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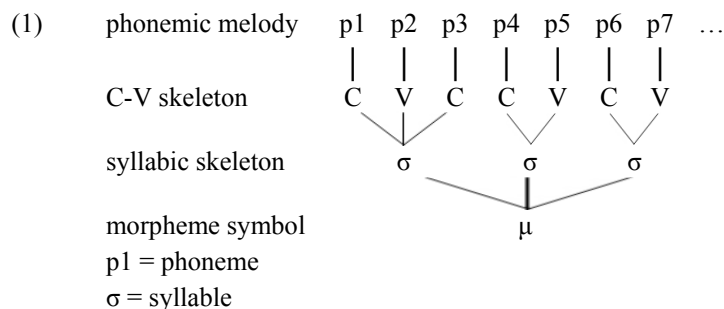
4.   Reduplication

Reduplication refers to "the morphological operation in which a new word (form) is created by copying a word or a part thereof, and affixing that copy to the base (Booij 2007: 321). In Papuan Malay, as in other Austronesian languages, reduplication is a very productive morphological device to derive new words (Himmelmann 2005: 121–125).

With respect to lexeme formation, Papuan Malay makes use of three different types of reduplication: (1) full reduplication, (2) partial reduplication, and (3) imitative reduplication. Alternatively, Wiltshire and Marantz (1978: 558) refer to these reduplication types as "exact total reduplication", "exact partial reduplication", and "inexact partial reduplication", respectively. In terms of lexeme interpretation, a variety of meanings can be attributed to the reduplicated lexemes, such as plurality and diversity, intensity, or continuation and repetition.

Reduplication in terms of lexeme formation is described in §4.1 while lexeme interpretation is discussed in §4.2. This discussion is followed by a comparison of reduplication across different eastern Malay varieties in §4.3. The main points of this chapter are summarized in §4.4.

4.1.   Lexeme formation

A phonological approach to reduplication is Marantz's (1982: 436) prosodic template model which views reduplication as "normal affixation" with "one unique feature", namely "the resemblance of the added material to the stem being reduplicated". More specifically, "every reduplication process may be characterized by a 'skeleton' of some sort", either a phonemic melody, "a C-V skeleton, a syllabic skeleton, or a skeleton of morpheme symbols" (1982: 439). The four-tiered representation in (1), taken from Marantz (1982: 437), illustrates how the segments of the four skeleta are linked to each other.

(1)   phonemic melody   p1 p2 p3 p4 p5 p6 p7 …

$$\begin{array}{ccccccc} | & | & | & | & | & | & | \end{array}$$

        C-V skeleton   C   V   C   C   V   C   V

        syllabic skeleton   σ   σ   σ

        morpheme symbol   μ

        p1 = phoneme
        σ = syllable

During reduplication, an affixed skeleton receives its phonemic content by "the copying of the stem's phonemic melody on the same tier as the melody and on the same side of the stem melody to which the affix is attached … along with some specific constraints on the autosegmental association of the phonemes of the copied melody with the Cs and Vs of reduplicating morphemes" (Marantz 1982: 445).

Full and partial reduplication use two different types of skeleta. In full reduplication, the affix is a morphemic skeleton or, more specifically, the

morphological word. In partial reduplication, the added material is a syllabic skeleton. In Papuan Malay, this syllabic skeleton is a closed, heavy syllable which gets prefixed to the base. This shows, that in Papuan Malay reduplication in general is prefixal rather suffixal.

Both types of lexeme formation are described in §4.1.1.1 and §4.1.1.2, respectively. Imitative reduplication is discussed in §4.1.1.3.[129]
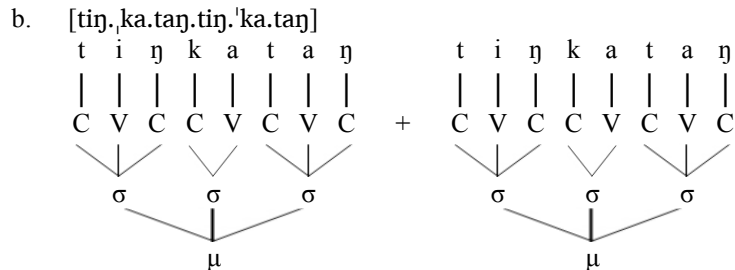
4.1.1.   Full reduplication

In full reduplication, "the reduplicant matches the base from which it is copied without phoneme changes or additions" (Rubino 2011: 2). That is, in terms of Marantz's (1982) prosodic template model, full morpheme reduplication involves "the addition of a morphemic skeleton to a stem. The morphemic skeleton, lacking a syllabic skeleton, a C-V skeleton, and a phonemic melody, borrows all three from the stem to which it attaches" (1982: 456).

Full reduplication of morphological words is illustrated with the two examples in (2): reduplication of the root *dorang* '3PL', resulting in *dorang~dorang* 'RDP~3PL' in (2a), and reduplication of the derived word *tingkatang* 'level' (*tingkat-ang* 'floor-PAT'), resulting in '*tingkatang~tingkatang* 'RDP~level' in (2b). In each case, the content of the reduplicative affix is obtained by copying the phonemic melody of the base over the morphemic skeleton of the reduplicating affix. This applies to roots as in (2a) as well as to derived words as in (2b).

(2)   a.   [ˌdo.raŋ.ˈdo.raŋ]

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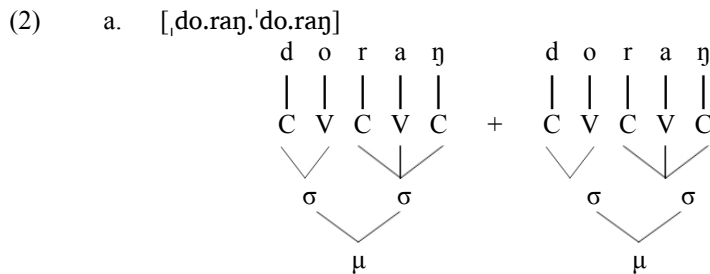
[129] An alternative, morphological, approach to reduplication is Inkelas and Zoll 's (2005) Morphological Doubling Theory (MDT). Inkelas and Zoll (2005: 25) view reduplication as a process which "couples morphological constituents which agree in their semantic (and syntactic) specifications". While Inkelas and Zoll 's (2005) Morphological Doubling Theory seems to be a convenient model to describe full reduplication in Papuan Malay, it appears that the processes involved in partial reduplication are best explained in terms of Marantz 's (1982) prosodic template model. To better compare full and partial reduplication in Papuan Malay, Marantz 's (1982) model with its skeletal framework is applied to both types of reduplication.

b.   [tiŋ.ˌka.taŋ.tiŋ.ˈka.taŋ]

```
     t  i  ŋ  k  a  t  a  ŋ        t  i  ŋ  k  a  t  a  ŋ
     |  |  |  |  |  |  |  |        |  |  |  |  |  |  |  |
     C  V  C  C  V  C  V  C    +   C  V  C  C  V  C  V  C
       \_|  \_/  \_/             \_|  \_/  \_/
        σ    σ    σ               σ    σ    σ
         \___|___/                 \___|___/
             μ                         μ
```

In Papuan Malay, only free morphemes are reduplicated; bound morphemes such as prefixes are never reduplicated (see Table 1 in §4.1.1.1). Full reduplication is attested for content words (§4.1.1.1) and some function words (§4.1.1.3). The corpus also includes a few reduplicated items that do not have an unreduplicated single base (§4.1.1.2). Reduplication of reduplicated bases is unattested.

4.1.1.1.   Reduplication of content words

Full reduplication most commonly applies to content words. Attested are reduplicated nouns, verbs, adverbs, numerals, and quantifiers, as shown in Table 1.

Table 1:   Reduplication of content words

Word class	Base	Gloss	Reduplication
Nouns	*ade*	'younger sibling'	*ade~ade*
	bua	'fruit'	*bua~buaang*
	tingkatang	'level'	*tingkatang~tingkatang*
	tulang	'bone'	*tulang~tulang*
Verbs	*baik*	'be good'	*baik~baik*
	ceritra	'fold'	*ceritra~ceritra*
	talipat	'fold'	*talipat~talipat*
	tumpuk	'pile'	*bertumpuk~tumpuk*
Adverbs	*baru*	'recently'	*baru~baru*
	skarang	'now'	*skarang~skarang*
	sring	'often'	*sring~sring*
Numerals	*satu*	'one'	*satu~satu*
	dua	'two'	*dua~dua*
	lima	'five'	*lima~lima*
Quantifier	*banyak*	'many'	*banyak~banyak*
	sedikit	'few'	*sedikit~sedikit*
	sembarang	'any (kind of)'	*sembarang~sembarang*

Four of the content words listed in Table 1 involve affixation: *bua* 'fruit' and reduplicated *bua~bua-ang* (suffix *-ang* 'PAT'), *tumpuk* 'pile' and reduplicated *ber-tumpuk~tumpuk* (prefix *BER-* 'INR'), *tingkat-ang* 'level' and reduplicated *tingkat-ang~tingkat-ang* (suffix *-ang* 'PAT'), and *ta-lipat* 'be folded' and

reduplicated ***ta-lipat~ta-lipat*** (prefix ***TER-*** 'ACL'). The four lexeme pairs illustrate that reduplication may precede affixation as with ***bua*** 'fruit' or ***tumpuk*** 'pile' or follow affixation as with ***tingkatang*** 'level' or ***talipat*** 'be folded'. These examples also show that reduplication only affects free morphemes while affixes are never reduplicated.

   Reduplication of content words is demonstrated with the three examples in (3) to (5). Reduplication of a noun is illustrated in (3); in this context reduplicated ***ade*** 'younger sibling' conveys plurality. The utterance in (4) includes a reduplicated verb; in this context, ***lari*** 'run' expresses continuation. And the example in (5) illustrates reduplication of an adverb; in this context prohibitive ***jangang*** 'NEG.IMP, don't' denotes intensity. The three examples illustrate only three of the different meanings expressed with reduplication. Depending on the context, a reduplicated noun can also signal repetition, to name just one other meaning aspect. Along similar lines, a reduplicated verb can also express aimlessness, among other meanings. This variety of different meanings is discussed in detail in §4.2.

(3)   jadi   saya   saya   deng   sa   pu   **ade~ade**   tinggal   di   ruma
       so   1SG   1SG   with   1SG POSS   RDP~ySb   stay   at   house
       'so I, I and my **younger siblings** stayed at the house' [081014-014-NP.0002]

(4)   kitong   dua   **lari~lari**   sampe   di   Martewar
       1PL   two   RDP~run   reach   at   Martewar
       'the two of us **kept running** all the way to Martewar' [080923-010-CvNP.0009]

(5)   …   tapi   **jangang~jangang**   hujang   di   tenga   jalang
            but   RDP~NEG.IMP   rain   at   middle   street
       '[I want to go to (my) gardens,] but **let's hope** it **won't** rain in the middle of the way' [Elicited BR120813.031]

4.1.1.2.   Reduplication of function words

Some Papuan Malay functions words can also be reduplicated. Attested are reduplicated personal pronouns, demonstratives, locatives,[130] interrogatives, causative verb ***kasi*** 'give', and reciprocity marker ***baku*** 'RECP', as listed in Table 2.

Table 2:   Reduplication of function words

Word class	Base	Gloss	Reduplication
Personal pronouns	***saya*** ***kamu*** ***dorang***	'1SG' '2PL' '3PL'	***saya~saya*** ***kamu~kamu*** ***dorang~dorang***
Demonstratives	***ini*** ***itu***	'D.PROX' 'D.DIST'	***ini~ini*** ***itu~itu***

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[130]   While reduplication of ***sana*** 'L.DIST' is unattested in the present corpus, it does occur, following one consultant.

Word class	Base	Gloss	Reduplication
Demonstratives	*sini* *situ* *sana*	'L.PROX' 'L.MED' 'L.DIST'	*sini~sini* *situ~situ* *sana~sana*
Interrogatives	*siapa* *apa* *kapang*	'who' 'what' 'when'	*siapa~siapa* *apa~apa* *kapang~kapang*
Causative verb	*kasi*	'give'	*kas~kas*
Reciprocity marker	*baku*	'RECP'	*baku~baku*

Reduplication of three different types of functions words and the different meaning aspects conveyed is illustrated in (6) to (8): personal pronouns in (6), locatives in (7), and interrogatives in (8).

(6) **kamu~kamu** ini   bangung,   bangung
    RDP~2PL   D.PROX wake.up   wake.up
    Collectivity: '**you all** here wake-up!, wake-up!' [081115-001a-Cv.0330]

(7) ko   lari   suda   ke   **sana~sana**
    2SG run   already   to   RDP~LOC.DIST
    Diversity: 'you run to **somewhere** over there' [Elicited BR120813.016]

(8) … sa   tra   perna lari ke **siapa~siapa**
     1SG NEG   once   run   to RDP~who
    Intensity: '[even (when) my children were already sick,] I've never run to **anyone** (for black-magic help)' [081006-034-CvEx.0028]

4.1.1.3.   Reduplication without corresponding single base

Across word classes, some reduplicated forms do not have an unreduplicated single base. Attested are four nouns, three verbs, one quantifier, and one conjunction, as listed in Table 3.

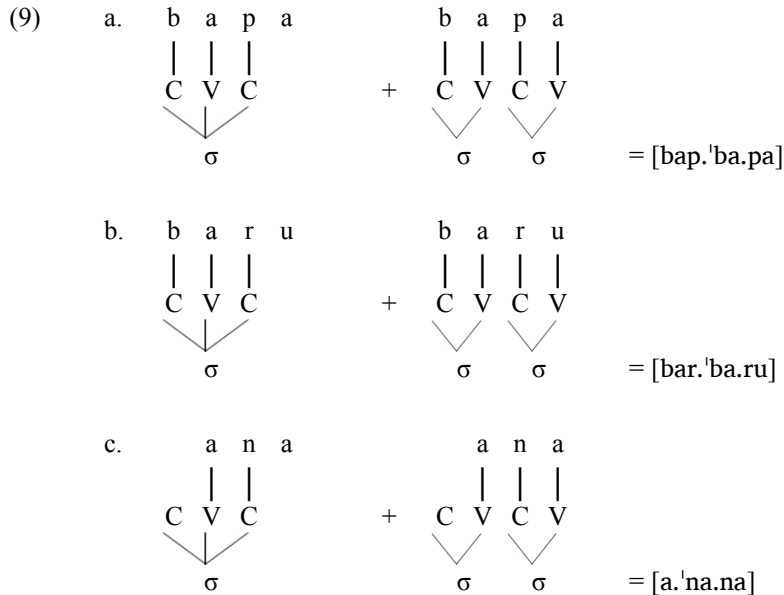Table 3:   Reduplication without corresponding single base

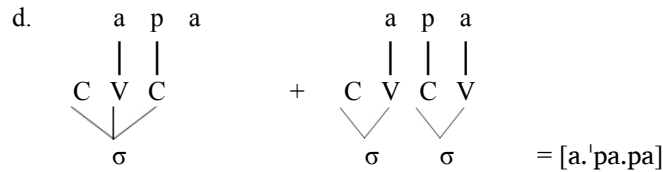| Word class	Base	Reduplicated item	Gloss
Nouns	**alang* **kura* **pori* **soa*	*alang-alang* *kura-kura* *pori-pori* *soa-soa*	'cogongrass' 'turtle' 'pore' 'monitor lizard'
Verbs	**belit* **gong* **tele*	*belit-belit* *gong-gong* *tele-tele*	'curve' 'bark (at)' 'talk excessively'
Quantifier	**masing*	*masing-masing*	'each'
Conjunction	**gara*	*gara-gara*	'because'

4.1.2.   Partial reduplication

Partial reduplication is rare in Papuan Malay. This type of reduplication "involves
the reiteration of only part of the semantic-syntactic or phonetic-phonological
constituent whose meaning is accordingly modified" (Moravcsik 1978: 304).

   That is, the added material is not a morphemic skeleton as in the case of full
reduplication but the reduplicant is a C-V skeleton or a syllabic skeleton which gets
prefixed to the base. If the reduplicant is a C-V skeleton, the "entire phonemic
melody of the stem is copied over the affixed C-V skeleton and linked to C and V
'slots' in the skeleton" (Marantz 1982: 437) (concerning the principles involved in
this linking see Marantz 1982: 446–447). A "syllabic skeleton, lacking a phonemic
melody and a C-V skeleton, borrows both from the stem to which it attaches" (1982:
437).

   In Papuan Malay, the reduplicant is a closed heavy syllable which is prefixed to
the stem from which it borrows the phonemic melody and C-V skeleton, as shown in
(9). In (9a), for example, the initial closed syllable [bap] is copied over the
reduplicating syllabic skeleton. With vowel-initial stems, the initial VC is copied
over the reduplicating syllabic skeleton. This is shown in (9c) with the initial VC
[an] which is copied over the prefixed CVC syllable. These examples also show that
the prefixed syllable does not take into account the syllable structure of the base.

(9)   a.   b   a   p   a   b   a   p   a
                | | | | | | |
                C   V   C   +   C   V   C   V

                    σ   σ   σ   = [bap.ˈba.pa]

         b.   b   a   r   u   b   a   r   u
                | | | | | | |
                C   V   C   +   C   V   C   V

                    σ   σ   σ   = [bar.ˈba.ru]

         c.   a   n   a   a   n   a
                    | | | | |
                C   V   C   +   C   V   C   V

                    σ   σ   σ   = [a.ˈna.na]

d.

```
        a   p   a                   a   p   a
        |   |                       |   |   |
    C   V   C           +       C   V   C   V
     \__|__/                     \__|   \__|
        σ                           σ     σ        = [a.ˈpa.pa]
```

In Papuan Malay, partial reduplication is only attested for disyllabic lexical roots with penultimate stress. It always involves the partial reduplication of the stressed penultimate syllable of the base, as shown in Table 4. The results are trisyllabic words with penultimate stress. If the base has a CV.CV(C) syllable structure, stress in the reduplicated word remains on the penultimate syllable of the base, as in **bapa~bapa** [bap.ˈba.pa] 'fathers'. With vowel-initial stems, Papuan Malay copies the initial VC sequence, as in **ana~ana** [a.ˈna.na] 'children'. In this case, the reduplicant's segments do not originate from one and the same syllable of the base. That is, partial reduplication in Papuan Malay – as is the case in other languages – can be "oblivious to the prosodic structure of the base from which it copies a melody" (Wiltshire and Marantz 1978: 562). The partially reduplicated forms are alternants of fully reduplicated ones and have the same semantics; [a.ˈna.na] 'children', for instance, is an alternant of [ˌa.na.ˈana] 'children'.

Table 4:   Partial reduplication

Base	Gloss	Reduplicated item	
ana	'child'	*ana~ana*	[a.ˈna.na]
apa	'what'	*apa~apa*	[a.ˈpa.pa]
bapa	'father'	*bapa~bapa*	[bap.ˈba.pa]
baru	'be new, recently'	*baru~baru*	[bar.ˈba.ru]

4.1.3.   Imitative reduplication

The third attested type of reduplication is imitative or rhyming reduplication. Also being referred to as "echo construction", this type "involves reduplication with some different phonological material, such as a vowel or consonant change or addition, or morpheme order reversal" (Rubino 2011: 2).

Imitative reduplication in Papuan Malay is unproductive and rare; attested are only the three lexemes listed in Table 5. The reduplicated component resembles the base in part but also differs from it, in that imitative reduplication involves a vowel change. For one of the attested lexemes, the bare base is also inexistent: ***ngyaung***.

Table 5:   Imitative reduplication with vowel change

Reduplicated item	Gloss	Base	Gloss
ngying~ngyaung	ideophone: cockatoo call	**ngyaung*	---
tuk~tak	ideophone: bang!	*tak*	ideophone: bang!
bola~balik	'move back and forth'	*balik*	'return'

4.2.   Lexeme interpretation

In Papuan Malay, as in other languages, reduplication conveys a variety of different meanings, such as plurality and diversity, intensity, or continuation and repetition. Some of these meaning aspects tend to be limited to certain word classes, while others are conveyed by a variety of different word classes.

The meaning aspects of reduplicated Papuan Malay content words are examined in §4.2.1 to §4.2.4, those of reduplicated function words in §4.2.5. The underlying general meaning or gesamtbedeutung of reduplication is explored in §4.2.6.

4.2.1.   Reduplication of nouns

Across languages, reduplication of nouns has been found to express a variety of meanings such as "number […], case, distributivity, indefiniteness, reciprocity, size (diminutive or augmentative), and associative qualities" (Rubino 2011). In Papuan Malay, the following meaning aspects are attested: plurality and diversity (§4.2.1.1), repetition (§4.2.1.2), and indefiniteness (§4.2.1.3). Reduplicated nouns can also undergo an interpretational shift and receive a verbal or adverbial reading (§4.2.1.4).

4.2.1.1.   <u>Plurality and diversity</u>

A major function of noun reduplication is to signal plurality, given that in Papuan Malay bare nouns are not marked for number. Instead, speakers express plurality as deemed necessary. Depending on the context, the lexical item ***ana*** 'child', for instance, could also be read as 'children'. One strategy to express plurality overtly is reduplication of nouns.[131] Overall, however, speakers use reduplication only when an unambiguous plural reading is important to them and when the context does not allow such an unambiguous interpretation.

Cross-linguistically, three types of plurality have been identified which are encoded by noun reduplication (Wiltshire and Marantz 1978: 561): collectivity, diversity (or variety), and distributivity.[132] Of these three types, Papuan Malay uses two, namely collectivity as in (10) and (11), and diversity as in (12) and (13). Another type of plurality is indefiniteness (Rubino 2011), which is also found in Papuan Malay, as demonstrated in (16) and (17) in §4.2.1.3.

Reduplication of nouns most often indicates collectivity in the sense of 'all BASE', as shown with ***ana~ana*** 'children' in (10) and ***orang~orang*** 'people' in (11).

Reduplicated nouns: Collectivity

(10)   **ana~ana** su   pergi kerja **ana~ana** su   kawin
        RDP~child already go   work RDP~child already marry.inofficially
        [About lonely parents:] '**all the children** already went to work (elsewhere),
        all the children are already married' [080917-010-CvEx.0071]

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[131] Alternative strategies to indicate plurality are modification with a numeral or quantifier (§8.3), or with a plural pronoun (§6.2.2 and §8.2.3).

[132] Wiltshire and Marantz (1978: 561) refer to "collectivity" as "simple plurality".

(11) e,   **orang~orang** itu   dong   **mara~mara**
      hey!   RDP~person   D.DIST 3PL   RDP~feel.angry(.about)

      'hey, **all those people**, they'll be really angry (with you)' [080917-008-NP.0053]

Less often, reduplicated nouns signal diversity such as ***bua~bua*** 'various fruit (trees)' in (12), or ***pohong~pohong*** 'various trees' in (13).

      Reduplicated nouns: Diversity

(12) **bua~bua** di   sini   banyak
      RDP~fruit   at   L.PROX   many

      'there are a many **different kinds of fruit (trees)** here' (Lit. '**the various fruit (trees)** here are many') [080922-001a-CvPh.0425]

(13) … ini   suda   tida   begini   lagi   suda   ada
      D.PROX   already   NEG   like.this   again   already   exist

      pohong~pohong
      RDP~tree

      '[in five years, yes,] this (garden) won't be same (as) there are already **various trees** (here)' [081029-001-Cv.0007]

4.2.1.2.   Repetition

Reduplication of nouns denoting periods of the day can indicate repetition. This is illustrated with ***pagi~pagi*** 'every morning' in (14), and ***malam~malam*** 'every evening' in (15). (For alternative readings of reduplicated nouns expressing time divisions, see (17) in §4.2.1.3, and (23) and (24) in §4.2.1.4.)

(14) **pagi~pagi**   biking   te
      RDP~morning   make   tea

      '**every morning** (they) made tea' [081025-009a-Cv.0023]

(15) ko   jangang   ikut~ikut   orang   tua   **malam~malam**
      2SG   NEG.IMP   RDP~follow   person   old   RDP~night

      'don't keep hanging out with the grown-ups **every evening**' [081013-002-Cv.0005]

4.2.1.3.   Indefiniteness

Depending on the context, reduplicated nouns may signal indefiniteness by referring "to an unspecified member of a group" (Brown 2006), in the sense of 'any' or 'some'. This is illustrated with ***om~om*** 'any one of the uncles' in (16), and ***malam~malam*** 'at some point in the evening' in (17). (For alternative interpretations of reduplicated nouns signaling time divisions, see (14) and (15) in §4.2.1.2, and (23) and (24) in §4.2.1.4.)

(16) baru   titip   di, ini,   **om~om**   dorang
      and.then   deposit   at D.PROX RDP~uncle   3PL
      'leave (the letter) with, what's-its-name, **any one of the uncles**' [080922-001a-CvPh.0602]

(17) dia   lewat   pante   **malam~malam**
      3SG   pass.by coast   RDP~night
      'he drove along the beach **at some (point in) the evening**' [081006-020-Cv.0016]

4.2.1.4.   Interpretational shift

Reduplicated nouns can also undergo an "interpretational shift" or "type coercion" (Booij 2007: 212). Depending on the larger linguistic context, such a shift can result in a stative verbal reading of reduplicated nouns as in (18) to (20), or in an adverbial reading as in (21) to (24).

Interpretational shift resulting in a stative verbal reading of reduplicated nouns usually applies to reduplicated kinship terms, taking the predicate slot in nonverbal clauses. This is illustrated with *ana* 'child' in (18) and *tete* 'grandfather' in (19). In this context, the reduplicated nouns receive a stative verbal rather than a nominal reading. That is, referring to specific age groups, they designate pertinent attributes of their base words, as in *ana~ana* ' be quite small' (literally 'RDP~child') in (18), or *tete~tete* 'be quite old' (literally 'RDP~grandfather') in (19). In addition, the corpus contains one example in which a non-kinship term, namely the common noun *rawa* 'swamp', undergoes a similar interpretational shift, receiving a stative verbal reading in *rawa~rawa* 'be swampy' in (20).

Reduplicated nouns: Stative verbal reading

(18) waktu   itu   sa   masi   **ana~ana**
      time   D.DIST   1SG   still RDP~child
      'at that time I was still **quite small**' [080922-008-CvNP.0004]

(19) pace   ni   de   su   **tete~tete**   tapi   masi
      man   D.PROX   3SG   already   RDP~grandfather   but   still
      maing   deng   ana~ana   muda
      play   with   RDP~child   be.young
      'this guy, he's already **quite old** but he still hangs out with the young people' [Elicited BR120813.003]

(20) masi   **rawa~rawa**
      still   RDP~swamp
      [About a road building project:] '(the area is) still **swampy**' [081006-033-Cv.0027]

Interpretational shift can also affect reduplicated location nouns or nouns denoting periods of the day, with the reduplicated nouns receiving an intensified or emphatic adverbial reading. This is illustrated with the location nouns *depang* 'front' in (21) and *samping* 'side' in (22), and the temporal nouns *pagi* 'morning' in (23) and

malam 'night' in (24). (For alternative readings of reduplicated nouns designating time divisions, see (14) and (15) in §4.2.1.2, and (17) in §4.2.1.3.)

      Reduplicated nouns: Adverbial reading

(21)   sa   tunjuk **depang~depang** muka blajar untuk mandiri
       1SG   show   RDP~front   front   study   for   stand.alone
       'I point **right into** (their) faces (and tell them), 'study to become independent'' [081115-001a-Cv.0054]

(22)   jalang di **samping~samping** itu   pagar itu
       walk   at RDP~side   D.DIST fence D.DIST
       '(he/she) walked **right next to**, what's-its-name, that fence' [081025-006-Cv.0094]

(23)   … **pagi~pagi**   jam lima sa   su   masuk di kamar
         RDP~morning   hour five 1SG already enter   at room
       [About disciplining ill-behaved teenagers:] '[tonight I'll still sleep,] (but tomorrow) **early in the morning** at five o'clock I will already have gone into (their) room' [081115-001a-Cv.0325]

(24)   **malam~malam** Ise bawa pulang   dia pi tidor dengang
       RDP~night   Ise bring go.home 3SG go sleep with
       de   punya mama
       3SG POSS   mother
       [About a crying child:] '**late at night** Ise brought (her) home so that she (would) go and sleep with her mother' [081006-025-CvEx.0007]

4.2.2.   Reduplication of verbs

Cross-linguistically, reduplication of verbs tends to encode meaning aspects such as "distribution of an argument, tense, aspect (continued or repeated occurrence; completion; inchoativity), attenuation, intensity, transitivity (valence, object defocusing), or reciprocity" (Rubino 2011; see also Wiltshire and Marantz 1978: 561). In Papuan Malay, the following meaning aspects are attested: continuation, repetition, and habit (§4.2.2.1), plurality and diversity (§4.2.2.2), intensity (§4.2.2.3), immediacy (§4.2.2.4), aimlessness (§4.2.2.5), attenuation (§4.2.2.4), and imitation (§4.2.2.7). Reduplicated verbs can also undergo interpretational shift, in that they can receive an adverbial or nominal reading (§4.2.2.8).

4.2.2.1.   Continuation, repetition, and habit

A major function of verb reduplication is to indicate continuation, repetition, or habit.

    The function of signaling continuation is demonstrated with a dynamic verb in (25) and a stative verb in (26). The function of signaling repetition of an action is shown in (27).

Reduplicated verbs: Continuation and repetition

(25)   … ada   setan   datang   **ganggu~ganggu**   kitorang
          exist   evil.spirit   come   RDP~disturb   1PL
         '[when (we) sleep at night,] there is an evil spirit (who) comes and
         continuously bothers (us)' [081006-022-CvEx.0168]

(26)   sa   pu   temang   de   **sakit~sakit**   di   Dok-Dua
          1SG   POSS   friend   3SG   RDP~be.sick   at   Dok-Dua
         'my friend is being **sick continuously** in the Dok-Dua (hospital)' [Elicited
         BR120813.036]

(27)   baru   de   pi   **bicara~bicara**   sa   begini
          and.then   3SG   go   RDP~speak   1SG   like.this
         'but then he went to **talk** about me like this **again and again**' [081025-009b-
         Cv.0006]

As an extension of marking continuation or repetition, reduplicated verbs may also
signal habit, as shown in (28).

Reduplicated verbs: Habit

(28)   begitu   de   besar   baru   de   **nakal~nakal**   begini
          like.that   3SG   be.big   and.then   3SG   RDP~be.mischievous   like.this
         'he grew up like that, and now he's **mischievous** like this **all the time**'
         [080917-010-CvEx.0044]

4.2.2.2.   Plurality and diversity

Verb reduplication may also indicate plurality or diversity of the clausal subject. The
function of signaling plurality is illustrated with the examples in (29) and (30), while
the diversity-marking function of reduplicated verbs is shown in (31) and (32).

(29)   dong taru piring~piring kaleng yang **piring** yang **bagus~bagus**
          3PL   put RDP~plate   tin.can REL   plate   REL   RDP~be.good
         [About honoring guests:] 'they place tin plates (in front of them) that are
         plates that are **good**' [081014-010-CvEx.0015]

(30)   **pisang Sorong**   sana   tu,   iii,   **besar~besar**   manis
          banana Sorong   L.DIST   D.DIST   oh!   RDP~be.big   sweet
         'those **bananas (from) Sorong** over there, oooh, (they) are **all big** (and)
         sweet' [081011-003-Cv.0017]

(31)   ko   pu   **kwe   kras~kras**
          2SG   POSS   cake   RDP~be.harsh
         'your **various cakes** are **hard**' [Elicited BR120813.034]

(32)   **mobil**   di   jalang   **rusak~rusak**   karna   banjir
          car   at   street   RDP~be.damaged   because   flooding
         'the **various cars** in the street were **broken** because of the flooding'
         [Elicited BR120813.035]

4.2.2.3. Intensity

Also, quite commonly reduplicated verbs signal intensity. In such cases, reduplicated dynamic verbs receive the reading 'BASE intensely', as in (33) and (34), while reduplication of stative verbs translates with 'very BASE', as in (35) and (36).

Reduplicated verbs: Intensity

(33)   baru   dia   tertawa   de   **tertawa~tertawa**
       and.then 3SG   laugh   3SG RDP~laugh
       'but then he laughed, he **laughed intensely**' [080916-001-CvNP.0004]

(34)   orang   **bertriak~triak**   tu
       person   RDP~scream   D.DIST
       'the people were really **screaming intensely**' [081006-022-CvEx.0007]

(35)   sa   jalang   sampe   sa   su   **swak~swak**
       1SG   walk   until   1SG   already   RDP~be.exhausted
       'I walked until I was already **very exhausted**' [081025-008-Cv.0038]

(36)   … dong   tu   **pintar~pintar**
       3PL   D.DIST   RDP~be.clever
       'they (EMPH) are **very clever**' [081109-001-Cv.0117]

When reduplicated verbs are negated with ***tra*** 'NEG' or ***jangang*** 'don't', they express an intensified negative in the sense of 'not BASE at all', as shown in (37) and (38).

Negation of reduplicated verbs

(37)   sa   **tra**   **takut~takut**   siapa   pun
       1SG   NEG   RDP~feel.afraid(.of)   who   even
       'I'm **not afraid at all** of anybody' [081006-034-CvEx.0026]

(38)   **jangang**   **bli~bli**   di   sini   ini   su   malam
       NEG.IMP   RDP~buy   at   L.PROX   D.PROX   already   night
       '(you) **shouldn't buy** (your sweets at the kiosk) here **at all** (because) it is already night' [080917-008-NP.0061]

4.2.2.4. Immediacy

Reduplicated verbs can indicate immediacy in the sense of 'as soon as BASE', for example. This is illustrated with the reduplicated dynamic verbs in (39) and (40).

(39)   **pulang~pulang**   dari   kantor   pace   de   tidor
       RDP~go.home   from   office   man   3SG   sleep
       '**as soon as** (he) **came home** from the office, the man slept' [Elicited BR120813.007]

(40) mace   ni   **datang~datang** trus   de   makang
      woman   D.PROX   RDP~come   next   3SG   eat

      '**as soon as** this woman **arrived**, she ate' [Elicited BR120813.008]

4.2.2.5. Aimlessness

Quite often, reduplication adds the connotation of aimlessness or casualness. That is, reduplicated verb may signal that an activity is done repeatedly without a specific goal, as in (41) and (42).

(41) sa   itu   sa   pegang sagu   sa   makang **jalang~jalang**
      1SG   D.DIST   1SG   hold   sago   1SG   eat   RDP~walk

      'as for me, I was holding (some) sago, I ate (it) while **strolling around**'
      [081025-009a-Cv.0073]

(42) malam   kitong   **duduk~duduk**   kitong   **menyanyi~menyanyi**
      night   1PL   RDP~sit   1PL   RDP~sing

      'in the evening we were **sitting around**, we were **singing casually**'
      [081025-009a-Cv.0001]

4.2.2.6. Attenuation

Depending on the context, reduplicated stative verbs may signal attenuation in the sense of 'rather BASE', as demonstrated in (43) and (44).

(43) … biking macang kam   pu   Jayapura pu   sayur
          make   variety 2PL   POSS   Jayapura POSS   vegetable

      gnemo   yang   **pahit~pahit**   itu
      melinjo REL   RDP~be.bitter   D.DIST

      '[then she asked, 'you don't fear the bitter (taste of melinjos)?, then mama
      Pawla said,] 'do you think this (melinjo) is like your Jayapura melinjo
      vegetable which is **somewhat bitter**?'' [080923-004-Cv.0016]

(44) badan   **kurus~kurus**   rambut   ini   tebal   de   pu
      body   RDP~be.thin   hair   D.PROX   be.thick 3SG   POSS

      kuku   ini   **panjang~panjang**   kaki   **kurus~kurus**
      digit.nail D.PROX   RDP~be.long   foot   RDP~be.thin

      '(his) body was **somewhat thin**, (his) hair was thick, his fingernails were
      rather long, (and his) legs were **rather thin**' [081006-035-CvEx.0077]

4.2.2.7. Imitation

Reduplicated verbs may mark imitation in the sense of 'something is an imitation of X' or 'something is similar to X'. This is illustrated with the dynamic verbs in (45) and (46), and the stative verbs in (47) and (48).

(45) sa   tendang dia   di kaki sampe de   **lari~lari babi**
      1SG   kick   3SG   at leg   reach 3SG RDP~run   pig

      'I kicked him against (his) lower leg with the result that he **staggered**' (Lit.
      'he **ran~ran** (like) **a pig** (which has been shot)') [Elicited BR120813.004]

(46) dia   **mati~mati   ayam**
      3SG   RDP~die   chicken

      'he had an **epileptic seizure**' (Lit. 'he **died~died** (like) **a chicken**'; that is,
      he was shaking like a chicken with its head cut off) [Elicited BR120813.006]

(47) pace ni   de   su   **tua~tua   kladi**   tapi suka
      man   D.PROX   3SG already RDP~be.old taro.root but   enjoy

      cari   prempuang   muda
      search   woman   be.young

      'this guy, he's already **very old** but (he) likes to have young women' (Lit.
      'he's **old~old** (like) **a taro root**)' [Elicited BR120813.038]

(48) prempuang itu   de pu   kulit **hitam~hitam** panta   blanga
      woman   D.DIST 3SG POSS skin RDP~be.black   buttock cooking.pot

      'that woman, her skin is **black** (like) the bottom of a frying pan' (Lit. 'her
      skin is **black~black** (like) **the bottom** …') [Elicited BR120813.046]

4.2.2.8. Interpretational shift

Reduplicated verbs can also undergo an interpretational shift (Booij 2007: 212).
Such a shift can result in a nominal reading of reduplicated verbs, as in (49) and
(50), or an adverbial reading, as in (51) to (53).

   Reduplicated verbs with a nominal reading typically denote the instrument of the
action specified by the verbal base, such as *garo~garo* 'rake' (literally
'RDP~scratch') in (49) or *gait~gait* 'pole' (literally 'RDP~hook') in (50).

         Reduplicated verbs: Nominal reading

(49) tadi   de   pake **garo~garo**   buat garo   rumput
      earlier 3SG use   RDP~scratch   for   scratch   grass

      'earlier he took a **rake** to rake the grass' [Elicited BR120813.010]

(50) sa   gait   mangga deng **gait~gait**
      1SG   hook   mango   with RDP~hook

      'I plucked mangoes with a **pole**' [Elicited BR120813.033]

Reduplicated verbs can also receive an adverbial reading, as in (51) to (53). Certain
reduplicated dynamic verbs may take on the function as modal adverbs, such as
taw~taw 'suddenly' (literally 'RDP~know') in (51). Some reduplicated stative verbs
are used as temporal adverbs such as *lama~lama* 'gradually' (literally 'RDP~be.long
(of duration))' in (52), while others are used as manner adverbs, such as *cepat~cepat*
'quickly' (literally 'RDP~be.fast') in (53).

Reduplicated verbs: Adverbial reading

(51)   **taw~taw**   orang   itu   tida   keliatang
       RDP~think   person   D.DIST   NEG   be.visible
       'suddenly, that person wasn't visible (any longer)' [080922-002-Cv.0123]

(52)   **lama~lama**   de   padat   itu   macang   aspal
       RDP~be.long(.of.duration)   3SG   be.solid   D.DIST   variety   asphalt
       '**gradually**, the lime stone becomes solid like asphalt' [081011-001-Cv.0304]

(53)   yo,   pak   Hendrik   ini   de   bilang   mandi   **cepat~cepat**
       yes   father   Hendrik   D.PROX   3SG   say   bathe   RDP~be.fast
       'yes, Mr. Hendrik here, he said, 'bathe **quickly**'' [080917-008-NP.0133]

4.2.3.   Reduplication of adverbs

Reduplication of adverbs typically signals intensity, similar to the reduplication of verbs, discussed in §4.2.2 (concerning the similarities between adverbs and verbs, see also §5.4). This is illustrated with the three examples in (54) to (56).

(54)   de   bilang   de   mo   kerja   tapi   **paling~paling**   de   tidor
       3SG   say   3SG   want   work   but   RDP~most   3SG   sleep
       'he says, he wants to work but **most likely** he'll sleep' [Elicited
       BR120813.015]

(55)   **skarang~skarang**   de   ada   di   polisi
       RDP~now   3SG   exist   at   police
       '**right now** he/she is at the police (station)' [Elicited BR131231.002]

(56)   sa   pu   kaka   **sring~sring**   ke   Jayapura
       1SG   POSS   oSb   RDP~often   to   Jayapura
       'my older sibling (travels) to Jayapura very often' [Elicited BR131231.001]

4.2.4.   Reduplication of numerals and quantifiers

Across languages, reduplication of numerals "has been found to express various categories including collectives, distributives, multiplicatives, and limitatives" (Rubino 2011). In Papuan Malay, reduplicated numerals typically express collectivity or distributiveness, while quantifiers signal distributiveness.

    Reduplicated numerals have two meaning aspects. They may express collectivity in the sense of 'all BASE' as in (57) and (58), or signal distributiveness in the sense of 'BASE by BASE' as in (59) and (60).

Reduplication of numerals: Collectivity and distributiveness

(57)   yo,   kas   tinggal   **dua~dua**
       yes   give   stay   RDP~two
       'yes, let **both of them** stay' [080919-006-CvNP.0018]

(58)   … karna   pesta   tu   de   su   kasi   mati   **tiga~tiga**
         because   party   D.DIST 3SG   already give   die   RDP~three
         '[he/she has three pigs (but)] because of that festivity he/she already killed
         all three of them' [Elicited BR120813.043]

(59)   … jadi   lega   ada   lepas~lepas   **satu~satu**
         so   be.relieved   exist   RDP~free   RDP~one
         '[fortunately, (the people) over there have already received Jesus,] so (you)
         can feel relieved, they were freed **one-by-one**' [081025-007-Cv.0017]

(60)   sa   minum   **lima~lima**   mangkok
         1SG   drink   RDP~five   cup
         [About the lack of water during a retreat:] 'I drank **five** cups (**every
         morning**)' (Lit. '**five-by-five** cups') [081025-009a-Cv.0070]

Reduplicated quantifiers signal distributiveness, as in (61) and (62).

        Reduplication of quantifiers: Distributiveness

(61)   … kariawan   dong   **banyak~banyak**   dong   baru   turung   ini
         employee   3PL   RDP~many   3PL   recently   descend   D.PROX
         [Waiting for other boat passengers:] 'the employees came recently
         down(stream) **in groups of numerous people**' (Lit. '**many-by-many**')
         [080922-001a-CvPh.0812]

(62)   dong   blum   isi   selaing   dong   isi   **sedikit~sedikit**   to?
         3PL   not.yet   fill   besides   3PL   fill   RDP~few   right?
         [About how best to distribute food during a retreat:] 'they haven't yet filled
         (their plates), moreover **each one of them** (should) fill (their plates with)
         little (food), right?' (Lit. '**little by little**') [081025-009a-Cv.0081]

4.2.5.   Reduplication of function words

Reduplication of function words occurs considerably less often than that of content
words. This section describes reduplication of the following function words:
personal pronouns (§4.2.5.1), demonstratives and locatives (§4.2.5.2), interrogatives
(§4.2.5.3), and causative verb **kasi** 'give' and reciprocity marker **baku** 'RECP'
(§4.2.5.4).

4.2.5.1.   Personal pronouns

Reduplication of personal pronouns has three meaning aspects. Depending on the
context, reduplicated personal pronouns signal collectivity as in (63), disparagement
as in (64), or imitation[133] as in (65).

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[133] As mentioned in §4.2.2.7, the term *imitation* includes meanings such as 'something is an
       imitation of X' or 'something is similar to X'.

(63) **kamu~kamu** ini   bangung   bangung   bangung   bangung
      RDP~2PL   D.PROX   wake.up   wake.up   wake.up   wake.up
      '**all of you** here wake-up, wake-up, wake-up, wake-up' [081115-001a-
      Cv.0329]

(64) knapa **saya~saya** saja   yang   bapa   kasi   tugas
      why   RDP~1SG   just   REL   father   give   duty
      'why is it (always) **poor me** whom father gives chores' [Elicited
      BR120813.025]

(65) **dorang~dorang** tra   perna   kasi   bersi   halamang
      RDP~3PL   NEG   ever   give   be.clean   yard
      '**people like them** never clean (their) yard' [Elicited BR120813.024]

4.2.5.2. Demonstratives and locatives

Reduplicated demonstratives express diversity as in (66) and (67).[134] Depending on
the context, reduplicated locatives may signal diversity as in (68), or emphasize the
core meaning of the respective locative, as in (69).

(66) setela   itu   nanti   buat   **ini~ini**
      after   D.DIST   very.soon   make   RDP~D.PROX
      'soon after that (they) did **these various** (things)' [080923-013-CvEx.0030]

(67) … yang   laing   **itu~itu**   honorer   smua   itu
      REL   be.different   RDP~D.DIST   be.honorary   all   D.DIST
      '[there are no school teachers, only him and Markus,] (as for) the others,
      those various (teachers) are all honorary (teachers)' [081011-024-Cv.0054]

(68) jadi   de   bapa   ke   Jayapura   tinggal   **situ~situ**
      so   3SG father   to   Jayapura   stay   RDP~L.MED
      'so her father (went) to Jayapura and lived **there in a number of different
      places**' [081011-023-Cv.0163]

(69) … di   sini   ada   air   mari   **sini~sini**
      at   L.PROX   exist   water   hither   RDP~L.PROX
      '[(you) may fish from up here,] here is water, (come) here, **right here**'
      [081025-003-Cv.0093]

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[134] Demonstrative sequences such as **itu tu** 'D.DIST D.DIST' also convey intensity or emphasis,
      as discussed in detail in §7.1.2.3. Given its phonological properties, however, juxtaposed
      itu tu 'D.DIST D.DIST' is not taken as an instance of partial reduplication. As discussed in
      §4.1.1.2, partial reduplication of the stem **itu** 'D.DIST' should result in the reduplicated
      form **it~itu** 'D.DIST~D.DIST'. Therefore, **itu tu** 'D.DIST D.DIST' is taken as an instance of
      demonstrative stacking (see §5.6.4).

4.2.5.3.   Interrogatives

Reduplication of interrogatives signals indefiniteness, as shown in (70) to (73). That is, speakers employ reduplication "when not all members of a class of objects are referred to, but when any one or some one member of it is" (Moravcsik 1978: 319), such as *siapa~siapa* 'anybody' in (70) or *mana~mana* 'wherever' in (72).

(70)   yo,   tida   bole   kas   taw   **siapa~siapa**
        yes   NEG   may   give   know   RDP~who
        'yes, (you) must not tell **anybody**' [080922-001a-CvPh.0288]

(71)   saya   tida   biking   **apa~apa**   karna   babi   suda   mati
        1SG   NEG   make   RDP~what   because   pig   already   die
        [About hunting a wild pig:] 'I didn't do **anything** because the pig was already dead' [080919-004-NP.0023]

(72)   di   **mana~mana**   smua   pake   ini   tajam   besi   ini
        at   RDP~where   all   use   D.PROX   be.sharp   metal   D.PROX
        [About sagu production:] '**no matter where** everybody uses it, this sharp metal' [081014-006-CvPr.0059]

(73)   nanti   **kapang~kapang**   ka   ko   jalang~jalang   ke   mari
        very.soon   RDP~when   or   2SG   RDP~walk   to   hither
        'later **whenever** (you have time) you come here' [Elicited BR120813.029]

Alternatively, speakers may use the bare interrogative followed by the focus adverb *saja* 'just' to encode indefinite referents, as discussed in §5.8.8.

4.2.5.4.   Causative verb *kasi* 'give' and reciprocity marker *baku* 'RECP'

Reduplication of the causative verb *kasi* 'give' and reciprocity marker *baku* 'RECP', as in (74) and (75) respectively, signals repetition or continuation. (For more details on causative and reciprocal constructions, see §11.2 and §11.3, respectively.)

(74)   knapa   kam   **kas~kas**   bangung   dia   de   masi   mo   tidor
        why   2PL   RDP~give   wake.up   3SG   3SG   still   want   sleep
        'why do you **keep** waking him up?, he still wants to sleep' (Lit. '**give~give** to wake up') [080918-001-CvNP.0039]

(75)   itu   sampe   tong   **baku~baku**   tawar   ini   deng   dosen
        D.DIST   reach   1PL   RDP~RECP   bargain   D.PROX   with   lecturer
        'it got to the point that we and the lecturer were arguing **constantly with each other**' [080917-010-CvEx.0177]

4.2.6.   Gesamtbedeutung of reduplication

Reduplication in Papuan Malay conveys a number of different meaning aspects ranging from plurality and diversity to disparagement and imitation. This variety in meaning raises two questions: first, does reduplication have a "gesamtbedeutung" or

underlying "general meaning" (Jakobson 1984), and second, is there a specific
relation between the meaning and the syntactic class of the base word.

Table 6 lists the Papuan Malay word classes which attract reduplication and the
meaning aspects they convey.

Table 6:   Word classes and meaning aspects in reduplication

Dimension		Meaning aspects	Word class of base
Augmentation	Quantity	Continuation/repetition/habit	N, V, CAUS, RECP
	Quantity	Plurality/diversity	N, V, DEM, LOC
	Quantity	Collectivity	NUM, PRO
	Quantity	Distributiveness	NUM, QT
	Intensity	Intensity	V, ADV, LOC
	Intensity	Immediacy	V
Diminution		Disparagement	PRO
		Indefiniteness	N, INT
		Aimlessness	V
		Attenuation	V
		Imitation	V, PRO

Some of the meaning aspects which reduplication in Papuan Malay conveys include
"contradictory senses" (Moravcsik 2013: 130). The aspect *immediacy*, for instance,
represents an increase in intensity, while the aspect *aimlessness* refers to a decrease
in intensity. This phenomenon that reduplication brings together a variety of
meanings, some of which are opposite, is quite common cross-linguistically (see, for
instance, Kiyomi 2009: 1151, Mattes 2007: 124–125, Moravcsik 2013: 129–133,
and Regier 1994).

Examining the "crosslinguistically recurrent semantic properties of
reduplication", Moravcsik (2013: 131) comes to the conclusion that

> reduplication may be viewed as a marking device to indicate that the word is
> to be understood in an out-of-the-ordinary sense: the meaning deviates from
> the normal sense of the base either by being "more" or by being "less".

These contradictory meaning aspects of augmentation and diminution have also
been noted for Malayo-Polynesian languages. In her study on reduplication in 30 of
these languages, Kiyomi (2009: 1151) considers these two meanings of
reduplication to be

> two manifestations of the same semantic principle of 'a …er degree of …',
> which is projected in the opposite directions. Then one can postulate that the
> prototypical meanings of reduplication represent the semantic principle 'A
> HIGHER/LOWER DEGREE OF …'

The overview presented in Table 6 indicates that this semantic principle of "a …er
degree of …" in terms of augmentation or diminution also accounts for the different
meaning aspects of reduplication in Papuan Malay.

In Papuan Malay, the notion of 'higher degree of …' involves augmentation in
terms of quantity or intensity. Moravcsik (1978: 317, 321) specifies that in the

context of reduplication quantity can refer to the "participants of [an] event or the events themselves", while intensity refers to the amount of "energy investment or size of effect". In Papuan Malay, augmentation of quantity includes meaning aspects such as plurality or repetition, while increase in intensity includes the meaning aspects of intensity and immediacy, as listed in Table 6.

The notion of 'lesser degree of …' involves diminution which typically "adds the meaning of smallness to the stem meaning" (Kiyomi 2009: 1153). As Jurafsky (1993: 424) points out, however, the diminutive exhibits a variety of "metaphorical extensions" which involve "meaning shifts from the physical world to the social domain, and from the physical world to the conceptual or category domain". Such semantic extensions of the diminutive are also found in Papuan Malay, in that the semantic effect of diminution brings together the meaning aspects of disparagement, indefiniteness, aimlessness, attenuation, and imitation.

The *disparagement* sense is linked to the notion of diminution metaphorically in that it has to do with *social importance or power*. The *indefiniteness* sense is also a metaphorical extension in that it conveys *toned-down reference*. Likewise, the *aimlessness* sense is linked to the notion of diminution in that it denotes actions which are done with *less intensity*. The *attenuation* sense is a metaphorical extension of the core sense *size* in that it denotes properties which are *weaker*, or activities which are carried out *less intensely*. The *imitation* sense refers to objects or activities which copy or imitate what the base denotes. This sense is linked to the core sense of diminution in that the objects and activities are not identical with their models but merely resemble them *a little bit*. (See Jurafsky 1993: 426, 430, Mattes 2007: 125, and Moravcsik 2013: 129–130; see also Mattes, p.c. 2013.)

In summarizing the above and in applying Kiyomi's (2009: 1151) terminology, it is concluded that in Papuan Malay, the gesamtbedeutung of reduplication is 'a HIGHER/LOWER DEGREE OF …'. Table 7 gives examples for the two dimensions of augmentation and diminution conveyed by reduplication.

Table 7:   Gesamtbedeutung of reduplication

Dimensions		Item	Gloss	
Augmentation	Quantity	***ana~ana***	RDP~child	'children'
	Intensity	***pintar~pintar***	RDP~be.clever	'be very clever
Diminution	Attenuation	***kurus~kurus***	RDP~be.thin	'rather thin'
	Imitation	***mati~mati***	RDP~die	'die like …'

With respect to the relation between the meaning and the syntactic class of the base word, two major observations are made. First, across word classes, reduplicated lexemes differ in terms of the meaning aspects which they convey. Second, meaning aspects differ as regards the range of word classes they attract for reduplication.

First, concerning the reduplicated lexemes and the meaning aspects they convey, the gathered data indicates that within certain word classes reduplication tends to convey more than one specific meaning. Reduplication in certain verbs, for example, can express immediacy while in other verbs it signals continuation or repetition. It is notably content words which carry this variety of different meanings, that is, nouns, verbs, and numerals. In addition, reduplication within two classes of function words

also conveys more than one meaning aspect, namely in the classes of personal pronouns and locatives. Reduplication within the other three classes of function words, by contrast, tends to carry specific meanings: reduplicated demonstratives express diversity, interrogatives indicate indefiniteness, and the causative and reciprocity markers signal continuation or repetition. In relating the word classes which attract reduplication to certain meaning aspects, it is noted, however, that the meaning of a given reduplicated form is more than the meaning of its constituents. The fact that the entire reduplicated form and not its individual constituents carry this meaning, indicates a "holistic" or constructional meaning of the reduplicated forms (Booij 2013: 260–261).

Second, regarding the meaning aspects and the range of word classes they attract for reduplication, the continuation/repetition/habit meaning aspect brings together the largest number of different word classes, namely nouns, verbs, and the causative and reciprocity markers. The meaning aspect of plurality/diversity also brings together several word classes, namely nouns, verbs, demonstratives, and locatives. Another pertinent meaning aspect is intensity, which attracts three different word classes for reduplication. Four more meaning aspects, which attract two word classes each for reduplication, are collectivity, distributiveness, indefiniteness, and imitation. The remaining meaning aspects seem to attract only one word class each for reduplication, that is, verbs for casualness, immediacy, and attenuation, and personal pronouns for disparagement. These observations suggest that there is not a specific, one-to-one relation between the meaning and the syntactic class of the base word.

4.3.   Reduplication across eastern Malay varieties

Reduplication is also very common in other eastern Malay varieties, such as Ambon Malay (AM) (van Minde 1997: 112–140) , Banda Malay (BM) (Paauw 2008: 160, 206), Kupang Malay (KM) (Paauw 2008: 160, 171–173, 206, 252–253), Larantuka Malay (LM) (Paauw 2008: 161, 171–173, 206, 256–258), Manado Malay (MM) (Stoel 2005: 25–28) , or Ternate Malay (TM) (Litamahuputty 2012: 136–139). This section compares reduplication across these Malay varieties in terms of lexeme formation (§4.3.1), lexeme interpretation (§4.3.2), and interpretational shift (§4.3.3), as far as mentioned in the literature. For comparison, reduplication in Papuan Malay is also included. Also included for comparison is Standard Indonesian (SI) (MacDonald 1976, Mintz 2002, and Sneddon 2010).

4.3.1.   Lexeme formation

Similar to Papuan Malay, the above-mentioned six Malay varieties also employ full reduplication, as shown in Table 8. Typically, reduplication affects content words, while reduplication of function words does not occur everywhere. Manado and Ternate Malay also employ reduplication of bound morphemes. The data in Table 8 also shows which varieties use a combination of reduplication and affixation, and in which varieties reduplicated forms without corresponding base words are found. Besides Papuan Malay, only two of the six other eastern Malay varieties use partial and imitative reduplication, namely Ambon and Larantuka Malay.

Table 8:   Lexeme formation across eastern Malay varieties and Standard
            Indonesian[135]

1. Full reduplication								
a) Content words (productive)								
N	PM	AM	BM	KM	LM	MM	TM	SI
V	PM	AM		KM	LM	MM	TM	SI
ADV	PM	AM				MM		SI
NUM	PM	AM		KM		MM		SI
QT	PM				LM			
b) Function words (unproductive)								
PRO	PM	AM		KM	LM	MM		SI
DEM	PM	AM						
LOC	PM	AM						
INT	PM	AM		KM	LM			
CAUS	PM							
RECP	PM					MM	TM	
c) Bound morphemes (unproductive)								
PFX						MM	TM	
d) Reduplication and affixation (productive)								
RDP prec. AFFX	PM	AM			LM	MM		SI
AFFX prec. RDP	PM	AM		KM				SI
e) No corresponding base words (unproductive)								
N	PM	AM						SI
V	PM	AM						SI
QT	PM							
ADV		AM						SI
CNJ	PM	AM						SI
2. Partial reduplication								
productive	PM	AM			LM			
unproductive								SI
3. Imitative reduplication (unproductive)								
	PM	AM			LM			SI

The data given in Table 8 shows that reduplication in Ambon Malay is about as
pervasive as in Papuan Malay, with both varieties sharing many features. This
applies to the attested reduplication types (full, partial, and imitative), as well as to
the attested morpheme types which can be reduplicated. For the five other eastern
Malay varieties and Standard Indonesian, reduplication seems to play a much lesser
role, as shown by the gaps in Table 8. For the eastern Malay varieties, this applies

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[135] Abbreviations: AFFX = affixation; prec. = precedes.

especially to the reduplication of function words; furthermore, these varieties appear not to have reduplicated forms which lack a corresponding unreduplicated base. Two explanations present themselves for these observations. One explanation is that the commonalities between Papuan Malay and Ambon Malay, together with the lack of overlap with the five other eastern Malay varieties, are due to the distinct history of Papuan Malay, argued for in §1.2. An alternative explanation is that the differences among the eastern Malay varieties are due to differing degrees of depth with which the different authors describe reduplication in the Malay varieties presented in Table 8. This grammar on Papuan Malay, as well as that of Ambon Malay, and also those of Standard Indonesian, describe reduplication as a word-formation process rather thoroughly, while the descriptions of the five other eastern Malay varieties mention only the most salient features of reduplication in these varieties; hence, the rather large number of gaps in Table 8.

4.3.2.   Lexeme interpretation

As in Papuan Malay, the gesamtbedeutung of reduplication in the six other eastern Malay varieties is 'a HIGHER/LOWER DEGREE OF …'. Table 9 gives examples for this gesamtbedeutung across the seven Malay varieties.

Table 9:   Gesamtbedeutung of reduplication across eastern Malay varieties

Dimensions[136]	Malay	Item	Gloss	
AUG.QUANT	PM	*bua~bua*	RDP~fruit	'various fruits'
	AM	*kata~kata*	RDP~word	'words'
	BM	*orang~orang*	RDP~person	'people'
	KM	*buku~buku*	RDP~book	'books'
	LM	*ana~ana*	RDP~child	'children'
	MM	*dua~dua*	RDP~two	'all two, both'
	TM	*ular~ular*	RDP~snake	'snakes'
AUG.INTENS	PM	*pintar~pintar*	RDP~be.clever	'be very clever
	AM	*biru~biru*	RDP~be.green	'be very green'
	LM	*uma~ame*	RDP~chew	'chew wildly'
	MM	*kita~kita*	RDP~1SG	'constantly me'
	TM	*ba~ba–diang*	RDP~INT–be.quiet	'be very quiet'
DIM	PM	*kurus~kurus*	RDP~be.thin	'rather thin'
	AM	*malu~malu*	RDP~be.ashamed	'shy as'
	KM	*apa~apa*	RDP~what	'anything'
	LM	*apa~apa*	RDP~what	'anything'
	MM	*saki~saki*	RDP~be.sick	'sickly'

Table 10 demonstrates in more detail which word classes attract reduplication and which meaning aspects they convey in all seven Malay varieties.

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[136]   Abbreviations: AUG = augmentation, DIM = diminution, QUANT = quantity, INTENS = intensity.

First, the data in Table 10 shows that across the seven Malay varieties, reduplication of content words tends to convey more than one meaning aspect, while reduplicated function words tend to carry specific meaning aspects, such as indefiniteness for interrogatives. The exception is Manado Malay, where reduplication of content words tends to carry a specific meaning, such as plurality for nouns.

Second, the data in Table 10 illustrates that in the other eastern Malay varieties some meaning aspects also attract a wider range of word classes for reduplication than other meaning aspects. This applies to the plurality/diversity, the intensity, the continuation/repetition/habit, and the indefiniteness meaning aspects.

Of all the eastern Malay varieties, the different meaning aspects attested in Papuan attract the widest range of different word classes. For Ambon Malay, the range of attracted word classes is also rather large. In the other eastern Malay varieties, however, the attracted range of word classes is much smaller. At this point, it remains unclear, though, whether these smaller ranges are due to inherent properties of these varieties or due to incomplete documentation in the respective literature.

Table 10:   Word classes and meaning aspects in reduplication across eastern Malay varieties[137]

	PM	AM	BM	KM	LM	MM	TM
Augmentation (quantity)							
Continuation/ repetition/habit	N, V, ADV, RECP, CAUS	V		V	V	V, PFX	V, PFX
Plurality/ diversity	N, V, DEM, LOC	N, V	N	N	N	N	N, V
Collectivity	NUM, PRO	NUM				NUM	
Distributiveness	NUM, QT						
Involvement						PRO	
Totality		N	N				
Casualness	V				V		V
Augmentation (intensity)							
Intensity/ Immediacy	V, ADV, LOC V	V, ADV			V	ADV	V, PFX
Diminution							
Disparagement	PRO						
Indefiniteness	N, INT	DEM, INT		PRO, INT	PRO, INT		
Attenuation	V	V					

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[137] In Table 10, the category of prefixes (PFX) in Manado Malay (Stoel 2005: 27) and Ternate Malay (Litamahuputty 2012: 139) includes the reciprocal marker **baku** 'RCP'. Reduplicated Ternate Malay "activity words" (Litamahuputty 2012: 136–138) are included in the word class of verbs.

	PM	AM	BM	KM	LM	MM	TM
Vagueness Imitation	V, PRO	ADV V, PRO					

Overall, there is not a specific, one-to-one relation between the meaning aspects of the reduplicated lexemes and the syntactic class of the corresponding base words in any of the Malay varieties discussed here.

4.3.3.   Interpretational shift

Interpretational shift of reduplicated lexemes, as described for Papuan Malay (see §4.2.1.4 and §4.2.2.8), is also attested for Ambon Malay (van Minde 1997: 118, 123, 125), Larantuka Malay (Paauw 2008: 126, 270), Manado Malay (Stoel 2005: 26), and Ternate Malay (Litamahuputty 2012: 220).

With respect to the patterns of interpretational shift, two observations are made, summarized in Table 11. First, in each of the varieties for which interpretational shift is mentioned, it is content words that may undergo such a shift. Second, the Malay varieties differ in terms of the syntactic categories of the base and the readings which the reduplicated forms can receive. In Papuan and Ambon Malay, nouns and verbs can undergo interpretational shift, while in Manado Malay only nouns and in Larantuka and Ternate Malay only verbs are affected. Most often, such shifts result in the reduplicated form receiving an adverbial reading. Such is the case in Papuan, Ambon, Larantuka, and Ternate Malay; the exception is Manado Malay. Considerably less often the shift results in a nominal reading (Papuan and Ambon Malay) or verbal reading (Papuan Malay) of reduplicated lexemes.

Table 11:   Patterning of interpretational shift across eastern Malay varieties

Syntactic category		Reduplicated forms and their meanings		Received reading
Nouns	PM	***rawa~rawa*** RDP~swamp	'be swampy'	verbal
		malam~malam RDP~night	'late at night'	adverbial
	AM	***malang~malang*** RDP~night	'during the night'	adverbial
	MM	***opa~opa*** RDP~grandfather	'quite old'	verbal
Verbs[138]	PM	***gait~gait*** RDP~hook	'pole'	verbal
		baru~baru~ RDP~be.new	'just now'	adverbial

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[138] The 'verb' category includes Manado Malay adjectives and Ternate Malay "quality words" (Litamahuputty 2012: 136–138).

Syntactic category	Reduplicated forms and their meanings		Received reading
AM	***gai~gai*** RDP~hook	'pole'	nominal
	kamuka~kamuka RDP~go.first	'formerly, earlier'	adverbial
LM	***tiba~tiba*** RDP~arrive	'suddenly'	adverbial
TM	***asik~asik*** RDP~busy	'busily'	adverbial

The ability of reduplicated lexemes to undergo interpretational shift seems to be best explained in terms of a slot filling-function of reduplication. Cross-linguistically, temporal noun phrases, for instance, are prone to fill adverbial slots; an example is the English sentence 'she came home late at night'.

Hence, in this grammar of Papuan Malay, the interpretational shifts described in §4.2.1.4 and §4.2.2.8 are taken to result from a slot filling-function of reduplication. That is, reduplication enables base words to fill different syntactic slots, such as an adverbial or nominal slot.

In Ternate Malay, interpretational shifts also seem to be the results of a slot-filling function of reduplicating, with Litamahuputty (2012: 220) noting that "both reduplicated quality words and activity words may serve to express manner when they immediately follow an activity". For Ambon Malay, by contrast, van Minde (1997: 118, 123, 125) considers the observed interpretational shifts as "transpositions" which result from "derivational" processes. For Manado Malay, Stoel (2005: 26) notes that when kinship terms or similar words are reduplicated "then the reduplicated form is an adjective referring to a certain age group". This statement suggests that Stoel (2005) considers interpretational shifts to result from a category-changing function of reduplication. For Larantuka Malay, Paauw (2008: 126, 270) does not discuss the attested interpretational shifts.

4.4.   Summary

Reduplication in Papuan Malay is a very productive morphological device for deriving new words. In terms of lexeme formation, three different types of reduplication are attested: full, partial, and imitative reduplication. The most common type is full reduplication, which involves the repetition of an entire root, stem, or word; bound morphemes are not reduplicated. Full reduplication usually applies to content words, although some function words can also be reduplicated. Partial and imitative reduplication are rare. The gesamtbedeutung of reduplication is "a HIGHER/LOWER DEGREE OF …" in the sense of augmentation and diminution (Kiyomi 2009: 1151). There is, however, no specific, one-to-one relation between the meaning aspects of the reduplicated lexemes and the syntactic class of the corresponding base words.

A comparison of reduplication in Papuan Malay and five other eastern Malay varieties shows that Papuan Malay shares many features with Ambon Malay. In both

varieties, reduplication plays an important role. In Banda, Manado, Larantuka, and Ternate Malay, by contrast, reduplication seems to be much less pervasive. These commonalities and differences may well point to the particular history of Papuan Malay, argued for in §1.2. The observed differences could, however, also result from gaps in the descriptions of Banda, Manado, Larantuka, and Ternate Malay.