

# Representative data collection: Multiple Reduplication

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During my work on the DFG Research Grant 'Multiple Reduplication: Typology and Theory', hosted by the University of British Columbia, Vancouver, I conducted a representative database of Multiple Reduplication. It is based on the theory-neutral definition of the empirical phenomena of Multiple Reduplication in (1).

(1) *Multiple Reduplication (=MR)*

The presence of more than one productive reduplicative morpheme in a word.

**Methodology** All the data was gathered from descriptive materials.<sup>1</sup> Given the frequency of reduplication in the languages of the world<sup>2</sup>, one could expect MR to be a very common pattern. It turns out, however, that it is in fact rather difficult to find examples for MR and only 31 convincing examples for productive MR could be found.

There are several possible reasons for the relatively small sample of MR patterns. One is of course that in a given language with multiple reduplicating morphemes, their combination might simply be excluded for semantic reasons. On the other hand, not every case of MR might be explicitly mentioned in a description. In case combinations of reduplicating morphemes are as frequent as combinations of other segmental morphemes in a certain language, MR is simply not a very noteworthy fact.

## **Types of MR patterns: Classification in the database**

- Morphology – Type

There are at least three different patterns of MR that can be identified. In 'concatenating' MR (=CR), two independently attested reduplicative morphemes are

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<sup>1</sup>I only relied data that could be verified with at least one primary source for the language in question. This meant that the MR pattern of reinforced continuity in Shipibo for which three examples are given in Key (1965) (recited in Moravcsik, 1978) does not occur in the list since I could not verify the intensification MR pattern in Loriot et al. (1993); Valenzuela (1997, 2003), or Cardenas and Zeman (2018). I also excluded pattern where MR can only be found for ideophones (as in, for example, Upper Necaxa Totonac; Beck, 2004).

<sup>2</sup>Of the 368 languages in the WALS chapter on reduplication (Rubino, 2013), only 55 do not employ productive reduplication. In addition, many languages employ more than one reduplicative process and there is even the hypothesis that every language with partial reduplication also employs full reduplication (Moravcsik, 1978; Rubino, 2005).

combined which have their own respective meaning and also occur in isolation. An example can be found in Bikol where full reduplication marks the plural and /CV/ reduplication the imperfective aspect. A verb can now be marked for both plural (actor) and imperfective by combining both reduplicative morphemes (e.g. /ini an ha~hanap~hanap-on/ ‘here (they are) continuously searching’ (Mattes, 2007, 126)). In ‘*iterative*’ MR (=IR), on the other hand, the same reduplicative morpheme is added multiple times, usually to enhance or intensify the meaning. An example is the reinforcement of continuity in Pingelapese (e.g. /pei/ ‘float’; /pei~pei/ ‘floating’, /pei~pei~pei/ ‘still floating’ (Rehg, 1981, 11)). And finally, there are instances where the meaning of the MR form is clearly distinct from a single reduplication counterpart but where the second reduplicative morpheme does not occur on its own and hence crucially relies on attaching it to an already reduplicated form. This pattern is called ‘*superset*’ MR (=SR). An example is Taiwanese reduplication: Whereas single reduplication of a monosyllabic adjective intensifies its meaning, double reduplication diminishes it (e.g. /sin<sup>55</sup>/ ‘new’, /sin<sup>33</sup>~sin<sup>55</sup>/ ‘very new’, /sin<sup>51</sup>~sin<sup>51</sup>~sin<sup>2</sup>/ ‘somewhat new’ (Zhang and Lai, 2007, 43)).

- Phonology – Form:G(eneral)

The database also notates whether at least one of the involved reduplicative morphemes (in at least some MR instances) triggers *full* reduplication (=F); in contrast to cases where all reduplicative processes are *partial* (=P). This classification can become relevant for the theoretical account since there are claims that full reduplication should be accounted for by different means than partial reduplication (e.g. Pulleyblank, 2009; Saba Kirchner, 2010). Importantly for the present argumentation that a phonological account is empirically more adequate than a morphological one, the claim is usually that partial reduplication involves phonological copying and full reduplication morpho-syntactic doubling. All instances of unfaithful MR that are the focus of this paper, however, involve partial reduplication and hence clear instances of a word-formation process that copies a prosodically delimited portion of a base. The present proposal hence only strengthens the existing arguments for analyzing partial reduplication as prosodic affixation and makes no claim about the theoretical account of full reduplication.

- Phonology – Adj(acency)

Another potentially relevant phonological information is the adjacency of the multiple reduplicants (A=*adjacent*, N=*non-adjacent*).

- Phonology – Base

The base for reduplication is identified as either the *stem* (=S) or the string *adjacent to the reduplicant* (=A). If a pattern could be described as either one of these, it is classified as *indeterminant* (=I).

- Phonology – MR:P(honological)R(eduction)

In addition, it is notated whether the MR patterns show a phonological reduction that is bound to this context and unattested in single reduplication contexts or contexts without any reduplication. Two patterns are distinguished: *partial reduction* (=RR) or *complete avoidance* (=AR) of one reduplicant as the most extreme form of reduction.

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