THE SEMANTICS OF REDUPLICATION IN JAPANESE

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By

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DECLARATION

Except where otherwise indicated
this thesis is my own work.

[Signature]
Haruko Hayakawa
February 1985
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Firstly I would like to thank my supervisor, Dr. Anna Wierzbicka, who gave much of her time to me in advice and assistance. My thanks also go to Dr. Quackenbush whose comments on the draft of this thesis were much appreciated. Lastly I would like to thank my colleagues in the Japan Centre, Nerida Grey, Clare Allridge, Mary Henkel and my husband Yōichirō Higuchi for their assistance and moral support.
ABSTRACT

In this thesis, the author will examine some properties that characterise Japanese reduplicative nouns having plural referents which have not received adequate attention in the past.

The author will also investigate some reduplicative adverbs in order to illustrate the semantic features they have in common with noun reduplication.

The reduplicative forms dealt with here are the reduplication of a noun, of SONO (that) plus a noun and of a single number plus its numeral classifier.

Throughout this thesis, the co-occurrence of numerals with each reduplicative form is examined so that the latter's semantic properties may be further ascertained.

The most common semantic features observed in these reduplicative forms is 1. indiscreteness, which in this thesis is when the referents are part of something which cannot be separated from the place in which they are, and are not often separated from each other, 2. variety, that is, a difference in the referents in that they are different kinds of things, or they belong to the same kind of thing but are distinguished by people as being different and 3. stress on impressions, on subjective perception of the phenomena in question.
ABBREVIATIONS, SYMBOLS AND TRANSLATION

The abbreviations, symbols and romanisation that appear in this paper are follows:

- **t.** ... Topic marker (wa)
- **s.** ... Subject marker (ga)
- **o.** ... Object marker (o)
- **q.** ... Quotative marker (to)
- **h.** ... Honorific marker
- **qu.** ... Question marker (ka)
- **pl.** ... Plural marker
- **n.c.** ... Numeral classifier
- **comp.** ... Sentential complementiser (no, koto)
- **part.** ... Sentential particle (yo)

* **X** ... X is ungrammatical
? **X** ... X is on the border line between being grammatical and ungrammatical.

Except for references, which use, the Hepburn system of romanisation and 'Tokyo' written in the conventional English manner, the romanised script of the Japanese texts, including 'Tokyo', follows that used by Alfonso in *Japanese Language Patterns*.

The N1-N1 A type reduplication is glossed as 1. a plural noun, such as YAM.A-YAM.A 'mountains', which follows the convention that such reduplicatives approximate closely to the English concept plurality, or glossed following the translation of Kenkyūsha's *New Japanese-English Dictionary* such as SUMI-ZUMI 'every nook and corner', or 3. when there is no readily available corresponding concept in English I have devised an appropriate gloss, such as TSUBU-TSUBU 'things very small and round'.

The N1-N1 B reduplication, such as CHIHO-CHIHO, is rendered...
singular in the English gloss, that is, 'region', since a closer approximation in English would be 'each region', 'region to region' or some other gloss dependent on context, but one that is not primarily denoting plurality. The N1-N1 A and N1-N1 B types of reduplication will be examined below.
NOTES ON QUESTIONNAIRES

Four questionnaires were conducted in order to investigate the behaviour of reduplication.

The purpose of the questionnaires is not to make a statistical analysis but to give a more objective picture of the use of these forms than could be provided by an analysis based purely on introspection.

Questionnaire I was devised in order to observe the N1-N1 A reduplicatives with regard to their co-occurrence with numerals. Questionnaire II was devised so that the behaviour of N1-N1 A reduplicatives with regard to generic referents could be observed. Questionnaire III was conducted in order to observe the possibility of the paraphrasing between the N1-N1 and the SONO N1 SONO N1 reduplicative patterns with regard to the verb CHIGAU. Questionnaire IV was conducted so that the paraphrasing between the N1-N1 and the SONO N1 SONO N1 patterns, with verbs other than CHIGAU, could be observed.

The results of Questionnaire I - IV can be found in appendixes A - D. When the examples in the questionnaires are referred to in the main part of the text, the ratio of the number of informants is shown in parenthesis as (9:2:5) where '9' refers to the number of informants who accept the sentence, '2' refers to the number of informants who rejected the sentence as incorrect and '5' refers to those informants who were undecided.

As previously stated, the N1-N1 A/B type of reduplication will be examined below. So too will be the SONO N1 SONO N1 pattern, and the paraphrasing, referred to above.
TABLE OF CONTENTS

Declaration ii
Acknowledgements iii
Abstract iv
Abbreviations v
Notes on Questionnaires vii
1. Introduction 1
2. Reduplication in General 6
   2.1 List of Reduplicative Forms General 8
3. Literature Review 13
4. The Restriction of N1-N1 Type in General and the Classification of N1-N1 A and N1-N1 B 17
   4.1 Phonological and Etymological Restrictions 17
   4.2 N1-N1 Reduplications 19
   4.3 The Semantic Restriction of N1-N1 reduplication in General 27
   4.4 Classification of N1-N1 A and N1-N1 B 28
5. Semantic Analysis 30
   5.1 The Tentative Grouping 30
   5.2 Some Observations Concerning the Former Four groups 34
      5.2.1 Lyrical Impression 34
      5.2.2 Optical Impression 34
      5.2.3 Style 35
   5.3 The YAMA-YAMA Group 36
      5.3.1 State of Referents 36
         5.3.1.1 The Indiscreteness of the Referents 36
         5.3.1.2 The Overflow of the Referents 39
      5.3.2 The Co-occurrence of Reduplicatives with Numerals 42
      5.3.3 Countability of Visible Referents and Numerals 44
      5.3.4 The Minimum Number of Constituents 48
      5.3.5 Specificity Implied in Reduplication 49
      5.3.6 Invisible Referents and Numerals 58
      5.3.7 With Numerals + SHURUI (kinds) 60
   5.4 The SHIMA-JIMA (islands) Group 65
      5.4.1 Generic Referents 65
      5.4.2 Reduplicative Forms Indicating the Organisation of People 70
      5.4.3 The Co-occurrence with Numerals 71
         5.4.3.1 When the Referents are Visible 71
5.4.3.2 When the Referents are not Visible
5.4.4 With the Verbs of Circulation
5.5 The HI-BI (days) Group
  5.5.1 The Co-occurrence with Numerals
  5.5.2 With Generic Referents
5.6 The HITO-BITO (people)
  5.6.1 Co-occurrence with Numerals
  5.6.2 Modification and Generic Referents
5.7 The TSUBU-TSUBU (things very small and round) Group
  5.7.1 Co-occurrence with Numerals
5.8 The SUMI-ZUMI (every nook and corner) Group
  5.8.1 Co-occurrence with Numerals
5.9 The SHINA-JINA (various articles) Group
5.10 The SHIMO-JIMO (the lower classes) Group
5.11 The KAZU-KAZU (various) Group
5.12 The WARE-WARE (we) Group
  5.12.1 Co-occurrence With Numerals
5.13 The DOKO-DOKO (which place) Group
5.14 The MEN-MEN (everyone) Group
5.15 Restriction and Productivity of N1-N1 A
5.16 Grammatical Categories of N1-N1 A

6. Reduplication Indicating Distribution
6.1 Introduction
6.2 N1 N1 B Reduplicatives and SONO N1 SONO N1 Reduplicatives
  6.2.1 N1-N1 vs. SONO N1 SONO N1 with the Verb CHIGAU (differ)
    6.2.1.1 TSUKI (month) vs. KITSETSU (season) Group
    6.2.1.2 CHIHOO (region) vs. KUNI (country) Group
    6.2.1.3 Conclusion
6.2.2 SONO N1 SONO N1 Reduplicatives with verbs other than Chigau (to differ)
6.3 The SONO N1 SONO N1 and N1-N1 B Patterns with Numerals
6.4 N1-N1 B'
6.5 Reduplication of a word which means 'one' (numeral plus classifier for counting each object)
6.6 Semantic Formulas Suggested

7. Reduplicative Adverbs
7.1 Introduction
7.2 Semantic Analyses of Individual Reduplicative Forms
  7.2.1 BURA-BURA (aimlessly)
    7.2.1.1 BURA-BURA 1
    7.2.1.2 BURA-BURA 2
    7.2.1.3 BURA-BURA 3
  7.2.2 FUWA-FUWA (lightly)
    7.2.2.1 FUWA-FUWA 1
    7.2.2.2 FUWA-FUWA 2
  7.2.3 FURA-FURA (dizzy, unsteady)
7.2.4 PUKA-PUKA (lightly)
7.2.5 PIKA-PIKA (glitteringly)
7.2.6 NIKO-NIKO (smilingly)
7.2.7 PEKO-PEKO (cringingly)
  7.2.7.1 PEKO-PEKO 1
  7.2.7.2 PEKO-PEKO 2
  7.2.7.3 PEKO-PEKO 3
7.2.8 PERA-PERA (fluently)
7.2.9 CHOI-CHOI (occasionally)
  7.2.9.1 CHOI-CHOI 1
  7.2.9.2 CHOI-CHOI 2
  7.2.9.3 CHOI-CHOI 3
7.2.10 SORO-SORO (slowly)
  7.2.10.1 SORO-SORO 1
  7.2.10.2 SORO-SORO 2
7.2.11 DON-DON (steadily)
  7.2.11.1 DON-DON 1
  7.2.11.2 DON-DON 2
7.2.12 DAN-DAN (gradually)
7.2.13 BOTSU-BOTSU (little by little)
7.2.14 IYO-IYO (more and more/at least)
  7.2.14.1 IYO-IYO 1
  7.2.14.2 IYO-IYO 2
7.2.15 MECHA-MECHA (in disorder)
7.3 Conclusion
8. Summary
References and Texts
Appendix A. Questionnaire I
  A.1 Sorted Result of Questionnaire I
    A.1.1 YAMA-YAMA (mountains)
    A.1.2 IE-IE (houses)
    A.1.3 KI-GI (trees)
    A.1.4 HANA-BANA (flowers)
    A.1.5 KUNI-GUNI (countries)
    A.1.6 SHIMA-JIMA (islands)
    A.1.7 MACHI-MACHI (towns)
    A.1.8 MISCELLANEOUS
  A.2 Sentences Used in Questionnaire I
    A.2.1 YAMA-YAMA (mountains)
    A.2.2 IE-IE (houses)
    A.2.3 KI-GI (trees)
    A.2.4 HABA-BANA (flowers)
    A.2.5 KUNI-GUNI (countries)
    A.2.6 SHIMA-JIMA (islands)
    A.2.7 MACHI-MACHI (towns)
    A.2.8 MISCELLANEOUS
Appendix B. Questionnaire II
B.1 KUNI-GUNI (countries)  
B.2 SHIMA-JIMA (islands)  
B.3 YAMA-YAMA (mountains)  
B.4 HANA-BANA (flowers)  
B.5 KI-GI (trees)  
B.6 IE-IE (houses)

Appendix C. Questionnaire III
C.1 CHIH00 (region) group  
C.2 KISETSU (season) group  
C.3 KUNI (country) group  
C.4 TOSHI (year) group  
C.5 RINGO (apple) group  
C.6 YAMA (mountain) group  
C.7 HIT0 (person) group

Appendix D. Questionnaire IV
Although we probably can say just about anything in any language, languages differ in terms of what the speaker must say, if his utterance is to be grammatical.

In Japanese there is no obligatory distinction between singular and plural nouns. In a context that forces the English speaker to draw such a distinction "I see a mountain." or "I see mountains.", the Japanese speaker needs to make no reference to the singularity or plurality of YAMA (mountain):

1. YAMA ga mieru.
   mountain s. be visible
   I can see YAMA (mountain (s))

That is, Japanese nouns do not need to be marked for the grammatical category "singular vs. plural" by suffixes, as in English, or by any other means. But when the noun is animate, especially human, plurality can be conveyed optionally by a plural suffix, such as '-tachi':

2. asoko ni gakusei-tachi ga iru.
   over there in student pl. s. be
   There are students over there.

A limited number of nouns, both human and non-human, derive reduplicative forms which convey plurality as one of their functions.
3. **YAMA-YAMA** ga mieru.  
mountains s. be visible

I can see mountains.

4. **minami hankyuu** no **KUNI-GUNI** de wa ima  
south hemisphere of country in t. now  
natsu desu.¹
summer be

In the countries of the southern hemisphere, it is summer now.

The nouns which have these reduplicative forms are very limited in number. Note the unacceptable sentences below:

5. *ISU-ISU** ga mieru.  
chair s. be visible

I.R.:² I can see some chairs.

6. *minami no CHIHOO-CHIHOO** de wa ima natsu desu.  
south of region in t. now summer be

I.R.: In the southern regions, it is summer now.

However, in a different context, with a different meaning, the reduplication of CHIHOO (region) is acceptable.

7. CHIHOO-CHIHOO de hoogen ga chigau.  
region in dialect s. different

Dialects differ in each region.  
(from region to region)

CHIHOO-CHIHOO is roughly translated into English as 'each region' in the example above.

The type of word formation illustrated in Example 7 is also extremely limited. In the case of ISU (chair), a simple reduplication

---
¹When the non-reduplicated form consists of two moras and it is not originated from mimetic or onomatopoeic words, the initial consonant of the second component is voiced most of the time.
²Intended reading
does not result in the interpretation 'each chair'. A reduplication of 'the demonstrative pronoun SONO and the noun' is necessary to achieve the meaning of "each chair"

8. SONO ISU SONO ISU de nedan ga chigau.
that chair with price s. different

The price is different for each chair.

The reduplicative form SONO Nl SONO Nl, exists for all nouns, while the former reduplicative form Nl-Nl does not.

The meaning of Example 8 seems to also be conveyed by another reduplicative form involving a single number + a classifier for counting. This is illustrated in Example 9.

9. koko ni aru isu wa HITOTSU - HITOTSU nedan ga
here in be chair t. one-n.c. price s.
chigau.
different

Speaking of these chairs, the price is different for each one.
(each chair has a different price.)
According to my observations so far, the reduplication
development of nouns
to express plurality falls into four types.

<table>
<thead>
<tr>
<th>Type of Reduplication</th>
<th>Approximate English Correspondence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. N1-N1 A</td>
<td>N1-s</td>
</tr>
<tr>
<td>2. N1-N1 B</td>
<td>Each N1</td>
</tr>
<tr>
<td>3. SONO N1 SONO N1</td>
<td>Each N1</td>
</tr>
<tr>
<td>4. Reduplication of a word which means 'one'...Each N1</td>
<td>(numeral plus numeral classifier for counting each objects)</td>
</tr>
</tbody>
</table>

Type 1 N1-N1 A is likely to be translated into English with the plural form of the noun, usually indicated by the suffix "-s", while types 2, 3 and 4 are roughly translated as "each N1" in English. I would like to call the former 'collective' and the latter 'distributive', temporarily. These two concepts are based on the following definition. The concept of 'distributive' indicates that if one focuses on one individual of the group, one can say something which is the same as other members of the group. To the contrary, the concept of 'collective' does not indicate a focus on an individual member of the group.

Although 'each N1' is treated as singular in English, more than one referent must necessarily be involved for the construction to be...

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3 The term 'reduplication' is used here to refer to a repetition of the meaningful segment, i.e., the repetition of a phrase, such as SONO N1; a compound, such as HITOTSU (one plus numeral classifier (TSU)); a word, such as YAMA (mountain); or the repetition of a bound morpheme which always appears as a part of a word, such as MEN (face). When the reduplicative forms have only one place that has high pitch accent although they can be divided into two segments, the reduplicative forms are considered as compounds and are joined by a hyphen since in Japanese a word has only one place that has high pitch accent. See the examples below:

The underlines indicate the accent of high pitch.

<table>
<thead>
<tr>
<th>Non-Reduplicated Form</th>
<th>Reduplicated Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>YAMA</td>
<td>YAMA-YAMA</td>
</tr>
<tr>
<td>CHIHOO</td>
<td>CHIHOO-CHIHOO</td>
</tr>
<tr>
<td>HITOTSU</td>
<td>HITOTSU-HITOTSU</td>
</tr>
</tbody>
</table>
used felicitously, since 'each' does not indicate one entity but one of them as a referent. For instance, a sentence like: "I checked each sheet of paper", does not mean that the actor checked only single sheet of paper, but plural sheets of paper. The execution of the sentence requires the plural number of paper. The action of the actor is repeated. If we focus on one action at a time, only a single sheet of paper is involved in one action. But one action at a time is not an action conveyed by the sentence but only a part of it. The whole action conveyed is a repetition of each action. If we view the action conveyed in this way, it is apparent that the distributive requires plural referents. Thus, I consider all the examples of reduplication above to involve plural referents.

Since Japanese has a rich variety of reduplicative expressions, an attempt is not made to give an exhaustive list of them, nor to thoroughly investigate the many different types. Rather I will concentrate on those expressions involving plural referents, and investigate the semantic effects of this process for various kinds of nouns in various contexts.

I will also investigate some reduplicative forms in adverbs in order to illustrate the semantic features common to reduplicative forms.

In Chapter 2, the major types of reduplicative expressions are briefly illustrated. In Chapter 3, literature about reduplication for plural referents is reviewed. In 4, the restriction in forming reduplication is briefly observed, where reduplication is divided into two types: N1-N1 A (collectives) and N1-N1 B (distributives). In 5, N1-N1 A is investigated semantically. In 6, N1-N1 B is investigated semantically. In 7, semantic features of some reduplicative adverbs are observed.
CHAPTER 2

REDUPLICATION IN GENERAL

Japanese has a rich variety of reduplicative expressions. In this section, I would like to briefly illustrate the major types of reduplicative expressions, their morphology and their meaning in order to demonstrate what is common to them, before analysing in more detail reduplication involving plural referents in Chapter 5 and 6. I shall also define the range of reduplication which I would like to deal with in this thesis.

The class of 'reduplicatives' corresponds to the so-called JOOGO in Japanese. According to NIHON KOKUGO DAIJITEN (The Japanese Linguistics Dictionary) (1974), p.506, JOOGO can be explained as follows:

"A kind of compound word. Words which are made by repetition of the same word. Nominals, continuatives and predicatives of verbs, stems/continuatives and predicatives of adjectives, adverbs, interjections, roots and compound words are reduplicated. They emphasise the meaning of words and indicate the plurality of objects and repetition or duration of state or action. e.g., HITO-BITO (people), YAMA-YAMA (mountains), NAKI-NAKI (with tears), AKA-AKA (brightly), YOKU-YOKU (very carefully), MATA-MATA (once again), OI-OI (gradually), HONO-BONO (dimly), CARA-CARA (rattling), SHIRAZU-SHIRAZU (unconsciously).”

1 Translation mine
According to the explanation given above, reduplicatives can be divided into three semantic categories:

A. "plurality of objects"
B. "emphasis of word meaning"
C. "repetition/duration of action/state"

These three categories can be applied not only to compound words, but also to other reduplicative expressions which are not considered to be compounds, such as: "AOI AOI sora" (very blue sky). Examples of this type, in fact, belong to category B because they have the same characteristic feature namely "emphasis of word meaning" by reduplication.

E. Moravcsik (1978), p.317 also comments that the principal semantic property of reduplication in various languages is the concept of increased quantity, which can be divided into two subtypes: the quantity of the referents, and degree of emphasis. The relevant section of Moravcsik's comments is quoted below:

"As far as particular meaning properties are concerned, the most outstanding single concept that reduplicative constructions recurrently express in various languages is the concept of increased quantity. There are two basic subtypes of this meaning: quantity of referents and amount of emphasis."

I will first discuss various subtypes of quantity of referents. Referents may be participants of events or events themselves; the former I have found expressed by noun reduplication or by verb reduplication and the latter, by verb reduplication only."

In Japanese, an increased 'quantity' of events is expressed not only by verbs, as Moravcsik points out but also by verb modifiers such as 'onomatopoeic words' GITAIGO and 'mimetic words' CISEICO.²

²Japanese has a large store of so-called 'mimetic' and 'onomatopoeic words. I believe that these are what Alfonso (1966) calls 'reduplication for impression'. (See Chapter 3 Literature Review.) The 'mimetic' and 'onomatopoeic' words classes in Japanese contain a large number of reduplicative forms, most of which belong to one of the three categories above, in terms of their semantic function. Examples belonging to category C are especially common, since, as Alfonso mentions, "they mainly appear as verb modifiers".
2.1 List of Reduplicative Forms General

The following list is arranged to display semantically similar sets of reduplicatives, including expressions which are not considered as compounds but repetition of a phrase, along with their syntactic/morphological analysis. The list is not intended to be an exhaustive one but its purpose is to sketch a general picture of Japanese reduplicative forms, classified according to the criteria used by NIHON KOKUGO DAIJITEN noted above.

A. reduplication for plurality

This type of reduplication assumes the form of reduplicated nouns, illustrated in the previous chapter. These can be:

1. N1-N1 A
   e.g. YAMA-YAMA (mountains)

2. N1-N1 B
   e.g. CHIHOO-CHIHOO (each region)

3. SONO (that) N1 SONO (that) N1
   e.g. SONO RINGO SONO RINGO (each apple)

4. Reduplication of 'a single number + a classifier for counting'
   e.g. ICHIMAI-ICHIMAI (one sheet by one sheet) one-n.c.

B. Reduplication for emphasis

The reduplicative forms which are listed below, with their English translations, emphasise the quality of the words which are modified or the quality which is conveyed by the words themselves. These reduplicative forms fall into many types syntactically, since they involve the reduplication of different parts of speech.
1. Adjl Adjl
   AOI AOI sora English translation
   blue sky ........... very blue sky
   TOOI TOOI kuni
   far country ........... a very distant country

2. Advl Advl
   TOTEMO TOTEMO ookii
   very big ........... very very big
   YUKKURI YUKKURI aruku
   slowly walk ........... walk very slowly

3. Verb 1 Verb 1
   TSUKARETA TSUKARETA
   (I'm) tired. ........... (I am) very tired.
   KUTTA KUTTA
   (I) ate ........... (I) ate a lot.
   KORE DA KORE DA
   this be ........... This is the one.

4. Noun1 Noun1 SHITA/SHITEIRU
   This form can be used like adjective, predicatively or attributively.
   KODOMO-KODOMO shiteiru
   child be ........... childlike
   BOTCHAN-BOTCHAN shita otoko no ko
   boy of child.......a boy who seems very young

5. Adj.-stem1 Adj.-stem1 TO (quotative marker)
   This form can be used as like adjective with 'shita/shiteiru (be)' as a verb modifier by itself.
   AO - AO TO shita soogen
   green q. be field ...........a very green field
KURO-GURO TO nuru.
black q. paint to paint something very black.

6. There are some other reduplications, which are not as productive as the ones listed above, such as:

Verb-stem1 Verb-stem1,
e.g., "SUBE SUBE no hada" very smooth skin
slide of skin
(SUBE is from the verb SUBERU (slip))

Adj-stem1 Adj-stem1,
e.g., "ATSU ATSU no manjuu" very hot bun
hot of bun
(ATSU is from the adjective ATSUI (hot))

C. Reduplication for repetition/duration of action/state

These forms are used when an event takes place more than once or over a period of time. The main reduplicative forms of this type are the so-called mimetic words GITAIGO and onomatopoeic words GISEIGO, which are generally categorised as adverbs.

1. Mimetic words (GITAIGO) and onomatopoeic words (GISEIGO)

When one compares the reduplicated forms above with their non-reduplicated counterpart, it is clear that the former convey the concept of repetition or duration. Observe the sentences below:

PEKO-t-to ojigi o suru.
once q. bow o. do bow once

PEKO-PEKO ojigi o suru.
bow o. do bow many times

PYU t-to kaze ga fuku.
with a puff q. wind s. blow The wind blows once.

PYUU-PYUU kaze ga fuku.
whizzing wind s. blow The wind blows many times.
PERAt - to hanasu
carelessly q. speak ..........................speak carelessly (e.g. to let a secret out accidentally)

PERA-PERA hanasu
fluently speak ..........................speak fluently/glibly

When one compares the reduplicated forms above with their non-reduplicated counterpart, it is clear that the former convey the concept of repetition or duration.

2. Verb-root1 Verb-root1

NAKI NAKI kaeru
cry  return ..........go back (somewhere) weeping all the way

KANGAE KANGAE kaku
think  write ..........write (something) with frequent pauses to think

jisho o HIKI HIKI kaku
dictionary o. look write ..........write (something) constantly looking up the dictionary

SHIBU SHIBU shoodakusuru
hesitate  accept ..........accept reluctantly/with much hesitation

The reader will recall that Type 4 of category (A) also indicates of repetition.

ringo o HITOTSU HITOTSU shiraberu.
apple o. one n.c. check

(I) check apples one by one.

If we focus on the number of events accomplished, the reduplication of single number + numeral classifier form will be classified into this category, though it is classified into category A if the focus is on the number of participants involved.

The list above is not intended to be an exhaustive list of
Japanese reduplicatives. Nevertheless, we can use it to draw some conclusions about the general characteristics of reduplication in Japanese. We can say that reduplication conveys the concept of an increase in something: something more than what is conveyed by the non-reduplicated counterparts. That is, in category (A), the number of participants in the event is increased; in category (B), the quality expressed is increased; and in category (C), the frequency or duration of the event is increased.

Little work has been done on Japanese reduplication forms apart from the analytic work by KINZAWA and grammars which classify these forms and deal with their meanings on an ad hoc, individual basis, overlooking their actual semantic identity.

The only Japanese work I am aware of that refers to the relationship between reduplication and plurality is that of NOZUMA (1978) a translation of the relevant section (pp.39-49) follows:

In Japanese, a reduplicative expression can be used to express ‘many’ plurality. TAMA-TAMA (mountain) can express plurality. Moreover, only a limited number of MECO (words of Japanese origin) can be reduplicated. The reason why there are MECO-MECO (sky) and MECO-MECO (story) is that the latter are words of Japanese origin. However, there are words in which MECO and TAMA-TAMA (mountain) is used to convey an attribute that is less common.

The forms MECO-MECO (sky), KAMO-KAMO (swimmer) and URA-URA (here). KAMO-KAMO has a pure plural meaning while URA-URA and KAMO-KAMO seem to shift from ‘each other’/‘every gate’/‘every gate’/‘every gate’/‘every gate’/‘every gate’. URA-URA particularly often has the ‘every’ meaning in English too, ‘every’ in singular grammatically,Western (month) has only the adverbial one ‘each’/‘each’ (every week). Even though it is plural as a result, we do not count it as plural.

I propose that my proposal concerning the reason for this phenomenon will be explained in Section 5.15.

I myself do not use KAMO-KAMO and URA-URA, so I have not included them in list A which appears in Section 4.2. This list is comprised of those which I feel are the core reduplications.

3There are some reduplicative forms, which cannot be fitted into these three categories. For example such as baby talk NYAN-NYAN (kitty), MOO-MOO (cow) has not been included in the list above.
CHAPTER 3

LITERATURE REVIEW

Little work has been done on Japanese reduplicative forms apart from the mimetic words GITAIGO and onomatopoeic words GISEIGO. Most grammars stop with a description of the phonetic characteristics of these forms and deal with their meanings on an ad hoc, individual basis, overlooking their mutual semantic identity.

The only Japanese work I am aware of that refers to the relationship between reduplication and plurality is that of Nomoto (1978) a translation of the relevant section (pp.18-19) follows:

"In Japanese, a reduplicative expression can be used to express 'pure' plurality; YAMA-YAMA (mountains), KUNI-GUNI (countries) etc. However, only a limited number of WAGO (words of Japanese origin) can be reduplicated. The reason why there are MACHI-MACHI (towns) and MURA-MURA (villages), but not SHI-SHI (cities) and KEN-KEN (prefectures) may lie in the fact that the latter are words of Chinese origin. The reason why there is YAMA-YAMA (mountains) but there are NO-NO (fields) and KAWA-GAWA (rivers) is unknown. We can only attribute this to language habit.1

As the forms HIT0-BIT0 (people), KADO-KADO (gates/corners) and URA-URA (bays), HIT0-BIT0 has a pure plural meaning while KADO-KADO and URA-URA2 mean either 'each gate/bay' or 'every gate/bay' URA-URA particularly, often has the latter meaning. In English too, 'every' is singular grammatically. TSUKI-ZUKI (month) has only the adverbial use 'mai-tsuki mai-tsuki' (every month). Even though it is plural as a result, we do not think of it as plural.

1Emphasis mine. My proposal concerning the reason for this phenomenon will be explained in Section 5.15.

2I myself do not use KADO-KADO and URA-URA, so I have not included them in List A which appears in Section 4.2. This list is comprised of those reduplicatives which I feel are the core reduplicatives. I have included KADO-KADO and URA-URA in my examination of reduplicatives only after the framework for semantic classification has been established.
Consequently, I can say that reduplication is not directly related to plurality. If it is related, it could hardly be called a grammatical category.3

The main points Nomoto raises are 1. the limited set of words and morphemes which can form reduplicatives, and 2. the division of their meaning into collectives and distributives. He attributes phenomenon 1 to "language habit" and gives us no explanation at all for phenomenon 2.

The second work I would like to mention is by Martin (1975) the relevant section (pp.1061-1062) is quoted below:

"The pattern sono N1 sono N1 is used to mean 'each particular individual N1.' (...) But occasionally the iteration of sono N1 may be merely emphatic (.....).

In the iterative pattern sono N1 sono N1 (dono N1 mo) 'whatever N1' we can think of sono as a minimal specification of the noun; you will sometimes find other adnominal modifications especially V-ru: 'Au hito au hito ga aisatsu shita' (= Atta hito wa dare demo aisatsu shita) 'Everyone I met greeted me', (.....) the iterated pattern allows a synonym of the modifying verb. (...) a singular number can sometimes be iterated and turned into a quasi-compound to mean 'each and every' or 'every single' as in itimai - itimai no kami 'every single sheet of paper.'. And we also observe reduplication such as yamayama 'mountains' and simajima 'island', to be entered in the dictionary as unpredictable lexical items, sometimes narrowed in meaning to 'each individual N' (......) Some of the words derived by these patterns are virtually synonymous with the iterations of sono N1; (.....) Toti-toti ni yotte kotonaru ga.... 'it differs from place to place, but....' means much the same thing as sono toti sono toti de zuibun chigau. And sometimes you will find sono + reduplicated noun (.....)"

Martin suggests that "yamayama 'mountains' and simajima 'islands' should be entered in the dictionary as unpredictable lexical items, sometimes narrowed in meaning to 'each individual N'.". What he says is analogous to Nomoto's claim that the meaning of forms such as these should simply be attributed to "language habit".

3 translation mine
4 Emphasis mine.
Gonda (1949) refers to Japanese reduplication in these terms (p.180):

"The Japanese forms made by reduplication may not properly be termed plurals, [for] although yama2 means 'mountains' they do not admit of numerals, [but instead] convey the connotation of variety and cannot be derived from any single word."

Gonda refers to the fact that reduplication is virtually unproductive, as do Nomoto and Martin. In addition, he focuses on the fundamental fact that YAMA-YAMA does not occur with numerals.

Alfonso (1966), treats two types of reduplication: reduplication for plurality and reduplication for impression. Since "the reduplication for impression" mainly deals with onomatopoeic words GISEIGO and mimetic words GITAIGO, only the part referring to "reduplication for plurality" is quoted here (Lesson 16, Section 5, p.447):

"There are not many (reduplicatives) of this type. The following are the most common.

YAMA 'mountain' YAMA-YAMA 'group of mountains'
HITO 'person' HITO-BITO** 'people'
KUNI 'country' KUNI-GUNI 'various countries'
WARE 'I' WARE-WARE 'we'
TOKI 'time' TOKI-DOKI 'sometimes'
TABI 'occasion' TABI-TABI 'various occasions'
IRO 'colour, sort' IRO-IRO 'various kinds'
HOO 'direction' HOO-BOO 'various directions'
NICHI 'day' NICHI-NICHI 'day by day', 'daily'
TOKORO 'place' TOKORO-DOKORO 'various places'
ICHI 'one' ICHI-ICHI 'one by one'
IPPO 'one step' IPPO-IPPO 'step by step'

** The student should not overuse the word HITO-BITO. He may tend to do so on account of his English habits, but he should remember that HITO alone can mean 'persons, people'. HITO-BITO is used for special emphasis when the occasion calls for it.

There are several words which now are used only in the reduplicate form:

CHI-CHI 'father' HO-HO 'cheeks'
HA-HA 'mother' CHI-CHI 'breasts'
JI-JI 'old man' MI-MI 'ears'

5 '2' indicates repetition.
The tendency towards reduplication appears in many words in one form or another, sometimes in a repetition of the whole word, sometimes in a repetition of just one component sound, whatever the form, the reduplication of the type described above indicates plurality or distribution.

The remainder of this first section will deal with impressionistic reduplication, a category containing a large number of VERB MODIFIERS. They are called "impressionistic" because they are used to suggest a particular sound or situation or attitude in a vivid way. Such reduplication occurs in English too: chitchat, pell-mell, tom-tom, gewgaw, hoity-toity, heebie-jeebies, heehaw, ticktock, ticktack, teenie-weenie, hodgepodge, helter-skelter."

Alfonso's chart of non-reduplicative and reduplicative forms suggests that plurality/distribution and reduplication are not synonymous. According to Alfonso, the reduplicative forms of NICHI (day) and TOKORO (place) do not mean 'more than one day/place', in the sense of, days/places, or rather they translate as 'day by day' and 'various places' respectively. The comment on HITO-BITO also indicates that the notion of plurality does not directly correspond to the concept of reduplication. The use of these reduplications, as he says, 'for special emphasis when the occasion calls for it'. What sort of occasion does call for the use of HITO-BITO rather simply HITO? This thesis aims to provide an answer to this question.
CHAPTER 4

THE RESTRICTION OF N1-N1 TYPE IN GENERAL AND THE CLASSIFICATION OF N1-N1 A AND N1-N1 B

The reduplicative forms dealt with in this paper are delimited as follows: reduplication of 1. nouns, and noun phrases namely 2. SONO N1 and 3. a single number + numeral classifier. In this section, only restrictions of N1-N1 type reduplication (Type 1 N1-N1 A and Type 2 N1-N1 B) are considered with regard to its phonology, etymology, since other types of reduplication: SONO N1 SONO N1 and the reduplication of a single number+numeral classifier are not restricted in those respects.

4.1 Phonological and Etymological Restrictions

Martin (1975) mentions the phonological and etymological restriction of N1-N1 type of reduplication as follows (p.151):

"A number of short nouns derive a kind of plural or collective by reduplication, usually with the initial consonant of the repetition voiced whenever it is basically voiceless and there is no -b-, -d-, -z-, or -g- within the word: kamigami 'gods', kunigumi 'nations', hitobito 'people' simajima 'island'; sankan no eki 'remote railway stations'; kasanari-au ryokan ya hoteru no madomado ga... 'the windows of the inns and hotels piled up one on top of each other'; ... Each such word is an unpredictable lexical unit (there is no kawagawa 'rivers' or tanadana 'shelves') to be entered individually in the lexicon. Sometimes the meaning is narrowed, and the accent is not always predictable: kutiguti means 'each entrance/mouth', tokorodokoro means 'here and there, (in) various places' (a place noun that is often directly adverbialised), sumizumi means 'every nook and corner, tuzituzi ni means 'at every street corner', kigi means 'every tree', edaeda means 'all the branches'. And shimojimo means 'the lower classes, the masses'. In kazukazu no shinazina ga chinretsu sare,...'numerous goods of all sorts are displayed and...' the accent of first word indicates it is a more recent
formation, a syntactic reduction; but the accent of hooboo 'every direction, everywhere' is not necessarily indicative of the same thing.

Most of the reduplications are old and are built on native Japanese nouns, but we also find iterations of longer elements, including binoms of Chinese origin (the reduplication being given the accentuation of a compound noun), and these can be used for plural reference: ... kokunai no chiiki-chiiki de hu-tootsu de aru koto, ... 'the fact that it is not uniform from area to area within the country, The formal pronoun ware 'I' has a plural form wareware as well as ware-ra.

Martin observes that 1 "a number of short nouns derive a kind of plural or collective by reduplication" and 2. "most of the reduplications are old and built on native Japanese nouns". However, the observation does not work deductively, which is also pointed out by him by saying "each such word is an unpredictable lexical unit (there is no kawagawa (rivers) and tanadana (shelves)) to be entered individually in the lexicon and "but we also find iterations of longer elements."

In short, his observations do not function successfully as a restriction to define the morphology of words which construct N1-N1 patterns either deductively or inductively.

Neither phonological nor etymological criteria can be invoked to explain the range of reduplications. Firstly not all nouns with a voiceless initial consonant reduplicated to form N1-N1. And secondly, not all nouns of Japanese origin yield this type of reduplicative form.

Morphological restrictions also cannot account for the ability of words to reduplicate. In the N1-N1 A type of reduplications, N1 cannot be a compound itself. In the case of N1-N1 B there is no such restriction. This however does not define the range of nouns that can have reduplicated forms because not all non-compound words have the ability to reduplicate to form N1-N1 A.

Rather it is semantic considerations which can be used to account for the restrictions on the range of N1-N1. This phenomena will be discussed further in Chapter 5.
4.2 Nl–Nl Reduplications

Since reduplication of SONO Nl and a single number + a numeral classifier are differentiated from Nl–Nl reduplication syntactically as explained before, I first would like to investigate the restrictions on the Nl–Nl type of reduplication.

The words I deal with as reduplications of the Nl–Nl type are listed with translations from Kenkyūsha's New Japanese–English Dictionary. In this list, I include only reduplicative forms of meaningful segments to which particles (postpositions) except genitive NO can be attached and which can be modified in the same way as simple nouns.

That is to say, I tried to include only reduplicative forms which function as nouns in my analysis by using the criteria above. However, the aim of this paper is not the classification of words and if necessary, I will not hesitate to make reference to reduplicative expressions which are not strictly included in the list by the procedure described.

1 Genitive NO is excluded as members of these particles since, in this case, attaching NO cannot function as a criterion for defining nouns and adverbs. The reason for this is that some words, which are usually considered as adverbs can take NO, such as:

- sekkaku no shootai
  kindly of invitation

- ainiku no ame
  unfortunately of rain

- totsuzen no hoomon
  sudden of visit

- unexpected visit
Words on the border line are discussed first.

1. Reduplicatives which are excluded

1-1. TSUNE (normal condition), TSUGI (in succession), ZOKU (a second series) and KUCHI (mouth) are nouns by themselves, but the reduplicative forms: TSUNE-ZUNE (always), TSUGI-TSUGI (one by one) ZOKU-ZOKU (successively) and KUCHI-GUCHI (severally) cannot be modified. They are thus excluded because they do not function as nouns in all respects.

1-2. The non-reduplicated counterparts of MICHI-MICHI (on the way), as shown in the sentence below, DAI-DAI (generation after generation), TABI-TABI (often) and MUKASHI-MUKASHI (once upon a time) are nouns, but particles cannot be attached to their reduplicated forms. Therefore, they are considered to be adverbs.

   e.g. MICHI-MICHI kangaeta.
   way way thought
   (I) thought about it on the way.

1-3. HI-BI (days) has both a nominal use such as in;

   tanoshikatta HI-BI o omoidasu.
   enjoyable-past o. remember
   (I) remember those lovely days.

   and adverbial use as;

   HI-BI doryoku suru.
   make an effort
   (I) make an effort everyday.

   the nominal use is mainly considered in this discussion.

1-4. Reduplicative expressions such as; KODOMO-KODOMO SHITA, (childish), GOMI-GOMI SHITA (messy) are excluded, since they cannot be modified as nouns.

1-5. Expressions like; KONA-GONA NI NARU (in pieces) or DORO-DORO NI NARU (muddy), which appear as - NI NARU sentence patterns, are excluded, since they also cannot be modified as nouns.

1-6. Relative time words such as ATO-ATO (very far future), MAE-MAE (far in advance), SAKI-ZAKI (far future), SUE-ZUE (far future) and NOCHI-NOCHI (far future) are excluded, since they tend to have adverbial usages with particles NI (to), KARA (from) and MADE (till).
2. Questionable Reduplication which I have decided to include:

2-1. SHIMO-JIMO (the lower classes), MEN-MEN (everyone), SUE-ZUE (the lower classes), POTSU-POTSU (dots; spots) and PUTSU-PUTSU (eruptions; rash) -of which non-reduplicated forms do not exist as free morphemes but only as bound morphemes—are included, since the reduplicative forms satisfy the conditions mentioned above.

2-2. Interrogative adverbs; ITSU-ITSU (when) IKUTSU-IKUTSU (how many) and IKURA-IKURA (how much) whose non-reduplicated counterparts are adverbs, function as adverbs themselves. However, they are included in the discussion of interrogative nouns because of their structural and semantic similarities to these forms. DARE-DARE (who), DORE-DORE (which) and NANI-NANI (what) whose non-reduplicated counterparts are nouns function as interrogative nouns. Even though these forms cannot be modified they are included on the grounds that no interrogative nouns, regardless of whether they are reduplicated or not, are accessible to modification.

2-3. SAMA-ZAMA (various), SHU-JU (various), KUSA-GUSA (various) which always appear as noun modifiers with the genitive particle NO are included as they form a valuable basis for comparison with IRO-IRO (various) which does have somewhat wider nominal properties, e.g. 'mushi no IRO-IRO' (various kinds of insects).

List A Reduplicatives considered to belong to the category N1-N1

(Translations are from Kenkyusha's New Japanese English dictionary. In the cases where there is no dictionary entry I have provided my own brief translation.)

WARE..............I
WARE-WARE........we

KATA.............=o-kata. a gentleman; a lady.
KATA-GATA........all (ladies and) gentlemen; all people (persons)

HITO.............1. man; mankind; a man; a person; an individual; a human being; one. 2. people; men.

HITO-BITO........1. people; men =hito 2. everybody

KAMI.............God; a god
KAMI-GAMI.........gods (no entry in the dictionary)

YAMA.............1. a mountain; a mount; a peak; a hill
2. a heap; a pile; an accumulation
YAMA-YAMA........mountains
IE. 1. a house
   2. a home; a family; a household
IE-IE. houses (no entry in the dictionary)

KI. a tree; a shrub; wood; timber
KI-GI. every tree; (many) trees

HANA. 1. a flower; a blossom
   2. cherry blossoms
HANA-BANA. flowers (no entry in the dictionary)

KUNI. 1. a country; a land
   2. a nation
KUNI-GUNI. nations; every nation (country)

SHIMA. an island
SHIMA-JIMA. islands (no entry in the dictionary)

MACHI. a town; a city
MACHI-MACHI. towns (no entry in the dictionary)

MURA. a village
MURA-MURA. villages (no entry in the dictionary)

HI. time; a day; a date
HI-BI. every day; dayly; from day to day; day after (by) day

SHINA. a thing; an article; goods; wares; stocks
SHINA-JINA. various articles

SUMI. a corner; a nook
SUMI-ZUMI. every nook and corner; all the corners; all the ins and outs

TSU. a harbor; a port
URA. a creek; an inlet; a bay; a gulf
TSU-TSU-URA-URA. throughout the length and breadth of the land; over the whole length and breadth of the land; in every nook and cranny of the land

SHIMO. 1. the lower part; the bottom; the foot.
   2. the governed; the ruled; the people; the lower class; employees
SHIMO-JIMO. the lower classes; the common people; the commonalty; the masses

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2 Either TSU or URA means harbour. However, there are no word TSU-TSU, TSU-URA and TSU-URA-TSU-URA, and the word URA-URA is rarely used. TSU-TSU-URA-URA, which is the combination of reduplicative forms in a fixed form.
SUE..................the end
SUE-ZUE................1. =SHOORAI..future
2. =SHISON..offspring
3. the lower classes =SHIMO-JIMO

SHI..................a child (no entry in the dictionary)
SON..................a grand child (no entry in the dictionary)
SHI-SHI-SON-SON..descendants

MEN..................a face
MEN-MEN.............every (each) one; all

MORO..................every; many; two; together
(no entry in the dictionary)
MORO-MORO...........various

IRO..................colour
IRO-IRO................various

KUSA..................grass
KUSA-GUSA............various

SAMA=ARISAMA.........a state; (a) condition; a situation.
SAMA-ZAMA............various

SHU..................a sort; a kind; a class; a stamp
SHU-JU.................various (no entry in the dictionary)

KAZU..................a number
KAZU-KAZU............KAZU-KAZU NO..numerous; many; twenty and twenty

DAN..................a step; a stair; a flight of stairs; a round;
a rung
DAN-DAN..............steps; stairs; a flight of stairs; a stair case;
a terrace

TEN..................a spot; a dot; a speck; a speckle; a blot; a
stain
TEN-TEN...............=potsu-potsu..a dot; a spot

TSUBU..................a grain; a drop
TSUBU-TSUBU..........lumps; grains

POTSU..................a dot; a jot
POTSU-POTSU..........a dot; a spot

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3 SHI-SON also means descendants. However, there is no word
SHI-SON-SHI-SON. SHI-SHI-SON-SON is the combination of reduplicative
forms in a fixed form.
PUTSU...........(no entry in the dictionary)\(^4\)

PUTSU-PUTSU..... (no entry in the dictionary) pimples, rash

FUSHI...........1. a joint; a knuckle
2. a point

FUSHI-BUSHI.....the joints; points

HASHI..........1. an end; a tip; the tail end; the extremity
2. the edge; the margin; the brink; the border;
   the verge; the skirt; one side; a corner

HASHI-BASHI.....ends and ends; parts

TOKORO.........a place; a spot; a scene

TOKORO-DOKORO..here and there; at places

HAZAMA.........an interval; an interstice, a gorge

HAZAMA-HAZAMA...intervals, gorges (no entry in the dictionary)

TSUJI...........a crossroads, a street corner

TSUJI-TSUJI.....street corners (no entry in the dictionary)

ITSU...........when; what time; how soon

ITSU-ITSU.....what times (no entry in the dictionary)

NANI...........what; which; whatever

NANI-NANI......what things (no entry in the dictionary)

DARE..........1. who
2. someone; somebody

DARE-DARE.....which persons (no entry in the dictionary)

DORE..........which

DORE-DORE.....which things (no entry in the dictionary)

DOKO.........what place; where; whereabouts

DOKO-DOKO......which places (no entry in the dictionary)

CHIHOO.........a locality; a district; a region; an area; a
   season

CHIHOO-CHIHOO...each region (no entry in the dictionary)

CHIHIKI........a region; an area; a zone

CHIHIKI-CHIHIKI...each region (no entry in the dictionary)

TOCHI.........land; a piece of land; lands; a lot; an estate;
   a landed property; a real estate

TOCHI-TOCHI.....each area (no entry in the dictionary)

KISETSU.........a season; the time of the year

KISETSU-KISETSU.each season (no entry in the dictionary)

\(^4\)PUTSU does not appear as a noun by itself. It appears as an
adverbal with quotative marker \(\text{TO}\) such as; \text{PUTSU-N \text{TO}}, which describes
the way a small projection or a hole appears isolatedly.
ORI.........time; an occasion; a season
ORI-ORI.......sometimes; occasionally

TOKI.........1. time; an hour; a moment
            2. a case; an occasion; a season; time;
                conjuncture
            3. an opportunity; a chance
TOKI-DOKI......each occasions; each season; on and off

SORE.........it; that
SORE-ZORE.....each; severally; respectively

KO.........a piece
KO-KO..........individuals

KOJIN.........an individual
KOJIN-KOJIN....individuals (no entry in the dictionary)

MEI.........a signature, a (specific) name
MEI-MEI........each; severally; a piece

ONO.........each (no entry in the dictionary)
ONO-ONO.......each; severally; a piece

Some of the reduplicatives above are not always regarded as acceptable by all native speakers. For example, I have admitted MACHI-MACHI (towns) and MURA-MURA (villages) which are not accepted by some of native speakers.

In Japanese literature and in some other references I have found the additional reduplicatives listed below. These are not accepted by all native speakers when presented out of context. They are listed below with a translation of their non-reduplicated counterparts and the source in parenthesis.

In order to predict which words and morphemes can be reduplicated, and what the resultant meanings will be, we need to observe the more complicated, and less apparent semantic elements which the forms in these lists have in common.
List A'

EKI-EKI ........... from EKI: a (railway) station.  
(Shinoda, p.135)

HEYA-BEYA ........ from HEYA: a room; a chamber.  
(Hori, p.69)

EDA-EDA ........... from EDA: a branch; a bough; a limb; a twig.  
(Fukunaga, p.463) (Dan, p.97)

MADO-MADO ........ from MADO: a window.  
(Fukunaga, p.401) (Setouchi, p.23)

MISE-MISE ........... from MISE: a shop.  
(Kurimoto, p.154) (Shiroyama, p.356)

HOSHI-BOSHI ........ from HOSHI: a star; the stars.  
(Kurimoto. pp.45, 60, 211, 228)

TANI-DANI ........... from TANI: a valley; a dale; a hollow; a gorge.  
(Fukada, p.58)

IWA-IWA ........... from IWA: a rock.  
(Kurimoto, p.68)

YO-YO ........... from YO: a night.  
(Setouchi, p.12)

YANE-YANE ........... from YANE: a roof.  
(Chuokoron, p.139) (Fukunaga, p.301)

MINE-MINE ........... from MINE: a mountain top.  
(Shukan Asahi, p.71)

SHIRO-JIRO ........... from SHIRO: a castle  
(Asahigurafu, p.113)

TERA-DERA ........... from TERA: a temple  
(Ruigoshinjiten, p.589)

The reduplications above – List A and A’ – all clearly serve to indicate the concept of 'more than one'; increased quantity in comparison with the non-reduplicated form. However, simple plurality is obviously not a sufficient semantic condition for the occurrence of a reduplication form, as mentioned above.

In order to predict which words and morphemes can be reduplicated, and what the resultant meanings will be, we need to uncover the more complicated, and less apparent semantic elements which the forms in these lists have in common.
4.3 The Semantic Restriction of Nl-Nl reduplication in General

We have already observed that phonological, etymological and morphological criteria will not adequately account for the restrictions on reduplication of nouns in Japanese. Therefore, it is the semantic aspect of these expressions which we will consider in this section.

Firstly, I would like to observe the general semantic restrictions on this kind of reduplication, before making a more detailed analysis of the types of reduplication below. Nouns which belong to the following categories do not allow Nl-Nl reduplication at all:

1. Animate objects

   ushi (cow) ---------*ushi-ushi
   hitsuji (sheep)----*hitsuji-hitsuji
   mushi (insect)-----*mushi-mushi

2. Movable inanimate objects except SHINA (goods) and TSUBU (small and round objects, like grain)

   tsukue (desk)------*tsukue-tsukue
   kuruma (car)--------*kuruma-kuruma

3. Objects which do not have a uniform shape or which change their shape very easily

   umi (sea)---------*umi-umi
   tsuchi (soil)-----*tsuchi-zuchi
   kumo (cloud)------*kumo-gumo
   nami (wave)-------*nami-nami

However, the observations above are clearly not adequate, in that they do not exclude a considerable number of nouns which cannot be reduplicated with the Nl-Nl pattern: *no-no (field), *kawa-gawa (rivers), *oka-oka (hills), *niwa-niwa (gardens), *michi-michi (roads) *saka-zaka (slopes) and etc. Hence, a more precise semantic analysis must be considered.

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1 "Animate" here does not include "human". A very limited human nouns can be reduplicated such as HITO-BITO(people) and WARE-WARE(we).
4.4 Classification of Nl-Nl A and Nl-Nl B

I would like to analyse Nl-Nl A and Nl-Nl B differently. However, to identify these two categories clearly is not so easy. For example if we come across a sentence like:

YAMA-YAMA ga mieru.
mountains s. be visible

How can we identify the meaning of YAMA-YAMA as 'mountains'? There is no reason why it cannot be identified as 'each mountain'. Of course, our native intuition tells us that the reduplicative form indicates 'mountains'. If it is so, how about the sentence below;

SUMI-ZUMI o sooji suru.
every nook and corner o. clean

(I) clean (a room) wall to wall.
(corner to corner.)

Does SUMI-ZUMI indicate 'all corners' or 'each individual corner'? Even native speakers cannot answer the question.

In order to make a subcategorisation of Nl-Nl A and Nl-Nl B, I would like to use the re-phrasing of Nl-Nl to SONO (that) Nl SONO Nl as a criterion for allocation to Nl-Nl B in order to discuss their semantic properties, for I believe that the group of words which permit this paraphrasing and others which do not permit this belong to different categories. After analysing the semantic properties of each group, the common semantic features of these two reduplication types are investigated. I based it on Martin (pp.1061); "some of the words (=reduplications) derived by these patterns are virtually synonymous with the iterations of sono Nl." Although Martin does not say that the re-phrasing can be a criterion to divide Nl-Nl into two subcategories, all reduplicative forms of SONO Nl indicate distribution, and if Nl-Nl cannot be re-phrased to SONO Nl SONO Nl in the same context, it proves that the reduplicative form Nl-Nl does not indicate distribution. According to this re-phrasing CHIHOO-CHIHOO
(each region), CHIIKI-CHIIKI (each region), TOCHI-TOCHI (each land), KISETSU-KISETSU (each season), ORI-ORI (sometimes; occasionally) and TOKI-DOKI (each occasions) are classified as N1-N1 B.

SORE-ZORE (each), KO-KO (individuals), MEI-MEI (each), KOJIN-KOJIN (individuals) and ONO-ONO (each individuals) cannot be re-phrased. Although they do not fit the pattern, I would like to categorise them into N1-N1 class B, since they can convey more or less the same concept which is expressed by SONO N1 SONO N1, which is proved by the paraphrasing as follows:

Ringo no aji wa SONO RINGO SONO RINGO de chigau.
apple of taste t. apple with different

=Ringo no aji wa SORE -ZORE de chigau.
apple of taste t. each with different

The taste of apple is different from apple to apple.

Moreover, they can co-occur with the verb CHIGAU (differ), which N1-N1 A cannot co-occur with.\(^5\)

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\(^5\)This phenomenon will be discussed later in Chapter 6.
CHAPTER 5

SEMANTIC ANALYSIS

I would like to put the consideration of semantic restrictions aside temporarily and instead try to analyse the significant semantic features of those nouns which can undergo reduplication of the kind I have called N1-N1 A.

5.1 The Tentative Grouping

I would tentatively like to group some nouns as classes of reduplication, since these forms seem to behave similarly either syntactically or semantically. The groups established are as follows:

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1 This grouping is very tentative and rough since the aim is not to show a completely grouped list but to divide those reduplicative forms for the purpose of discussion. Therefore, some nouns which are categorized into a certain group can also be categorized into a different group, as the discussion is improved, that is, they appear in two groups eventually. For example, HANA-BANA (flowers) and KI-GI (trees) are categorized into A-1-1 on the list, but as discussion goes, it emerges that they also belong to A-2 since they have semantic features of these two groups.
The List of Groups

A. —numeral/+non-reduplicated forms

A-1-1. YAMA-YAMA (mountains), IE-IE (houses), KI-GI (trees), HANA-BANA (flowers)

-2. SHIMA-JIMA (islands), KUNI-GUNI (countries), MACHI-MACHI (towns), MURA-MURA (villages)

-2. HI-BI (days)

-3. HITO-BITO (people)

-4. TSUBU-TSUBU (things very small and round), DAN-DAN (things like stairs), TEN-TEN (dots), POTSU-POTSU (small things projecting on a surface like eruptions or rash) etc.

-5. SUMI-ZUMI (every nook and corner), HASHI-BASHI (odds and ends), FUSHI-BUSHI (points), TOKORO-DOKORO (here and there), TSU-TSU-URA-URA (every nook and cranny of the land)

A-2. SHINA-JINA (various articles)

B. —numeral -non-reduplicated forms

B-1. SHIMO-JIMO (the lower classes), SUE-ZUE (the lower classes/offspring), SHI-SHI-SON-SON (descendants)

B-2. KAZU-KAZU (various), IRO-IRO (various), MORO-MORO (various) etc.

C. +numeral +non-reduplicated form

C-1. WARE-WARE (we), KATA-GATA (people h.)

C-2. DOKO-DOKO (which places), NANI-NANI (what things), ITSU-ITSU (which times), DORE-DORE (which things)

D. +numeral -non-reduplicated form

D-1. MEN-MEN (everyone)

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1. Some words of Group A-1-1 such as YAMA-YAMA (mountains) can co-occur with numerals if the restriction for their countability is removed. Despite that, it is tentatively categorized into A-1-1 since such cases are rare.

2. Some words in A-1-1 can co-occur with numerals in some cases. However, we tend not to count the referents by using the reduplication forms because of the reason which will be explained later. Therefore, I categorized them into this group.
The Criteria Used for Grouping

These groups can be initially divided into several groups according the following criteria: 1. the co-occurrence with numerals, 2. the existence of non-reduplicated forms. This division of the above reduplicative forms according to syntactic criteria is pertinent to these forms' semantic meanings, in later sections.

The members of Group A have non-reduplicated counterparts and they do not co-occur with numerals. In contrast to Group A, the members of Group B do not have non-reduplicated forms which correspond to reduplicated forms. For example we can call 'the lower classes' as "SHIMO-JIMO" but taking one of them, we cannot call him 'SHIMO', or we can call more than one kind of insects 'mushi no IRO-IRO' but we cannot call one of them "IRO". However, some reduplicated forms in these Group A and Group B can co-occur with numerals and SHURUI (kinds). Hence Group A and Group B are subcategorised into two subgroups syntactically: A-1 and B-1, that is, reduplicatives which cannot co-occur with numerals + SHURUI (kinds), and A-2 and B-2, that is, reduplicatives which can co-occur with numerals + SHURUI (kinds). The members of Group C have non-reduplicated forms and they can co-occur with numerals. Group C is also divided into two subgroups: C-1. pronouns except interrogative pronouns and C-2. interrogative pronouns. The Group D consists of only one member: MEN-MEN which can co-occur with numerals and which does not have a corresponding non-reduplicated counterpart.

Group A-1 has tentatively been divided into five subgroups according to their semantic features. These divisions are merely shown to facilitate the discussion of Group A. Except for KUNI-GUNI (countries), the members of Group A-1 are all objects which can be seen in the natural world. Although KUNI-GUNI (countries) does not readily fit into this category, because of its large size factor, it is
included into this subcategory since it could be considered as the same sort of objects as MACHI (towns) and MURA (village). Group A-2's member indicates 'time'. That of Group A-3 indicates 'people'. The members of Group A-4 indicates small things and things which are named by virtue of their shape. The members of Group A-5 indicate 'place'. The members of A-1-1 have also tentatively divided into two groups. according to the tendency whether they act as things or places: A-1-1-1 and A-1-1-2.

3.2.1 Lyrical Impression

The reduplicative forms of the former four groups also give us 'lyrical impression'. Although it is difficult to define lyrical as a sentence or what sort of sentences are lyrical, these reduplicated forms are likely to appear in description of scenery such as books of travels and novels and less likely to appear in scientific definitions or explanations which are not lyrical at all. For example, a sentence like:

"Murasubu is ki-bi wa aki no ba kara naru. (trees of trees t. trunk and leaf from root to top.)"

is not acceptable.

3.2.2 Optical Impression

The reduplicatives of the former two groups except ETO (water) which cannot be actually seen scenery by optical impression.

In Japanese people read a sentence below:
5.2 Some Observations Concerning the Former Four groups

Before starting a discussion about each group, I would like to observe some significant features in the former four groups: A-1-1-1, A-1-1-2, A-1-2 and A-1-3. Like reduplicative adverbs in Japanese which involve 'reduplication for impression' according to Alfonso (1966) and are called "impressionistic adverbs" by Quackenbush (1978), some of these reduplicatives are impressionistic too. The impressions conveyed by these reduplicatives are something lyrical and optical.

5.2.1 Lyrical Impression

The reduplicative forms of the former four groups also give us 'lyrical impression'. Although it is difficult to define lyricism of sentences or what sort of sentences are lyrical, these reduplicative forms are likely to appear in description of scenery such as books of travels and novels and less likely to appear in scientific definitions or explanations which are not lyrical at all. For example, a sentence like;

1. *korera no KI-GI wa miki to ha kara naru.
   these of trees t. trunk and leaf from consist

I.R: These trees are divided into trunks and leaves.

is unacceptable.

5.2.2 Optical Impression

The reduplicatives of the former two groups except KUNI (country) which cannot be actually seen convey an optical impression.

If Japanese people read a sentence below:
2. tooi YAMA-YAMA wa yuki ga kemuru to mieru yoona yawarakai "far mountains t. snow s. fade q. seem like soft white wrapped chichihiro ni tsutsumareteita."
The far mountains are coloured white as if snow is shrouded in mist.

Kawabata, Y., 'Yukiguni', Kawabata Yasunari Shū, p.100.

They immediately picture the scene conveyed by the sentence in their minds. In other words, the reduplication forces us to visualise the scenery. These reduplicative forms tend to co-occur with optical verbs such as MIERU (be visible) or NOZOMU (to face).

5.2.3 Style

Another characteristic feature of these four groups is that they only appear in literary style. Japanese never say "YAMA-YAMA/ KI-GI/ IE-IE/ HANA-BANA ga mieru." (mountains/ trees/ houses/ flowers are visible.) when seeing mountains/trees/houses/flowers, although the sentences are quite possible in written style.

I believe the idea of overlapping or piling up plays an important role in the semantic conceptualisation of these reduplications. For some forms such as YAMA-YAMA (mountains) and HANA-BANA (flowers), which appear in Japanese literature, and are not commonly used, are used mainly when the referents are overlapping. Observe the following examples:
5.3 The YAMA-YAMA Group

YAMA-YAMA (mountain)
IE-IE (houses)
KI-GI (trees)
HANA-BANA (flowers)

5.3.1 State of Referents

5.3.1.1 The Indiscreteness of the Referents

When we come across sentences like "YAMA-YAMA (mountains)/ KI-GI (trees) IE-IE (houses)/ HANA-BANA (flowers) ga mieru" (The mountains/trees/houses/flowers can be seen.), we intuitively visualise the referents as overlapping objects. If the trees or flowers are scattered to the extent that we can see the space in between them, they cannot be referred to by a reduplicative form. However, this is not the case with YAMA-YAMA (mountains) and IE-IE (houses). Scattered mountains and houses are also referred to by reduplicative forms, sentences such as: "tenzaisuru IE-IE (houses) ga mieru." (I can see scattered houses.) being perfectly acceptable. On the other hand, "tenzaisuru HANA-BANA/KI-GI ga mieru." (I can see scattered flowers/trees.) would sound odd especially in the case of HANA-BANA (flowers). Our intuitive image of the referents of these reduplicative forms is of overlapping flowers or trees.

I believe the idea of overlapping or piling up plays an important role in the semantic conceptualisation of these reduplicatives, for some forms such as EDA-EDA (branches) and MADO-MADO (windows), which appear in Japanese literature, and are not commonly used— are used mainly when the referents are overlapping. Observe the following examples:
The rays of the afternoon sun streamed in between the branches which formed a cover over my head, making strange patches of light and shade.

Fukunaga, T., "Kusa no hana", Fukunaga Takehiko Zenshosetsu, p.462.

I can see the cold cloudy winter sky through the branches which look like little bones. Far up high in the cloudy sky, a black eared kite is drawing a circle.

Dan, I., Mada Paipu no Kemuri, p.97.

The up going train, and soon after the down going train, passed through, spreading the lights of their windows like a shower of sparks towards the right and left side as if they were tossed out.

Fukunaga, T., "Kusa no Hana", Fukunaga Takehiko Zenshosetsu, p.401
4. ichiban densha ga minato no ue o shiroyama no mae ni
first train s. harbor of up o. castle of front in
aru eki no hoo e hashirisatte iku.
be station of direction to run away go
watashi no me no naka ni kubikazari no yooni
I of eye of in in necklace of like
hikari o tsuzutta remon iro no MADO-MADO
light o. bind lemon colour of windows
ga hashirisaru.
go way

The first train is going past the harbor towards the station
which is in front of the castle. Before my eyes the lemon
coloured windows which bind their lights like necklaces,
spread past.

Setouchi,H., Izuko yori, p.22

In Examples 1 and 2, it is clear from the context that EDA-EDA
(branches) must be overlapping, because in both cases, the writer is
under the tree and is looking up to the sky. Through the branches the
sunbeams filter down (e.g. 1), or the sky can be seen (e.g. 2). In
Example 1, the modifying phrase "zujoo o ootta" ( (branches) which
cover my head) reinforces the image of the interwoven branches.

In Examples 3 and 4, the sense of overlapping is even more clearly
portrayed. The individual windows of a passing train cannot be
distinguished. They are perceived as a continuous blur. The phrase
"hikari o tsuzutta" ( (windows) which bind their lights) also
emphasises the continuity of the image; individual discrete entities
being replaced by a single thread.
5.3.1.2 The Overflow of the Referents

Another significant feature of this group of reduplicative forms is the sense they convey of entities 'overflowing' one's field of vision.

YAMA-YAMA, for example, could refer to both overlapping and scattered mountains and if the referents are overlapping, they could overlap in several ways. They could form a row running the full width of one's field of vision to constitute a mountain range, or several mountain ranges overlapping so that they form successive 'layers' of mountains. Or they could be the mountain peaks which are scattered while they share the same plain, or mountains which are actually separate but, because they line up behind one another, appear as if they are overlapping, the bottom of one mountain hiding that of the next. In any case, they are seen as overlapping. Therefore if we move the position of our eyes, we will see another mountain behind or beside the ones we have been looking at, or at least we can presume the existence of other mountains which may be hidden. The impression is panoramic. That is, as our eyes move, we see more and more mountains. They seem endless and it is impossible for us to see all of them. They seem to overflow one's range of vision.

This impression is even stronger in the case of IE-IE (houses), KI-GI (trees) and HANA-BANA (flowers), since they are smaller objects than YAMA-YAMA (mountains), and so we can see the constituents behind or beside each other more easily as our eyes move across the vista.

In the case of scattered referents, the same thing can be said. That is, since they are scattered, it is difficult to take them all in, and one cannot but imagine them spreading beyond what can actually be seen.

I believe that this concept of 'overflow' is one of the most important components in the semantics of this group of reduplicatives.
This concept is actually common to many expressions involving repetition.

For example, if one has in one's range of vision a place full of people, one can express this by repetition of "HITO" (people/person): "HITO, HITO, HITO" (people, people, people). See the example below;

1. (umi wa) shiizun no massaichuu de HITO HITO HITO no
dai-konzatsu datta.

congestion was

At the peak of season the beach was bursting with people, people, people.

Shukan Asahi, May, 11, 1984, p.43.

See another example of WARE-MO WARE-MO: repetition of WARE-MO (I-too):

2. Okuchichibu dake demo shokun o manekiyoseru
   only even you o. invite
   yooni yosoo mo shinakatta takusan no YAMA-YAMA ga
   like predict even did not many of mountains s.
   mata aratani WARE MO WARE MO to sobietatteiru no o
   again newly I too I too q. tower of o.
   miru daroo.

see will

Only in Okuchichibu, you will see many mountains, even more than you had imagined, vying with one another as they endlessly tower up towards you, as if they are inviting you.

Fukazawa, K., Waga Yama-yama, p.189

In Example 2, the writer describes the state of mountains which cannot be clearly cut as a place.

Going back to Examples 1 and 2 in the previous section: 5.3.1.1., in both cases the use of EDA-EDA conveys the impression that the writer could see other branches, if he were to shift his eyes. It is not necessary that the range of his vision is occupied fully by those objects; they could occupy the corner of his sight. But it is quite possible that more objects are hidden behind or to the side of the objects which are visible. That is, one can easily imagine some more
referents out of sight. If we see a mountain range, or a group of mountains, of which both right and left side can be seen, that is, the full extent of the range is clearly seen, we may consider them to be one big mountain or a plateau, but not as YAMA-YAMA (mountains).

We can presume the reason for this is diachroni-1. Because of the redundancy of expressing both of the two concepts, or 2. because of the contradiction of the two concepts.

In the case of human nouns, even though it is redundant, co-occurrence of the plural marker "-kinds" with "singulars" is acceptable. Look at the examples below:

1. anko - ni go-cho - ni ga san-kin - ni de
   over there in student-pl. x. three-n.m.kan

   There are three students over there.

In the case of some reduplicatives, however, this co-occurrence is not acceptable. Observe the unacceptable example below:

1. *anko - ni NIH-TO-NIH - ni ga san-kin - ni de
   over there in people x. three-n.m.kan

   There are three people over there.

Consequently, we can conclude that the reason why some reduplicative expressions cannot co-occur with "singulars" is not related to the redundancy, but to the irreducibility of the two concepts.

Before commencing the discussion of the co-occurrence of "singulars" with each group of reduplicatives, I would like to consider the conditions which are necessary for countability.

The first thing we do for counting is to delimit the space where the counting takes place. If the space is not delimited we can start the counting but never finish.
5.3.2 The Co-occurrence of Reduplicatives with Numerals

In this thesis, I would like to use the co-occurrence of numerals with reduplicatives as one of the criteria for analysing their semantic features. This is because some reduplicatives can co-occur with numerals and some cannot, as pointed out by Gonda (1949) p.180 as follows: "The Japanese forms made by duplication may not properly be termed plurals, although yama2 means 'mountains': they do not admit of numerals".

We can presume the reason for this is either: 1. because of the redundancy of expressing both of the two concepts, or 2. because of the contradiction of the two concepts.

In the case of human nouns, even though it is redundant, co-occurrence of the plural marker '-tachi' with numerals is acceptable. Look at the examples below:

1. asoko ni gakusei-tachi ga sannin iru.
   over there in student-pl. s. three n.c.be
   There are three students over there.

In the case of some reduplicatives, however, this co-occurrence is not acceptable. Observe the unacceptable example below:

2. *asoko ni HITO-BITO ga san- nin iru.
   over there in people s. three n.c.be
   I.R: There are three people over there.

Consequently, we can conclude that the reason why some reduplicative expressions cannot co-occur with numerals is not related to the redundancy, but to the incompatibility of the two concepts.

Before commencing the discussion of the co-occurrence of numerals with each group of reduplicatives, I would like to confirm the conditions which are necessary for countability.

The first thing we do for counting is to delimit the space where the counting takes place. If the space is not delimited we can start the counting but never finish.
Even if the space is delimited, counting cannot take place unless the objects are discrete. For example, we can count apples or explosions because they are separate. An apple is naturally separate from other apples. We can count explosions because one explosion naturally is separate from others spatially and temporally. We can count slices of bread, if they are divided into some slices artificially. We can count glasses of water, if the water is scooped up by a glass. However, we cannot divide an apple artificially by a knife for counting. If it is divided it is not an apple - instead it is a part of an apple. Likewise, we can by no means divide an explosion artificially. To the contrary, water can be divided into many ways artificially without losing its attribute. Therefore, we can measure water with an established unit of measurement, such as pints, litres and so on.

Consequently the sufficient and necessary conditions for counting are 1. delimitation of space, and 2. discreteness of the objects to be counted.

In addition, I would like to suggest that the movability of the objects is an important factor for counting, although it is not a sufficient condition. For example, if we see a heap of apples we cannot count them at a single glance because we cannot see all of them clearly. However, by moving apples one by one we can count them.
5.3.3 Countability of Visible Referents and Numerals

Observe the sets of examples below:

1-a. mado kara YAMA ga mieta.
window from mountain s. could be seen

A mountain could be seen from the window.

1-b. mado kara YAMA-YAMA ga mieta.
window from mountains s. could be seen

Mountains could be seen from the window.

2-a. mado kara YAMA ga futatsu mieta.
window from mountain s. two could be seen

Two mountains could be seen from the window.

2-b. *mado kara YAMA-YAMA ga futatsu mieta.
window from mountains s. two could be seen

I.R: Two mountains could be seen from the window.

3-a. mado kara YAMA ga nanatsu mieta.
window from mountain s. seven could be seen

Seven mountains could be seen from the window.

3-b. *mado kara YAMA-YAMA ga nanatsu mieta.
window from mountains s. seven could be seen

I.R: Seven mountains could be seen from the window.

4-a. *mado kara YAMA ga gojuu mieta.
window from mountain s. fifty could be seen

I.R: Fifty mountains could be seen from the window.

4-b. *mado kara YAMA-YAMA ga gojuu mieta.
window from mountains s. fifty could be seen

I.R: Fifty mountains could be seen from the window.

From these examples above, we can see that (1) numerals such as two and seven do not co-occur with YAMA-YAMA (mountains), (2) large numbers like fifty do not co-occur with either YAMA or YAMA-YAMA (mountains).

The reason for the latter is quite obvious. It is caused by the difficulty of counting fifty mountains by simply looking out of the window and seeing them. First of all, one cannot count fifty objects of any sort at a glance. However, one could easily count fifty apples in

1. Although this sentence is grammatical syntactically, it is unnatural in practice as it is explained later in this section.
a box, if one took the time to line them up, or remove them one by one from the heap. Fifty mountains in the natural world, on the other hand, are not lined up like apples in a box, nor can they be moved for counting. When seen from a window, they will naturally overlap, probably extending well beyond the boundary of the window frame. One cannot remove them for counting, or draw lines between them to define one mountain from the next. Consequently, we can conclude that the unacceptability of Examples 4-a and 4-b above is due to the unlikelihood of seeing fifty mountains situated in a configuration in which they can be easily counted.

This also applies to the case in IE-IE (houses), IE (house), KI-GI (trees), KI (tree), HANA-BANA (flowers) and HANA (flowers). Regardless of whether these nouns are reduplicated or not, if they are in natural world, they cannot co-occur with large numbers like fifty at least, when the referents are visible.

In case of examples 3-a and 3-b, the number of mountains is small. We can see seven mountains, or seven mountain peaks in two ways: they may be overlapping or scattered. The co-occurrence of YAMA-YAMA (mountains) and the numeral is rejected in both cases. In the first case, where the mountains overlap, this can be explained in terms of their indiscreteness. That is, they cannot be seen separately and hence cannot be counted. In the second case, since they are scattered and thus constitute discrete entities, it would seem easy to count them. However, recall the observation above that these reduplication forms convey the impression of an overflow. Since they are scattered, they tend to spread out of one's field of vision. Moving one's eyes, one may well see more mountains. When we count something, the first thing we have to do is to delimit the boundaries within which the counting is to take place. In case of scattered mountains, one can start counting, but cannot finish. In other words, it is difficult to
perceive them as a single group or even as an aggregate of separate mountains, because we cannot draw a clear boundary around them. In this sense, these reduplicatives cannot satisfy the conditions of 'collectives': an aggregate of individuals. Therefore they cannot be called 'collectives' but can be named as 'gathered plural'.

The unreduplicated form YAMA can also be used to refer to either overlapping or scattered mountains. Even this form does not commonly co-occur with a numeral as large as seven, simply because of the general difficulties of counting more than a few mountains, described above. Nevertheless Example 2-a with YAMA is more acceptable than Example 2-b with its reduplicated counterpart. If Example 3-a is acceptable then the tendency towards indiscreteness and overflow of these referents must be ignored. That is, the speaker who uses YAMA with a numeral as large as seven, as in Example 3-a, conceptualises the mountains as an aggregate of separate objects.

In conclusion, it is difficult to count mountains in any event. Both YAMA and YAMA-YAMA can be used in any situation to refer to mountains regardless of their degree of discreteness from one another and the 'overflow', as far as they are conceived as more than a certain number. However, in terms of their co-occurrence with numerals YAMA (mountain(s)) and YAMA-YAMA (mountains) behave differently.

In the case of IE (house) and IE-IE (houses), since houses are so much smaller than mountains and have clear boundaries between them, it would seem a simple matter to count them. In actual life, however, one seldom sees a group of, say, seven houses within a limited space as clearly separated entities. If we see seven houses in the middle of a field, their boundaries are more likely to overlap or be covered by trees or other objects. It is difficult to see exactly how many houses

\[1\]See the next section.
there really are at a single glance, although they could easily be counted by closer inspection. So, in spite of the fact that IE-IE denotes countable referents in the same way as its unreduplicated counterpart IE, co-occurrence with numerals is not admitted. I presume this is due to a difference in conceptualisation; the referents of IE-IE are conceived as uncountable whereas those of IE are not.

KI-GI (trees) and HANA-BANA (flowers), refer only to overlapping objects. Their counterparts KI (tree) and HANA (flower) are used for both scattered and overlapping referents and co-occurrence with numerals is quite natural, while KI-GI (trees) and HANA-BANA (flowers) cannot be used when the referents are scattered, and they do not occur with numerals because of indiscreteness.

In short, YAMA-YAMA (mountains), IE-IE (houses), KI-GI (trees) and HANA-BANA (flowers) cannot co-occur with numerals, regardless of the degree of countability or uncountability of the referents. Their referents are conceptualised as things which are basically uncountable, that is things usually seen as overlapping or overflowing one's field of vision. The referents do not satisfy the conditions necessary for counting with regard to the following properties: 1. limitation of space, 2. discreteness of the referents. In addition, they do not satisfy another important but not sufficient condition, that is, removability of the referents.
5.3.4 The Minimum Number of Constituents

With regard to the number of entities required in order to refer to HANA-BANA (flowers), KI-GI (trees), YAMA-YAMA (mountains) and IE-IE (houses) differ considerably, although they are not countable.

If the number of flowers described is around seven, HANA-BANA cannot be used. A group of seven flowers not being sufficiently large to exhibit the property of 'overlap' and 'overflow' implied by these reduplicatives.

In case of KI-GI (trees), provided the trees are tall, a group of seven trees would be large enough to be called KI-GI (trees). If they are short, say, under one's height, or under the height of one's eyes, they are not KI-GI (trees) at all, regardless of their number although they could still be referred to as KI (tree).

IE-IE (houses) behaves in the same way as YAMA-YAMA (mountains), in that it can be used to describe as few as three referents. Two houses would be too small a number to be called IE-IE (houses) and the same applies to mountains.

Two flowers and trees, as a matter of course, cannot be the referents, since even seven of them are not enough to make the use of these reduplicative forms acceptable.

This may actually be a result of both size and shape. We can easily see through a group of three/seven trees or flowers, whereas three mountains or houses would form a considerable obstruction to one's view. In short, the number of these items which can be referred to by a reduplicative form is in inverse proportion to the size of the referents. The larger the item described and the more it seems to obstruct the view, the smaller is the number of items which can be referred to by a reduplicated form.

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1 The number alone is not sufficient as the referents of HANA-BANA (flowers) and KI-GI (trees). In addition the referents must be of different species as it is mentioned on page 61-62.
5.3.5 Specificity Implied in Reduplication

Just as there is no requirement to specify the singularity or plurality of a Japanese noun, so there is no obligatory definite/indefinite distinction in Japanese. This distinction is obligatory in English and is indicated by articles. When an English speaker must say either "I see a mountain." or "I see the mountain.", a Japanese speaker can simply just say "YAMA ga mieru." (I see YAMA (mountain)). However, the distinction between reduplication and non-reduplication does serve to differentiate something like the definite/indefinite contrast in English, although it does not fully parallel the English contrast.

As mentioned at the beginning of this section, the optical impression of these reduplicative forms is remarkable. In fact, they tend to be used primarily to describe objects which are visible. Observe the good examples below:

1. biru no mukoo ni YAMA-YAMA ga kasunde mieru.
   building of over in mountains s. dim be visible
   Over the buildings, the mountains can be dimly seen.

2. kiri no naka ni IE-IE no yane ga ukande mieru.
   fog of inside in houses of roofs. float be visible
   Roofs of houses loom through the fog.

The visibility of the referents is not always directly indicated by 'mieru' (be visible), but the fact that the sentences in which these reduplicative forms are often used are often descriptions of scenery indicates that they are particularly appropriate for describing what one actually sees. The following examples illustrate this:
3. Kokkyoo no YAMA-YAMA wa yuuhi o ukete aki ni border of mountains t. light of sunset o. face autumn by irozuiteiru. are coloured

The mountains on the border face the setting sun and are bathed in autumn colours.

KAWABATA, Y., "Yukiguni", Kawabata Yasunari Shū, p.76

4. KI-GI no kozue ga kaze ni yureteiru. trees of tree tops s. wind by is swaying

The tree tops are swaying in the wind.

5. haru ga otozure, HANA-BANA wa nemuri kara spring s. come flowers t. sleep from sameta yooni sakihajimeta. woke like bloom-started

Spring has come and the flowers have started to bloom as if they have woken up from their sleep.

In the passages above the writer is referring, not just to mountains, trees or flowers in general, but to certain specific entities which have unique referents. He is referring to certain mountains, trees and flowers that he has actually seen and he has them in mind as he writes. These reduplicative forms can be grammatically replaced by their non-reduplicated counterparts, though of course, the meaning may vary. However, it does not work the other way around. That is, when the non-reduplicated forms are used for generic or random cases, they cannot be replaced by their reduplicated counter-parts. Observe the pairs of examples below in which the nouns denote generic or random referents:

6. watashi wa YAMA/*YAMA-YAMA ga sukida. I t. mountain s. like

I like mountains.
7. watashi wa HANA/*HANA-BANA ga sukida.
I t. flower s. like

I like flowers.

8. daiku wa IE/*IE-IE o tateru no ga shigoto desu.
carpenter t. house o. build of s. job be

Building houses is a carpenter's job.

9. YAMA/*YAMA-YAMA ga mi-tai.
mountain s. see want

I want to see mountains.

10. HANA/*HANA-BANA ga mi-tai.
flower s. see-want

I want to see flowers.

11. koko ni KI/*KI-GI o ue-yoo.
here in tree o. plant-will

I will plant some trees here.

12. koko ni IE/*IE-IE o tate-yoo.
here in house o. build-will

I will build some houses here.

13. YAMA/*YAMA-YAMA no hikui mono o oka to yobu.
mountain of low thing o. hill q. call

The things which are lower than mountains are called 'hills'.

14. KI/*KI-GI wa miki to eda kara naru.
tree t. trunk and branch from consist

Trees consist of trunks and branches.

15. Nihon de wa IE/*IE-IE ga takai.
Japan in t. house s. expensive

In Japan houses are expensive.

16. HANA/ *HANA-BANA o uru mise o hanaya to iimasu.
flowers o. sell shop o. flower shop q. call

A shop which sells flowers is called a flower shop.

The examples above show that generic or random referents are not compatible with the notions conveyed by reduplication.

However, when reduplicative forms which are the 'goal' of 'sukida' (like) and 'mitai' (want to see) are modified by an expression indicating their location, they are acceptable:
I like the mountains of the North Alps.

I want to see the mountains of the North Alps.

This may be explained in terms of their visibility or uniqueness. That is, one can picture these specific mountains. When their visibility or uniqueness is clearly indicated by modifiers such as this, they are acceptable, for their referents are no longer generic or random.

So far I have been using 'visibility' and 'uniqueness' in much the same sense, but they are not always the same. Some reduplicative forms are used for unique objects that are not visible to the writer.

When I cannot go to the mountains I think about mountains by looking at a map. I ponder over mountains which I have not climbed yet.

In the example above, the writer has never ever seen the mountains, but there is no doubt that he is talking of certain specific mountains. Other examples are:
18. Fukada-san no yoona tozanka o motta koto wa Mr. Fukada of like mountaineer o. had comp. t.
nihon no YAMA-YAMA ni tote makoto-ni ookina
Japan of mountains for really big
shiawase deatta.
happiness was
It was a great blessing for the mountains of Japan that they had a mountaineer like Mr. Fukada.

Yamaguchi, A., in a review of Fukada's Waga Yamayama, p. 223

19. waga YAMA-YAMA
my mountains

My mountains

Fukada, K., Waga Yamayama

'Nihon no YAMA-YAMA' (the mountains of Japan) in Example 18 cannot possibly be seen all at one time. Nevertheless they are specific mountains. 'Nihon no YAMA-YAMA' indicates all the mountains in Japan, not just the kind of mountains that can be seen in Japan. Example 19, Waga YAMA-YAMA is the title of a book written about mountains that the author climbed or loved; 'Waga YAMA-YAMA (my mountains)' indicates all the mountains in his mind. In both of the above cases, in spite of the fact that the mountains described cannot all be seen at a same time, they are still specific having a unique referent in the mind of the speaker.

Moravcsik's (1978) (p. 331) comments: "a strong tendency was noted for reduplicative constructions to express a more specific meaning (that (sic.)) [than] their non-reduplicated counter-parts. There is, in other words, in most cases strong co-relation between increased phonological body and increased specificity of meaning." 2

The specificity of the referents of reduplicative forms, as I describe it above does not totally correspond to the English definite/
indefinite distinction. Definiteness in English, marked by 'the', holds for both speaker and listener, while what I call specificity holds for the writer only. When the referents are visible, a modifier which describes a specific facet of the referents is not necessary. The specificity is conveyed by virtue of the fact that they can be seen. When they are invisible, however, such a modifier is obligatory.

However in some examples it is not completely clear whether reduplicative forms are specific or not. See the examples below:

20. asa no hayai umibe no IE-IE de wa moo morning of early seaside of houses in t. already
hitobito ga oki- dashita koro desu. people s. wake-started time be

It is the time when people have already started to get up in houses by the seaside where people are early risers.

21. natsu no YAMA-YAMA no utsukushisa wa nobotta summer of mountains of beauty t. climbed
hito denakereba wakarimasen. person not-be do not understand

The beauty of summer mountains cannot be understood except by people who have climbed them.

It seems that the IE-IE (houses) and YAMA-YAMA (mountains), in the examples above, do not really have specific referents in the sense of specificity. There are various houses or mountains to which they might refer. However, if we define 'specificity' not as 'only one' entity but as 'a special kind of being different from others', they can be specific, because they are clearly very familiar entities to the writers. Consequently he can imagine them, picturing them in his mind's eye. Therefore he knows how specific they are because he can differentiate them from other entities of the same group of YAMA (mountain), IE (houses) and so forth.

The referents of HANA-BANA (flowers), in the example below, likewise seems quite vague, even though they are modified.
22. watashi wa nettai no HANA-BANA ga sukida.  
I like tropical flowers.

Although the definition of 'nettai' (tropics) can have quite a general sense they can be referents of reduplication because we know of the peculiarity of 'nettai no hana' (tropical flowers) in contrast to other HANA (flowers) to the extent which we can differentiate by seeing them.

Observe another example below:

23. KI-GI no midori wa hito no kokoro o nagusameru.  
The green of trees comforts people's hearts.  

The concept denoted seems to be generic or random. That is to say the reduplication does not indicate any particular entities but rather a certain kind of entity. This is also evidently related to the matter of visibility (or at least, imaginability). If MIDORI (green) in 23 is deleted, as in 24, the sentence is no longer acceptable. Compare 23 with 24:

24. *KI-GI wa hito no kokoro o nagusameru.  
The trees comfort people's hearts.

The relationship between the use of reduplicative form and the notion of visibility is also proved by the fact that not all reduplicative forms modified by locative expressions are acceptable:

3 From Questionnaire II. The numbers in parenthesis indicate the responses of the informants those accepted the sentences, those who did not, and those undecided, as explained before.
25. *katsurarikyuu no KI-GI ga sukida.
I.R: (I) like the trees in Katsurarikyuu.

I.R: (I) like flowers in Hibiya park.

The following reduplicative forms, on the other hand, do not indicate any particular (only one) entities. They could be taken to refer to various items, but nevertheless they are acceptable.

27. kaze ni yureru KI-GI ga sukida.
(I) like trees swinging in the wind.

I presume the unacceptability of 26 is due to the difficulty of visualising the referents so that one cannot differentiate the referents from others. On the other hand 'kaze ni yureru KI-GI' (trees sway in the wind) has a very concrete image, since although the referents imagined would be different depending on the individual and his past experiences, there is no doubt that everyone would have encountered a scene of this kind numerous times. Therefore, it is very easy to visualise the situation described. On the other hand, 'Katsurarikyuu no KI-GI' (trees in Katsurarikyuu), 'Hibiya kooken no HANA-BANA' (flowers in Hibiya park) and 'Nettai no KI-GI' (trees in tropics) will not evoke any concrete image for most people unless these particular places are very familiar and significant to them, whereas 'nangoku no HANA-BANA' (flowers in tropic countries) has a common image, since they are significantly different to other flowers.

I presume that the specificity conveyed by these reduplicative forms is related to the fact that they create 'a lyrical and optical impression'.
These reduplicatives indicate specific referents; referents which one is actually watching or referents with which one is familiar to the extent one can imagine them and distinguish their peculiarity from the others.

Since the referents are visible at that moment or imaginable for the writer they give 'optical impression'. Since the referents are familiar, they tend to be part of the writer's experience. Therefore they give 'lyrical impression'. At least they do not indicate generic referents, that is, an entire aggregate of the referents, since there are so many that one cannot imagine all of them.

The explanation above can apply to the other three groups which create either a lyrical and/or an optical impression.

Since they constitute part of the writer's experience, they take an important place in his mind regardless of his judgment of them as good or bad.

Although these reduplicative forms are usually connected to a good experience in that they often refer to something which is in itself generally considered good, they can also be used to denote a bad connotation, as in the examples below:

28. yama-ai ni ima ni mo tsubure-soona kitanai IE-IE ga collapsed about to dirty houses s. was seen

(I) could see dirty houses which were about to collapse at any minute.

29. watashi wa nettai no nioi no tsuyoi HABA-BANA ga kiraida. I dislike t. tropical of smell of strong flowers

I do not like smelly tropical flowers.
5.3.6 Invisible Referents and Numerals

In this section, I would like to discuss the co-occurrence of invisible referents and numerals.

'Invisible' here means that the referents cannot be seen or could not be seen at the time of utterance, although all the referents of these groups are visible in the sense that they are not abstract objects but physical concrete things.

Like visible referents, referents which cannot actually be seen but can be visualised as a 'gathered plural', such as "kaze ni yureru KI-GI" (swaying trees), are not countable since they have the same constraints which visible referents have.

Those referents are visualised not as 'gathered plural' but as an aggregate of imaginable individual referents, in that they could co-occur with numerals. They do not have the constraints which "gathered plural" referents have. See the sentences with reduplicative forms of which the referents are invisible but countable:

1. waga aisuru juushi no YAMA-YAMA
   my love fourteen of mountains

   My fourteen beloved mountains.

2. mada minu juushi no YAMA-YAMA
   not yet see-not fourteen of mountains

   Fourteen mountains which I have not yet seen.

3. chizu o shirabete-mitara, mada nobotta koto no nai
   map o. check -tried yet not climbed have-not

   YAMA-YAMA ga juushi mo atta.
   mountains s. fourteen as much as were

   I checked a map and found as many as fourteen mountains
   which I have not climbed yet.

The reduplicatives in those sentences are countable because one perceives them one by one, under a certain category, as an aggregate of individuals. Therefore they fulfil the condition of counting: 1. delimitation of space and 2. discreteness of the objects. Since they
are neither visible nor visualisable as scenery the term 'space' might not be appropriate, it might be better to call it as 'delimitation of specific kind'. The 'kind' in this case does not mean the kind of 'species' but 'category' temporarily made by the writer.

However, the example below is odd, although the referents indicate an aggregate of individual referents; the oddness clearly being due to the difficulty of counting all the mountains in Japan. For this reason even with the non-reduplicative form, the sentence would be odd.

4. "Fukada-san no yoona tozanka o motta koto of like mountaineer o. have comp.
wa nihon no hyakujuusushi no YAMA-YAMA ni totte, t. Japan of one hundred and fourteen of mountains for taihen shiawase na koto da. very happy comp. be

I.R: It was a great blessing for the one hundred and fourteen mountains of Japan that they had a mountaineer like Mr. Fukada.

In the following example 'kita arupusu no YAMA-YAMA' (the mountains of the Northern Alps), which are specific and might well not be visible at the time of the utterance, tend to be taken as uncountable. This is because the referents by themselves are difficult to count, the Northern Alps actually being a mountain range. If the writer has topographical information which tells him the exact number of the mountains, the sentence below might be possible.

5. kita arupusu no YAMA-YAMA juunanahoo ga (zembu) sukida. (I) like (all) seventeen mountains of the Northern Alps.

This sentence is more acceptable with 'zembu' (all), which puts emphasises on the fact that the entire mountain range functions as a goal of the emotion of 'suki da' (like).
5.3.7 With Numerals + SHURUI (kinds)

In the case of HANA-BANA (flowers) and KI-GI (trees), while co-occurrence with numerals is ungrammatical, it is possible to specify the number of kinds (SHURUI) of flowers or trees being discussed. Observe the sentences below:

1-a. kono kooen-nai ni wa mezurashii KI-GI ga gojus-shurui atsumerareteimasu.
that park -in in t. rare trees s. fifty kinds
There are fifty kinds of rare trees in this park.

1-b. *kono kooen-nai ni wa mezurashii KI-GI ga gojuppon atsumerareteimasu.
that park -in in t. rare trees s. fifty-n.c.

I.R: There are fifty rare trees in this park.

2-a. kono kooen-nai ni wa nettai no HANA-BANA ga gojus-shurui atsumerareteimasu.
that park -in in t. tropical of flowers s.
There are fifty kinds of tropical flowers in this park.

2-b. *kono kooen-nai ni wa nettai no HANA-BANA ga gojuppon atsumerareteimasu.
that park -in in t. tropical of flowers s.

I.R: There are fifty tropical flowers in this park.

This is also demonstrated by some sentences from Questionnaire I which have high degree of acceptability.

3. kono e ni egakareta HANA-BANA wa gojus-shurui ni noboru.
this picture on draw flowers t. fifty kind to become
The flowers drawn in this picture are of fifty kinds.

(13:6:0)

Look at the following examples also:
4. kono onshitsu- nai ni wa nettai no HANA-BANA ga jus-shurui atsumerareteiru.
   ten kind are gathered
   In this greenhouse, ten species of tropical flowers have been brought together.

5. kono shokubutsu-en ni wa nettai ni shika nai mezurashii KI-GI ga gojus-shurui atsumerareteimasu.
   trees s. fifty kind are gathered
   In these botanical gardens, ten species of rare trees which only exist in the tropics are gathered.

This, however, is not possible with 'YAMA-YAMA' and 'IE-IE' which do not involve established species or kinds as subcategories. That is to say, if kinds are established in a group, the referents could be counted not as individual objects but as different kinds. Watching HANA-BANA and KI-GI, we cannot count the number of the objects but can count the number of the kinds. This suggests another reason of uncountability of HANA-BANA and KI-GI. They cannot be counted because they are different kinds.

In case of 'HANA-BANA', when the referents all belong to the same biological species, the reduplicative forms cannot be used.

   roses of flowers s. bloom park o. walked
   I.R: I walked in the park where roses were blooming.

This observation is also applicable to 'KI-GI', although the unacceptability is not as great as in the case of 'HANA-BANA'. According to Questionnaire I about half of the informants accepted the sentence below;
The referents of HANA-BANA (flowers) must be of different species. On the other hand, as we see from Example 7, when a particular species of KI-GI (trees) is mentioned, at least some speakers find the sentence acceptable. It is interesting to note that the referents of KI-GI could belong to the same species, if no such specification appears in the sentence. For instance, seeing a group of eucalyptus trees, they can be called by KI-GI. I presume this is caused by the different degrees of distinctiveness of KI-GI (trees) and HANA-BANA (flowers). Different species of flowers are so easily distinguishable from one another, by virtue of their distinctive colour, shape and even smell. Trees, on the other hand, are more difficult to distinguish. They have basically the same colour (green), and almost the same shape. Palm trees and the cycad trees are not categorised by Japanese people as trees, psychologically; because their shape does not conform at all to our image of an archetypical tree, even though we know they are trees botanically. In other words, the first object that comes to mind when someone mentions trees is nothing like a palm tree or a cycad tree. This fact above is also related to the unacceptability of 'nettai no KI-GI (tropical trees)'. We can think of various 'nettai no HANA-BANA' (tropical flowers) such as orchids and hibiscus, whereas 'nettai no KI-GI' (tropical trees) are not clearly distinguishable from any other kind of trees to the Japanese mind. Palm trees and cycad trees are tropical trees botanically, but they are not really considered to be KI (tree) in Japanese, psychologically.
Consequently, KI-GI (trees) and HANA-BANA (flowers) not only share the same semantic features with YAMA-YAMA (mountains) and IE-IE (houses) but also have another semantic feature, that is, they are things of different kinds. Since they are such they can be countable.

For these reduplicative forms, I would like to postulate the following semantic formulas, based on the principles of semantic primitives, in order to present their semantic properties and to explain their competence and constraints:

YAMA-YAMA (mountains), IE-IE (houses), KI-GI (trees) and HANA-BANA (flowers)

things which are together in one place, and they are part of the place where they are, when they are seen,

they cannot be taken from the place where they are and they cannot be replaced by other things in other places,

and they cannot be counted, because they are gathered so closely that they look as if they cannot be separated for counting,

or because they are seen not only inside of one's field of vision but also outside of it, in any way one cannot see all of them,

if they are not seen and one knows each of them separately and knows them very well to see the difference of them from others,

they can be counted because one can think of them as separate things in one group.

4 The semantic formula postulated in this thesis is, for the most part based on Wierzbicka's Semantic Primitives (1972) and her papers on semantics: "Oats and Wheat: Mass nouns, Iconicity and Human Categorisation" (1985). The semantic representations for each reduplicative form will be formulated by decomposing them into a limited number of self-explanatory terms, which are "generally understood and firmly rooted in the inner experience of everyone" (Wierzbicka, 1972, p.16).
For KI-GI (trees) and HANA-BANA (flowers), I would like to add some more components:

things of different kinds of the same group,

which can be counted not as a same kind, but as different kinds.

As mentioned in section 3.3., the reduplicative forms TARA-TARA (mountains), TE-TE (houses), KI-GI (trees) and HANA-BANA (flowers) cannot co-occur with numerals when they describe a currency or cannot be used as generic nouns. In contrast, the reduplicatives of this group can appear with numerals and also serve to indicate generic reference in certain cases.

5.4.1 Generic Referents

KURI-OMI (counties), SHIMA-JINA (islands), HACHI-HACHI (towns) and HOZA-HOZA (villages) cannot refer to truly generic referents. The following sentences are unacceptable, according to Questionnaire 1A.

1. *SHIMA-JINA we haitai

    we no island no bottom of the sea under of valleys of

    pyromi ni yata he kiri no same thing be

1.1 Islands are ones which are formed by earthmoving of unknown under the bottom of the sea.

   (1914)

2. *KURI-OMI we no reachi-haitai kato ai polit

    no countries to that ruling style etc. by

    kaiwa-choo, sinsha-choo, konsho-tai, gokor no

    nonnally democratic country republic country etc.

1.2 Countries are divided into, monarchies, democratic countries and republics. Countries etc., demanding some whole ruling style and other functions.

   (2)114A)
5.4 The SHIMA-JIMA (islands) Group

SHIMA-JIMA (islands)
KUNI-GUNI (countries)
MACHI-MACHI (towns)
MURA-MURA (villages)

As mentioned in section 5.3., the reduplicative forms YAMA-YAMA (mountains), IE-IE (houses), KI-GI (trees) and HANA-BANA (flowers) cannot co-occur with numerals when they describe scenery or cannot be used as generic nouns. In contrast, the reduplicatives of this group can appear with numerals and also serve to indicate generic referents in certain cases.

5.4.1 Generic Referents

KUNI-GUNI (countries), SHIMA-JIMA (islands), MACHI-MACHI (towns) and MURA-MURA (villages) cannot refer to truly generic referents. The following sentences are unacceptable, according to Questionnaire II:

1. *SHIMA-JIMA wa kaitei -ka no kazan no islands t. bottom of the sea under of volcano of
   ryuukiki ni yotte dekiru mono desu. protrude by by form thing be

   I.R: Islands are ones which are formed by intruding of volcanos under the bottom of the sea.
   (2:11:4)

2. *KUNI-GUNI wa sono toochi-keitai nado ni yori countries t. that ruling style etc. by
   kunshu-koku, minshu-koku. kyoowa-koku nado to monarchy democratic country republic country etc. q.
   wakerareru.
   divided

   I.R: Countries are divided into monarchies, democratic countries and republican countries etc., depending upon their ruling style and other functions. (2:11:4)
Here are some other generic examples which are unacceptable also:

4. *MACHI-MACHI o sekkei suru no ga shibiruenjinia no shigoto
towns o. design do s. civil engineer of work
desu.
be

I.R: It is a job of civil engineers to design towns.

5. *jinkoo ga goman ika no shuuraku o MURA-MURA
population s. five-ten thousand below of colony o. villages
sore ijoo no shuuraku o MACHI-MACHI to yobu.
that more gem colony o. towns q. call

I.R: Settlement with a population of less than fifty thousand are
called MURA-MURA (villages) and ones with more than fifty
thousand are called MACHI-MACHI (towns).

All the examples above are acceptable with non-reduplicated forms.
The examples prove that reduplicative forms of the SHIMA-JIMA group
cannot refer to generic referents. Generic referents are indicated by
non-reduplicated forms.

However, according to Questionnaire II some reduplicative forms
which seem to refer to generic referents, are acceptable when the
referents are described as grouped or gathered together so that they
can be thought of no longer as individual items, but as a single,
larger entity. At least, from the results of Questionnaire II, these
examples have a considerably higher degree of acceptability than the
examples above. I call the referents of this second type of examples
'non-specific' and the first type 'generic' in order to distinguish the
two types. Observe these acceptable sentences, in which the
reduplicatives indicate non-specific referents.
6. mureatsumatteiru SHIMA-JIMA o guntoo to iimasu. crowded islands o. archipelago q. say

Islands which are crowded together are called 'GUUNTOO'(archipelago).

(11:4:2)

7. SHTMA-JIMA ga tsuranari-narande hito-matomari ni natteiru islands s. link form a line in a group become

mono o rettoo to iu. thing o. archipelago q. say

When islands are linked and form a line in a group, they are called 'RETTO'(archipelago).

(11:3:3)

8. ikutsuka no KUNI-GUNI ga ittei no mokuteki de rengoooshita several of countries s. one of purpose combine

mono o rengoo-koku to iu. thing o. allies q. call

Countries which are combined for one purpose are called allies.

(11:4:2)

A similar sort of sentence appears in Questionnaire II with YAMA-YAMA (mountains).

9. sammyaku to iu no wa ooku no YAMA-YAMA ga mountain range q. say t. many of mountains s.

tsuranari naranda mono desu. link form a line thing be

Mountain ranges are many mountains linked so that they form a line.

(12:4:1)

Note also these sentences which did not appear in the Questionnaire, but have been accepted by all native speakers asked:

10. iroirona KI-GI ga haeteiru tokoro o zookibayashi to yobu. various trees s. grow place o.thicket q. call

The place where various kinds of trees grow is called a 'ZOOKIBAYASHI' (thicket).
11. HANA-BANA ga ichimen ni saiteiru tokoro o hanabatake
flowers s. all over bloom place o.flower-field
to yobu.
q. call

A placed carpeted with flowers in bloom is called a
'HANABATAKE' (flower-field).

It is apparent that in these acceptable examples (6-11), which
involve 'non-specific' referents, the reduplicative forms refer to
constituents which got together to form a larger whole - the various
trees in a thicket or islands in an archipelago, for example. On the
other hand, in the unacceptable examples (1-5), which involve generic
referents, the referents are simply any or all of the things which
could be called "an island", "a town" etc.

In other words, both acceptable and unacceptable examples are
sentences which convey the meaning of definition, but what is defined
cannot be indicated by reduplication but only by non-reduplication.

In case of non-specific referents, the referents of reduplication
are not limited. They do not exist as an aggregate which is clearly
distinguishable from other entities. To say it in another way, one
cannot take out an aggregate such as SHIMA-JIMA (islands) as isolated
objects. SHIMA-JIMA is a subset of the whole aggregate. This is
related to the fact that when visible, the referents of reduplication
are difficult to detach from the scenery; the frame of the referents
are difficult to decide because of the overflow.

Some members of both the YAMA-YAMA (mountains) and SHIMA-JIMA
(islands) groups tend not to form this kind of sentence, which serves
to define the aggregate of a certain type of referent. The referents of
these reduplicatives are not likely to indicate 'non-specific'
referents. The acceptability of the sentences below is somewhat
dubious:
12. ?ikutsuka no MACHI-MACHI ga rengooshite, shi o tsukuru. Several of towns s. combine city o. make

I.R: Several towns are combined to make a city.

13. ?ikutsuka no MURA-MURA ga rengooshite, machi o tsukuru. Several of villages s. combine town o. make

I.R: Several villages are combined to make a town.

14. ?IE-IE ga matomatte tachinarandeiru tokoro o machi to yobu. Houses s. gather stand-line place o. town q. call

I.R: The place where houses gather is called a town.

The unacceptability is clearly due to the fact that there is no category which accurately describes an aggregate of these particular referents. A 'city' is not exactly the same as a group of several towns, nor is a 'town' properly defined as a collection of houses. As it will explained in 5.4.3., the reduplicative form MACHI-MACHI does not indicate administrative towns, but rather settlements which have sprung up naturally and which are colonies of people and houses.
5.4.2 Reduplicative Forms Indicating the Organisation of People

Reduplicative forms can indicate the organisations or people who form KUNI (country), MACHI (town) and MURA (villages). Look at the sentences below:

1. **nezumi no kujo ni wa fukin no MURA-MURA no rat of extermination to t. nearby of villages of kyooryoku ga hitsuyoo desu. co-operation s. necessary be**

   It is necessary for extermination of rats that the villages nearby have to work together.

2. **nezumi no kujo ni wa fukin no MACHI-MACHI no rat of extermination to t. nearby of towns of kyooryoku ga hitsuyoo desu. co-operation s. necessary be**

   It is necessary for extermination of rats that the towns nearby have to work together.

3. **kaku sensoo ni hantaisuru KUNI-GUNI ga nuclear war to oppose country s. kyooyaku o musunda. agreement o. agree**

   The countries which oppose nuclear war made an agreement concerning the nuclear issue.
5.4.3 The Co-occurrence with Numerals

5.4.3.1 When the Referents are Visible

In this section, I shall deal with the co-occurrence of visible referents and numerals. KUNI-GUNI (countries) is excluded from this discussion, because its referents cannot really be considered 'visible', as explained above.

In order to discuss their countability, I would like to examine the referents of each of the reduplicative forms in this group with regard to their separateness. Obviously the referents of SHIMA-JIMA (islands) are separate entities, because they are separated by water. The referents of MURA-MURA (villages) are also separated, because of their remoteness and isolation, which are an integral component of the meaning of the term MURA (village) of MURA-MURA. For instance, as a local governing body, a district is divided into several MURA (villages), whose borders can be clearly seen on a map to adjoin each other. The referents of MURA-MURA (villages), however, are not exactly the same as those of MURA (village). MURA-MURA (villages) indicates colonies isolated from other colonies which sprung up naturally rather than being planned or designed in that way. Likewise, MACHI-MACHI (towns) also indicates settlements which originated in a fairly haphazard, unplanned fashion. However, the referents of MACHI-MACHI, unlike those of MURA-MURA, are not necessarily separated. The outskirts of each settlement could easily overlap. That is, if a settlement is big enough to be called MACHI (town), its outskirts could well overlap those of the next town since isolation is not an essential factor of MACHI (towns) of MACHI-MACHI. When the referents of this group of reduplicative expressions are visible, they do not co-occur with numerals for the same reason that those of the YAMA-YAMA
(mountains) group do not. That is, they are not readily countable, because of the difficulty of delimiting the place where the counting is to take place, or because of separating the referents. Look at the examples below:

1. ?mado no soto ni emerarudo o baramaita yoona
window of outside in emerald o. scatter like
SHIMA-JIMA ga nanatsu mieta.
islands s. seven could be seen
I.R: Outside the window (I) could see seven islands like scattered emeralds.

2. ?yama-ai nanatsu no MURA-MURA kara yuuge no mountain between of seven villages from supper of
shitaku no kemuri ga tachinobotteita.
preparation of smoke s. rose
I.R: Smoke from the preparation of evening meals rose up from the seven villages between the mountains.

3. *mado no soto ni kasanari-au SHIMA-JIMA no window of outside in overlapped islands of
kage ga nanatsu mieta.
vague figure s. seven be visible
I.R: Outside the window, (I) could see the vague forms of seven islands which overlap each other.

4. ?hikooki no mado kara nanatsu no MACHI-MACHI no hi ga plane of window from seven of towns of light s.
matataku no ga mieta.
twinkle of s. be visible
I.R: From the window of the plane, (I) could see the lights of seven towns twinkling.

In 1 and 2, the difficulty of limiting the space with which the counting is to take place results in the unacceptability of the co-occurrence with a numeral. In 3, both the difficulty of separating the referents and of limiting the space are responsible for unacceptability. In 4, if the referents of MACHI-MACHI (towns) were clearly separate, the unacceptability would be due simply to the difficulty of delimiting the boundaries. As in 1 and 2, if they overlapped, it would also be due to their indiscreteness, as in 3.
If one is referring to seeing scattered islands which are located in the center of the sea, the sentence below is possible:

5. umi no mannaka ni emerarudo o baramaita yoona
sea of center in emerald o. scatter like
SHIMA-JIMA ga mieta.
islands s. be visible

In the center of the sea, (I) can see islands like scattered emeralds.

However, the co-occurrence with the numerals tends to be rejected even in this situation.

6. umi no mannaka ni emerarudo o baramaita yoona
sea of center in emerald o. scatter like
SHIMA-JIMA ga nanatsu mieta.
islands s. seven be visible

I.R: In the center of the sea, (I) can see seven islands like scattered emerald.

There are no obvious physical constraints nor difficulties in counting these referents. In fact, they would be countable if the noun used were the non-reduplicated form SHIMA (island). The reason lies simply in the different conceptualisations of SHIMA (islands) and SHIMA-JIMA (islands). With reduplicative forms, we think of the referents as uncountable, whereas there is no such restriction with non-reduplicative forms. In other words, when we wish to count the referents, that is, when the number of the referents is important, we simply do not use reduplicative forms. When we perceive the number of referents to be more than a certain amount, but have no interest in the exact number of them, we tend to use reduplicative forms.
5.4.3.2 When the Referents are not Visible

In the case of referents which are not exactly visible as scenery, co-occurrence with numerals tends to be acceptable, since the referents do not have those physical restrictions explained in the previous section. This co-occurrence does involve a certain condition, however—that is, when counting, either the writer or his audience must have a certain interest in the number of referents. Observe the acceptable sentences below:

1. Afurika no yottsu no KUNI-GUNI ga atsumatte,
Africa of four of countries s. gathered

kaigi o hiraita.
conference o. open

Four African countries gathered to have a conference.

2. gojuuhachi mo no SHIMA-JIMA ga atsumatte,
fifty eight as much as of islands s. gather

Kanaria shotoo o kooseishiteimasu.
Canary Islands o. construct

The Canary Islands consist of as many as fifty eight islands.

3. kono jidoo-gekidan wa kono fukin no yattsu no
this acting troup for children t. this nearby of eight of

MACHI-MACHI o kooenshite mawarimasu.
towns o. perform go round

This acting troup for children goes around performing in the eight towns in this neighborhood.

4. kono yuuran- sen wa Setonaikai no sanjyuuhachi no
this sight seeing boat t. the Inland Sea of thirty eight of

SHIMA-JIMA o mawaru.
islands o. go round

This pleasure boat goes round thirty eight islands in the Inland Sea.

5From Questionnaire I
6From Questionnaire I
5. sea water pollution by suffer coast-along of eight of towns
MACHI-MACHI ga atsumatte, taisaku kaigi o hiraita.
The eight towns along the coast line which suffer from seawater pollution gathered for a conference to plan how to counter it.

6. sea water pollution by suffer coast-along of eight of villages
MURA-MURA ga atsumatte, taisaku kaigi o hiraita.
The eight villages along the coast line which suffer from seawater pollution gathered for a conference to plan how to counter it.

However, the sentences below do not have a high rate of acceptability.

7. It is festival time in the eight towns over the mountains.

8. It is festival time in the eight villages over the mountains.

9. In eight countries in Western Europe, a movement opposed to nuclear weapons has arisen.

10. In eight islands in the Inland Sea, the construction of hotels has begun.
Looking again at the acceptable sentences, we can see one common feature: they tend to co-occur with verbs which indicate 'gathering' or 'circulation'. In cases of 'gathering', the actual referents are not really 'things' or 'places' but rather the 'people' who are collectively represented by terms like 'country' and 'town'. This is true for all members of this group, with the exception of SHIMA-JIMA (islands). In cases of 'circulation' as in the example of the travelling actors (Sentence 3), and the pleasure boat (Sentence 4), which will be explained in the next section precisely, each destination is visited one after another, each visit being quite separate from the last. In THE case of SHIMA-JIMA (islands), the countability is due to their clear separation by water.
5.4.4 With the Verbs of Circulation

These reduplicative forms not only frequently co-occur with optical verbs, as has already been observed, but also co-occur to a significant degree with verbs of circulation. The co-occurrence of reduplicative forms with these latter verbs is discussed in this section. Firstly, reduplicative forms with these verbs are observed. Secondly, the co-occurrence of reduplicative forms and numerals is discussed, since in these cases the referents are exceptionally countable.

Most of these reduplicative forms can co-occur with verbs of circulation. Verbs of circulation are defined as follows: a verb which indicates an action done repeatedly by a person who keeps changing the position of execution, i.e., one does something in one place and then changes one's position and does the same thing or something else again. Therefore, verbs of circulation mainly appear with the auxiliary verbs of '-mawaru' (go a round), such as 'mite-mawaru' (inspect around), 'kiite-mawaru' (ask around) and so forth. Observe the following acceptable sentences:

1. gyooshoonin wa MURA-MURA o gyooshoshite-mawaru.
   peddler t. village o. peddle -go a round
   A peddler peddles goods about the villages.

2. kono yuuransen wa SHIMA-JIMA o meguru.
   this pleasure boat t. o. go a round
   This pleasure boat goes around the islands.

3. shinrinkanrinin no shigoto wa YAMA-YAMA o mi-mawatte,
   forest ranger of job t. mountain o. watch-go a round
   yamakaji o okosanai koto desu.
   bush fire o. prevent comp. be
   The job of a forest ranger is to watch the mountains in order to prevent bush fires.

4. IE-IE ni shimbun o kubatte-mawaru.
   house to news paper o. distribute-go a round
(I) distribute newspapers around the houses.

5. KUNI-GUNI o hoomonshite-mawaru.
country o visit-go a round

(I) travel throughout countries.

6. tori wa KI-GI o tobi-mawatte, suzukuri ni hitsuyoona
   bird t. tree o fly-go a round nest-make to necessary
   eda o atsumeru.
   branch o gather

   Birds gather branches by flying about the trees in order to
   make nests.

7. mitsubachi wa HANA-BANA o tobi-mawatte, mitsu o atsumeru.
   bee t. flower o fly-go a round honey o gather

   Bees gather honey by flying around the flowers.

If the referents of reduplication do not function as a place in
the context, in that, there is not enough space to execute the action,
the sentence is less acceptable. Observe the unacceptable examples
below:

8. *niwashi wa HANA-BANA o mawatte mizu o kakeru.
   gardener t. flower o go a round water o pour

   I.R:A gardener goes amongst the flowers and pour water.

9. *niwashi wa KI-GI o mawatte yobunna eda o
   gardener t. tree o go a round unnecessary branch o.
   senteisuru.
   prune

   I.R:A gardener goes around the trees and prunes unnecessary
   branches.

That is because for bees or birds, the flowers and trees can be
considered as 'place' in which an action is executed, whereas for
people, they are not big enough. However, if the space between the
referents is clearly indicated, for example, phrases like 'aida'
(between) are inserted, the sentence becomes more acceptable:

7'. niwashi wa HANA-BANA no aida o mawatte mizu o
   gardener t. flower of between o go a round water o.
   kakeru.
   pour
A gardener goes about between the flowers and pours water.  

8'. niwashi wa KI-GI no aida o mawatte yobunna eda gardener t. tree of between o. go a round unnecessary branch o. prune

A gardener goes around the trees and prune unnecessary branches.

Since the verbs force the action to be executed one by one in different places at different instances of time, the referents can be perceived individually; separately. Therefore, the referents are more likely to be countable in contrast to those referents occurring with optical verbs. See the countable sentences below:

1'. gyooshoonin wa kono fukin no itsutsu no peddler t. this neighbour of five of

MURA-MURA o gyooshooshite-mawaru. village p. peddle-go a round

A peddler peddles goods in five in this neighbourhood.

2'. kono yuuransen wa setonaikai no sanjuuhachi no this pleasure boat t. the Inland Sea of thirty eight of

SHIMA-JIMA o megurimasu. islands o. go a round

This pleasure boat goes around thirty eight islands in The Inland Sea.  

(13:6:0) 7

3'. shinrinkanrinin no shigoto wa kono kennai no juugo no forest ranger of job t. this prefecture of fifteen of

YAMA-YAMA o mi-mawatte, yamakaji o okosanai koto desu. mountain o. watch-go a round bush fire o. prevent comp. be

The job of a forest ranger is to prevent bush fire by watching fifteen mountains in this prefecture.

4'. mura no juuhachi no IE-IE ni shimbun o kubatte- village of eighteen of house to news paper o. distribute- mawaru.
go a round

7 From Questionnaire I
(I) distribute newspapers around eighteen houses in the village.

5'. yooroppa no itsutsu no KUNI-GUNI o hoomonshite-mawaru. Europe of five of country o. visit- go a round

(I) visit five countries in Europe.

Whereas in cases of HANA-BANA (flowers) and KI-GI (trees), the co-occurrence is not acceptable:

6'. *mitsubachi wa kadan no sanjuu no HANA-BANA o bee t. flower bed of thirty of flower o. tobi-mawatte, mitsu o atsumeru. fly-go a round honey o. gather

I.R.: Bees gathered honey by flying around thirty flowers in the flower bed.

7'. *tori wa kooen-nai no gojuu no KI-GI o tobi-mawatte, bird t. park-in of fifty of tree o. fly-go a round suzuuki ni hitsuyooona eda o atsumeru. nest-make to necessary branch o. gather

I.R.: Birds gather branches by going round fifty trees in this park.

This may be due to their variety, for KI-GI and HANA-BANA indicate 'different kinds of trees/flowers' as explained, so although they co-occur with numerals, they cannot be counted as the same kind. Presumably TERA-DERA (temples) which is not commonly used, but appears in Japanese literature as in "koto no TERA-DERA o tazuneru." (I) visit temples in the old town.), also indicates the same sort of meaning even though the verb does not include 'mawaru' (go a round). The co-occurrence of the verb 'tazuneru' and the reduplication indicates that the action is executed repeatedly, since one cannot visit more than one place at a time. The reason why the sentences with 'hoomonsuru' in Questionnaire I tend to be acceptable is due to the same reason.
The semantic formula suggested for these reduplicative forms:

places/things which are together in one place and are part of place where they are when they are seen,

when they are seen they cannot be counted because they cannot be seen all at once

when one cannot see all of them at a time but can see them one by one at a time,

they can be counted because they are thought of as separate things of the same kind.

For KUNI-GUNI, MACHI-MACHI and MURA-MURA the fifth component such as:

when one can see people from a certain place at a certain time at one place they can be counted because they are thought of as separate people at one place.

must be added.

YAMA-YAMA (mountains) and IE-IE (houses) share with the SHIMA-JIMA group the third and fourth components:

when one cannot see all of them at a time but can see them one by one at a time,

ty they can be counted because they are thought of as separate things of the same kind.

HANA-BANA (flowers) and KI-GI (trees) share the third component only:

when one cannot see all of them at a time but can see them one by one at a time,

They do not share the fourth component:

they can be counted because they are thought of as separate things of the same kind.

since they are not of the same kind.
5.5 The HI-BI (days) Group

Unlike the previous two groups, HI-BI (days) indicates an abstract idea, time, which are not actually seen by people but are perceived by people because of their happening. For example, days can be perceived as happening because we perceive the sunset and the sunrise, which serve to divide the days from each other. Reduplicatives such as HI-BI (days) do not create an optical impression because of their invisibility, but instead create a lyrical impression.

5.5.1 The Co-occurrence with Numerals

HI-BI does not co-occur with numerals under any circumstances.

1. *watashi wa kare to sugoshita sanju-nichi no
   HI-BI o wasurenai.
   days o. forget not
   I.R: I'll never forget the thirty days I spent with him.

In contrast to other reduplicative forms such as YAMA-YAMA (mountains), IE-IE (houses) etc., HI-BI cannot always be re-placed by a non-reduplicated form in the same context, as shown in the following examples:

2. onna to-shite juujitsu shita utsukushii koi no
   woman as well filled beautiful love of
   HI-BI o ataerareta.
   days o. was given.
   I was given well filled days of love as a woman.
   Setouchi, H., Izuko yori, p.465
   = 2'.*onna to-shite juujitsu shita utsukushii koi no
     woman as well filled beautiful love of
     HI o ataerareta.
     day o. was given
3. watashi no noori ni subayaku kakemegutta mono wa
I of mind in quickly run thing t.
ano mijikai nitsumeta yoona koi no HI-BI datta.
that short boil down like love of days was

What raced through my mind were the days of that brief intense love.

Setouchi, H., Izuko yori, p.510.

= 3'.watashi no noori ni subayaku kakemegutta mono wa
I of mind in quickly run thing t.
ano mijikai nitsumeta yoona koi no HI datta.
that short boil down like love of day was

On the other hand, if the verb is one which clearly indicates continuity, such as okuru (pass), tsuzuku (continue), kurikaesu (repeat) and so on, both HI and HI-BI (days) can occur in the same slot. I presume the reason is that these verbs permit two different viewpoints 1. the idea of each following one after the other, 2. the idea of days continuously passing, seeming to blend into one another.

4. seishinteki ni kooyooshita HI/HI-BI ga tsuzuku.
spiritually uplifted day/days s. continue

The spiritually uplifted days continue.

5. shinshin tomo ni naehateta Shooen wa shi to mukaiau
body and mind both exhausted t. death to face
HI/HI-BI o okuri nagara nanika ni tsukareta yooni
day/days o. spend while something by possessed as if
Honoo o kakiageru.
'flame' o. paint

Exhausted both physically and mentally, she spent the days in which she faced the prospect of death painting "Honoo" as if possessed.

January 14, 1983, Asahishimbun

6. muchuu de HI/HI-BI ga sugite itta.
frantically day/days s. passed

The days passed frantically.

Setouchi, H., Izuko yori, p.180
Contrasting HI (day) and HI-BI (days) with other pairs such as YAMA (mountain (s)) and YAMA-YAMA (mountains), we can see that in the case of YAMA (mountain (s)) and YAMA-YAMA (mountains) the non-reduplicated forms are unmarked with regard to number, that is, the referents could be either singular or plural. But in the case of HI (day) and HI-BI (days), except in examples such as 4, 5 and 6, the non-reduplicative form indicates singular referents and the reduplicative form indicates plural ones. This contrast can be seen.

Sentences 7 and 8:

7. kare to sugoshita HI o omoidasu.
   he and spend day o. remember
   (I) remember the day I spent with him.

8. kare to sugoshita HI-BI o omoidasu.
   he and spend days o. remember
   (I) remember the days I spent with him.

However, neither HI, nor HI-BI can co-occur with numerals;

9. *kare to sugoshita ichinichi no HI o omoidasu.
    he and spend one-n.c. of day o. remember
    I.R. (I) remember the one day I spent with him.

10. *kare to sugoshita gojuunichi no HI-BI o omoidasu.
    he and spend fifty-n.c. of days o. remember
    I.R. (I) remember the fifty days I spent with him.

To convey a certain number of days like this, the Japanese person would say:

11. kare to sugoshita gojuunichi o omoidasu.
    he and spend fifty-n.c. o. remember
    (I) remember the three days I spent with him.

I presume, in case of 'day' which has a very special classifier for counting, the special classifier functions both as an object of the verb and as a classifier for counting, while HI (day) and HI-BI (days) function to indicate uncountable referents; singular and plural
referents respectively. Because this counter only refers to 'days' it can unambiguously be used as an object.

The minimal number of days referred to by HI-BI is definitely more than two, but I am not certain exactly what number would be sufficient.

T.N.: There are twenty four hours in a day. (A day is divided into twenty four hours.)

I presume the following is the the reason why HI cannot be defined as we follow: Time is an unlimited linear continuum. It is indestructible, and yet, we perceive it passing by, by observing something is repeated. For example, a sunset or a sunrise. We see days following one after another in the stream of time. However, we can not exactly point out when a day ends and starts? In the infinite time space days come and go as nights come and go. This is proved by the fact that 10-50 (nights) is on the list A', although it is not an commonly used.

Consequently the difference between HI and HI-BI is simply a difference of either length of time, or of the number of time something happened. In the case of HI something happens once, while in the case of HI-BI (days), it happens continuously or repetitively.
5.5.2 With Generic Referents

Observe the examples below:

1. *HI wa nijuuyojikan da.
   t. twenty four-hour be

I.R: There are twenty four hours in a day.
(A day is divided into twenty four hours.)

Compare:

2. ichi-nichi wa nijuuyojikan da.
   one n.c. t. twenty four-hour be

There are twenty four hours in a day.
(One day is divided into twenty four hours.)

I presume the following is the reason why HI cannot be defined:

is as follows: Time is an unlimited linear continuum. It is
indiscrete, and yet, we perceive it passing by, by observing something
is repeated. For example, a sunset or a sunrise. We see days following
one after another in the stream of time. However, we can not exactly
point out when a day ends and starts. On the infinite time span days
come and go as nights come and go. This is proved by the fact that
YO-YO (nights) is on the list A', although it is not so commonly used.

Consequently the difference between HI and HI-BI is simply a
difference of either length of time, or of the number of times
something happened. In the case of HI something happens once, while in
the case of HI-BI (days), it happens continuously or repeatedly.
The semantic formula which I propose for HI-BI is:

Time when something happens continuously

and it is not thought of as time which can be counted

because it is not thought of as being divided for counting, and
because it is part of time which cannot be separated from the time
before and after it.
5.6 The HITO-BITO (people)

HITO-BITO also conveys a strong lyrical nuance and is used in the written style only. In contrast to HITO-TACHI (person-pl.), it indicates specific people.

5.6.1 Co-occurrence with Numerals

This reduplicative form can co-occur with an expression indicating an approximate number but not with exact numerals:

1. moo sude ni watashi-tachi ga Hookinkoo e utsutte, already already I pl. s. to move hakkagetsu ga sugite-ori, ichi-ji wa hyakugoujuu eight months s. passed at one time t. one hundred and fifty o kazoeta HITO-BITO mo shidai-ni hitori heri o. count people gradually one person reduce futari heri shite, ima wa nijuunin amari ni two person reduce now t. twenty person about natteita. became

Already eight months have passed since we came to Hookinkoo. People who at one time numbered more than one hundred and fifty have been reduced one by one and are about twenty now.

Setouchi, H., Izuko yori, p.260

2. yokuyoku no toki wa juusuunin no unavoidable of time t. ten and some more n.c. of HITO-BITO o shitagaeta Matsuzawa no sugomi ga people o. attend of intimidating s. mono o iu toki mo atta. be helpful time be

Under unavoidable circumstances, Matsuzawa, who was attended by ten or so people, helped us by intimidating (the enemy).

Setouchi, H., Izuko yori, p.261

When the number of people in the sentences above are represented by exact figures, especially by small numbers like two, the sentences are less acceptable. Although I have found several examples of
HITO-BITO co-occurring with approximate numbers like the sentences above but none with exact numbers. With exact numbers, either the non-reduplicated form HITO or the plural form HITO-TACHI (plural marker) is more likely to co-occur.

5.6.2 Modification and Generic Referents

HITO-BITO cannot be replaced by HITO-TACHI (person-pl.) when it is not modified. HITO-BITO in the following sentences cannot be changed to HITO-TACHI.

1. aru-ban haha ga watashi o senaka ni obutte dote no one night my mother s. I o. back on carry bank of
ue ni data. soko ni wa HITO-BITO top to go out there in t. ga atsumatte, sora o
ue ni data. soko ni wa HITO-BITO s. gather sky o.
*nHITO-TACHI

nagameteita.
watched

One night my mother went out to the top of the bank carrying me on her back. People were gathered there watching the sky.

Hori, T., 'Yonen Jidai', Kasetachinu, p.35.

2. HITO-BITO wa kono yoosu o mite, kichigai to itta. t. this doing o. watch crazy q. said

Observing this, people said he was crazy.

3. HITO-BITO wa kuchiguchi ni dokuritsu o sakenda. t. unanimously independence o. shout

People shout unanimously 'independence'.

4. mado no soto o HITO-BITO no ashioto ga ikikau. window of outside o. of footprint s. go and come

People's footsteps come and go outside the window.

The fact that HITO-TACHI must be modified while HITO-BITO can appear without any modification leads to the assumption that HITO-BITO whereas this must be implies something specific by itself, indicated by modifiers in the case of HITO-TACHI. If we want to replace HITO-BITO by
in these sentences or 'soko ni iru' (be there) HITO-TACHI, we have to add 'mawari no' (of around) as a modifier in examples 2, 3 and 4. This shows that HITO-BITO indicates something, for example, people who are around the writer. Because it is difficult to delimit the space around him, the referents of HITO-BITO cannot be accurately counted.

Of course, we could easily imagine a situation in which the space referred to and consequently the number of referents can be clearly delimited. Look at the sentence below:

5. heya no naka ni HITO-BITO ga atsumatta.
   room of in in s. gathered

   People are gathered in the room.

HITO-BITO here indicates the people in a clearly defined area, in a single room. But the people we can see at a glance are not all of them, but only the people around him. Therefore, the referents must be more than a certain number, although I do not know how big this number should be, but am quite certain it is more than one can perceive at a glance.

However, in some cases HITO-BITO does not seem to be used to refer to people around the writer, but for people in general.

6. HITO-BITO no seikatsu o yutaka ni suru no ga
   people of life o. rich make comp. s.
   fukushi no mokuteki desu.
   welfare of purpose be

   The aim of welfare is to enrich people's lives.

7. mazushii HITO-BITO o tasuke-yoo
   poor people o. help let's
   Let's help poor people.

However, HITO-BITO is never used for a totally generic case; that is to indicate the whole of humanity as a species:
8. *watashi wa HITO-BITO ga sukida.
I. t. s. like
I.R: I like people.

   people t. think reeds be
I.R: People are thinking reeds.
   (from Pascal "Un roseau pensant.")

10. *HITO-BITO wa bambutsu no reichoo de-aru.
     t. all things of lords be
I.R: People are the lords of creation.
     (Man is the lords of creation.)

All the concepts above can be indicated by the non-reduplicated forms: HITO, or NINGEN (a human being/mankind). I presume that the reduplicative form is not acceptable because the boundary of the referents is clearly definable. The referents are an aggregate of all people in the world, that is, the whole of mankind. In contrast, HITO-BITO indicates certain people who are in the writer's mind as he writes, or people who are part of his experience or at least who one thinks of as if they were a part of his experience.

The semantic formula I propose for HITO-BITO is:

people who I think of as if they are part of place where I am, and who cannot be counted because it is difficult to see them all at one time.
5.7 The TSUBU-TSUBU (things very small and round) Group

DAN-DAN (stairs)

TEN-TEN (dots)

TSUBU-TSUBU (things very small and round)

POTSU-POTSU/ BOTSU-BOTSU/ PUTSU-PUTSU/ BUTSU-BUTSU (small things projecting on a surface like eruptions or rash)

In contrast to the previous reduplicatives, the reduplicatives in this group can appear in speaking and written style. They can also co-occur with numerals in some cases because they can be seen separately in one place. However, if there is a non-reduplicated counterpart, the speakers would normally use this latter form.

5.7.1 Co-occurrence with Numerals

They tend not to co-occur with numerals. In the case of those members of this group which have non-reduplicated counterparts such as TEN (a dot), TSUBU (a small thing like a grain), DAN (a stair), Japanese speakers are much happier to use the non-reduplicative forms for counting, since these reduplicative forms indicate referents occurred not as an isolated group. This will be explained in this section later. However, if the context requires it, all reduplicative forms can co-occur with numerals.

1. eigo no koron to iu no wa TEN-TEN o tateni futatsu
   English of colon q. say of t. dots o. vertical two-n.c.
   narabeta mono desu.
   line up thing be

   English colon is a sign whereby that two dots are arranged vertically.

(12:6:0)\(^8\)

\(^8\)From Questionnaire I
2. Hoppeta ni BUTSU-BUTSU ga nana-ko mo dekiteshimatta.
cheek on pimples s.m. seven n.c. get

(I) got seven pimples on my cheek.

(16:2:1)⁹

3. Toosuto ni ichigo jamu o noseru toki wa
toast on strawberry jam o. put when t.
ichigo no TSUBU-TSUBU ga itsutsu noru kurai
strawberry of things small and round s. five get on about
ni shite okimasu.
make

When you put strawberry jam on your toast, you 'd better
spread as much as five strawberries on it.

(12:6:0)¹⁰

4. Ago no ue ni chiisana POTSU-POTSU ga nanatsu mo
chin of top on small pimple s. seven as much as
dekiteshimatta.
make

(I) have seven small pimples on my chin.

The reason why these referents are countable is apparent. They
satisfy the conditions of countability, namely 1. limitation of space
and 2. discreteness.

Their common semantic denominator is that they are all a part of
something else and also something fixed or semi-fixed in a place.

All members of this group are characterised by the fact that they
refer to a particular shape and size, rather than to any particular
entity. For example, BOTSU-BOTSU, POTSU-POTSU, BUTSU-BUTSU and
PUTSU-PUTSU indicate things projecting on skin like pimples. DAN-DAN a
series of steps of going from one level to another. TEN-TEN could be
anything which are two dimensional small round thing, e.g. moles.

⁹Ibid..
¹⁰Ibid..
TSUBU-TSUBU could be any three dimensional small round things such as seeds of strawberries and grains. They do not indicate pimples, stairs, moles, grains and so forth directly but the shape.

While the referents of these reduplicatives are countable, they are not considered as totally separate things in an isolated place. That is, although they are discrete, separate from each other, they are not separate from the whole of which they are part. BOTSU-BOTSU, POTSU-POTSU, BUTSU-BUTSU and PUTSU-PUTSU cannot be taken from the place where they are. For example, pimples cannot be separated from the skin. Therefore, it is not possible to line them up for counting. DAN-DAN indicates things like stairs which cannot be separated from the staircase where they are; TEN-TEN refers to two dimensional things, therefore they cannot be taken from where they are; and finally TSUBU-TSUBU indicates "things very small and round as part of a main body". For example, focusing on some grains of boiled rice in a pan, we call then "gohan no TSUBU-TSUBU" (grains of boiled rice). Seeing some grains of rice on somebody's face, that is seeing them as isolated referents and not as part of something, we cannot say:

5. *kao ni gohan no TSUBU-TSUBU ga tsuiteiru.
   face on rice of grain s. attach

I.R: You have some grains of rice on your face.

while we can say:

5'. kao ni gohan no TSUBU ga tsuiteiru.
   face on rice of grain s. attach

You have some grains of rice on your face.

In addition, TSUBU-TSUBU often refers to something which is mixed into its main body or which occurs within a substance, such as lumps in paste or strawberries in jam. That is, it tends to indicate referents, each of which are not clearly separate. We can say: 'namida no TSUBU' (drop of tear), but we cannot say: 'namida no TSUBU-TSUBU', since each drop of tear is clearly an isolated object.
The semantic formula suggested is:

things which are small and which can be thought of as separated,
but are close together,
and are part of something,
they are thought of as things which can be counted, if one wants to count them,
because they can be thought of as separate things and all of them can be seen at one time,
but it is not easy to count them because they are small and close together.

This group seems productive, if we see them based on this criterion. I could add: IBO-IBO (things which have shapes like warts), GIZA-GIZA (things which have shapes like notches), SHIMA-SHIMA (stripes), SHIWA-SHIMA (things which have shapes like wrinkles), HIRA-HIRA (things which have frilled shapes), FUSA-FUSA (things which have shapes like fringes), IGA-IGA (things which have same shape like burs), TOGE-TOGE (things which have shape like spines), and HIDA-HIDA (folds and things like folds (e.g.pleat)).
5.8 The **SUMI-ZUMI** (every nook and corner) Group

**SUMI-ZUMI** (every nook and corner)

**TSU-TSU-URA-URA** (every nook and cranny of the land)

**HOO-BOO** (every direction)

**TOKORO-DOKORO** (here and there)

**FUSHI-BUSHI** (points)

**HASHI-BASHI** (odds and ends)

**TSUJI-TSUJI** (corners)

**HAZAMA-HAZAMA** (intervals/gorges)

5.8.1 Co-occurrence with Numerals

They tend not to co-occur with numerals.

1. *heya no yottsu no SUMI-ZUMI o* tenkensuru.  
   **room of four of every nook and corner o. check**

I.R: (I) will check the four corners of the room.

2. *Tookyoo de wa HOO-BOO gojukkasho ni gekijoo ga*  
   **Tokyo in t. every directions fifty-n.c. in theatre s. aru.**

be

I.R: In Tokyo there are fifty theatres situated in many directions.

3. *zenkoku TSU-TSU-URA-URA gojukkasho o*  
   **whole country every nook and cranny fifty-n.c. o.**

ryokooshita.  
travelled

I.R: (I) travelled around fifty places all over the country.

4. *kanojo no taido ni wa gakusei to shinjigatai FUSHI-BUSHI*  
   **she of manner in t. student q. unbelievable points**

ga gokasho aru.  
**s. five-n.c. be**

I.R: There are five points in her manner which are not convincing as a student.
5. *hanashi no HASHI-BASHI gokasho ni gesenai story of odds and ends five-n.c. in not understandable

ten ga aru.
point s. be

I.R: There are, in what he says, five points which I cannot understand.

All of these forms can be used to delimit a certain space, for example, Nihon no TSU-TSU-URA-URA (every places in Japan). Each of them must be separate, otherwise they lose their identity. This would lead us to expect that they could be counted. However, each of them does not have a clear boundary and this results in incompatibility with numerals. For example, in the case of SUMI-ZUMI (every nook and corner), we do not know exactly where one SUMI (corner) ends and the next begins. We do know, of course, exactly where the very 'centre' of the corner is, the place where two edges meet, but a corner does not refer to a single point, but also the area around it. Thus when pluralised, it is very difficult to imagine one entity as separate from another, or from where it is, since there is no clear boundary around each of them. Look at the sentence below:

6. heya no SUMI-ZUMI o sooji suru.
room of o. clean

(I) clean everywhere in the room.

'heya no SUMI-ZUMI' does not really mean just all the corners of the room, but the whole room, wall to wall. It would be possible to count each corner of a room one by one, but if one counts SUMI-ZUMI in this way one ignores the center of the room which is also included in the reference. It is possible to count corners by using the non-reduplicated counterpart but the reduplicated form cannot be used. This is, because of the difference in the conceptualisation: SUMI indicates 'a corner'; SUMI-SUMI does not simply indicate an aggregate
of single 'corners' but rather the corner points and the space around those points.

If we compare SUMI-ZUMI with members of the YAMA-YAMA (mountains) group, SHIMA-JIMA (islands) group and TSUBU-TSUBU group, a common feature can be observed. In all cases the referents do not have clear boundaries. They are spread over the surface of something as a continuum, rather than as a series of discrete entities.

Some members of the SUMI-ZUMI group, namely FUSHI-BUSHI (points), HASHI-BASHI (odds and ends) HOO-BOO (every directions) and TOKORO-DOKORO (here and there), on the other hand, do not mean everywhere but refer to some points or places. However, even with them it is difficult to define boundaries. Unlike SUMI-ZUMI, with these forms it is difficult to 'pinpoint' the exact points indicated. We do not know where FUSHI/ HASHI/ TOKORO of FUSHI-BUSHI/ HASHI-BASHI/ TOKORO-DOKORO starts and ends.

In any case, the referents are difficult to count because it is difficult to separate them clearly from their background. This is especially true in the case of HASHI-BASHI (odds and ends) and FUSHI-BUSHI (points) which refer to abstract matters such as speech and behavior. I presume it causes difficulty in counting them.

Based on the above assumption that the difficulty of separating referents from their background leads to a difficulty in counting the referents, URA-URA (harbours) and KADO-KADO (corners) mentioned by Nomoto in Chapter 311 and TSUJI-TSUJI (street corners) and HAZAMA-HAZAMA (intervals) belong to this group. They share the semantic property of places (positions) whose boundaries are difficult to define

11"As the forms HITO-BITO (people), KADO-KADO (gates/corners) and URA-URA (bays), HITO-BITO has a pure plural meaning while KADO-KADO and URA-URA mean either 'each gate/bay' or 'every gate/bay' URA-URA particularly, often has the latter meaning."
clearly even though the centre of each position is clearly separated from the other.

The semantic formula I propose is:

places which are thought of as places that are difficult to count,

because one cannot see one of them clearly as separate from the place around,

although the centre of each place is clearly separate.

We can presume that this unacceptability is due to the fact that Shima-Jima indicates 'things of different kinds'. However, the non-replicated form, Shima, which can indicate both things of the same kind and of different kinds, (both singular and plural), can co-occur with numerals.

3. ooko ni oshi
    on Shima ga mitan are
    there in congratulation of e. three be

    There are three (different) things of congratulation over there.

4. ooko ni oshi
    on Shima ga fuwa-bachi are
    there in congratulation of e. eighteen be

    There are eighteen (different) things of congratulation over there.

The numerals 'mita' and 'fuwa-bachi' can be taken to mean things or eighteen of the same kind or of different kinds. However, it is important to note that the numerals denote simply the number of objects, regardless of the number of kinds.

Shima (kind) must be used to clearly indicate different kinds of goods.
5.9 The SHINA-JINA (various articles) Group

SHINA-JINA indicates different kinds of objects, while the non-reduplicated form; SHINA indicates either the same kind or the different kinds. SHINA-JINA cannot co-occur with numerals:

1. *asoko ni oiwai no SHINA-JINA ga mittsu aru.
   there in congratulation of s. three be
   I.R: There are (three) various things of congratulation over there.

2. *asoko ni oiwai no SHINA-JINA ga juu-hachi aru.
   there in congratulation of s. eighteen be
   I.R: There are eighteen (various) things of congratulation over there.

We can presume that this unacceptability is due to the fact that SHINA-JINA indicates 'things of different kinds'. However, the non-reduplicated form, SHINA, which can indicate both things of the same kind and of different kinds, (both singular and plural), can co-occur with numerals.

3. asoko ni oiwai no SHINA ga mittsu aru.
   there in congratulation of s. three be
   There are three (different) things of congratulation over there.

4. asoko ni oiwai no SHINA ga juu-hachi aru.
   there in congratulation of s. eighteen be
   There are eighteen (different) things of congratulation over there.

The numerals; 'mittsu' and 'juu-hachi' can be taken to mean three or eighteen of the same kind or of different kinds. However, it is important to note that the numerals denote simply the number of objects, regardless of the number of kinds.

SHURUI (kind) must be used to clearly indicate different kinds of goods.
There are three kinds of things of congratulation over there.

There are eighteen kinds of congratulatory presents over there.

The difference between the former examples and the latter with SHURUI is that, in the former examples, the total number of objects are three or eighteen, while in the latter the numerals indicate the number of kinds and not of objects.

SHINA-JINA indicates different kinds of goods and hence can be counted in terms of the number of different kinds (numeral + SHURUI (kind)). Observe the sentences below:

There are eighteen kinds of (various) things of congratulation over there.

If the number of different kinds is small, co-occurrence with numerals is not acceptable:

I.R: There are two kinds of congratulatory presents over there.

The difference between the acceptable Sentence 7 and the unacceptable Sentence 8 is simply the difference in number. Consequently, it follows that two is too small as a number to be indicated by this reduplicative form.
The semantic formula of this subtype of reduplicative forms is:

Many things of different kinds of the same group

which can be counted not as the same kind but those of
different kinds.

Similarly, although the referents are people, we cannot say:

2. *mokoo wi. SKIND-JING/SUB-GEN GA rikin, over there the lower classes/descendants u. be, come, a, niuru, can see.

4. The emperor always thinks about the lower classes.
5.10 The SHIMO-JIMO (the lower classes) Group

SHIMO-JIMO (the lower classes)
SUE-ZUE (the lower classes/offspring)
SHI-SHI-SON-SON (descendants)

These reduplicative forms unlike most others discussed above, can be used both in writing and in speaking, both with a formal nuance. The referents are people.

In contrast to the WARE-WARE group, which also refers to people (it will be discussed in 5.12), members of this group cannot co-occur with numerals:


I.R: There are three/fifty lower classes/offspring/descendants over there.

Similarly, although the referents are people, we cannot say:

2. *mukoo kara SHIMO-JIMO/SUE-ZUE ga kita.

I.R: The lower classes are coming from over there.


I.R: I can see the lower classes/descendants over there.

A sentence in which a form like this would typically appear is:

4. Tennoo heika wa itsumo SHIMO-JIMO/SUE-ZUE o emomte kudasaru.

I.R: The emperor always thinks about the lower classes.
It is obvious that though the referents are people, we can neither see nor count them. The reason is that they are a very large group of people who are conceptualised with regard to social hierarchy; descendants and the lower classes are conceptualised in contrast to ancestors and the upper class.

Presumably it is for this reason also that these reduplicative forms do not have any non-reduplicative counterparts. We do not conceptualise the referents as individual constituents, but rather as a mass. They cannot fulfill the other conditions of the delimitation of the space and the separation of the constituents. Since SHIMO-JIMO (the lower classes) and SHI-SHI-SON-SON (descendants) exist as comparative concepts, or to parts of a social hierarchy, they cannot be separated from where they are. Since the constituents of the referents cannot be separated from each other, i.e., they cannot appear as an isolated entity. For example, neither an example such as:

4'. *Tennoo heika wa itsumo SHIMO/SUE o
emperor t. always o.

omotte kudasaru.
think h. give

I.R: The emperor always thinks about the lower classes.

nor,

5. * watashi wa SHIMO-JIMO no hitori desu.
I t. the lower classes of one be

I.R: I am one of the lower classes.

exist.
The semantic formula I propose:

A large group of people who are thought of as part of society and who are thought of as people who cannot be counted because they can neither be separated from each other nor from where they are.

These reduplicative forms are more likely to appear as noun modifiers with NO/NA (of) than as nouns, for example, "EADU-EADU no punameno" (various presents), "TSH-IAD no shokunenshi" (various sorts of kindness), "NNO-TSH no jijoo" (various conditions). In this section, however, the nominal usages only are discussed, the adjectival use not falling within the scope of this thesis.

In contrast to other reduplications, these reduplicatives indicate 'variety'.

First of all, observe the sentences below:

1. atijin, gin, akorono NNO-TSH no shunin, minister-parliament men other various a. gathered Ministers, parliamentarians and many others are gathered there.

2. anata-sanai kara sete... go-shimamene no KADU-KADU o you, b from received a kindness of various a. besubita waasumensen. and in any case never forget

(I) will never forget abundance of kindness (I) have received from you.
5.11 The KAZU-KAZU (various) Group

KAZU-KAZU (various)
IRO-IRO (various)
MORO-MORO (various)
SHU-JU (various)
SAMA-ZAMA (various)
KUSA-GUSA (various)

These reduplicative forms are more likely to appear as noun modifiers with NO/NA (of) than as nouns, for example, 'KAZU-KAZU no purezento' (various presents), 'IRO-IRO no/na kokorozukai' (various sorts of kindness), 'MORO-MORO no jijoo' (various conditions). In this section, however, the nominal usages only are discussed, the adjectival use not falling within the scope of this thesis.

In contrast to other reduplications, these reduplicatives indicate 'variety'.

First of all, observe the sentences below:

1. daijin, giin, sonota MORO-MORO ga atsumaru.

Ministers, parliamentarians and many others are gathered there.

2. anata-sama kara uketa go-shinsetsu no KAZU-KAZU o kesshite wasuremasen.

(I) will never forget abundance of kindness (I) have received from you.
3. kono hon ni wa tsuji ga hana no shuho no IRO-IRO ga noserareteiru. various s. are put

This book gives various techniques of 'Tsuji ga Hana' printing.

These reduplicative forms are like demonstratives, in that their referents are not fixed, but vary according to context. In this case, the nouns preceding the reduplicative form tell us what kind of entities the referents are. For example in 1, MORO-MORO refers to people, but it could well refer to something else in another context. Look at the example below:

4. sono kisetsu no kikoo, zairyoo, nedan sonota MORO-MORO o kooryo shite, ryoori o tsukurimasu. various o. think dish o. make

(I) make dishes taking the ingredients, the climate, the price and various other factors into account.

In this case, the referents are all factors to be taken into consideration before cooking. Compare the example below with Example 2, in which this reduplicative form also appears.

5. shoohin no KAZU-KAZU ga juyosareta. prize of various s. were given

Various prizes were given.

The referents of these reduplicatives may be countable, as in Example 1: people and 3: techniques, or uncountable as in 2: kindness. The countability of the referents is not based on the reduplication but on the properties of the the referents themselves. They can be counted if the referents are countable, either as a same kind in case of people as in Example 1 or as different kinds as in Example 3'. Consider the following:
1'. daijin giin sonota MORO-MORO ga gojuunin minister parliament man other various s. fifty-n.c. atsumatta. gathered

Fifty ministers, parliament men and many others are gathered.

3'. kono hon ni wa 'tsuji ga hana' no shuhoo no IRO-IRO this book in t. of technique of various ga gojus-shurui noserareteiru. s. fifty kind are put

This book gives fifty kinds of various techniques of 'Tsuji ga Hana' printing.

Notice that the number of referents involved is quite considerable. It would not be possible to use these forms if the number was very small.

These forms cannot be replaced by non-reduplicated forms, since most of them simply have no exact counterpart. KAZU means 'number', IRO means 'colour' and MORO means 'all', and all of these are bound morphemes. Only the reduplicated forms have the meaning of various things or matters. We cannot call one of the referents by the non-reduplicative counter parts.

The semantic formula I propose:

many different things of the same group,
they can be counted as the same kind if they are of the same kind,
they can be counted as different kinds of the same group if they are of different kinds of the same group,
because they are separate things of the same group in a limited place

The RUIGO SHIN-JITEN (New Synonym dictionary) gives more examples of similar reduplicative forms composed of bound morphemes, such as
TORI-DORI (various), SAMA-ZAMA (various), SHU-JU (various), KUSA-GUSA (various) and JI-JI-BUTSU-BUTSU (various). The former three, however, are only used as noun modifiers with the genitive particle NO.

KATA-GATA (people h.)

These reduplicatives have a formal sense, but they have neither lexical nor optical impression. They can also be used in both speaking and written style.

3.17.1 Co-occurrence WITH Numerals

These reduplicative forms can co-occur with numerals.

1. kimi-machi gosho wa kare shigoto o shitekure, you pl. five-a.m. i. this work o. do

KARE-KARE ansanai wa kare shigoto o suru, we three-neg. i. that work o. do

You five do this job; we three will do that job.

2. ashiro no annai no KATA-GATA ni rokase no annai, there of three-n.n. of people n. to h. great do

Great those three people over there.

Moreover, both of these forms are used in both speaking and writing, always with a formal sense. However, this formality is not caused by the process of reduplication but by the non-reduplicated forms themselves. KARE, in contrast to KATA-GATA (1), has a slightly archaic sense. KATA is considered an an honorific form of KARE. However, unlike KARE, KATA is not used by itself. It must be always modified:

1. kare ga ashiro ni iru, n. there in be

1.3A person is over there.
5.12 The WARE-WARE (we) Group

WARE-WARE (we)

KATA-GATA (people h.)

These reduplicatives have a formal nuance, but they have neither lyrical nor optical impression. They can also be used in both speaking and written style.

5.12.1 Co-occurrence With Numerals

These reduplicative forms can co-occur with numerals.

1. kimi-tachi gonin wa kono shigoto o shitekure,
   you pl. five-n. c. t. this work o. do
   WARE-WARE sannin wa ano shigoto o suru.
   we three-n. c. t. that work o. do

   You five do this job; we three will do that job.

2. achira no sannin no KATA-GATA ni goaisatsu nasai.
   there of three-n. c. of people h. to h. greet do

   Greet those three people over there.

Moreover, both of these forms are used in both speaking and writing, always with a formal nuance. However, this formality is not caused by the process of reduplication but by the non-reduplicated forms themselves. WARE, in contrast to WATASHI (I), has a slightly archaic nuance. KATA is considered as an honorific form of HITO. However, unlike HITO, KATA is not used by itself. It must be always modified:

3. *kata ga asoko ni iru.
   s. there in be

I.R:A person is over there
4. ano kata ga asoko ni iru.
that person s. there in be

That person is over there.

Similarly KATA-GATA must also be modified:

5. *KATA-GATA ni ocha o sashiagete kudasai.
people h. to tea o. give-h. please

I.R: Please give tea to people.

6. ano KATA-GATA ni ocha o sashiagete kudasai.
that people h. to tea o. give-h. please

Please give tea to those people.

Ruigo Shinjiten (New Synonym Dictionary) explains KATA-GATA to be polite form of HITO-BITO (people) (p.451). However, this is not always correct:

7. HITO-BITO wa kono yoosu o mite kichigai to itta.
people h. t. this doing o. watch crazy q. said

Observing this people said, "(he) is crazy".

8. *KATA-GATA wa kono yoosu o mite kichigai to itta.
people h. t. this doing o. watch crazy q. said

I.R: Observing this people said, "(he) is crazy".

HITO-BITO in 7 cannot be replaced by KATA-GATA, since it is not modified. On this point KATA-GATA is actually closer in meaning to HITO-TACHI (person-pl.) rather than to HITO-BITO, as we noted in Section 5.6.2.

KATA-GATA and WARE-WARE function just as the simple plural; i.e., they mean simply more than one individual as an aggregate.

9. WARE-WARE futari wa achiha ni ikimasu.
we two t. over there to go

We two will go over there.
10. hoka no o-futari wa kenjoo to tere no katamari mitaina other of o. two t. modesty and shyness of lump like

KATA-GATA de........
people h. be

The other two are people who are full of modesty and shyness.


KAMI-GAMI (gods) can also be categorised into this group, because the non-reduplicated and reduplicated contrast corresponds to a plural and singular contrast respectively.

However, in the case of KAMI-GAMI, even the non-reduplicated form cannot co-occur with numerals. This is because there is no special classifier for gods, nor can the classifier for counting miscellaneous objects co-occur with it:

11. *girisha no KAMI-GAMI mittsu ga parutenon ni matsurareteiru.
Greek of gods three s. Parthenon in are dedicated

I.R: The Parthenon is dedicated to three Greek gods.

Nor can the non-reduplicated form: KAMI co-occur with numerals:

11'. *girisha no KAMI mittsu ga parutenon ni matsurareteiru.
Greek of god three s. Parthenon in are dedicated

I.R: The Parthenon is dedicated to three Greek gods.

The reduplicative and non-reduplicative contrast corresponds to that of plural and singular. That is, when the referents are clearly plural, the reduplicative form must be used:

12. yaoyorozu no KAMI-GAMI god
countless of | KAMI-GAMI | *KAMI

Innumerable gods

13. girisha no KAMI-GAMI god
Greek of | KAMI-GAMI | *KAMI

the Greek Gods
It would thus appear that KAMI-GAMI can be categorised into this group, since although it is not countable, it has a plural vs. singular contrast and the non-reduplicated form can exist by itself to indicate only singular. The reason it is not countable is not because of reduplication but, because there is no numeral classifier.

The semantic formula suggested for WARE-WARE and KATA-GATA is:

A group of people, who are thought of as people who could be counted, because one can think of them as separated people of the same kind in a limited place.
5.13 The DOKO-DOKO (which place) Group

DOKO-DOKO (which places)

NANI-NANI (what things)

DARE-DARE (which people)

DORE-DORE (which things)

ITSU-ITSU (what times)

These reduplicative forms can be used both in written style and speaking. They neither create a lyrical nor an optical impression. All of these are reduplicative forms of interrogative pronouns. If we say:

1. NANI-NANI o motte-iku ka oshiete kudasai
   what things o. bring qe. tell please
   Please tell me what to take.

   It is obvious that we are asking for the identification of two or more different kinds of objects, rather than objects of the same kind.
   This concept is also conveyed by DARE-DARE: two or more different individual, ITSU-ITSU: two or more different times, DOKO-DOKO: two or more different places and DORE-DORE: two or more different things.
   These forms can co-occur with interrogative numerals.

2. ITSU-ITSU nanka iku ka oshiete kudasai.
   what times how many n.c. go qe. tell please
   Please tell me how many times and what times you go.

3. DOKO-DOKO nanka sho iku ka oshiete kudasai.
   which places how many n.c. go qe. tell please
   Please tell me how many places and which places you go to.

4. DARE-DARE ga nannin iku ka oshiete kudasai.
   which people s. how many n.c. go qe. tell please
   Please tell me how many people and which people go.

   However, the following is unacceptable:
5. *NANI-NANI o ikutsu motte-kuru ka oshiete kudasai.
what things o. how many bring qe. tell please

I.R: Please tell me how many and what things to bring.

This is because NANI-NANI indicates different kinds of referent.

Therefore:

6. NANI-NANI o IKUTSU-IKUTSU motte-kuru ka oshiete kudasai.
what things o. how many bring qe. tell please

Please tell me how many of each kind and what things to bring.

IKUTSU-IKUTSU is interpreted as meaning of how many of each kind;
not 'how many kinds'.

The following semantic formula is suggested for this group:

Things/persons/times/places/ that one does not know,
but one knows that they are more than one kind of thing/person/time/place
and one would like to know their names exactly,
when they are persons/times/places, they can be counted,
when they are things they cannot be counted together, but separately, because they are not the same kind but different kinds.
5.14 The MEN-MEN (everyone) Group

MEN-MEN (everyone)

As with WARE-WARE (we) group, the reduplicative form can co-occur with numerals.

1. Japan sentaa no MEN-MEN juuhachinin ga atsumatta.
    Japan centre of eighteen s. gathered

Eighteen member of Japan Centre were gathered.

These reduplicative forms behave almost identically to WARE-WARE group, since they also refer to people. The differences between this case and WARE-WARE groups are 1. the number of the constituents, 2. the lack of corresponding non-reduplicated forms as free morphemes. For MEN-MEN two referents are not enough, so it cannot co-occur with numerals and the classifier for two people, FUTARI (*MEN-MEN futari).

Regarding the second, the non-reduplicated form of MEN is meaningful segments, but cannot stand alone. MEN indicates 'face'. Moreover, MEN does not correspond to one single constituent of the group as YAMA (mountain) of YAMA-YAMA can. Seeing one of the members of the Japan Centre, we can neither say:

2. *asoko ni Japan Centre no MEN ga iru.
    over there in of s. be

I.R: There is a member of the Japan Centre over there.

nor:

3. *watashi wa Japan Centre no MEN desu.
    I t. of be

I.R: I am a member of the Japan Centre.

Similarly, even with reduplicative forms, the one constituent of the referents cannot be isolated:
4. *watashi wa Japan Centre no MEN-MEN no hitori desu.  
I t. of of one-n.c. be

I.R: I am one of the members of the Japan Centre.

One constituent of the referents cannot appear as an isolated entity. We do not conceptualise the referents as individual constituents, but as a group. In this sense this reduplicative form is identical to SHIMO-JIMO group.

The semantic formula suggested is:

A group of many people,

one of whom cannot be taken from the place/group where they are,

and who are thought of as people who could be counted, because one can think of them as separated people who are gathered in a limited place.
5.15 Restriction and Productivity of N1-N1 A

In this section, I would like to discuss what is common to all these reduplicative expressions of the form N1-N1 A, the conditions in which they can be used felicitously and how they are related to the restriction in general which we observed above in Section 4.3. The restrictions observed are as follows: 1. animate objects 2. movable objects and 3. objects which do not have uniform shapes cannot form N1-N1 A.
The groups I have established are as follows:

A. -numeral/+non-reduplicated forms

A-1-1  YAMA-YAMA (mountains), IE-IE (houses), KI-CI (trees), HANA-BANA (flowers)

A-1-2  SHIMA-JIMA (islands), KUNI-GUNI (countries), MACHI-MACHI (towns), MURA-MURA (villages)

A-1-3  HI-BI (days)

A-1-4  HITO-BITO (people)

A-1-5  TSUBU-TSUBU (things very small and round) DAN-DAN (things like stairs), TEN-TEN (dots), POTSU-POTSU (small things projecting on a surface like eruptions or rash) etc.

A-1-6  SUMI-ZUMI (every nook and corner), HASHI-BASHI (odds and ends), FUSHI-BUSHI (points), TOKORO-DOKORO (here and there)

A-2  SHINA-JINA (various articles)

B. -numeral -non-reduplicated forms

B-1  SHIMO-JIMO (the lower classes), SUE-ZUE (the lower classes /offspring), SHI-SHI-SON-SON (descendants)

B-2  KAZU-KAZU (various), IRO-IRO (various), MORO-MORO (various) etc.

C. +numeral +non-reduplicated form

C-1.  WARE-WARE (we), KATA-GATA (people h.)

C-2.  DOKO-DOKO (which places), NANI-NANI (what things), ITSU-ITSU (which times), DORE-DORE (which things)

D. +numeral -non-reduplicated form

D-1  MEN-MEN (everyone)
The referents of reduplicative expressions of the form N₁-N₁ A fall into three semantic categories depending on their properties, as follows:

I. things/people/times/places which are part of something.

e.g. YAMA-YAMA (mountains), IE-IE (houses), KI-GI (trees), HANA-BANA (flowers)

...from A-1-1-1. YAMA-YAMA (mountains) group

SHIMA-JIMA (islands), KUNI-GUNI (countries), MACHI-MACHI (towns), MURA-MURA (villages)

...from A-1-1-2. SHIMA-JIMA (islands) group

HI-BI (days)

...from A-1-2. HI-BI (days) group

HITO-BITO (people)

...from A-1-3. HITO-BITO (people) group

TSUBU-TSUBU (things very small and round) DAN-DAN (things like stairs), TEN-TEN (dots), POTSU-POTSU (small things projecting on a surface like eruptions or rash) etc.

...from A-1-4. TSUBU-TSUBU (things very small and round) group

SUMI-ZUMI (every nook and corner), HASHI-BASHI (odds and ends), FUSHI-BUSHI (points), TOKORO-DOKORO (here and there), TSU-TSU-URA-URA (every nook and cranny of the land)

...from A-1-5. SUMI-ZUMI (every nook and corner) group

SHIMO-JIMO (the lower classes), SUE-ZUE (the lower classes/offspring), SHI-SHI-SON-SON (descendants)

...from B-1. SHIMO-JIMO (the lower classes) group

II. a group of things which are thought of as different kinds of things

e.g. KI-GI (trees), HANA-BANA (flowers)

...from A-1-1. YAMA-YAMA (mountains) group
SHINA-JINA (various articles)  

... from A-2. SHINA-JINA (various articles) group

KAZU-KAZU (various), IRO-IRO (various), MORO-MORO (various) etc.

...from B-2. KAZU-KAZU (various) class

III. more than one thing/place/time/person

e.g. WARE-WARE (we), KATA-GATA (people h.)

...from C-1. WARE-WARE (we) group

DOKO-DOKO (which places), NANI-NANI (what things), ITSU-ITSU (which times), DORE-DORE (which things)

...from C-2. DOKO-DOKO (which places) group

MEN-MEN (everyone)

...from D-1. MEN-MEN (everyone) group

The feature of Category I elucidates the reasons of general restriction 1 and 2 on the previous page; 1. animate and 2. movable objects cannot form N1-N1 A, that is, since they are part of something from which they cannot be moved, nor can they move by themselves.  

This category also indicates that the properties which these reduplicatives have do not totally correspond to the concept of 'collectives', that is, an aggregate of individuals. They are not considered as an aggregate since they are not isolated. They are not totally considered as individuals since each of them is not separate. I would like to call this 'gathered plural'.

The SHIMO-JIMO (the lower classes) and KAZU-KAZU (various) group, as well as some members of the TSUBU-TSUBU (things very small and round) class, such as BOTSU-BOTSU (small things projecting on a surface

12 If we take this viewpoint, some of reduplicatives which were nominated by Alfonso (1966, p.447) as "several words which now are used only in reduplicate form" also have this property, namely HO-HO (cheeks), CHI-CHI (breasts), MI-MI (ears) and MO-MO (thighs). They are part of the body.
like eruptions or rash) and POTSU-POTSU (small things projecting on a surface like eruptions or rash), always appear as reduplicative forms. They can be called 'Pluralia tantum' or 'Reduplicativa tantum' just as nouns like 'oats' in English are called 'Pluralia tantum' on the basis of their lack of a 'singular' form.

The reason why they are 'reduplicativa tantum' differs from group to group. For various reasons these reduplicative forms always refer to plural entities. In the case of the SHIMO-JIMO (the lower classes) group, this is because the referents are people, thought of as a mass, rather than as individuals. The IRO-IRO (various) group, on the other hands, includes 'reduplicativa tantum' since it indicates the concept of 'variety'. In order to indicate this concept, more than a certain number of entities are naturally required. Finally some members of the TSUBU-TSUBU (things very small and round) group such as PUTSU-PUTSU/BOTSU-BOTSU (small things projecting on a surface like pimples or rash) are 'Pluralia tantum', since the entities refered to usually appear in groups rather than in isolation.

Let us examine more detail in the description of Category I. The features explained above do not adequate as a means of restriction in that they do not exclude the formation of unacceptable forms, such as NO-NO (fields), KAWA-GAWA (rivers) and KUMO-GUMO (clouds) or BARA-BARA (roses), SUGI-SUGI (cedars) and KOYA-GOYA (huts). These entities; fields, rivers, etc., are all objects which can be seen in the natural world, like the members of Category I-1, and can be thought of in the same way, as part of something. Hence I would like to consider more closely the conditions on the formation of reduplicative expressions describing objects in the natural world.

The two common features of referents of the reduplicative nouns in Category I-1 are; firstly, that each entity stands on or is projected from the surface of something and secondly, that they are seen as if
they are piled up. As a result of this second feature, we are often forced to imagine the whole body of referents when seeing only the upper most parts of them.

This second feature of overlapping is one of the most important criteria for the use of these reduplicative expressions (Category I-1). Even words which are not commonly reduplicated can be reduplicated when their referents are clearly portrayed as being overlapping (as mentioned in Section 5.3.1.1)

1. zujoo o ootta EDA-EDA no aida kara gogo over the head o. cover branches of between from afternoon
   no taiyoo no koosen ga kimyoona nootan no madara of sun of light s. strange light and shade of patches
   moyoo o nashite nagarekonda.
   pattern o. make stream

   The afternoon sunbeams streamed in between the cover of branches over my head, making strange patches of light and shade.


2. sono kobone no yoona EDA-EDA o sukashite samuzamu that little bone of like branches o. through cold
   to kumotta fuyu no sora ga mie, kumori-zora no haruka cloudy winter of sky s. can see cloudy sky of far
   takaku o tobi ga ichiwa wa o egaiteiru. high o. black eared kite s. one circle o. draw

   I can see the cold, cloudy winter sky through the branches which look like little bones. Far up high in the cloudy sky, a black eared kite is drawing a circle.

   Mada Paipu no Kemuri, p.97.
3. nobori no shoo sen-densha ga, jiki tsuzuite kudari no up of train s. soon continue down of

shoo sen-densha ga supaaku no akai hibana to train s. spark of red light spark and

MADO-MADO no akari o buchimaketa yooni sayuu ni windows of light o. throw-out like right and left to nagashi-nagara toorisugita. flow passed

The up going train, and soon after the down going train, passed through, spreading the lights of their windows like a shower of sparks towards the right and left side as if they were tossed out.

Fukunaga, T., "Kusa no Hana", Fukunaga Takehiko Zenshosetsu, p.401.

4. ichiban densha ga minato no ue o shiroyama no mae ni first train s. harbor of up o. castle of front in aru eki no hoo e hashiri-satte iku. be station of direction to run away go

watashi no me no naka ni kubikazari no yooni I of eye of in in necklace of like hikari o tsuzutta remon iro no MADO-MADO light o. bind lemon colour of windows ga hashirisaru. s. run away

The first train is going across the harbour towards the station which is in front of the castle. In front of me the lemon coloured windows which bind their lights like necklaces, run away.

Setouchi, H., Izuko yori, p.22
5. (soko ni) kookyuu- fukusyoku-ten ya hooseki o there high-class dress shop or jewel o.

atsuau MISE-MISE ga noki o tsuranete ita no mo trade shops s. eaves o. link were comp.

sono tame deatta.

that reason was

That was the reason why there are shops for jewellery and high class dresses linking their eaves (i.e., side by side).


6. watashi wa kagayaku HOSHI-BOSHI no aida o I shining stars of between o.

suzamajii hayasa de tobi-kakkete-iku garuuda terrific speed by fly run go a god in Indonesian myth

no sugata o omoiegaita.
of shape o. imagine

I imagined Garuda flying at high speed between the shining stars.

Kurimoto, K., "Tada Hitotabi no", Shinju Ten no Urashima, p.60.

7. hissori to shita roji, yoroido o shimeta nikaidate no quiet alley shutter o. closed two-storied of

IE-IE...., tokidoki kane no oto no oritekuru sometimes bell of sound s. go down

sekikasshoku no kawaita marugawara no YANE-YANE.... red of dried tile of roofs

Quiet alleys, two-storied houses with closed shutters... roofs made of red dried round tiles with the sound of bells sometimes coming down.

Chuokoron, Feb., 1984, p.139

The image of overlapping entities in Example 1 to 4 has already been explained in Section 5.3.1.1. In in the case of 5. MISE-MISE (shops), are thought of as overlapping, as shown by the use of the verb 'tsuranete' (linking). By HOSHI-BOSHI (stars) as in Example 6, we
cannot mean stars in the sky, seen from the earth. In this example the
writer imagines that he is in space and is so close to the stars,
surrounded by them, that they must be seen to be overlapping, almost
indistinguishable from one another. In case of 7, YANE-YANE (roofs),
can also be viewed as indiscrete, overlapping entities, on the basis
that IE-IE (houses) in the previous sentence, are clearly understood to
be overlapping referents in this context.

The use of the reduplicative expression TANI-DANI (valleys), which
is found in Japanese literature can be explained by applying this
restriction. If one sees valleys, one can see only some parts of them;
the rim and parts of the slopes. One can easily imagine some more parts
that are hidden. So, while UMI (sea), KAWA (river) and IKE (pond) are
thought of as two dimensional, YAMA (mountain), TANI (valley) and so on
are considered three dimensional. The former cannot overlap in ones
field of vision, while the latter are extremely likely to. This
explains the unacceptability of the forms NO-NO (fields) and KAWA-GAWA
(rivers).

The reason why KUMO (clouds) does not have a reduplicated form is
basically the same. I presume that this is because there is no way for
us to know whether they are overlapping or not, because of their
fluidity. Seeing only some parts of them, we cannot be sure whether the
parts we cannot see are divided or joined. The third restriction that
nouns indicating objects which do not have a uniform shape or which
change their shapes so easily cannot form reduplication, is due to
this. In contrast, for example, IE-IE and KI-GI are actually separate
objects, even though we cannot always separate them visually. Even in
the cases like YAMA-YAMA (mountains) and TANI-DANI (valleys), the parts
which are hidden can be considered separate. If we see clouds which are
reaching up to the sky, they can be described as 'KUMO no MINE-MINE'
(peaks of clouds) using the reduplicated form of MINE (the peak of a
mountain) to give the clear impression of basically discrete entities overlapping MINE-MINE, which is actually not commonly used, like YAMA-YAMA (mountains), focuses on the upper parts of the mountains or clouds rather than on the whole body.

The reason why there are no forms of BARA-BARA (roses), SUGI-SUGI (cedars) and KOYA-GOYA (huts) is quite different. These entities are thought of three dimensional, and are often seen to be overlapping. The non-occurrence of these reduplicative expressions is explained by the relation between these entities and HANA (flower), KI (tree) and IE (house) respectively. The former in each case is a subcategory of the latter. We can think of many other words which are considered to be members or subcategory in each reduplicative form, for instance, MEIKA (beautiful flower) and SEIKA (natural flower) for HANA (flower), and NIWAKI (garden flower) for KI (tree). All of them cannot be reduplicated.

On the whole, the following can be said to be the components which are common to reduplicative expressions, with the exception of those in Category III WARE-WARE (we), MEN-MEN (everyone), DOKO-DOKO (where)) 1. "parts of something which do not move by themselves and which cannot be separated from the place where they are" and 2. "things which are thought of as different kinds". The former indicates the indiscreteness of the referents being semiseparated. The latter indicates variety of the referents.
5.16 Grammatical Categories of Nl-Nl A

I would like to suggest to classify the reduplicative forms depending on their ability to co-occur with numerals and the existence of non-reduplicated counterparts.

I. With numerals

a. reduplicative forms which co-occur with numerals ...I

C-1 WARE-WARE (we) group
C-2 DOKO-DOKO (which places) group
D-1 MEN-MEN (everyone) group

b. reduplicative forms which co-occur neither with numerals nor with numerals plus SHURUI (kind) ...II

A-1-1-1 YAMA-YAMA (mountains) group
A-1-1-2 SHIMA-JIMA (islands) group
A-1-2 HI-BI (days) group
A-1-3 HITO-BITO (people) group
A-1-4 TSUBU-TSUBU (things very small and round) group
A-1-5 SUMI-ZUMI (every nook and corner) group
B-1 SHIMO-JIMO (the lower classes) group
B-2 KAZU-KAZU (various) group
  (when it refers the same kind)

13. YAMA-YAMA (mountains) and 2. SHIMA-JIMA (islands) group reduplicative forms would be countable under certain conditions as explained in 5.3 and 5.4. TSUBU- TSUBU class reduplicative forms are countable too. However, I categorised them into Class 1, since Japanese speakers are much happier to use their non-reduplicated counterparts when counting.

14. Some of the reduplicative forms of the TSUBU- TSUBU (things very small and round) class, such as BOTSU-BOTSU and PUTSU-PUTSU, are categorised into II-a, since they do not have non-reduplicated counterparts as nouns.

15. KAZU-KAZU could be categorised either into Class I-b or I-c depending on the referents.

c. reduplicative froms which co-occur with numerals + SHURUI (kind) ...III

HANA-BANA (flowers), KI-GI (trees)

.....from A-1 YAMA-YAMA (group)

A-2 SHINA-JINA (various articles) group
B-2 KAZU-KAZU (various) group
  (when it refers the different kind)
II. The Existence of non-reduplicated counterparts

a. reduplicative forms which are reduplicative tantum ...IV

B-1 SHIMO-JIMO (the lower classes) group
B-2 KAZU-KAZU (various) group
D-1 MEN-MEN (everyone) group

...from TSUBU-TSUBU (things very small and round) group

b. reduplicative forms which have non-reduplicated counterparts ...V

A-1-1-1 YAMA-YAMA (mountains) group
A-1-1-2 SHIMA-JIMA (islands) group
A-1-2 HI-BI (days) group
A-1-3 HITO-BITO (people) group
A-1-4 TSUBU-TSUBU (things very small and round) group
A-1-5 SUMI-ZUMI (every nook and corner) group
A-2 SHINA-JINA (various) group
C-1 WARE-WARE (we) group
C-2 DOKO-DOKO (which places) group

I would like to call I-a, GRAMMATICAL CATEGORY I, I-b, GRAMMATICAL CATEGORY II, I-c, GRAMMATICAL CATEGORY III, II-a, GRAMMATICAL CATEGORY IV and II-b, GRAMMATICAL CATEGORY V.

I-a: CATEGORY I indicates that the referents 'can be thought of as separate within a limited space.', I-b: CATEGORY II indicates referents that are 'not thought of as separate within a limited space', I-c: CATEGORY III, indicates referents which can be thought of as separate in a limited space and they are thought of as different kinds.' II-a: CATEGORY IV, indicates referents 'whose constituent is not thought of as an isolated entity' and II-b: CATEGORY V indicates referents 'whose constituent can be thought of as an isolated entity.'

According to the criteria listed above then, reduplication of the type N1-N1 A can be divided into five subcategories.
Class 1

GRAMMATICAL CATEGORIES II and V.

(The referents are not thought of as separate in a limited space, but as ones whose constituents can be thought of as isolated entities)

A-1-1-1 YAMA-YAMA (mountains) group
A-1-1-2 SHIMA-JIMA (islands) group
A-1-2 HI-BI (days) group
A-1-3 HITO-BITO (people) group
A-1-4 TSUBU-TSUBU (things very small and round) group
A-1-5 SUMI-ZUMI (every nook and corner) group

Class 2

GRAMMATICAL CATEGORIES II and IV

(the referents are not thought of as separate within the limited space and the constituent is not thought of as an isolated entity)

B-1 SHIMO-JIMO (the lower classes) group

BOTSU-BOTSU/PUTSU-PUTSU (small things projecting on a surface)
... from A-4 TSUBU-TSUBU (things very small and round) group

B-2 KAZU-KAZU (various) group
... from KAZU-KAZU (various) group

Class 3

GRAMMATICAL CATEGORIES III and V

(The referents can be thought of as separate in a limited space and they are different kinds whose constituents can be thought of as isolated entities)

HANA-BANA (flowers) and KI-GI (trees)
... from A-1-1-1 YAMA-YAMA (mountain) group

A-2 SHINA-JINA (various articles) group

Class 4

GRAMMATICAL CATEGORIES III and IV

(The referents can be thought of as separate in a limited space and they are different kinds and their constituents are not thought of as isolated entities)

B-2 KAZU-KAZU (various) group
Class 5

GRAMMATICAL CATEGORIES I and V

(the referents can be thought of as separate in a limited space and the constituents can be thought of as isolated entities)

C-1 WARE-WARE (we) group
C-2 DOKO-DOKO (which places) group

Class 6

GRAMMATICAL CATEGORIES I and IV

(The referents can be thought of as separate in a limited space and the constituents are not thought of as isolated entities)

D-1 MEN-MEN (everyone) group
CHAPTER 6

REDUPLICATION INDICATING DISTRIBUTION

6.1 Introduction

The various ways of expressing 'distribution' can be divided into three types, as briefly illustrated in Chapter 1. The three types are as follows:

Type I. N1-N1 B

1. CHIHOO-CHIHOO de kekkon no fuushuu ga chigau.
region in marriage of custom s. different

The marriage customs differ from region to region.

Type II. SONO N1 SONO N1

2. SONO RINGO SONO RINGO de aji ga chigau.
that apple in taste s. different

The taste of the apples differs from one to the next.

Type III. Reduplication of a word which means 'one' (numeral plus classifier for counting each object)

3. ringo no aji wa HITOTSU-HITOTSU chigau.
apple of taste t. one-n.c. different

The taste of the apples differs from one to the next.

Type I is called N1-N1 B in contrast to N1-N1 A, which have been the topic of discussion until now. Replicative forms of Type III (e.g. HITOTSU-HITOTSU) are more commonly used as adverbials than as nominals, that is, they appear without modification or particles. However, both nominal and adverbial uses are taken into account in this discussion, since they are identical in that both serve to denote
plural referents. There is another subtype of Nl-Nl B reduplicatives such as MEI-MEI (each), KO-KO (each) and so forth. Since Nl in this case is not a free morpheme but a bound morpheme, I would like to call these reduplicative forms Nl-Nl B'.

6.2 Nl Nl B Reduplicatives and SONO Nl SONO Nl Reduplicatives

As we have observed in Chapter 4., some nouns such as CHIHOO (region) can appear in both Type I :Nl-Nl B, and Type II:SONO Nl SONO Nl constructions to indicate more or less the same situation, while other nouns such as RINGO (apple) appear only in constructions of Type II. The distribution of the usage of these reduplicatives seems to differ considerably from person to person. Nevertheless I strongly believe that there are regularised tendencies in their usage. To investigate this regularity I devised Questionnaire III which is attached to this paper as Appendix C. As explained before, the purpose of the questionnaires is not to make a statistical analysis but to give a more objective picture of the use of these forms than could be provided by an analysis based purely on introspection.
6.2.1 N₁-N₁ vs. SONO N₁ SONO N₁ with the Verb CHIGAU (differ)

First the re-duplicative forms with the verb: chigau (differ), are considered, since they tend to appear particularly often with this particular verb.

A sentence involving the Type II construction like:

1. kekkon no fuushuu wa SONO CHIHOO SONO CHIHOO de chigau.

The marriage customs differ from region to region.

1'. kekkon no fuushuu wa CHIHOO-CHIHOO de chigau.

The marriage customs differ from region to region.

This particular paraphrasing can occur with nouns such as CHIHOO (region), TOCHI (locality), CHIIKI (region) and so forth. In contrast, with other nouns, especially movable objects such as RINGO (apples), this paraphrasing is not possible.

2. SONO RINGO SONO RINGO de aji ga chigau.

The taste of the apples differs from one to the next.

2'.*RINGO RINGO de aji ga chigau.

I.R: The taste of the apples differs from one to the next.
Observe the following list which is a result of Questionnaire III.

With the verb chigau

NOTE: The number under 'Y' indicates the number of informants who accepted the form, the number under 'N' indicates those who did not, and that of 'DN', those who felt unsure as to whether the form was acceptable or not.

The reduplicative forms of Type I were sometimes pronounced in two ways: 1. as compounds, i.e., with a voiced consonant initially in the second component of the reduplication in the case of two mora nouns, or with an accent change; 2. as the repetition of one word without any voicing or accent change. This was done to ascertain whether either pronunciation would result in a higher degree of acceptability difference. No significant difference was observed. The former way is indicated with the hyphen between the components and the latter is indicated by without hyphenation. The results obtained when the reduplication was pronounced in the second way are in parenthesis.

'\(^A\)', '?' and 'U' serves to indicate whether these figures suggest that the reduplicative form concerned is generally acceptable or not. If the number of the informants who accepted it is more than two thirds of the whole, 'A' is used to indicate a high degree of acceptability. If it is between two thirds and one third, '?' is used, and less than one third 'U'.

<table>
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<th>Reduplication</th>
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<tr>
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<tr>
<td>Person</td>
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Generally speaking, three mora nouns tend to be more readily paraphrased than two mora nouns. However, this phonological tendency is not entirely responsible for the accessibility to paraphrasing, because not all three mora nouns can be paraphrased and not all two mora nouns cannot be paraphrased. More precise semantic analysis is necessary.

To discuss their semantic conditions the nouns above are divided into several groups according to the degree to which they can readily be paraphrased. I call the group of nouns which can be paraphrased the CHIHOO (region) group in the case of those that represent place, and the KISETSU (season) group in the case of those indicating time. As for group of nouns which cannot be paraphrased, there is the RINGO (apple) group in the case of movable objects, the YAMA (mountain) group
in the case of unmovable objects in the natural world and the HITO (person) group in the case of human beings. I also call those groups of nouns which are rarely paraphrased the KUNI (country) group in the case of place, and TOSHI (year) group in the case of time.

The nouns of each group are as follows:

CHIHOO group ...TOCHI (place), CHIIKI (region) etc.

KISETSU group...JIDAI (era), TOKI (the moment then something occurs), KEESU (case), BAAI (case), SHIIIZUN (season), etc.

RINGO group...KURUMA (car), TSUKUE (desk), ISU (chair), etc.

YAMA group......MIZUUMI (lake), KI (tree), KAWA (river), etc.

HITO group......KODOMO (child), etc.

KUNI group......MACHI (town), MURA (village)

TOSHI group.....HI (day), TSUKI (month), SHUU (week), etc.

As explained above, RINGO (apple) cannot be paraphrased by a Type I construction. In other words, RINGO must appear with the demonstrative pronoun SONO to express the concept of distribution. What is the function of SONO in this case?

The functions of SONO are often discussed, but to my knowledge, they have not been rigorously explained, and opinions about them vary considerably. Martin's view seems the most appropriate in this instance. Martin (1975, p.1061) says:

"In the iteration pattern sono N1 sono N1 (dono N1 mo 'whatever N1!') we can think of sono as a minimal specification of the noun."

Just as Martin claimed SONO serves to indicate a minimal specification of the noun in this case.

The next question is why referents like RINGO (apple) necessitate this specification, while those like CHIHOO (region) do not. If we admit SONO as a minimal specification of the noun, we must assume that the nouns which require SONO are not themselves marked in terms of this
specification. That is to say, CHIHOO (region) is specific by itself while RINGO (apple) is not.

I would first like to investigate the difference between the TOSHI (year) groups which do not allow this paraphrasing and KISETSU (season) groups which do allow it.

The difference between the two groups is caused by the fact that time can be divided in different ways. I would like to explain this by referring to space as well. Space and time are interrelated indiscernible expansions. Space is an unlimited two or three dimensional expansion while time is a unlimited linear one. We neither see nor touch 'time'. Similarly, we think of 'space' as an infinite expanse, in which things exist and move, but which one can neither touch nor see. We cannot distinguish Time A from Time B on the bases of their physical instances, e.g., their shapes. They are just two sets. However, although both time and space are really unlimited and indiscernible, we can divide them using various criteria.

If we want to divide time or space into equal portions, we use TOSHI (year), TSUKI (month), SHIGO (week), and HI (day) in the case of time, and NI (meter), KI (kilometer), SÅHI (square meter) and so forth, in the case of space. TOSHI (year), TSUKI (month), and HI (day) can be measured and divided by a watch or a calendar whereas JINAI (era) and KISETSU (season) cannot. KISETSU (season) and TOSHI (year) are measured or divided according to a 'fixed' scale, while names of the CHIHOO (region) and KISETSU (season) groups are not.

Rather, the referents of these names are distinguished on the basis of their differences from one another. If we consider the names in these groups carefully, we will observe that they do not form a continuum, as those of the TOSHI group do. Referents such as YOMI (occasion) can be partitioned on the stream of time. Likewise, in the case of the CHIHOO (region) group, the borders of each SHIHOO (place)
6.2.1.1 TSUKI (month) vs. KISETSU (season) Group

According to Questionnaire III, KISETSU (season) is acceptable, in both the SONO NI SONO NI pattern and the NI-NI B pattern. However, TOSHI (year), TSUKI (month), SHUU (week) and HI (day) are not generally considered acceptable without SONO.

The difference between the two groups is caused by the fact that time can be divided in different ways. I would like to explain this by referring to space as well. Space and time are inseparable indiscrimate expansions. Space is an unlimited two or three dimensional expansion while time is a unlimited linear one. We neither see nor touch 'time'. Similarly, we think of 'space' as an infinite expanse, in which things exist and move, but which one can neither touch nor see. We cannot distinguish Time A from Time B on the bases of their physical features, e.g., their shapes. They are just the same. However, although both time and space are really unlimited and indiscrimate, we often do divide them using various criteria.

If we want to divide time or space into equal portions, we use TOSHI (year), TSUKI (month), SHUU (week) and HI (day) in the case of time, and MEETORU (meter), KIRO (kilometer), HEEHOO-MEETORU (square metres) and so forth, in the case of space. TOSHI (year), TSUKI (month) and HI (day) can be measured and divided by a watch or a calendar whereas JIDAI (era) and KISETSU (season) cannot. MEETORU (meter) and TOSHI (year) are measured or divided according to a fixed scale, while nouns of the CHIHOO (region) and KISETSU (season) groups are not.

Rather, the referents of these nouns are distinguished on the basis of their differences from one another. If we consider the nouns in these groups carefully, we will observe that they do not form a continuum, as those of the TSUKI group do. Referents such as TOKI (occasion) can be scattered on the stream of time. Likewise, in the case of the CHIHOO (region) group, the borders of each TOCHI (place)
are not necessarily adjoined. In these cases, Time and Space are not divided but distinguished. What is distinguished is not the Time or Space itself, these being indiscrete and infinite, but the things that happen at that time or in that space. In other words, because something happens or has happened, the time when it happened and the space where it happened, are distinguished from the time/space around.\(^1\)

Each season, spring, summer, autumn and winter, is obviously different from the others. We name them because of the different things that happen in them. Whereas TOSHI (year), TSUKI (month) and HI (day) are named by virtue of their uniform length.\(^2\)

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1TOKORO-DOKORO (here and there), HOO-BOO (all directions), HASHI-BASHI (odds and ends, parts) and FUSHI-BUSHI (points), which are categorised into N1-N1 A since they cannot be paraphrased into the SONO N1 SONO N1 pattern, but can be classified into this group as far as their semantic meanings are concerned. They indicate the times/places where something happened.

2When words of the TOSHI (year) class are reduplicated, they mainly appear as adverbials without modification or particles, or with the genitive particle NO, in which case they denote each successive unit of time. See the examples below:

TOSHI-DOSHI no aisatsu
year of greeting
the greetings of each successive year

TSUKI-ZUKI no shiharai
month of pay
pay for each successive month

HI-BI no shiharai
day of pay
pay for each successive day

The reduplication indicates a continuous series of days, months or years, without any break.

Other reduplicative forms which might also be categorised into the TOSHI (year) class are NEN-NEN (year by year), JI-JI-KOKU-KOKU (from one moment to the next) and NICHI-NICHI (daily). However, they differ slightly in that their non-reduplicated forms are bound morphemes and the former two indicate the concept of increase, in addition to the concept of repetition.
6.2.1.2 CHIHOO (region) vs KUNI (country) Group

According to Questionnaire III, the reduplication of some place nouns such as KUNI (country) and MACHI (town), do not have as high a level of acceptability as that of CHIHOO (region) when they appear without SONO (that). This is surprising considering the fact that KUNI, MACHI and CHIHOO all seem to indicate a certain place which is not movable and which is distinguishable from others of its kind.

According to some of my informants the unacceptability attributed to the fact that the forms KUNI-GUNI (countries), MACHI-MACHI (towns) etc. evoke the image of gathered countries and towns; that is the image conveyed by N1-N1 A. However, this does not explain why KUNI-GUNI (countries) indicates N1-N1 A while CHIHOO-CHIHOO indicates N1-N1 B.

Presumably it is also relevant that YAMA-YAMA (mountains), KAWA-GAWA (rivers), KI-GI (trees) and MIZUUMI-MIZUUMI (lakes) are also unacceptable in the pattern N1-N1 B, in spite of the fact that they are unmovable objects. How then can we explain the difference between the CHIHOO (region) and KUNI (country) groups?

At first the difference between the CHIHOO (region) and KUNI (country) group is considered.

As mentioned above, space, like time, is an unlimited indiscrete expansion. Although it is unlimited and indiscrete, we do speak of it as if it were clearly divisible. Now, we have observed already that nouns like CHIHOO (region) and TOCHI (locality) are differentiated by people according to certain distinguishing features. However, unlike the CHIHOO (region) group, KUNI (country), MACHI (town) and MURA (village) are physical entities occurring naturally. Of course we can draw lines between them for administrative reasons. However these reduplicative expressions, in particular MURA-MURA (villages) and MACHI-MACHI (towns), do not indicate administrative divisions but rather colonies which have developed naturally, as explained in Section
For example, if one looks down on a single colony from the top of a mountain, even if one knows that it is divided into several MACHI (towns) in the administrative sense, one cannot use the form MACHI-MACHI. The same applies to the use of reduplicative form of MURA (village). Finally, in the case of KUNI (country), we cannot simply re-define the borders of our country for convenience. They are determined by geographical or historical factors largely beyond at least short term control. The words are used in reduplicated expressions to indicate colonies which develop naturally.

In short, we can think of the KUNI (country) class as three dimensional objects occurring naturally, and the CHIHOO (region) class as two dimensional space distinguished by people.

From this point of view, YAMA (mountain), KAWA (river), MIZUUMI (lake) and KI (tree) are identical to the KUNI (country) group. Moreover, HITO (person) and KODOMO (child) are also identical to the KUNI group, in that the members of all these classes are distinguished from one another by natural rather than by people.

The fact that the reduplication of KEN (prefecture) and SHI (city) is not accepted can be attributed not to any "phonological reason", as NOMOTO suggests, but to the reason outlined above. These are not separate places whose borders and boundaries arise naturally. Rather their divisions are relatively artificial, and generally motivated by the concerns of government and administration. They are not distinguished from each other by their differences. For this reason they cannot form the N1-N1 B patterns of reduplication to indicate distribution. It is true that the word CHIHOO (region) can be used in a similar sense to indicate a certain areas of land, divided from one another by lines on a map, such as Kantoo CHIHOO and Tohoku CHIHOO. However, these are not arbitrary, administrative divisions, but are felt to separate areas which share common features. The more common use
of the word CHIHOO (region) is, as described above, to refer to areas which are distinct by virtue of the fact that different things happen in each one, and between which clear border lines cannot be drawn. Kansai CHIHOO is allocated in contrast to Kantoo CHIHOO. On the contrary, KEN and SHI are fixed purely administrative concepts of which borders are clearly decided; while CHIHOO, CHIIKI and TOCHI are very flexible concepts of which borders can be drawn several ways depending on the viewpoints of people.

Moreover, KEN and SHI are not physical entities occurring naturally. Therefore they also do not form the N1-N1 A pattern of reduplication, as do some nouns which are physically geographical entities, such as YAMA (mountain) and KUNI (country).

Consequently the reasons why the nouns of YAMA (mountain) KUNI (country) do not form N1-N1 B but NI-NI A reduplicatives is because they are not spaces distinguished by people based of their differences but three dimensional physical entities occurred naturally. For this reason, they do not have the basic semantic feature of the N1-N1 B.
6.2.1.3 Conclusion

Consequently, we can conclude that the different behaviour of nouns when used to indicate 'distribution' is due to the difference in the way the entities described are separated from one another. The nouns of the CHIHOO (region) and KISETSU (season) groups are divided on the basis of the features by which people distinguish them while those of the TOSHI (year) group are divided into equal portions which constitute units of measurement, and RINGO (apple), KUNI (country), YAMA (mountain) and HITO (person) are separated naturally.
6.2.2 SONO N1 SONO N1 Reduplicatives with verbs other than Chigau (to differ)

The N1-N1 B reduplicative form of CHIHOO (region) and KISETSU (season) only occur with the verb 'chigau' (differ). However, in the case of SONO N1 SONO N1, occurrence with an extremely limited numbers of other verbs, such as 'kirinukeru' (manage) in the case of TSUKI (month) group, 'omoide ga aru' (have memories) in the case of the HITO (person) group, and so forth are observed, although these forms all tend to co-occur with 'chigau' (different) considerably more often. Questionnaire IV was designed to observe the behaviour of the SONO N1 SONO N1 reduplicative forms with these verbs. Observe the list below:

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<tr>
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<th>aishiteiru (love)</th>
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On the bases of Questionnaire IV, we can observe that:

1. 'kirinukeru' (manage) cannot co-occur with TSUKI-ZUKI (month) but can with SONO TSUKI SONO TSUKI.
2. 'Aishiteiru' (love) cannot co-occur with KISETSU-KISETSU (season) but can with SONO KISETSU SONO KISETSU.

3. 'Omoide ga aru' (have memories) cannot co-occur with KURUMA KURUMA, HITO-BITO/HITO HITO and KODOMO-KODOMO but can with SONO KURUMA SONO KURUMA, SONO HITO SONO HITO and SONO KODOMO SONO KODOMO.

An example of a sentence in which TSUKI (month) can co-occur with 'kirinukeru' is:

1. tsuki no owari ni shakkintori ga kita mono datta.
   month of end in (bill) collectors. s. came used to

SONO TSUKI SONO TSUKI o yatto no omoide kirinuketa.
that month barely managed

The bill collectors used to come at the end of the month. He managed to get by every month.

TSUKI can be replaced with other words from the TSUKI group, words such as TOSHI (year) and HI (day). The reason why the co-occurrence is possible is presumably because the referents are successive, each one occurring directly upon the completion of the last. As explained, even though 'time' is an indiscrete linear expansion, we divide it into equal portions and name the parts 'year', 'month' and so forth. The successive parts constitute a linear continuum. We cannot exchange one part with any other part. The SONO N1 SONO N1 pattern serves to indicate this successive feature of the referents. This is proved by the fact that entities which are not inherently successive can take this pattern only when they are allocated successively in the span of time described. Observe the following sentences from Questionnaire IV.

2. ima made iroirona hito to ren'ai o shite kita keredo
   now till various person with love o. did came but

SONO HITO SONO HITO ni wasurerarenai omoide ga aru.
that person with unforgettable memory s. be

I have been in love with many people so far, but I have unforgettable memories of each one.

(13: 0: 0)
3. ima made ni ironna kuruma o shoyuu shita ga
now till various car o.had did but
SONO KURUMA SONO KURUMA ni omoide ga aru.
that car with memory s. be
I have owned many cars so far, but I have memories of each car.

(13: 0: 0)

Moreover, the following sentences, which were not included in Questionnaire IV, are also possible:

4. ima made ni ironna ie ni sunde kita ga
now till various house in live came but
SONO IE SONO IE ni omoide ga aru.
that house with memory s. be
I have been living in many houses so far, but I have memories of each house.

5. ima made ni ironna machi ni sunde kita ga
now till various town in live came but
SONO MACHI SONO MACHI ni omoide ga aru.
that town with memory s. be
I have been living in many houses so far, but I have memories of each town.

The reason why SONO KISETSU SONO KISETSU (season) can co-occur with 'aisuru' is also due to the fact that seasons are spans of time which occur successively, one after the other. However, although the referents in the following examples are successively ordered, they cannot take the SONO NI SONO NI pattern in this context:

6. *kare wa atsumatte-kureta shijisha SONO HITO SONO HITO ni
he t. gathered supporter that person to
aisatsu o shita.
greeted
I.R:He greeted his supporters one by one.
7. *chuushajoo ni aru kuruma SONO KURUMA SONO KURUMA o
    car park in be car that car o.
    sirabeta.
    check

    I.R.(I) checked the cars in the car park one by one.  
    (each car in the car park)

8. *jibun o hagemasitekureta hito SONO HITO SONO HITO ni
    oneself o. encourage person that person to
    tegami o kaita.
    letter o. wrote

    I.R.: I wrote letters to each of the people who encouraged me.

These unacceptable examples suggest that, in order for the SONO N1
SONO N1 pattern to be used felicitously, the referents must exist one
at a time or be seen one at a time, in a fixed order which is not one's
choice. Other examples include:

9. surechigau SONO KURUMA SONO KURUMA ni aizu shita.
    on-coming that car to signalled
    I signalled to each on-coming car.

10. Tennooheika wa surechigau SONO HITO SONO HITO ni
    emperor t. on-coming that person to
    te o furareta.
    hand o. wave

    The emperor waved to each approaching person.

Presumably, if the SONO N1 SONO N1 pattern is to be used, the
order of the referents must be fixed as if it is inherent, or the
referents are unmovable objects whose order cannot be changed. The
above reasons apply to the RINGO group also.

SONO N1 SONO N1 serves to indicate things which one cannot see
more than one at a time and whose order one cannot change, as in the
sentences above. Each referent is different from the others by virtue
of the fact that it appears at a different point on an irreversible
time span.
For this reason, SONO N1 SONO N1 cannot co-occur with phrases which delimit the visible space in which the referents are situated.

When SONO N1 SONO N1 is used, the speaker thinks of more than one referent at that time, but the referents cannot be seen together. This kind of delimitation would indicate that all the referents could be seen at once.

For example, in the case of RINGO (apple), when we describe apples which are seen together all at one time, we tend not to use the SONO N1 SONO N1 pattern:

11. ?koko ni aru ringo wa SONO RINGO SONO RINGO de aji ga here in be apple t. that apple with taste s.
   chigau. different

I.R: All the apples here are different from one to another with regard to taste.

It is more likely to use N1-N1 B' or Type III: reduplication of one (numeral plus classifier):

11'. koko ni aru ringo wa SORE-ZORE de aji ga here in be apple t. individual with taste s.
   HITOTSU-HITOTSU one
   chigau. different

All the apples here are different from one to another with regard to taste.

The referents are not visible at that time of utterance. That is to say, SONO (that) in this case is not a deictic but an anaphoric pronoun. In order to use the SONO N1 SONO N1 pattern all the referents must not be seen all at the same time. Observe the acceptable sentence below:
In the sentence above the speaker takes some specific instances of apples in order to show what the rest are like. The real referents are the apples which are sampled, but one can think of the rest of the unsampled apples. The referents are a part of a whole, that is, those apples which are called Granny Smiths. When one says "onaji guranii sumisu demo SONO RINGO SONO RINGO de aji ga chigau." (The taste differs from apple to apple even among Granny Smiths.), one did not taste all the Granny Smiths in the world, but sampled just some of them.

Similarly, in the case of Sentence 2:

2. ima made iroirona hito to ren'ai o shite kita now till various person with love o. did came

keredo SONO HITO SONO HITO ni wasurerarenai omoide ga but person with unforgettable memory s.

aru.

Although I have been in love with many people so far, I have unforgettable memories of each one.

The speaker does not think of all the members of the group. He thinks of a few instances and so makes a generalization.
Neither the SONO N1 SONO N1 nor the N1-N1 B pattern tend to
co-occur with numerals. Thus the examples below are unacceptable:

1. *ima made hachinin no hito to ren'ai o shite kita
   now till eight-n.c.of person with love o. did came
   keredo SONO HITO SONO HITO ni wasurerarenai omoide ga
   but person with unforgettable memory s.
   aru.
   be

I.R:Although I have been in love with eight people so far, I have
unforgettable memories of each one.

2. *ima made ni hachidai no kuruma o shoyuu shita ga
   now till eight-n.c.of car o. had did but
   SONO KURUMA SONO KURUMA ni omoide ga aru.
   car with memory s. be

I.R:I have owned eight cars so far, but I have memories of each
car.

The reason why these reduplicative forms cannot co-occur with
numerals is related to the fact explained in the previous section, that
is, the actual referents of these reduplicative forms are a few
instances in order to generalize about something. Neither the referents
nor the things generalized about are certain numbers. For example, in
case of apples, one can take apple A and state 'this is different from
others apples', then take another one, B, and say 'this is different'
and take a further one, C, and once again say the same thing. This
process can continue until the person samples the last Granny Smith in
the world. To do so, however, is logically impossible. As it is, the
referents are supposed to be samples, so that one can stop at any point
one likes, so long as the sample number is more than one, and then
generalize about the whole set. Since the subset is of an uncertain
number, the number of the whole set must also be uncertain. If the
whole set is of a certain number, it would be possible to check all of
them, and, by doing so, one would not be sampling.

Thus, the unacceptability of Sentences 1 and 2 is due to the
incompatibility of the limited number of the whole set and the
ambiguity of the number of the referents inherent in the
reduplicatives.

Look at the examples below:

1. ary on EXI-EXI/ONI/ONI/EXI-ONI as accident in
that if, each of problem is

That is each individual's problem.

2. EXI-EXI/EXI/ONI/ONI/ONI-EXI-ONI go hangas Wanted

Each individual must think over and act.

3. tomasan on EXI-EXI/ONI/ONI/EXI-ONI at gojo-en given

The father gave fifty yen to each child.

These reduplications are considered to contrast to the NI-NI pattern. However, they are classified differently than the NI-NI type reduplicatives because their over-replicated counterparts of all three forms except Sore-Sore", being bound rather than free adjectives.

These reduplicative forms admit occurrence with opposite as
follows:

Sore can occur as free adjectives to indicate 'as object there'. However, the meaning of the non-reduplicated form does not totally correspond to that of the reduplicated form. Sore-Sore does not only mean each object but also each person.
6.4 N1-N1 B

MEI-MEI (each)
KO-KO (individuals)
ONO-ONO (each)
SORE-ZORE (each)
KOJIN-KOJIN (individuals)

Look at the examples below:

1. sore wa KO-KO/MEI-MEI/ONO-ONO/SORE-ZORE no mondai da.

That is each individual's problem.


Each individual must think it over and act.


The father gave fifty yen to each child.

These reduplicatives are considered to conform to the N1-N1 B pattern. However, they are classified differently from the N1-N1 B type reduplicatives because their non-reduplicated counterparts of all these forms except SORE-ZORE\(^3\), being bound rather than free morphemes.

These reduplicative forms admit co-occurrence with numerals as follows:

\(^3\)SORE can occur as free morpheme to indicate 'an object there'. However, the meaning of the non-reduplicated form does not totally correspond to that of the reduplicated form. SORE-ZORE does not only mean each object but also each person.
4. otoosan wa sannin no ko MEI-MEI/SORE-ZORE ni gojuu-en father t. three-n.c. of child each to fifty-yen zutsu yatta. each gave

The father gave fifty yen each to the three children.

5. kono gojuu no chihoo wa SORE-ZORE fuushuu ga chigau. this fifty of region t. each custom s. different

These fifty regions differ from each other in their customs.

6. kaiin gojuunin KO-KO no iken o kiki- tai. member fifty n.c. each of opinion o. listen-want

I want to listen to the each individual member's opinion.

7. soko ni shusseki shita gojuunin wa ONO-ONO/SORE-ZORE/MEI-MEI there attend did fifty-n.c t. each iken ga chigatta. opinion s. different

Each person who attended differs in his opinion.

These examples indicate that this kind of reduplicative expressions satisfies the conditions for counting: 1. delimitation of space and 2. separation of the objects.

I would like to classify KOJIN-KOJIN (each individual) as a members of this group. Even though N1 in this case is not a bound but a free morpheme, it behaves in the same manner as the other members of this group.
6.5 Reduplication of a word which means 'one' (numeral plus classifier for counting each object)

As I explained we cannot say:

1. *RINGO RINGO de aji ga chigau.
   apple in taste s. different

I.R: the taste differs from apple to apple.

However, using this third type of reduplication we can say:

2. koko ni aru ringo wa HITOTSU-HITOTSU aji ga chigau.
   here in be apple t. one-n.c. taste s. different

the taste of these apples here differs from apple to apple.

When RINGO (apple) takes the SONO N1 SONO N1 pattern, we cannot say:

3. *SONO RINGO SONO RINGO ni retteru o haru.
   that apple to label o. attach

I.R: I attach a label to each apple.

However, with this reduplicative form we can say:

4. ringo HITOTSU-HITOTSU ni retteru o haru.
   apple one-n.c. to label o. attach

I attach a label to each apple.

Examples 5-8 below, which cannot be expressed using the SONO N1 SONO N1 pattern, can also be expressed using this forms.

5. kare wa atsumatte-kureta shijisha ni aisatsushita.
   he t. gathered to greeted

I.R: He greeted his supporters one by one.
6. chuushajoo ni aru kuruma  *SONO KURUMA SONO KURUMA  
that cat  ICHIDAI-ICHIDAI  
one-n.c.  
o shirabeta.  
o.check

I.R: He checked the cars in the car park one by one.  
each car in the car park.

7. jibun o hagemasitekureta hito  *SONO HITO SONO HITO  
oneoneself o. encourage person  HITORI-HITORI  
one-n.c.  
ni tegami o kaita.  
to letter o. wrote

I.R: I wrote letters to each person who had encouraged me.

8. detekuru  *SONO RINGO SONO RINGO  
come out that apple  HITOTSU-HITOTSU  
to label o. attach

I.R: I attached labels to the apples coming out one by one.

Moreover, sentences which can be expressed with SONO N1 SONO N1  
can also be paraphrased with this pattern:

9. ima made iroirona hito to ren'ai o shite kita keredo  
now till various person with love o. did came but  
SONO HITO SONO HITO  ni wasurerarenai omoide ga aru.  
that person with unforgettable memory s. be  
HITORI-HITORI  
one-n.c.  
I have been in love with many people so far, but I have  
unforgettable memories of each one.

This means that the objects are not necessarily ordered in a fixed  
way.

These reduplicative forms: reduplication of one, can co-occur with  
umerals
10. *koko ni aru gojuu no ringo wa HITOTSU-HITOTSU aji ga here in be fifty of apple t. one-n.c. taste s.

chigau.
different

The taste of these apples here differs from apple to apple.

11. koko ni aru gojuu no ringo HITOTSU-HITOTSU ni retteru o here in be fifty of apple one-n.c. to label o.

haru.
attach

I attach a label to each of thy fifty apples here.

The fact that this reduplication can co-occur with numerals proves the objects referred to are thought of as separate objects of the same kind in a limited space.

The difference between this type of reduplication and the SORE-ZORE type (NI-NI B') is that this focuses on the successive execution of an action: one at a time. For example:

12. maku no ushiro kara haiyuu ga HITORI HITORI arawareta.

screen of back from actor s. one-n.c. appeared

Actors appeared one by one from behind the screen.

The appearance of actors is successive, each one following the last. For this reason, therefore, HITORI-HITORI cannot co-occur with adverbs which indicate 'several things happen at once', such as "issei ni" (all together/ all at a time), "dooji ni", (at once) and so forth. Observe the following unacceptable examples:

13. *maku no ushiro kara haiyuu ga HITORI-HITORI dooji ni screen of back from actor s. one-n.c. at once arawareta.
appeared

I.R:Actors appeared one by one at once from the back of the screen.

In contrast, the SORE-ZORE (NI-NI B') type does not present the objects as appearing one at a time. Thus it is acceptable to say:
159

14. maku no ushiro kara haiyuu ga SORE-ZORE dooji ni screen of back from actor s. each at once arawareta.
appeared

Every one of the actors appeared from behind the screen at once respectively.

Therefore a verb such as "kazoeru" (count), cannot co-occur with Nl-Nl B' when it is used to describes an action in which the referents are dealt with one at a time. This meaning is conveyed by the third type of reduplication indicating distribution. For example,

15. ringo o HITOTSU-HITOTSU kazoeru.
apple o. one-n.c. count

(I) count apples one by one.

This is not to say that KAZOERU (count) cannot co-occur with Nl-Nl B' reduplicatives at all, but only that the meaning is different.

16. ringo o SORE-ZORE kazoeru.
apple o. that count

Each of them counts each group of apple.

Example 16 indicates the counting of different groups of apples by different people. The difference between SONO Nl SONO Nl and this reduplicative form is that the former serves to indicate the referents which are thought of as different things inherently, while the latter serves to indicate that the referents are things which are focussed on one-at a time.
6.6 Semantic Formulas Suggested

To illustrate each meaning, I put reduplications into the following semantic formula. X indicates the components of the sentences, except reduplication. A semantic formula is suggested for each class.

Type I \[ Nl-Nl B X] = \[ N:CHIHOO (region), TOCHI (place), CHIIKI (region), KISETSU (season), SHIIZUN (season), JIDAI (era) KEESU (specific instance), BAAI (case), TOKI (the moment when something occurs), ORI (occasion) \]

I think of them as times/places in which something happens,

I think of them as of different from each other,

they cannot be taken from where they are to a different place,

they cannot be counted because they cannot be perceived at the same time,

if I take any one I like and if I take another one I like

this can be said about it:X

\[ Nl-Nl B' X] = \[ MEI-MEI (each), ONO-ONO (each), KO-KO (each), SORE-ZORE (individual), KOJIN-KOJIN (each) \]

I think of them as a group,

I think of them as the same,

they can be all seen at the same time,

if one takes any one of them and if one takes any other of them

this can be said about it:X
Type II [SONO N1 SONO N1 X] =

N:RINGO (apple), TSUKUE (desk), KURUMA (car) and etc., CHIHOO (region), TOCHI (place), CHIIKI (region), KUNI (country), MACHI (town), MURA (village), SHIMA (island), KEN (prefecture), SHI (city).

I think of them as of different things of the same kind which one cannot see all at the same time, if one takes any one one likes, and if one takes any other one one likes, this can be said about it:

Type III [reduplication of one (numeral plus classifier for the object) X] =

RINGO (apples) INU (dogs) etc.

I think of them a group, I think of them as of the same and separate, they can be seen more than one at a time, if I take one of them this can be said about it:

if I take the next one this can be said about it:
7.1 Introduction

This chapter deals with the reduplicated forms which are called 'impressionistic adverbs' by Alfonso (1966), and which, in Japanese grammar, are called GITAIGO (mimetic words) and GISEIGO (onomatopoeic words), since they form the largest group of reduplicative forms in Japanese.

Japanese has a rich stock of GISEIGO (mimetic words) and GITAIGO (onomatopoeic words) and it would be difficult to deal with all of them. Therefore the number of reduplicative adverbs dealt with here is restricted to those which appear as examples in Alfonso's Japanese Language Patterns.

The aim of this chapter is to capture some of the semantic aspects of those reduplicative adverbs which have not yet received adequate attention. The semantic aspects which have been observed are not applicable to all of them. However, the observations are still worth noting, since these semantic aspects have interesting correspondences to those of the reduplication of nouns observed in the previous sections of this thesis.

The reduplicative forms and their (given) translation which appear in Japanese Language Patterns are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Reduplicative Form</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AFUKU-AFUKU</td>
<td>little by little</td>
<td></td>
</tr>
<tr>
<td>2. BUKA-BUKA</td>
<td>quickly</td>
<td></td>
</tr>
<tr>
<td>3. JUKU-JUKU</td>
<td>occasionally</td>
<td></td>
</tr>
<tr>
<td>4. YAM-YAM</td>
<td>gradually</td>
<td></td>
</tr>
<tr>
<td>5. DON-DON</td>
<td>steadily</td>
<td></td>
</tr>
<tr>
<td>6. JLO-JLO</td>
<td>more and more, at least</td>
<td></td>
</tr>
<tr>
<td>7. SEJKU-SEJKU</td>
<td>calling</td>
<td></td>
</tr>
<tr>
<td>8. OUKU-OKU</td>
<td>three times</td>
<td></td>
</tr>
<tr>
<td>9. NIKU-NIKU</td>
<td>homogenising</td>
<td></td>
</tr>
<tr>
<td>10. EKU-EKU</td>
<td>sharply</td>
<td></td>
</tr>
<tr>
<td>11. DOIKU-DOIKU</td>
<td>strictly</td>
<td></td>
</tr>
<tr>
<td>12. NOKU-NOKU</td>
<td>distinctly</td>
<td></td>
</tr>
</tbody>
</table>

CHAPTER 7

REDUPLICATIVE ADVERBS
Some reduplicative forms have non-reduplicated counterparts. These non-reduplicated counterparts always appear with a quotative maker 'TO' whereas the reduplicative counterparts optionally take 'TO'.

In contrast with the non-reduplicated counterparts, the semantic feature conveyed by the reduplicative forms is obvious, that is, as explained in Chapter 2, it is one of duration or repetition of action.

Compare the following sets of examples which clearly illustrate the semantic difference between the reduplicative and non-reduplicative forms:

1-a.  \[\text{ano hito wa BURARI to tazunetekita.}\]
   that-person t. aimlessly q. visit-came
   
   He visited without a purpose (an aim).
   / He visited without prior notice.

---

1 For the most part, the glosses of the reduplicative forms in the above examples are those found in Alfonso. On occasion, however, they have changed to suit the analysis given in this thesis. I have attempted to provide glosses for the reduplicative forms whenever they appear in examples. At times the glosses are appropriate only to the sentence in which they appear since the context of the sentence governs the translation. At other times there is no readily available gloss, nor have I provided one. See for example Sentence 1 in section 7.2.1.1., that is,

1. choochin ga kaze de BURA-BURA yureteiru.
   lantern s. wind by aimlessly is swinging
   
   The lantern is swinging in the wind BURA-BURA.
1-b. ano hito wa BURA-BURA aruiteiru.
that-person t. aimlessly is walking

He is walking aimlessly (without a purpose).

1-c. *ano-hito wa BURARI to aruiteiru.
that-person t. aimlessly q. is walking

I.R: He is walking aimlessly.

2-a. ano hito wa itsumo NIKO-NIKO waratteiru.
that-person t. always smile happily is smiling

He is always smiling happily.

2-b. ano hito wa NIKOt to waratta.
that-person t. smile happily q. smiled

He smiled once happily.

2-c. *ano-hito wa NIKOt to waratteiru.
that-person t. smile happily q. is smiling

I.R: He is smiling happily.

3-a. ano hito wa moo san-jikan mo PERA-PERA
that-person t. already three hours as much as fluently
hanashitsuzuketeiru.
speak -continue

He has been talking for as much as three hours without stop.

3-b. hito no himitsu o PERAt to hanashiteshimatta.
person of secret o. carelessly q. spoke-unintentionally
(I) told somebody's secret unintentionally/ carelessly.

3-c. *ano-hito wa moo san-jikan mo PERAT to
that-person t. already three hours as much as carelessly q.
hanashitsuzuketeiru.
speak-continue

I.R: He has been talking for as much as two hours without stop.

These non-reduplicated forms cannot co-occur with 'teiru' (progressive) and verbs such as 'tsuzukeru' (continue) which convey the aspect of duration or repetition whereas the reduplicative forms can co-occur with them. The common semantic feature in the reduplicative forms above is defined as: "do something for a long time/several times".
Some reduplicative forms which do not have non-reduplicative counterparts serve to indicate 'the speed or degree of something'. They do not take 'TO'.

4. watashitachi wa DON-DON oki e nagasareta.
   I -pl. t. steadily open sea to were drifted
   We drifted rapidly toward the open sea.

5. watashitachi wa DAN-DAN oki e nagasareta.
   we -pl. t. gradually open sea to were drifted
   We drifted gradually toward the open sea.

6. SORO-SORO shichi-ji da.
   slowly seven- o'clock be
   Soon it will be seven o'clock.

7. BOTSU-BOTSU hito ga atsumattekita.
   little by little people s. gather- came
   Little by little, people started to gather.
7.2 Semantic Analyses of Individual Reduplicative Forms

In this section the meaning of each reduplicative form is discussed so as to capture their common semantic components.

7.2.1 BURA-BURA (aimlessly)

BURA-BURA has three semantic aspects: 1. the movement of things, 2. a way of walking, 3. a way of killing time.

7.2.1.1 BURA-BURA 1

BURA-BURA 1 indicates the movement of something long and which does not have the strength or the energy to move by itself, e.g., broken wings, a swing nobody is on. Observe the sentences below:

1. choochin ga kaze de BURA-BURA yureteiru.
   lantern s. wind by aimlessly is swinging
   The lantern is swinging in the wind BURA-BURA.

2. dare mo notteinai buranko ga kaze de BURA-BURA yureteiru.
   nobody even not-ride swing s. wind by aimlessly is swinging
   A swing, which nobody is on, is swinging BURA-BURA.

3. tori no bane ga orete, BURA-BURA shiteiru.
   bird of wing s. be broken swing is doing
   The wings of the bird are moving BURA-BURA, because they are broken.

Even if the thing moving can move by itself, the one who moves it tries not to use one's strength in order to move it. In the following sentences, the one who moves 'ashi' (feet) in 4 and 'te' (hand) in 5 tries not to use one's strength. Observe the sentences follows:
4. ashi o BURA-BURA saseru.
foot o. swinging do-make
(I) let my legs swing.

5. chikara o nuite, ude o BURA-BURA sasete,
strength o. release arm o. shake do-make
taisoo o suru.
physical exercise o. do
(He) releases the strength in his arms and shakes them for physical exercise.

If one intends to use one's strength BURA-BURA cannot be used.

Observe the bad examples below:

child s. swing o. high aimlessly is swinging
I.R:The child is making the swing go high BURA-BURA.

7. *chikara o irete, ude o BURA-BURA sasere.
strength o. put arms o. shake do-make
I.R:Using his strength, (he) shakes his arms BURA-BURA.

8. *tori ga hane o BURA-BURA ugorashiteiru.
bird s. wing o. move make
I.R:A bird is moving its wings BURA-BURA.

Or if the movement is caused by a machine, BURA-BURA cannot be used to describe that movement, since a machine does not release its power to move something. Look at the unacceptable example:

9. *tokei no furiko ga BURA-BURA yureteiru.
clock of pendulum s. aimlessly is swinging
I.R:The pendulum of the clock is swinging.

The following sentence is correct when the branch is half broken.

10. ki no eda ga BURA-BURA yureteiru.
tree of branch s. aimlessly is swinging
A branch of the tree is swinging.

The things which are swinging are joined to the main body loosely, except in the case of people's bodies. Here, the parts of the body...
which are swinging 'seem' as if they are loosely joined to the main body. Since the movement is not caused by a machine or by a person's strength, the movement does not indicate an accurate movement like a machine. Thus, if the reduplicative forms appear with phrases of accurate frequency, the sentences are odd. Observe the sentence below:

11. *ippunkan ni gokai te o BURA-BURA shitekudasai.
one-minute in five times hand o. shake do-please

I.R:Please shake your hands five times a minute BURA-BURA.

Moreover, there is no stop between each movement, so that we cannot say when one segmented movement ends and another begins. I would like to propose the following semantic formula to describe the meaning of BURA-BURA 1:

it happens for a while,

in the way an end which is closest to the ground of something long,

which is joined loosely with something else,

and which cannot move by itself,

moves from one direction to the opposite direction several times without stop,

so that one couldn't tell when one movement ends and another begins,

one couldn't say how many times it moves,

because it does not move by itself accurately and it is difficult to say when one movement ends and another begins.
7.2.1.2 BURA-BURA 2

The second meaning of BURA-BURA is associated with the manner of walking. If a person walks in a manner of BURA-BURA, he makes some stops while he walks, or changes the direction of his steps as he wishes. The manner in which he does this is related to BURA-BURA 1 which envisages 'the end of something which is loosely joined moving from one direction to an opposing direction.' See the sentences below which illustrate this aspect:

1. ashi no muku mama BURA-BURA aruita.
foot of turn as walked
(I) walked where my feet went.

2. yotei o tatezumi BURA-BURA ryokooshita.
plan o. make-not travelled
(I) travelled without having any plans.

Whereas the following example is wrong:

3. *yotei o tatete BURA-BURA ryokooshita.
plan o. make travelled
(I) travelled according to my plans.

The semantic formula suggested for BURA-BURA 2 is:

doing it (going) for a while,
in the way a person does,
who goes in different directions several times,
so that one couldn't tell in which direction his next step will be,
he makes several stops while he is going,
so that one couldn't tell when he will stop and when he will start again,
because it is not decided.
7.2.1.3 BURA-BURA 3

BURA-BURA 3 refers to a way of killing time. Observe the sentences which illustrate this aspect:

1. *nichiyoobi wa BURA-BURA suru.*
   Sunday t. aimlessly do
   On Sunday, I spend time aimlessly.

2. *shigoto ga nakute, BURA-BURA shiteiru.*
   work s. no aimlessly is doing
   (I) do not have a job, so I am spending time BURA-BURA.

3. *shigoto o sagashiteiru ga, ii shigoto ga nakute, uchi de BURA-BURA shinakereba-naranai no wa tsurai koto da.*
   work o. is looking for but good work s. no home in aimlessly must comp. hard comp. be
   (I) have been looking for a job, but I haven't found a good one, so I have to stay idle at home. It is hard to stay at home.

In the case of example 1, the person does not do anything special, anything that is worth while mentioning. He might watch T.V. or take a walk, but he does not do anything which requires energy. Therefore, these examples below are all unacceptable, even though one works (in 4), runs (in 5) and plays tennis (in 6) aimlessly.

4. *BURA-BURA shigoto o suru.*
   work o. do
   I.R.: (I) work BURA-BURA.

5. *BURA-BURA hashiru.*
   run
   I.R.: (I) run BURA-BURA.
   tennis o. do
   I.R:(I) play tennis BURA-BURA.

Unlike the examples above, "BURA-BURA asondeiru" is acceptable, since 'asobu' (play) means not only 'to amuse oneself' but also 'to be idle'; that is, one is doing nothing special or one cannot decide what one wants to do. But the person has to move in order to do BURA-BURA. Therefore the examples below, which do not indicate movement, are unacceptable:

7. *BURA-BURA suwatteiru.
   is sitting
   I.R:(I) am sitting BURA-BURA.

8. *BURA-BURA tatteiru.
   is standing
   I.R:(I) am standing BURA-BURA.

   is sleeping
   I.R:(He) is sleeping BURA-BURA.

What he does in order to kill time is not decided. Thus nobody knows what he will do next. The following sentence is unacceptable for this reason:

    plan o. make aimlessly do
    I.R:(I) spending time according to my plans.
The semantic formula suggested for BURA-BURA 3 is:

- doing it (moving) for a while,
- in the way a person who has time does,
- to do something to fill in his time,
- not because he wants to cause anything to happen,
- but because he wants to kill time,
- one couldn't tell what he will do next,
- because what he does is not decided.

First examine the following examples which contain FURA-FURA 3:

1. *fusen ga FURA-FURA to sore ni kondoru*;
   - balloon  a. lightly  q. sky  a. is flying.
   - A balloon is flying up and down in the sky repeatedly.

2. *sore ni FURA-FURA to hone ga okandevo*;
   - sky  a. lightly  q. cloud  a. is floating.
   - A cloud is floating in the sky.

Bura FURA-FURA describes the movement of something light enough to float in the sky, which is moving up and down repeatedly. Therefore, Examples 3 and 4 below are unacceptable because plane  a. lightly  q. sky  a. is flying.

3. *shibooki ga FURA-FURA to sore ni kondoru*;
   - plane  a. lightly  q. sky  a. is flying.

4. *ishi* plane  a. flying up and down in the sky repeatedly.
I would like to include the analyses of FUWA-FUWA, FURA-FURA and PUKA-PUKA here since, with respect to the uncertainty of a next movement, they are similar to BURA-BURA.

7.2.2 FUWA-FUWA (lightly)

FUWA-FUWA has two semantic aspects: FUWA-FUWA 1 is associated with the manner of something floating. FUWA-FUWA 2 is associated with the state of something soft.

7.2.2.1 FUWA-FUWA 1

First examine the following examples which contain FUWA-FUWA 1.

1. fuusen ga FUWA-FUWA to sora o tondeiru.
   balloon s. lightly q. sky o. is flying
   A balloon is flying up and down in the sky repeatedly.

2. sora ni FUWA-FUWA to kumo ga ukandeiru.
   sky in lightly q. cloud s. is floating
   A cloud is floating in the sky.

Here FUWA-FUWA describes the movement of something light enough to float in the sky, which is moving up and down repeatedly. Therefore Examples 3 and 4 below are unacceptable—a plane is not light enough to float in 3 and the place where the ball is floating is not 'in the sky' in 4. Observe the examples:

3. *hikooki ga FUWA-FUWA to sora o tondeiru.
   plane s. lightly q. sky o. is flying
   I.R:A plane is flying up and down in the sky repeatedly.
4. *booru ga FUWA-FUWA to mizu ni ukandeiru.
ball s. lightly q. water on is floating

I.R:A ball is floating on the water, bobbing up and down.

The movement indicated by FUWA-FUWA is slow and unstable, that is, the object may go up at any moment and we cannot predict when it will come down, or in what direction it will go next. FUWA-FUWA does not signal a strict 'up-and-down' movement. When the thing goes up, its next movement is not necessarily one of going down. Instead it may go in a horizontal direction before it comes down. Hence it is a movement whose direction is not fixed. This is because the movement is decided by neither the object itself nor somebody else, so that one cannot predict where it goes next. Therefore Example 5 is unacceptable, since the movement of a bird is governed by the bird itself:

5. *tori ga FUWA-FUWA to sora o tondeiru.
bird s. q. sky o. is flying

I.R:A bird is flying up and down in the sky.

This fact also applies to the plane in Example 3 above, where the movement indicated by FUWA-FUWA is not controlled by anybody. Furthermore, as is also shown by 6 and 7, the movement cannot be controlled by anybody else. In 6, even if one wants to control the movement of his heart, he cannot control it. 7 indicates that the movement of FUWA-FUWA cannot be done intentionally.

6. kekkon shita bakari de kokoro ga FUWA-FUWA shiteiru.
marrige did just heart s. is doing

Because (he) is just married, (his) heart is as happy as if it were floating in the sky.

7. *fuusen o FUWA-FUWA tobasoo.
balloon o. lightly let's float

I.R:Let's let go of the balloon.

Since the movement is not controllable, FUWA-FUWA does not
indicate a movement discern a recognisable patterns among the movements. We cannot pattern one movement form the other. We cannot define the point when one movement ends and another begins. This is supported by the fact that FUWA-FUWA cannot co-occur with numerals which indicate a calculable frequency. Observe the unacceptable example below:

8. *ano fuusen wa FUWA-FUWA ippunkan ni gokai tonda. that balloon t. one minute in five-times flew

I.R:That balloon flew lightly up and down five time a minute.

The semantic formula suggested for this reduplicative form is:

FUWA-FUWA 1

it (moving) happens,
in the way something which is light slowly moves in the sky,
one couldn't tell in which direction it will go next,
one couldn't tell when one movement ends and another begins,
and how many times it moves,
because the thing does not move by itself and the direction it goes in cannot be predicted.

7.2.2.2 FUWA-FUWA 2

The second meaning of FUWA-FUWA is associated with 'softness'. Observe the sentences below:

1. kono pan wa yakitate de FUWA-FUWA da. this bread t. just baked because soft be
   This bread is soft, since it was just baked.

2. kono kussyon wa FUWA-FUWA da. this cushion t. soft be
   This cushion is soft.
3. kono beddo wa FUWA-FUWA da.
   this bed t. soft be

   This bed is soft.

4. *ano hito no te wa FUWA-FUWA da.
   that person of hand t. soft be

   I.R: That person's hand is soft.

5. *kono gohan wa FUWA-FUWA da.
   this boiled rice t. soft be

   I.R: This boiled rice is soft.

   It indicates not only 'softness' but also that the contents inside of the thing must be able to hold air so that they cause the surface of the thing to rise. Thus 1, 2 and 3 are acceptable, because 'bread', 'cushion' and 'bed' can hold air inside of them. However, Examples 4 and 5 are unacceptable because air cannot be held inside 'hand' and 'rice'. Some more examples below substantiate this view:

6. kanojo wa FUWA-FUWA no mohea no seetaa o kiteiru.
   she t. soft of mohair of sweater o. is wearing

   She is wearing a light and soft mohair sweater.

7. FUWA-FUWA to tsumotta sinsetsu o fumu.
   soft q. lie new fallen snow o. step on

   (I) step on newly fallen snow lain FUWA-FUWA.

8. kono hanebuton wa FUWA-FUWA da.
   this feather-quilt t. soft be

   This feather quilt is soft.

9. perusha neko no ke wa FUWA-FUWA da.
   Persian cat of fur t. soft be

   The fur of a Persian cat is soft.

    this ball t. soft be

    I.R: This ball is soft.
Feathers, hair, flakes of snow or yarns of wool keep or hold air in them, so one feels them FUWA-FUWA. In the case of bean bags, however, while they might keep air in them, the air does not cause the surface of the bean bags to rise, since the beans are sufficiently heavy so as to prevent this rise occurring. In the case of a ball, there is nothing but air inside.

The semantic formula suggested for this reduplicative forms is:

\[
\text{it is being,} \\
\text{in the way something light and small which keeps air inside is,} \\
\text{the surface of it moves slowly up and down when one pushes part of it.}
\]
7.2.3 FURA-FURA (dizzy, unsteady)

FURA-FURA means that one cannot control one's movement steadily.

Observe the sentences below:

1. onaka ga suite, FURA-FURA suru.
   stomach s. hungry unsteadily do
   Since (I) am hungry, (I) feel faint/cannot move steadily.

2. osake o takusan nonda node, FURA-FURA suru.
   alcohol o. much drank because dizzy do
   Since (I) have drunk a lot of alcohol, (I) feel dizzy.

3. ate mo naku FURA-FURA aruku.
   purpose even not unsteadily walk
   Without purpose, (I) walk about.

4. warui to wakatette mo FURA-FURA to baa ni
   bad q. know even q. bar to
   haitteshima.u.
   enter-unwillingly
   (I) know it is bad to go to bars, but (I) cannot stop myself
going to bars.

It is mainly used when people, people's bodies or people's minds
is moving side to side as in the examples above. Therefore those
examples below are unacceptable, because the thing moving is not a part
of a person's body:

5. *ki ga kaze de FURA-FURA shiteiru.
   tree s. wind by is doing
   I.R: The trees are nodding from the wind.

   kite s. is flying
   I.R: A kite is flying unsteadily.

It is a movement in which a part of a person's body moves
unsteadily because it is not under control. The examples below are thus
unacceptable since the action is controlled:
7. *ashi o FURA-FURA ugokashite dansu o suru.
foot o. move make dance o. do

I.R: (I) dance moving my feet from side to side FURA-FURA.

8. *atama o FURA-FURA ugokashite, taisoo o suru.
head o. move make exercise o. do

I.R: (I) do exercise, moving my head from side to side FURA-FURA.

In contrast to BURA-BURA, the action of FURA-FURA is not controlled by the person, (as explained above). Observe the pair of sentences below:

9. BURA-BURA aruku.
amilessly walk

(I) walk without purpose.

10. FURA-FURA aruku.
unsteadily walk

(I) walked unsteadily.

In 9, although the person moves aimlessly, he is still in control of the action. In 10, the person may go in one direction and then he may change and go in another direction. Each change of direction, however, is not controlled by that person. He is either insane or absent-minded. Observing the action of FURA-FURA, we cannot say when one action starts and ends. Therefore it is difficult to say how many times it happens. Observe the unacceptable sentence below:

11. *ashi ga FURA-FURA sankai shita.
foot s. unsteadily three-times did

I.R: My feet sway from side to side three times.

If one feels his legs move three times in clear intervals, it is described by the non-reduplicated form:

12. karada ga FURA to sankai shita.
body s. q. three-times did

My body sways three times.
The semantic formula suggested for FURA-FURA is:

it (moving) happens many times for a while,

in the way a part of person's body moves from side to side,

the person does not want it to happen but he cannot stop it happening,

one couldn't tell how many times it happens,

because one couldn't tell in which direction his next movement will be,

and one couldn't tell when one movement ends and another begins.

It is a movement similar to that is indicated by PUKA-PUKA if we disregard the substance in which the thing is floating. The following example is unacceptable since the substance on which the floating object is not water.

4. When go PUKA-PUKA core ni uka
    cloud a. Lightly sky. In is floating
    A cloud is floating in the sky, bobbing up and down.

The thing does not move by itself as in the case of PUKA-PUKA. As the surface of water moves up and down, so the thing moves. Therefore, the objects which are actually moving is not the thing but the water. The thing moving is not in control of the movement nor it is controlled by somebody else. Thus Sentence 3 above is acceptable.

There are no steps between the up-and-down movement. Therefore, one cannot tell when one movement ends and another begins.
7.2.4 PUKA-PUKA (lightly)

It means something light is floating on the water up and down.

Observe the sentences below:

1. booru ga PUKA-PUKA mizu ni uiteiru.
   ball s. lightly water on is floating
   A ball is floating on the water, bobbing up and down.

2. maruta ga PUKA-PUKA mizu no ue ni uiteiru.
   log s. lightly water of top on is floating
   A log is floating on the water, bobbing up and down.

3. dare mo notte inai ko-bune ga PUKA-PUKA uiteiru.
   nobody ride not on little boat s. lightly is floating
   A little boat which nobody is on is floating, bobbing up and down.

It is a movement similar to that is indicated by FUWA-FUWA if we disregard the substance in which the thing is floating. The following example is unacceptable since the substance on which the floating object is not water.

   cloud s. lightly sky in is floating
   I.R:A cloud is floating in the sky, bobbing up and down.

The thing does not move by itself as in the case of FUWA-FUWA. As the surface of water moves up and down, so the thing moves. Therefore, the objects which is actually moving is not the thing but the water. The thing moving is not in control of the movement nor it is controlled by somebody else. Thus Sentence 3 above is acceptable.

There are no stops between the up-and-down movement. Therefore one cannot tell when one movement ends and another begins.
The semantic formula suggested for this reduplicative form is:

It happens,

in the way something light moves up and down on the water as the water moves without stop,

one couldn't tell how many times it moves,

and one couldn't tell when one movement ends and another begins,

it cannot stop moving or start moving by itself because it does not move by itself.

The examples below are unacceptable, however, because the one for which the light is reflected is different to that above:

5. *shōndō ga FITE-FITE hikattaru.
   chandelier is glitteringly is glittering

1. kika-chandelier is glittering.

   tear is glitteringly is glittering

1. kika-tears are glittering.

7. *daikokumondo ga KIRA-KIRA hikattaru.
   diamond is glitteringly is glittering

1. kika-diamond is glittering.

   the sun is glitteringly is glittering

1. kika-the sun is glittering.

In 5, 6, 7 and 8, the surfaces which reflect the light face in reverse directions so that the light goes in reverse direction. As indicated in this, the direction in which the light goes is different in 5 and 6 but in one way at any point in time. The surface of reflection in 5, 6, 7 and 8 can also be covered by two other reduplicative forms KIRA-KIRA and KIRA-FITE.
7.2.5 PIKA-PIKA (glitteringly)

PIKA-PIKA describes something glittering. See the sentences below:

1. neon-sain ga PIKA-PIKA hikatteiru.
neon sign s. glitteringly is glittering
A neon sign is glittering.

2. patokaa no rampu ga PIKA-PIKA hikatteiru.
patrol-car of lamp s. glitteringly is glittering
The lamp of a patrol car is glittering.

3. ano hito no atama wa PIKA-PIKA hikatteiru.
that person of head t. glitteringly is glittering
That person's head is glittering. (He is bold.)

4. shin-sha wa PIKA-PIKA hikatteiru.
new cat t. glittering is glittering
A new car glitters.

The examples below are unacceptable, however, because the way in
which the light is reflected is different to that above.

5. *shanderia ga PIKA-PIKA hikatteiru.
chandelier s. glitteringly is glittering
I.R:A chandelier is glittering.

tear s. glitteringly is glittering
I.R:Tears are glittering.

7. *daiyamondo ga PIKA-PIKA hikatteiru.
diamond s. glitteringly is glittering
I.R:A diamond is glittering.

8. *taiyoo ga PIKA-PIKA hikatteiru.
the sun s. glitteringly is glittering
I.R:The sun is glittering.

In 5, 6, 7 and 8, the surfaces which reflect the light face in various
directions so that the light goes in various directions. In contrast
to this, the direction in which the light goes in Examples 1, 2 and 3 is
in one way at any point in time. The manner of reflection in 5, 6, 7
and 8 can also be conveyed by two other reduplicative forms: KIRA-KIRA
and GIRA-GIRA.
PIKA-PIKA indicates a glitter of lights in which there are intermittent intervals so short as to be almost unperceivable of darkness. That is, the object has a show of light that glitters in such a way that one cannot tell when one beam of glittering light ends and another begins. The next beams are perceived before the previous beams image has disappeared. When an object reflects the lights clearly punctuated intervals so that there are points when the light disappears completely. It is described by 'PIKAA, PIKAA' with obligatory quotative marker 'TO' in stead of PIKA-PIKA.

9. kansen to no raito ga PIKAA, PIKAA to hikatta. control tower of lights s. glitteringly q. shined

The lights of the control tower glitters PIKAA, PIKAA.

The semantic formula suggested for this type of reduplicative form is:

It (glittering) happens for a while,

in the way something flat reflects light quickly in the same direction several times,

so that one couldn't say when one beam of glitter ends and another begins.
7.2.6 NIKO-NIKO (smilingly)

NIKO-NIKO is a kind of smile showing one's happiness. It does not indicate a smile of irony. Observe the examples below:

1. *kare wa NIKO-NIKO niganigashigeni waratta.
   he t. bitterly smiled
I.R: He smiled NIKO-NIKO bitterly.

2. *kare wa NIKO-NIKO hinikuni waratta.
   he t. ironically smiled
I.R: He smiled NIKO-NIKO ironically.

Nor does it mean a lustful smile.

3. *kare wa pureiboo o mi-nagara NIKO-NIKO shiteiru.
   he t. playboy o. see while do
I.R: He is smiling NIKO-NIKO while he is reading 'Playboy'.

Whereas:

4. depaato no ten'in wa itsumo NIKO-NIKO shiteiru.
   department store of shopkeeper t. always is doing
The shopkeepers in a department store are always smiling NIKO-NIKO.

5. akachan wa hana o mite, NIKO-NIKO shiteiru.
   baby t. flower o. see is doing
The baby is smiling NIKO-NIKO on seeing some flowers.

are good sentences. The smile of a shopkeeper is not an innocent smile like a baby's, but it shows, at least the shopkeeper tries to show, that he does not have anything bad on his mind.

NIKO-NIKO does not mean a big cheesy grin such as one makes when having a photo taken, but instead, a lot of little smiles. Thus one cannot tell when one smile ends and another begins.
Therefore the semantic formula suggested is:

- doing it (smiling) for a while,
- in the way as a person does,
- who does not feel anything else but good,
- as if one couldn't tell when one smile ends and another begins.
7.2.7 PEKO-PEKO (cringingly)

PEKO-PEKO describes three semantic aspects: PEKO-PEKO 1 describes the action or manner of bowing, PEKO-PEKO 2 indicates the surface of something which moves up and down and PEKO-PEKO 3 indicates that somebody is very hungry.

7.2.7.1 PEKO-PEKO 1

Observe the sentences below:

1. kare wa uwayaku ni PEKO-PEKO to ojigi o shitā. he t. superior officer to q. bow o. did
   He bowed many times to his superior.

2. kare wa itsumo PEKO-PEKO to hetsurau. he t. always q. flatter
   He flatters (as if) bowing many times.

When a person bows in the manner of PEKO-PEKO, he does it many times continuously so that there are no obvious intervals between the bows. Therefore one cannot tell when one bow ends and another starts.

PEKO-PEKO not only indicate the action of bowing itself, but also the state of mind which is symbolised by that action, i.e., to flatter. Therefore, the Sentence 2 applies to not only the Japanese but also non-Japanese people who do not have the custom of bowing. Observe the sentences below:

3. PEKO-PEKO suru hito wa kirai da. do person t. dislike be
   (I) do not like the person who flatters (as if) bowing many times.
4. okane o morau tame ni wa iya de mo PEKO-PEKO
money o. get to to t. dislike although

shinakereba nara-nai.
must

To get money, (I) have to flatter against my will.

The emperor, for example, bows many times, but his bowing is not
described as PEKO-PEKO since it does not have the connotation of
flattery.

The semantic formula suggested is:

doing it (bowing),
in the way a person does,
who moves his head many times back and forth for a while to
another person as if there is no stop between,
so that one couldn't tell when one bowing ends and another
begins,
and so that he wants that another person to know that he is
lower than him socially.

7.2.7.2 PEKO-PEKO 2

For PEKO-PEKO 2 see the sentences below:

1. kodomo wa sekiyu-kan ni nottari oritari shite, sore o
child t. kerosene-tin on get on get off do that o.

PEKO-PEKO iwasete omoshirogatteiru.
say-make enjoy

A child is amusing himself by making sound of PEKO-PEKO getting
up and down a kerosene tin.

2. pinpon no tama wa osu to PEKO-PEKO iu.
pingpong of ball t. push when say

A pingpong ball make a sound of PEKO-PEKO when (you) push it.
3. yasui nabe wa sugu PEKO-PEKO ni naru.
   cheap pan t. soon to become
   A cheap pan becomes PEKO-PEKO soon.

It describes the sound or the movement of the surface of something thin which sinks and then goes back to its previous state. The thing must be sufficiently taut and thin to make the sound of PEKO-PEKO. In order to be able to move it back and forth, there must be nothing inside.

4. *kono kami wa PEKO-PEKO iu.
   this paper t. say
   I.R: This paper makes the sound of PEKO-PEKO.

5. *kono kussyon wa PEKO-PEKO iu.
   this cushion t. say
   I.R: This cushion makes the sound of PEKO-PEKO.

The following sentence is possible, however, because there is nothing inside the doll:

6. seruroido no ningyoo no onaka wa osu to PEKO-PEKO iu.
   celluloid of doll of stomach t. push t. say
   The stomach of celluloid doll makes the sound of PEKO-PEKO when you push it.

The semantic formula suggested for this reduplicative form is

it happens,

in the way the surface of something thin and taut which has nothing inside it moves back and forth several times, when part of it is pushed.
7.2.7.3 PEKO-PEKO 3

The third meaning describes the state of hunger.

1. onaka ga PEKO-PEKO da.
   stomach s. be

   I am very hungry.

2. onaka ga PEKO-PEKO ni suita.
   stomach s. to become empty

   My stomack become empty.

This is related to PEKO-PEKO 2, since it describes the state of the surface of the stomach which can move back and forth because of hunger.

The semantic formula suggested for PEKO-PEKO 3 is:

it is being

in the way as if one feels the surface of the stomach moves back and forth many times,

because there is nothing inside.
7.2.8 PERA-PERA (fluently)

See the sentences below:

1. kanojo wa PERA-PERA to san- jikan mo hanashita.  
   She t. q. three hour as much as spoke
   She spoke for three hours continuously.

2. otetsudai-san wa shujin no ie no koto o PERA-PERA to maid Ms. t. master of house of thing o. q. hoka no hito ni hanashita.  
   other of people to spoke
   The maid carelessly told her master's secret to the others so easily.

3. kare wa kuruma no namae o takusan shitteitePERA-PERA to itte miseta.  
   he t. car of name o. many know o. q. say showed
   He knew quite a lot of names of cars, and tripped them off his tongue.

4. kare wa eigo ga PERA-PERA da.  
   he t. English s. fluent be
   He speaks English fluently.

The thing which is common to the sentences above is that the words roll off one's tongue easily, quickly and without any difficulty. Therefore, if the topic of the talk is worthless or concerns things which should not be talked about, as in 2, PERA-PERA has a bad connotation, whereas when the thing talked about is a difficult thing to talk about, PERA-PERA has a good connotation, as in 3 and 4. The way one talks seems to be an endless stream of words. Therefore, even if one wants to edge into the monologue, one cannot because there does not appear to be any pauses in the other person's speech.
The following semantic formula can be applied to describe the meaning of PERA-PERA:

doing it (speaking) for a while,

in the way a person does,

who does not stop to think what he will say next,

so that one couldn't tell when one thing ends and another begins.

For CHOI-CHOI, use the sentences below:

1. She receives us for the go to Switzerland next month.

(1) go to the restaurant often, because the restaurant is good.

2. Please come often, because we enjoy your visit.

CHOI-CHOI is not an action which is repeated regularly. Consequently, the examples below are unacceptable:

3. We visited of the hotel on various occasions the last three days per once of ours.

4. We visited the hotel on various occasions the last three days per once of ours.

Therefore, the semantic formula suggested by

choi-choi does in every video.

in the way one could's say what it human need.
7.2.9 CHOI-CHOI (occasionally)

CHOI-CHOI has three semantic aspects: CHOI-CHOI 1 describes the frequency of an action, CHOI-CHOI 2, the manner of repeated action and CHOI-CHOI 3, the manner of action in general.

7.2.9.1 CHOI-CHOI 1

For CHOI-CHOI 1, see the sentences below:

1. ano resutoran wa fun'iki ga ii node, CHOI-CHOI iku.
   (I) go to the restaurant often, because the atmosphere of the restaurant is good.

2. anata ga kuru to tanoshii kara CHOI-CHOI kitekudasai.
   Please come often, because we enjoy your visit.

CHOI-CHOI is not an action which is repeated regularly.

Consequently the examples below are unacceptable:

3. *kare wa mikka ni ikkai no wariai de kanarazu CHOI-CHOI otozureta.
   He occasionally visited once every three days without fail.

4. *kare wa maishuu kinyoobi ni kanarazu CHOI-CHOI kita.
   He came CHOI-CHOI every Friday without fail.

Therefore the semantic formula suggested is:

doing it many times,

in the way one couldn't say when it happens next.
7.2.9.2 CHOI-CHOI 2

CHOI-CHOI 2 not only contains the meaning of CHOI-CHOI 1 above, but also has an additional element. See the examples below:

1. neko ga teeburu no shita kara CHOI-CHOI mae ashi o dashite sara no sakana o toroo to suru.
cat s. table of under from front foot o.
neko ga teeburu no shita kara CHOI-CHOI mae ashi o
dashite sara no sakana o toroo to suru.

The cat tries to take some fish from a plate, sticking out its front paw from under the table.

2. piinattsu o CHOI-CHOI tsumaminagara wuisuki o nonda.
peanut o. pick whiskey o. drunk
(I) nibbled at peanuts while drinking whiskey.

3. gomi o CHOI-CHOI tsumamiageru.
rubbish o. pick up
(I) often pick up bits of fluff CHOI-CHOI.

CHOI-CHOI 2 in the examples above indicates not only a repeated action, but also a movement that is not strong, or one that does not seem to be strong. Observe the unacceptable sentence below:

4. *hitobito wa shupurehikooru o shinagara, ude o CHOI-CHOI
people t. yelling i chorus o. are doing arm o.
tsukidashita.
thrust

I.R: People thrust out their arms often while yelling out their slogan.

The semantic formula suggested for these reduplicative forms:

- doing it many times,
- in the way a person does,
- who does not need to use his power to do it,
- one couldn't tell when it happens.
7.2.9.3 CHOI-CHOI 3

CHOI-CHOI 3 shares the same component as CHOI-CHOI 2: a person does not need to use his power. In addition, CHOI-CHOI 3 indicates 'doing it in no time'. Observe this within the following examples:

1. sensei ga CHOI-CHOI to fude o kuwaeru dakede seito no teacher s. q. brush o. add only by student of
e ga michigaeru yooni naru. picture s. change as if become

The teacher's a few strokes of the brush changed the appearance of the student's picture.

In the example above, the teacher's manner of painting on the student's picture, to make it nicer, is described by CHOI-CHOI. The teacher merely changed the picture by two or three strokes of the brush. He did not consume a lot of energy nor time. CHOI-CHOI, in this sense can indicate not only a repeated action, but also an action in which one cannot find any repetition, as far as it is done easily and quickly:

2. anohito wa anna muzukashii koto o CHOI-CHOI to that person t. such a difficult thing o. q. shiteshimau. did-finish

He can manage such a difficult thing so easily.

3. kare wa amari benkyoo simasen. taitei yasumijikan ni he t. not so study do-not usually break-time in CHOI-CHOI to shukudai o suru dake desu. q. homework o. do only be

He does not study o lot. All he does is to quickly finish his homework in between classes.

In these two examples the person does neither put much effort nor time into doing something.
The semantic formula suggested for this reduplicative form then, is:

**CHOI-CHOI 3**

- doing it for a while,
- in the way a person does,
- who does not need to use his power and time to do it.

7.2.10.1 **SOKE-3050 1**

For **SOKE-3050 1** observe the following example:

1. "sheer ซอกาสอน in 3050-3050 makes a drop of this plant grow.

2. This plant grows slowly.

3. *see-* gift 3050-3050 housekeeper.

4. That person speaks slowly.

**SOKE-3050 1** is associated with the manner of people's actual movements. In Example 1, the movement is not concerned with people, in Example 2, speaking is not considered an event. **SOKE-3050 1** is a careful movement in order to prevent something happening that one does not want to happen. One suspects that something has still happened again unless one repeats in the manner of **SOKE-3050 1**.

3. break up will make us 3050-3050 slow-moving. 3050-3050 slow-moving.

The sick old man is walking slowly.

4. do not be so slow. 3050-3050 slow-moving.

The thief is walking slowly and carefully so as not to wake up the people in the house.
7.2.10 SORO-SORO (slowly)

SORO-SORO has two semantic aspects: SORO-SORO 1 is associated with a manner of people's actual movement, SORE-SORO 2 describes an increase in degree.

7.2.10.1 SORO-SORO 1

For SORO-SORO 1 observe the following examples:

1. *kono shokubutsu wa SORO-SORO sodatsu.    
   this plant  t.    grow

I.R: This plant grows slowly.

2. *ano- hito wa SORO-SORO hanashimasu.     
   that person  t.    speak

I.R: That person speaks slowly.

SORO-SORO 1 is associated with the manner of people's actual movements. In Example 1, the movement is not concerned with people, in Example 2, speaking is not considered as movement. SORO-SORO is a careful movement in order to prevent something happening that one does not want to happen. One suspects that something bad will happen again unless one moves in the manner of SORO-SORO.

3. byooki no ojii-san wa SORO-SORO aruiteimasu.  
   sick of old man  t.  slowly  is walking

The sick old man is walking slowly.

4. doroboo wa ie no hito o okosanai yooni     
   thief  t.  house of people o.  wake up-not so that

SORO-SORO aruiteiru.  
slowly  is walking

The thief is walking slowly and carefully so as not to wake up the people in the house.
5. akachan o okos- anai yooni SORO-SORO doa o aketa.
   baby o. wake up not to so that slowly door o. opened
   (I) opened the door slowly and carefully so as not to wake up the baby.

6. bakudan ga chot- to no shokku de bakuhatasu suru to iu
   bomb s. little q. of shock by explode do q. say
   node SORO-SORO to untenshite iku.
   because q. drive do go
   (I) am driving so slowly and carefully because it is said that a slight shock can explode the bomb.

7. yasashiku koe o kakete, SORO-SORO to inu no hoo
   quietly voice o. call out slowly q. dog of direction
   e te o sashi-nobeta.
   to hand o. extended
   Calling out with a quiet voice, he extended his hand toward the dog slowly and carefully.

8. roopu de koshi o shibatte, SORO-SORO to gake o oriru.
   rope by waist o. tie slowly q. cliff o. go down
   (I) am going down a cliff slowly and carefully with my waist held by a rope.

If one does not move in the manner of SORO-SORO, something bad might happen, such as in the case of 7, a dog might bite him or one might fall down from a cliff in the case of 8. If the action does not require caution, its co-occurrence with SORO-SORO sounds odd, since the movement will not cause anything bad to happen.

9. *yama o SORO-SORO aruku.
    mountain o. slowly walk
    I.R:(I) walked in the mountains slowly.

10. *yama o SORO-SORO sampo suru.
    mountain o. slowly stroll did
    I.R:(I) strolled around slowly in the mountains.

However,
11. te to ashi o tsukatte gake o SORO-SORO noboru.
hand and foot o. use cliff o. slowly climb
(I) climb up a mountain slowly using my hands and feet.

12. ippo ippo ashiba o tashikamete, SORO-SORO to
one-n.c. one-n.c. footing o. make sure slowly q.
iwaba o noboru.
rocky cliff o. climb
(I) climb a rocky cliff carefully and slowly, testing the
footing of each step.

When a person makes a movement in the above two examples, he makes
several small movements and after each movement he makes stops to make
sure that nothing bad is going to happen.
The semantic formula suggested is:

doing it (moving) for a while,
in the way a person does slowly and carefully,
who doesn't know where his next step will be,
because he has to think about it,
so that he doesn't cause something bad to happen.

7.2.10.2 SORO-SORO 2

SORO-SORO 2 is related to an increase in degree. It seems to be
divided into two categories: A-something starts slowly, B-something happens soon.

Examples for A:

1. SORO-SORO kuraku natte kita.
   dark become come
   It is getting dark.
2. anata ga nakanaka konai kara SORO-SORO
you s. very late come-not because start slowly

 started to eat

Little by little (I) started to eat, since you were very late in arriving.

3. anata ga osoi node SORO-SORO hanashihajimeteimashita.
you s. late because start slowly start to speak

 Little by little, (I) started to talk, since you were very late.

Examples for B

4. SORO-SORO goji da.
slowly five o'clock be

It will be five o'clock soon.

5. SORO-SORO kaerimashoo.
slowly go back-let's

Let's go back soon.

6. SORO-SORO sakurambo no kisetsu da.
slowly cherry of season be

It will be the cherry season.

7. SORO-SORO kare ga kuru koro da
slowly he s. come time be

It is about time for him to come.

8. SORO-SORO hana no saku koro da.
slowly flower of bloom time be

Flowers start blooming soon.

Examples 1 to 3, for SORO-SORO A, describe the way in which something starts slowly, while 4 to 8, for SORO-SORO B, describe the way in which the time for something to happen is slowly approaching. The former are associated with something which has already happened, whereas the latter are associated with something which will happen soon. In fact, the latter can be interpreted as: it is already at the
time when we can expect something to happen soon. This is proved by the fact that all examples for B can co-occur with 'moo' (already). In this sense, the implications of A and B are the same. As it is, the change has already started to happen, but one cannot point out when it happened, nor when it has fully happened. As well, the process of change is happening continuously but one cannot segment each change.

The semantic formula suggested is as follows:

\[ \text{SORO-SORO 2} \]

it (changing) happened,
in a way so that one couldn't say when it started, and one cannot say when it will be completed, because it did not start at any one time, one couldn't tell when one change ends and another one begins, but after each moment it is a little more so than it was the moment before.
7.2.11 DON-DON (steadily)

DON-DON has two meanings: 1 an onomatopoeic word, which describes the sound of hitting, 2 a mimetic word, which describes the way of changing.

7.2.11.1 DON-DON 1

DON-DON 1 imitates a sound which is generated when something hard is hit rapidly with force, several times in a row. See the examples below:

1. to o DON-DON tataite, hito o okoshita.
   door o. knock people o. woke up
   (I) woke up the people inside by knocking on the door several times rapidly.

2. yuka o DON-DON fuminarashite, nakiwameku.
   floor o. stamp one's feet cry
   Stamping (my) feet on the floor, (I) cry.

When one hears the sound of DON-DON, one perceives the next hit as soon as the previous hit finishes so that the second hit is heard while the echo of the previous hit is still ringing one's ears.

The semantic formula suggested is:

it (sound) happens several times for a while in the way when something hard is hit strongly, and quickly one hit after another without stops in between, so that one couldn't say when one sound ends and the next one begins.
7.2.11.2 DON-DON 2

DON-DON 2 indicates a manner in which something happens rapidly.

1. DON-DON okane o tsukau.
   rapidly money o. spend

   (I) spend money rapidly.

This reduplicative form indicates a repeated action. Therefore:

2. DON-DON hon o yomu.
   book o. read

   (I) read books one after another.

   does not mean that one reads a book rapidly, but one reads many
better rapidly. Observe one more sentence:

3. hito ga DON-DON shinu.
   people s. quickly die

   People are dying rapidly, one after the other.

   In other words, the plurality of the participants is conditioned
by DON-DON. See another pair of examples below.

4. hayaku hanashitekudasai.
   quickly speak-please

   Please speak quickly.

4'. DON-DON hanashitekudasai.
   speak-please

   Please speak about matters quickly one after the other.

In 4, the speaker asks the person to speed up the speech, whereas
in 4', the speaker asks the person to talk about those matters that he
has on his mind, as topics of conversation, and to talk about them one
after another without any interval in between them. If a division of
action occurs due to the participants of the action, such as people who
die one by one, or topics which are introduced one by one, the result
of the action appears segmented. However, the result of the action is
non-segmentable if there is no participant which creates the division,
as is the case in the following examples:
5. hi wa DON-DON moehirogatta.
   fire t. spread

   A fire spread quickly.

6. fune wa DON-DON oki ni nagas-areta.
   ship t. open sea to was drifted

   A ship drifted quickly toward the open sea.

Even if the action is segmented, it is difficult to tell when one
action ends and another starts. For example in 3, people die without
clear intervals between.

The semantic formula suggested for this reduplicative forms is as
follows:

it happens for a while,

in the way things happen one after another very quickly,

and after each moment it is more so than it was in the moment
before,

so that one couldn't tell when one thing ends and another
one begins.
7.2.12 DAN-DAN (gradually)

DAN-DAN indicates a gradual change.

1. kono ki wa DAN-DAN ookiku natta.
   this tree t. big become

   This tree grows gradually.

It always co-occurs with verbs that indicate 'change'. Therefore, 3 and 5 are not acceptable whereas the others are acceptable.

2. DAN-DAN joozu ni naru.
   skillful to become

   (He) gradually becomes skillful.

   walk

   I.R: (He) walks gradually.

4. DAN-DAN kochira e aruitekuru.
   this direction to walk-come

   (He) is gradually coming in this direction.

5. *kodomo ga DAN-DAN hanasu.
   child s. speak

   I.R: A child speaks gradually.

6. kodomo ga DAN-DAN hanashi-hajimeta.
   child s. speak -started

   A child gradually started to speak.

DAN-DAN indicates a gradual change which cannot be perceived clearly at any given moment. Therefore, the example below is unacceptable:

7. *kono ki wa ichinichi ni gosenchi zutsu DAN-DAN ookiku naru.
   this tree t. one-n.c. in five-cm each big

   become

   I.R: This tree grows five centimetres a day.
The semantic formula suggested is:

it (changing) happens for a while,
in the way that after each moment it is more so than it was in
the moment before,
so that one couldn't tell when one change ends and another
begins.

1. walks go NOKU-NOKU demassatsukena.
watermelon s. appear on the market
Watermelons started to appear on the market little by little.

2. NOKU-NOKU one no long go nuki dashinashira
plus of flower s. bloom started
Flora flowers started to bloom little by little.

3. kusyuku ga NOKU-NOKU storunokushinsha
audience s. gather come
The audience come little by little.

In the examples above, a small amount of 'watermelons', 'plus
flowers' and 'audience' appear at first, then after a while, a few more
appear. These things happen with some intervals. See another example:

4. asksashen wa NOKU-NOKU arut declarishen.
Baby 1. in walkin
The baby is slowly beginning to walk.

If the baby is walking in front of the speaker slowly, 4 is not
used. However, if the baby walks one or two steps on the first day,
and, on the second day he walks a little more, 4 is acceptable.

Therefore the following sentence is possible:

5. asksashen wa NOKU-NOKU arut declarishen go mode honmonei
baby 1. is walking but yet really
analyzire n. in walkin
in walking 4. 1. say-noun

The baby is slowly beginning to walk, but I cannot say that he
can walk properly yet.
7.2.13 BOTSU-BOTSU (little by little)

BOTSU-BOTSU is divided into two categories. BOTSU-BOTSU A indicates not many things starting to happen, or starting to do not so many things. In other words, a few things happen and they signal the beginning of more things that are going to happen, or doing a few things as a beginning of doing many things.

1. suika ga BOTSU-BOTSU demawatteimasu.
   water melon s. appear on the market

   Watermelons started to appear on the market little by little.

2. BOTSU-BOTSU ume no hana ga saki-dashimashita.
   plum of flower s. bloom started

   Plum flowers started to bloom little by little.

3. kankyaku ga BOTSU-BOTSU atsumattekimashita.
   audience s. gather -came

   The audience came little by little.

In the examples above, a small amount of 'watermelons', 'plum flowers' and 'audience' appear at first, then after a while, a few more appear. These things happen with some intervals. See another example:

4. akachan wa BOTSU-BOTSU arueteimasu.
   baby t. is walking

   The baby is slowly beginning to walk.

   If the baby is walking in front of the speaker slowly, 4 is not used. However, if the baby walks one or two steps on the first day, and, on the second day he walks a little more, 4 is acceptable. Therefore the following sentence is possible:

5. akachan wa BOTSU-BOTSU arueteimasu ga mada hontooni
   baby t. is walking but yet really
   aruiteiru to wa ienai.
   is walking q. t. say-not

   The baby is slowly beginning to walk, but I cannot say that he can walk properly yet.
Similarly, if a person works a little, has a rest, then starts working again, the sentence below is possible:

6. byooki ga yoku natta node BOTSU-BOTSU shigoto o sickness s. good become because work o.
   shiteimasu.
   is doing

(I) am starting to work little by little, since (I) have recovered from my disease.

BOTSU-BOTSU B is associated with the time range when something happens.

7. BOTSU-BOTSU hachiji ni narimasu.
   eight-o'clock to become

It will be eight o'clock soon.

8. BOTSU-BOTSU momo no oishii kisetsu desu.
   peach s. tasty season be

The season when peaches are tasty will come soon.

What the two BOTSU-BOTSU forms have in common, when they are compared with each other, is that at the moment the time of something happening is not yet in full swing: it is not exactly eight o'clock, it is not the best season for peaches, the work is not in full swing, the plum flowers are not in their full glory, and so on. That is, BOTSU-BOTSU indicates that it is before that time, regardless of whether it has already started or not, and that it is at a time when we can expect the 'time of full swing' to come soon. But it is still certain that the moment is approaching although one cannot tell when it will happen.
The semantic formula suggested is:

it happens for a while several times,
in a way that there are some stops in between them,
and one couldn't say when will be the next time it happens,
but it is not yet the moment when it happens fully,
each time one thinks about it, it is a little more so;
one couldn't say when it will be so.
7.2.14 IYO-IYO (more and more/at least)

IYO-IYO has two meanings: IYO-IYO 1 (more and more), IYO-IYO 2 (at last).

7.2.14.1 IYO-IYO 1

Observe the sentences below:

1. kare wa nihongo ga IYO-IYO joozuni natta.
   he t. Japanese s. more and more skillful became
   His Japanese is more and more improved.

2. kare wa nihongo ga IYO-IYO hetani natta.
   he t. Japanese s. more and more unskillful became
   His Japanese become more and more unskillful.

The speaker had already known whether his Japanese was good or bad beforehand. Therefore he formed his judgement in the above by comparing the state of things now to that of before.

In contrast to DAN-DAN (gradually) and DON-DON (rapidly), IYO-IYO indicates the degree to which the state is changed, whereas DAN-DAN and DON-DON indicate that something is changed; they focus on the actual process of changing. Therefore, DAN-DAN and DON-DON can co-occur with the 'teiru' form, which indicates 'progressive', whereas IYO-IYO cannot:

4. kare wa nihongo ga DON-DON joozuni natteiru.
   he t. Japanese s. rapidly skillful is becoming
   His Japanese is rapidly improving.

5. kare wa nihongo ga DAN-DAN joozuni natteiru.
   he t. Japanese s. gradually skillful is becoming
   His Japanese is gradually improving.
   he t. Japanese s. more and more skillful is becoming

I.R: His Japanese is more and more improving.

However, the degree of change is not thought of as something that
one can measure. Therefore, the example below is unacceptable:

7. *kare wa sei ga IYO-IYO nijussenchi nobita.
   he t. hight s. more and more twenty centimetre grow

I.R: He has grown twenty centimetre more and more.

The semantic formula suggested for this reduplicative form is:

it is being more so than before
one cannot say how far it is more so than before.

7.2.14.2 IYO-IYO 2

Observe the sentences below:

1. IYO-IYO machi ni matta natsuyasumi da.
   at last wait wait summer holiday be
   At last, it is summer holidays which I have been waiting.

2. IYO-IYO ashita nihon o shuppatsushimasu.
   at last tomorrow Japan o.depart
   (I) will depart Japan tomorrow.

IYO-IYO 2 indicates an event, for which the speaker has been
waiting for a while, will happen soon. Therefore, the example below is
not acceptable, because the speaker does not want it happen:

   at last dislike August be

I.R: It will be August which I don't like.
One can exactly point out when it will happen:

The semantic formula suggested for this reduplicative form is:

\[
\text{it is being time}
\]

when something which one wants to happen will happen soon,

one can say exactly when it will happen.

As the examples above show, it is used for both good and bad happenings. It indicates something is not the way that one expects it to be. Thus, it indicates 'confusion', because something is not the way it is supposed to be. Observe the sentences below which could be translated as 'to be confused'.

3. ... no renchi as MECHA-MECHA da... be of logic be... be...
   His logic is badly confused.

5. ... no heigo ... no renchi-kata go MECHA-MECHA da... be you's honorifics of one's way be ...
   His way of using honorifics is very mixed up.

7. arashi go han... go MECHA-MECHA da... storm by flower be ...
   The flowers are raised by the storm.

8. onata go usashii o MECHA-MECHA ni shita... you to I be ...
   You ruined my life.
7.2.15 MECHA-MECHA (in disorder)

MECHA-MECHA indicates a manner or a state of something extraordinary.

1. sora ga MECHA-MECHA ni hareteiru.  
   sky s. clear
   The sky has cleared up amazingly.

2. ano hito wa MECHA-MECHA ni atama ga ii.  
   that-person t. brain s. good
   His brain is extraordinarily good.

3. MECHA-MECHA ni ame ga furu.  
   rain s. rain
   It is going to rain down cats and dogs.

4. MECHA-MECHA ni naguru.  
   beat up
   (I) beat (him) up really badly.

As the examples above show, it is used for both good and bad happenings. It indicates something is not the way that one expects it to be. Thus, it indicates 'confusion', because something is not the way it is supposed to be. Observe the sentences below which could be translated as 'to be confused'.

5. kare no ronshi wa MECHA-MECHA da.  
   he of logic t. be
   His logic is badly confused.

6. kare wa keigo no tsukai-kata ga MECHA-MECHA da.  
   he t. honorifics of use -way s. be
   His way of using honorifics is very mixed up.

7. arashi de hana ga MECHA-MECHA da.  
   storm by flower s. be
   The flowers are ruined by the storm.

8. anata wa watashi o MECHA-MECHA ni shita.  
   you t. I o. did
   You ruined my life.
The semantic formula suggested is as follows:

it is being,

in the way in which something is different to a greater degree from that what one would expect than one could imagine it is possible.

The former component indicates the unpredictability of the next movement. The component appears, with some variation, as follows. In MERA-MERA 2, 'one couldn't tell in which direction his next step will be'. In NIRA-NIRA 3, 'one couldn't tell what he will do next'. In SORD-SORD 1, 'a person moves slowly and uncertainly (because he) doesn't know where his next step will be'. In FERA-FERA 1, 'one couldn't tell in which direction it will go next'. In MERA-MERA, 'one couldn't tell in which direction his next movement will be'.

The unpredictability of the position/direction of the next movement/action is related to the variety of each movement. Although the movement is considered as a series of movements which are regarded as repetitions of more or less the same movement, each movement is not exactly the same. The position/direction of the next step, or the next movement/action is not decided; the possibility is there that the next movement could be different from the others.

The latter component indicates non-repetitiveness, that is, the indistinguishability of the movement. It appears in the following reduplicative forms: MERA-MERA 1, FERA-FERA, MERA-MERA, FERA-FERA, MERA-MERA, '"WOD-WOD". Although the movement in each of these forms is considered a repetition of more or less the same movement, there are no clearly defined intervals between each movement, so that each movement is indistinguishable from another one.

These two components are not applicable to all reduplicative
7.3 Conclusion

Two common components within these semantic formulas are discussed. One of these is more or less along the lines of 'one couldn't tell in which direction his next step will be'. The other one is 'one couldn't tell when one movement/sound ends and another one starts'.

The former component indicates the unpredictability of the next movement. The component appears, with some variation, as follows. In BURA-BURA 2, 'one couldn't tell in which direction his next step will be'. In BURA-BURA 3, 'one couldn't tell what he will do next'. In SORO-SORO 1, 'a person moves slowly and carefully [because he] doesn't know where his next step will be'. In FUWA-FUWA 1, 'one couldn't tell in which direction it will go next'. In FURA-FURA, 'one couldn't tell in which direction his next movement will be'.

The unpredictability of the position/direction of the next movement/action is related to the variety of each movement. Although the movement is considered as a series of movements which are regarded as repetitions of more or less the same movement, each movement is not exactly the same. The position/direction of the next step, or the next movement/action is not decided; the possibility is there that the next movement could be different from the others.

The latter component indicates non-segmentability, that is, the indiscreteness of the movement. It appears in the following reduplicative forms: BURA-BURA 1, FUWA-FUWA 1, FURA-FURA, PUKA-PUKA, PIKA-PIKA, NIKO-NIKO, PERA-PERA, DON-DON 1, DON-DON 2, DAN-DAN 1 and PEKO-PEKO 1. Although the movement in each of these forms is considered a repetition of more or less the same movement, there are no clearly defined intervals between each movement, so that each movement is indistinguishable from another one.

These two components are not applicable to all reduplicative
adverbs. For example, MECHA-MECHA (in disorder) has neither of these two components. Nevertheless, I believe they capture the most significant features of the majority of reduplicative adverbs, since they are also applicable to a number of other reduplicative adverbs. For example, the first component applies to, among others, the following adverbs: YOTA-YOTA (totteringly), URO- URO (loafing about) and ORO-ORO (move about not knowing what to do) and, in the case of the second component, there are for example the adverbs: SUI-SUI (lightly and quickly), SURU-SURU (smoothly), PYON-PYON (hopping) and BYUU-BYUU (whistling).

Moreover, they correspond to some significant features found in reduplicative nouns: difference and indiscreteness and also, importantly, the 'impressionistic' description, that is, the speaker is talking about the way something is perceived subjectively.

These semantic properties (of reduplications are closely related to their syntactic behavior observed throughout this thesis, namely, their co-occurrence with numerals. Since they are 'indiscrete' or of 'different' kinds, they cannot co-occur with numerals.

The referents of reduplicatives belonging to Class 1 and 2 of Ni=ni A do not co-occur with numerals, because they are part of something.

The referents of reduplicatives belonging to Class 3 and Class 4 of Ni=ni A do not co-occur with numerals, since the referents belong to different kinds of things, and the reduplicatives convey the meaning of 'variety'. Thus they cannot co-occur with numerals except when SUI-SUI (kind) also occurs with the numerals.

The reduplication of interrogatives, pronouns and some other pronouns (Class 3, and Class 4 (SO-V NI) of Ni=ni A non-selectively indicate an aggregate of separate entities. Therefore these reduplications can co-occur with numerals.
CHAPTER 8

SUMMARY

It emerges from the present study that the two most common semantic features of these noun reduplicatives are their indiscreteness and the difference of the referents. The referents are 'indiscrete' because they are part of something which cannot be separated from the place in which they are, or which cannot be separated from each other. The referents are 'different' since they are different kinds of things, or people distinguish a difference in the referents even when they are the same kind of thing.

These semantic properties of noun reduplicatives are closely related to their syntactic behaviour observed throughout this thesis, namely, their co-occurrence with numerals. Since they are 'indiscrete' or of 'different' kinds, they cannot co-occur with numerals.

The referents of reduplicatives belonging to Class 1 and 2 of N1-N1 A do not co-occur with numerals because they are part of something.

The referents of reduplicatives belonging to Class 3 and Class 4 of N1-N1 A do not co-occur with numerals. Since the referents belong to different kinds of things, and the reduplicatives convey the meaning of 'variety'. Thus they cannot co-occur with numerals except when SHURUI (kind) also occurs with the numerals.

The reduplication of interrogatives pronouns and some other pronouns: Class 5, and Class 6 (MEN-MEN) of N1-N1 A exceptionally indicate an aggregate of separate entities. Therefore these reduplicatives can co-occur with numerals.
In Nl-Nl B, Time and Space are differentiated by people who base their differentiation on events that happen within a TIME and SPACE referent. Thus these reduplicatives do not co-occur with numerals because people think of a part of them only, not of all of them.

SONO Nl SONO Nl patterns cannot co-occur with numerals because people think of a part of something, and not of all of them.

The reduplicatives of 'one' (numeral plus classifier for the object) can co-occur with numerals, because they indicate an aggregate of separate individuals.

The referents of Nl-Nl A can also be divided morphologically: those which have non-reduplicated forms: Class 1, 3 and 5 and those which do not: Class 2, 4 and 6. The existence of a non-reduplicated form indicates that one of the referents of the reduplicative form can exist by itself in a different context. The non-existence of a non-reduplicated form indicates that the referents of the reduplicative form are 'reduplicativa tantum', that is, they must always appear as part of a reduplicative form since none of the referents can exist by itself.

The reduplicative adverbs also have the same semantic features: indiscreteness and difference. Furthermore, they are impressionistic, another feature that was found in noun reduplication also.

Although the study did not investigate all reduplicative expressions in Japanese, the semantic features examined here can be observed in most Japanese reduplicative expressions.
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Fukunaga, Takehiko,

Haga, Yasushi,

Hori, Tatsuo,

Kawabata, Yasunari,

Kurimoto, Kaoru,

Setouchi, Harumi,

Shinoda, Koichirō,
Shiroyama, Saburō,


Shukan Asahi,


Tsuji, Kunio,


Yamaguchi, Akihisa,


NOTES: # indicates the number of the informants who accepted the example, F indicates the number of the informants who did not accept the example, and NA indicates the number of the informants who did not know whether the example is acceptable or not. A indicates the example is considered acceptable because more than two thirds of the informants accepted the example. Q indicates that the acceptability of the example is questionable because the ratio of the informants who accepted the example is between two thirds and one third. NA indicates not acceptable because the number of the informants who accepted the example is less than one third. In this questionnaire, quantifiers such as KOTOIMA (enormous), YOWARI (enough) and so forth are allocated to the column of numerals.
APPENDIX A

QUESTIONNAIRE I

A.1 Sorted Result of Questionnaire I

To make this questionnaire, the following points are counted into the consideration:

1. can the reduplicative forms co-occur with numerals?

2. if they can co-occur with numerals, are the numerals large or small?

3. is there any difference in the acceptability of the reduplicated forms which are modified and not modified, generalised and specified?

4. can the reduplicative forms co-occur with numerals and SHURUI (kinds)?

NOTES: Y indicates the number of the informants who accepted the example, N indicates the number of the informants who did not accepted the example, and DK indicates the number of the informants who did not know whether the example is acceptable or not. A indicates the example is considered acceptable because more than two thirds of the informants accepted the example. Q indicates that the acceptability of the example is questionable because the ratio of the informants who accepted the example is between two thirds and one thirds. NA indicates 'not acceptable' because the number of the informants who accepted the example is less than one third. In this questionnaire, quantifiers such as IKUTSUKA (several), TAKUSAN (many) and so forth are allocated in the column of numerals.
### A.1.1 YAMA-YAMA (mountains)

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### A.1.5 KUNI-GUNI (countries)

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<td>be</td>
<td>GOJUHACHI NO</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>8</td>
<td>10</td>
<td>1</td>
<td>MITTSU</td>
<td>HOOMONSHTA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>three</td>
<td>visited</td>
<td>fifty eight</td>
</tr>
<tr>
<td></td>
<td>(6)</td>
<td>8</td>
<td>11</td>
<td>0</td>
<td>GOJUHACHI</td>
<td>HOOMONSHTA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>fifty eight</td>
<td>visited</td>
<td>three (countries)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>in Europe</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>7</td>
<td>10</td>
<td>2</td>
<td>MITTSU</td>
<td>KENKYUUSURU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>three</td>
<td>investigate</td>
<td>suffer from</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pollution</td>
</tr>
<tr>
<td>NA</td>
<td>10</td>
<td>5</td>
<td>14</td>
<td>0</td>
<td>MITTSU</td>
<td>ARIMASU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>three</td>
<td>be</td>
<td>KYOOSAN-SHUGI NO</td>
</tr>
<tr>
<td></td>
<td>(11)</td>
<td>4</td>
<td>14</td>
<td>1</td>
<td>FUTATSU</td>
<td>SAKANDA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>two</td>
<td>active</td>
<td>SONO FUTATSU NO</td>
</tr>
<tr>
<td></td>
<td>(12)</td>
<td>3</td>
<td>14</td>
<td>2</td>
<td>MITTSU</td>
<td>ARIMASU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>three</td>
<td>be</td>
<td>those two</td>
</tr>
<tr>
<td></td>
<td>(13)</td>
<td>1</td>
<td>16</td>
<td>2</td>
<td>GOJUHACHI</td>
<td>ARIMASU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>fifty eight</td>
<td>be</td>
<td></td>
</tr>
<tr>
<td>A.1.6 SHIMA-JIMA (islands)</td>
<td>Y</td>
<td>N</td>
<td>DK</td>
<td>NUMERAL</td>
<td>VERB</td>
<td>MODIFIER</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---</td>
<td>---</td>
<td>----</td>
<td>--------</td>
<td>------</td>
<td>----------</td>
</tr>
<tr>
<td>(1) 14 4 1</td>
<td>GOJUUHACHI</td>
<td>ATSUMATTE</td>
<td>GOJUUHACHI MO NO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>fifty eight</td>
<td>gather</td>
<td>as many as fifty eight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) 13 5 1</td>
<td>GOJUUHACHI</td>
<td>SANZAISURU</td>
<td>MTNAMITAIHEIYOO NI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>fifty eight</td>
<td>scattered</td>
<td>SANZAISURU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) 13 6 0</td>
<td>SANJUUHACHI</td>
<td>MEGURIMASU</td>
<td>scattered in south Pacific Ocean</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>thirty</td>
<td>go round</td>
<td>SETONAIKAI NO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>eight</td>
<td></td>
<td>SANJUUHACHI NO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>thirty eight (islands)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>in the Inland Sea</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q (4) 12 7 0
| SANJUU | OTAZURETA     | SANJUU NO |
|        | thirty        | thirty    |
| TAKUSAN | MIEMASHITA    | TAKUSAN NO |
|        | many          | many      |
| IKUTSUKA | ATSUMATTE  |            |
|        | several       |            |
|        | ARU           |            |

NA(8) 6 11 2
| YOTTSU | NARU         | YOTTSU NO OOKINA |
| four   | consist      | four big       |
|        | IKU          | KITA TO MINAMI NO |
|        | go           | north and south |
| (10) 5 13 1 | YOTTSU | OTOZURETA    | YOTTSU NO |
| four   | visited      | four          |
| (11) 5 14 0 | YOTTSU | ATSUMATTE   | YOTTSU NO |
| four   | gather       | four          |
| (12) 4 15 0 | MIERUDESHOO | will be seen |
|        | four         | four          |
| (13) 4 15 0 | YOTTSU | MIEMASHITA  | YOTTSU NO |
| four   | could be seen| four         |
| (14) 3 16 0 | GOJUU GURAI | MIERU       | four         |
|        | about fifty  | could be seen |
| (15) 2 16 1 | YOTTSU | ARIMASU     | FUTATSU NO   |
| four   | be           | two          |
| (16) 1 18 0 | FUTATSU | SUSUMU     | two          |
| two    | go           |              |
### A.1.7 MACHI-MACHI (towns)

<table>
<thead>
<tr>
<th>Y</th>
<th>N</th>
<th>DK</th>
<th>NUMERAL</th>
<th>VERB</th>
<th>MODIFIER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q</td>
<td>(1)</td>
<td>8</td>
<td>11</td>
<td>0</td>
<td>SEIBISURU clean</td>
</tr>
<tr>
<td></td>
<td>(2)</td>
<td>7</td>
<td>12</td>
<td>0</td>
<td>AFURERU flood</td>
</tr>
<tr>
<td></td>
<td>(3)</td>
<td>7</td>
<td>12</td>
<td>0</td>
<td>ATSUMATTE gather</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NA(4)</th>
<th>6</th>
<th>12</th>
<th>0</th>
<th>KITA came</th>
<th>TOOKU NO far</th>
</tr>
</thead>
<tbody>
<tr>
<td>(5)</td>
<td>5</td>
<td>14</td>
<td>0</td>
<td>ITSUTSU five</td>
<td>MINAMI NO ITSUTSU NO southern five</td>
</tr>
<tr>
<td>(6)</td>
<td>4</td>
<td>14</td>
<td>1</td>
<td>TAKUSAN many</td>
<td>KOOGAI NI KURUSHIMU suffering from pollution</td>
</tr>
<tr>
<td>(7)</td>
<td>4</td>
<td>15</td>
<td>0</td>
<td>IKUTSUKA several</td>
<td>KOOGAI NI KURUSHIMU suffering from pollution</td>
</tr>
<tr>
<td>(8)</td>
<td>4</td>
<td>15</td>
<td>0</td>
<td>GOJUHACHI fifty eight</td>
<td>KOOGAI NI KURUSHIMU suffering from pollution</td>
</tr>
<tr>
<td>(9)</td>
<td>3</td>
<td>16</td>
<td>0</td>
<td>YOTTSU four</td>
<td>KOOGAI NI KURUSHIMU SONO the (towns) suffering from pollution</td>
</tr>
<tr>
<td>(10)</td>
<td>2</td>
<td>17</td>
<td>0</td>
<td>MITTSU three</td>
<td>KOOGAI NI KURUSHIMU suffering from pollution</td>
</tr>
<tr>
<td>(11)</td>
<td>1</td>
<td>17</td>
<td>1</td>
<td>SEKKEISURU plan</td>
<td></td>
</tr>
<tr>
<td>(12)</td>
<td>1</td>
<td>18</td>
<td>0</td>
<td>ITTE go</td>
<td>SOTSUGYOOSHITA graduated</td>
</tr>
<tr>
<td>(13)</td>
<td>0</td>
<td>19</td>
<td>0</td>
<td>BENRIDESU convenient</td>
<td></td>
</tr>
</tbody>
</table>
### A.1.8 MISCELLANEOUS

<table>
<thead>
<tr>
<th>Y</th>
<th>N</th>
<th>DK</th>
<th>NUMERAL</th>
<th>VERB</th>
<th>MODIFIER</th>
<th>REDUPLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>NANATSU</td>
<td>DEKITE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>seven</td>
<td>get</td>
</tr>
<tr>
<td>(2)</td>
<td>12</td>
<td>6</td>
<td>0</td>
<td>FUTATSU</td>
<td>NARABETA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>two</td>
<td>line up</td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td>12</td>
<td>6</td>
<td>0</td>
<td>ITSUTSU</td>
<td>NORU</td>
<td>ICHIGO</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>five</td>
<td>put</td>
<td>strawberry</td>
</tr>
<tr>
<td>Q</td>
<td>4</td>
<td>10</td>
<td>9</td>
<td>0</td>
<td>HITOTSU</td>
<td>DEKITE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>one</td>
<td>get</td>
<td>small</td>
</tr>
<tr>
<td>(5)</td>
<td>7</td>
<td>12</td>
<td>0</td>
<td>ITSUTSU</td>
<td>YABURETE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>five</td>
<td>tear</td>
<td></td>
</tr>
<tr>
<td>NA</td>
<td>6</td>
<td>1</td>
<td>10</td>
<td>1</td>
<td>JUUNANA</td>
<td>KAJI GA ATTA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>seventeen fires broke out</td>
<td>many places</td>
</tr>
</tbody>
</table>

---

*Note: The table entries are in Japanese. The translations provided are approximations.*

---

*Translations for the sentences:

(7) TAMA-TAMA ga ibutsuka hahenatta. Chokko-karayu mtsuru nan. Several mountains rose.

(4) Mirai ni wa Tomyo fukai chuu taiken no YAMA-TAMA hillary ni. Europe, stay with many... of mountains.

(5) 10 9 5 2

- nobata
- elated

Hillary climbed many mountains while she was staying in Europe.

(3) 9 8 7

- sa no shiri no YAMA-TAMA tua bunka go oki-oki winter became when mountains from here. down 10 9 7

When winter came, leaves came down from the mountains.

(6) Mirai ni wa gojun-geki no utsukushiki de Hillery ni. Fifty eight as much as of mountains di. climbed

Hillery climbed fifty eight mountains.
A.2 Sentences Used in Questionnaire I

NOTE: the number under the example number indicates the ratio of informants who accepted the sentence: who did not accept the sentence: who undecided.

A.2.1 YAMA-YAMA (mountains)

(1) hikooki no mado kara miru to achi-kochi ni YAMA-YAMA plane of window from see when here and there mountains
14 4 1
ga tenzaishite mieta. s. scatter see
When (I) looked from the window of plane, (I) could see mountains scattered here and there.

(2) nishi to higashi no YAMA-YAMA kara kemuri ga tachi west and east of mountains from smoke s. rise
11 8 0
nobotteiru. rising
Smoke rises from east and west mountains.

(3) YAMA-YAMA ga ikutsuka atsumatte Chookai-sanmyaku mountains s. several gather Chookai mountain range
11 8 0
o kooseishiteimasu. o. make
Several mountains form the Chookai mountain range.

(4) Hirarii wa Yooroppa taizai-chuu takusan no YAMA-YAMA hillary t. Europe stay while many of mountains
10 9 0
o nobotta. o. climbed
Hillary climbed many mountains while he was staying in Europe.

(5) fuyu ni naru to YAMA-YAMA kara kuma ga oritekuru. winter become when mountains from bear s. come down
9 8 2
When winter comes, bears come down from the mountains.

(6) Hirarii wa gojuuhachi mo mo YAMA-YAMA o nobotta. Hillary t. fifty eight as much as of mountains o. climbed
9 10 0
Hillary climbed fifty eight mountains.
(7) YAMA-YAMA ga takusan atsumatte Chookai-sammyaku mountains s. many gather Chookai mountain range
go o kooseishiteimasu. make
Many mountains form the Chookai mountain range.

(8) kinoko wa YAMA-YAMA ni shizen ni haeru mono desu. mushroom t. mountains in naturally grow thing be
Mushrooms grew naturally in the mountains.

(9) mukoo ni YAMA-YAMA ga gojuu mieru. over there in mountains s. fifty can see
(I) can see fifty mountains over there.

(10) kono ken -nai ni wa YAMA-YAMA ga takusan this prefecture inside in t. mountains s. many
There are many mountains in this prefecture.

(11) kono ken -nai ni aru YAMA-YAMA no kazu wa this prefecture inside in be mountains of number t.
The number of mountains in this prefecture is fifty eight.

(12) kono ken -nai ni wa YAMA-YAMA ga ikutsuka this prefecture inside in t. mountains s. several
There are several mountains in this prefecture.

(13) kono ken -nai ni wa YAMA-YAMA ga gojuuhachi this prefecture inside in t. mountains s. fifty eight
There are fifty eight mountains in this prefecture.
YAMA-YAMA ga gojuuhachi atsumatte Chookai-sanmyaku mountains s. fifty eight gather Chookai mountain range.

Fifty eight mountains form the Chookai mountain range.

mukoo ni YAMA-YAMA ga mitsu mieru.

over there in mountains s. three-n.c. can see

(I) can see three mountains over there.

kono ken -nai ni wa YAMA-YAMA ga yotts u

this prefecture inside in t. mountains s. four

There are four mountains in this prefecture.

YAMA-YAMA ga yotts u atsumatte Chookai-sanmyaku mountains s. four-n.c. gather Chookai mountain range

Four mountains form the Chookai mountainsrange.

kono ken -nai ni aru YAMA-YAMA no kazu wa

this prefecture inside in be mountains of number t.

The number of mountains in this prefecture is four.
A.2.2 IE-IE (houses)

(1) kono machi ni wa shoogyoo o itonamu IE-IE
this town in t. business o. conduct houses
5 14 0

gatokusan arimasu.
s. many be

In this town there are many houses from which business is conducted.

(2) ano yama no ue ni wa modanna IE-IE ga tatsu
that mountain of top on t. modern houses s. build
5 13 1

yotei desu.
plan be

On top of that mountains modern houses will be built.

(3) kono kenchiku jimusho ga kyonen sekkeishita
this architecture office s. last year designed
3 16 0

IE-IE no kazu wa gojuuhachiken desu.
houses of number t. fifty eight-n.c. be

The number of the houses which were designed by this architects' office last year is fifty eight.

(4) ano yama no ue ni wa IE-IE ga tatsu yotei desu.
that mountain of top on t. houses s. build plan be
3 16 0

On top of that mountain houses will be built.

(5) kono machi ni wa shoogyoo o itonamu IE-IE
this town in t. business o. conduct houses
3 15 1

gagojuuhachiken arimasu.
s. fifty eight-n.c. be

In this town there are fifty eight houses from which business is conducted.

(6) Nihon de wa IE-IE ga takai.
Japan in t. houses s. expensive
1 18 0

In Japan houses are expensive.
In this town there are three houses from which business is conducted.

Since he is a carpenter his job is building houses.
A.2.3 KI-GI (trees)

(1) sono mado kara wa suuhon no KI-GI ga that window from t. several-n.c. of trees s.

kaze ni yureteiru no ga mieta.
wind by sway s. could be seen

From that window (I) could see several trees swaying in the wind.

(2) Nikkoo-kaidoo-zoi ni uerareta KI-GI no kazu wa Nikkoo-road -along in be planted trees of number t.

hyakugojuppon desu.
one hundred and fifty-n.c. be

The number of trees which are planted along the side of the Nikkoo road is one hundred and fifty.

(3) yama no chuufuku ni sugi no KI-GI ga ten o mountain of half way on cedar of trees s. sky o.

sashite tatteiru no ga mieta.
point stand be s. could be seen

I could see ceder trees half way up the mountain, standing, pointing to the sky.

(4) ringo no KI-GI ni mi ga natta.
apple of trees on fruit s. formed

The fruit has formed on the apple tree.

(5) kikori no shigoto wa yama no KI-GI o kiru woodcutter of work t. mountain of trees o. cut

koto desu.
comp. be

A woodcutter's job is to cut trees from the mountain.

(6) kono niwa ni wa achi-kochi ni KI-GI ga arimasu.
this garden in t. here and there trees t. be

In this garden, there are trees here and there.

(7) ie no mae ni KI-GI o ueyoo to omoimasu.
house of front in trees s. intend to plant think

I will plant trees in front of the house.
(8) sono mado kara wa nihon no KI-GI ga mieta.  
that window from t. two-n.c. of trees s. can see

(1) could see two trees from that window.

(2) kono ni na ai ugahere HANA-KAMA wa yoko-churu
this picture by drawn flowers t. fifty kinds

(3) kono ni na ai ugahere HANA-KAMA wa yoko-churu
this picture by drawn flowers t. fifty-n.c.

(4) kono ai na ai HANA-KAMA wa yoko-churu
this picture by drawn flowers t. many be

(5) kono ai na ai HANA-KAMA wa yoko-churu
this picture by drawn flowers t. gather bouquet s.

(6) kodomotachi wa ai de kurena HANA-KAMA
children t. garden to pretty flowers n.

(7) kara wa nihon no KI-GI ga mieta.  
that window from t. trees s. can see

(8) sono mado kara wa nihon no KI-GI ga mieta.  
that window from t. two-n.c. of trees s. can see

flowers t. bloom

When spring trees beautiful flowers bloom in this flower bed.

Flowers drawn in this picture are of fifty eight kinds.

The flowers drawn in this picture amount to fifty different
kinds.

There are many flowers in this garden.

(1) gathered several kinds of flowers and made a bouquet.

Children are picking pretty flowers in the garden.

Beautiful flowers bloom on this tree.
A.2.4 HABA-BANA (flowers)

(1) kono kadan ni wa haru ni naru to utsukushii
this flower bed on t. spring become when beautiful
14 4 1
HANA-BANA ga saku.
flowers s. bloom

When spring comes beautiful flowers bloom in this flower bed.

(2) kono e ni egakareta HANA-BANA wa gojus-shurui ni
this picture by drawn flowers t. fifty kinds
13 6 0
noboru.
amount

Flowers drawn in this picture are of fifty eight kinds.

(3) kono e ni egakareta HANA-BANA wa gojuppon ni
this picture by drawn flowers t. fifty-n.c.
10 9 0
noboru.
amount

The flowers drawn in this picture amount to fifty different kinds.

(4) kono niwa ni wa HANA-BANA ga takusan arimasu.
this garden in t. flowers s. many be
10 9 0
There are many flowers in this garden.

(5) suu -shurui no HANA-BANA o atsumete hanataba o
several kinds of flowers o. gather bouquet o.
9 10 0
tsukutta.
made

(I) gathered several kinds of flowers and made a bouquet.

(6) kodomotachi wa niwa de kireina HANA-BANA o
children t. garden in pretty flowers o.
7 11 1
tsundeiru.
pick be

Children are picking pretty flowers in the garden.

(7) kono ki ni wa utsukushii HANA-BANA ga saku.
this tree on t. beautiful flowers s. bloom
7 12 0
Beautiful flowers bloom on this tree.
(8) kono kadan ni HANA-BANA o uetai to omou. 
i this flower bed on flowers o. plant-want think
6 12 1
I want to plant flowers on this flower bed.

(9) kodomotachi wa niwa de HANA-BANA o tsundeiru. 
children t. garden in flowers o. pick be
6 13 0
Children are picking flowers in the garden.

(10) kono niwa ni wa HANA-BANA ga gojuppon arimasu. 
this garden in t. flowers s. fifty-n.c. be
6 13 0
There are fifty flowers in this garden

(11) tanjoobi nanode kireina HANA-BANA o katte kite 
birthday because pretty flowers o. buy come
4 14 1
present shita.
present past
Since it is (his) birthday (I) went to buy pretty flowers
and gave them to him.

(12) suuhon no HANA-BANA o atsumete hanataba o 
several-n.c. of flowers o. gather bouquet o.
4 15 0
tsukutta.
made
(I) gathered several flowers and made a bouquet.

(13) san-shurui no HANA-BANA o atsumete hanataba o 
three kinds of flowers o. gather bouquet o.
3 16 0
tsukutta.
made
(I) gathered three kinds of flowers and made a bouquet.

(14) tanjoobi nanode HANA-BANA o katte kite purezento shita. 
birthday because flowers o. buy come present past
1 18 0
Since it is his birthday (I) went to buy flowers and gave
them to him.

(15) kono kabin ni wa HANA-BANA ga san-shurui iketearimasu. 
this vase in t. flowers s. three kind arranged
1 18 0
In this vase three kinds of flowers are arranged.
There are three flowers arranged in this vase.

(I) gathered two flowers and made a bouquet.
A.2.5 KUNI-GUNI (countries)

(1) takusan no KUNI-GUNI ga atsumatte, kokuren many of countries s. gathered United Nations

no kiso o tsukurimashita.
of base o. make past

Many countries gathered together and formed the basis of the United Nations.

(2) Nakasone-shi wa zainin-chuu ooku no KUNI-GUNI Nakasone-Mr t. while in office many of countries

o hoomonshita.
o. visit

Mr. Nakasone visited many countries while in office.

(3) sono kaigi ni wa gojuuhachi no KUNI-GUNI kara that conference in t. fifty eight of countries from
daihyoo ga atsumatta.
representative s. gathered.

Representatives from fifty eight countries gathered at that conference.

(4) Yooroppa ni wa takusan KUNI-GUNI ga arimasu. Europe in t. many countries s. be

There are many countries in Europe.

(5) Nakasone-shi wa zainin-chuu gojuuhachi mo no Nakasone-Mr. t. while in office fifty eight as much as of

KUNI-GUNI o hoomonshita.
countries o. visit

Mr. Nakasone visited as much as fifty eight countries while in office.

(6) Afurika ni wa gojuuhachi no KUNI-GUNI ga arimasu. Africa in t. fifty eight of countries s. be

There are fifty eight countries in Africa.

(7) Nakasone-shi wa yooroppa no mittsu no KUNI-GUNI Nakasone-Mr. t. Europe of three-n.c. of countries

o hoomonshita.
o. visit

Mr. Nakasone visited three countries in Europe.
The number of countries which Mr. Nakasone visited while in office amounts to fifty eight.

Three countries which suffer from pollution decided to develop together a device for eliminating smoke.

There are three communist countries in Africa.

In those two countries anti-public pollution movement is active.

There are three countries in North America Continent.

There are fifty eight countries in Africa.
A.2.6 SHIMA-JIMA (islands)

(1) gojuuhachi mo no SHIMA-JIMA ga atsumatte
fifty eight as much as of islands s. gathered
Kanaria-shotoo o kooseishiteimasu.
Canary Islands o. made up

The Canary Islands consist of as many as fifty eight islands.

(2) minami taiheiyo ni sanzaisuru SHIMA-JIMA no
the South Pacific in scattered islands of
kazu wa gojuuhachi desu.
number t. fifty eight be

The number of islands which are scattered in the South Pacific
Ocean is fifty eight.

(3) kono yuuransan wa setonaikai no sanjuuhachi
this sight-seeing ship t. the Inland Sea of thirty eight
no SHIMA-JIMA o megurimasu.
of islands o. go round

This sight-seeing ship goes round thirty eight islands of the
Inland Sea.

(4) Kyaputen Kukku wa minamitaiheiyo no sanjuu no
Captain Cook t. the South Pacific of thirty of
SHIMA-JIMA o otozureta.
islands o. visited
Captain Cook visited thirty islands of the South
Pacific.

(5) Mado no soto ni takusan no SHIMA-JIMA ga
window of outside in many of islands s.
miemashita.
could be seen

I could see many islands outside the window.

(6) SHIMA-JIMA ga ikutsuka atsumatte, kanaria-shotoo o
islands s. several gather the Canary Islands o.
kooseishiteimasu.
made up

A number of island gathered together and made the Canary
Islands.
In the Inland Sea there are islands here and there.

Japan is a country which consists of four islands.

Captain Cook visited four islands of the South Pacific.

Four islands gathered and made the Japanese Islands.

Look! You can see islands over there, can't you?

(I) could see four islands outside the window.

(I) can see about fifty islands over there.
(15) kono wannai ni wa SHIMA-JIMA ga yottsusu
this bay inside in t. islands s. four-n.c.
2 16 1
arimassu.
be
There are four islands in this bay.

(16) Fune wa futatsu no SHIMA-JIMA no aida o nutte,
ship t. two-n.c. of islands of between o. thread
1 18 0
susumu.
go
The ship threads its way between two islands.
A.2.7 MACHI-MACHI (towns)

(1) korera no hitobito wa Indonesia no MACHI-MACHI o
those of people t. Indonesia of towns o.

8 11 0

utsukushiku seibishiyoo to keikakushiteiru.
beautiful clean inten q. plan be

Those people are planning to clean Indonesian towns and make
them beautiful.

(2) MACHI-MACHI ni afureru shoohin wa hitobito no
towns in flood goods t. people of

7 12 0

koobaaiyoku o sosoru.
desire to buy o. tempt

The goods which flood the towns stimulate people's desire to
buy.

(3) koogai ni kurushimu MACHI-MACHI ga atsumatte
public pollution by suffer towns s. gather

7 12 0

koogai tsuihoo undoo o okosu koto ni shita.
anti-pollution movement o. start decided

Towns which suffer from pollution gathered and decided to
start an anti-pollution movement.

(4) Tooku no MACHI-MACHI kara oyogi ni kita hitobito de kaigan
far of towns from swim to came people by beach

6 12 0

wa nigiwatteiru.
t. crowded

The beach is crowded with people who came from far away towns
to swim.

(5) Minami no itsutsu no MACHI-MACHI kara hana no tayori
south of five-n.c.of towns from flower of letter

5 14 0

ga todoita.
s. arrived

From five towns in the south, news that flowers had bloomed
came.

(6) koogai ni kurushimu MACHI-MACHI ga takusan
public pollution by suffer towns s. many

4 14 1

atsumatte koogaitsuihoo-undoo o okosu koto ni
gather anti-pollution movement o. start decided

shita

Many towns which suffer from pollution gathered and decided to
start an anti-pollution movement.
Several towns which have troubles with public pollutions gathered and decided to start anti-pollution movement.

Fifty eight towns which suffer from pollution gathered and decided to start an anti-pollution movement.

The four towns which suffer from pollution decided to try to get rid of it in cooperation with each other.

Three towns which suffer from pollution gathered and decided to start an anti-pollution movement.

Urban engineering is the study of town planning.
(12) 落丁よい小村の学生たち wa graduate past village of students t.

MACHI-MACHI e itte hatarakimasu.
towns to go work

Village students who have graduated go to towns and work.

(13) MACHI-MACHI no seikatsu wa inaka no seikatsu
towns of life t. the country of life

yori benri desu.
from convenient

Life in towns is more convenient than the country life.
A.2.8 MISCELLANEOUS

(1) hoppeta ni BUTSU-BUTSU ga nanako mo cheek on pimples s. seven-n.c. as much as

dekiteshimatta.
got

(I) got seven pimples on my cheek.

(2) eigo no koron to iu no wa TEN-TEN o tateni English of colon s. dots o. vertically

futatsu narabeta mono desu.
two-n.c. line up be

The English colon is a sign whereby that two dots are arranged vertically.

(3) toosuto ni ichigo jamu o noseru toki wa toast on strawberry jam o. put when t.

ichigo no TSUBU-TSUBU ga itsutsu noru kurai strawberry of # s. five-n.c. put about
ni shite okimasu.
make

#something very small

When you put strawberry jam on your toast, you better spread about as much as five strawberries on it.

(4) ago no ue ni chiisana BUTSU-BUTSU ga hitotsu dekiteshimatta.
chin of top on small pimples s. one make

(I) got one small pimple on my chin.

(5) kare no sebiro wa TOKORO-DOKORO gokasho hodo he of suit t. here and there five-n.c. about

yabureteita.
be torn

His suit was torn in as many as five different places.

(6) sakuya wa HOO-BOO nanakasho de kaji ga last night t. many directions seven-n.c. in fire s.

atta.
be

Fires broke out in seven different places last night.
This questionnaire is mainly devised in order to observe the
behaviour of N1-N1 A with regard to 'generic' and 'non-specific'
referents.

1. In the countries of southern hemisphere, it is the middle of the summer.

2. In the United Nations, representatives in various countries give opinions.

3. In the countries of southern hemisphere, it is the middle of the summer.

4. In (many) countries in the world, inflation is going up.
Countries which are combined for one purpose are called allies.

In several European countries an anti-nuclear movement has risen.

In the countries of southern hemisphere, it is the middle of the summer.

In the United Nations, representatives from various countries give opinions.

Countries are divided into monarchies, democratic countries and republican countries etc., depending upon their ruling style and other functions.

Countries which are combined for one purpose are called allies.
An aggregate which is made up of land and people and is governed is called a country.
B.2 SHIMA-JIMA (islands)

(1) SHIMA-JIMA ga tsuranari narande hitomatomari ni islands s. linked form a line in a lump

When islands are linked and form a line in a group, they are called 'RETTOO'.

(2) mureatsumatteiru SHIMA-JIMA o guntoo to iimasu. crowded islands o. q. say

Islands which are crowded are called 'GUNTOO'.

(3) taairiku no shuhen ni aru SHIMA-JIMA o rikutoo to continent of around in be islands o. q.

Islands which are around continents are called 'RIKUTOO'.

(4) sanzaisuru futatsu ijoo no SHIMA-JIMA no shuudan o scattered two more of islands of aggregate o.

More than one islands which are scattered are called 'SHOTOO'.

(5) taairiku to wa dokuritsu ni seiseishita SHIMA-JIMA o continent t. isolated form islands o.

Islands which are formed isolated from continents are called 'YOOTOO'.

(6) setonai-kai ni wa SHIMA-JIMA ga oo1. the Inland Sea in t. islands s. many

There are many islands in the Inland Sea.

(7) SHIMA-JIMA wa kaitei-ka no kazan no islands t. bottom of the sea under of volcano of

Islands are ones which are formed by the intruding of volcanos under the bottom of the sea.
B.3 YAMA-YAMA (mountains)

(1) sammyaku to iu no wa ookuno YAMA-YAMA ga mountain ranges q. say comp. t. many mountains s.

12 4 1

tsuranari naranda mono desu. linked form a line thing be

Mountain ranges are many mountains linked so that they form a line.

(2) sammyaku to iu no wa YAMA-YAMA ga mountain ranges q. say comp. t. mountains s.

9 6 2

tsuranari naranda mono desu. linked form a line thing be

Mountain ranges are mountains linked so that they form a line.

(3) YAMA-YAMA no midori wa hito no kokoro o nagusameru. mountains of green t. people of heart o. comfort

9 5 3

The green of mountains comforts people's hearts.

(4) sammyaku to iu no wa YAMA-YAMA ga takusan mountain ranges q. say comp. t. mountains s. many

6 7 4

tsuranari naranda mono desu. linked form a line thing be

Mountain ranges are many mountains linked so that they form a line.

(5) kono ken-nai ni wa sanzenfiito kara this prefecture in t. three thousand-feet from

6 10 1

yonsenfiito no dai nikyuu no YAMA-YAMA four thousand-feet of second-class of mountains ga nanatsu hodo arimasu. s. seven about be

In this prefecture, there are about seven second class mountains which are three thousand feet to four thousand feet high.

(6) YAMA-YAMA wa maguma no katsudoo ni yoru mountains t. magma s. action by

5 10 2

tochi no ryuuki ni yotte dekita mono desu. land s. intrude by form thing be

Mountains are formed by the intrusion of magma through the land.
In this prefecture, there are seven second class mountains which are three thousands to four thousands high.

Mountains are divided into active mountains, dormant mountains and extinct mountains, depending on their active state.

There are about seven mountains in this prefecture.
B.4 HANA-BANA (flowers)

(1) HANA-BANA no utsukushisa wa hito no kokoro o nagusameru.
   flower of beauty t. people of heart o. comfort
   The beauty of flowers comforts people's hearts.

B.5 KI-GI (trees)

(1) KI-GI no midori wa hito no kokoro o nagusameru.
   trees of green t. people of heart o. comfort
   The green of trees comforts people's hearts.

B.6 IE-IE (houses)

(1) kono fukin ni wa gashoo zukuri no IE-IE ga
   this around in t. style of house s.
   nanaken arimasu.
   seven classifier for house be
   In this area there are seven 'gashoo'style houses.

(2) kono fukin ni wa gashoo zukuri no IE-IE ga
   this around in t. style of house s.
   nanaken hodo arimasu.
   seven classifier for house about be
   In this area there are about seven 'gashoo'style houses.

(3) kono ken-nai ni wa IE-IE ga nana-ken hodo arimasu.
   this prefecture-in in t. house s. seven-n.c. about be
   There are about seven houses in this prefecture.
NOTE: The numbers under the sentence number indicates the ratio of the number of the informants. The first number indicates the number of informants who accepted the form, the second number indicates those who did not, and the third, those who felt unsure as to whether the form was acceptable or not.

The reduplicative forms of Type I were sometimes pronounced in two ways: 1. as compounds, i.e., with a voiced consonant initially in the second component of the reduplication in the case of two mora nouns, or with an accent change; 2. as the repetition of one word without any voicing or accent change. This was done to ascertain whether either pronunciation would result in a higher degree of acceptability difference. No significant difference was observed. The former way is indicated with the hyphen between the components and the latter is indicated by without hyphenation. The results obtained when the reduplication was pronounced in the second way are in parenthesis.
C.1 CHIHOO (region) group

CHIHOO (region) group

(1) SONO CHIHOO SONO CHIHOO de kekkon no fuushuu ga that region with marriage of custom s.

The marriage customs differ from region to region.

(2) CHIHOO - CHIHOO de kekkon no fuushuu ga region with marriage of custom s.

The marriage customs differ from region to region.

C.2 KISETSU (season) group

KISETSU (season) group

(1) sora no iro ga SONO KISETSU SONO KISETSU de sky of colour s. that season with

Do you know the colour of the sky differs from season to season?

(2) sora no iro ga KISETSU-KISETSU de sky of colour s. season with

Do you know the colour of the sky differs from season to season?
C.3 KUNI (country) group

MACHI (town)

(1) SONO MACHI  SONO MACHI  de  kekkon  no  fuushuu  ga  
that region with marriage of customs

12 1 0
chigau.
differ

The marriage customs differ from town to town.

(2)  

KUNI  (country)

(1) SONO KUNI  SONO KUNI  de  kekkon  no  fuushuu  ga  
that country with marriage of customs

10 0 3
chigau.
differ

The marriage customs differ from country to country.

(2) KUNI  -  GUNI  de  kekkon  no  fuushuu  ga  
country with marriage of customs

6 5 2
chigau.
differ

The marriage customs differ from country to country.
C.4 TOSHI (year) group

=====================================================================  
TSUKI (month)

(1) SONO TSUKI SONO TSUKI de kome no dekidaka ga 
that month with rice of crops.
12 0 1 chigau.
differ

The crop of rice differs from month to month.

(2) TSUKI - ZUKI de kome no dekidaka ga 
month with rice of crops.
8 2 3 chigau.
differ

The crop of rice differs from month to month.

=====================================================================  

TOSHI (year)

(1) SONO TOSHI SONO TOSHI de gakusei no shitsu ga 
that year with student of quality.
13 0 0 chigau.
differ

The quality of students differ from year to year.

(2) TOSHI-DOSHI de gakusei no shitsu ga 
year with student of quality.
1 6 6 chigau.
differ

The quality of the students differ from year to year.

=====================================================================
HI (day)

(1) SONO HI SONO HI de seisandaisuu ga
that day with turnout s.
13 0 0
chigau.
differ

The turnout differs from day to day.

(2) HI-BI de seisandaisuu ga
day with turnout s.
2 9 2
chigau.
differ

The turnout differs from day to day.
C.5 RINGO (apple) group
==============================================
RINGO (apple)

(1) onaji koogyoku demo SONO RINGO SONO RINGO de
    same # even that apple with
12 0 1
    bimyooni aji ga chigau.
    subtle taste s. differ

#a kind of apple like Granny Smiths.

The taste differs from apple to apple, even with those of the same type Koogyoku.

(2) onaji koogyoku demo RINGO-RINGO de
    same even apple with
5 7 1
    bimyooni aji ga chigau.
    subtle taste s. differ

The taste differs from apple to apple, even with those of the same type Koogyoku.

=====================================================================

TSUKUE (desk)

(1) onaji kikaku no tsukue demo SONO TSUKIE SONO TSUKUE de
    same type of desk even that desk with
12 0 1
    bimyooni tsukaigokochi ga chigau.
    subtle quality s. differ

The quality differs from desk to desk, even with those of the same type of desks.

(2) onaji kikaku no tsukue demo TSUKIE-TSUKUE de
    same type of desk even desk with
6 2 5
    bimyooni tsukaigokochi ga chigau.
    subtle quality s. differ

The quality differs from desk to desk, even with those of the same type of desks.

====================================================================
KURUMA (car)

(1) onaji kikaku no kuruma demo SONO KURUMA SONO KURUMA de
same type of car even that car with
enjin no choooshi ga chigau.
engine of condition s. differ

The condition of engine differs from car to car, even with the
same type of car.

(2) onaji kikaku no kuruma demo KURUMA-KURUMA de
same type of car even car with
enjin no choooshi ga chigau.
engine of condition s. differ

The condition of engine differs from car to car, even with the
same type of car.

HITSUJI (sheep)

(1) hitsuji tte minna onaji kao o siteiru yooni mieru
sheep q. all same face o. have like see
kedo yoku miruto SONO HITSUJI SONO HITSUJI de kao
but careful see that sheep with face
enjin no yo.
s. differ comp. part.

The faces of sheep seem all the same, but if you look
carefully, you will see that it differs from sheep to sheep.

(2) hitsuji tte minna onaji kao o siteiru yooni mieru
sheep q. all same face o. have like see
kedo yoku miruto HITSUJI-HITSUJI de kao
but careful see sheep with face
enjin no yo.
s. differ comp. part.

The faces of sheep seem all the same, but if you look
carefully, you will see that it differs from sheep to sheep.
NASHI (pear)

(1) onaji choojuuroo demo SONO NASHI SONO NASHI de
same  #  even  pear  with
12  0  1
bimyooni aji  ga  chigau.
subtle  taste  s.  differ

# a kind of pear

The taste differs from pear to pear, even with those of the
same type Choojuuroo.

(2) onaji Choojuuroo demo  NASHI-NASHI de
same  even  pear  with
0  13  0  NASHI NASHI
(4  8  1)
bimyooni aji  ga  chigau.
subtle  taste  s.  differ

The taste differs from pear to pear, even with those of the
same type Choojuuroo.

ISU (chair)

(1) onaji kikaku no isu  demo SONO ISU  SONO ISU  de
same  type  of  desk  even  that  desk  with
13  0  0
bimyooni suwarigokochi  ga  chigau.
subtle  quality  s.  differ

The quality differs from chair to chair, even with those of
the same type of chairs.

(2) onaji kikaku no isu  demo  ISU  ISU  de
same  type  of  desk  even  desk  with
1  10  2
bimyooni suwarigokochi  ga  chigau.
subtle  quality  s.  differ

The quality differs from chair to chair, even with those of
the same type of chairs.
INU (dog)

1. SONO INU SONO INU de neru kakkoo ga chigau.
   The style of sleeping differs from dog to dog.

2. INU INU de neru kakkoo ga chigau.
   The style of sleeping differs from dog to dog.
C.6 YAMA (mountain) group

YAMA (mountain)

(1) SONO YAMA SONO YAMA de haeteiru ki no shurui
that mountain with grow tree of kind
13 0 0
gachigau.
s. differ
The of trees differs from mountain to mountain.

(2) YAMA YAMA de haeteiru ki no shurui
mountain with grow tree of kind
6 5 2
gachigau.
s. differ
The of trees differs from mountain to mountain.

MIZUUMI (lake)

(1) SONO MIZUUMI SONO MIZUUMI de mizu no iro
that lake with water of colour
12 5 2
gachigau.
s. differ
The colour of water differs from lake to lake.

(2) MIZUUMI MIZUUMI de mizu no iro
lake with water of colour
3 7 3
gachigau.
s. differ
The colour of water differs from lake to lake.
KAWA (river)

(1) SONO KAWA SONO KAWA de nagare no seikaku
that river with stream of character

The character of the stream differs from stream to stream.

ONI (tree)

(1) onaji yuukari no ki demo SONO KI SONO KI de
same eucalyptus of tree even that tree with

The colour of trees differs leaf to leaf, even with the same type of eucalyptus.
C.7 HITO (person) group

KODOMO (child)

(1) SONO KODOMO SONO KODOMO de konomi ni
    that child with taste with
13 0
    chigai ga aru
difference s. be
    There is a difference of taste from child to child.

(2) KODOMO KODOMO de konomi ni
    child with taste with
5 6 2
    chigai ga aru
difference s. be
    There is a difference of taste from child to child.

HITO (person)

(1) SONO HITO SONO HITO de bimyooni konomi ni
    that person with subtle taste with
13 0 0
    chigai ga aru no wa atarimaedesu.
difference s. be t. natural
    It is common to find that there is a difference of taste from person to person.

(2) HITO- BITO de bimyooni konomi ni
    person with subtle taste with
0 11 2
    chigai ga aru no wa atarimaedesu.
difference s. be t. natural
    It is common to find that there is a difference of taste from person to person.
APPENDIX D

QUESTIONNAIRE IV

NOTE: the number in parenthesis indicates the ratio when the reduplication is pronounced separately.

=====================================================================

TSUKI (month)

1. (kono uchi ni wa tsuki no owari ni syakkintori this house to t. mouth of end at (bill) collector kuru) come

SONO TSUKI SONO TSUKI o yatto no omoi de kirinuketa. that month o.barely tided over

13 0 0

(The bill collectors came at the end of the month.)
(I) managed to get by every month.

2. (kono uchi ni wa tsuki no owari ni syakkintori this house to t. mouth of end at (bill) collector kuru) come

TSUKI-ZUKI o yatto no omoi de kirinuketa. month o.barely tided over

2 4 7

(The bill collectors came at the end of the month.)
(I) managed to get by every month.
KISETSU (season)

1.  
nihon wa shiki sore-zore ni utskushiku
Japan t. four seasons respectively beautiful
watashi wa SONO KISETSU SONO KISETSU o aishiteiru.
I t. that season o. love

The four seasons in Japan are beautiful; I love the four seasons.

2.  
nihon wa shiki sore-zore ni utskushiku
Japan t. four seasons respectively beautiful
watashi wa KISETSU KISETSU o aishiteiru.
I t. season o. love

The four seasons in Japan are beautiful; I love the four seasons.

HITO (person)

1.  
ima made ironna hito to ren'ai o shite kita
now till various person with love o.do came
keredo SONO HITO SONO HITO ni wasurerarenai omoide
but that person with unforgettable memory

I have been in love with many people, but I have unforgettable memories of each one.

2.  
ima made ironna hito to ren'ai o shite kita keredo
now till various person with love o.do came but
HITO- HITO ni wasurerarenai omoide ga aru.
person with unforgettable memory s. be

I have been in love with many people, but I have unforgettable memories of each one.
KODOMO (child)

1. iroiro na kodomo to sesshite kita keredo
   various child with see came but

KODOMO KODOMO ni wasurerarenai omoide ga
   that child with unforgettable memory s.

I have been seeing various children so far, but I
have unforgettable memories of each one.

2. iroiro na kodomo to sesshite kita keredo
   various child with see came but

KODOMO KODOMO ni wasurerarenai omoide ga aru.
   child with unforgettable memory s. be

I have been seeing various children so far, but I
have unforgettable memories of each one.

KURUMA (car)

1. ima made ni iroirona kuruma o shoyuushita ga
   now till various car o. owned but

KURUMA KURUMA ni omoide ga aru.
   child with memory s. be

I have owned many cars but I have memories of each
car.

2. ima made ni iroirona kuruma o shoyuushita ga
   now till various car o. owned but

KURUMA KURUMA ni omoide ga aru.
   child with memory s. be

I have owned many cars but I have memories of each
car.