Nominal reduplication in Indonesian
challenging the theory of grammatical change

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1. Introduction

This paper aims to evaluate the possibility of dealing with reduplication within the framework of grammaticalization theory[1]. The question is not trivial, given that reduplication differs substantially from segmental grammatical means (e.g., affixes or prepositions), which are prototypical subjects for grammaticalization studies. Nevertheless, reduplication has been studied on a par with many other grams by a number of theorists of grammatical change including, for example, Lehmann (1995: 131-132), Heine and Reh (1984: 46-48) and Bybee et al. (1994: 166-174). According to these authors, the development of reduplication usually obeys rules that are typical for the evolution of more canonical objects of the grammaticalization theory. Therefore, it could be that there is nothing special about this aspect of reduplication.

I will show here that this is not necessarily the case. In particular, I will argue that the rise of the current system of functions of nominal reduplication in Indonesian perhaps was accompanied by the violation of certain principles of grammaticalization.

The structure of this paper is as follows. In Section 2 I discuss the general applicability of notions of the grammaticalization theory to reduplication and come to the conclusion that Indonesian reduplication may indeed be considered highly grammaticalized. Section 3 surveys the main functions of simple nominal reduplication in Indonesian and their distribution. The latter becomes a subject for

certain speculations in Section 4. The concluding section summarizes the results of this study and takes up open ends.

2. Preliminaries

2.1. *Theoretical background*

Given that this paper suggests that the development of reduplication may serve as a counterexample for certain generalizations provided by the grammaticalization theory, it is important to prove whether this theory is applicable to reduplication at all, the more so that there do exist reasons to be in doubt about this.

Indeed, reduplicative morphemes are a counterexample to one of the fundamentals of the grammaticalization theory. As Bybee et al. (1994: 166) observe,

> "the principle that they challenge is the principle that all grams develop from a fuller lexical source, since it is not possible to trace a reduplicative gram back to a single word or even a specific phrase."

However, grammaticalization is not restricted to the development of grammatical items from lexical ones. Actually, most significant claims provided by the grammaticalization theory rely on the assumption that the evolution of grammatical markers has the same characteristics (e.g., phonological reduction or semantic bleaching) as their development from lexical sources. Consequently, there is nothing rebellious in studying the grammatical development of reduplication under the rubric of grammaticalization.

Still, it is not obvious whether it is possible to treat reduplication on a par with other grammatical morphemes. The reason is that unlike, for example, affixes, which are ***morphological signs***, reduplication is usually understood as a ***morphological process***, which is comparable with affixation rather than with affixes (cf. Mel'čuk 1996: 542). Of course, the grammaticalization theory does deal with some morphological processes, for example, with alternations representing traces of now lost grammatical morphemes. Yet it is certainly wrong to assume that some morphemes developed into alternations - after all, these are rather different phenomena.

One solution that can be found elsewhere in the literature (cf., for instance, the quote from Bybee et al. 1994 above) has to do with "reduplicative morphemes", i.e. segments that are added to the base. However, this decision has its own shortcomings: for example, in many cases of total reduplication one finds it difficult to determine which part of a resulting item is a reduplicative morpheme.

The idea proposed here is a different one. I suggest that instead of looking for analogues of segmental formants we can view reduplication as a ***morphological construction***[2]. Thus, for instance, total reduplication will be represented not as an operation based on adding some reduplicative morpheme Y to an initial base (X+Y, where Y=X), but as a complex non-compositional formation (X-X, with no contrast between the two parts of the construction). On the other hand, partial reduplication still can be represented as a construction where one part is derived from the other).

Now, it has been emphasized in several recent studies (e.g., Dahl 1998; Lehmann 2002) that what really takes part in the grammaticalization process is constructions rather than words or morphemes, and the functional and formal changes observed for various segments in fact result from grammaticalization of a construction[3]. Moreover, Lehmann (2002: 7) proposes that grammaticalization of a construction may proceed even without grammaticalization of any of its elements, and reduplication turns out to be exactly such a case.

To sum up, theoretically there do not seem to be any obstacles for application of the grammaticalization theory to reduplication.

2.2. *Indonesian reduplication as an object of grammaticalization theory*
The wide use of reduplication is certainly one of the most prominent characteristics of Malay/Indonesian (as well as of Austronesian languages and languages of South-East Asia in general; see, e.g., Gonda 1950; Alieva (ed.) 1980). Thus, intuitively, reduplication in Indonesian plays much more important grammatical role than, say, in European languages.

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[2] Such a view actually is becoming popular among some proponents of Optimality Theory; see, e.g., Inkelas & Zoll 1999 (thanks to Philip Minlos for drawing my attention to this).

[3] The role of "constructional grammaticalization" should not be overestimated, however, since there do exist instances of "pure" grammaticalization; the development of the Malay/Indonesian 1st singular pronoun *saya* from *sahaya* 'servant, slave' (which itself has Sanskrit origin) may be an example.

Can we make this claim more precise? In view of what was said above, we may expect that Indonesian reduplication is more grammaticalized. Below I will try to verify whether this is true.

This question cannot be easily answered. The problem is that most tests for the degree of grammaticalization are meant for grammatical morphemes and not for constructions. Hence, in what follows I will simply list characteristics of Indonesian reduplication that support its highly grammaticalized status[4].

To begin with, Indonesian reduplication is very productive being used with most word classes. Moreover, it seems to realize very similar functions and to obey analogous restrictions both in the domain of nouns and in the domain of verbs (e.g., reduplication is not likely to be used in case of generic reference independently of whether it concerns individuals or events). Such absence of restrictions on what can serve as initial base of reduplication leads to the conclusion that its meaning is extremely abstract, operating both on entities and eventualities — and the abstractedness of meaning may also be a manifestation of grammaticalization[5]. Not surprisingly, the main meanings expressed by reduplication in Indonesian (such as verbal aspect or a kind of nominal number) are typically conveyed just by *grammatical* morphemes cross-linguistically. Note also that although productivity as such is only an indirect criterion for grammaticalization, it may be the most indicative one.

At the same time, reduplication takes part in a number of complex morphological models and interacts with various affixes and alternations. This may be considered another indication of its highly grammaticalized status. Indeed, Carpenter (1994) remarks that "reduplication in Austronesian is usually fully integrated into the grammar of the language" speaking just about the formal characteristics. Now, while taking part in complex morphological models, reduplication occasionally is completely desemantisized hence demonstrating one of the final stages of the grammaticalization process. One example is the model combining reduplication and

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[4] Note that I am concerned here with the degree of grammaticalization, and not with the claim that reduplication is grammaticalized. Such a claim is, of course, tautological, since reduplication is by definition constrained by grammar (cf. Gil 2002).

[5] This phenomenon may be related also to the fact that word classes in Indonesian are distinguished to a lesser degree than in European languages although certainly to a greater degree than in such Austronesian languages as Tagalog; cf. Shkarban 2000: 253ff.

the suffix *-an*, where reduplication sometimes serves virtually just for singling out some meaning of its polysemic base (cf. Gonda 1950: 195-196):

(1)   *kelek* 'balustrade, arm-pit'   >   *kelek-kelekan* 'balustrade'
        alur 'channel, river-bed, furrow'   >   *alur-aluran* 'channel, river-bed'
        rebah 'to lie down, to rest, belt'   >   *rebah-rebah*(*an*) 'to rest'

Another piece of evidence to support the view that in Indonesian reduplication is highly grammaticalized comes from the existence of partial reduplication, which cross-linguistically develops from total reduplication and may illustrate the phonological reduction component of the grammaticalization process (Bybee et al. 1994: 166-167):

(2)   *leluhur* 'forefathers, ancestors'   (cp. *luhur* 'exalted, noble')
        lelaki 'man'   (cp. *laki-laki* 'man')

Note, however, that such examples may also reflect the influence of certain other languages of Indonesia where partial reduplication is far more usual.

So a number of characteristics of reduplication could result from grammaticalization. Gil (2002) provided further facts from Riau Indonesian in support of this claim. He argued that reduplication in Riau Indonesian is currently grammaticalizing from repetition – thus illustrating the shift from the sentence level to the level of the word, another widely accepted feature of grammaticalization. Adding this to what has been already said we can sketch out the formal evolution of reduplication as in Figure 1.
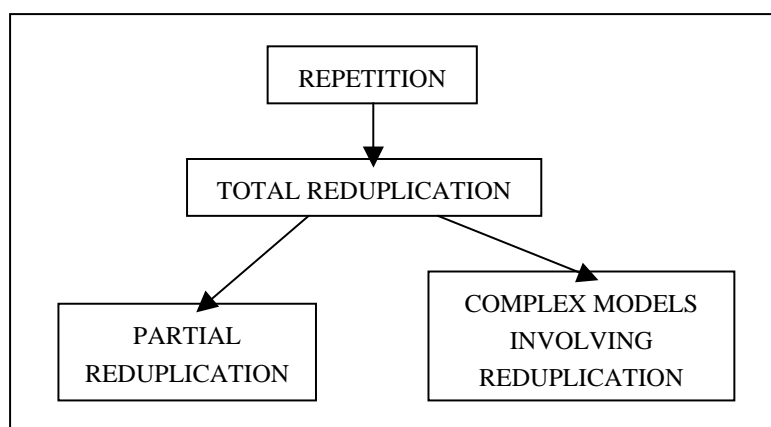
Figure 1. The formal development of reduplication.

It would certainly be tempting to draw a similar scheme for the semantic/functional evolution of reduplication. However, historical semantics is less certain in this case. Carpenter (1994) points out that "diachronic relations between functions of reduplication remain relatively unexamined, and only a few allusions exist". A notable exception is a paper by Gonda (1950), who speculated that some functions of reduplication in Austronesian languages could be derived from others; e.g., the durative meaning of reduplication could develop from iterative, the adverbial one from the intensive function etc.

Many of the paths proposed by Gonda are in fact attested all over the world. Given that synchronic characteristics of Indonesian reduplication are also in general agreement with the typological picture, one can presume that the development of reduplication conforms the universal tendencies of grammatical evolution. On a closer look, however, this turns out to be dubious, as we will see later.

3. Indonesian nominal reduplication: its functions and their distribution

In this paper, I will consider three functions of simple nominal reduplication in Indonesian. The semantic classification proposed here should not be considered absolute, since neither was it my intention here to determine any grammatical primes (for Indonesian or cross-linguistically) nor did I try to formulate the semantics of reduplication exhaustively. The purpose of this section is, then, just to introduce the main data that will become the basis for further discussion.

3.1. *Semi-plurality*

The first function, which I will call here "semi-plurality", is perhaps the most well-known function of Indonesian nominal reduplication. The rules determining its use are not quite obvious, however. To illustrate the problem, consider the two sentences presented in (3): although they have almost identical syntactic and semantic structures, the word *bayi* 'baby' is reduplicated in the first sentence only[6]:

(3)   *Genggaman=nya   erat   tidak   sebagaimana   genggaman*
       grip=PR.3   strong   NEG   as   grip
       *biasanya   **bayi-bayi**   yang   baru   lahir.*
       usually   baby-RDP   REL   new   be.born
       Terjang=nya   berat   tidak   sebagaimana   biasanya   tendangan
       kick= PR.3   heavy   NEG   as   usually   kick
       bayi   *yang   baru   lahir.*
       baby   REL   new   be.born
       'His grip was strong not as would be usual for the grip of newly born babies.
       His kick was heavy not as would be usual for the kicks of newly born babies .'

   Given the existence of examples such as (3), I reject approaches which relate this function of reduplication to a single meaning. Instead I assume that in this case we have a cluster of prototypical properties (perhaps, organized hierarchically)[7]:

(4)   a. plurality of the individual: the referent of a reduplicated form should consist of multiple "atomic parts"[8];
       b. indefinite specificity: a reduplicated nominal is likely to be specific (referential) and indefinite, i.e. it is unlikely to use reduplication in case of definite, generic or non-referential nominals;

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[6] As follows from the approach presented in the beginning of Section 2, while glossing the reduplicated nominals I do not attempt to establish which part is a base.

[7] The relevance of the conditions listed in (4) perhaps may vary from text to text and among the speakers. In particular, there seems to be a tendency to reorganize the opposition between the unmarked and reduplicated forms from privative into equipollent (singular vs. plural).

[8] The terminology used here is due to Link (1983). The claim in (4), however, seems to be translatable to any other notational system that deals with plurals.

c. diversity of the individual's "atomic parts".

The probability of the appearance of a reduplicated nominal depends (at least partly) on how many of the properties (4) its denotation satisfies. In particular, it seems that none of these properties is sufficient without some other (but note that (4c) seems to imply (4a)). In the prototypical case such as (5) all the properties are present.

(5) *Apa*   ***tanda-tanda***   *penganiayaan emosi   itu?*
     what   indication-RDP   oppression   emotion   that
     'What are the symptoms has that emotional oppression?'

(6) and (7) show more complicated examples. In (6) the noun *ancaman-ancaman* 'threats' is used non-specifically or generically, hence it does not satisfy (4b). Still, the properties (4a) (here the plurality of kinds) and (4c) (their diversity underlined by the expression *baik ... maupun ...* 'both ... and ...') are present thus allowing the use of reduplication.

(6) *Dasar   yang   me-nyebabkan   manusia   ber-kelompok,   ialah* (...)
     basis   REL   ACT-cause   human   POS-group   COP
     *untuk   mem-pertahankan   diri=nya   dari   **ancaman-ancaman**,*
     for   ACT-defend   RFL=PR.3   from   threat-RDP
     baik   dari   sesama   manusia   maupun   dari   bencana   alam.
     both   from   fellow   human   and   from   danger   nature
     'The reason that causes people to unite into groups is to defend themselves from threats (originating) both from their fellowmen and from the dangers of nature.'

Example (7) from *Hikayat Abdullah* (quoted in Chung 2000: 169) shows the same effect. Generally, common noun phrases following a numeral classifier are non-referential, hence they cannot be reduplicated. This rule is apparently violated in this example, but this can be explained if we take into account the hue of diversity, which is emphasized here by the subsequent phrase *laki-laki pĕrĕmpuan* 'male (and) female'.

(7) *Maka   ku-lihat   ada   lima   ĕnam   puloh   orang   **hamba-hamba***
     then   1SG-see   exist   five   six   ten   CLR   slave-RDP

     laki-laki   pĕrĕmpuan   di-bawa   Bugis.
     male   female   PASS-take   Buginese

     'I saw that there were fifty or sixty slaves male and female being led by Buginese.'

And in fact, the role of the diversity component was even more prominent in classical Malay, an ancestor of Indonesian, so this component can be considered a grammaticalization *source* of the current semi-plurality function.

Of course, there may be other factors determining the presence or absence of reduplication in Indonesian[9]. No attempt has been made here to investigate all the nuances related to the semi-plurality function. Yet in the context of the present paper it is relevant that this function of Indonesian reduplication seems to be quite regular and productive - while having abstract and hardly formalizable semantics. Importantly, these features are characteristic of highly grammaticalized devices.

3.2. *Conceptual similarity*

The second function to be discussed here is apparently more derivational. With a number of bases simple reduplication can express conceptual similarity. Some examples are:

(8) *langit-langit* 'ceiling; palate'   < *langit* 'sky'

     mata-mata 'spy'   < *mata* 'eye'

     kaki-kaki 'crutch, stilt'   < *kaki* 'foot, leg'

     lidah-lidah 'fret (of a musical instrument)' < *lidah* 'tongue'

The similarity function is not truly productive. In fact, Indonesian has a more regular morphological model that is used for expressing similarity, namely the above-mentioned model based on reduplication combining with the affix *-an* (e.g., *orang-orangan* 'image, statue, doll' from *orang* 'person').

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[9] For additional observations, see Kölver 1982, Simatupang 1983 and Alieva 1991 (among many others).

3.3. *Pragmatic accentuation*

Finally, occasionally simple nominal reduplication may reflect the focus on some components of an utterance. This function, which is illustrated in examples (9) and (10), will be labeled below as PRAGMATIC ACCENTUATION[10], since pragmatics evidently comes into play here. Note especially the first of these sentences, where the use of reduplication is clearly related to some kind of contrastive focus.

(9)   *Martabak*   *itu*   *makanan*   ***kami-kami***
        martabak   that   food   1PL:EXCL-RDP
        kalau   *Republik*   *Martabak*   *itu*   *makanan*   ***dia-dia***.
        as.for   *Republik*   *Martabak*   that   food   3SG-RDP
        '*Martabak* (a kind of pastry) is OUR food, while *Republik Martabak* is HIS food.'

(10)   *Kalau*   ***saya-saya***   *ini*,   *di-biarkan*   *begitu*   *saja...*
        as.for   1SG-RDP   this   PASS-permit   so   only
        'As for ME, I am just neglected each time.' (Simatupang 1983: 129)

Remarkably, this sort of reduplication can put forward certain interesting semantic hues. For instance, Agus Salim (1989: 221-222) considers sentences such as (11) a possible way to express the plurality of events:

(11)   *Mengapa*   *rapat*   *me-milih*   ***Umar-Umar***   *saja*
        why   meeting   ACT-elect   Umar-RDP   only
        sebagai   *ketua?*
        as   chairman
        'Why did the meeting elect Umar as its chairman each time?'

Mel'čuk (1994: 23) also mentions Indonesian examples like these as instances of a shifted (*déplacé*) category, i.e. a category that is expressed on a word other than the

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[10] Simatupang (1983: 129-130]) considers the realization of this function under two different rubrics, namely '*meremehkan*' ('belittle') and '*intensif*' ('intensive'). Accordingly, it is possible that in this case we have a group of functions rather than a single function. Still, I believe that these are implications of PRAGMATIC ACCENTUATION depending on context.

word semantically modified. Yet here the plurality of events is likely to be just a pragmatic implication[11].

Reduplication in this function is often accompanied by focus particles *lagi* 'yet, more, just', *saja* 'only' or *juga* 'also, even'. This may be counted as evidence of the inclusion of reduplication into more complex syntactic constructions (once again this points to the increase of its grammaticalization). Nevertheless, as is seen from (9) and (10), the use of these particles has not become obligatory.

3.4. *Distribution*

What is indeed striking about the functions surveyed above is that they together constitute a relatively coherent system. Thus, it can be argued that these three functions form a sort of hierarchy (12), according to which a function can be expressed by reduplication if and only if the functions placed higher in the hierarchy cannot (but see below for some exceptions).

(12)   SEMI-PLURALITY > CONCEPTUAL SIMILARITY > PRAGMATIC ACCENTUATION

Consider, for example, the conceptual similarity function. Even a brief look on the stems that are found as bases for this type of reduplication shows prevalence of body-part terms. In modern Indonesian these nouns may sometimes have reduplicated "plural forms":

(13)   *Sudah*   *agak*   *lama*   *saya*   *men-derita*   *nyeri*   *di*   *kaki*
        already   relatively   long.ago   1SG   ACT-suffer   pain   in   leg
       kanan   *yang*   *menjalar*   *ke*   **jari-jari**   *kaki*.
        right   REL   spread   to   finger-RDP   leg
       'Already relatively long ago I suffered from a pain in my right leg that spread down to my toes.'

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[11] Hein Steinhauer (p.c.) suggested that in this example reduplication actually determines the scope of *saja* 'only' and noted that without reduplication this sentence is likely to be translated as 'why did the meeting elect only Umar and not someone else besides him as its chairman'. If so, then (11) is a remarkable example of the situation where the use of an additional focus device (in our case, the pragmatic accentuation reduplication) affects the choice of possible alternatives introduced by another contrastive means (here *saja*).

However, such uses seem to represent innovations which apparently correlate with the overall expansion of the number opposition in Indonesian (cf. note 7)[12]. If we do not consider such cases as (13), it becomes possible to explain the predomination of body-part terms among the stems that give rise to the conceptual similarity reduplication. As has been argued, e.g., by Dahl & Koptjevskaja-Tamm (1998), a typical use of a body-part term is non-specific; moreover, it is certainly not normal to emphasize the diversity of body-parts. Therefore body-part terms are not expected to form semi-plural forms, and reduplication turns out to be capable to express another function.

Another class of stems apt to undergo the similarity reduplication consists of stems denoting entities whose uniqueness is already presupposed; e.g., *langit* 'sky' (cp. *langit-langit* 'ceiling; palate'). The same mechanism is at work here: since such nouns as *langit* cannot have a semi-plural form for semantic reasons, reduplication appears to express another function. While there do exist exceptions to this rule (cf. such nouns as *balai-balai* that can both mean 'couch' and serve as a semi-plural form of *balai* 'building', or *kuda-kuda* 'trestle' but also a semi-plural of *kuda* 'horse'), they seem to make up a minority of examples.

Simatupang (1983: 132) observes that with certain nouns (chiefly kinship terms) reduplication can express similarity in contexts containing numerals. As has been said above, the semi-plurality function of reduplication is typically blocked in constructions with numerals (but see (7)). Consequently, the similarity function arises here:

(14)   *Se-orang*   ***kakek-kakek***   *berdiri*   *di*   *depan*   *pintu.*
      one-CLR   grandfather-RDP   stand   in   front   door
      'Somebody similar to a grandfather (i.e. oldish) is standing in front of the door.' (Simatupang 1983: 132)

As for PRAGMATIC ACCENTUATION, it is usually expressed by reduplication, exactly when the other readings are impossible. This is perhaps most obvious in case

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[12] According to Gonda (1950: 179), "whereas (…) in classical Malay words for limbs of the body and other uniform objects did not suffer duplication, it is now possible to write, e.g., *daun² telinganya* "her ear-lobes" [the example is given here in the new orthography - YL]".

of pronouns (cf. (9)-(10)) or proper nouns (11). With these nominals both functions of semi-plurality and conceptual similarity are blocked, since they are definite (contra the condition (4b)), and do not refer to concepts. Arguably, the same effect can be observed among reduplicated nouns, but here the situation is more complicated. Thus, consider (15), where reduplication emphasizes the fact that the speaker should not be considered a child:

(15) *Saya*   *bukan*   **anak-anak**   *lagi*,   *tidak*   *lama*   *umur*   *saya*
      1SG   NEG   child-RDP   more   NEG   long   age   1SG

      sudah   *sembilan.belas*   *tahun.*
      already   nineteen   year

      'I am not a CHILD anymore, not so long from now I shall be nineteen.'

In this sentence *anak-anak* obviously cannot have a semi-plurality meaning: not only does it occupy a predicative position and therefore cannot be specific, but also it is associated with a singular pronoun. Rather it may be that reduplication is used here in its pragmatic function denying any possibility that the speaker can be considered a child. At the same time, *anak-anak* can refer also to a typical child, that is to a small child (Hein Steinhauer, p.c.). This fact returns us to the idea of conceptual similarity, which certainly operates on typical properties. Note, however, that in (15) this meaning will give almost the same semantic effect as if we speak of the pragmatic accentuation function. This reflects the fact that occasionally there may be no clear borderlines between different functions of reduplication.

I conclude that with minor reservations, the hierarchy (12) is indeed relevant for Indonesian in that it governs the distribution of various functions of nominal reduplication. The next section attempts to provide a historical explanation for this.

4. On the development of nominal reduplication

4.1. *Grammaticalization path*

Perhaps the most natural way to account for the distribution of functions observed above is to hypothesize that the hierarchy (12) mirrors the diachronic spread of reduplication over new contexts. Such a supposition explains why those meanings of reduplication that are placed lower in (12) are unavailable in contexts

corresponding to those functions that are higher – the latter functions developed earlier and hence claimed the relevant contexts. Therefore (12) could be interpreted as a grammaticalization path, which can be further enlarged with the above-mentioned evolution of SEMI-PLURALITY from DIVERSITY:[13]

(16)   DIVERSITY > SEMI-PLURALITY > SIMILARITY > PRAGMATIC ACCENTUATION

This path is supported by several considerations. Firstly, the functions related to plurality and diversity were indeed claimed to be original for reduplication (Heine & Reh 1984: 47; Alieva 1991: 220), thus conforming the left part of (16). Secondly, the rise of a pragmatic function is consistent with the hypothesis of pragmatic enrichment accompanying the grammaticalization process (see, for example, Hopper & Traugott 1993: Ch. 4). Hence the right end of the cline is not unexpected either. Finally, intervening readings such as the interpretation presented in (15) also count in favor of (16).

Nevertheless, (16) contains several unexpected assertions, of which I will focus on one only, namely on the assertion that the grammaticalization path proposed above violates the **unidirectionality principle**, which may be counted as one of the major achievements of the grammaticalization theory.

 In its strongest version, this principle states that grammatical change may occur in one direction only, from a less grammatical status to a more grammatical status. From the functional perspective, the direction is often postulated from content items with unconstrained distribution to derivation with more limited distribution and further to inflection, whose distribution is strongly regulated by grammatical rules.

The path proposed in (16) contradicts the unidirectionality principle where it asserts the development of the similarity function from the semi-plurality one. It has been emphasized above that the similarity reduplication in Indonesian is derivative. The situation with the semi-plurality reduplication is less clear, since it is obviously not *so* inflectional as, say, English plural[14]. Still, if the opposition between inflection

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[13] Alternatively, it can be suggested that since the diversity function and the semi-plurality function are applicable to the same type of roots, the similarity function resulted from the spread of reduplication when it had the diversity function only. This does not affect the points to be discussed below, however.

[14] See Lehmann (1995: 56ff) for some discussion on the differences between Indonesian-like and European-like number categories in the perspective of the grammaticalization process.

and derivation is considered to be gradual (cf. Bybee 1985 among many others) – and the assumption about the gradualness of grammaticalization makes us view it in this way – then one is forced to accept that the semi-plurality reduplication is more inflectional and less derivational than the similarity reduplication. Consequently, the rise of the similarity function from the semi-plurality one can be counted as a development from a more grammatical function to a less grammatical one — hence as a violation of the unidirectionality principle.

Note further that the semantic motivation for this development is not apparent either, since it seems groundless to connect the notion of similarity with that of plurality or diversity. In the remainder of this section we will see that this inconsistency in the semantic development of nominal reduplication can be directly related to the problems arising with the observance of the unidirectionality principle.

4.2. *Explaining inconsistencies*

Actually, a number of counterexamples to the unidirectionality principle were put forward during the last decade, so one can suggest that this principle has doubtful value. However, as has been substantiated, e.g. by Haspelmath (2004), only a minority of these examples are real exceptions to the unidirectionality of gradual grammatical changes, and even such exceptions are significant just because they are **exceptions**. It does not seem plausible therefore to entirely reject the unidirectionality principle.

The place of derivational items in various grammaticalization clines is more questionable. After all, derivation is not a necessary intermediate stage in the evolution of lexical material to inflection. Further, Haspelmath notes that changes between inflection and derivation are not necessarily of the same class that changes from discourse to syntax to inflection (which are typical for grammaticalization) are. Nonetheless, it seems untimely to ignore the tendency of development of derivational items to inflectional ones altogether – at least until we can find some explanation for the reverse changes. And in fact, in what follows I suggest such an explanation. In particular, I will link the peculiarities of the development of reduplication to the specifics of reduplication as a grammatical phenomenon.

In fact, reduplication appears to be extremely productive already at the first stages of its development, and it seems that it was productivity that allowed this grammatical means to spread over new contexts. Importantly, during the course of its

development, reduplication has not become less productive and the new derivational functions did not supersede the older more inflectional ones.

Moreover, the evolution of reduplication could be represented as increase of productivity only, not as a semantic development, which is usually associated with grammaticalization. Notably, the spread of reduplication to new contexts did not need to be necessarily accompanied by semantic retention, that is new functions were not always connected semantically to old ones (and this is another significant deviation from the prototype of grammaticalization). An important factor that could make it possible was certainly the "naturalness" of reduplication that could give rise to a variety of functions (Moravcsik 1978) partly depending on the semantics of bases. Another fact that could be of some importance was the relative fuzziness of the borderlines between word classes (see note 5) and the consequent decrease of formal constraints on the applicability of the same grammatical device to different stems.

If we accept that it was mainly productivity that was responsible for the spread of reduplication, it becomes possible to highlight the principal peculiarities of this evolution, which allowed it to violate the laws proposed for other instances of grammatical change.

First, it should be underlined once again that the different functions of reduplication could develop independently from each other. As a result, unlike most other grammaticalization paths, a path such as (16) need not follow any possible semantic map which could reflect grammatical changes motivated semantically.

Second, it can be hypothesized that some of the functions discussed here came into existence just filling residuary contexts in the domain of nominals. Importantly, this kind of function may turn out to be strongly associated only with a periphery of this domain and hence represent a dead-end of some path of development.

If we look at the path (16) from this angle, we will find that SIMILARITY is the best candidate for being a "residuary function". At the same time, it is this very function that does not seem to be somehow linked to the other functions[15]. These facts together may explain why the development of similarity turned out to go against the unidirectionality principle. The "residualness" of SIMILARITY created an illusion that this type of change was similar to other instances of grammaticalization accompanied

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[15] Gonda (1950: 190) proposed the relation between the similarity function of reduplication and its capacity to express degrees of intensity and size in other grammatical domains.

by capturing new contexts. However, in this case the spread of reduplication had no semantic motivation, thus allowing for unusual freedom in the determination of a new function.

The pragmatic function of reduplication could in principle arise independently too. Notably, repetition in discourse often acts as a pragmatic means, and there do exist striking examples of languages, where the main function of repetition developing into reduplication is a pragmatic one (e.g. English; see Ghomeshi et al. 2004). Recall also that the interpretation of most nominals giving rise to the pragmatic function is itself based on pragmatic information; hence PRAGMATIC ACCENTUATION could be the original function of reduplication of these bases.

On the other hand, the pragmatic function could even be supposed to be original, given that emphasizing diversity and plurality can be regarded as a kind of pragmatic accentuation, which has grammaticalized in this restricted sense with some nouns. This would imply that after such a development the semantic domain of reduplication was restructured, although still leaving the "residual place" for the similarity function.

5. Conclusion

The moral of this paper is that although it may seem that the development of reduplication obeys rules of grammaticalization, on a closer look this need not be the case. In particular, as Indonesian data shows, the grammatical change related to reduplication may be rather different from the change observed in canonical instances of grammaticalization. The deviations discussed in this respect first and foremost had to do with the principle of unidirectionality[16], but it should be noted that they are not restricted to it alone. For example, the possible development of semantic functions from pragmatic ones is also a strange phenomenon if compared with prototypical grammaticalization.

It certainly can be proposed that the development of reduplication is not an instance of grammaticalization at all, since too many deviations from the prototype

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[16] Another fact about Indonesian reduplication that presents a violation of this principle concerns functions of partial reduplication, which are mainly derivational (unlike those of total reduplication); cp. *tetangga* 'neighbor' (partial reduplication) with *tangga-tangga* 'ladders' (total reduplication). As has been already said, according to most theorists of grammaticalization, partial reduplication should be more grammaticalized, while this is not the case here.

are observed in this case. Yet, far more attention should be paid to different types of grammatical changes even if just to separate grammaticalization from other diachronic processes in grammar.

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