one of them does not implicate the absence of the other, it merely explains the strategy which is chosen with respect to a certain part of grammar, i.e. underspecification is an economic option, that languages CAN use (and do use frequently).

Leiss only focuses on functional morphemes, not on morphological processes such as reduplication. However my analysis of full reduplication and repetition in Bikol shows that the assumption of underspecification and the disambiguation by semantics of the base and by context and cotext can explain the apparent homonymy of various meanings as highly motivated and not at all arbitrary. Full reduplication and repetition transports, iconically, the very general concept of modified quantity, i.e. is specified for the feature [quantity]. Whether the quantity has the additional feature [less] or [more] is triggered by semantic features of the surrounding elements of the utterance.

## 7. Summary

The scope of this paper was, besides the description of the forms and functions of full reduplication in Bikol, to demonstrate that the various meanings of this highly iconic morphological procedure can be reduced to a single very general one. The appropriate interpretation is then guaranteed via several components, for example, the semantics of the base and/or the context. Furthermore I demonstrated that the polysemous reduplication is not at all exceptional and that there are different models to explain this phenomenon, bringing into discussion the view of polysemy as a cognitively plausible strategy of language users, as is argued among others by Haiman and Levinson, and, more extremely, by Leiss.

The Austronesian languages are a rich pool of reduplications, bearing a great diversity of forms and meanings. A thorough analysis of their form and meaning correspondences can provide some insight into general theories of reduplication as well as the theories of Cognitive Semantics. In this respect, Bikol, together with many other languages which encode the many aspects of quantity by the process of repetition or reduplication, is able to deliver strong arguments for the cognitive conceptualization of quantity with its various specifications and extensions. Moreover it is highly interesting for the discussion on polysemy, which is an important issue for cognitive semantics anyway.

Due to the virtually ideal iconicity of these phenomena, the various and at first glance opposite meanings of one morphological procedure, must not be regarded as a defect of organization of the grammar, but rather a crucial organizational principle of grammar which is cognitively motivated.

# References

Adamson, Lilian and Norval Smith. 2003. Productive derivational predicate reduplication in Sranan. In *Twice as meaningful. Reduplication in Pidgins, Creoles and other contact languges.* ed. by Silvia Kouwenberg, 83-92. Westminster Creolistic Series 8. London: Battlebridge.

Atlas, Jay D. and Stephen C. Levinson. 1981. *It*-clefts, informativeness, and logical form: Radical pragmatics (revides standard version). In *Radical pragmatics.* ed. by P. Cole, 1-61. New York: Academic Press.

Blake, Frank R. 1925. *A grammar of the Tagalog language, the chief native idiom of the Philippine Islands.* New Haven: American Oriental Society.

Botha, Rudolf P. 1984. *A Galilean analysis of Afrikaans reduplication.* Stellenbosch Papers in Linguistics 13.

Buyne, Maria Victoria R. and Elsa Paula Yap. 1971. *Cebuano Grammar Notes*. PALI Language Texts: Philippines. Honolulu: University of Hawaii Press.

Dressler, Wolfgang U. 1968. *Studien zur verbalen Pluralität. Iterativum, Distributivum, Durativum, Intensivum in der allgemeinen Grammatik, im Lateinischen und Hethitischen.* Österreichische Akademie der Wissenschaften. Sitzungsberichte 259. Graz, Wien, Köln: Hermann Böhlaus Nachf.

Dressler, Wolfgang U. and Lavinia M. Barbaresi. 1994. *Morphopragmatics. Diminutives and intensifiers in Italian, German, and other languages.* Trends in Linguistics Studies and Monographs No. 76. Berlin and New York: Mouton de Gruyter.

Haiman, John. 1980. The iconicity of grammar: isomorphism and motivation. In *Language* 56 (3): 15-540.

Hayes, Bruce and May Abad. 1989. Reduplication and syllabification in Ilokano. In *Lingua* 77, 331-374.

Hurch, Bernhard., ed. 2005. *Studies on Reduplication.* Empirical Approaches to Language Typology 28. Berlin, New York: Mouton de Gruyter.

Jurafsky, Dan. 1993. Universals in the semantics of the diminutive. In *Proceedings of the nineteenth annual meeting of the Berkeley Linguistic Society.* ed. By Joshua Guenter, Barbara Kaier and Cheryl Zoll, 423-436. Berkeley : Berkeley Linguistic Society.

Kiyomi, Setsuko. 1995. A new approach to reduplication: a semantic study of noun and verb reduplication in the Malayo-Polynesian languages. In *Linguistics* 33, 1145-1167.

Kouwenberg, Silvia and Darlene LaCharité. 2005. Less is more: Evidence from diminutive reduplication in Carribbean Creole languages. In *Studies on reduplication.* ed. by Bernhard Hurch, 533-545. Empirical Approaches to Language Typology 28. Berlin, New York: Mouton de Gruyter.

Kusma, Marie-Annette. 2004. *The functions of complete reduplication of nouns, verbs and adjectives - an obvious case?* Unpublished paper, Uppsala University.

Leiss, Elisabeth. 1997. Synkretsimus und Natürlichkeit. In *Folia Linguistica* 31 (1-2): 133-160.

Levinson, Stephen C. 2000. *Presumptive meanings. The theory of generalized conversational implicature.* Cambridge, London: The MIT Press.

Lobel, Jason W. and Fr. Wilmer Joseph S. Tria. 2000. *An satuyang tataramon. A study of the Bikol language.* Naga City: Lobel&Tria Partnership.

Miller, George A. 1978. Semantic relations among words. In *Linguistic theory and psychological reality*. ed. by Morris Halle, Joan Bresnan and George A. Miller, 60-118. Cambridge, London: The MIT Press.

Mintz, Malcolm W. 1971. *Bikol grammar notes*. PALI Language Texts: Philippines. Honolulu: University of Hawaii Press.

Mintz, Malcolm W. and José Del Rosario Britannico. 1985. *Bikol-English dictionary. diksionariong bikol-inglés*. Quezon City: New Day Publishers.

Regier, Terry. 1998. Reduplication and the arbitrariness of the sign. In *Proceedings of the Twentieth Annual Conference of the Cognitive Science Society*. ed. by M. Gernsbacher and S. Derry, 887-892. Mahwah, NJ: Lawrence Erlbaum Associates.

Schachter, Paul and Fe T. Otanes. 1972. *Tagalog Reference Grammar*. Berkeley, Los Angeles, London: University of California Press.

Wolfenden, Elmer P. 1971. *Hiligaynon reference grammar*. Pali Language texts: Philippines. Honolulu: University of Hawaii Press.