

# UC Berkeley

## Dissertations, Department of Linguistics

### Title

Japanese and English Contrastive Lexicology: The Role of Japanese "Mimetic Adverbs"

### Permalink

<https://escholarship.org/uc/item/6b50q28p>

### Author

Hirose, Masayoshi

### Publication Date

1981

Japanese and English Contrastive Lexicology:  
The Role of Japanese "Mimetic Adverbs"

By

Masayoshi Hirose

A.B. (International Christian University, Tokyo) 1967

DISSERTATION

Submitted in partial satisfaction of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Linguistics

in the

GRADUATE DIVISION

OF THE

UNIVERSITY OF CALIFORNIA, BERKELEY

Approved: *Charles J. Fillmore* *May 4, 1981*  
.....  
Chairman Date  
*Hans Aoki* *May 4, 1981*  
.....  
*Karl Zinsmeister* *5/4/81*  
.....

DOCTORAL DEGREE CONFERRED

JUNE 13, 1981

.....

To my mother and grandmother

## ACKNOWLEDGEMENTS

I would like to express my gratitude to the members of my committee, Haruo Aoki and Karl Zimmer (from A to Z) for their encouragement, guidance, and help in the preparation of this dissertation. My deepest appreciation goes to Charles Fillmore, my chairman, who has provided both academic guidance and moral support throughout the evolution of this dissertation. He always made time for me in his busy schedule, and worked patiently with me on every phase of this project.

I would also like to express my sincere appreciation to my colleagues at International Christian University, for their support and encouragement. Special thanks are due to Kazuko Inoue and to Eichi Kobayashi, who started me out in the field of linguistics many years ago, and have consistently encouraged me in my work since then.

I am grateful to the Education Abroad Program of International Christian University and the University of California for the financial aid I received during my first years in the United States.

I would like to thank Pamela Downing, who painstakingly corrected the English drafts, and Patricia Clancy, who proofread the final copy and acted as my liaison while I was in Japan.

I am grateful to the many other friends who have helped me in various ways, especially Roger O. Butler, Masaharu Fujita, Hillary Williams, Anne Poole, Camille Matsutani, Satoshi and Mariko Yamamura, Meredith Bermel, Yoshio Isokawa, and Rev. and Mrs. Sadao Masuko. I

also want to thank LaRue Seegmiller and Eileen Odegaard of the Berkeley Linguistics Department for their assistance and encouragement, and Arax Kizirian for her painstaking and speedy typing of this extremely difficult manuscript.

I would like to express my gratitude to my grandmother, the late Mrs. Sohmei Uzawa, who made it possible for me to study in the United States; to my mother, Akiko Hirose, who raised her three sons single-handedly after our father's death; and to my brother Hisakazu, for his support. Finally, I would like to thank my wife Sachiko, who has shared the joys and hardships of our years together and without whom I would never have finished this work, and also our son Ken, whose birth three months ago gave me extra incentive to finish this project.

TABLE OF CONTENTS

	<u>Page</u>
CHAPTER ONE: Introduction . . . . .	1
CHAPTER TWO: Verbs of Walking . . . . .	39
CHAPTER THREE: Verbs of Laughing and Smiling . . . . .	89
CHAPTER FOUR: Words of Pain . . . . .	132
CHAPTER FIVE: Water-Movement Words . . . . .	169
CHAPTER SIX: Words Denoting Emission or Reflection of Light . . . . .	184
CHAPTER SEVEN: Expressive Phonology in Japanese Mimetic Words . . . . .	201
BIBLIOGRAPHY . . . . .	218

## CHAPTER ONE

### INTRODUCTION

#### 1.0. Purpose of the Study

This thesis is a contrastive study of characteristic lexicalization patterns in English and Japanese. The study will be limited to a small number of semantic domains selected on the basis of the use, in Japanese, of members of a class of 'mimetic adverbs' known in the Japanese grammatical tradition as gitaigo and giseigo (or giongo). These words comprise a large and important portion of the Japanese lexicon and have unique phonological characteristics and semantic functions. It is the character of their contribution to the meanings of the expressions in which they occur which motivates our interest in the two languages' word-forming and phrase-forming resources in the selected semantic domains. Briefly, the Japanese mimetic adverbs perform functions which in English are incorporated in the meanings of verb stems, are captured by metaphors or explanations, or are effectively absent.

#### 1.1. The Form and Function of Japanese Mimetic Adverbs

##### 1.1.1. Classification

I shall refer to the entire class of words which provide the focus for this study as mimetic adverbs, or ideophones. These words, following Martin (1975),<sup>1</sup> can be subdivided according to their

semantic function into phonomimes (Japanese giseigo, giongo), which are imitative of sounds, phenomimes (Japanese gitaigo, giyoogo), which indicate the appearance of a visually perceived event, and psychomimes (Japanese gizyoogo, in the terminology of Kindaiti (1978),<sup>2</sup> which are expressive of a person's psychological reactions to events and experiences.

According to Kindaiti (1978), the mimetic forms are classified as in Figure 1.

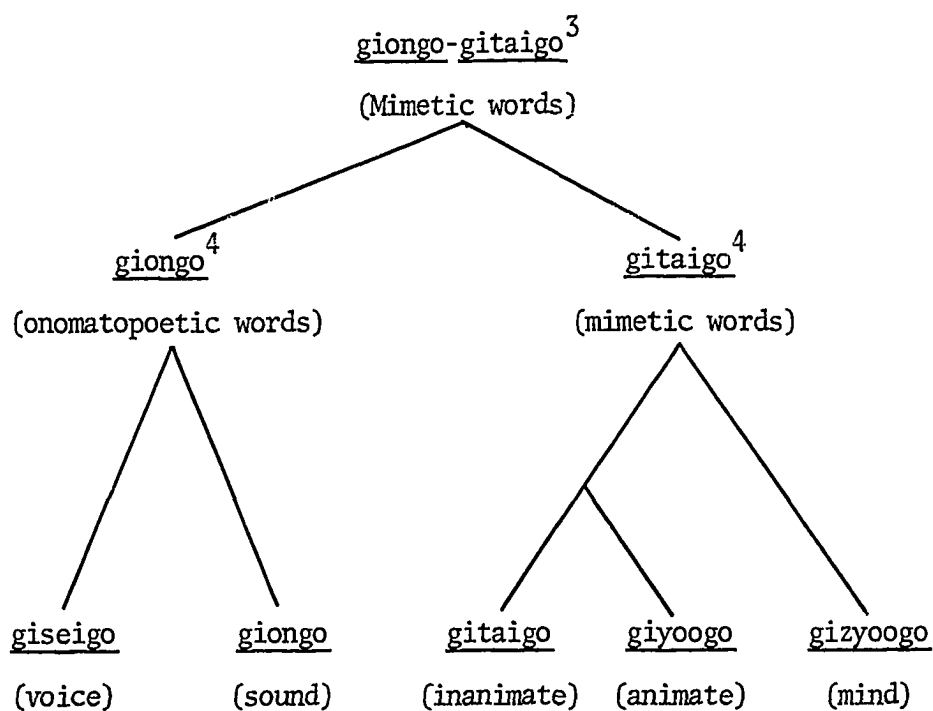


Figure 1

In our analysis, however, we consider that the distinctions between giseigo and giongo, and between gitaigo and giyoogo are not



necessary, and we will treat the forms following the classification shown in Figure 2.

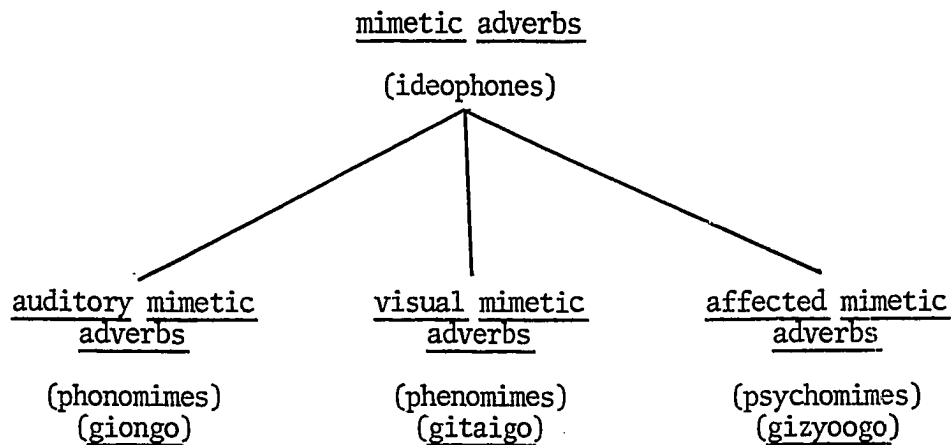


Figure 2

#### 1.1.2. Meaning ranges

Sound, visual impression, and emotional responses make up the most common semantic material for the mimetic adverbs. As Kindaiti (1978) and Izumi (1976) state, there is a conspicuous lack of mimetic adverbials referring to taste.<sup>5</sup> The only form applicable to the sense of taste is piri-piri 'tingling (spicy hot)', which is basically a pain expression. Smell is another sense domain which does not have many mimetic adverbial expressions. Probably the only members of this class are puun to, or pun-pun, 'smell overwhelmingly' supplemented by tuun to 'nose pinching (pain)', and mut to 'nauseating (feeling)'.

#### 1.1.3. Form

It is possible to describe the mimetic adverbs as comprising a base form, made up of one or two syllables and a number of devices for

extending this form. As Amanuma (1974), Kindaiti (1978), Isigaki (1965), and Ookubo (1968) point out,<sup>6</sup> the devices for extending base forms include:

1. Gemination of a non-initial voiceless obstruent (Japanese sokuon), which I will represent with T, attached to the end of the syllable preceding the obstruent to be geminated. (This is the same as B. Bloch's /q/.<sup>7</sup>)
2. An inserted postvocalic moric nasal (Japanese hatuon), which we represent with n. (This is equivalent to Bloch's /ñ/.<sup>8</sup>)
3. Vowel lengthening, which we will represent graphically by repeating the vowel.
4. Reduplication of the base form, with or without extensions.
5. Vowel modification in the reduplicated portion.

These expansion devices, which with some restrictions can be combined, contribute in subtle ways to the semantic effect of the resulting form. Sakuma (1943)<sup>9</sup> shows, for example, that gemination is frequent in phenomimes that express sudden change or great speed.

Notice:

saTsa to	'quickly', <sup>10</sup>
toTto to	'swiftly'
pyuuT to	'whizzingly'
paT to	'suddenly, in a flash'
saT to	'suddenly, quickly'
nyuT to	'abruptly, unexpectedly'

The nasal expansion n seems to express some kind of resonating or echoing quality. It is often used with words imitative of the sound of bells, or of waves crashing against a huge rock. Kaan, for example, is the kind of sound a large bell in a clock tower would make, and goon represents the sound of a huge bell in a Buddhist temple. In both cases, the resonating quality is represented by the n at the end. BaTsyaaan, zabuun, and dodoon, all represent the sound of waves crashing against a rock or cliff. Of the pain-qualifying adverbs zuki-zuki and zugin-zugin, the latter, with the nasal extensions, refers to a pain with lingering impulses, a 'throbbing' pain.

Expansions with extra vowel length reflect a greater duration of the situation being described. Consider paT and paaT. The former can be used to describe the visual impression of a powerful light flashing for a split second. The latter form, paaT, could be used in describing a gigantic fireworks display which illuminates the sky for a few moments. X, Y, or Z will represent a CV syllable with a short vowel. /:/ indicates lengthening of a vowel. Thus, X: indicates CV:.

1. X	tu, hu
2. XT	tuT, huT, saT, gyuT, kiT, ...
3. X:	tu:, hu:, sa:, gyu:, ki:, do:, kyaa:, ...
4. X:T	tu:T, hu:T, sa:T, gyu:T, ki:T, do:T, ...
5. X:N	tu:N, gyu:N, ki:N, do:N, ba:N, zi:N, ...
6. XY	pita, dosa, dohya, pari, pun, <sup>11</sup> ...
7. XYT	pitaT, dosaT, dohyaT, pariT, gasyaT, ...
8. XYN	pitaN, dosaN, pariN, dokiN, ...
9. XYR	pitari, dosari, dokiri, ...
10. XYRT	pitariT, dotariT, pikariT, ...
11. XYRN	kororiN, dokiriN, ...
12. XY:	pita:, dosa:, hura:, boya:, ...
13. XY:T	pita:T, dosa:T, hura:T, dere:T, boke:T, ...
14. XY:N	pita:N, dere:N, gata:N, sosi:N, dobu:n, ...
15. XY:R	pita:ri, soro:ri, toro:ri, ...
16. XTY (XTX)	saTsa, paTpa, toTto, seTse, ...
17. XTYN	goTton, suTten, ...
18. XTYR	doTkiri, goTsori, paTkuri, ...
19. XNY	zaNbu, ...
20. XNYR	zaNburi, huNwari, ...
21. X:Y (X:X)	ga:ga:, pi:pi:, za:za:, pi:po:, ...
22. X:YR	yu:rari, hu:rari, to:rori, ...
23. X:NYR	hu:Nwari, ...
24. XYY	kirakira, tonton, kirikiri, kutyakutya, ...
25. XYY'Y'	kasakoso, karakoro, gatagoto, ...
26. XYZY	atahuta, <sup>12</sup> zitabata, norakura, zyakasuka, ...
27. XNXY	kiNkira, doNdoko, piNpika, ...

If we let E stand for an extender, then E can be represented with the following formula:

$$E \text{ ---} \rightarrow (:) (R) \left( \begin{array}{c} T \\ N \end{array} \right)$$

where : = vowel lengthening

R = the suffix ri

T = gemination of the consonant that immediately follows it; lacking that,

T = glottal stop

N = syllabic n

Similarly, while both dobun and doTbuun can be used to describe the sound of something heavy falling into water of some depth, the latter suggests that the object sank deep into the water.

Reduplication of an entire CVCV form tends to be used to indicate repetition or continuation of an action, regardless of its speed.<sup>13</sup>

e.g. hira-hira	'fluttering, flapping'
kira-kira	'glittering'
teku-teku	'trudging'
zuki-zuki	'throbbing (pain)'
doki-doki	'pounding (heart)'

Below is a list of canonical forms for mimetic adverbials of monosyllabic or disyllabic bases, with examples.<sup>14</sup> Extensions are indicated as follows: T represents gemination of the immediately following obstruent or, in word-final position, a glottal stop.<sup>15</sup> N stands for the syllabic nasal, and R the sequence /ri/. The order of elements on the right-hand side of the arrow represents the permitted

order of occurrence; the parentheses indicate that these elements are all optional.

Generally speaking, the extenders can be suffixed at the end of the basic forms, for example, hu-T, poki-ri, and batabata-n. Such forms can be represented, with E standing for the extenders, as:

X-E (hu-T)

XY-E (poki-ri)

XXXY-E (batabata-n)

E can be affixed to the end of the basic form, to X or Y of disyllabic or larger forms; it cannot be affixed to Z of a four-syllable form, and the E attached to X cannot include R. Usually E cannot be affixed to more than three X's of the same string.

One-syllable forms with extenders are of the type:

X-E (2-5 on the above chart)

Two-syllable forms with extenders are found in the following three types:

XY-E (7-15)

X-E-Y (16, 19)

X-E-Y-E (17, 18, 20-23)

Some four-syllable forms can be viewed as reduplications of extended two-syllable forms. There are, however, some four-syllable forms whose expansions are idiosyncratic and not very common. The following are some examples of this type:

YYYY-E (kirikiri-T)  
 X-E-YXY (pi-T-kapika)  
 XY-E-XY (gunya-n-gunya)  
 X-E-YXY-E (ki-:-rikiri-:)  
 X-E-Y-E-XY (to-:-ro-T-toro)

Obviously our generalizations have not captured the full set of constraints and possibilities for these words. A much more extensive study than the present one would be required to describe fully the phonological patterns found in this area of vocabulary.<sup>16</sup>

#### 1.1.4. The koro 'paradigm'

The differences in meaning among the forms with the extensions /T/, /N/, /R/ and reduplication may be illustrated with a single base form.<sup>17</sup> We will use a phenomime koro. (These forms all co-occur with to.)<sup>18</sup>

- koro: a round (spherical, cylindrical, discoidal)  
light object rolls once.
- koroT: a round object rolls once suddenly and stops.
- koron: a round object rolls once and stops. It gives  
a feeling of yoin (trailing note) or the  
impression that the momentum of the action is  
still felt.
- korori: a round object rolls once and stops, having  
completed the action.
- koro-koro: a round object rolls continuously.
- koroT-koroT: a round object continues to roll with intervals.  
i.e., stopping after each rotation and then  
abruptly, starting again making a succession of  
completed rolls.
- koron-koron: a round object rolls continuously, retaining or  
gaining momentum.
- korori-korori: a round object rolls continuously with slight  
intervals or pauses after each rotation.



### 1.1.6. Sino-Japanese pseudo mimetic adverbs

There are numerous Sino-Japanese words that look like mimetic words. Since these words are of Chinese origin, in the Japanese writing system they are represented by kanji (or, Chinese characters), as shown below, and their meanings are semantically transparent.

doo-doo to 堂々と 'with dignity'  
 syuku-syuku to 粛々と 'quietly'  
 sin-sin to 深々と 'deeply'  
 yuu-yuu to 悠々と 'placidly'

Japanese mimetic words are, however, only representable in kana, the Japanese syllabary, as shown below. This fact is compatible with the claim that mimetic adverbials are morphologically unanalyzed.<sup>19</sup>

kira-kira きらきら 'twinkle'  
 zuki-zuki ずきずき 'throbbing'  
 dosin どしん 'bang'

We will exclude Sino-Japanese pseudo-mimetic adverbs from the present study. Since their lexical structure is different from true mimetic adverbials, they are beyond the scope of this dissertation.

### 1.1.7. Homophony among the mimetic adverbs

As with other words in Japanese, there are homophones among the mimetic adverbs. For example,

- (9a) Taiko ga don-don to nat -ta.  
 drum Sbj sound-Past  
 'The drum sounded don-don.'

- (9b) Sigoto ga don-don hakador -u.  
 work Sbj rapidly progress-Pres  
 'The work progresses rapidly.'
- (10a) Ki no ha ga hara-hara to tit -ta.  
 tree of leaf Sbj flutteringly scatter-Past  
 'The leaves of a tree fell flutteringly.'
- (10b) Sinpai de hara-hara si-ta.  
 worry with anxiously do-Past  
 'Worry made me feel uneasy.'

## 1.2. Phonology of Mimetic Words

### 1.2.1. Accent patterns of mimetic words

#### (a) One-syllable words

Since lexical accent in Japanese is realized as a pattern of relative pitch height differences in adjacent syllables, the accent of a mono-syllabic word cannot be known in isolation. When accompanied by extenders, the accent becomes clear.

In the example below, the word tu is followed by various choices and combinations of to, T, and :.

tu 'suddenly'

tu | to

tu T | to

tu :

tu : | to

tu : T | to

The conclusion we must reach is that tu is an accented word; but as these examples show, the accent of mimetic adverbs does not strictly

follow the accent rules of the standard dialect. The form tu:T to, for example, violates the major principle in the standard dialect, namely, 'the pitch height of the initial mora is different from that of the second mora of the string.'<sup>20</sup>

(b) Two-syllable words

Disyllabic mimetic adverbs generally have low pitch on the initial mora followed by high pitch on the second mora or the mora which includes the extender. Observe the following examples.

korō  
koroT̄ to  
korōri to  
korōriT̄ to  
korōn̄ to

(c) Four-syllable words (reduplicated forms of disyllabic words)

The accent pattern for words of this group depends on their syntactic function. The same word has different accent patterns depending on whether it is used as an adverb (initial high) or something else (initial low).<sup>21</sup>

Adv.:	<u>ko</u> ro ko ro to warau	'laugh'
	<u>hu</u> ra hu ra suru	'be unstable'
	<u>yo</u> bo yo bo suru	'be (old and) weak'
Adj. N:	<u>ko</u> ro ko ro no	'round'
	<u>ko</u> ro ko ro ni naru	'become round'
	<u>hu</u> ra hura da	'be unstable'
	<u>hu</u> ra hura ni naru	'become unstable'
	<u>yo</u> bo yobo no	'(old and) weak'
	<u>yo</u> bo yobo ni naru	'become (old and) weak'

However, even when the word is used as adverb, when the extender T is attached, the accent shifts back to initial low.

Adv. koro ko ro Tto korogaru 'roll'

hura hu ra Tto suru 'be unstable'

Kindaiti (1951) and Watanabe (1952, 1954) treat the shift of accent like the one caused by T in the above examples in their studies. They studied prosodic features that affect the meaning of a sentence. Kindaiti distinguishes mimicry from symbolization. In mimicry there is an iconic relation between some aspect of a speaker's utterance and acoustic aspects of the phenomenon being represented. A speaker describing thunder might choose any of the forms in (11).<sup>22</sup>

- (11) a. Kaminari ga nar -imasi-ta.  
thunder Sbj make noise-Pol -Past  
'There was a clap of thunder.'
- b. Kaminari ga goro-goro to nar-imasi-ta.  
'Thunder rolled (repeatedly).'
- c. Kaminari ga sugoi oto de nar-imasi-ta.  
fantastic sound with  
'There was an extremely loud clap of thunder.'
- d. Kaminari ga GORO-GORO to nar-imasi-ta.

The capital letters indicate that the word is uttered loudly in imitation of the loudness of the thunder. Thus Example (11d) is a case of mimicry; the others are not.

Symbolization is similar to mimicry, but the iconic relationship links the form of the utterance with some non-acoustic aspect of the represented phenomena. Observe (12) and (13), for example.

- (12) a. marui otukisama  
 round moon  
 'round moon'
- b. maarui otukisama  
 'perfectly round moon'
- (13) a. tooi tokoro  
 far away place  
 'a place far away'
- b. tooi tokoro  
 'a place very far away'

In both (12b) and (13b), the extra long vowel shows an increased intensity in the scalar meaning of the adjective. In both cases the words are uttered with high pitch from the initial syllable without dropping the pitch on the second syllable. The normal accent is low-high-high for both marui, and tooi; thus, the standard accent rule is overridden by the emphatic, or symbolic use of the prosodic feature. The change in accent pattern that we saw with mimetic adverbs modified with an extender appears to be of the same sort.

### 1.2.2. Other characteristics of mimetic words

There are semantically related words among the mimetic adverbs that differ in the voicing of the first consonant:

- |           |     |           |
|-----------|-----|-----------|
| kasa      | vs. | gasa      |
| koto      | vs. | goto      |
| petya     | vs. | betya     |
| kasa-kasa | vs. | gasa-gasa |
| saku-saku | vs. | zaku-zaku |

It is important to point out that only the first consonant of the basic form participates in the voicing contrast. Thus, the voiced counterpart of koto-koto, for example, is goto-goto, and not \*godo-godo, or \*kodo-kodo.

As discussed in Miyazi (1978) and Isigaki (1965), mimetic adverbs have a number of phonological characteristics that distinguish them from other Japanese words.<sup>23</sup> One of these characteristics is the absence of the rendaku process, a common phenomenon among other lexical items, which voices the initial voiceless consonant of the second item of a compound word. The process can be observed in the following examples.

<u>oo-</u>	+	<u>taiko</u>	---	▶	<u>oo-daiko</u>
big		drum			big drum
<u>san</u>	+	<u>kai</u>	---	▶	<u>san-gai</u>
three		floor			third floor
<u>toki</u>	+	<u>toki</u>	---	▶	<u>toki-doki</u>
time		time			sometimes
<u>kuro</u>	+	<u>kuro</u>	---	▶	<u>kuro-guro</u>
black		black			jet black

The last two forms above (tokidoki and kuroguro) fit the reduplicating pattern common to mimetic adverbs; but the rendaku voicing they exhibit shows them to be regular lexical compounds, not instances of mimetic adverbs.

Another characteristic feature of mimetic words in Japanese is the unique occurrence of such phonemes as /p/ in initial position. Of all the entries under p in the Kenkyusha's New Japanese-English

Dictionary, 121 are mimetic words and the rest, with the possible exception of peten 'swindle', are all loan words. Native word-initial /p/ uniformly changed to /h/ in the evolution of the Japanese phonological system in 'ordinary' words.

### 1.3. New Forms

#### 1.3.1. Derivations and diversions

Several derivational processes make it possible for verbs to be derived from mimetic adverb stems. Among these are formations with -tuku and -meku. For example, from the adverb gura-gura we get gura-tuku 'to wobble'; from uro-uro we can derive the verb uro-tuku 'to hang about', and from zawa-zawa, we get zawa-tuku 'to be in commotion'. Similarly, kira-meku 'glitter' derives from kira-kira, and zawa-meku 'to be in commotion' from zawa-zawa, a word which represents the noise of a crowd of people. (The forms with -tuku seem to carry rather negative connotations.)

Diversions are cases in which certain words are used to mean something which they did not originally mean. As Izumi (1976) points out wan-wan and buu-buu, for example, which are mimicry sounds for barking dogs and car horns respectively, are used in baby-talk as nouns to mean 'a dog' and 'a car' respectively. Diversions are not restricted to children's language only. The noun syabu-syabu, the name of a Japanese dish which requires dipping of slices of meat into a pot of boiling broth, is derived from the word which mimics the sound of this action. Another example of diversion is the noun tonkati, believed to be derived from an adverb representing the sound

of hammering in a nail. Ton-ton, presumably, represents the banging sound of the board and kati-kati, the sound made by the hammer and the nail.

### 1.3.2. Creativity of mimetic adverbs

New mimetic forms are created quite frequently. For example, a poet, Kusano Sinpei, writes such forms as gubuu, geTgege, riirii ririru ririruThuThuThu to represent various frog voices in his frog poems.<sup>25</sup> And author Abe Kooboo, in his novel Sizin no Syoogai (Life of a Poet), speaks of snow falling tikin-zikin (with rendaku), a nonce-form.

While these new forms may be uninterpretable when first presented, once the native speakers are told what they mean, they can accept and appreciate them; the new forms are not made totally arbitrarily. They either conform to the existing rules of mimetic word formation or slightly deviate from them to create a new feeling. Totally new forms that do not follow the rules would not be understood by native speakers. In order for a new form to be meaningful in the language, it has to follow, at least partially, the rules of mimetic word formation, which include sound-meaning associations.

New objects that never existed before may call for mimetic words. The sound of a touch-tone (push button) telephone has come to be represented as peepoo(puu)pa, the two-tone sirens of emergency vehicles as piipoo.



## 2. Sound Symbolism

### 2.1. Introduction

Sound symbolism has not been widely treated in current linguistics, except in the work of a few scholars such as Bolinger, Wescott, Diffloth, Kobayasi, Kindaiti and Uemura.<sup>26</sup> The best-known universalist claim about phonetic symbolism is that there is an association between the vowels i and a and smallness and largeness respectively (Sapir 1929, Newman 1933, Jespersen 1928). Frequency of such associations in natural language vocabularies and consistency of judgments in experimental settings do not mean, of course, that these 'universals' constrain the forms for words having the associated meanings in particular languages. The English words big and small are both counterexamples.

Because of the failed expectation that such universal sound-symbolism should account for the actual forms of words in the relevant semantic domains, some linguists were quick to conclude that the notion was discredited and of no relevance to the science of language. (See Ikegami (1975).)<sup>27</sup> Most of the relevant experiments in recent years have been done by psychologists rather than linguists. And of these, some supported the existence of sound symbolism, others did not.

### 2.2. Previous Studies in Sound Symbolism

Before going into sound symbolism in Japanese mimetic adverbs, it might be useful to review briefly the history of the idea of phonetic symbolism and the controversies and misunderstandings surrounding the notion.

Sapir (1929) experimented on sound symbolism by using artificial words, such as mil and mal with varied vowels, giving his subjects an interpretation of the word with one of the vowels and asking them to speculate on the possible meanings of the words with the other vowels. He found a strong tendency to associate a with largeness and i with smallness. Brown, Black and Horowitz (1955), in contrast, did their sound symbolism experiments using natural language materials. The subjects in their studies were native speakers of English, and the languages providing the data were Chinese, Czech, and Hindi. The authors chose 21 sense-experience antonym pairs, taken from high-frequency vocabulary items (100 or more occurrences per million words of text). Subjects listened to recordings of the foreign language words and were then asked to match the English translations with them. ("Of the two words you will hear, one means 'warm' and the other means 'cold.' Which is which?") The experiment included such pairs as those given below:

	<u>English</u>	<u>Chinese</u>	<u>Czech</u>	<u>Hindi</u>
1.	beautiful ugly	meǐ ch'ouǐ	krása ošklivost	khubsurat badsurat
	...	...	...	...
3.	bright dark	liang au	svetly tmavý	chamakdar dhundhala
4.	coarse fine	ts'u hsi	hiubý drobný	mota achha
	...	...	...	...
11.	bad good	huaǐ haǒ	zlý hodný	kharab achha
	...	...	...	...
20.	warm cool	nǔan liáng	teplý chladný	garam thanda

The authors concluded that their subjects could match foreign words with their equivalents with an accuracy superior to chance. They interpreted this result as proof for a universal phonetic symbolism that is common to natural languages.

In 1956 and 1957, however, two different papers criticized Brown, et al.'s experiments, and hence their result. According to Maltzman, Morrisett, Jr. and Brooks (1956), who used English, Japanese, and Croatian, results were different depending on the language. They chose 25 antonym pairs such as red-green, peace-war, thick-thin, etc. Observe the following:

	<u>English</u>	<u>Japanese</u>	<u>Croatian</u>
1.	bird worm	tori musi	ptica crv
2.	red green	aka midori	crven zelen
3.	peace war	heiwa tatakai	mir rat
	...	...	...
10.	far near	tooi tikai	dalck bliz
	...	...	...
19.	thick thin	atui usui	debel tanak

The subjects were asked to select one member of a pair for each stimulus word given, i.e. for English 'bird', each subject was asked to choose either tori or musi in the English-Japanese experiment. Four experiments were carried out: English-Japanese, Japanese-English, English-Croatian, and Croatian-Japanese. The authors found that there was no significant difference between the English-Japanese and Japanese-English tests. Therefore, the results of the two tests were combined. Subjects were able to match English and Japanese equivalents, and English and Croatian equivalents at a level beyond chance expectancy, but were not able to do so when matching Japanese and Croatian words, contrary to Brown et al.'s hypothesis.<sup>28</sup>

Brackbill and Little (1957) conducted similar experiments using Chinese, Japanese, and Hebrew. Six different experiments were conducted: English-Japanese, English-Chinese, English-Hebrew, Chinese-Japanese, Chinese-Hebrew, and Hebrew-Japanese. Since appropriate

frequency lists were lacking for the three exotic languages, the words were selected from among the 500 most frequently used words in at least three Indo-European languages, including English, Spanish, French and German. The selected words were translated into Chinese, Japanese and Hebrew, and then they were grouped into three sets of 50 pairs of words to be presented auditorially, audio-visually, or visually (i.e., presenting the romanized versions of the foreign words).

The subjects were able to guess the English equivalents of Hebrew words and of Japanese-Chinese and Japanese-Hebrew word pairs significantly better than chance. However, in pairing Chinese-Hebrew words, the number of correct guesses was significantly below chance. The authors also noted that there is a significant interaction between languages and method of presentation. For example, in English-Foreign comparisons, visual presentation of the romanized versions of the foreign words tended to increase the number of correct answers. The authors concluded that the results of their study went counter to the hypothesis of a universal symbolism.<sup>29</sup>

In 1961, Miron conducted an experiment using the 15-scale form of the semantic differential, such as good-bad, beautiful-ugly, pleasant-unpleasant, strong-weak, etc., on artificial words in both English and Japanese such as piš, geč, nog, čop, etc. He found that both English and Japanese subjects showed a general trend toward evaluating the front vowels and consonants as "pleasant" and "weak", and the back vowels and consonants as more "unpleasant" and "strong". Miron concluded that "the material had expressive symbolic value accruing to their inherent phonetic content and not to any meanings via real-world

associates," and that the results suggest that the laws governing phonetic symbolism" may have a universal character."<sup>30</sup> Later, Johnson, Suzuki, and Olds (1964), also concluded, from experiments using artificial data, that some form of natural phonetic symbolism exists.<sup>31</sup>

Studies using Japanese language data include Kobayasi (1933, 1965), Ihara and Iwahara (1933), Matuoka (1958), Suzuki (1962), Uemura (1965), Frei (1970), Kindaiti (1978) and Saito (1980).

Kobayasi (1933) suggests that the imiryoo (lit. 'semantic volume') of vowels increases in the order of i-e-u-o-a. The term imiryoo is rather vague, but judging from the examples Kobayasi gives, it seems related to the notion of largeness or smallness in some way. In forms such as hara-hara 'feel nervous; fall by ones and twos; shed tears', horo-horo '(fall) scatteringly' and hiri-hiri 'smart (pain)', be pungent', for example, he says that the "distance" involved is longer in hara-hara and very short in hiri-hiri. Hara-hara suggests a psychological state, anxiety, which is caused by a stimulus in a distant place, such as watching an acrobatic act taking place on the stage. The use of horo-horo suggests the way small flower petals float to the ground and is based on a combination of objective observation (of the flower petals falling) and subjective interpretation (to observe it as horo-horo), a stance which falls halfway between distantness and closeness. Hiri-hiri suggests the burning sensation caused by scraped-off skin, burned skin, etc., which is a very close, subjective sensation.<sup>32</sup>

Even if Kobayasi's observations are correct, his conclusions are not free from problems. Another usage of the form hara-hara, for

instance, represents the way large leaves flutter to the ground and the way one sheds tears. In the case of the leaves, the notion 'a for 'large' may hold because it does seem to represent the falling of thin 'larger' objects or an action taking place over a larger area or on a larger scale than horo-horo. The other usage of hara-hara, 'shedding tears' can be no closer or further than hiri-hiri because both are phenomena of the body surface.

According to Kobayasi (1976), the sound of m suggests softness and roundness, k suggests hardness and angularity, l/r suggests smoothness, slipperiness, and liquidity, and n suggests stickiness or slowness.

Kindaiti (1978) adds the following two groups of sounds to Kobayasi's list: the sound s and the sounds h and p.<sup>33</sup> The sound s, according to Kindaiti, suggests friction, and the sounds h and p suggest the absence of friction and resistance. These comments are included in Kobayasi's and Kindaiti's works without explanation.

Ihara and Iwahara (1933) conducted experiments on mimetic words in order to examine the validity of Kobayasi (1933)'s claims. They asked both Japanese and Chinese subjects to give a short sentence using the words. (Chinese subjects used the words in Chinese sentences.) Ihara and Iwahara got following results for their four Japanese subjects: Out of 418 words, 61 words (or 14.6%) were used the same way by all four people, 10 words (or 2.4%) were used the same way by three people, 178 words (or 42.6%) were used the same way by two people, 50 words (or 12%) were used differently by everyone, and the rest were unanswered.<sup>34</sup> This means, even among the Japanese

native speakers, "symbolic" sounds were used with flexibility. Then Ihara and Iwahara conducted the same experiment with three Chinese students whose Japanese was extremely elementary. The results of the latter experiment suggest that the symbolic sounds do not necessarily have the same "meaning" in the two languages, hence the "meaning" is established as the custom of the linguistic community. The authors suggest that not only the sequence of phonological shapes but also the perceived characteristics, melodies and rhythms of the sequence play a major role in associating the form with a "meaning". Even though the perceived characteristics are the same in two different linguistic communities, the specific content of the feeling associated with the sequence can be different (as long as the perceived characteristics warrant such association).

Henri Frei (1970) conducted two experiments similar to the second experiment done by Ihara and Iwahara (1933). Frei asked four French-speaking students to write down the meaning of 50 Japanese mimetic words as they were uttered by a native speaker in person, first without context, and next with context given in French. Observe the following examples.



## Experiment 1:

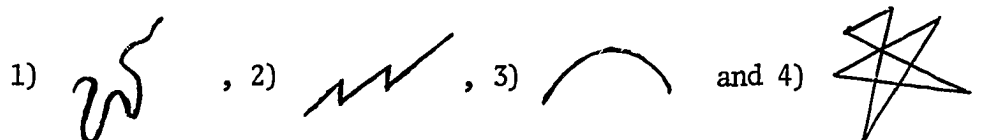
<u>Words</u>	<u>Meaning in French.</u>	<u>Students' Answers</u>
1. kaa-kaa	croassement de corbeau	croassement (1) <sup>35</sup> No Answer (3)
2. tyuu-tyuu	souris, couic!, guiorer	tutut! (klaxon)(1) No Answer (3)
3. batan	claquement de porte: bang!	boum! (1) chute (2) No Answer (1)
...	...	...
8. suya-suya	bruit léger de la respiration en dormant	No Answer (4)
...	...	...
17. kokekokko	cocorico (coq)	cocorico (coq)(4)
...	...	...
25. nyao	miaulement: miaou	miaou (chat)(3) miaou (chat ou félin)(1)
...	...	...
49. kira-kira	en scintillant	No Answer (4)
...	...	...

## Experiment 2:

<u>Sentences</u>	<u>Students' Answers</u>
1. J'ai entendu un cri <u>kaa-kaa</u> au sommet d'un grand arbre	corbeau, etc. (2) No Answer (2)
2. On entend quelquefois des bruits <u>tyuu-tyuu</u> dans les maisons sales	pfoui! (dégout)(1) souris (1) No Answer (2)
3. Un bruit <u>batan</u> a retenti dans la chambre voisine	chute (patatras)(2) chute (2)
...	...
8. La mère est très contente d'entendre le <u>suya-suya</u> de son bébé	gazouillis (1) No Answer (3)
...	...
17. On entend <u>kokekokko</u> ...	coq (3) No Answer (1)
...	...
25. On entend <u>nyao</u> sur les toits	miaou! (4)
...	...
49. Les étoiles brillaient <u>kira-kira</u>	No Answer (4)
...	...

Only 15.5% of the total answers were correct. In the second experiment with the French contexts the number of correct answers was slightly higher but the difference was not great. (24 correct answers out of 200 for Experiment 1, 38 out of 200 for Experiment 2.) Auditory mimetic words yielded better results. Frei concludes that the subjects identified the Japanese words not by comparing them with sounds in the real world but by comparing them with onomatopoeic words in their language.<sup>36</sup>

Another experimental study, using sounds and figures, was conducted by Matuoka (1958). He asked subjects to match strings of phones resembling a Japanese mimetic word with visual symbols consisting of straight and curved lines. He used invented forms such as raan, kipitiki, nuron, and takete, and visual symbols such as



He got consistent results: nuron for 1, takete for 2, raan for 3, and kipitiki for 4. Thus the vowels a, u and o and consonants n, ñ, m, r, g, b, p were often chosen to describe the curved figures, and the rest for the angular shapes.<sup>37</sup>

T. Suzuki (1962) is a study investigating what the voiceless vs. voiced contrast implies in Japanese. Citing examples such as kira-kira 'glittering, twinkling' vs. gira-gira 'dazzling, glaring', hururu 'to swing' vs. bururu 'to get blurred (as of a photograph)', etc., Suzuki concludes that voiceless consonants suggest clearness, lucidity, delicateness, lightness, and smallness, while their voiced counterparts suggest roughness, largeness, powerfulness, and sometimes uncomfortableness.

Uemura (1965) conducted an experiment using artificial forms such as pálem, púlem, pílem; clat, clot, clit; rimp, rump, romp; etc. with Japanese informants. The informants were asked to select a form that means 'big' (or 'small' in another experiment) from each group. One of the results of the experiments indicates that the vowel i is associated with 'smallness' and a with 'largeness'. The other vowels

line up as follows according to the size they are associated with:

i-u-e-o-a.<sup>38</sup> This order is different from the one claimed by Kobayasi (1933).

In another experiment Uemura (1965) asked his informants to choose a form that means "square" (or "round") from each pair of words such as kitas, limas; sil, nol; sólak, ólam; etc. Sonorant-initial forms were identified as "round", and non-sonorant forms as "square".<sup>39</sup>

Recently, Saito (1980) conducted similar experiments and her results show that the size associated of vowels, from small to large, is i-e-u-o-a. This order is the same as the one given by Kobayasi (1933). However, Saito notes that the position of u is relatively "unsteady". Saito also concludes that the size association of other phonological features are as follows: voiced is 'larger' than voiceless; reduplicated forms are 'larger' than single forms; and long vowels are 'larger' than short vowels. For example,

gyangyan > gya'gya > kya'kya  
būbū > bū > pūpū

Saito also did experiments on sound-figure associations similar to Matuoka (1958). The results supported the claims made by Kobayasi (1933), Matuoka (1958), and Uemura (1965).

Evidence of consistent sound-meaning associations in a controlled experimental setting does not in any way demonstrate that in given languages words having the meanings that figured in such experiments must have the phonetic properties with which they were associated in the experiments. (Historical sound change does not appear to be limited in ways that would support this notion.) Evidence against

the existence of natural phonetic symbolism, on the other hand, is in no way incompatible with the existence of language-specific patterned ways of exploiting speech sounds symbolically. The regularities of sound-meaning associations in languages having elaborate systems of ideophones can be studied in their own right, without regard to the question of whether they are ultimately motivated by natural or universal sound-symbolic rules. The study of Japanese mimetic adverbs can certainly be pursued in independence of any theoretical commitments on the nature of the association between the forms and their meanings.

### 3. Outline

The sets of words and phrases I have selected for comparison between Japanese and English are taken from five semantic domains:

- (1) WALKING
- (2) LAUGHING/SMILING
- (3) PAIN
- (4) WATER NOISES
- (5) LIGHT EMISSION/REFLECTION

In each case, the semantic discriminations I shall be most interested in are those indicated by mimetic adverbs in the Japanese lexical sets representing these domains.

Chapter Two examines verbal expressions in the domain of WALKING, and Chapter Three, LAUGHING/SMILING. In the former domain the English words in the survey are generally morphologically independent of each other but can be regarded as hyponyms of the superordinate term walk. The corresponding Japanese expressions are, as pointed out in Fillmore

(1978)<sup>40</sup> and Kindaiti (1978),<sup>41</sup> generally made up of the verb aruku (which means 'walk') in construction with an adverbial modifier which identifies the manner of walking, the walker's mood or intentions, or the speaker's attitude toward the walker's activity. In the second domain we shall find that while all of the English verbs are thought of as hyponymous to either laugh or smile, Japanese has a single verb warau which covers the whole domain. Again, the English expressions are typically monomorphemic (snicker, guffaw, simper, etc.), whereas the corresponding Japanese expressions consist of the basic verb warau modified by a preceding adverbial, typically a mimetic or an onomatopoeic word, indicating characteristics of manner, attitude, or sound. Such relations can be represented in the diagrams below.

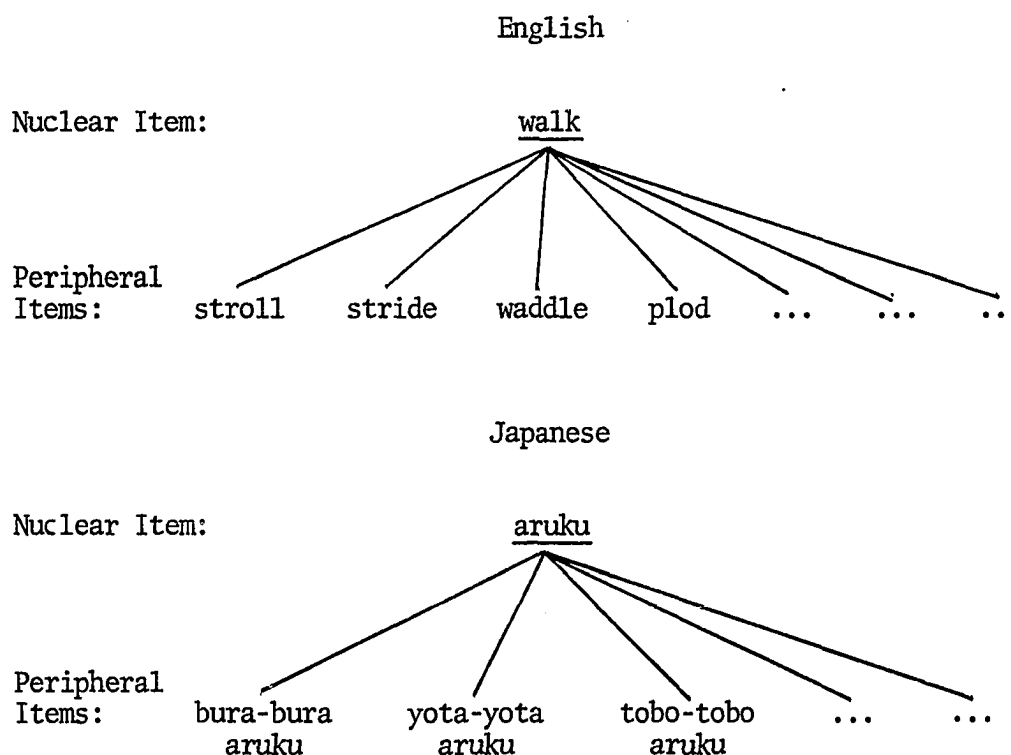


Figure 3: Walk

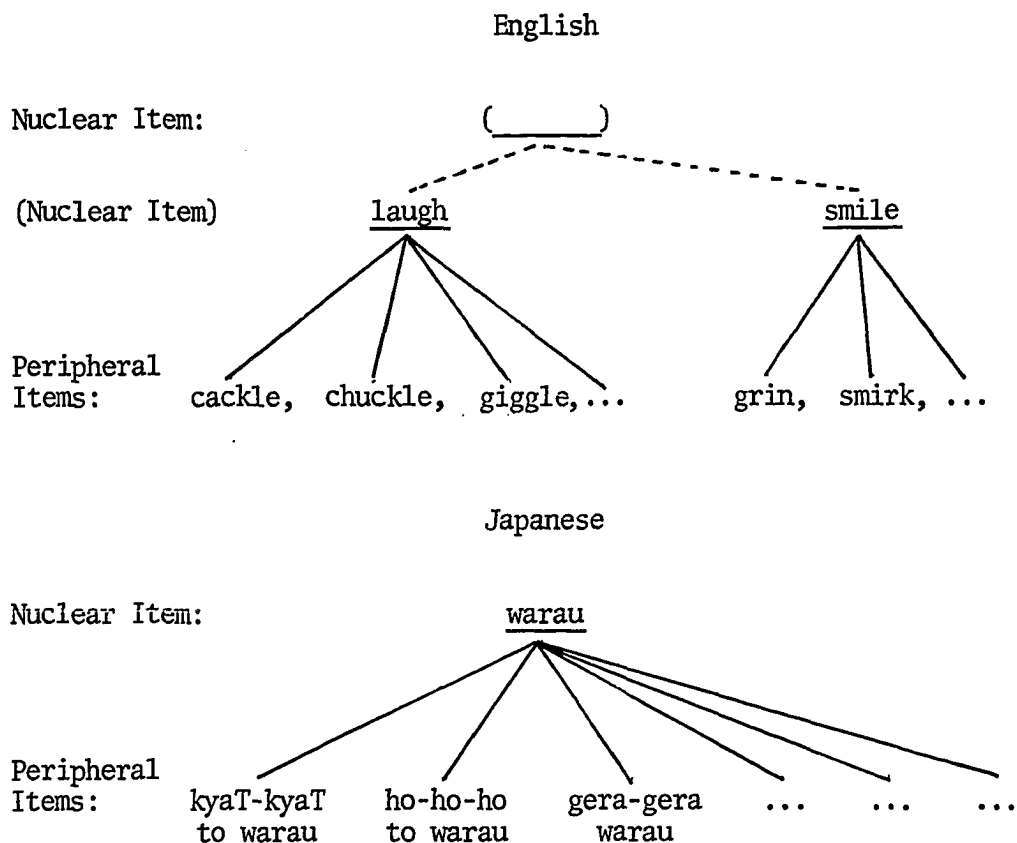


Figure 4: Laugh/Smile

As noted, the English words to be examined in these two chapters are generally monomorphemic while the corresponding Japanese expressions (except for the nuclear member of these lexical sets, aruku and warau, which can occur unmodified), are all syntactic units consisting of one of the basic verbs preceded by an adverbial modifier. While the English expressions in this comparison are synthetic, the matching Japanese expressions are analytic, that is, composed of separate meaningful parts. In some cases, as we shall see, the Japanese modifiers have meanings which can be stated independently of the context

of walking or laughing/smiling, while in other cases the modifiers have uses that are restricted to one or the other of these two contexts. Thus, in speaking of the compositionality of these forms (the extent to which their morphological structure makes them semantically transparent), we will want to distinguish true analytic from semi-analytic forms, the latter containing adverbial elements that show particularly strong semantic and collocational ties to the main verb.

Chapter Four deals with expressions of PAIN. Here we shall find that while Japanese offers a rich repertory of mimetic words that signal subtle distinctions among experiences of physical pain, English has a relatively small number of monomorphemic pain words, and must resort to metaphors and explanations in order to augment its primary lexical expressive resources in this domain.

Chapter Five and Six deal with expressive phonology in both languages. Chapter Five emphasizes water onomatopoeic words in Japanese that indicate sounds; Chapter Six examines the expressive phonology in English that we find in lexical sets of the sort illustrated by glare, gleam, glisten, etc. In both of these domains, we shall find that Japanese offers a great many semantic distinctions that are not captured in the English lexicon at all.

Chapter Seven deals with an aspect of expressive phonology in Japanese mimetic adverbs that cuts across the various semantic categories examined in the earlier chapters. We shall examine a number of reduplicated forms with the pattern  $C_1V_1C_2V_2-C_1V_1C_2V_2$  by separating the initial  $C_1$  from the remainder  $-V_1C_2V_2$ .



#### 4. Source of Material

Both English and Japanese example sentences and information on each word were collected from native speakers of the respective languages through interviews. The informants were asked to describe each word given through introspection, and create a sentence using it that would show its typical usage.<sup>42</sup>

Our major informants for the English items were five Americans (one male and four female) between 22 and 35 years of age: one college student, two graduate students, and two college graduates working in a San Francisco firm. Japanese data were supplied by two major informants, male and female, 35 and 25 years of age, who speak the standard dialect.

Several dictionaries were used to add to our collection of examples and to verify the information supplied by the informants. Those most frequently used for English include American Heritage Dictionary, The Merriam-Webster Thesaurus, Kenkyusha's English-Japanese Dictionary, and for Japanese, Kenkyusha's Japanese-English Dictionary, Nihon Kokugo Daiziten, and two dictionaries of mimetic words, Amanuma's Giongo Gitaigo Ziten and Asano's Giongo Gitaigo Ziten. The last two dictionaries, which contain many examples, were quite useful, and were used to supplement our information.

## NOTES TO CHAPTER ONE

- <sup>1</sup> Martin (1975), pp. 1022-1025.
- <sup>2</sup> Kindaiti (1978), pp. 6-8. (We will use the Kunreisiki romanization.)
- <sup>3</sup> Traditionally, the cover term is giseigo. (See kokugo-gaku ziten (1955), pp. 237-239.)
- <sup>4</sup> Giongo and gitaigo are each used both as inclusive terms and as labels of more specific categories.
- <sup>5</sup> Kindaiti (1978), pp. 18-19; Izumi (1976), pp. 141-146.
- <sup>6</sup> Amanuma (1974), pp. 32-51; Kindaiti (1978), pp. 14-17; Isigaki (1965), pp. 32-35; Ookubo (1968), pp. 7-19.
- <sup>7</sup> Miller (1970), p. 9. Block uses /q/ in his "Inflection" paper though he does not use it in his "phonemics" paper.
- <sup>8</sup> Miller (1970), p. 9.
- <sup>9</sup> Sakuma (1943), p. 39.
- <sup>10</sup> The English gloss given for a Japanese mimetic adverb in this study should be regarded as a 'guide' to what the form means or suggests, and should not be seen as a 'translation' revealing the morphological structure of the Japanese adverb.
- <sup>11</sup> I consider the n of pun as a part of the stem rather than an extension. Also, see tonton in 24.
- <sup>12</sup> X may lack the initial consonant.
- <sup>13</sup> Sakuma (1943), pp. 39-40.
- <sup>14</sup> I followed the format used by Amanuma (1974), pp. 32-51. The content is not exactly the same.

<sup>15</sup> Geminatio of voiced obstruents, as in doTbuun, is rare in Japanese, occurring only in loan words and mimetic adverbs.

<sup>16</sup> Works such as Isigaki (1965), Amanuma (1974), Kindaiti (1978), Suzuki (1973) deal with the canonical forms. They all attempt to list the full array of forms, but they too fail to provide a formal characterization of the phonological patterns allowed in this set of words.

<sup>17</sup> I follow Kindaiti (1978) in regard to semantic judgments of the forms.

<sup>18</sup> There are constraints on the co-occurrence of mimetic forms with to; to cannot be used with certain words, and is optional with others. A careful examination of these constraints is beyond the scope of the present study.

<sup>19</sup> This observation was suggested to me by Charles Fillmore. The point is that the meaningful partials found in mimetic adverbs are not 'contentive' morphemes of the usual type.

<sup>20</sup> McCawley (1968), p. 133.

<sup>21</sup> Kindaiti (1978), p. 22.

<sup>22</sup> These examples are taken from Kindaiti (1951), with slight modifications.

<sup>23</sup> Miyazi (1978), p. 35; Isigaki (1965), p. 31.

<sup>24</sup> Izumi (1976), pp. 136-137.

<sup>25</sup> Cited in Amanuma (1974), p. 29.

<sup>26</sup> Bolinger (1950), Wescott (1971, 1975, 1976), Diffloth (1972, 1976), Kobayasi (1932, 1933, 1965, 1976), Kindaiti (1978), Uemura (1965).

<sup>27</sup> Ikegami (1975), pp. 97-100.

<sup>28</sup> Maltzman, et al. (1956), p. 251.

<sup>29</sup> Brackbill et al. (1957), p. 318.

- <sup>30</sup> Miron (1961), p. 630.
- <sup>31</sup> Johnson et al. (1964), p. 236.
- <sup>32</sup> Kobayasi (1933), p. 8.
- <sup>33</sup> Kindaiti (1978), p. 20.
- <sup>34</sup> Ihara, et al. (1933), p. 424. The percentage figures in parentheses are mine.
- <sup>35</sup> The numbers in the parentheses indicate the number of answers.
- <sup>36</sup> Frei (1970), p. 366.
- <sup>37</sup> Matuoka (1958), pp. 133-135.
- <sup>38</sup> Uemura (1965), p. 69.
- <sup>39</sup> Uemura (1965), p. 69.
- <sup>40</sup> Fillmore (1978), pp. 160-171.
- <sup>41</sup> Kindaiti (1978), p. 24.
- <sup>42</sup> Hattori (1968) explains importance of this approach, pp. 4-7.

## CHAPTER TWO

### VERBS OF WALKING

#### 1. Characterizing the Domain

In this chapter we examine the lexical domains in Japanese and English having the following semantic characterization: they designate, when predicated of human beings, upright bipedal locomotion at normal speeds. Verbs that satisfy this description, in either language, will be called "Verbs of Walking." The delimitation of the domain as given above is intended to exclude verbs in neighboring domains such as English gallop, crawl, step and run, or Japanese hau, humu, hasiru, etc.

Gallop is excluded because it designates an activity of horses; crawl and the Japanese verb hau because the activity they describe is not locomotion on just two feet, step and humu because they do not imply locomotion, and run and hasiru because they designate human bipedal locomotion at faster than 'normal' speeds.

#### 2. Nuclear Representatives of the Verbs in this Domain

In each language there is one verb which can be taken as the nuclear representative of the domain (See Dixon 1971). In English the nuclear member of the class of Verbs of Walking is simply the verb walk; in Japanese it is aruku.

## 2.1. English: Walk

Walk is chosen as the nuclear representative of the domain in English because it is the unmarked word in the domain, unmarked in the sense that all other verbs in the domain can be described as designating types or manners of walking, whereas the reverse does not hold true. Stroll, for example is defined in the American Heritage Dictionary (1969) as 'to walk at a leisurely pace', lumber as 'to walk or move heavily or clumsily', toddle as 'to walk with short, unsteady steps, as a small child', swagger as 'to walk with an insolent air', and so on. Walk, however, does not contain any of these other verbs in its definition.

The verb walk can be used both transitively and intransitively. In its transitive uses we can distinguish what might be called 'true transitive' uses, illustrated in sentences (1) and (2)

- (1) John walks his dog every morning.
- (2) I'll walk you to the bus stop.

in which the direct object has a 'patient'-like role and the verb has a causative or comitative function, from what might be called 'pseudo-transitive' uses, illustrated in sentences (3) and (4)

- (3) We walked the streets of San Francisco.
- (4) We walked four miles yesterday.

in which the role of the direct object is that of 'location' or 'range'. Semantically the 'pseudo-transitive' uses can be grouped with the intransitive uses and included within the scope of this chapter. We shall not be concerned further with the 'causative' or 'comitative' transitive use of walk or any of its lexical relatives.

Intransitive walk can be used to refer to quadrupedal locomotion of animals that typically move about on all fours, but when used without qualification of human beings the verb designates bipedal locomotion. We shall assume that this verb and all of the other verbs in the domain are proto typically associated with human locomotory activities and are used of elephants and horses, if at all, only derivatively of their basic or prototypic uses.

Intransitive walk in English designates simultaneously a kind of activity and a movement. In this capacity it can be accompanied in the same clause with adverbial indicators of either (1) the place in which walking as an activity takes place, or (2) the path or 'trajectory' of the motion. Expressed in terms of the categories of 'semantic case' (See Fillmore 1968, 1971, etc.) we can describe the accompaniments of walk as indicating Location, as in (5) or (6)

(5) John was walking in the park.

(6) Don't walk in the highway.

Path, as in (7) or (8)

(7) John walked across the street.

(8) John walked along the stream.

Goal, as in (9) or (10)

(9) John walked to the gate.

(10) John walked to the beach.

or both Source and Goal, as in (11)

(11) John walked all the way from his house to the station.

## 2.2. Japanese: Aruku

Aruku can be taken as the nuclear representative of Japanese verbs of walking, but for a reason quite different from that for which walk stands as the nuclear representative of the domain in English. The expressions we wish to examine as 'Verbs of Walking' in Japanese are all lexically complex expressions, and aruku is one of their elements. There are other words which 'go with' aruku to designate manners and types of walking, but aruku 'occurs with them', rather than entering into their definitions.

Aruku is not as clearly intransitive as English walk. English expressions in which Location or Range are realized as direct objects in the surface syntactic structure generally have paraphrases in which the adverbial character of the Location or Range complement becomes more apparent. (12) has (13) as a near-paraphrase:

(12) He walked the streets all night.

(13) He walked through the streets all night.

and (14) has (15) as a close paraphrase:

(14) He walked four miles.

(15) He walked for four miles.

With aruku, on the other hand, Location complements typically take direct object markings, as in (16), (17) and (18).

(16) Taroo ga miti o arui-te i -ru.  
Taro Sbj street Obj walk-ing be-Pres

'Taro is walking along the street.'

(17) Taroo ga kooen o arui-te i-ru.  
park Obj

'Taro is walking in the park.'



- (18) Taroo ga yane no ue o arui-te i-ru.  
 roof of top Obj

'Taro is walking on the roof.'

The same is true of other verbs of motion, as shown in (19) through (26).

- (19) Tori ga sora o ton-de i -ru.  
 bird Sbj sky Obj fly-ing be-Pres

'Birds are flying in the sky.'

- (20) Watasitati wa hasi o watat-te Sanhuransisuko e  
 we Top bridge Obj cross-ing San Francisco Dir

iki-masi-ta.  
 go -Pol -Past

'We went to SF by crossing the bridge.'

- (21) Taroo wa maiasa Teregurahu o  
 Taro Top every morning Telegraph Obj

toori -mas-u  
 go through-Pol-Pres

'Taro goes along Telegraph (Ave.) every morning.'

- (22) Saka o noboru no wa nigate des-u.  
 slope Obj climb Comp Top not good at Cop-Pres

'I'm not good at climbing slopes.'

- (23) Taroo wa mainiti kyanpasu o hasiri-mas-u.  
 every day campus Obj run -Pol-Pres

'Taro runs in the campus every day.'

- (24) Kirei na kawa ga kyanpasu no naka o  
 beautiful creek Sbj campus of in Obj

nagare-te i -mas-u.  
 run -ing be-Pol-Pres

'Beautiful creeks run through the campus.'

- (25) Taroo wa ima kinzyo o sanpo si-te i -mas-u.  
now neighborhood Obj walk do-ing be-Pol-Pres

'Taro is taking a walk in the neighborhood now.'

- (26) Taroo wa Amerika-Zyuu o ryokoo si-te i -mas-u.  
America throughout Obj travel do-ing be-Pol-Pres

'Taro is traveling throughout America.'

As with English walk, Japanese aruku is not limited to the locomotory activity of human beings, as can be seen in (27) and (28).

- (27) Inu mo aruke-ba boo ni atar-u. (a proverb)  
dog too walk -if stick in hit -Pres

'(lit.) Even a dog finds a stick (=a toy) if it walks around. = A flying crow always catches something.'

- (28) Neko ga yane no ue o arui-te i -ru.  
cat Sbj roof of top Obj walk-ing be-Pres

'A cat is walking on the roof.'

However, native speaker intuitions suggest that aruku exists basically as a verb for designating the locomotory activity of human beings; and in any case, when it is used of human beings, without special qualifications, it designates only bipedal locomotion.

With aruku, as with walk, the walker's posture generally has to be upright. In Japanese one can speak of a squatting walk, using the combination syagande aruku, literally 'squat and walk', and a stooped walk, using the combination kagande aruku, literally 'stoop and walk'. These modifications of aruku are felt to be considerably more 'marked' than other indications of the manner of walking or the posture of the walker. Thus (29)-(31) are considered to be normal modifications of the general category of aruku

- (29) mune o hat -te aruk-u.  
chest Obj stretch-ing walk-Pres  
'walk with one's head held high'
- (30) kata o otosi-te aruk-u.  
shoulder Obj drop -ing walk-Pres  
'walk (sadly) with drooped shoulders'
- (31) ude o hut -te aruk-u.  
arm Obj swing-ing walk-Pres  
'walk with the arms swinging'

rather than deviations from the walking prototype.

As was mentioned above, aruku takes complements marked with the particle o, the postposition that usually marks a verb's direct object. With motion verbs the particle o is used with a noun to indicate both the general location of the motion and the idea that the whole territory is covered by the motion. The general location-marking particle for action verbs is de, that for stative location verbs is ni. The suggestion that the o we see with verbs like aruku 'walk' and tobu 'fly' is an exception to the general particle-selection principles cannot be justified, since there appear to be consistent semantic differences that accompany the choice of particle.

Observe the following examples:

- (32) Taroo wa barukonii de arui-te i -ru.  
balcony Loc walk-ing be-Pres  
'Taro is walking on the balcony.'
- (33) Taroo wa kooen o arui-te i -ru.  
park Obj  
'Taro is walking in the park.'

As Kuno (1973) has pointed out, sentences like (32), which use de as the location marker, merely indicate that the action took place on the

balcony. A possible situation is that Taro, who is recovering from a stroke, is trying to walk again on the balcony before going out onto the street. In other words, the main focus is on the action of walking itself rather than the area covered by his walking. Sentence (33), on the other hand, suggests that Taro is covering the whole area of the park. Here the focus is on the area covered rather than on the action itself. This distinction also holds between (34) and (35), and (36) and (37).

(34) Nihon de ryokoo su-ru.  
Japan Loc travel do-Pres

'travel in Japan'

(35) Nihon o ryokoo su-ru.  
Japan Obj

'travel throughout Japan'

(36) kooen de hasir-u  
park Loc run-Pres

'run in the park'

(37) kooen o hasir-u  
park Obj

'run throughout the park'

The Goal 'case' is partitioned into three separate semantic functions, Direction, Destination (intended endpoint) and Terminal (stopping point). The Direction-marking particle e, the Destination-marking particle ni, and the Terminal-marking particle made have restricted possibilities of occurrence with aruku and its various combining forms.

Observe the following:

- (38) Taroo wa nisi e aruki-masi-ta.  
Taro Top west Dir walk -Pol-Past  
'Taro walked in a westward direction.'
- (39) Taroo wa nisi ni aruki-masi-ta.  
west Destn  
'Taro walked to the west.'
- (40) Taroo wa nisi made aruki-masi-ta.  
west Term  
'Taro walked as far as the west.'
- (41) Taroo wa maiasa gakkoo e aruki-masi-ta.  
every morning school Dir  
'Taro walked to school every morning.'
- (42) Taroo wa maiasa gakkoo ni aruki-masi-ta.  
school Destn  
'Taro walked to school every morning.'
- (43) Taroo wa maiasa gakkoo made aruki-masi-ta.  
school Term  
'Taro walked as far as school every day.'
- (44) Taroo wa maiasa gakkoo e arui-te iki-masi-ta.  
school Dir walk-ing go -Pol-Past  
'Taro went to school by walking every morning.'
- (45) Taroo wa maiasa gakkoo ni arui-te iki-masi-ta.  
school Destn  
'Taro went to school by walking every morning.'
- (46) Taroo wa maiasa gakkoo made arui-te iki-masi-ta.  
school Term  
'Taro went as far as to school by walking every morning.'

These examples show that the verb aruku by itself does not imply or emphasize the act of going. Examples (44) - (46) are acceptable since the directional phrases are compatible with the ikimasita 'went' of the examples; and example (38) is acceptable because the speaker is

merely stating the fact that Taro performed the action of walking in a westward direction.

Examples (39) and (42) show that aruku without iku 'go' cannot take the destination marker ni. Examples (40), (43) and (46) show that the terminal marking particle made, unlike ni, is compatible with verbs that indicate manner of motion, whether or not they are accompanied by 'go'. Although the meanings of made and ni are similar, they differ in that made can be used to mark the endpoint of an activity, regardless of whether it was the intended endpoint (destination) or not.

### 3. Some Contrastive Semantic Observations Regarding Verbs of Walking

#### 3.1. Nuclear Items

English walk and Japanese aruku have many semantic features in common, but they are not translations of each other. The greatest difference is that while walk contains in itself the meaning of going, aruku does not. In other words, walk has a complex semantic structure incorporating the meaning of going within it, while aruku is by comparison semantically simple. Compare the following two Japanese sentences and their English translations:

- (47) Aruk-u no ni wa doko ga ii des-yoo ka?  
walk-Pres Comp for Top where Sbj good Cop-wonder Ques?

'Where is there a good place to walk?'

- (48) Arui-te ik-u no ni wa doko ga ii des-yoo ka?  
walk-ing go-Pres Comp for Top

'What is a good way to get there on foot?'

Japanese distinguishes walking as an activity or manner of movement from walking as a means of travel. English allows a single word to be used in both of these functions. For more discussion on this point observe the following:

(49) John walked out of the room without being noticed.

(50) Taroo wa dare ni mo kizuk -are -zu -ni  
Taro Top who by even notice-pass-not-by

heya o de -te { it } -ta  
room Obj get out-ing { go } Past  
ki  
come

'Taro { went } out of the room without being noticed  
came  
by any one.'

(51) He walked into the building.

(52) Taroo wa sono tatemono ni hait -te { it } -ta  
that building Loc enter-ing { go } Past  
ki  
come

'Taro { went } into the building.'  
came

These examples show that walk contains in itself the meaning of going (or coming, depending on the speaker's point of view), which is indicated in the Japanese sentences by the verb iku 'go' (or kuru 'come'). The meanings of out or in are expressed as dete 'being out' or hайте 'being in' in Japanese. The verb aruku cannot be used in these sentences unless they emphasize the means of locomotion.

(53) Taroo wa arui-te de -te it-ta.  
Taro Top walk-ing go out-ing go-Past

'Taro went out on foot.'

- (54) Taroo wa arui-te de -ta.  
Taro Top walk-ing go out-Past

'Taro got out on foot.'

Now observe the following:

- (55) John walked around for about an hour.

- (56) Taroo wa iti-zikan bakari aruki-mawat -ta.  
Taro Top one-hour about walk -go around-Past

'Taro walked around for about an hour.'

(55) and (56) indicate that both walk and aruku can be used to indicate activity rather than a journey.

### 3.2. Peripheral Items

The comparison between the two languages with the peripheral Verbs of Walking will begin with the English verbs and the manner of rendering their meanings in Japanese. This is because English has a number of distinct lexically simple verbs that represent distinct manners, etc., of walking, while Japanese does not. In Japanese the semantic differences separating English peripheral walking verbs from each other have to be represented with adverbs or adverbials modifying aruku.

#### 3.2.1. English items

The peripheral Verbs of Walking in English to be taken up in this section are:

amble, hike, lumber, plod, ramble, reel, saunter,  
stagger, stride, stroll, strut, stomp, swagger,  
toddle, totter, tramp, trudge, waddle, wander, wobble  
and shuffle.



These verbs can be grouped into semantic categories according to whether they indicate (1) instability through (a) frailty or immaturity or (b) loss of control, (2) a high self-image, (3) noisiness, (4) excessive effort, (5) directionlessness, (6) recreational activity at (a) a relaxed pace or (b) a spirited, energetic pace, or (7) unliftedness of the feet.

(1) Instability

(a) through frailty or immaturity  
waddle, toddle, totter, wobble

(b) through loss of control  
reel, stagger

(2) A High Self-Image

stride, strut, swagger

(3) Noisiness

lumber, stomp, tramp

(4) Excessive Effort

plod, trudge

(5) Directionlessness

ramble, wander

(6) Recreational Activity

(a) that is relaxed  
amble, saunter, stroll

(b) that requires some effort  
hike

(7) Unlifted feet

shuffle

These verbs can be described by using the nuclear verb walk as mentioned in 2.1. And most of the Japanese equivalents of these peripheral Verbs of Walking given in English-Japanese dictionaries are in the form of a manner expression followed by the Japanese nuclear verb aruku. Hike, for example, is shown in the Kenkyusha's English-Japanese Dictionary as teku-teku aruku, that is, a mimetic adverbial suggesting a long, continuous steady walk followed by the nuclear verb of walking. This suggests, therefore, that hike contains in itself the meaning of 'walk' and 'a long continuous steady pace' among other things. One of the forms for lumber is omo-omosiku aruku, literally 'walk heavily', which again suggests that the verb lumber represents a complex meaning, namely, 'walk' and 'heaviness'. These facts show that each of the English peripheral items has a complex lexical semantic structure.

Words that belong to the class denoting (1a) Instability through frailty or immaturity (waddle, toddle, totter, wobble) are distinguished from the others by having the Japanese counterparts yota-yota, yoti-yoti and yoro-yoro, each of which suggests a certain kind of unsteadiness.

Those that belong to (1b) Instability through loss of control (reel, stagger) are distinguished from the other groups in that these two verbs share the Japanese counterpart tidoriasi-de aruku, literally, 'walk with plover legs' which is not shared by any other forms.

Verbs of class (2) High self-image (stride, strut, swagger), do not share any particular Japanese form, but the meanings of their Japanese counterparts all suggest prideful gait: oomata-ni aruku 'walk

with big steps', kappo-suru 'walk with big steps with pride'; sokkurikaette aruku 'walk throwing out one's chest'; hunzorikaette aruku 'walk (with a haughty attitude) sticking out one's chest'.

The verbs lumber, stomp, and tramp of the class of verbs denoting (3) Noisiness are all translatable as dosin-dosin to aruku, which suggests a heavy noisy gait. Stomp of this group, however, also has tobo-tobo as one of its Japanese counterparts suggesting that it has a shared meaning with plod and trudge of the next group.

Plod and trudge of (4) Excessive effort share tobo-tobo to aruku, which suggests weary tedious gait.

In the case of (5) Directionlessness (ramble and wander), Japanese counterparts are different in shape, samayou and sasurau for wander and bura-bura suru and manpo suru for ramble, but they both suggest a long-range aimless uncommitted walk.

Stroll and saunter share the same Japanese form as one of their counterparts, bura-bura aruku, which suggests a leisurely cozy walk. The counterpart of amble, however, is given as yuru-yuru aruku, which suggests a unhurried relaxed gait with a note of 'horseback riding'. We categorized amble in this group because amble is not restricted to horseback riding, and because the meaning of yuru-yuru is similar to that of bura-bura.

Hike is unique. As is indicated by the fact that it shares the Japanese counterpart teku-teku aruku with trudge, hike implies a long, continuous, steady walk, but it is unique in that it also carries the implication that the activity involved is undertaken for the purpose of recreation.

Shuffle is distinguished from the other verbs of walking in that it suggests a sliding, dragging gait without lifting the feet.

### 3.3.2. Japanese items

Japanese utilizes several devices to render various manners of 'walking'. They can be grouped into three syntactic types:

- (1) phrases composed of the verb aruku preceded by a manner adverbial,
- (2) compound verbs, and (3) distinctive verbs.

There are three kinds of manner adverbials of the first group:

(1a) mimetic adverbials such as dosin-dosin that suggest heavy noise as in lumber, or yota-yota that suggests unsteadiness as in waddle, (1b) ordinary adverbials such as omo-omosiku which means 'heavily' as suggested in lumber, or oomata ni literally 'with a big crotch' or 'with big steps', which is used in an expression equivalent to stride, for example, and (1c) gerundive form such as sokkurikaette of the verb sokkurikaeru, that is, 'to bend one's back to throw out one's chest', which is implied in s.rut, for example.

There are two types of compound verbs: (2a) compounds made of native Japanese elements and (2b) Sino-Japanese compounds. Aruki-mawaru, which is composed of two Japanese verbs aruku 'walk' and mawaru 'turn, go round' to mean walk around, or wander, and verbs like bura-tuku, which consists of a mimetic word bura 'hang loose' and a verb tuku 'stick to', to mean 'hang around, stroll about'.

Sanpo suru 'to take a walk' is an example of the Sino-Japanese compound verbs. It consists of sanpo and suru 'to do'. Sanpo itself is a compound word: san 'scatter' and po 'walk'. In other words, sanpo suru literally means 'do scattering walk'. Other Sino-Japanese

compounds in this domain are sansaku suru 'stroll', syoooyoo suru 'stroll', hoo-koo suru 'wander about', manpo suru 'ramble', manyuu suru 'to go on a pleasure trip', etc.

There are a very few native Japanese compounds that could be considered in this domain (in addition to those in which one element is aruku), such as samayou 'wander aimlessly' and sasurau 'wander around'. Since the number of verbs of this group is very limited, we will not consider them here.

In the discussion in 4.2. we will be focusing on the form that has aruku preceded by a mimetic adverbial, as presented in (1a) above, because this is a structure peculiarly characteristic of the Japanese language. Structures of the types presented in (1b) and (1c), those with ordinary adverbials and gerundive forms, are not particularly special to this language, and are not as clearly 'lexicalized' as the structures with the mimetic adverbs; they will therefore not be considered in this study. The structure and workings of compound verbs would require a full-scale investigation of at least the magnitude of this dissertation and must therefore be left untouched.

#### 4. Sample Analysis of English and Japanese Lexical Items

##### 4.1. English Verbs of Walking

The English verbs of walking, as was pointed out above, can be grouped into semantic categories according to whether they indicate (1) instability through (a) frailty or immaturity or (b) loss of control, (2) a high self-image, (3) noisiness, (4) excessive effort,

(5) directionlessness, (6) recreational activity of (a) relaxed pace or (b) energetic pace, and (7) unlifted feet.

Let us consider first class one, those verbs denoting unsteady walking.

(1) Instability

(1a) Instability through frailty or immaturity:

waddle, toddle, totter, wobble

Waddle, according to my informants, means to walk like a duck, with short steps, swaying from side to side. It is an awkward way of walking that makes apparent the effort required to move one's body. Typically, it is the walk of a short, fat (obese) person. Since it is associated with physical defects, it has a negative connotation.

(57) Now only slightly overweight, she still felt that she was waddling like a duck.

While waddle suggests instability of the agent's steps due to squatness or pudginess, toddle suggests a baby's way of walking, as the noun toddler (which indicates a very young child who has just started to walk), suggests. The word toddle has a positive connotation because it refers to an action which is considered to be an accomplishment.

Totter, which suggests a process of falling as in

(58) The old alcoholic tottered down the sidewalk.  
can also suggest unsteady movement along a path. In such a case it can indicate instability as a consequence of old age or weakness. Thus, the condition of a person who totters is typically rather permanent.

- (59) An old man tottered across the street with a help of a youth.

Wobble suggests changes in vertical angular displacement; thus it may be used to suggest to unsteadiness of things such as a table with one short leg. It also suggests the instability caused by unstable footwear such as ice-skates or high heels. It could refer to a type of walk due to a permanent handicap, such as weak ankles, for example. Hayakawa (1968) suggests that the word tends to imply fatness or misproportioned squatness of build, and gives this example:

- (60) A fat man wobbled slowly down the street.

(1b) Instability through loss of control:

stagger, reel

Stagger suggests an unsteady abnormal way of walking with uncertain balance. It is typically used of someone who is wounded, intoxicated, seriously ill or semiconscious. It carries with it a sense of intermittent stopping and starting and the implication that the person is about to collapse.

- (61) An addict trying to get help staggered into the Free Clinic.

- (62) A seriously wounded victim of an armed robbery staggered to the phone booth to make an emergency call.

Let us turn now to those verbs denoting self-confident walking.

(2) A high self-image:

stride, strut, swagger

Stride, according to my informants, suggests the long, swift, healthy, energetic steps of a tall person with good posture, as the

following example indicates.

- (63) He strode briskly through the airport on his way to  
the departure gate.

It also suggests that person's positive attitude -- confidence in himself, pride and self-righteousness. As opposed to hiking, striding occurs on flat ground.

Traditionally, it is considered unladylike to stride. In tight skirts it is impossible to stride because only the part of the legs below the knees can move.

Strut carries with it a negative connotation because it suggests an affected, conceited posture designed to show off and impress other people. It is a slow, rhythmic walking, perhaps accompanied by snapping fingers. It has a masculine connotation, but a woman too may strut, as shown in example (65).

- (64) Wearing his flashy new outfit he went strutting  
around the neighborhood like a peacock.

- (65) The prostitute strutted up to the man and asked  
him a question.

Swagger, according to my informants, also carries a negative connotation and suggests showy overconfidence in one's masculinity. The word, which can be used as a noun or as a verb, conjures up the tough superior male image of such macho men as certain sailors and pilots.

- (66) Ever since he saw the movie Three Musketeers  
Billy has walked with a noticeable swagger.

- (67) The gun slinger swaggered into the bar and ordered  
a whisky.



The third subclass we will consider contains verbs of noisy walking.

(3) Noisiness:

lumber, stomp, tramp

Lumber implies that the person walking is bulky, massive. In other words, it suggests a big, heavy, strong (i.e. not obese) man's slow, clumsy way of walking. It has a masculine connotation. Therefore, when it is used about a woman, it would suggest that she is big, heavy and mean.

(68) The sumo wrestler lumbered down the aisle to the ring.

(69) As Billy lumbered into the room, I realized why no one dared to call him "The Hulk" to his face.

The fourth subclass contains verbs denoting forms of walking involving apparent effort.

(4) Excessive effort:

trudge, plod

Trudge, informants say, suggests a steady firm persistent way of walking. It also implies that the walker is investing a lot of effort in overcoming impediments to his progress and is determined to continue.

(70) The children trudged through the fields toward the lake.

(71) As I trudged along the path, I began to despair of ever reaching home by dark.

Plod is similar to trudge in suggesting a slow, steady, persistent way of walking with a lot of effort and determination to continue. The word has a metaphoric use, and may be used of a student who does well

by working steadily and for long hours rather than by being quick and bright. Trudge does not have this usage.

(72) The mailman plodded along his rounds with the heavy sack.

(73) He'll pass the course if he just keeps plodding along preparing for the final exam.

The fifth class includes verbs of aimless walking.

(5) Directionlessness:

wander, ramble

Wander suggests walking around directionlessly, covering a lot of ground. There are two senses of wandering: (i) self-controllable wandering and (ii) uncontrollable wandering. The latter suggests that the person is lost or in despair, whereas the former suggests that the person has decided of his own will to drift, travelling without particular destination, as in wander around the world.

(74) The lost child wandered aimlessly through the streets.

(75) By mistake I wandered into the rough part of the town.

The sixth class subsumes verbs of recreational walking.

(6) Recreational activity

(6a) At a relaxed pace:

stroll, amble, saunter

Stroll, according to my informants, suggests a slow, leisurely recreational walk taking place in a nice environment. The walker typically has no particular destination. This verb is often used of the activity of an elderly lady or couple.

(76) My grandmother strolls in our rose garden every  
afternoon.

Amble also suggests a slow, easy, relaxed walk and carries a happy connotation. It too is not associated with any particular sense of destination. Typically ambling takes place in the countryside, in meadows or fields. Since it has a happy, peaceful connotation, it cannot be used with a word that carries a negative connotation. Thus, example (77) is not acceptable.

(77) \*? A man ambled along the road contemplating suicide.

(6b) At an energetic pace:

hike

Hike suggests a spirited, energetic, rather fast paced walking. It also suggests that the walker is possessed of strength, endurance and persistence. Above all this verb suggests that the purpose of walking is for recreation. (78), therefore, is strange whereas (79) and (80) are acceptable.

(78) \*My car wouldn't start this morning, so I had to  
hike to work.

(79) I hiked to the top of Mt. Diablo yesterday.

(80) The backpacker hiked up the difficult twenty mile  
trail.

The last class includes a verb denoting a form of walking without lifting the feet.

(7) Unlifted feet:

shuffle

Shuffle, unlike any of the verbs mentioned above, suggests an awkward manner of walking by sliding and dragging the feet without lifting them.

(81) The old man shuffled feebly along in bedroom slippers.

#### 4.2. Sample Semantic Analysis of Mimetic Adverbs that Co-occur with aruku

In this section we will analyze mimetic adverbs of Japanese that co-occur with the verb aruku. The adverbs can be divided into three groups on the basis of their semantic characteristics: (1) those that capture auditory aspects of an action or a situation, "phonomimes" (2) those that express visual aspects, "phenomimes", and (3) those expressing affective aspects, or how people feel about something, "psychomimes".<sup>1</sup>

Though the forms that we will examine are used with the verb aruku to distinguish different manners of walking, they are also used to modify other verbs. It is, therefore, important to look separately at the typical usage of each word, and the cases in which it is used with aruku. Some forms that may not be used with aruku are also included here for the purpose of contrast.

##### 4.2.1. Auditory mimetic (Phonomimetic) adverbs

Thirty-six words of this group were gathered from Amanuma (1974) and Asano (1978) for this analysis. These words, with a few exceptions, are in reduplicated form, i.e. the first two syllables are reduplicated in the third and the fourth syllables, for examples, dosin-dosin, saku-saku, pita-pita. The reduplication reflects repetition of the same

movement that the verb aruku implies, i.e. repeating the action of moving one leg forward at a time.

Even the exceptions are variations of the reduplicated structure. For example, in kara-koro and gasa-goso the vowel a in the first set of each word is changed to o in the second set while the consonants remain the same. This is sensed by native speakers as reflecting slight changes in the sound of an action, possibly with the right foot -- left foot difference in the case of kara-koro, for example, which suggests the sound of Japanese wooden clogs. In other words, the slight difference of the vowels reflects that the action is not monotonous repetition but a cycle of slightly different activities.

Dota-bata is an example of another class of exceptions to the simple reduplicating pattern. With these the second and the fourth syllables are identical, but the first and the third syllables are different in both the consonants and the vowels. Their phonological differences are, however, not great: the d --> b change is only a shift of point of articulation, and the o --> a change is only a shift in height and degree of backness.

The phonomimetic adverbs that modify aruku can be classified into five groups according to whether they indicate: (1) a loud noise (a) due to the heavy weight of the person who walks, or (b) due to the activity of a noisy and violent individual or a group of people, (2) the sound of light footsteps on a hard surface of hard soled or hard heeled footwear such as (a) shoes, or (b) clogs, wooden sandals, (3) the sound of friction due to (a) walking on pebbles, (b) walking on fallen leaves, (c) walking on a squeaky floor, or (d) walking in

squeaky shoes, (4) the sound of soft, flat footwear or bare feet (a) on a dry surface, or (b) on a wet surface, and (5) the sound of splashes produced by walking in a puddle, or a shallow creek. These classifications are limited to the sounds intrinsic to walking, and such sounds as the jingling of coins in the walker's pockets are excluded.

(1) Loud Noise

(1a) Due to the heavy weight of the person who walks.

dosa dosa

dosu-dosu                      dosun-dosun

dosi-dosi                      dosin-dosin

The adverbials of this group generally represent noises created by a heavy object striking a structure (building wall, floor, etc.) or hitting or crushing other heavy objects. When used to describe walking, they indicate the house-shaking sound of heavy people's walking. It will be noticed that these words share the sequence dos-. The forms with -n add the notion of echoing or vibrating. (It should be noticed that not all members of this class of phonomimetic adverbs can be applied to walking.)

Dosin-dosin indicates the series of sounds as well as vibration made by a heavy object repeatedly crushing against something or a heavy object repeatedly falling. When used with the verb aruku, therefore, it indicates the sound of the floor-shakingly loud footsteps of a heavy person. Example (82) below exemplifies the auditory aspect of the word, and (83), the vibratory aspect.

- (82) Taroo ga ku -ru no ga dosin-dosin to aruk-u  
 Taro Sbj come-Pres Comp Sub walk-Pres

oto de wakat -ta  
 sound with recognize-Past

'I realized that Taro had arrived from the sound of  
 his thunderous footsteps.'

- (83) Rekoodo o kii -te i -ru n dakara, dosin-dosin  
 record Obj listen-ing be-Pres Comp because

aruk-ana-i -de kudasai. Hari ga ton -de  
 walk-not-Pres-Ger I request stylus Sbj skip-Ger

sima -u to ik-e -na -i kara.  
 complete-Pres if go-Pot-not-Pres because  
 not good  
 (idiom)

'Since I'm listening to music, please do not stomp  
 around. It's not good if the stylus skips.'

The adverb can also be used with other verbs that suggest the  
 falling or colliding of large heavy objects. For example,

- (84) Tonari ni ie o ta -te i -ru node  
 next door Loc house Obj build-ing be-Pres because

asa kara dosin-dosin to zinatasi o  
 morning from flattening Obj  
 of ground

si-te i -ru.  
 do-ing be-Pres

'They are going to build a house next door. So, since  
 this morning they have been flattening the ground (to  
 make it firm by dropping a heavy weight).

(85) Rikisi -tati ga dosin-dosin to  
 sumo wrestler-s Sbj

butukari-atte keiko o si-te i -ru  
 crush each other practice Obj do-ing be-Pres

'The sumo wrestlers are practicing by plowing into  
 each other.'

Dosin-dosin suggests, compared with dosi-dosi, that the item  
 involved is heavier and that echoing and vibrations occur.

Dosin alone suggests that the fall occurs only once.

Dosi-dosi suggests a loud noise created by the way a person walks  
 heavily, but lacks the notion of echoing or vibrating.

Dosun-dosun suggests the sound of a heavy item falling or crashing  
 into something so hard that it may get implanted in the other object.

Dosun suggests a single occurrence of such a fall.

(86) Kare wa dosun to sirimoti o tui -ta.  
 he Top land on ones's bottom-Past  
 (idiom)

'He landed on his bottom.'

(87) Rikisi wa dohyoo ni agar -u to  
 sumo wrestler Top ring Loc climb-Pres when  
 dosun-dosun to tikara ippai siko o hun-da.  
 force full stamp-Past  
 (idiom)

'After they climb into the ring the sumo wrestlers  
 stamped the ground with all their might.'



- (88) Sonna ni tikara o ire-te dosun-dosun to arui -tara,  
 such a way force Obj put-Ger walked-if  
 yuka ga nuke -te simai -mas-u yo.  
 floor Sbj fall apart-Ger complete-Pol-Pres I tell you  
 'If you keep stamping around like that the floor will  
 fall apart/you'll wreck the floor.'

Dosa-dosa indicates the repeated falling of heavy things or a large amount of things.

- (89) Tana no ue ni tun -de aru sinbunsi no taba  
 shelf of top Loc pile-Ger exist newspaper of bundle  
 no sita o hippat-tara dosa-dosa to kuzure-oti -te  
 of bottom Obj pull then tumble-fall-Ger  
 ki -ta.  
 come-Past  
 'When I tugged on the bottom of the stack of newspapers  
 on the shelf, the whole thing came tumbling down  
 (on me).'

DosaT indicates the sound made when a heavy object falls or is thrown. It implies the presence of a massive object.

- (90) Amerika no sinbun no nitiyoo-ban wa monosugoku  
 America of newspaper of Sunday edition Top enormously  
 atu -i n des-u. Asa todoi -ta koto ga  
 thick-Pres Comp Cop-Pres morning arrive-Past Comp Sbj  
 dosat to i -u oto de wakar -u n des-u.  
 say-Pres sound with realize-Pres Comp Cop-Pres  
 'The Sunday edition of an American newspaper is very  
 thick. We know of its arrival in the morning by the  
 sound dosaT (that it makes).'

The word can also be used to describe a scene visually.

- (91) *gakusei ga kesa teisyutu si-ta*  
 students Sbj this morning turn in do-Past
- syukudai ga dosaT to tun -de ar -u sensei*  
 homework Sbj pile-Ger exist-Pres teacher
- no tukue*  
 of desk

'The teacher's desk on which the homework that the students turned in this morning is piled up.'

When dosa-dosa is used with aruku, it suggests the noisy, disorderly way of walking of a mob of people.

- (92) *Siai ga owat-te mo inai noni hitobito wa*  
 game Sbj end -Ger even not though people Top
- dosa-dosa to deguti ni mukat-te aruki-dasi -ta.*  
 exit for head -Ger walk -begin-Past
- 'Even though the game has not ended, the people have started to walk toward the exit.'

(1b) Due to a noisy and violent individual or a group of people

*doka-doka*

*doka-doka                    dota-bata                    bata-bata*

The words with do suggest walking noisily. They do not necessarily imply heaviness. Bata-bata suggests a lighter and a faster pace than the other forms. Dota-bata is a combination of the two forms in the list, and is associated with people in a chaotic situation. It is often used with hasiru 'to run' or hasiri-mawaru 'to run around'.

- (2) Sound of light footsteps of hard soled or hard heeled  
 footwear on a hard surface



- (95) Tanin ga ason-dari nemut-tari si-te i -ru  
 other people Sbj play or sleep or do-ing be-Pres  
 aida mo kare wa kotu-kotu to hataraki tuzuke,  
 while also he Top work continue  
 tui ni okumantyooya ni nat -ta.  
 at last billionaire into become-Past  
 'He became a billionaire by working (hard) even when  
 other people were playing or sleeping.'

Koto-koto suggests the repetitive sound of a hard object hitting another such object lightly.

- (96) Boon ga bukanzen na node  
 soundproofing Sbj incomplete Cop because  
koto-koto aruk-u nikai no asioto ga  
 walk-Pres second floor of footsteps Sbj  
 konkuriito o toosite sita no ohuisu made  
 concrete Obj through below of office Goal  
 kikoe -ru.  
 can hear-Pres  
 'Because the soundproofing is incomplete, we can hear  
 people walking on the second floor through the concrete  
 (ceiling) in the office below.'

Koto-koto can also be used to describe the sound of boiling liquid.

- (97) Yude -tamago wa tamago o san -pun hodo  
 boiled eggs Top eggs Obj three minutes about  
koto-koto yudere-ba deki-mas-u.  
 boil then do -Pol-Pres  
 'Boiled eggs are made by boiling eggs at a rolling  
 boil for about three minutes.'

The echoing effect suggested by the -n in the forms in the right hand column of the list indicates that there is a short pause between each pair of steps. The sound of a peg legged man descending a stairway,

for example, could be described either with koton-koton or kotun-kotun, because he would pause a little between steps.

- (98) Huziyuu na kata-asi o hikizuri-nagara  
 incapacitated one leg Obj drag while  
 koton-koton to yukkuri aruk-u.  
 slowly walk-Pres

'He walks slowly, dragging his incapacitated leg.'

Goto-goto, the voiced counterpart of koto-koto, indicates that the sound is muffled a little so it is not sharp, though it is still loud. Such a sound might be produced, for example, if someone were walking in clogs on the thinly carpeted hardwood floor of the apartment above you.

- (99) Nikai no hito ga goto-goto aruki-mawar -u  
 second floor of person Sbj walk around-Pres  
 node urusaku-te sikata ga nai.  
 because noisy -Ger cannot be helped  
 (idiom)

'The person on the second floor walks around (and makes footstep noise) so it is hopelessly noisy.'

KoT-koT and kaT-kaT both indicate a staccato sound (i.e. there is no resonance quality) and cannot be followed by -n. They indicate brisk, even paced footsteps. KoT-koT would be used to describe the footsteps of a woman in high heeled shoes walking fast, for example, and kaT-kaT, could represent the sound of soldiers goose-stepping.

(2b) Sound of clogs, wooden sandals and geta, etc.

kara-koro karan-koron

Kara-koro indicates the sound that a light, hard object makes, and reflects that two slightly different kinds of sounds are involved. The n's in the form karan-koron indicate the presence of an echo and a

pause in between steps. This form is used to suggest walking at a slow, leisurely pace.

The most typical usage of these forms is to represent the sound of geta, a pair of wooden Japanese clogs.

- (100) Kodomo no koro yuyake o mi -nagara karan-koron to  
child of time sunset Obj look while

arui-ta kawa no dote ga natukasi -i.  
walk-Past river of bank Sbj I feel nostalgic-Pres

'I nostalgically recall the bank of the river where,  
as a child, I walked (in geta) looking at the sunset.'

Gara-goro, the voiced counterpart of kara-koro, does not occur with aruku. It suggests a really loud noise, as of an empty oil drum rolled on the pavement. Forms similar to kara-koro, such as kara-kara and koro-koro, suggest the rotation of the sound-producing object. The form with the a's suggests a louder sound than the form with the o's.

- (101) Kazaguruma ga kara-kara to mawat-te i -ru.  
wind wheel Sbj rotat-ing be-Pres

'The windmill is clattering around.'

- (102) Enpitu ga koro-koro to korogat-te it-ta.  
pencil Subj roll -ing be-Past

'The pencil rolled away.'

Koro-koro can be used to describe a rotating object which may not be actually making noise, demonstrating that there is not a clean separation between the phonomimetic and the phenomimetic functions.

(103) Nadaraka na sibahu no oka no ue kara  
smooth lawn of hill of top from

koro-koro to korogaru no ga suki da.  
roll Comp Sbj like Pres

'I like to roll down from the top of a smooth grassy  
hill.'

The object in question does not have to actually rotate, either.

(104) koro-koro ni hutot-ta ko  
fat -Past child

'a child who is fat ('roly-poly', fat to the extent  
that he might start rolling)'

(105) Kanozyo wa kokoro kara tanosi-soo ni  
she Top heart from happy -seem Adv

koro-koro to yoku warat-ta.  
often laugh-Past

'She often laughed a hearty laugh.'

Kara-kara can also be used to suggest dryness.

(106) Kuuki ga kara-kara ni kansoo si-te i -ru.  
air Sbj dry do-ing be-Pres

'The air is completely dry.'

(107) Nodo ga kara-kara ni kawai-ta  
throat Sbj dry -Past

'My throat is completely dry.'

I am thirsty.'

(3) Sound of Friction

(3a) As of walking on pebbles

saku-saku                      zaku-zaku                      zakku-zakku

Meaning differences in these words can be associated with the voicing of the initial sibilant and the duration of the medial k.

Saku indicates that the pebbles are smaller, and the sound is smaller. Zaku, on the other hand, indicates that the pebbles are larger, and more abundant. The geminated k emphasizes the loudness of the sound, indicating a large number of people walking on the pebbles.

(108) Meizi-zinguu ni hatumoode ni ki -ta  
Meiji Shrine to New Year's worship for come-Past

hitobito ga tamazyari no ue o zakku-zakku to  
people Sbj pebble of top Obj

aruk-u oto ga koko kara mo kikoe -ru.  
walk-Pres sound Sbj here from also can hear-Pres

'We can hear pebbles crushing under the feet of people  
who have come to the Meiji Shrine to welcome in the  
New Year even from here.'

(3b) As of walking on fallen leaves, through bushes, scattered  
paper

kasa-kasa

kasa-koso

gasa-gasa

gasa-goso

goso-goso

Characterized by k or g and s, these forms indicate the sound of walking through fallen leaves or other leafy material. The g initial words indicate louder or more marked noises.

(3c) As of walking on a squeaky wooden floor or staircase

gisi-gisi

misi-misi

Gisi-gisi is the sound that two wooden parts make when rubbed against each other. Misi-misi is the sound that wood makes when it is bent. Thus, an old staircase would most likely make a gisi-gisi noise,



whereas a wooden floor would make a misi-misi sound when a heavy person walks on it.

(3d) As of walking in squeaky shoes

kyuT-kyuT                  gyuT-gyuT

These are noises that some new shoes make. The g represents a louder noise. The T attached at the end of each group indicates a staccato sound.

(4) The sound of soft, flat footwear on bare feet

(4a) walking on a dry surface

hita-hita

(4b) walking on a wet surface

pita-pita,                  peta-peta

These sounds of quiet walking are characterized by h and p followed by ita. The sounds pita and peta suggest that an object is attached to the surface of another object without any gap, like a magnet attached to a metal surface. Peta with e in the middle suggests that the surface covered by the object is larger than it is in the case of pita. Pita, on the other hand, suggests strength of adherence. Observe the following examples:

(109) Yoogisya no oto o keizi ga pitaT to bikoo  
 suspect of trace Obj inspector Sbj follow

si-te i -ru.  
 do-ing be-Pres

'An inspector is following the suspect very closely.'

- (110) Kono nori wa nandemo itido de pitaT to kuttuke-te  
 this glue Top anything once with adhere -Ger

simai -mas-u.  
 complete-Pol-Pres

'This glue fixes anything at once.'

- (111) Eki no mae ni honno san-pun hodo  
 station of front Loc just 3 minutes about

kuruma o tome-te oi -tara tyuusya-ihan no  
 car Obj park-Ger leave then parking-illegal of

sutekkaa o petari to har -are -te simat -ta.  
 sticker Obj paste-Pass-Ger complete-Past

'I got an illegal parking sticker pasted on my car  
 just for parking it in front of the station for a  
 measly three minutes.'

When used with the verb aruku, the forms pita-pita and peta-peta suggest that the bottom of the footwear adheres to the surface of the floor with each step.

- (112) Kare wa gomu -zoori o peta-peta iw -ase -te  
 he Top rubber-zori's Obj say-Cause-ing

arui-te ki -ta.  
 walk-ing come-Past

'He walked in, his rubber zori's going petapeta.'

- (113) Hadasi de peta-peta aruk-anai-de ne.  
 barefeet with walk-not -ing OK?

'Please don't pad around in bare feet, OK?'

- (5) The sound of splashes produced by walking in a puddle

pitya-pitya

bitya-bitya

bisya-bisya

basya-basya

zyabu-zyabu

zabu-zabu

A more complete discussion of water-movement and water-noise adverbs will be provided in Chapter Five. These are those which my informants felt could most naturally occur in descriptions of walking. In general the loudness and the amount of water increase toward the right and bottom of the chart.

- (114) Karera wa zabu-zabu to kawa o arui-te  
 they Top river Obj walk-Ger  
 mukoo -gisi ni watat-ta.  
 opposite bank Dest cross-Past  
 'They splashed across the river on foot.'

#### 4.2.2. Visual mimetic (Phenomimetic) adverbs

There are thirty-two words of this group, all denoting types of walking differentiated on the basis of their visual characteristics. These words can be grouped into seven semantic categories according to whether they suggest (1) instability, (2) a high self-image, (3) excessive effort, (4) directionlessness, (5) slowness (a) in general, (b) due to carefulness or (c) due to lack of enthusiasm, (6) speed and (7) motion of a mass of people.

Let us consider first group one, those words denoting unsteadiness.

##### (1) Instability

yoro-yoro                      yota-yota                      yoti-yoti

Yoro-yoro suggests a lack of balance, often due to lack of control below the knees. It has no particularly negative or positive connotation.

- (115) Hannin wa tezyoo o kake -rare, kozuk-are,  
culprit Top handcuffs Obj attach-Pass push -Pass

tukitobas -are -te, yoroyoro to arui-ta.  
knock about-Pass-Ger walk-Past

'The culprit, having been handcuffed, pushed and  
knocked about, wobbled along.'

- (116) Bokusaa wa itido daun si-ta ga mata  
boxer Top once down do Past but again

yoro-yoro to tatiagat-ta.  
stand up-Past

'The boxer went down once but uncertainly rose to his  
feet again.'

Yota-yota suggests a slow, unstable, clumsy way of walking due to factors such as old age, exhaustion, or weakness. It has a negative connotation.

- (117) asa kara yopparat-te yota-yota arui-te i -ru  
morning from be drunk-Ger walk-ing be-Pres

arutyuu no otoko nanka kirai -desu.  
alcoholic Gen man such thing I dislike-Pres

'I don't like people like the alcoholic who gets drunk  
and staggers around from morning on.'

Yoti-yoti suggests an inexperienced baby's slow, unstable, clumsy way of walking.

- (118) Konoaida made haihai si-te i -ta n des-u  
the other day until crawl do-ing be-Past Comp Cop-Pres  
(baby)

ga moo yoti-yoti aruki ga deki-ru yoo ni  
but already walking Sbj can-Pres so that

nari-masi -ta.  
become -Pol-Past

'The baby was only crawling until the other day but  
now he has started toddling.'

This kind of walk is an accomplishment. Thus, yoti-yoti could be used of a person who has recovered from a long, confining illness and has started to walk again.

- (119) Nagai aida byooki de ne -te i -ta node  
 long time illness with stay in bed-Ger be-Past so  
 asi-kosi ga sukkari yowat -te simai -masi-ta.  
 legs & hips Sbj entirely weaken Ger complete-Pol -Past  
 Soredemo konogoro yatto yoti-yoti aruk-e -ru  
 However recently finally walk-Potential-Pres  
 yoo ni nari -masi-ta.  
 so that become-Pol -Past

'I was ill for a long time so my legs have gotten weak.  
 Recently, however, I have gotten so that I can walk  
 haltingly again.'

Yota-yota or yoro-yoro would be inappropriate in this case.

Let us turn now to those words denoting self-confidence.

(2) A high self-image

(2a) Heavy man's confident gait

nossi-nossi

Nossi-nossi suggests a heavy man's slow, steady, firm way of walking with confidence in himself. The word definitely has a masculine connotation. If used with respect to a woman, it would suggest that she is huge and intimidating.

(120) Yokozuna ga nossi-nossi to arui-te i -ru to  
Sumo champion Sbj walk-ing be-Pres when

hoka no rikisi wa minna tiisaku mie -ru.  
other Sbj wrestlers Top all small look-Pres

Kanroku ga tiga -u n des-u ne.  
dignity Gen different-Pres Comp Cop-Pres I guess

'When a grand champion walks confidently, all the  
other wrestlers look smaller. I guess it's a matter  
of dignity.'

(2b) Feminine, affected manner of walking

syajari-syajari

Syajari-syajari suggests a seductive way of walking such as that  
of fashion models on stage, for example, twisting their bodies to show  
how their clothes enhance their femininity.

The third group contains words denoting excessive effort.

(3) Excessive effort

teku-teku ettira-ottira

Teku-teku co-occurs only with aruku, and implies a long, con-  
tinuous, steady gait. It suggests tediousness but not necessarily  
hardship, and implies walking on level terrain.

(121) Zyon wa Karihorunia kara Washington D.C.  
John Top California from Washington D.C.

made teku-teku aruk-u no da soo des-u.  
to walk-Pres Comp Cop I hear Cop-Pres

'I heard that John is going from CA to Washington DC  
on foot.'

Ettira-ottira suggests that the person who is walking is either  
heavy or carrying a heavy load, or both, and that his walking requires

a special effort. The word is often used to describe a difficult climb up a steep hill.

(122) Ai-Hausu wa saka no ue ni ar -u node  
I -House Top slope of top Loc exist-Pres because

kaeri wa itumo omo -i hon o nansatu mo  
return Top always heavy-Pres book Obj many

kakae-te ettira-ottira to aruk-u n des-u.  
hold -ing walk-Pres Comp Cop-Pres

'Since I-House is on top of a hill to get home I always have to trudge along, carrying all my heavy books.'

The words of the fourth group denote directionlessness.

(4) Directionlessness

bura-bura hura-hura

Bura-bura indicates a leisurely walk without any particular destination.

(123) Matiawase no zikan ni wa mada ma ga at -ta  
meeting of time for Top still time Sbj exist-Past

kara bura-bura arui-te i -tara kottou -ya ga  
because walk-ing be-then antique store Sbj

at -ta node tyotto hait -te mi -ta.  
exist-Past because little enter-Ger see-Past

'Since there was still time before the meeting, I was walking around, and found an antique store, so I entered for a while (to see if there was anything good in the store).

Hura-hura implies that the person lacks the ability to decide which way to go.

(124) Syoozyo wa kakuseizai demo nom -as -are -ta  
 girl Top drug or something take-Caus-Pass-Past

no ka hura-hura arui-te i -ru tokoro o hogo  
 I wonder walk-ing be-Pres spot Obj custody

s -are -ta.  
 do-Pass-Past

'The girl was taken into custody by the police when  
 she was walking aimlessly perhaps being on drugs that  
 she was forced to take.'

The fifth group includes words that denote various kinds of  
 slowness.

(5) Slowness

(5a) Slow movement in general

noro-noro                      noso-noso                      nosori-nosori

Nori-noro suggests that the movement is extremely slow.

(125) noro-noro unten

slow, stop and go driving (due to traffic congestion)

(126) Tookyoo ya Rooma de wa noro-noro arui-te i -ru  
 Tokyo or Rome Loc Top walk-ing be-Pres

to kuruma ni hane-rare -te sima -u.  
 when car by hit -Passive-Ger finish-Pres

'If you walk slowly in Tokyo or Rome, you will be hit  
 by a car.'

Noso-noso suggests slow, dull actions. It implies uncoordinated  
 movement.



- (127) Asa yuu-zi goro ni nat -te yatto  
 Morning 10 o'clock about to become-and finally  
 oki -te ki -te noso-noso to sigoto o  
 get up Ger come-and work Obj  
 hazime-ru ga ikanimo mada nemu -ta soo da.  
 begin -Pres but really still sleep-want look Cop  
 'He finally gets up at around 10 in the morning, and  
 starts working at a lethargic pace, but he still looks  
 sleepy.'

- (128) Sonna tokoro o noso-noso arui-te i -ru to  
 such a place Obj walk-ing be-Pres when  
 sigoto no zyama ni na -ru kara doko ka  
 work of obstruction to become-Pres so somewhere  
 yoso e it-te kudasai.  
 other place to go-Ger please  
 'If you hang around places like that you'll just get  
 in the way, so could you please go elsewhere?'

Nosori-nosori suggests very slow, intermittent movement, since ri  
 suggests the stopping of the action.

- (129) Kumo tuk -u yoo na oo -otoko ga ippo -ippo  
 cloud reach Pres as if big-man Sbj one step-one step  
 atari o mimawasi nagara nosori-nosori to arui-te  
 around Obj look while walk-ing  
 i -ru.  
 be-Pres  
 'A man so tall it looks like he could touch the clouds  
 is walking slowly along, looking around with each step.'

(3b) Slowness due to carefulness

soro-soro sorori-sorori

Soro-soro and sorori-sorori both suggest careful, quiet, slow motion. The action is intentional, under control.

(130) Koppu no mizu ga kobore -nai yoo ni  
glass of water Sbj spilled-not so that

soro-soro to arui-te kudasai.  
walk-Ger please

'Please walk slowly (and cautiously) so that the water  
in the glass will not spill.'

Sorori-sorori indicates intermittent movement.

(131) Syuei ga terebi ni mutyuu ni nat-te i -ru  
guard Sbj TV in get engrossed become-ing be-Pres  
aida ni sorori-sorori to arui-te de -te ki -ta.  
while walk-Ger go out-Ger come-Past

'I walked out slowly (cautiously) while the guard was  
engrossed in watching the TV.'

(3c) Slowness due to lack of enthusiasm

dara-dara dere-dere

The d series carries the negative connotation of 'taking too much time', or 'lacking enthusiasm'.

(132) Dara-dara sigoto o su-ru no wa Nihon no  
work Obj do-Pres ones Top Japan of

yakunin bakari de wa nai yoo da.  
bureaucrats only not seem Cop

'It seems that it's not only Japanese bureaucrats who  
work slowly.'

(133) Guntai de wa dara-dara arui-te i -ru to  
 Army in Top walk-ing be-Pres if

nagu -rare-ta soo da.  
 strike in the face-Pass-Past I hear Cop

'I heard that in the army anyone walking lazily gets  
 slapped in the face.'

The sixth group we will consider contains words denoting speed

(6) Speed

don-don	zun-zun	sesse to
sassa to	pappa to	totto to
kibi-biki		

Don-don and zun-zun suggest the continuation of rapid progress.  
Sesse to suggests one's diligence in a task, which results in rapid  
 progress.

Sassa to, pappa to, and totto to suggest quickness in motion.  
Totto to aruku suggests walking at a speed just short of running.

Kibi-kibi indicates that the action is being done quickly, in a  
 decisive manner.

(7) Motion of mass of people

zoro-zoro

Zoro-zoro suggests many creatures moving slowly in one direction  
 one after another. It has a negative connotation.

- (134) Nihonzin wa dantai-ryokoo ga suki na no ka  
 Japanese Top group -travel Sbj like Cop perhaps
- doko e itte mo hata o mot -ta gaido no ato  
 wherever I go flag Obj hold-Past guide of behind
- zoro-zoro to arui-te i -ru hito-tati o mi -ru.  
 walk-ing be-Pres people Obj see-Pres
- 'I guess the Japanese like traveling in groups.  
 Wherever I go I see them walking in a mass following  
 a guide who is holding a flag.'

#### 4.2.3. Affective mimetic (Psychomimetic) adverbs

There are eight of these adverbials that co-occur with the verb aruku. This class is not as distinct as the other classes. Some of its members, such as koso-koso to or tobo-tobo to, for example, might have been classified in the visual category. Here, these words have been grouped together because they reflect in one way or another psychological aspects of the person who is walking.

One of the characteristics of the words of this group is that they occur only in reduplicated forms.<sup>2</sup> In other words, odo or tobo, for example, do not occur alone.

The words that belong to this group can be sub-classified into three groups, reflecting the psychological states of (1) being at a loss, (2) lacking confidence or (3) being happy.

(1) at a loss:

uro-uro            oro-oro

Uro-uro suggests a manner of walking around in a small area without a particular purpose as in (135), or without knowing what to do in the situation he is in as in (136). This form has a negative connotation.

(135) Ie no mawari o hen na hito ga uro-uro si-te  
house of around Obj strange Person Sbj do-ing

i -ru kara ki o take-ta hoo ga i -i.  
be-Pres because care Obj put -Past side Sbj good-Pres

'A stranger is walking around our house. We'd  
better be careful.'

(136) Doroboo wa nusun-da terebi o mot -te  
thief Top steal-Past TV Obj hold-ing

uro-uro si-te i -ru tokoro o tukamat -ta.  
do-ing be-Pres place Obj be caught-Past

'The thief was caught when walking around with the  
TV that he stole in his hands.'

Oro-oro suggests that one does not know what to do, possibly due to ignorance, nervousness, or worry. Usually oro-oro is used in the form oro-oro suru, which does not necessarily suggest a manner of walking. Nevertheless, since a person tends to walk around aimlessly when he is nervous, for example, here the form is associated with a manner of walking. Observe (137) for example.

(137) Kare wa okusan ga rusu no toki ni akatyan ga naki-  
he Top his wife Sbj out Gen when at baby Sbj cry-

dasi -ta ga doo si -tara ii no ka wakara-zu  
begin-Past but what to do-then good Comp Ques know -not

oro-oro su-ru bakari dat-ta.  
do-Pres only Cop-Past

'He did not know what to do (and was nervous) when his  
baby started crying while his wife was out.'

## NOTES TO CHAPTER TWO

<sup>1</sup> Martin (1975), pp. 1022-1025.

<sup>2</sup> Kuso, in isolation, can be used as an auditory mimetic adverbial but not as an affective mimetic adverb.

## CHAPTER THREE

### VERBS OF LAUGHING AND SMILING

#### 1. Characterizing the Domain

In this chapter we examine the lexical domains in Japanese and English having the following semantic characterization: they designate, when predicated of human beings, facial expressions of mirth, joy, amusement, or derision, with or without voicing. Verbs that satisfy this description, in either language, will be called "Verbs of Laughing and Smiling." The delimitation of the domain as given above is intended to exclude verbs of neighboring domains such as English enjoy, be amused; frown, scowl; cry, wail, etc. English enjoy and be amused, or Japanese tanosimu and omosiogaru, indicate pleasure, etc., but they have nothing to do with noises or facial expressions; frown and scowl, or Japanese sikameru indicate facial expressions, but they are associated with the wrong emotional states, and cry, and wail, etc., or Japanese naku designate noises produced under emotional states, but once again they are not associated with the appropriate emotional state.

#### 2. Nuclear Representatives of the Verbs in this Domain

In English there are two nuclear representatives of this class: laugh and smile. In Japanese, the nuclear member of this class is warau. Whereas in the case of the verbs of walking, we found one

nuclear verb in each language (walk and aruku), in this domain we find two nuclear verbs in English, laugh and smile, corresponding to just one verb in Japanese, warau.

2.1. Laugh and smile have been chosen as the nuclear representatives of the domain in English because each one of them is the unmarked representative of one of the two sub-classes of this domain. Within this domain laugh represents the group of words associated with expressions accompanied by a certain class of unarticulated sounds, and smile represents the words denoting silent facial expressions. The two are assigned to the same domain because they are similar in meaning, as shown in Webster's Collegiate Dictionary, which defines laugh as 'to show mirth, joy or scorn with a smile and a usually explosive sound,' and because they are both translated into Japanese with the verb warau.

2.1.1. The verb laugh can be used both transitively and intransitively. The transitive usage is rather restricted: (a) is found in such phrasal expressions as laugh off and laugh away, as in (1) and (2),

(1) He laughed off the accusation.

(2) Laugh away your troubles.

(b) it occurs with a reflexive pronoun object in such quasi-idiomatic structures as seen in (3) and (4)

(3) We practically laughed ourselves to death.

(4) He laughed himself blue.

and (c) it occurs with a cognate object as in the example sentence (5)



(5) He laughed a hearty laugh.

Intransitive laugh, shown here in the example sentences (6) - (9), often takes prepositions that introduce the cause or occasion of the humor. In (7) the preposition at introduces such cause or occasion, and over and about in (8) and (9) also serve that function.

(6) They were laughing uproariously.

(7) They laughed at his jokes.

(8) They laughed about embarrassing things.

(9) They laughed over the incident.

2.1.2. The verb smile also has transitive and intransitive uses. The transitive usage is rather limited, occurring in sentences like the example (10), (11) and (12).

(10) She smiled a sweet smile.

(11) She smiled her tears away.

The first example (10) shows the so-called cognate object, and here the verb smile behaves just like such verbs as laugh, dream, fight, etc. The second example, (11), means that she suppressed her tears by forcing herself to smile.

(12) - (14) are example sentences of the intransitive use of the verb smile.

(12) The scene made her smile.

(13) They smiled at his awkwardness.

(14) She is smiling at me.

The preposition at indicates the cause (13) or the target (14) of the action of smiling.

2.2. Japanese has the verb warau as the nuclear member of the Verbs of Laughing and Smiling domain. The verb warau has both transitive and intransitive uses.

Transitive warau has a peculiar morphosyntactic requirement when the cause or target is a human being.

- (15) \*Taroo wa Hanako o warat-ta.  
Taro Top Hanako Obj laugh-Past

'Taro laughed at Hanako.'

- (16) Taroo wa Hanako no koto o warat-ta.  
of matter Obj

'Taro laughed at (the matter of) Hanako.'

These examples show that a noun designating a human being cannot appear unaccompanied as the direct object of warau but must be cushioned with the phrase no koto ('things/matter of'). This usage is not restricted to warau. Other verbs of "emotional response to people" such as okoru 'to get angry at', keiketu suru 'look down upon', ai suru 'love', etc. also take no koto as a cushioning device. Okoru 'get angry at' requires it, like warau.<sup>1</sup> The other forms given above take the phrase optionally to make the statement less direct. (Thus, if one really loves someone, he should say 'kimi o aisite iru yo' rather than 'Kimi no koto o aisite iru yo.' (kimi 'you', ai si-te-i-ru 'is in love with', yo as sentence particle meaning 'I tell you') With the koto it sounds weak.)

Unaccompanied human object NPs, however, are not entirely excluded from warau. The constraints are not completely clear, but observe the following examples.

(17) Tanin o warat -te wa ikena -i  
 others Obj laugh at-ing Top not good-Pres

'One should not laugh at other people.'

(18) Tanin no koto o warat-te wa ikena-i.

Same meaning as (17).

Although (15) is not grammatical, its passive counterpart is grammatical as shown in (19).

(19) Hanako wa Taroo ni waraw-are -ta.  
                   Top                  by laugh-Pass -Past

'Hanako was laughed at by Taro.'

And the passive form of sentence (16) is ungrammatical as shown in (20).

(20) \*Hanako no koto ga Taroo ni waraw-are-ta.

The ungrammaticality of (20) may be due to the fact that the agent marker should be ni yotte because the subject, koto is non-human. However, even (21), the revised version of (20), is still ungrammatical though it sounds a little better.

(21) \*Hanako no koto ga Taroo ni yotte waraw-are-ta.

When the object of warau is inanimate, koto is optional. Observe (22) and (23), which are both acceptable.

(22) Taroo wa kono e o warat-ta n des-u.  
                   this picture Obj laugh-Past Comp Cop-Pres

'Taro laughed at this picture.'

(23) Taroo wa kono e no koto o warat-ta n des-u.

Same meaning as (22).

Fixed expressions like the proverb in (24) do not allow koto.

- (24) Iti-en o wara -u mono wa iti-en ni nak-u.  
 one yen Obj laugh-Pres person Top for cry-Pres  
 'One who laughs at one-yen will cry over one-yen  
 someday.'

The verb warau takes a human subject as shown in (25) as well as the examples given above.

- (25) Taroo ga warat-te i -ru.  
 Sbj laugh  
 smile -ing be-Pres  
 'Taro is laugh/smil-ing.'

A body part which can participate in the action of laughing or smiling can appear in the sentence as an instrument of the action.

Observe the following examples:

- (26) Taroo ga me de warat-te i -ru.  
 Sbj eyes with smil -ing be-Pres  
 'Taro is smiling with his eyes.'  
 in
- (27) Taroo ga hana de warat-te i -ru.  
 nose with laugh-ing be-Pres  
 'Taro is laughing with his nose.'  
 (snorting, snickering)

Example (26) means that Taro is not laughing or smiling overtly but one can recognize the same emotional state through his eyes. Example sentence (27) means that Taro is laughing, letting the air escape through his nostrils, as in snorting or snickering.

In addition to personal nouns, a subject of warau can also be the name of a body part whose movement or other visible changes can be taken as reflecting delight or amusement. Thus:

(28) Taroo no me ga warat-te i -ru.  
 of eyes Sbj laugh-ing be-Pres

'Taro's eyes are smiling.'

(29) \*Taroo no hana ga warat-te i-ru.  
 of nose

'Taro's nose is laughing.'

Although (29) would be grammatical if the sentence were used to mean that Taro's nose is permanently shaped so as to make him look as if he is always laughing, it is unacceptable in the sense of spontaneous response. In other words, a nose is not thought of as participating in the facial expression of the laughing or smiling activity, while eyes are. Observe the following examples using other parts of the face.

(30) Taroo ga kutimoto de warat-te i-ru.  
 with

(kuti 'mouth' + moto 'base')

'Taro is smiling around his mouth.'

(31) Taroo no kutimoto ga warat-te i-ru.  
 of Sbj

'Taro's mouth (area) is smiling.'

(32) \*Taro ga ago de warat-te i-ru.  
 chin with

'\*Taro is smiling/laughing with his chin.'

(33) \*Taroo no ago ga warat-te i-ru.  
 of Sbj

'\*Taro's chin is smiling/laughing.'

(30) and (31) are acceptable because kutimoto the mouth area is a flexible body part and can participate in facial expressions, but (32) and (33) are not acceptable because a chin does not contribute to the activity.<sup>2</sup>

### 3. Some Contrastive Semantic Observations with Verbs of Laughing and Smiling

#### 3.1. Nuclear Items

3.1.1. English distinguishes laugh from smile according to whether or not the action is accompanied by audible expressive sound, whereas Japanese, having no such distinction, uses warau for both kinds of responses.

Both laughing and smiling can be expressions of amusement. Laughing is typically accompanied by an explosive sound, indicating an uncontrolled response to a humorous situation. There is a game in which each participant tries to make the others laugh by telling jokes, making funny faces, performing absurd gestures, and the like; in this game, as it is played by English-speaking children, a player does not lose by merely smiling, but only by laughing out loud.

One can distinguish three situations for which it is appropriate to use the word laugh: (1) the most typical case, the uncontrolled response to a humorous situation, (2) the voluntary performance of the same activity, and (3) the performance of a social symbolic act, in which controlled laughter is used to insult or ridicule somebody. The following examples show the differences:

- (34) The men were sitting around the stove and laughing at the jokes they were telling each other.
- (35) As soon as he comes on the stage I want you to laugh for about four seconds.
- (36) I don't like being laughed at.

Used in the first sense it may (but need not) be accompanied by an at-phrase indicating the source of the laughter's amusement, e.g., jokes, a puppy's antics, a witticism. Used in the third sense it designates an unfriendly social act and is accompanied by an at-phrase which introduces the target of that act. It generally indicates a voluntary action. The distinction between senses (1) and (3) is the focus of the following example:

(7) Are you laughing with me or at me?

The context might be that of a joke-teller who is unsure whether his audience is laughing at his jokes or ridiculing him for the unskilled way in which he is telling them.

Laugh in sense (2) seems to be derivative of the others: it refers merely to the act of making the appropriate noise and bodily movements.

Smile designates a silent facial expression that typically shows amusement, satisfaction, pleasure or affection. As with laugh, there are three situations appropriately described with smile: (1) the most typical case, the natural physical facial response to a pleasurable situation, (2) the voluntary performance of the same activity, and (3) the performance of a social symbolic act, in which a voluntary smile is used to show welcome or affection. Smile in sense (3) may be accompanied by an at-phrase indicating the person toward whom the friendly act is directed. The three uses of smile are demonstrated in the following examples:

(38) She smiled every time she thought about what he had  
said.

(39) Come on, now, smile for the camera.

(40) The usher smiled as she greeted us.

In (38) she smiled because she was happy; in (40) she smiled to show that the guests were welcome. In (39), however, the smiling is for appearance only.

3.1.2. Japanese warau can be used whether or not the expressions involved is accompanied by sound. Observe (41) and (42), for example.

(41) Niramekko wa warat-ta hoo ga make des-u.  
stare game Top smile-Past side Sbj lose Cop-Pres

'In the game of niramekko, the one who smiles-or-laughs  
loses the game.'

(42) Hen na warai -kata!  
strange smile/laugh-method

'What a strange way of smiling/laughing!'

These examples show that warau can be used to cover both smiling and laughing: in the Japanese game of niramekko even a smile makes a player lose; and sentence (42) can be used to comment either on a strange way of laughing one has just overheard, or an unusual smile one has just noticed in a photograph. Typically, however, warau when not modified by an adverbial expression appropriate to smiling is understood as referring to laughter. Thus, if one were to use warau to translate smile in (38) - (40), the meaning would be changed, as seen in (43) - (45):



- (43) Kanozyo wa kare ga it -ta koto o omoidas-u  
 she Top he Sbj say-Past thing Obj recall -Pres  
 tabi ni warat-ta.  
 every time at laugh-Past  
 'She laughed every time she thought about what he had  
 said.'
- (44) Saa, utus -imas-u kara warat -te  
 now take picture-Pol -Pres because smile/laugh-ing  
 kudasa-i.  
 give -Pres  
 'Now, please smile/laugh because I'll take a picture  
 (of you).'
- (45) Annai -gakari wa watasi-tati o mukae-te  
 guide-in charge Top I -Plural Obj greet-ing  
 warat-ta.  
 laugh-Past  
 'The usher laughed as she greeted us.'

Since (44) is a common expression, it has gotten so that the adverb nikkori to, which suggests a big smile, can be omitted. In general, however, translations which preserved the meaning of smile would have to use such modified forms as nikkori to warau, or the separate verb hohoemu, which means 'smile' only.

Like English laugh and smile, warau can be used in three ways: to refer to (1) a natural physical facial response to a pleasurable situation, (2) the voluntary performance of the same activity, and (3) the performance of this activity as a social symbolic act. Observe the following examples.

Laugh:

- (46) Manga o yon -de gera gera warat-te i -ru.  
comic book Obj read-ing laugh-ing be-Pres  
'He is reading a comic book and laughing uncontrollably.'
- (47) Boku no heta na zyoodan ni muri si-te  
my of poor joke at unreasonable do-ing  
waraw-anaku-te i -i yo.  
laugh-Not -ing OK-Pres I tell you.  
'You don't have to (make special effort to) laugh at  
my poor joke.'
- (48) Hito o baka ni si-te hiyayaka ni warat-ta.  
person Obj fool into do-ing cold -ly laugh-Past  
'He laughed at her (making fun of her).'

Smile:

- (49) Kanozyo wa kare no tegami o morat -te nikkori  
she Top he of letter Obj receive-ing  
warat-ta.  
smile-Past  
'She smiled a big smile when she received a letter  
from him.'
- (50) Kare wa donna ni kurusi -i toki demo niko-niko  
he Top no matter what painful-Pres time even  
warat-te akaruku hurumat-ta.  
smile-ing brightly behave -Past  
'He behaved happily with a big smile even in the most  
painful time.'
- (51) Uketuke no zyosei wa kare ga tikazuku to nikkori  
Reception of woman Top he Sbj approach as  
warat-ta.  
smile-Past  
'The girl at the reception table smiled at him as he  
approached her.'

(46) and (49) are examples of the natural physical reaction, (47) and (50), of the voluntary performance, and (48) and (51), the social act.

Warau used in the sense of smile has following characteristics:

- (1) It is usually preceded by a visual mimetic adverbial containing an initial ni- such as niko-niko, nikkori, niko, nikori, niya, nita, niT,<sup>3</sup> etc.
- (2) Warau in this sense can be combined with -kakeru to make the lexical idiom warai-kakeru meaning 'to cast a smile at (a person)' as in (52)

(52) Kanozyo wa kyaku hitori-hitori ni niko-niko to  
 she Top guest each one at

warai-kake-ta.  
 smile-cast-Past

'She smiled at each guest.'

On the other hand, when warau used in the sense of laugh is combined with the form -kakeru, the more productive ('compositional') meaning, 'to be about to start to laugh,' is created, as shown in the following example.

(53) Kanozyo wa omowazu warai-kake -ta ga  
 she Top unconsciously laugh-about to-Past but

siki no saityuu dear-u koto ni kizui -te  
 ceremony of midst Cop -Pres fact at realize-ing

yame-ta.  
 stop-Past

'She almost started to laugh but stopped herself,  
 realizing that they were in the middle of a ceremony.'

### 3.2. Peripheral Items

#### 3.2.1. English items

Peripheral English verbs of laughing and smiling can be divided into two major groups according to whether their designated action is accompanied by audible sound or is a silent facial expression. The nuclear representative of the domains these peripheral verbs are associated with is laugh in the first case and smile in the second.

##### 3.2.1.1. Laugh group

The eight verbs of this group which will be investigated are: cackle, chuckle, giggle, guffaw, snicker, snort, and titter. These verbs can be grouped into semantically based categories according to whether they indicate (1) loud laughter or (2) soft, suppressed laughter.

(1) Loud laughter:

cackle, guffaw

(2) Soft laughter:

chuckle, giggle, titter, snicker and snort

The verbs snicker and snort have a negative connotation.

These verbs can be described by using the nuclear verb laugh. Cackle, for example, can be described as 'to laugh or talk in a voice similar to the shrill cry characteristic of a hen', or snicker as 'to laugh cynically in a partly stifled manner,' etc. Thus, as in the case of the peripheral verbs of walking, the peripheral verbs of laughing have complex semantic structures; that is, reference to the action of laughing and the manner of the action are both incorporated

into one word. This assertion is lent additional support by the fact that the Japanese counterparts of these English peripheral verbs are expressions with a manner adverbial in construction with the nuclear verb warau. Cackle, for example, is translated in the Kenkyusha's English-Japanese Dictionary as gera-gera warau or kyaa-kyaa warau and chuckle, giggle, snicker and titter are all translated as kusu-kusu warau. In other words, an English peripheral item has within itself both the meaning of Japanese manner adverbial and that of the nuclear verb warau.

The verbs that belong to class (1) denoting loud laughter are translated into Japanese differently depending on the verb. Cackle is, as mentioned above, translated as gera-gera warau or kyaa-kyaa warau. Gera-gera indicates loud impolite laughter produced with the mouth wide open. Kyaa-kyaa indicates the screams or screeches of younger women or children.

Guffaw is translated as bakawarai suru, a compound verb which literally means 'to do a stupid laugh' (baka 'stupid' + warai 'laugh' + suru 'to do').

Let us now turn to the verbs that belong to class (2), denoting quiet, suppressed laughter.

Chuckle, giggle, snicker, and titter are all translated as kusu-kusu warau, in which kusu-kusu indicates suppressed, under the breath laughter. Chuckle is also translated as hokusoemu, a verb that indicates a private, silent smile which secretly expresses one's contentment, especially when a situation has turned to one's advantage. Giggle and snicker share another counterpart, sinobi-warai suru, which

literally means 'to do suppressed laugh' (sinobu 'suppress' + warai 'laugh' + suru 'to do').

Snort is translated as hana o narasu 'to make sound (with) the nose' and oogoe de warau, literally, 'to laugh with a loud voice.' (oo 'big' + koe 'voice' + de 'with' + warau 'to laugh'). Kenkyusha notes that snort is typically used to express contempt or anger, although this is not necessarily the case with oogoe de warau.

### 3.3.1.2. Smile Group

The verbs of this group can be divided into two categories according to whether they refer to (1) a good natured smile or (2) an ill-natured smile.

The first group consists of two verbs: grin and beam, which are translated into Japanese as (ha o mise-te) nikkot to warau 'to smile broadly (showing the teeth)', and hohoemu 'to smile warmly, radiantly or assuringly.'

The second group consists of such verbs as smirk and sneer.

Smirk is translated as niya-niya suru or nita-nita suru, both of which suggest a silly, insincere smile. Nita-nita has a less favorable connotation than the other. Sneer is translated as azawarau, keibetu site warau or sesera warau, all of which mean 'to laugh with contempt.' Azawarau and sesera warau are compound verbs, the former consisting of aza of azakeru 'to make fun of' and warau, and the latter sesera 'to make fun of' and warau. Keibetu site warau is a case of a gerundive form followed by the nuclear verb warau. Keibetu suru means 'to look down upon.'

### 3.2.2. Japanese items

As in the case of aruku, Japanese utilizes several syntactic devices to render various manners of laughing and smiling. They can be grouped into four types: (1) phrases composed of a manner adverbial followed by the verb warau, (2) compound verbs, (3) distinct verbs, and (4) phrases composed of nouns of laughter and smiling followed by a verb.

The first group, phrases composed of a manner adverbial plus the verb warau, can further be divided into three sub-groups:

- (1a) mimetic adverbials such as ha-ha-ha to, which indicates a typical hearty laugh or niko-niko to, which suggests a happy smile
- (1b) ordinary adverbials such as oogoe de 'in a loud voice' (oo 'big' + koe 'voice' - de 'with'), hiyayaka ni 'coldly', which can be used only with verbs of laughing and smiling or verbs of speaking, as in hiyayaka ni hanasu 'speak coldly'.
- (1c) gerundive forms such as koe o tate-te 'raising the voice' (koe 'voice' - o 'Object marker' tate-te 'raise-ing'), or hara o kakae-te 'holding the stomach' (hara 'belly' - o 'Object marker' kakae-te 'hold-ing').

The second type, compound verbs, can be divided into three sub-groups:

- (2a) Indigenous Japanese compound verbs that consist of a derived compound nominal containing warai (the nominal form of warau) as the second item, followed by the verb suru 'to do', as in sinobi-warai suru, which means 'to laugh suppressedly'. The first two items constitute a compound noun, sinobi-warai, which means 'suppressed

laughter'. Hukumi-warai suru, which means 'to laugh holdingly', is another example of this kind. Hukumu is a verb that means 'to contain, to hold'. Niga-warai suru literally 'to do bitter-smile' is a case in which the first item is an adjective, nigai 'bitter', and baka-warai suru literally 'to do idiot-smile' is a case where a noun appears as the first item.

(2b) Sino-Japanese compound verbs that consist of a Sino-Japanese compound noun followed by the verb suru, as in bisyoo suru 'to smile' (literally bi 'slight' + syoo 'smile' - suru 'do'), or reisyoo suru 'smile/laugh coldly' (rei 'cold' + syoo 'smile/laugh' suru 'do'),

(2c) Japanese compound verbs consisting of warau followed by another Japanese verb, as in warai-korogeru 'to laugh so hard one is rolling on the floor' (korogeru 'to roll all over', or warai-kakeru 'cast a smile' (kakeru 'to hang')).

The third class of Japanese verbs of laughing and smiling consists of a few distinct verbs such as hohoemu 'smile'. Although hohoemu was originally a compound verb derived from hoho 'cheek' and an archaic verb emu 'to smile', it is classified here as a distinct verb because it is solidly lexicalized and the verb emu is no longer used independently. Hokusoemu 'smile secretly' is another example of this case. Emi, the nominalized form of the verb emu is used only in the fixed phrase emi o ikaberu 'to smile' (literally, emi 'smile' -o 'Object marker' - ukaberu 'to float'), which is treated in (4) below.

The fourth type consists of phrases denoting various kinds of smiles followed by the verb ukaberu 'to float'. Emi o ukaberu,



mentioned above, is an example of this type. Other forms include usu-warai o ukaberu 'to smirk' (literally, usu 'thin' + warai -o -ukaberu 'to float'), and hiniku na warai o ukaberu 'to wear a sarcastic smile' (hiniku na 'sarcastic'). These phrases are part of the set of phrases containing the verb ukaberu which are used to denote various kinds of facial expressions. Kanasi soo na hyoozyoo o ukaberu 'to wear a sad looking expression' (kanasi 'sad' + soo 'like' + na 'Cop' -hyoozyoo 'expression' -o 'Obj' -ukaberu 'float'), for example, is used to refer to a facial expression which is not a smile.

It is of course possible to modify the verb warau in order to refer to various manners of laughing and smiling other than listed above by using productive syntactic devices to create such adverbial phrases as onaka ga itaku naru made warau, for example, which means 'laugh (so hard) that the stomach hurts' (onaka 'stomach' -ga 'Sbj' -itaku 'painful' -naru 'become' -made 'until'), or namida ga deru hodo warau 'laugh to the degree that tears fall' (namida 'tears' -ga 'Sbj' -deru 'come out' - hodo 'to the degree of').

#### 4. Sample Analysis of English and Japanese Lexical Items

##### 4.1. English Verbs of Laughing and Smiling

###### 4.1.1. Verbs of laughing

There are nine peripheral verbs of laughing, which can be grouped into two sub-groups according to whether they indicate (1) loud laughter or (2) quiet, suppressed laughter.

First we will consider, the verbs of loud laughter.

(1) Loud laughter:

cackle, guffaw, roar

Cackle indicates laughter that sounds like the shrill cry of a hen, i.e. a cracked high pitched voice. It is typically associated with an evil minded, mad old woman, a witch or a dwarf. It has a negative connotation. Observe example (54)

(54) The old woman cackled over the silly jokes.

Guffaw indicates a hearty, coarse burst of laughter. It is masculine, loud, and rough; women are not supposed to guffaw. Typically, old men drinking in a group would guffaw heartily at off-color jokes as indicated in (55).

(55) Men drinking in the smoke filled bar were guffawing at each other's anecdotes.

(2) Quiet suppressed laughter:

chuckle, giggle, titter, snicker and snort.

Chuckle suggests a good-humored private laugh produced under one's breath. Chuckle does not carry with it a negative connotation. It is not silly or stupid to chuckle. Chuckle suggests somewhat restrained, low pitched and slow laughter in comparison to giggle. Men frequently chuckle where women and children giggle.

(56) Tell an Englishman a joke in his youth, and he will chuckle over it in his old age.

Giggle indicates a hysterical laugh with a high pitched, spasmodic sound. Typically, women and children giggle. It has a negative connotation, one of silliness. The action can be performed in private or

in a group.

- (57) The cluster of schoolgirls giggled self-consciously as the football captain walked by.

Titter indicates semi-concealed giggling as in (58).

- (58) She tittered nervously behind a fan.

Snicker indicates a cynical, partly stifled laugh. Like titter it refers to a suppressed form of laughter. It carries with it a negative connotation as (59) and (60) show.

- (59) The kids were snickering as they looked at dirty magazines in their room.

- (60) They snickered at the teacher whose toupee had slipped off his bald spot.

Beam indicates a radiant smile. It is actually more than a smile, an over all facial expression which shows genuine happiness. It suggests warmth, innocence, trust, and good will.

- (61) She beamed with joy at seeing him again.

Beaming is essentially involuntary, but beauty contestants, for example, may fake a beaming smile in an attempt to look friendly and warm.

Now let us turn to the second group of the verbs of smiling.

- (2) Verbs with a negative connotation:

smirk and sneer

Smirk also indicates that one is smiling in an affected manner. One smirks in situations that are not humorous. A smirk is an insincere smile by means of which one can express one's feelings of contempt, skepticism, or embarrassment without expressing them verbally.

- (61) "Congratulations!", said he with a smirk.

In (61) the congratulatory words are invalidated by the smirk.

Sneer means to smile with a facial expression which shows resentment, scorn or contempt. It carries with it a connotation of cynical or evil intent.

(62) Sneering at his pursuers, the villain slipped off  
into the woods.

These examples show that the verb carries a connotation of slyness, nastiness or uncharitable feelings.

Snort refers to a laugh or expression of contempt produced by forcibly exhaling through the nostrils. It has a negative connotation.

(63) "Ridiculous!", he snorted.

#### 4.1.2. Verbs of smiling

There are two sub-groups of the peripheral verbs of smiling:

(1) good-natured smiles and (2) nasty smiles.

First we will look into the good natured smile group which consists of two verbs.

(1) Good natured smiles:

grin and beam

Grin is to smile broadly showing the teeth as the phrases such as grinning from ear to ear and grinning like the cheshire cat (of Alice in Wonderland) suggest. Grin suggests unserious, cheerful feeling.

\*Sad grin is not possible though sad smile is possible.

One often grins at someone that he really trusts, i.e. among friends, because it has a strong implication of friendship and equality and trust.

One may grin in doing evil things if such acts please him as sadistic grin, evil grin, etc. suggest. A mischievous grin may belong to this group.

Example (64) can be interpreted as a 'good' grin or a 'bad' grin.

(64) The anticipation of the after dinner treat made him  
grin from ear to ear.

#### 4.2. Japanese Mimetic Adverbials that Co-occur with Warau

In this section we will analyze the Japanese mimetic adverbials that co-occur with the verb warau (see (1a) in §3.2.2.). These adverbials can be divided into two groups according to whether they denote (1) the sound of laughter (Auditory Mimetic Adverbials) or (2) facial expressions distinguishing various types of smiles (Visual Mimetic Adverbials).

##### 4.2.1. Auditory mimetic adverbials that co-occur with warau

The auditory mimetic adverbials that modify warau can be classified into two groups according to whether they indicate (1) loud laughter or (2) soft laughter. The first group, loud laughter, can be further subdivided into (1a) laughter of a group of people, (1b) excited laughter, (1c) bright, open laughter, and (1d) uncouth laughter. The second group can also be subdivided into (2a) suppressed burst of laughter, (2b) suppressed laughter and (2c) others.

First we will examine the adverbials denoting loud laughter.

(1) Loud laughter

(1a) Laughter of a group of people

doT to

DoT to indicates the burst of laughter of a large group of people which is an expression of amusement in reaction to, for example, the jokes or actions of a comedian. It is an audience reaction. It has neither good or bad connotations. DoT must be followed by to. Observe examples (65) and (66).

- (65) Sensei ga omosiroi zyoodan o essyaru tabi ni  
 teacher Sbj funny joke Obj say (Hon) each time at  
 seito-tati wa doT to warat-ta.  
 pupil-Pl Top laugh-Past

'Each time the teacher told a funny joke his pupils  
 laughed in unison.'

- (66) Teki ga sippai su-ru to mikata wa  
 Opponent Sbj error do-Pres when our side Top  
 doT to warat-ta.  
 laugh-Past

'When our opponent made an error our allies laughed.'

(1b) Excited laughter

kyaa-kyaa to                      kyaT-kyaT to

Both of these forms also require to.

Kyaa-kyaa indicates sounds like the shrill scream girls and children make when they are excited and amused. KyaT-kyaT, with stoppage of breath and a little pause (as indicated by the T) after each element of the compound, is used to refer to a laugh that is a small scale version of that denoted by kyaa-kyaa.

- (67) Kanozyo wa terebi no komedii o mi -te  
 she Top TV of comedy Obj watch-ing  
 kyaa-myaa to warat-te i -ru.  
 laugh-ing be-Pres

'She is watching a TV comedy and squeaking with laughter.'

(68) Kodomo-tati wa tumiki no uti o kazusi-te wa  
 child -Pl Top wood blocks of house Obj break -ing Top

kyaT-kyaT to warat-te yorokon-de i ru.  
 laugh-ing pleased ing be-Pres

'The children are happily squealing up a storm by  
 breaking down the wood block house (repeatedly).'

Both kyaA-kyaA and kyaT-kyaT can also be used with the verb iu  
 'to say, utter', as shown in (69), but they are not accompanied by to  
 in this case.

(69) Kodomo-tati wa mizu o kake -at -te  
 child -ren Top water Obj sprinkle-each other-ing

kyaA-kyaA it -te ason-de i -ru.  
 say-ing play-ing be-Pres

'The children are at play, screaming and throwing  
 water at each other.'

(1c) Open, bright laughter

(a)-ha-ha-ha to (aT)-haT-haT-haT to

(o)-ho-ho-ho to (oT)-hoT-hoT-hoT to

kara-kara to kanra-kara-kara to

koro-koro to

(a)-ha-ha-ha is traditionally associated with the masculine laugh  
 produced with the mouth wide open. It indicates a good healthy laugh.

(70) Kare wa okasii toki ni wa kuttaku naku  
 he Top funny time at Top worry without

a-ha-ha-ha to wara -u.  
 laugh-Pres

'When something amuses him he doesn't hesitate to  
 burst out with a good hearty laugh.'

(AT)-haT-haT-haT with the T's is a variation of the preceding form.

(O)-ho-ho-ho is the feminine counterpart of (a)-ha-ha-ha and carries a touch of class. Since women are traditionally not supposed to laugh with their mouth wide open, their laugh is imitated with o, which does not require such a wide open mouth as a.

(71) PTA no kaityoo o si-te i -ru Suzuki-kun  
PTA of president Obj do-ing be-Pres

no okaasan wa kuti o te de kakusi-te  
of mother Top mouth Obj hand with hide -ing

o-ho-ho-ho to wara -u.  
laugh-Pres

'Suzuki's mother, who is President of PTA, laughs  
(gracefully) hiding her mouth with her hand.'

(OT)-hoT-hoT-hoT is a variation of this form.

Kara-kara to indicates the sound of loud laughter. This laughter is masculine, and the word does not carry with it either a good or a bad connotation.

(72) Seinen wa omosiroi hanasi o kii -te  
a youth Top funny story Obj hear-ing

kara-kara to warat-ta.  
laugh-Past

'The kid laughed a hearty laugh upon hearing a funny  
story.'

(73) Sya -tyoo wa koozi no keiyaku ni  
company president Top construction of contract in

seikoo su-ru to manzoku soo ni  
succeed do-Pres when satisfied looks in

kara-kara to warat-ta.  
laugh-Past

'The company president laughed a hearty laugh when he  
succeeded in getting the contract of the construction.'



Kanra-kara-kara is a stereotyped representation of the loud, confident laughter of a samurai. Because it has become a stock phrase in representing this type of laughter, the use of kanra-kara-kara today carries with it a somewhat comical effect.

(74) "Ano uti ni wa yuurei ga de -mas-u," to  
that house at Top ghost Sbj appear-Pol-Pres Quot

iw -are -te mo sono samurai wa "Yuurei nado  
tell-Pass-ing even that samurai Top ghost etc

kowaku nai," to it -te, kanra-kara-kara to  
afraid not Quot say-ing

oo -goe de warat-ta.  
loud boice in laugh-Past

'Even when he was told "There is a ghost in the house,"  
the samurai laughed heartily saying, "I am not afraid  
of such things as ghost."'

Compared with the laugh associated with kara-kara, the laugh represented by koro-koro to is slightly suppressed produced with the mouth less open. This distinction is reflected in the a/o vowel difference between the two mimetic forms. Koro-koro is typically associated with a hearty, feminine laugh.

(75) Ano tosi-goro no onnanoko wa hasi ga oti -te  
that age -about of girl Top chopsticks Sbj fall-ing

mo omosiroi n de -syoo itumo nani ga omosiroi  
even funny Comp Cop-I guess always what Sbj funny

no ka koro-koro to warat-te i -mas-u.  
Comp Quest laugh-ing be-Pol-Pres

'I guess girls of that age think it's funny even when  
a chopstick falls on the floor. They are always  
laughing heatily for some reason or other.'

Koro-koro to does not have either positive or negative connotations.

(1d) Uncouth laughter

gera-gera                      geta-geta

kera-kera                      keta-keta

Gera-gera suggests loud, uncouth masculine laughter.

- (76) Hudan wa otonasiku reigi -tadasii kare mo  
 usually Top quiet manners-good. he even  
 ian -ryokoo no toki wa sake o non -de  
 relaxation-trip of time Top sake Obj drink-ing  
 gehin na hanasi o si-te gera-gera to wara -u  
 indecent story Obj do-and laugh-Pres  
 no dat-ta.  
 Comp Cop-Past

'Even he, who is usually quiet and courteous, got drunk  
 and told dirty jokes and laughed indecently when they  
 went on a recreational trip (from the company).'

Geta-geta suggests even ruder laughter than gera-gera. It is  
 definitely a lowbred male who laughs this way.

- (77) Kare ga narikin de ar -u koto wa  
 he Sbj nouveau riche Cop exist-Pres fact Top  
 gehin ni geta-geta wara -u koto de mo  
 indecent-ly laugh-Pres fact Cop too  
 wakar-u.  
 know -Pres

'You can tell that he's nouveau riche from his coarse  
 laughter.'

Kera-kera indicates a lowbred, frivolous way of laughing that sug-  
 gests the stupidity of the laughter.

(78) Ano arubaito no gakusei wa sippai si-te mo  
 that part-time worker of student Top error do-ing even

sekinin o tora-zu ni kera-kera warat-te  
 responsibility Obj take-not adv laugh-ing

bakari i -ta no de kubi ni si -ta.  
 only be-Past Comp and fire-Past  
 (idiom)

' I fired that student worker because he would do  
 nothing but laugh stupidly, not taking responsibility,  
 even when he made an error.'

Keta-keta indicates a stupid, frivolous type of laughter even  
 worse than that associated with kera-kera.

(79) Atama no sukosi kurut -ta otoko ga nanika  
 head Sbj little maladjust-ed man Sbj something

hitori-goto o it -te keta-keta warat-te i ru.  
 self -talk Obj say-ing laugh-ing be-Pres

'That guy over there has been talking to himself and  
 laughing wildly. He must be flipped out.'

Now we will turn to the second group of the verbs denoting soft  
 laughter.

(2) Soft laughter

(2a) Suppressed burst of laughter

uɦuT to puT to

UɦuT to, with its bilabial fricative followed by a glottal stop,  
 is imitative of a quickly suppressed burst of laughter.

- (80) Kare wa nani ka itazura o omoitui -ta  
 he Top something practical joke Obj think of-Past  
 no ka uhuT to warat-ta.  
 Comp Ques laugh-Past  
 (I wonder)

'Probably because he hit on an idea for a practical  
 joke he burst out laughing (but quickly suppressed it).

PuT to indicates the sound of suddenly released air escaping  
 through the lips. When it is used for laughter, it takes the verb  
huki-dasu 'to burst out (laughing)', literally 'to spout, gush out'.  
 (It can be used, therefore, for the sound of spitting out water melon  
 seeds, etc.)

- (81) Kodomo o sikar -oo to si-ta ga amari  
 child Obj scold-try to Quote do-Past but exceedingly  
 okasi-katta no de puT to hukidasi -te  
 funny-Past Comp and burst into laughter-ing  
 simat -ta.  
 do completely-Past

'I tried to scold my child, but since he was so funny,  
 I burst out laughing.'

- (82) Warat-te wa ikena -i to omot -te  
 laugh-ing Top not good-Pres Quote think-ing  
 hissi ni gaman si-ta ga tootoo puT to  
 desperately bear do-Past but at least  
 hukidasi-te simat -ta.  
 burst -ing completely-Past

'Since I thought it wouldn't do to laugh, I tried to  
 control myself but finally burst out with laughter.'

(2b) Suppressed laughter

kusu-kusu            ku-ku-ku to  
                                kuT-kuT-kiT to

Kusu-kusu indicates a quiet suppressed laugh. It is used to represent the laughter of women and children and does not carry either a good or a bad connotation.

(83) Hanako wa zyugyoo-tyuu ni kinoo mi -ta eiga  
Hanako Top class -during in yesterday see-Past movie

o omoi -dasi -te kusu-kusu warat-te simat -ta.  
Obj think-bring-ing laugh-ing complete-Past  
(recall)

'Recalling the movie that she saw yesterday, Hanako had to stifle a laugh during the class.'

(84) Seito-tati wa ko -goe de sensei no waru-kuti  
pupil-Pl Top small voice in teacher of bad mouth  
(low voice) (abuse)

o it -te kusu-kusu to warat-te i -ru.  
Obj say-ing laugh-ing be-Pres

'The pupils are giggling and whispering about their teacher.'

Ku-ku-ku to indicates a low suppressed laugh, half way between kusu-kusu, which is released, as the s's indicate, and kuT-kuT-kuT, which represents a strongly suppressed laugh. Ku-ku-ku to is often used with the verb phrase warai o kami-korosu literally 'to bite -kill (kamu 'bite' + korosu 'kill') laughter' as in ku-ku-ku to warai o kami-korosu.

- (85) Yamada-san no okusan ga omiai no aite no  
 Yamada Mr. of wife Sbj meeting of opponent of
- seinen no syasin o mi -ta toki Hanako wa  
 young man of photo Obj see-Past when Top
- omowa-zu ku-ku-ku to warat-te simat -ta.  
 think not laugh-ing complete-Past
- 'When Mrs. Yamada showed her the photograph of the  
 young man she was to consider as a prospective husband,  
 Hanako couldn't help laughing.'
- (86) Kare ga mazime ni nare -ba naru hodo watasi wa  
 he Sbj serious become if become degree I Top  
 (the more, the more)
- okasiku nat -te ku-ku-ku to warai o kamikoros-u  
 funny become-Past laugh Obj bite off -Pres
- no ni taihen dat-ta.  
 Comp in difficult Cop-Past
- 'I was busy trying not to laugh because the more serious  
 he became, the funnier I thought it was.'

KuT-kuT-kuT to indicates an even stronger effort to suppress  
 laughter than ku-ku-ku to does, as the T indicates. This form can be  
 used with the verb phrase mentioned above, warai o kamikorosu, as well  
 as warai o koraeru 'to restrain laughter'.

- (87) Kannusi no norito ga okasi-katta ga siki no  
 shinto priest of prayer Sbj funny-Past but ceremony of
- saityuu na node kuT-kuT-kuT to issyookenmei ni  
 in the midst of because with all my might
- warai o korae -ta.  
 laugh Obj restrain-Past
- 'The prayer of the shinto priest was really funny but  
 since it was during the ceremony, through force of will  
 I managed to choke back my laughter.'

## (2c) Other soft types of laughter

(e)-he-he-he to      (u)-hu-hu-hu to      (i)-hi-hi-hi to  
 heT-heT-heT to      huT-huT-huT to      hiT-hiT-hiT to  
 hu-hun to

hera-hera

(E)-he-he-he can be used to indicate either loud laughter or a low, soft laugh. The loud laughter is not as boisterous as the full ha-ha-ha, often carrying a touch of shyness or embarrassment, as examples (88) and (89) indicate.

- (88) Kodomo wa home -rare-ru to hazukasi-soo ni  
 child Top praise-Pass-Pres when shy -looking adv

e-he-he-he to warat-ta.  
 laugh-Past

'When the child was praised he laughed shyly.'

- (89) "Sin-kon-ryokoo wa doko des-u ka" to  
 new-wed-trip Top where Cop-Pres Ques Quote  
 (honeymoon trip)

kik-are -te kare wa he-he-he to warat-te sono ba  
 ask-Pass-ing he Top laugh-ing that scene

o gomakasi-ta.  
 Obj deceive -Past  
 (escaped)

'When he was asked 'where are you going on your

honeymoon?', he evaded the question by laughing shyly.'

When the form (e)-he-he-he is used for low, soft laughter, it indicates slyness. Observe the following example.

- (90) Otoko wa kihu o uketoru to zuru-soo ni  
 man Top contribution Obj receive when sly -like adv

he-he-he to warat-ta.  
 laugh-Past

'After receiving the contribution, the man laughed  
 slyly.'

The laugh suggested by heT-heT-heT is the slow counterpart of that denoted by he-he-he. It is soft and low-pitched, suggesting slyness.

- (91) Otoko wa kuti -dome-ryoo o uketor -u to  
 man Top mouth-stop-fees Obj receive-Pres when  
 (hush money)

"Dewa, o -ki o take-te," to it -te  
 Well, Hon-care Obj take-ing Quot say-ing

heT-heT-heT to iyarasiku warat-ta.  
 disgustingly laugh-Past

'Upon receiving the hush money, the man said,  
 "Well then, please take care of yourself," and  
 laughed slyly in a disgusting manner.'

(U)-hu-hu-hu to can be used in two ways: One is to refer to a high pitched, quick, soft laughter that suggests a genuine private response to an amusing event, as shown in (92).

- (92) Manga o yomi-nagara u-hu-hu-hu to hitori de  
 comic Obj read-while alone by

warat-te i -ru.  
 laugh-ing be-Pres

'He is sitting alone, reading a comic book and  
 laughing.'

The other laugh that (u)-hu-hu-hu can refer to is low-pitched and slow and typically accompanies evil thoughts. Often, this is followed



by the verb phrase, hukumi-warai o morasu literally 'leak a contained laugh' (hukumi 'Nominal form of the verb hukumu 'to hold' + warai 'laugh' -o 'Object' -morasu to leak').

- (93) Kare wa aite ga omot -ta toori ni  
 he Top opponent Sbj think-Past exactly as in  
 ugoi-ta no de u-hu-hu-hu to hikuku warat-ta.  
 move-Past Comp and low laugh-Past

'He laughed a suppressed laugh as his opponent made the exact move he had predicted.'

HuT-huT-huT indicates a slower laugh of the same type.

Huhun to indicates a little snort used to indicate amusement or contempt.

- (94) Sensei wa gakusei no repoto no naka ni omosiroi  
 teacher Top student of report of in in funny  
 tokoro ga a -ru to huhun to hitori de  
 point Sbj exist-Pres when alone by  
 warat-ta.  
 laugh-Past

'The teacher laughed quietly whenever he came across a funny point in the student's report.'

- (95) Kare wa keikan-tai no keikoku o huhun to  
 he Top police-group of warning Obj  
 sesera -warat-te kiki-nagasi-ta.  
 scornfully-laugh-ing hear-drain -Past

'He laughed off the warning of the police.'

(I)-hi-hi-hi to and its variant hiT-hiT-hiT to indicate the high-pitched nasty, cold laughter of a mentally abnormal person. They are often used to express the laughter of a maniac or a witch, for example. The cause for laughter is usually not shared by others, making the

laughter offensive to those who hear it. The laugh expressed by hiT-hiT hiT to is slower than that referred to by hi-hi-hi to.

(96) 'Hime wa kono ringo o tabe-te sin-u no  
princess Top this apple Obj eat -ing die-Pres Comp

da. I-hi-hi-hi ..." to mazyo wa warat-ta.  
Cop Quot witch Top laugh-Past

'The witch cackled, saying "The princess is going to die upon eating this apple."

Hera-hera takes to optionally, suggests a loose, stupid manner of laughing. It suggests that the laughter is mentally unsound though he is not malicious. He could be mentally retarded or drugged, or he may simply be uncertain of what he is supposed to be doing and laugh out of embarrassment.

(97) Yotaroo wa kyoo mo  
Yotaro: a name used for a Top today too  
slow guy in stories

hinata -bokko o si-nagara kodomo-tati ga  
sunny side-enjoy Obj do-while child -ren Sub

asob-u no o mi -te hera-hera to warat-te  
play-Pres Comp Obj see-ing laugh-ing

i -ru.  
be-Pres

'Yotaro is just hanging around, laughing as he watches the children playing.'

#### 4.2.2. Visual mimetic adverbials that co-occur with warau

The visual mimetic adverbials denoting facial expressions associated with various smiles are:

niko-niko niya-niya nita-nita  
 nikoT to niyaT to nitaT to niT to  
 nikooT to niyaaT to nitaat to niit to  
 nikori to niyari to nitari to  
 nikkori (to) ninmari (to)

All of these forms except for niT to can be used with the verb suru 'to do', as well as the verb warau, as in niko-niko suru 'smile', niyaT to suru 'smirk'.

The reduplicated forms niko-niko, niya-niya and nita-nita indicate that the expression is continuous or repeatedly assumed. The unduplicated forms indicate passing short-lived expressions.

Niko-niko refers to the most natural unguarded, friendly smile, which expresses joy and happiness and radiates warmth.

- (98) Kare wa kyoo wa asa kara niko-niko si-te  
 he Top today Top morning from do-ing  
 i -ru ga nanika ii koto ga ar -u no ni  
 be-Pres but something good thing Sbj exist-Pres Comp  
 tigail na -i  
 difference not-Pres

'Something good must have happened to him, because he has been smiling all day long.'

- (99) Titi ni gookau o siraseru to niko-niko si-te  
 Father to pass Obj inform when do-ing

"Omedetoo. Yokat-ta ne" to it -ta.  
 Congratulations! good -Past isn't it Quot say-Past

'When I informed my father of my success (on the exam) he smiled and said, "Congratulations! That's really nice."

NikoT to suggests a quick, pleasant, friendly smile.

(100) Kanozyo wa watasi ni ki ga tui -ta ga  
she Top I at notice Sbj attach-Past but

uwayaku ga soba ni i -ta node nikoT to  
superior Sbj side at be-Past because

warat-ta dake de sigoto o tuzuke -ta.  
smile-Past only with work Obj continue-Past

'She noticed me but since her superior was right next to  
her she only smiled briefly at me and continued her work.'

NikooT to refers to a prolonged version of the smile associated  
with nikoT to.

Nikori to also refers to a quick smile. Ri suggests the comple-  
tion of the action, implying that the smile is insufficient. Observe  
the following examples.

(101) Kanozyo wa itumo nikori to mo si-na -i node  
she Too always even do-not-Pres because

minna ni kowagar-are -te i -ru.  
all by fear -Pass-ing be-Pres

'Since she never smiles at all, she is feared by  
everybody.'

(102) Tuma wa made kesa no kenka no sikori  
wife Top still this morning of quarrel of hard feeling

ga ar -u no ka watasi ga kaer -u to  
Sbj exist-Pres Comp Ques I Sbj return-Pres when  
(I wonder)

nikori to warat-ta dake de yoko o mui -te  
smile-Past only and side Obj turn-ing

simat -ta.  
complete-Past

'My wife, probably because she still had hard feelings  
about the quarrel that we had this morning, only smiled  
briefly at me and then turned away when I came home.'

Nikkori (to) suggests a big beaming smile.

- (103) Kanozoyo ga nikkori to wara -u to yononaka ga  
 she Sbj smile-Pres when world Sbj  
 akaruku nar -u yoo da.  
 brighten become-Pres look Cop

'When she smiles the whole world looks brighter for it.'

- (104) Ueitoresu ni sukosi ooku tippu o age -tara nikkori  
 waitress to little much tip Obj give-then  
 warat-te "Thank you!" to it -ta.  
 laugh-and Quot say-Past

'When I gave the waitress a good tip she smiled a big smile and said, "Thank you."'

Niya-niya suggests an ambiguous smile or smirk. This expression does not leave a good impression on others because of its ambiguity. It is typically a private expression assumed without communicative intention. Niya-niya does not have a good connotation, but the degree of the negative connotation associated with it depends on the context. Observe the following example sentences.

- (105) Kanozoyo kara tegami ga ki -ta no ka kare  
 girl friend from letter Sbj come-Past Comp Ques he  
 wa nandaka niya-niya si-te i -ru.  
 Top for some reason do-ing be-Pres

'He is smiling for some reason. I wonder if he has received a letter from his girl friend.'

- (106) Hito-bito no mae de osyoku ni tuite situmon  
 man -man of front in bribery about question  
 s -are -te mo kare wa tada niya-niya warat-te  
 do-Pass-ing even he Top only smile-ing  
 i -ru dake dat-ta.  
 be-Pres only Cop-Past  
 'Even when he was asked about the bribery case in  
 front of people, all he did was smile.'
- (107) Syatyoo -situ kara de -te ki -te kara  
 president-office from come out Ger come Ger since  
 nantonaku niya-niya warat-te i -ru keredo doo  
 somewhat smile-ing be-Pres but what  
 si-ta no?  
 do-Past Comp?  
 .... Un? Betu ni nandemo na -i. (niya-niya ....)  
 specially nothing not-Pres  
 'You have been smiling for some reason ever since you  
 came back from the President's Office. What is it?'  
 ... 'Oh, nothing in particular (knowing smile ...)
- (108) Kondo wa doo yat-te kare o bikkuri s -ase -yoo  
 this time Top how do -ing he Obj surprise do-Cause-try  
 ka to niya-niya si-nagara kangae-te i -ru.  
 Ques Quot do-while think -ing be-Pres  
 'She is smirking as she thinks about how to surprise  
 him this time.'

Niya-niya suggests a 'knowing smile', as seen in (107) and (108).  
 Depending on the context, like example (106), it can suggest an  
 offensive, evasive smile.

NiyaT-to suggests a brief smirk. NiyaaT to suggests a slightly  
 longer smirk which might leave the person smirked at with a distinctly  
 uneasy feeling.

- (109) Kare no kuti -moto ga issyun niyaT to si-ta  
 he of mouth-around Sbj instant do-Past

syunkan kare wa zyuu o nuki aite o  
 moment he Top gun Obj pull opponent Obj

uti -korosi-te i -ta.  
 shoot-kill -ing be-Past

'Just as a smirk flitted across his face he pulled  
 his gun out and shot and killed his opponent.'

Niyari to also suggests a smirk and carries a negative connota-  
 tion. Since, like nikori, it contains the morpheme ri, niyari sug-  
 gests a brief smirk.

- (110) Aite ga kare no omou-tubo ni hamat-ta  
 opponent Sbj he of plan-jar in trap -Past  
 (work out just planned)

node kare wa omowazu niyari to warat-ta.  
 since he Top unconsciously smile-Past

'As his opponent fell into his trap, a smile crept  
 across his face.'

- (111) Uwasa o si-te i -ta hito ga araware-ta  
 gossip Obj do-ing be-Past person Sbj appear -Past

node watasi-tati wa kao o mi -awase-te niyari to  
 since I -Pl Top face Obj look-meet -ing

si-ta.  
 do-Past

'As the person who we had been gossiping about showed  
 up we looked at each other and smiled knowingly.'

The T in niT to reflects the fact that the smile associated with  
 it is incomplete, broken off, compared to the smiles associated with  
 the niko-, niya- or nita- forms. The smile is without real happiness  
 or joy. It only suggests that the smiler is content with the state of

affairs. It is an unconscious reaction to a good situation but is not a big, whole hearted smile.

(112) Koziki ni okane o yat -tara usu -yogore-ta  
 beggar to money Obj give-then half-dirty -Past

hige -zuru ga niT to warat-ta.  
 beard-face Sbj smile-Past

'When I gave some money to the beggar, his dirty  
 bearded face smiled.'

Ninmari (to) suggests a quiet, private smile of contentment, showing a sense of satisfaction when something has turned out really well or at least better than expected.

(113) Kare wa kyonen yasuku kat-ta kabu ga  
 he Top last year cheaply buy-Past stock Sbj

koko no tokoro taka-ne na node ninmari  
 here of location high price Cop because  
 (recently)

si-te i -ru.  
 do-ing be-Pres

'He is smiling a contented smile because the stock that  
 he bought at a low price last year is up recently.'



## NOTES TO CHAPTER THREE

<sup>1</sup> It seems that a 'cause' complement takes no koto, but a 'target' complement does not.

Compare: (a) Taroo wa Hanako no koto o okot-te i-ru.

'Taro is angry at Hanako.'

(b) Taroo wa Hanako o okot-ta.

'Taro scolded Hanako.'

<sup>2</sup> One's entire body can participate in expressing laughter, as shown in (a), but it cannot become the sentential subject, as shown in (b).

(a) Taroo ga karada zentai de warat-te i-ru.  
body entire with

'Taro is laughing with his entire body.'

(b) \*Taroo no karada zentai ga warat-te i-ru.  
of Sbj

There is an idiom hiza ga warau 'the knees laugh'. It is used to refer to the condition of knees which have become wobbly and hard to control during a long, difficult descent, on a backpacking trip, for example.

(c) Yonzyuu-kiro no nimotu o syot-te kyuu-na  
40 -kilograms of load Obj owe -ing steep

syamen o ori -te i-ru uti ni hiza ga  
slope Obj descend-ing be-Pres while in knees Sbj

gaku-gaku warai-hazime-ta.  
wobbly laugh-begin -Past

'While I was descending the sharp slope with the 40 kg load on my back, my knees started to become wobbly (literally: started to laugh).'

<sup>3</sup> The mimetic adverbials that co-occur with warau can also occur with the verb suru 'to do', in more or less the same meaning: nikkori suru, niya-niya suru, etc.

## CHAPTER FOUR

### WORDS OF PAIN

#### 1. Characterizing the Domain

In this chapter we will examine the lexical domain in English and Japanese containing words which designate the experiencing of pain. Excluded from the domain are words like rough, or zara-zara suru which refer to properties of objects which may or may not induce pain, words like hot, or atui which indicate experiences but not strictly 'painful' experiences, and words like numb, or sibireru which indicate the loss of sensation.

#### 2. Nuclear Representatives of the Words in this Domain

2.1. In the previous two chapters we have been able to use the same lexical base for naming the nuclear concept abstractly (walking, smiling, laughing) and for representing the nuclear verb (walk, smile, laugh). In the present domain English requires us to use the noun pain as the most general name of the category and hurt as the nuclear verb. What this means in practice is that all of the pain verbs can be thought of as instances of 'hurting' and that they can all be defined in terms of the quality, intensity or location of the 'pain' they designate. Ache, for example, is defined in the American Heritage Dictionary as "to suffer a dull sustaining pain," hurt, "to

feel or cause to feel physical pain," pang, as "a sudden, sharp feeling of pain or distress," and smart as "to cause or feel a stinging pain".

The noun pain has a general use as is exemplified in (1) and (2).

(1) I have a dull pain in my stomach.

(2) The pain attacks me off and on.

A related verb pain, however, has restricted uses in the present-day language and cannot serve as the nuclear verb in our domain. It is most commonly used metaphorically in the sense of 'to cause pain' in such sentences as

(3) It pains me to tell you this.

The verb hurt has this metaphoric use, too, as in (4)

(4) It hurts me to tell you this.

but it is also the most unmarked verb for the domain, allowing as its subject a name for the wound, as in (5),

(5) My wound hurts.

the name of the affected body part, as in (6), or even (7)

(6) My tooth doesn't hurt any more.

(7) My whole body hurts.

or a dummy subject it, as in (8)

(8) It hurts really bad right here.

Used transitively in the sense of 'to cause pain' hurt also occurs with a subject that indicates the source or cause of the pain in constructions in which a direct object indicating either the experiencer of the pain or the affected body part may be present or absent.

- (9) These shoes hurt.  
 (10) These shoes hurt me.  
 (11) These shoes hurt my feet.

The nuclear element for this domain in Japanese is the root ita-, on which are based the intransitive verb itamu 'to hurt', the noun itami 'pain' and the adjective itai 'painful'. These three forms are treated in this study as one group, i.e. they represent the same semantic unit manifested differently according to syntactic function. The transitive verb itameru is not treated here for reasons noted below. The semantically most neutral transitive form is itaku suru 'to make (it) hurt' (literally, 'to do painful').

The intransitive verb itamu has two more meanings in addition to 'to hurt'; they are 'to rot, be spoiled' as in itanda kyabetu 'a rotten cabbage' (da 'Past tense marker', kyabetu 'cabbage'), and 'to grieve for someone's death' as in si o itamu (si 'death'). These are distinct senses from the one we are dealing with now.

As Kuroda (1973)<sup>1</sup> and Kuno (1973)<sup>2</sup> discussed before, since pain, like other sensations, is "private", the verb itamu in the sense of 'to feel pain' is primarily used in sentences with first person subjects in assertions and with second person subjects in questions.

Observe the following appropriateness judgments:

- (12) Atama ga zuki-zuki itami-mas-u.  
 head Sbj throbbingly hurt -Pol-Pres

'I have a throbbing headache.'

- (13) Doko ga itami-mas-u ka.  
 where Sbj hurt -Pol-Pres Ques

'Where does it hurt?'

In the case of the second person, only interrogative sentences are accepted as examples (13) and (14) indicate.

- (14) \*Kimi wa ima atama ga itami-mas-u.  
 you Top now head Sbj hurt -Pol-Pres

'You have a headache now.'

This is so, of course, because it is the experiencer of the pain who has privileged knowledge of its existence and nature. Exceptions to the generalization are found only in other cases of "privileged knowledge." Doctors familiar with the course of a disease, or novelists who determine everything that happens in a narrative, for example, can ignore this constraint and use itamu with subjects other than first person. Observe examples (15) and (16).

- (15) Kono byooki wa netu ga de -te  
 this disease Top temperature Sbj come out-and

husi -busi ga hidoku itami-mas-u.  
 joint-joint Sbj severely hurt -Pol-Pres  
 (joints)

'With this disease, the patient has a high temperature and his joints hurt severely.'

- (16) Kare wa kyonen kega o si-ta tokoro ga  
 he Top last year injury Obj do-Past part Sbj

itan-da.  
 hurt-Past

'It hurt in the place where he injured himself last year.'

(16) may be a case where the narrator adopts a point of view which shows empathy with kare. Unless uttered by a storyteller within the context of the story as a whole, however, sentences like (16) are not acceptable.

In the case of third person subjects the word rasii, which indicates a judgment of appearance on the part of the speaker, can be used with the verb itamu, as in example (17).

- (17) Kare wa kyonen kega o si-ta  
 tokoro ga itam-u rasi-i.  
 hurt-Pres seem-Pres  
 'He seems to have a pain in the place where he injured himself last year.'

The verb itamu used in the sense of 'pain' is also restricted in that it cannot be used in the progressive form itan-de i-ru. Examples (18) and (19) illustrate this.

- (18) \*Asa kara atama ga itan-de i -mas-u.  
 morning since head Sbj hurt-ing be-Pol-Pres  
 'Since this morning I have had a headache.'
- (19) \*Senaka ga itan-de i -ru node ugok-e -na -i.  
 back Sbj hurt-ing be-Pres because move-Pot-Neg-Pres  
 'I can't move because my back is hurting me.'

The morphologically related transitive verb itameru is not included in this treatment because it usually means 'to hurt or damage' as example (20) and (21) below indicate.

- (20) Tenisu de hizi o itame -te simat -ta.  
 tennis in elbow Obj damage-ing complete-Past  
 'I hurt my elbow playing tennis.'
- (21) Amari omo -i mono o mot -u to kosi o  
 too heavy-Pres thing Obj hold-Pres if hip Obj  
 itame -ru kamo sire-na -i.  
 damage-Pres may know-Neg-Pres  
 'If you carry something that's too heavy you may hurt your back.'

Although damage often implies pain, it does not necessarily imply it, as example (22) shows.

(22) Kyonen ronbun o taipu si-ta toki ni tekubi o  
last year thesis Obj typing do-Past when at wrist Obj

itame -ta rasi-i. Imagoro ni nat -te  
damage-Past seem-Pres lately adv become-ing

itaku nat -ta.  
painful become-Past

'I seem to have hurt my wrists typing my thesis last  
year. Lately they have started to hurt.'

Itameru in a sense related to 'pain' is used only in the fixed phrase kokoro o itameru 'feel sorry for (someone)' (kokoro 'heart') as in (23).

(23) Kanozyo wa yo -no-naka ni wa husiawase na  
she Top world-of-inside in Top unfortunate  
(in the world)

hito -bito ga takusan i -ru koto o sit -te,  
person-person Sbj many be-Pres fact Obj know-ing  
(people) (learn)

kokoro o itame-ta.  
heart Obj pain -Past

'Learning that there are many unfortunate people in  
the world, she felt sad.'

The transitive sense is realized as itaku suru 'to make (it) hurt' as shown in (24).

(24) Koron-de asi o itaku si-te simat -ta.  
fall -ing foot Obj painful do-ing complete-Past

'I fell and hurt my foot.'

The objective itai is restricted in the same way as the intransitive verb itamu with respect to third person subjects. In other words,

when predicated of third person subjects, ita- must be followed by -garu, which means 'to show the symptoms of -', as (25) shows.

- (25) Kare wa onaka o osae -te ita -gat -te i -ru.  
 he Top stomach Obj press-ing hurt-garu-ing be-Pres  
 'He is holding his stomach in pain.'

The verb-deriving suffix -garu also attaches to other words denoting feelings such as samui 'cold', iya 'disagreeable', kowai 'frightening', hosii 'desirable', and so on, when used with third person subjects.

Observe the following examples.

- (26) Kare wa Hawaii kara ki -ta node totemo  
 he Top Hawaii from come-Past because a lot  
 samu-gat -te i -ru.  
 cold-garu-ing be-Pres  
 'He is from Hawaii, so he feels very cold.'
- (27) Hito ga iya -gat -te si-nai-i koto o  
 people Sbj hate-garu-ing do-Neg-Pres thing Obj  
 si-nasa -i.  
 do-Imperative-Pres  
 'Do what others don't want to do.'
- (28) Kare wa ookiku nat -temo mada kurayami o  
 he Top big become-even still darkness Obj  
 kowa -gat -te i -ru.  
 afraid-garu-ing be-Pres  
 'Even as an adult he is afraid of the dark.'
- (29) Kare wa i -i taipuraitaa o hosi-gat -te  
 he Top good-Pres typewriter Obj want-garu-ing  
 i -ru.  
 be-Pres  
 'He wants a good typewriter.'



The noun itami is used in phrases such as itami ga aru 'there is a pain' (literally, itami 'pain' - ga 'Sbj' - ar-u 'be-Pres'), itami o kanziru 'to feel a pain' (kanziru 'to feel'), or itami ga toreru 'the pain disappears' (toreru 'come off'), as shown in the following examples.

- (30) Itami ga ar -u no nara kusuri o syohoo  
 pain Sbj exist-Pres Comp if medicine Obj prescribe  
 si-te age -mas-u.  
 do-ing give-Pol-Pres  
 'If you have a pain I will prescribe some medicine  
 for you.'
- (31) Syuzyutu no toki wa masui o kake-mas-u  
 operation of time Top anesthesia Obj use -Pol-Pres  
 kara itami o kanzi-mase-n.  
 because pain Obj feel -Pol -Neg  
 'During the operation you will not feel any pain  
 because we use anesthesia.'
- (32) Kono kusuri o non -dara itami ga tore -ta.  
 this medicine Obj take-when pain Sbj come off-Past  
 'When I took this medicine, the pain disappeared.'

Although itami cannot be directly modified by mimetic adverbials since it is a noun, it can be modified by relative clauses that include a mimetic adverbial followed by suru 'to do'. Observe the following examples.

- (33) \*zuki-zuki itami
- (34) zuki-zuki su-ru itami  
 throbbing do-Pres pain

Example (35) below may give the impression that zuki-zuki can modify itami, but actually, as (36), a scrambled form of (35), indicates,

the zuki-zuki modifies the verb kanziru 'to feel'.

(35) zuki-zuki itami o kanzi-ru  
pain Obj feel -Pres

(36) itami o zuki-zuki kanziru  
'He feels a throbbing pain.'

### 3. Some Contrastive Semantic Observations Regarding Words of Pain

Both in English and in Japanese there are three ways of expressing pain experiences. They are (1) modifier + nuclear verb or noun, (2) single verb or noun which incorporates the 'pain' meaning together with such other elements such as location, intensity, etc., and (3) expressions describing what a pain makes one feel like doing.

Type (1) can be divided into three sub-groups according to the semantic characteristics of the modifier.

(1) Modifier + Nuclear verb or noun (The modifiers are borrowed from other lexical domain.)

(1a-1) Figurative

Modifiers of this group indicate some experiences independently known -- such as piercing, burning, stabbing, biting, grinding, etc. in English, and sasu yoo na 'piercing', yakeru yoo na 'burning', tigireru yoo na 'tearing', etc. in Japanese. The effect is to say 'hurts the way one would feel if one were being pierced, burned, etc.'

(1a-2) General

A modifier of this group indicates the character, intensity, temporal pattern, etc., of the pain; excruciating, throbbing, darting, penetrating, in English, for example, and kyooretu na 'excruciating',

myaku-utu yoo na 'throbbing', denki ga hasiru yoo na 'like an electric current' in Japanese.

(1b) Limited to the pain domain

Unlike the modifiers of the preceding two groups, the modifiers of this group are not borrowed from some other lexical domains but are words that have to be learned in connection with pain experiences. Although English does not seem to have such words, Japanese has a number of them. To give a few examples, hiri-hiri 'burning', zuki-zuki 'throbbing', kiri-kiri 'grinding', tiku-tiku 'pricking', etc.

(2) Single verb or noun

The words of this group incorporate the 'pain' meaning and add some other elements such as intensity, location, rhythm, duration, etc. Smart, for example, suggests a sharp, stinging pain which is usually localized and does not last long, as in (37).

(37) My eyes are smarting from the smoke.

Twinge, sore, pang, throes, etc. also belong to this group.

Japanese also has a small number of words that belong to this group: simiru 'smart', uzuku 'sore', etc.

(3) Expressions telling about what a pain makes one feel like doing

Instead of describing the pain itself, one tells about what one feels like doing when experiencing the pain. For example, makes you feel like screaming in English, and tobiagaru hodo 'to the point of 'jumping' in Japanese. In the present study we will not be treating expressions belonging to this group.

### 3.1. Nuclear Items

As we have seen in Section 2, the nuclear representative of the English words of Pain is the pair pain (noun) and hurt (verb).

Pain is a cover term for all kinds of pain such as headaches, backaches, arthritis pain, cramps, etc. This is supported by the fact that, for example, the word pain killer, denotes a medicine which is supposed to be effective for any of the kinds of pain sensations mentioned above.

The sensation of pain is often referred to with a phrase consisting of a gerundive form plus the noun pain, as in splitting pain, burning pain, etc. These forms are necessary in order to refer to various kinds of pains because the number of words denoting types of pains is not large. The participial forms include biting, burning, darting, gnawing, grinding, penetrating, piercing, pulling, shooting, splitting, stabbing, stinging, and throbbing. These words are metaphorically descriptive; their basic meanings are clearly identifiable, as compared with the corresponding Japanese mimetic words. See examples (38) - (40).

(38) Every thirty minutes I have a biting pain in my stomach.

(39) I have a sharp penetrating pain in my stomach.

(40) I have a pulling pain in my back.

These -ing forms can modify specific pain words denoting the location of the pain, such as headache, for example, as (41) and (42) show.

(41) I have a splitting headache.

(42) I have a throbbing headache.

And the noun pain can also be modified by the participial form of peripheral verbs of pain as shown in (43).

(43) I have a smarting pain where I scraped my arm.

These facts indicate that the nuclear word pain is not restricted to any particular type of pain, and simply refers to the sensation of pain in general.

While the Japanese verb itamu has the meaning 'to get damaged' or 'to get spoiled', noted above, English pain or hurt does not have this meaning.

The English noun pains, however, carries the meaning 'effort' or 'troubles' as (44) and (45) show.

(44) He spares no pains to do whatever his master wishes.

(45) He took pains to ensure that their visit would be perfect in every way.

The Japanese word of pain itami and its derivatives do not have this meaning.

The verb hurt in its transitive use has a few more meanings than the one described in Section 2. It can be used in the sense of 'to injure' physically, as shown in (46).

(46) He was seriously hurt in the accident.

It can also be used metaphorically to mean 'to offend' as in (47)

(47) His ingratitude hurts me.

and it can be used in the sense of 'to damage' as (48) shows.

(48) My reputation was hurt.

Although it is not an exact translation in Japanese, hurt in the sense of 'injure' has a similar counterpart in Japanese. Itame-tukeru

'to deal one a severe blow' (literally, itameru 'to damage', tukeru 'to attach') can be used as in (49)

- (49) Namaiki na aitu o itame-tuke-te yaroo.  
 pert that guy Obj let's do

'Let's beat up that perky guy.'

which can be metaphorically used, too, 'to give him a hard time.'

Both the English and the Japanese nuclear words of pain can refer to emotional pain. They differ subtly from each other as the following examples show. Observe that English pain in (50) and (51) is not translated as itami or its variants, itamu and itai, but rather as turai 'hard to bear') or its nominal form turasa as shown in (52) and (53)

- (50) It pains me that I have to do this to you.

- (51) I don't think I can stand the pain of parting.

- (52) Kimi ni konna koto o si-nak-ereba  
 you to this kind thing Obj do-not-if

nara -na -i no wa tsura -i no da ga ...  
 become-not-Pres Comp Top painful-Pres Comp Cop but

- (53) Wakare no turasa ni tae -rare-soo mo na -i.  
 parting of pain to tolerate-Pass-seem even not-Pres

Japanese itamu can be used with the noun kokoro when referring to emotional pain, as in kokoro ga itamu 'heart aches' (kokoro 'heart', itamu 'hurt, damaged') or in the nominalized form, kokoro no itami 'heartache' (no 'of', itami 'pain'). These forms are rather poetic, and usually kanasii 'sad' or its nominal form kanasisa is used instead. These facts all serve to indicate that the Japanese nuclear words of pain typically denote only pure pain itself while English pain and hurt cover a little wider area than their Japanese counterparts.

As far as idiomatic expressions go, the English form pain in the neck also lacks an exact Japanese counterpart containing words of pain, but similar Japanese idiomatic expressions use words of pain, as (54) and (55) show.

- (54) Kore ga zutuu no tane na n da.  
this Sbj headache of seed Cop Comp Cop (Pres)

'This is the source of the headache.'

- (55) Kono koto o kangae-ru to atama ga itaku  
this matter Obj think -Pres when head Sbj painful  
nar -u.  
become-Pres

'Whenever I think about this matter, I get a headache.'

Mimi ga itai 'be ashamed to hear' (literally, mimi 'ear', ga 'Sbj', itai 'painful') is another example of an idiom involving a nuclear word of pain.

- (56) Ni -neu de pii-etti-dii o tot-ta danante  
two-years in Ph.D Obj get-Past what I heard  
mimi no itaku nar -ru hanashi des -u.  
ear Sbj painful become-Pres story Cop-Pol-Pres

'It makes me feel ashamed to hear that somebody got his Ph.D in two years.'

### 3.2. Peripheral Items

#### 3.2.1. English items

Unlike the other domains that we have seen (Walking and Laughing and Smiling), this domain is a mixed bag of words belonging to different parts of speech. We will take up eight peripheral English words of pain in this section.<sup>3</sup> One of them, ache, can function both

as a noun and a verb; others include one verb, five nouns and one adjective. They are:

Noun/Verb: ache

Verb: smart<sup>4</sup>

Noun: stitch,<sup>5</sup> twinge, cramps, pangs, throes

Adjective: sore

These words have rather unique syntactic structures. Among the nouns, for example, ache is usually used in such structures as (57),

(57) I have a \_\_\_ ache.

which takes, in the slot, the noun that refers to the part of the body that hurts: head, stomach, back, etc., to specify the kind of pain, or as (58),

(58) I have an ache in my \_\_\_\_.

which is used to specify the location of the pain. Other nouns listed above do not share these characteristics except for stitch, as in, for example, 'I've got a stitch in my side', which is similar to (58). The nouns referring to pains seem to be restricted to this pattern.

While ache is the most basic word of pain among the peripheral items, and can refer to dull, sustained pains in various parts of the body, the other words are much more restricted both in referent selection and in syntactic behavior. Stitch and cramps, for example, seem to have been "borrowed" from other domains to metaphorically describe the sensations.

The nouns pangs and throes have their distinct constructions. Although they look alike, as shown in (59) and (60),



(59) pangs of \_\_\_\_\_

(60) throes of \_\_\_\_\_

the words they take in the slots are selected according to different restrictions. Details will be discussed in 4.2.

Ache can be used as a verb, as in (61)

(61) My \_\_\_\_\_ aches.

or in the gerundive form, as in (62).

(62) my aching \_\_\_\_\_

The verb smart shares these patterns with ache, but the two verbs differ in that while the participial form smarting can modify the noun pain, aching cannot, as in (63).

(63) I have  $\left. \begin{array}{l} \text{a smarting} \\ \text{*an aching} \end{array} \right\}$  pain in my \_\_\_\_\_

This is presumably due to a violation of a general rule of phrase formation; i.e. the semantic content of aching is not specific enough to modify pain.

The last item is the only adjective in this group, sore, which can be used as a modifier, as in (64),

(64) I have a sore \_\_\_\_\_.

or as a predicate, as in (65).

(65) My \_\_\_\_\_ is sore.

### 3.2.2. Japanese items

As in the cases of aruku and warau, Japanese utilizes several syntactic devices to render various kinds of pain. They can be grouped into three types: (1) phrases composed of modifying

adverbials or adjectives followed by the nuclear word itamu or its variants, (2) compound words, and (3) distinct words.

The first type can be further divided into two groups according to modifier types.

(1a) mimetic adverbials and the nuclear pain word itamu, itai, and suru:

(66) siku-siku itamu 'hurt sustainingly'

(67) hiri-hiri suru 'to smart'

(1b) ordinary adverbials or adjectives modifying the nuclear word:

(68) atama ga ware -ru yoo ni itai  
head Sbj crack-Pres like painful

'head hurts as if it would crack.'

(69) simetuke-rare-ru yoo ni itai  
tighten -Pass-Pres like painful

'it hurts as though I were being squeezed tightly.'

(70) tobi-agaru hodo itamu  
jump-go up degree hurt

'it hurts so much (that I might jump up to the sky)'

(71) senaka ni nuke -ru yoo na itami  
back to go through-Pres like pain

'pain darting through my back'

The second type, compound words, can be divided into two types.

(2a) indigenous Japanese compound words:

e.g. ita-gayui 'itchy' (ita + kayui 'itchy')

ha-ita 'toothache' (ha 'tooth' + ita)

hara-ita 'stomach ache' (hara 'stomach' + ita)

## (2b) Sino-Japanese compound words:

The first element of the compound is the modifier and the second element, tuu (痛) is the nuclear word, pain.

e.g.	<u>don-tuu</u>	鈍痛	'dull pain'	( <u>don</u> 'dull' + <u>tuu</u> 'pain')
	<u>too-tuu</u>	疼痛	'smarting pain'	( <u>too</u> 'smart')
	<u>geki-tuu</u>	激痛	'intense pain'	( <u>geki</u> 'intense')
	<u>zu-tuu</u>	頭痛	'headache'	( <u>zu</u> 'head')
	<u>huku-tuu</u>	腹痛	'stomach ache'	( <u>huku</u> 'stomach')
	<u>si-tuu</u>	齒痛	'toothache'	( <u>si</u> 'tooth')

The third type consists of a few distinct verbs of pain. They are simiru 'smart, pierce' (literally, 'penetrate'), and uzuku 'smart, throb'. Observe examples (72) and (73).

- (72) Tumetai mono o taberu to sono ha ni  
 cold thing Obj eat when that tooth to  
 simi -mas-u.  
 smart-Pol-Pres

'When I eat something cold, the tooth hurts.'

- (73) Migi no mimi ga uzui -te itami-mas-u.  
 right of ear Sbj smart-ing hurt -Pol-Pres

'I have a sharp pain in my right ear.'

The verb siburu as in onaka ga sibu-te i-ru 'to have loose bowels with a sharp pain' (onaka 'stomach, bowels', ga 'Sbj', sibu+te 'have loose bowels with a pain'+ 'ing' - i+ru 'be+Pres') is a distinct verb that is only used with onaka 'stomach, bowels, abdomen'.

#### 4. Sample Analysis of English and Japanese Words of Pain

##### 4.1. English Items

The meaning of the peripheral items can be described by using the nuclear words denoting different kinds of pain. Ache, for example, can be described as either 'to suffer a dull, sustained pain', or 'a dull, sustained pain', twinge as 'a sharp and sudden pain', etc. Thus, just as in the cases of the peripheral verbs of the other domains that we have seen, the peripheral words of pain have complex semantic structures. That is, reference to the bare sensation of pain and a sense of the quality of the sensation are incorporated into one word. This assertion is lent additional support by the fact that the Japanese counterparts of these peripheral items are composed of a manner adverbial followed by the nuclear verb itamu or the nuclear adjective itai if the English word is a verb, or of an adjective followed by the nuclear noun itami if the English word is a noun. Twinge, for example, is translated in the Kenkyusha's English-Japanese Dictionary as zuki-zuki suru itami (literally, zuki-zuki 'throbbing', suru 'to do', itami 'pain') or sasu yoo na itami (sasu 'to stab', yoo na 'like', itami 'pain').

In Section 3, the English peripheral words of pain were analyzed according to their parts of speech. In this section, however, we will divide them into three groups according to the type of pain they refer to: (1) dull pain, (2) sharp pain, and (3) pain in a special sense.

First we will consider the word representing dull pain.

## (1) Dull pain

ache

Ache can be used either as a noun or as an intransitive verb. Ache indicates a dull, non-debilitating, sustained pain. As the impossibility of \*skin aches and the grammaticality of such phrases as muscle aches, bones ache, and joints ache suggest, an ache is likely to be an internal pain. Commonly used compound nouns using ache include such forms as headache, toothache, earache, backache, etc. Observe the following examples:

as a noun:

- (74) I have been typing all day today at a low coffee table, and now I have a backache.

as a verb:

- (75) My tennis elbow began to ache again.  
 (76) I played basketball yesterday, and now my whole body aches.

## (2) Sharp pain

Verb: smart

Nouns: twinge, stitch, cramps

Adjective: sore

Smart suggests a sharp stinging pain which is usually localized and does not last long. Observe the following examples.

- (77) His knuckles were still smarting half an hour after the teacher hit him on the hand with a ruler.  
 (78) My eyes are smarting from the soap.  
 (79) The tooth smarts when I eat something cold.

(80) I have a smarting pain in the back of my head.

The verb has metaphorical uses, too. One can also say 'Oh, that smarts,' even if he has not been physically hurt when, for example, someone is being hit hard and the speaker sympathizes with the victim, or when someone draws his fingernails across a blackboard. Smart can be used to refer to psychological pain, as the next example shows.

(81) He left the room still smarting from the criticisms  
that he received.

Twinge refers to a sudden, sharp pain, as shown by the following examples.

(82) I felt a twinge of pain in my tooth.

(83) As soon as the snake struck, Joan felt a twinge of pain.

Sore as a noun refers to a lesion on the skin. The adjective sore and the noun soreness refer to a localized pain that makes the sufferer unable to bear having the afflicted part touched. Thus, "It's sore" means "Don't touch." Observe the following examples.

(84) It is so sore you cannot touch it.

(85) The place where I banged myself is still sore.

As (86) shows, a throat can be sore even though it is not an external surface.

(86) I have a sore throat.

It can thus refer to interior but not deep pain. For example,

(87) My arthritis is making my knuckles sore.

Sore can also be used in the sense of angry, as (88) shows.

(88) He is sore at Mary because she wouldn't lend him her  
car.

Stitch refers to a sharp pain in the side or stomach due to muscle contraction after an exhausting exercise such as running hard and getting out of breath.

(89) I ran too hard up-hill but I had to stop because  
I got a stitch in my side.

Cramps refers to sharp persistent pains in the abdomen, especially those of a woman during her menstrual period.

(3) Special pain

pangs, throes

Pangs refer to a sudden, sharp pain. When used to refer to physical pain, it is usually associated with a stomach pain, as in pangs of hunger or hunger pangs. The word is often used in a more abstract sense, as in pangs of death, pangs of guilt, pangs of remorse, pangs of anxiety and pangs of jealousy, where the words following of all carry a negative connotation.

Throes refers to a severe, intense, unbearable, unavoidable pain, both mental and physical, and suggests a struggle, as in throes of childbirth.

(90) He has just graduated from the law school but he will  
not be able to enjoy the summer because he is in the  
throes of the bar exam.

#### 4.2.2. Japanese words of pain

In this section we will analyze the Japanese mimetic adverbials that co-occur with the nuclear words of pain, itamu (verb), itami (noun), itai (adjective).

As we have seen in the case of the mimetic adverbials that co-occur with the verbs of walking and laughing and smiling, reduplicated forms reflect the continuous nature of the sensation. Zuki-zuki, for example, suggests a continuous throbbing pain, as of, say, a toothache, while zugin, for example, suggests a sharp, instantaneous pain such as a patient with appendicitis might experience when a doctor presses his abdomen.

The mimetic adverbials that we will investigate in this section can be divided into six groups according to the types of pain they suggest. They are: acute pains such as (1) Constricting pain, (2) Pricking pain, (3) Penetrating pain, (4) Throbbing pain, (5) Nerve-pinching pain, (6) Burning pain, and (7) Long-lasting, chronic pain. Such features as intensity (sharp - dull), duration (long - short), rhythm (fast - slow), etc. are secondary and are reflected by the characteristics of the phonological form involving such features as voicing, duration, the phoneme T, and the syllabic n.

(1) Constricting pain

Constricting pain refers to the kind of pain that one would feel if the affected body part was contracting or being squeezed. Adverbs of this type are:

kiri-kiri	kiri-kiriT to	
kyuT to	kyuuT to	kyuun to
	gyuuT to	

Kiri-kiri suggests a sharp constricting pain such as might be produced if the part of the body were tightly wrung. For example,



- (91) Sanzyuu-pun oki ni i ga kiri-kiri  
thirty minutes interval at stomach Sbj

itam-u n des -u.  
hurt-Pres Comp CopPol-Pres

'Every thirty minutes I have a biting pain in my  
stomach.'

- (92) Migi -han -sin ga kiri-kiri itami-mas-u.  
right half body Sbj hurt -Pol-Pres

'The right side of my body hurts very much.'

Kiri-kiri has a related use as an auditory mimetic adverbial, where it refers to a sound such as what the tightly strung rope in a tennis court net might make, as in (93) below.

- (93) Tenisu-kooto no netto o kiri-kiri to mai -te  
tennis court of net Obj wind-ing

hat -te kudasai.  
stretch-ing please

'Please stretch the net of the tennis court, tightly  
winding it.'

'Please wind the tennis court net taut.'

As a visual mimetic word, it suggests a full-force high speed rotation (spinning) of an object, as example (94) shows.

- (94) kogata hikooki ga kyuu ni kiri-kiri to  
small airplane Sbj suddenly

kirimomi-zyootai de oti -ru no o mi -ta.  
spinning condition in fall-Pres Comp Obj see-Past

'I saw a small airplane suddenly spinning down from  
the sky.'

Kiri-kiriT-to suggests a pain that gets progressively sharp over a relatively short period as if one were being tightly wrung. This

form is an emphatic variant of the kiri-kiri form.

- (95) Onaka ga kiri-kiriT to itami-mas-u.  
abdomen Sbj hurt -Pol-Pres

'My stomach hurts severely.'

- (96) Kotira no mimi ga kiri-kiriT to itai n  
this of ear Sbj painful Comp

des -u.  
CopPol-Pres

'This ear hurts severely.'

KyuT to and its emphatic form kyuuT to suggest a shot of constricting pain that feels like the body part involved were being squeezed tightly, as if being made into a tight knot.

- (97) Totuzen mune ga kyuT to itami-mas-u.  
suddenly chest Sbj hurt -Pol-Pres

'Suddenly I feel a sharp pain in my chest.'

- (98) I ga kyuut to itam-u n des -u.  
stomach Sbj hurt-Pres Comp CopPol-Pres

'I have a constricting pain in my stomach.'

GyuuT to suggests that the sharp constricting pain is stronger.

- (99) Onaka zentai ga gyuuT to sibor-are -ru yoo ni  
stomach whole Sbj wring-Pass-Pres like

ita -i.  
painful-Pres

'My whole abdomen feels as painful as if it were being tightly wrung.'

Kyuuu to refers to the sharp constricting chest pain that one feels under emotional duress, usually due to extreme sadness or loneliness. Observe the example below.

(100) Kanozyo no hanasi o kii -te i -ru uti ni  
 she of story Obj listen-ing be-Pres during in

kawaisoo ni nat -te mune ga kyuun to  
 sorry adv become-ing chest Sbj

simetuke-rare-ru yoo ni itaku nat -ta.  
 squeeze -Past-Pres like painful become-Past

'While I was listening to her story, I felt so sorry  
 for her that I felt a pain in my chest as if I were  
 being tightly squeezed.'

Next we will look into the forms denoting pains with a pricking  
 sensation.

(2) Pricking pain

tiku-tiku            tikuri-tikuri  
 tikuT to            tikuri to            tikun to  
 sipa-sipa

Tiku-tiku suggests a puncturing sensation such as what a small  
 needle might cause in rapidly and repeatedly puncturing the skin. It  
 has this "literal" sense (expressed as tiku-tiku to) in (101):

(101) Watasi ga syutoo o uke -ta koro wa  
 I Sbj vaccination Obj receive-Past period Top

wakutin no tui -ta hari de kata no  
 vaccine Sbj attach-Past needle with shoulder of

tokoro o tiku-tiku to nando mo sasi -ta n  
 part Obj many times prick-Past Comp

des -u.  
 CopPol-Pres

'When I got my vaccination, they repeatedly pricked  
 me in the shoulder with the needle with the vaccine.'

Observe the following examples involving usages of tiku-tiku in  
 combination with the words of pain.

- (102) Nodo ga tiku tiku itami-mas-u.  
throat Sbj hurt -Pol-Pres  
'I have a sore throat.'
- (103) Ude ga tiku-tiku su-ru.  
arm Sbj do-Pres  
'I have a prickling pain in my arm.'
- (104) Me ga tiku-tiku ita -i.  
eye Sbj painful-Pres  
'I have a stabbing pain in my eyes.'
- (105) Asagohan no ato kara tiku-tiku sas -u yoo ni  
breakfast of after prick-Pres like  
onaka ga itami-dasi -ta n des -u.  
stomach Sbj hurt -start-Past Comp CopPol-Pres  
'After breakfast I have had a prickling pain in my  
stomach.'

While tiku-tiku suggests a repetition of a pricking sensation, tikun to, tikuT to, and tikuri to refer to a single occurrence of this puncturing sensation on the skin.

- (106) Nomikomu toki ni hari de sasi -ta yoo ni tikun to  
swallow when at needle with prick-Past like  
itam-u n des -u.  
hurt-Pres Comp CopPol-Pres  
'When I swallow something I feel a sharp pain, like  
being pierced with a needle.'
- (107) Kono tyuusya wa hari ga hosoi kara amari  
this shot Top needle Sbj thin because too  
itaku ari-masen. TikuT to su-ru dake des -u.  
painful not-PolPres do-Pres only CopPol-Pres  
'This shot is not painful because the needle is thin.  
You will feel only a tiny piercing sensation, that's  
all.'

As (107) shows tikuT to suggests it is a tiny, insignificant pain. The T suggests that the sensation disappears quickly.

Tikuri suggests, as (106) shows, that the tiny puncturing sensation remains a little while. Of course, the form can be used in example (107) above, but tikuT to seems more appropriate in this situation.

- (108) Ka            ga kubi o    tikuri to sasi -ta.  
 mosquito Sbj neck Obj            pierce-Pass  
 'A mosquito bit my neck.'

Tikuri can be used figuratively, as in attacking someone with a soft-sounding, but potent, sarcastic remark. Observe example (109).

- (109) Kare wa niko-niko si-nagara tikuri to ita -i  
 he Top smiling do-while            painful-Pres  
 koto o it -ta.  
 thing Obj say-Past  
 'Beaming a smile, he made a sarcastic remark.'

A repeated form, tikuri-tikuri, suggests that the piercing sensation occurs repeatedly. It can also be used in the sarcastic sense when such remarks are repeatedly made.

Sipa-sipa suggests the surface itchy discomfort typically felt when a wool shirt or seater is worn directly on the skin as the fuzz of the wool causes the annoying sensation.

- (110) Uuru no seetaa o zika ni ki -tara sipa-sipa  
 wool of sweater Obj direct-ly wear-then  
 si-te ita -katta.  
 do-ing painful-Past  
 'I wore a wool sweater directly but it was uncomfortable because it was scratchy.'

(111) Tomodati ni sanpatu si-te morat-ta ga  
 friend by hair cutting do-Ger get -Past Conj

komakai ke ga senaka ni hait -te sipa-sipa  
 tiny hair Sbj back in enter-and

itaku -te sikata ga na -i.  
 painful-and way Sbj not-Pres

'When I had my friend cut my hair, tiny hairs went  
 down my neck and made me itch like crazy.'

Now we turn to the words suggesting pains that penetrate as if  
 into the central nervous system.

(3) Penetrating pain

ziin to

tuun to tun-tun

These words refer to sharp painful sensations that are not  
 localized but are thought of as penetrating to the interior of the  
 body. Ziin to, for example, refers to such a pain as one might feel  
 when, say, a cut is sterilized with an antiseptic solution.<sup>6</sup>

(112) Kiri-kizu o okisihuru de syoodoku si-tara  
 cut -wound Obj hydro. peroxide with sterilize do-then

ziin to si-te ita -katta.  
 do-ing painful-Past

'When I sterilized the cut with hydrogen peroxide it  
 stung.'

Ziin to also refers to penetrating emotional feeling, as when  
 one is overwhelmed by warm feelings. For example,

- (113) Kanozyo wa kare no iki -kata ni kandoo si-te  
 she Top he of live-way at impress do-ing

mune ga ziin to atuku nat -ta.  
 heart Sbj hot become-Past

'She was impressed by his way of life and felt warm  
 toward him.'

Tuun to reflects such strong pains as one feels in the head when water goes into one's nose, or that one feels in the nostrils when he breathing in strong odors, obnoxious smells such as ammonia, or sometimes even a perfume.

- (114) Hana kara mizu ga hait -te simat -tara atama no  
 nose from water Sbj enter-ing complete-then head of

sin made tuun to itaku nat -ta.  
 core as far as painful become-Past

'When I got water in my nose, I felt a sharp piercing  
 pain in the center of my head (or in my sinuses).'

- (115) Huta o ake -tara tuyoi ammonia no nioi ga tuun to  
 lid Obj open-then strong ammonia of smell Sbj

si-te atama ga itaku nat -ta.  
 do-ing head Sbj painful become-Past

'When I opened the lid, out came a strong smell of  
 ammonia and I got a headache.'

Tun-tun refers to pains in the nostrils as when, for example, one has a cold.

- (116) Hana ga tun-tun itam-u n des -u.  
 nose Sbj hurt-Pres Comp CopPol-Pres

'I have a sinus pain.'

Next we will examine the words denoting internal pulsing and throbbing pains.

## (4) Throbbing pain

zuki-zuki

zukin-zukin            zukin

gan-gan

Zuki-zuki reflects a strong throbbing pain.

- (117) Ha    ga    zuki-zuki itan-de nani mo deki-na -i.  
tooth Sbj            ache-ing anything can -not-Pres

'I cannot do anything because I have a throbbing  
toothache.'

- (118) Komekami ga zuki-zuki itan-de kimoti ga warui  
temple Sbj            ache-ing feeling Sbj bad

n    des    -u.  
Comp CopPol-Pres

'There is a throbbing pain in my temples and I feel  
sick.'

- (119) Hidari no mimi ga gaman deki-na -i hodo  
left of ear Sbj tolerate can -not-Pres degree

zuki-zuki itami-mas-u.  
ache -Pol-Pres

'My left ear hurts so much that I cannot stand it.'

Zukin-zukin refers to a throbbing pain occurring with greater  
intensity and at longer intervals than that indicated by zuki-zuki.

Observe the following examples.

- (120) Ha    ga    myaku-utu    yoo ni zukin-zukin to  
tooth Sbj pulse-strike like

itami-mas-u.  
hurt -Pol-Pres

'I have a strong throbbing pain in my tooth.'



- (121) Atama ga zukin-zukin su-ru n des -u ga  
 head Sbj do-Pres Comp CopPol-Pres but

nantoka si-te kudasai.  
 someway do-Ger please

'I have a pounding headache.

Please do something for it.'

- (122) Kega o si-ta toki wa nani mo kanzi-nakat-ta  
 injury Obj do-Past time Top nothing feel -not -Past

keredo sukosi si-te kara zukin-zukin si-te  
 but a little do-ing after do-ing

itaku -te sikata ga nakat-ta.  
 painful-and way Sbj no -Past  
 (can't stand it)

'At the time when I was injured, I did not feel any-  
 thing, but a little later I felt a throbbing pain so  
 strong I couldn't stand it.'

An unrepeated zukin refers to a single occurrence of a sharp  
 severe pain. Examine examples (123) and (124).

- (123) (The doctor presses the right side of the abdomen  
 of a patient to diagnose whether he has appendicitis  
 or not. The patient exclaims.)

A-itaT! Zukin to si-mas-u.  
 Ouch! do-Pol-Pres

'Ouch! It hurts!'

- (124) Ha ni tabemono ga hure -ru to zukin to  
 tooth to food Sbj touch-Pres when

itami-mas-u.  
 hurt -Pol-Pres

'When food touches it, the tooth hurts severely.'

Gan-gan, an auditory mimetic adverbial, is used to refer to the loud sound of metal, such as an empty oil drum, being struck. When used with words of pain, gan-gan refers to a terrible, splitting headache, which gives one the feeling of a huge drum being banged in his head.

(125) Netu            ga            de -te atama ga gan-gan  
 temperature Sbj come out and head Sbj

si-te i -mas-u.  
 do-ing be-Pol-Pres

'I have a temperature and my head is throbbing.'

(5) Nerve pinching pain

hiku-hiku

Hiku-hiku refers to the type of sharp pain one might feel if a nerve were pinched or exposed.

(126) Mizu o non -demo ha ni hiku-hiku to itami ga  
 water Obj drink-even tooth in pain Sbj

hasir-u n des -u.  
 run -Pres Comp CopPol-Pres

'Even taking a drink of water causes a sharp spasmodic pain in my tooth.'

(6) Burning pain

hiri-hiri

piri-piri

Hiri-hiri suggests a burning and tingling sensation on such surfaces as external skin, eyes, gums, or the pharynx wall. Observe the following examples.

- (127) Suri-mui -ta tokoro ga hiri-hiri si-mas-u.  
 rub -peel-Past part Sbj do-Pol-Pres  
 (chafe)

'I have a burning sensation where I skinned myself.'

- (128) Hi ni yake-ta senaka ga hiri-hiri itaku -te  
 sun by burn-Past back Sbj painful-and  
 nemur-e -mase-n desi -ta.  
 sleep-Pot-Pol -Neg CopPol-Past

'My sunburnt back hurt so much that I couldn't sleep.'

- (129) Siniku ga het -te mizu ya kuuki ni hure -te  
 gum Sbj decrease-ing water and air to contact-ing  
 mo hiri-hiri itam-u n des -u.  
 even hurt-Pres Comp CopPol-Pres

'The gums have receded and my teeth are sensitive even  
 to water or air.'

- (130) Nodo ga hiri-hiri si-mas-u.  
 throat Sbj do-Pol-Pres

'My throat feels raw/ I have sore throat.'

Piri-piri suggests a sharp, burning and tingling sensation localized to a small area such as eyes, finger tips, etc. The form also suggests the burning sensation in the mouth after eating an extremely spicy hot food, as (132) shows.

- (131) Kyoo wa sumoggu ga hidoku-te me ga piri-piri  
 today Top smog Sbj awful -and eye Sbj  
 si-mas-u.  
 do-Pol-Pres

'Today the smog is awful and my eyes smart.'

(132) Toogarasi o tabe-te simat -ta node  
 red pepper Obj eat -ing complete-Past because

kuti -zyuu mada piri-piri si-te i -ru.  
 mouth-all still do-ing be-Pres

'As I (accidentally) ate a piece of red pepper, my  
 mouth is still burning.'

Now we will turn to the last group.

(7) Long lasting chronic pain

siku-siku

Siku-siku suggests a dull, sustained pain typically associated  
 with a stomach ache or a toothache. It can co-occur with suru 'to do'  
 as well as itamu and itai. Observe the following examples.

(133) Sita-hara ga siku-siku itan-de netu mo  
 low -abdomen Sbj hurt-ing temperature too

sukosi ar-u yoo des -u.  
 little be-Pres seem CopPol-Pres

'I have a dull pain in my lower abdomen and I have a  
 slight temperature.'

(134) Ha -guki ga siku-siku itaku -te kao ga  
 tooth-stem Sbj painful-and face Sbj

hare -te simat -ta.  
 swell-ing complete-Past

'My tooth-gum hurts so badly that my face is all  
 swollen.'

Siku-siku also refers to a quiet sustained feminine way of  
 weeping, as (135) shows.

(135) Zyosi -syain wa sikar-u to sugu siku-siku  
 female-worker Top scold-Pres when immediately

naki-das -u kara komar -u.  
 weep-start-Pres because trouble-Pres

'It' a real problem how female workers always start  
 weeping when we scold them.'

## NOTES TO CHAPTER FOUR

<sup>1</sup> Kuroda (1973), pp. 378-381.

<sup>2</sup> Kuno (1973), pp. 84-85.

<sup>3</sup> AHD (and other dictionaries too) define gripe (verb) and gripes (noun) as "to cause or suffer a sharp pain in the bowels" and "sharp, repeated pains in the bowels" respectively. Nevertheless, the words are not included here because they were unanimously rejected by the informants.

<sup>4</sup> Smart is listed also as a noun in a dictionary (AHD, for example), but the word is usually used as a verb.

<sup>5</sup> Stitch in the sense of 'a sudden sharp pain in the side' (def. in AHD) is included, because even though many informants say they never use it, some do.

<sup>6</sup> Zin-zin, a form similar to ziin, refers to the tingling sensation that one feels when one's legs, for example, come back from the state of being numb.

e.g. Sibire ga kire-ta asi ga naori -kake -te  
numbness Sbj cut -Past leg Sbj recover-about to-ing

i -ru node ima zin-zin si-te i -ru.  
be-Pres because now do-ing be-Pres

'My legs are tingling now because they were asleep before.'

Examples like this show that these adverbs can occur in sentences expressing the conditions given but not that the meaning is implicit in the forms themselves.

## CHAPTER FIVE

### WATER-MOVEMENT WORDS

In neither English nor Japanese do we find anything that we can call a nuclear verb for the concept of water making noise. In English the words in our domain tend to be sound-imitative words in a fairly literal sense: they can be used as complete utterances, as in (1); they can occur with a sound-introducing expression like (colloquial) go, as in (2); they can occur in adverbial expressions introduced with with, as in (3); they can be 'converted' to verbs having meanings something like 'do something with a \_\_\_\_-like noise', as in (4); and they can appear as nouns naming the kind of noise, as in (5).

- (1) He saw the tomato falling out of the window above him.  
Splat!
- (2) The tomato went "splat" as it landed at his feet.
- (3) The tomato fall to the ground with a splat.
- (4) The water splashed over the rocks.
- (5) The splash made by the coconut when it fell into the pool woke up the baby.

#### English Words Denoting Water-Movements

There are quite a few words denoting movement of water in English such as splash, plunk, drip, plop, slosh, etc., which are onomatopoeic

in nature and such words as spray and spurt, which are not onomatopoeic but show certain relationships between sound and meaning.

We will limit the scope of our discussion to the words containing the initial cluster #sp- in this section because there are a number of words denoting some kind of water movement which have this phonological characteristic. This does not mean, of course, that all the forms that share the #sp- have meanings related to water-movement. Words such as splange, spank, splendid, split, spoon, spoil, etc., to name a few, are not related to water per se.

The words we will be concerned with are:

splat, splash, sploosh; spew, spout, spurt, spray;  
sprinkle

Except for sprinkle, which seems to belong to an independent category, these words listed above can be subcategorized into two groups:

(1) words denoting sounds made when a hard object and a liquid (of various degree of viscosity) collide (splat, splash, and sploosh), and  
(2) words denoting that liquid is being forced out under pressure (spew, spout, spurt, spray, and sprinkle). The first group exemplifies onomatopoeic words and the second, non-onomatopoeic ones.

First we will look into the words denoting collision of water and an object.

(1) Words denoting collision of water

splat, splash, splloosh

These words suggest sounds created when a liquid and an object collide with each other (either a hard object hitting the water or the water hitting the object).



Splat suggests that the liquid has high viscosity, as with tomatoes, cream, etc. For example,

(6) The clown threw a pie "splat!" in her face.

Splash suggests, according to my informants, a large object hitting the water (or vice versa), and splooosh, that an object hits and enters a thick liquid.

(7) He jumped into the lake with a splash.

In order to indicate greater sound, the prefix ker- can be attached making such playful forms as ker-splash, ker-splat, etc.

(2) Words denoting water being forced out under pressure

spew, spout, spurt, spray

Spray suggests that the liquid is spread out as it comes out of the spout under moderate pressure. "Being spread out" is the characteristic of this word that distinguishes it from the other words of this group. In this sense, the word spray is similar to the word sprinkle, which also suggests that the object being sprinkled is spread out as it is sprinkled in fine particles.

Spew suggests that water is being forced out in a stream, whereas spout means that liquid gushes out in a rapid stream. Spurt suggests water coming out suddenly from a small opening under pressure.

(8) Water spurted out of the punctured balloon.

(3) Sprinkle

Sprinkle is similar to spray, as mentioned above, in scattering the liquid drops or small particles. Compared to spray, however, sprinkle does not suggest pressure applied to the liquid as in the

case in spray, and it suggests that the size of drops is a little larger than in the case of spraying.

The chart below exhibits the relationships between the meanings and the phonological forms of a small class of words which are related to water-movement.

#### Water-Movement Words

Onomatopoeic Contact		Non-onomatopoeic Emission		
<u>spl-</u>	Non- <u>spl-</u>	<u>sp(r)-</u>		Non- <u>sp(r)-</u>
		<u>sp-</u>	<u>spr-</u>	
splat	plunk etc.	spew	spray	gush etc.
splash		spout	sprinkle	
splloosh		spurt		

Spl- is shared by the words denoting a "hitting" (or crashing) sound of water, thus focusing on the instance of impact. Sp- and spr- are, however, shared by the words that indicate the condition or form of a quantity of water, which is visually captured.

#### Japanese Words Denoting Water-Movements

In Japanese, the mimetic adverbials denoting sounds and various conditions of water (or other liquids) can be subdivided according to the manner in which the sound is created and the condition of the

water. First we will examine auditory mimetic adverbials, turning initially to those denoting sounds produced when an object hits the surface of the water.

(1) Sounds of an object hitting the surface of water

pitya-pitya	pityaT	pityan
patya-patya	patyaT	patyan
potya-potya	potyaT	potyan
bitya-bitya	bityaT	bityan
batya-batya	batyaT	batyan
botya-botya	botyaT	botyan
pisya-pisya	pisyaT	pisyan
pasya-pasya	pasyaT	pasyan
posya-posya	posyaT	posyan
bisya-bisya	bisyaT	bisyan
basya-basya	basyaT	basyan
bosya-bosya	bosyaT	bosyan

These forms can be represented more generally as (9) below.

(9) Let

$$A = \begin{Bmatrix} p \\ b \end{Bmatrix} \begin{Bmatrix} i \\ a \\ o \end{Bmatrix} \begin{Bmatrix} s \\ t \end{Bmatrix} \text{ ya}$$

then the forms can be represented as:

A A

A-/T/

A-/n/

The repetitive forms indicate continuous sounds. These reduplicated forms tend to suggest that the sound is lighter than what the

single form represents. The single forms indicate that the sound occurred only once. The T suggests that the velocity of the object is high and the impact is great. The n adds the impression of a lingering or resonating quality to the sound.

The forms with initial b suggest a louder sound than those with the initial p.<sup>1</sup> The forms containing the vowel a in the initial syllable suggest the loudest sound, as might be produced by hitting the water with a larger surface such as the flat side of a paddle, the palm of a hand, the chest and stomach (when diving into a pool of water, for example), and so on. The forms with i suggest a fleeting contact with the water, and a lesser degree of noise. The forms with o suggest that the object has hit the water relatively quietly, at a low speed, producing a muffled sound.

The forms presented above with the vowels i, a, and o, suggest both an object hitting the surface of water as well as water hitting a hard surface object. The forms with b can also suggest that a large amount of water is being poured into a large body of water such as when a large amount of leaking water from a water-tank above the ground hits a puddle of water.

Pitya suggests a little splash, as (10) shows,

(10) Neko ga miruku o pitya-pitya non -de i -ru.  
       cat Sbj milk Obj                   dring-ing be-Pres

'A cat is drinking milk.'

Patya suggests a slightly larger splash.

- (11) Kodomo-tati wa biniiru-puuru de patya-patya  
child -Pl Top plastic-pool in

mizu -asobi o si-te i -ru.  
water-play Obj do-ing be-Pres

'Children are playing with water in the plastic pool.'

Potya suggests a sound of a relatively small item falling into relatively deep water.

- (12) Zyagaimo ga hitotu mizu no naka ni potyan to  
potato Sbj one water of inside in

oti -ta.  
fall-Past

'A potato fell into the water with a plunk.'

Bitya suggests both the texture of a sticky substance and the sound of people walking in it.

- (13) Ame de gurando ga bitya-bitya ni nat -ta.  
rain with athletic field Sbj to become-Past

'The field got muddy because of the rain.'

Batya suggests loud and vigorous splashing.

- (14) Kodomo wa mizu no naka de batya-batya yat-te  
child Top water of inside in do -ing

i -ru uti ni oyogi o oboe -mas-u.  
be-Pres while at swimming Obj learn-Pol-Pres

'Children learn how to swim while they are playing in the water making splashes.'

Botya suggests a splashing sound that is not as loud as batya but louder than potya.

- (15) Yosomi o si-te arui-te i -ru uti ni  
 looking aside Obj do-ing walk-ing be-Pres while in  
 botyan to mizu -tamari ni oti -te simat -ta.  
 water-puddle in fall-ing complete-Past  
 'I was looking aside when I was walking, and fell into  
 a puddle.'

The forms in sya, in comparison with the forms in -tya, suggest sounds of greater impact and a resultant bigger splash. Observe the following examples.

- (16) Pisya-pisya hane -nai-de aruki-nasa-i.  
 splash-Neg-with walk -Imp -Pres  
 'Walk without splashing around.'
- (17) Ike no koi ga pasyan to ooki-ku hane-ta.  
 pond of carp Sbj big -ly jump-Past  
 'The carp in the pond jumped (and splashed)  
 fantastically.'
- (18) Ame de dooro ga bisya-bisya ni nat -te i -ru  
 rain with road Sbj become-ing be-Pres  
 kara ki o tuke -te.  
 because attention Obj attach -Imp  
 'The road is covered with water because of the rain.  
 Be careful.'
- (19) Oo -ame no tame ni toi ga ahure-te mizu ga  
 big-rain of because of gutter Sbj flood-and water Sbj  
 basya-basya kobore -te i -ru.  
 overflow-ing be-Pres  
 'Because of the heavy rain, the gutter is flooded and  
 overflowing.'

Now we will turn to a similar but distinct class of words, those containing the vowel e followed by -tya. Petya and betya suggest the

sounds produced by a soft, wet object such as a wet cloth, a creamy substance such as ketchup, or a ripe tomato dropping on a hard flat surface. Observe the following examples with the forms betya. As (20) shows, betyari suggests that the substance sticks flatly to a surface and covers a wide area.

- (20) Nure-ta zookin o betyaT to yuka ni otosi-ta.  
 wet -Past wipe cloth Obj floor on drop -Past

'(He) dropped the wet wipe cloth on the floor.'

- (21) Ketyappu no bin o hut -tara hanbaagaa no ue ni  
 ketchup of bottle Obj shake-then hamburger of top on  
 betyaT to kakat -ta.  
 spread-Past

'I shook the ketchup bottle and the ketchup plopped onto the hamburger.'

- (22) Amerika de wa kuriimu pai o betyari to hito no  
 America in Top cream pie Obj person of  
 kao ni kuttuke-ru hen na asobi ga ar -u.  
 face on paste -Pres strange game Sbj exist-Pres

'In America, there is a strange pastime in which one smashes a cream pie in someone else's face.'

The forms with p- suggest a smaller scale noise than that suggested by betya.

Now we will examine words referring to the sound made when an object falls into water. The forms given in (1) above suggest contact and surface movements of water, including cases when objects fall into shallow water. The forms presented in (2) below specifically suggest that something has fallen into deep water.

(2) Sounds of an object falling into deep water.

zabun	dobun	dobon	poton
zaTbuun	doTbuun	doTboon	poTton

Zabun and its variants suggest a loud noise and dynamic movement, either the movement of the water itself or the object which has come into contact with the water. It can describe the crashing waves on the sea-shore as well as the sound of an object falling into water. A swimmer jumping into the water with a big splash will be described with one of the forms from this group because they suggest vigorous dynamic motion. Observe the following examples.

(23) Puuru no kansiin wa obore-kake -te i -ru kodomo  
pool of guard Top drown-about-ing be-Pres child

o mituke-ru -ya-ina-ya zabun to tobi-kon -de  
Obj find -Pres-or-not-or jump-into-ing  
(no sooner than)

tasuke-ta.  
rescue-Past

'The life guard of the swimming pool jumped into the water and saved the child as soon as he saw that he was about to drown.'

(24) Taihuu ga ki -te i -ru node oo -nami ga  
typhoon Sbj come-ing be-Pres because big-wave Sbj

zabuun-zabuun to uti-yose -te i -ru.  
hit-gather-ing be-Pres

'Because the typhoon is close big waves are crashing against the shore.'

Dobun and dobon and their variants are used specifically to represent the sound of an object falling into deep water. They suggest that the falling object is big and heavy. A dead body falling



into water could, for example, be described with either dobun or dobon. The form with u suggests a quieter noise than the one with o. Compared with zabun and its variants, the forms with d suggest that the object is still, and mass is implied.

- (25) Gyangu -dan wa yami ni magire -te otoko no  
 gangsters-group Top darkness in conceal-and man of  
 si -tai o kawa no naka ni nage -kon-da.  
 dead-body Obj river of inside in throw-in -Past

Dobun to oto ga si-te atari no sizukesa ga  
 sound Sbj do-and near by of quietness Sbj

yabur-are -ta.  
 break-Pass-Past

'Under cover of darkness the gangsters threw the dead  
 man's body into the river. The big splash broke the  
 silence.'

- (26) Hazime ni otoosan ga doTbuun to tobi-komi tugi ni  
 first at father Sbj jump-into next at

okaasan ga dobun to tobi-komi sore kara kodomo ga  
 mother Sbj jump-into it after child Sbj

dobon to tobi-kon -da.  
 jump-into-Past

'At first the father dived into the water with a big  
 splash, then the mother with a splash, and then the  
 child with a little splash.'

The T and vowel lengthening are devices used in emphatic forms,  
 indicating stronger impact.

The poton forms suggest the fall of a small light object such as  
 a coin or a pebble into water. For example,

(27) Kanozyo wa kare no kuruma no kii o hiki-nuk-u  
 she Top he of car of key Obj pull-out-Pres

to kawa no naka ni poton to nage -kon -da.  
 then river of inside in throw-into-Past

'She pulled out the ignition key of his car and threw  
 it into the river.'

Now we will survey other mimetic adverbials that reflect various  
 sounds of water under different conditions.

(3) Flow of water

goo-goo doo-doo zaa-zaa sara-sara tyoro-tyoro  
 gooT dooT zaaT tyoroT

Goo-goo refers to an extremely loud sound, such as of a jet  
 engine, a rushing river after a heavy rain, or a giant waterfall.

Doo-doo refers to the sound of a large amount of turbulence as  
 in a gushing river or a big waterfall.

Zaa-zaa refers to the sound of heavy rain, a shower, etc.

Sara-sara serves as the stereotypical representation of the  
 sound of a creek. It suggests smooth fluid movement, such as that  
 made by a calligraphy brush being drawn across a sheet of paper.

Tyoro-tyoro is used to represent the sound made by a tiny stream.  
 It suggests that a very small amount of water is involved.

The short variants of these forms which end in T represent a  
 sudden, brief flow of water. DooT to suggests a large amount of  
 water gushing out of a flood gate. ZaaT to suggests a bucketful of  
 water being emptied at once, tyoroT to a trickle of liquid, as with  
 coffee coming out of an almost empty coffee server.

## (4) Rain, rain drops and other drops of water

zaa-zaa	zaaT			} rain
sito-sito				
para-para				
potu-potu		potun	poturi	rain drops
pota-pota	potaT	potan	potari	} others
poto-poto	potoT	poton	potori	
bota-bota	botaT		botari	
boto-boto	botoT		botori	

Zaa-zaa represents the sound of pouring rain and zaaT represents the sudden onset of pouring rain.

Sito-sito reflects a long-lasting, quiet rain.

Para-para refers to fairly big drops of rain just starting to fall. It is heard as mimicking the sound of rain drops hitting an umbrella.

Potu-potu is used to suggest a few drops of rain.

Pota-pota and poto-poto represent a dripping sound.

The form with a suggests that the sound is louder and the amount of water is slightly greater than does the form with o. The forms with b, bota-bota, represent the sounds of the dripping of larger amounts of thicker liquid, such as ketchup, blood dripping from a deep wound, etc.

## (5) Agitated water

zabu-zabu                      zyabu-zyabu                      zawa-zawa

Zabu-zabu and zyabu-zyabu represent the sound of a large quantity of water being agitated, as in a washing machine, for example. Zabu-zabu

suggests louder and bigger waves and greater turbulence.

Zawa-zawa is used to suggest the sound of a localized disturbance in a lot of water.

(6) Boiling water

goto-goto                      koto-koto

gutu-gutu

gura-gura

Goto-goto, koto-koto and gutu-gutu represent the sound of water boiling with some material in it. Often these words are used for describing cooking procedures: koto-koto for cooking bean curd or boiled eggs, gutu-gutu for simmering stews. Goto-goto suggests a larger sound than koto-koto.

Gura-gura is used to describe the sound of vigorously boiling water.

## NOTES TO CHAPTER FIVE

<sup>1</sup> Ookubo (1968), pp. 15 & 18. Ookubo states that the forms with /b/ suggest a splash of a large amount of water, whereas those with /p/ suggest that the body of water is making the splashing noise only on its surface.

## CHAPTER SIX

### WORDS DENOTING EMISSION OR REFLECTION OF LIGHT

#### Nuclear Verb

English words denoting emission or reflection of light do not share a nuclear verb. The verb shine, which may seem to be a likely candidate, cannot be a nuclear verb because the verb itself denotes a special kind of emission or reflection of light, i.e. a strong steady light. It is, however, clearly more basic than the other words in the domain. That is, the word shine can be used in definitions of such words as glow, 'to shine briefly and steadily especially without a flame,' or gloss, 'surface shine'; words like glint, for example, cannot be described in terms of the verb shine because glint denotes a brief flash of light. (The definitions are taken from AHD.)

The Japanese phrasal equivalents of these verbs all share the verb hikaru as shown below. (The Japanese forms are taken from the Kenkyusha's dictionary.)

shine: kagayaku; kira-kira hikaru

gleam: kagayaku; kirameku; kiraT to hikaru

glimmer: tira-tira hikaru; kasuka ni hikaru

glow: maTka ni moeru; neTsite kagayaku; hikaru

glare: gira-gira hikaru; mabayuku hikaru

glitter: pika-pika hikaru

glint: pikaT to hikaru

gloss: hoomen ga hikaru  
 flash: kirameku; pikaT to hikaru  
 twinkle: kira-kira hikaru  
 flare: paT to moeagaru  
 flicker: tira-tira suru

Unlike English, then, Japanese is equipped with the nuclear verb hikaru for this category of words. The verb hikaru can be used for any kind of emission or reflection of light, strong or weak, momentary or continuing.

English is full of words denoting emission or reflection of light. Among them, we will focus on the forms sharing the initial clusters gl- and fl- because there are many of them and, as Bolinger (1950) pointed out, they exhibit rather clearly certain patterned relationships between sound shapes and meanings.

The words with the initial cluster gl- that we will explore here are:

Verb/Noun: glare, gleam, glimmer, glint,  
 glisten, glitter, glow  
 Noun: glaze, gloom, gloss

Those with the initial cluster fl- to be explored here are:

Verb/Noun: flame, flare, flash, flicker

We will divide these words into four groups according to whether they refer to momentary light, steady light, wavering light, or intermittent light.

(1) Momentary light

flare, flash, glint

Flare refers to a sudden bright burst of fire, and it can be used as a verb as in flare up.

- (1) The fire flared up as a new building burst into flames.

Flash refers to a sudden bright light that lasts only a moment, such as lightning, camera flashes.

- (2) A sudden flash of lightning lit up the sky.

Glint suggests a sideways, slanting, not full force light emanating from or reflected off of a small surface. It is less intense than gleam and often momentary.

- (3) I was blinded by the glint of the sun on the side of the car.

(2) Steady light

glare, glaze, glisten, gleam, gloss

Glare refers to a steady light so bright that it is painful, such as high beam headlights at night, sun on metal, etc.

- (4) He was momentarily blinded by the glare of the oncoming headlights.

Glaze refers to a shiny finish which is added onto an object, such as pottery, donuts, etc.

- (5) She finished the pot with a multi-colored glaze.

Glisten refers to the appearance of reflected light on shiny wet objects. Eyes glisten with tears, faces with perspiration, streets with water.

- (6) The wet streets glistened beneath the street-lights.



Gleam refers to steady, fairly bright light. It can be used for a brief glimpse of such a light as when the sun momentarily shines on a piece of metal. The objects that gleam are newly waxed floors, pots and pans that are very clean, eyes, etc.

(7) The newly waxed floor was gleaming.

Gloss is a shiny smooth surface, sometimes achieved by polishing or brushing, of such items as photographs, magazine covers, lipstick, a horse's coat after brushing, etc. It does not necessarily refer to wet shine, but has connotations of wetness, possibly with something like vaseline.

(8) You can polish the floor to a high gloss with this new product.

(My informants tell me that both gloss and glaze, while clearly sensed as belonging to this lexical domain, are primarily concerned with the texture or finish of an object, only secondarily with the quality of the light reflected off of it.)

Glow refers to a soft steady light of such things as phosphorescent objects like watches, radioactive objects, clean floors, dying campfires, and cigarettes at night.

(9) The embers of the dying fire glowed in the night.

Gloom refers to semi-darkness, or lack of light. The darkness described as gloom has threatening or frightening associations. Gloomy, the adjective form, can also express the negative mood of a dark place such as an old or haunted house, cemetery, etc.

(10) The child was afraid to be alone in the gloomy basement of the old house.

## (3) Wavering light

glimmer

Glimmer refers to a wavy light of low intensity. It refers to a light that is not intermittent but also not steady. It can be continuous or very brief.

(11) Suddenly the traveler saw a glimmering mirage of water appear in the desert sand.

## (4) Intermittent light

glitter, flicker

Glitter refers to an intermittent, very brief light usually coming from a hard or faceted object, but since the light is coming from many facets at once, the glittering is continuous although each individual glitter lasts just a moment. Things typically perceived as glittering are jewelry, wet stones, sequins, the tiny specks of color one sticks on hand-made Christmas ornaments, etc., and, presumably, gold:

(12) All that glitters is not gold. (Proverb)

Flicker refers to intermittent, weak light from a fire, usually at it is about to be extinguished, is blown by the wind, etc.

(13) The candle flickered and went out.

The chart below shows relationships of each light word with respect to the kind of light it refers to.

Light Words Containing #gl- or #fl-

	Momentary	Steady	Wavering	Intermittent
Intense	flare flash	glare		
Soft	glint	glaze glisten gleam	glimmer	glitter
Weak Dark		gloss glow gloom		flicker

The chart indicates that:

- (1) as Bolinger (1950) pointed out,<sup>1</sup> fl- seems to be associated with 'movement', and gl- 'light', and most of the gl- words refer to steady light.
- (2) Vowels with features [-high, -back] seem to reflect intense light, those with [-low, +back] seem to reflect weaker light, and the ones with [+high, -back], somewhere in between.
- (3) Word ending cluster /- C     ər/  
                                  [+obst]

Japanese Words Denoting Emission or Reflection of Light

There are eight mimetic adverbials (each with its variants) that denote manners of emission and reflection of light. These mimetic words all denote reflected lights but about half of them can also denote manners of emission. First we will examine the forms that can be used in both ways.

(1) Emission and reflection of light

The forms that can denote light emission as well as reflection are kira-kira, gira-gira, tika-tika, pika-pika and their variants, most of which are non-reduplicated forms followed by either T or ri, such as kiraT and kirari. Observe the chart below.

kira-kira	kiraT	kirari	kin-kira-kin
gira-gira	giraT	girari	gin-gira-gin
tira-tira	tiraT	tirari	
tika-tika	tikaT	tikaaT	tikari
pika-pika	pikaT	pikaaT	pikari

Kira-kira suggests a small, sharp, bright metallic shine. It has a good connotation. Stars, diamonds, chandeliers, tears, dew, and eyes full of expectation are typically associated with this form.

Observe the following examples.

- (14) Sira -uo no yoo na utukusii yubi ni daiamondo no  
white-fish of like beautiful finger on diamond of

yubiwa ga kira-kira to hikatte i -ta.  
ring Sbj shine-ing be-Past

'On her beautiful, slender white finger was shining  
a diamond ring.'

- (15) Kodomo-tati no me wa kiboo ni miti-te  
child -Pl of eyes top expectation with fill-and

kira-kira kagayai-te i -ta.  
shine -ing be-Past

'The children's eyes were shining, full of hope.'

- (16) Nisi no sora ni itiban-bosi ga kira-kira  
west of sky in first -star Sbj

hikari-hazime-ta.  
shine -begin -Past

'In the western sky the first star of the night has  
started twinkling.'

KiraT and kirari indicate one short-lived gleam, such as of the eyes or a sword reflecting light. The form with T suggests an extremely brief gleam (a 'glint'). The following examples indicate these points.

- (17) Samurai no katana ga issyun kirari to hikaT-ta  
samurai of sword Sbj moment shine-Past

totan aite wa himei o age -te  
at that time oponent Top scream Obj raise-and

taore-ta.  
fall -Past

'No sooner had the samurai's sword glinted (in the  
sun) than his opponent fell with a scream.'

- (18) Umai hanasi ga ar -u to moti-kake-tara  
nice business talk Sbj exist-Pres Quot approach -then

kare no me ga kirari to hikaT-ta.  
he of eye Sbj shine-Past

'When I approached him saying that there was a  
fantastic deal, his eyes glinted (with greed).'

(19) Yuka no ue ni kiraT to hikata mono o  
 floor of top on shine-Past thing Obj

mituke-ta. Ane ga kinoo otosi-ta  
 find -Past sister Sbj yesterday drop -Past

kontakuto-renzu dat-ta.  
 contact lens Cop-Past

'I saw something shining on the floor. It was the  
 contact lens my sister lost yesterday.'

Since kin of kin-kira-kin is homophonous to the word for 'gold',  
kin-kira-kin is used in casual speech to suggest gaudiness or cheap,  
 superficial flashiness.

(20) Kin no ireba to kin no kubi-kazari to kin  
 gold of denture and gold of neck-ornament and gold

no mimi-kazari, ryoo-te ni wa yubi -wa ga  
 of ear -ornament both-hands on Top finger-ring Sbj

ippai to i -u kin-kira-kin no nari -kin -syumi.  
 many Quot say-Pres of nouveau riche-taste

'She wears gold dentures, a gold necklace, gold ear-  
 rings and lots of rings on both hands. She has such  
 nouveau riche taste.'

Gira-gira suggests a searing light. The form is typically used  
 in describing the strong hot summer sun light that seems to bake  
 everything or eyes glaring with a strong emotion such as anger, hate,  
 jealousy or desire. Observe the examples given below.

- (21) 'Si no tani' to wa yoku it -ta mono da.  
 death of valley Quot Top well say-Past Comp CopPres
- Mada san-gatu da to i -u noni taiyoo ga  
 still 3rd-month Cop Quot say-Pres though sun Sbj
- gira-gira kagayai-te i -ru.  
 shine -ing be-Pres

'What an appropriate name "Death Valley" is. Even  
 though it is only March, the sun is (already) glaring.'

- (22) Kare no me wa sitto ni moe -te gira-gira to  
 he of eye Top jealousy with flame-ing
- hikat-ta.  
 shine-Past

'Jealousy flashed in his eyes.'

Just like kiraT and kirari, giraT and girari suggest that the  
 strong light appears briefly and but once. See the examples below.

- (23) Sibari-age-rare-te girari to hikar-u katana o  
 tie -up -Pass-and shine-Pres sword Obj
- tuki -tuke -rare-ta toki wa moo sin-u  
 thrust-attach-Pass-Past when Top already die-Pres
- ka to omot -ta.  
 Ques Quot think-Past

'When I was tied up and a glinting sword was thrust  
 at me, I thought I would die.'

- (24) Satu-i ni moe -ta me ga giraT to  
 kill-intention with flame-Past eye Sbj
- hikat-ta.  
 shine-Past

'The desire to kill flashed in his eyes.'

Gin-gira-gin, the voiced counterpart of kin-kira-kin, is used to  
 describe extraordinary gaudiness. It carries a negative connotation.

Since gin is homophonous to the word for 'silver', gin-gira-gin is sometimes used to refer to silvery gaudiness.

- (25) Kanozyo wa ii tosi o si-te atu -gesyoo no ue  
 she Top good age Obj do-ing thick-makeup of top  
 ni iro-iro na akusesarii o take-ta gin-gira-gin  
 on various accessory Obj put -Past  
 no kakkoo de PTA ni dekake-ta.  
 of style in PTA to go out-Past  
 'Despite her age, she decked herself out with a lot  
 of make-up and various accessories and went to the  
 PTA.'

Tira-tira suggests the flickering of a small, weak light such as an old fluorescent lamp. The form also suggests the flutter of falling snow flakes or the intermittently obscured movement of an object. Observe the following examples.

- (26) Kono keikootoo wa moo kae -ta hoo  
 this fluorescent lamp Top already change-Past side  
 ga i -i. Tira-tira si-te i -ru.  
 Sbj good-Pres do-ing be-Pres  
 'This fluorescent lamp should be changed. It is  
 flickering.'
- (27) Kono-goro me ga tira-tira si-te mabusi -i n  
 this-time eye Sbj do-and dazzling-Pres Comp  
 des -u.  
 CopPol-Pres  
 'These days I am troubled with dazzling light in my  
 eyes.'
- (28) Yuki ga tira-tira hut -te ki -ta.  
 snow Sbj fall-ing come-Past  
 'It has started snowing.'



- (29) Kanari nobot-ta koro konoma-gukure ni  
 considerably climb-Past around time trees -hiding in  
 kyanpu -zyoo no kiiro ya aka no tento ga tira-tira  
 camping-ground of yellow and red of tent Sbj  
 mie -te ki -ta.  
 can see-ing come-Past  
 'After we had hiked for a considerable way we could  
 see the yellow and red tents of the camping ground  
 flashing through the trees.'

Tika-tika suggests a flickering light strong enough to cause pain  
 in the eyes. TikaT and its emphatic form tikaaT suggest that the  
 light appears but once, briefly. Observe the examples below.

- (30) Huyu no yoru wa tika-tika matataku hosi ga  
 winter of night Top flicker star Sbj  
 utukusi -i.  
 beautiful-Pres  
 'Winter nights are beautiful with their twinkling  
 stars.'
- (31) Aizu no dentoo ga tika-tika to hikar-u no ga  
 sign of light Sbj shine-Pres Comp Sbj  
 mie -ta.  
 can see-Past  
 'We could see the signal light flickering.'
- (32) Syoomei ni tikaaT to teras -are -te atari  
 light with illuminate-Pass-and around  
 wa mahiru no yoo ni akaruku nat -ta.  
 Top high noon of like bright become-Past  
 'Illuminated, the surrounding area became bright  
 as in broad day light.'

Pika-pika can be used in two senses, to refer to the luster or gloss of such things as glassware, china, metal, polished shoes, etc., and to refer to repeated occurrences of strong, brief flickering lights, such as fireworks, lightning, etc. (33) and (34) are examples of the first kind and (35) the second.

- (33) Kat-ta bakari no sin-sya wa pika-pika to  
buy-Past just now of new-car Top

hikat-te i -ru.  
shine-ing be-Pres

'The new car that I bought just now is shining.'

- (34) Nan -to -ka i -u , senzai o tuka-u to  
what-Quot-Ques say-Pres detergent Obj use -Pres then

osara ga pika-pika ni nar -u soo da.  
plate Sbj become-Pres I hear CopPres

'I hear that if you use brand such-and-such detergent,  
your plates will sparkle.'

- (35) Inazuma ga pika-pika hikar-u tabi ni  
lightning Sbj shine-Pres each time at

kodomo-tati wa himei o age -ta.  
child -Pl Top scream Obj raise-Past

'Each time lightning flashed the children screamed.'

When pika-pika is used to suggest luster, an emphatic form, piTka-pika can be created by gemination of the first k, as in (36) and (37).

- (36) piTka-pika no kuruma  
car

'a shining car'

- (37) piTka-pika ni hikaT-ta kutu  
shine-Past shoe

'shining shoes'

This emphatic form cannot be used in the second sense, thus the phrase \*piTka-pika to hikata cannot be used as indicated in (38).

(38) \*Inazuma ga piTka-pika to hikata.  
lightning Sbj shine-Past

'Lightning flashed.'

Pikari suggests a less sudden flash or a moving beam of light which changes in intensity, such as a turning search-light, or a light from a lighthouse. Observe the following example.

(39) Watasi o ot -te ki -ta hitobito no mot -u  
I Obj chase-ing come-Past people Sbj hold-Pres  
  
kaityuu -dentoo ga sigemi ni kakure-te i -ru  
portable-flash light Sbj bushes in hide -ing be-Pres  
  
watasi no hoo o muk -u tabi ni  
I of direction Obj face-Pres each time at  
  
pikari to hikata-te mie -ta.  
shine-ing can see-Pres

'I could see a flash of light every time the people following me turned their lamp in the direction of where I was hiding in the bushes.'

Now we turn to those mimetic words which denote various types of light reflections exclusively.

## (2) Reflection of light

The mimetic words denoting types of reflection only are teka-teka, tera-tera, and tuya-tuya.<sup>2</sup> These forms do not have variants containing final T, ri, or n. Emphatic forms containing lengthened vowels and, in the case of teka-teka, a variant containing a geminated k, teTka-teka, do however, exist.

Teka-teka suggests the glossy shine of something such as a bald head, greasy hair, etc. This form carries with it an air of disapproval. Observe the following examples.

- (40) Kono -goro pomaado de kami o teka-teka ni su-ru  
 these days pomade with hair Obj do-Pres

no wa hayar -ana-i.  
 Comp Top in fashion-not-Pres

'These days it is not popular slick one's hair down  
 with pomade.'

- (41) Watasi mo izure hage-atama ga teka-teka  
 I too someday bald-head Sbj

hikar-u oziisan ni nar -u yoo na ki ga  
 shine-Pres old man to become-Pres like feeling Sbj

su-ru.  
 do-Pres

'I suspect that someday I, too, will become an old man  
 with a shiny bald head.'

- (42) Osiri no tokoro ga teka-teka ni hikate  
 bottom of part Sbj shine-ing

simat -ta huru-i zubon o ima demo hai -te  
 complete-Past old -Pres pants Obj now even wear-ing

i -ru.  
 be-Pres

'He is still wearing the old pants that are (so worn  
 out that they are) shiny in the seat.'

Tera-tera suggests a greasy, oily luster. Observe the following examples.

- (43) Kao ga ase de tera-tera hikate i -ru.  
 face Sbj sweat with shine-ing be-Pres  
 'His face is shining with sweat.'
- (44) Natu no hamabe wa santan -oiru de karada-zyuu  
 summer of beach Top sun tan oil with body -whole  
 tera-tera hikate i -ru hito -tati de ippai da.  
 shine-ing be-Pres person-Pl with full Cop  
 'The summer beaches are full of people whose bodies  
 are shining with sun tan oil.'

Though both teka-teka and tera-tera have negative connotations, the third form, tuya-tuya, has a good connotation. The form also suggests luster. When used to describe the condition of skin, for example, it suggests smooth, young-looking skin. Observe the following examples.

- (45) Kanozyo wa itumo tuya-tuya si-ta kenkoo soo na  
 she Top always do-Past healthy looking  
 kao -iro o si-te i -ru.  
 face-color Obj do-ing be-Pres  
 'She always has a good healthy complexion.'
- (46) Kono syanpuu o tuka-u to tuya-tuya si-ta  
 this shampoo Obj use -Pres when do-Past  
 utukusi -i kami ni nari -mas-u.  
 beautiful-Pres hair to become-Pol-Pres  
 'If you use this shampoo, your hair will become shiny  
 and beautiful.'

## NOTES TO CHAPTER SIX

<sup>1</sup> Bolinger (1950), pp. 119-120, 131-132.

<sup>2</sup> One might argue that tuya-tuya is composed of the noun tuya, which has a meaning of 'gloss, luster, shine, etc.' The form, if we followed such an argumentation, would not, in a strict sense, be a mimetic adverb. However, unlike such forms as kuro-guro 'jet black' (kuro 'black') and sama-zama 'various' (sama 'condition') as in (a) and (b), the initial consonant of the second tuya remains voiceless. In other words, it does not become \*tuya-zuya, which would have been the form had tuya been an ordinary noun.

(a) kuro-guro to si-ta kami  
jet black do-Past hair

'jet black hair'

(b) sama-zama na mondai  
various problem

'various problems'

## CHAPTER SEVEN

### EXPRESSIVE PHONOLOGY IN JAPANESE MIMETIC WORDS

In this chapter we will limit our attention to Japanese forms. In Japanese, as we saw in Chapters Five and Six, certain patterns of sounds appear to be associated with specific types of meanings. Izumi (1976) considers such relations to be language bound, hence of an essentially arbitrary nature.<sup>1</sup> We agree with Izumi that for a native speaker such relationships must be learned, but we consider the patterned connections between "sound" and "meaning" which they exhibit very much worth investigating. Bolinger (1950) has shown analogous patterned sound-meaning relationships among etymologically unrelated words in English.<sup>2</sup>

Previous studies on expressive phonology (or sound symbolism) in Japanese have focused mainly on the significance of individual phonemes, as we saw in the introduction. Kobayasi (1965), however, treated recurring combinations of consonants, such as the k-r- or kiri-kiri, kara-kara, kari-kari, kira-kira, koro-koro, etc., but he merely listed different combinations of such forms and was unsuccessful in discovering any general principles that united them semantically.

In my view the correct division of a  $C_1V_1C_2V_2$  adverb into elements having semantic associations is one which separates the

initial  $C_1$ - from the remaining  $-V_1C_2V_2$ . In this chapter I explore the semantic traits common to a number of  $-V_1C_2V_2$  patterns: -ira, -era, -ura, -iri, and  $-V_1rV_2$  and  $V_1tV_2$ , where  $V_1 = V_2$ .

(1) Forms in -ira

kira-kira	hira-hira	ira-ira
gira-gira	pira-pira	
tira-tira	bira-bira	

Among the forms describing light, kira-kira, gira-gira, and tira-tira share the sequence -ira. This sequence is also found in the other mimetic adverbials in the list given above. The list exhausts all the mimetic adverbials with -ira. (For convenience' sake, only the simple reduplicated forms are presented.)

As we saw earlier, the first three forms, kira-kira, gira-gira, and tira-tira, suggest unsteady light.

Kira-kira suggests an unsteady light or reflection (glitter) that is considered attractive.

Gira-gira suggests a strong, dazzling, glaring light. The form carries with it a negative connotation.

Tira-tira suggests a weak flickering light, such as that produced by an old fluorescent lamp, distant stars, house lights seen at a distance, etc.

The forms in the second row in the chart, hira-hira, pira-pira, and bira-bira, all suggest the fluttering of a thin, filmy, or sheet-like material.<sup>3</sup>

Hira-hira suggests the fluttering or scattering of a light, thin material such as leaves, saris, butterflies, handkerchiefs, scarves,



etc. Observe examples (1) and (2).

- (1) Kyanpasu o' arui-te i -tara kaze mo na -i  
 campus Obj walk-ing be-when wind even not exist-Pres  
 noni ki no ha ga hira-hira to oti -te ki -ta.  
 though tree of leaf Sbj fall-ing come-Past  
 Moo aki da to omot -ta.  
 already autumn Cop Quot think-Past  
 'When I was walking on the campus, leaves came  
 fluttering down even though there was no wind.  
 I realized that it was already fall.'
- (2) Natu ni naru to kono hen wa tyootyoo ga  
 summer as become when this area Top butterflies Sbj  
 hira-hira hira-hira takusan ton-de ki -mas-u.  
 many fly-ing come-Pol-Pres  
 'When summer comes this area is visited by thousands  
 of fluttering butterflies.'

Pira-pira suggests the fluttering of shiny filmy material such as the tails of modern plastic kites.

- (3) Pori -bukuro wa benri da kedo boku wa  
 polyethylene-bag Top convenient Cop but I Top  
 doomo ano pira-pira si-ta kansyoku ga suki ni  
 somehow that do-Past touch Sbj like to  
 nar -e -na -i.  
 become-Pot-Neg-Pres  
 'Plastic bags are convenient, I know, but somehow I  
 still don't like their texture.'

Bira-bira suggests the fluttering of a material somewhat thicker than that suggested by hira-hira.

- (4) Kondo wa kau-booi ga ki -ru ano bira-bira no  
 this time Top cow-boy Sbj wear-Pres that of

ippai tui -ta kawa no zyaketu ga hosi-i.  
 many attach-Past leather of jacket Sbj want-Pres

'This time I want a leather jacket with a lot of  
 fringe like cowboys wear.'

- (5) Yootien no nyuuen -siki ni kodomo ni  
 kindergarten of entrance-ceremony for child on

bira-bira no ippai tui -ta huku o kise -te  
 of many attach-Past clothes Obj put on-ing

ku -ru oya ga oo -i n da kara  
 come-Pres parent Sbj many-Pres Comp Cop therefore

iya ni nar -u.  
 disgusted to become-Pres

'There are many parents who dress up their kids in a  
 tuxedo with lots of frills just for the entrance  
 ceremony of their kindergarten. How disgusting.'

In this example, the frills are described as bira-bira, probably because the speaker has a negative feeling about the clothes. He could have referred to them as hira-hira if he had not been negatively disposed to them.

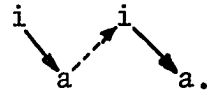
Ira-ira suggests an irritated psychological state, an unsteady state of mind.

- (6) Koohii no nomi -sugi ka kare wa iti-niti-zyuu  
 coffee of drink-exceed Ques he Top one-day -during

ira-ira si-te i -ru.  
 do-ing be-Pres

'Maybe because he drank too much coffee, he has been  
 nervous all day long.'

The forms with -ira suggest oscillation in general: fluctuation of light, fluttering of thin materials, and irritation. The phonological pattern of these words is 'oscillating' too, between the high front vowel i and the low back vowel a, and the sequence is repeated. This can be represented diagrammatically, following the vowel chart, as



(2) Forms in -era

kera-kera	pera-pera	tera-tera
gera-gera	bera-bera	
hera-hera		

Generally speaking, there are not many forms with e, and when they exist, they usually suggest lowbred, vulgar taste. The words listed here generally share such ungraceful connotations.

Kera-kera, gera-gera, and hera-hera are all forms used to describe ways of laughing. All of them suggest, as we saw in Chapter Three, lowbred laughs.

Pera-pera suggests the thinness and flimsiness of a material. Often the form is used with a disapproving connotation, as (7) shows.

- (7) Konna      pera-pera na no zya-na -kute moo sukosi  
 like this                      Cop one Cop-Neg-and more little
- atu -de no wa na -i                      no?  
 thick-kind one Top not exist-Pres Comp
- 'Don't you have a slightly thicker kind, instead of  
 such a thin one like this?'

Pera is used as a suffix in such words as kamippera '(insignificant) piece of paper', and usuppera 'thin', and imbues the words with a

disapproving connotation. For example,

- (8) Konna kamippera iti-mai de sensoo ni  
like this piece of paper one-sheet with war to  
  
ik-as -are -ru no wa iya da.  
go-Caus-Pass-Pres Comp Top dislike Cop  
  
'I don't like to be sent to the war with just a piece  
of paper like this.'
- (9) Kore ga watasi no saisyo no hon des-u. Hon to  
this Sbj I of first of book Cop-Pres book Quot  
  
yob -u ni wa usuppera na n des-u ga ....  
call-Pres for Top thin Comp Cop-Pres Conj  
  
'This is my first book. It's too thin to be called a  
'book' though.'

Pera-pera is also used with respect to ways of speaking, suggesting fluency in a foreign language, as in (10), or incessant talk, as (11) shows, about unimportant things.

- (10) Kare wa Furansu-go ga pera-pera da.  
he Top France -language Sbj Cop  
  
'He is fluent in French.'
- (11) Itu made pera-pera yat-te i -ru n da?  
when till do -ing be-Pres Comp Cop?  
  
Ii kagen ni yame-nasai.  
moderately stop-Imp  
  
'How long are you guys going to be talking (like this)?  
It's about time to stop.'

Example (11) can be used as a contemptuous remark implying that 'he is fluent, yes, but there is no content in what he says.'

Bera-bera is also used with respect to manner of speech, suggesting incessant talk about unimportant things or things that are not supposed to be discussed.

- (12) Ukkari si-te ii kimoti de himitu o bera-bera  
careless do-ing good feeling with secret Obj

syabet-te simat -ta.  
talk -ing complete-Past

'Feeling good, carelessly I talked (a lot) about the  
secret (to them).'

- (13) Kudaranai koto o bera-bera syaber-u n  
insignificant thing Obj talk -Pres Comp

zya na -i!  
Cop Neg-Pres

'Don't talk a lot about insignificant things!'

Tera-tera suggests greasy luster, and could be used of someone shining with sweat, for example. It does not have a pleasant connotation.

- (14) Hitai ga ase de tera-tera hikate i -ru.  
forehead Sbj sweat with shining be-Pres

'His forehead is shining with sweat.'

The forms with -era have a generally negative connotation: it is strongly present in the forms describing laughter, more weakly present in the fluency forms, as well as the forms suggesting flimsiness and greasiness.

(3) Forms in -ura

(a) kura-kura	(b) nura-nura
gura-gura	sura-sura
hura-hura	zura-zura
pura-pura	
bura-bura	
yura-yura	
mura-mura	

The seven forms in (a) share the meaning of unsteadiness or swaying.

Kura-kura is used to describe dizziness, the feeling that one's head is spinning.

- (15) Kyuu ni tati -agat-ta totan ni kura-kura to  
suddenly stand-rise-Past moment at

memai ga si-ta.  
dizziness Sbj do-Past

'When I stood up suddenly, I felt dizzy.'

Gura-gura suggests a shaking of the earth, or the jolting of a structure from the foundation up.

- (16) Zisin no toki wa gura-gura to yure -tara  
earthquake of time Top shake-then

sugu tukue no sita ni kakure-nasai.  
immediately desk of under in hide -do

'When an earthquake hits, crawl under the desk as soon as you feel the shaking.'

Hura-hura suggests unsteadiness, lack of energy, lack of things to do, etc.

- (17) Nom -azu kuw -azu de tetuya  
drinking-without eating-without with stay up all night

o si-te sigoto o owar -ase -ta ga moo  
Obj do-ing job Obj finish-Caus-Past but already

hura-hura da.  
Cop.

'I finished my work by staying up all night without eating or drinking, but I am totally exhausted.'

Pura-pura suggests a small light object such as a little gourd hanging loosely and swinging.

Bura-bura suggests something hanging loosely and swinging. This form is more common than pura-pura.

(18) Noki -sita ni bura-bura si-te i -ru no wa  
eaves-under at do-ing be-Pres the ones Top

nani ka to omot -tara kesa arat-ta  
what Ques Quot think-then this morning wash-Past

zyoggingu-shuuzu dat-ta.  
jogging shoes Cop-Past

'I was wondering what was hanging under the eaves.

It turned out to be the jogging shoes that I had  
washed this morning.'

Yura-yura suggests swaying slowly, a smooth, unhindered swaying motion.

(19) Kaisoo wa sio no nagare ni ture -te yura-yura  
seaweed Top current of stream to go along-ing

yure-te i -ru.  
sway-ing be-Pres

'The seaweed is swaying (gracefully) in the current.'

Mura-mura suggests the way strong emotions sometimes well up, not quickly and straightfowardly but slowly and steadily.

(20) Kare no hanasi o kii -te i -ru uti ni  
he of story Obj listen-ing be-Pres during in

mura-mura to ikari ga komi-age-te ki -ta.  
anger Sbj rush-up -ing come-Past

'While I was listening to his story I felt anger  
steadily building up within me.'

The swaying motion suggested by -ura seems to be reflected in the difference of vowel height between u and a, just as with the form -ira. The cycle of swaying suggested by -ura, however, is slower and

less intense than that of oscillation suggested by -ira, which seems to suggest a sharper movement.

The forms in (b) do not seem to share the meaning of unsteadiness.

Nura-nura suggests the greasy or slimy surface of an object.

- (21) Kare wa soozi o si-na -i rasi-i.  
 he Top cleaning Obj do-not-Pres seem-Pres
- Syawaa no kabe mo yuka mo nura-nura si-te i -ru.  
 shower of wall too floor too do-ing be-Pres
- 'It looks like he never cleans up his place. The walls and the floor of the shower room were gooey and slippery.'

Sura-sura suggests that things are going well, without any problems. It is thus used to refer to the smooth flow of words or ideas, as in (22).

- (22) Sura-sura to mondai ga toke -ta toki wa kimoti  
 problem Sbj solve-Past when Top feeling
- ga i -i.  
 Sbj good-Pres
- 'I feel good when a problem can be solved effortlessly.'

- (23) Yosyuu o si-te oi -ta node sensei no  
 preparation Obj do-ing put-Past because teacher of
- situmon ni sura-sura to kotae -rare-ta.  
 question to answer-Pass-Past
- 'Since I had done the preparation I could answer the teacher's questions without any difficulty.'

Zura-zura suggests that a number of similar objects are lined up impressively.



- (24) Yoru no Ginza wa kuro -nuri no gai -sya ga  
 night of Ginza Top black-paint of foreign-car Sbj  
 zura-zura naran-de i -ta node bikkuri si-ta.  
 line -ing be-Past because surprised do-Past  
 'I was surprised to see so many black foreign (American)  
 cars lined up on the Ginza streets at night.'

These last forms are exceptions to the general semantic pattern for -ura, much as spoon and spear in English do not participate in the water-flow symbolism found in so many other words beginning with sp-.

Now we will examine the sequence -iri with different initial consonants.

(4) Forms in -iri

kiri-kiri

giri-giri

hiri-hiri

piri-piri

biri-biri

tiri-tiri

ziri-ziri

Though the symbolism with this set of forms is less clear, the sequence -iri seems to suggest tension, strength or sharpness. Kiri-kiri suggests, as it was discussed in Chapter Four, intense constriction or rapid spinning. Giri-giri suggests essentially the same, but with stronger power, larger size of the object being wound or wrung, and slower speed.

Hiri-hiri, as we have seen, indicates the painful sensation caused by chafed skin. Piri-piri suggests a strong sensation such as what one might feel after eating a hot pepper or feeling a low voltage electric shock. Biri-biri suggests an even stronger shock than piri-piri. Both piri-piri and biri-biri also suggest nervousness or tenseness of one's psychological state.

Tiri-tiri suggests that something is extremely shrivelled or frizzled, such as very well cooked bacon strips or permanented hair with frizzy curls.

Ziri-ziri suggests scorching heat. The form has another use which suggests a gradually growing impatience.

Next we will examine patterns of the type  $-V_1C_2V_2$  where  $V_1 = V_2$ .

(5) Forms in  $-V_1rV_2$ , where  $V_1 = V_2$

We will use forms containing k\_r in the  $C_1-C_2$ - frame as examples.<sup>4</sup>

kiri-kiri

kuru-kuru

koro-koro

kara-kara

Kiri-kiri suggests tight squeezing, wringing or winding of something. As we saw in Chapter Four, the form can denote a severe constricting pain. It can also be used to suggest spinning or high speed rotation, as in kiri-kiri mai su-ru 'so busy my head is spinning' (mai 'dancing') in (25).

- (25) Syatyoo wa syottyuu kangae o kae -ru  
 company president Top often mind Obj change-Pres  
 kara ware-ware wa itumo kiri-kiri mai o  
 therefore we Top always dancing Obj  
 s -ase -rare-mas-u.  
 do-Caus-Pass-Pol-Pres

'Our company president changes his mind quite often  
 so we are so busy our heads're spinning.'

Kuru-kuru suggests smooth rotation, as shown in the following  
 examples.

- (26) Kono kaza-guruma wa sukosi no kaze de mo  
 this wind-wheel Top little of wind with too  
 kuru-kuru to yoku mawar-u.  
 well turn -Pres

'This toy wind mill turns well with a little bit of  
 breeze.'

Koro-koro suggests the smooth rotation of a small round object.  
 The speed of rotation is not as fast as that which kiri-kiri suggests.  
Koro-koro differs from kuru-kuru, not in the speed or the size of the  
 object but in the manner of rotation it implies. While kuru-kuru  
 suggests turning, koro-koro suggests rolling over.

- (27) Donguri wa koro-koro to korogat-te ike no naka  
 acorn Top roll -ing pond of inside  
 ni oti -masi-ta.  
 in drop-Pol -Past

'An acorn rolled into the pond.'

(28) Goruhu no tama wa koro-koro to korogat-te ana no  
 golf of ball Top roll -ing hole of

huti de tomat-te simat -ta.  
 edge at stop -ing complete-Past

'The golf ball rolled to the edge of the hole and  
 stopped.'

Kara-kara can represent either the sound of thin hard materials  
 striking each other or the sound of rotation, as shown in (29).

(29) Go-gatu no sora ni koi -nobori no ya -guruma ga  
 5 -month of sky in carp-rise of arrow wheel Sbj

kara-kara to mawat-te i -ru.  
 turn -ing be-Pres

'The May sky is filled with the arrow wheels of carp  
 streamers (cloth carp) rotating in the wind.'

The differences in vowel quality seem to reflect differences in  
 the loudness of the sound they refer to. A represents the loudest  
 sound and i represents the quietest (sometimes no sound at all), while  
o and u (which is not as loud as o) come between the two.

Now we will examine the forms with -t- separating the repeated  
 vowels.

(6) Forms in  $-V_1tV_2$ , where  $V_1 = V_2$

For all of these the initial consonant is g:

giti-giti

gutu-gutu

goto-goto

gata-gata

Giti-giti suggests that something is packed in tightly so that  
 it will not move or make a noise.

- (30) Suutu-keesu ni sonna ni giti-giti ni  
 suitcase in such degree

tume-ru to zeikan de ake -rare-tara mata sime -ru  
 pack-Pres if customs at open-Pass-then again close-Pres

no ga taihen da yo.  
 Comp Sbj trouble Cop I tell you

'If you pack your suitcase that tight, you will have a  
 hard time closing the lid again when it is opened at  
 customs.'

Gutu-gutu represents the sound of simmering liquid.

- (31) Zairyoo o ire -te juu-go hun hodo gutu-gutu  
 materials Obj put in-ing ten-five min. about

ni -mas-u.  
 cook-Pol-Pres

'Put the ingredients into (the hot water) and simmer  
 for approximately 15 minutes.'

Goto-goto refers to a loud rattling noise which is not as loud  
 as that referred to by gata-gata.

- (32) Ni -kai de goto-goto oto ga si-te i -ta.  
 second-floor in noise Sbj do-ing be-Pres

Doroboo ni site wa oto ga ooki-sugi -ru  
 thief for noise Sbj loud-exceed-Pres

to omot -tara, yappari neko dat-ta.  
 Quot think-then as I thought cat Cop-Past

'There was a rattling noise on the second floor.

I thought it was too loud for a thief. It was a cat  
 just as I thought.'

Gata-gata suggests a loud rattling noise.

- (33) Tonari wa hikkosi de iti-niti-zyuu  
 nextdoor Top moving out because one-day -during

gata-gata si-te i -mas-u.  
 do-ing be-Pol-Pres

'Our next door neighbor is moving out, and it is noisy  
 all day long.'

Gata-gata can be used figuratively, meaning 'out of shape', as in (34).

- (34) Kare wa mukasi wa tuyo -katta ga ima wa moo  
 he Top old time Top strong-Past but now Top already

karada ga gata-gata de intai su-ru sika  
 body Sbg therefore retire do-Pres only

na -katta.  
 Neg-Past

'He was strong before, but now his body is out of  
 shape, and there was nothing he could do but retire.'

It seems clear that in both of the sets with identical vowels  
 (those with medial r and those with medial t) the relative openness  
 of the jaw (acoustically, the relative height of the second formant)  
 is related to the degree of loudness of the represented sound.

## NOTES TO CHAPTER SEVEN

<sup>1</sup> Izumi (1976), pp. 110-112, 114, 150.

<sup>2</sup> Cited in Jakobson (1965), Japanese trans. Takeuchi (1967), p. 46.

<sup>3</sup> In the Japanese morphophonemic system the voiced counterpart of /h/ is /b/; /p/, which mainly occurs in mimetic words and loan words, known as han-daku-on (or semi-voiced sound), is also a morphophonemic variant of /h/.

<sup>4</sup> \*Kere-kere does not exist. Generally speaking, there are not many forms with e. See Kindaiti (1978), p. 19.

## BIBLIOGRAPHY

### I. Books and Articles

- Asano, Turuko, et al. 1976. Bunkatyoo Nihongo Kyooiku Kenkyuu-kaihatu Itaku. Syoowa 50-nendo Saisyuu Hookoku. (The Final Report for 1975 Research-Development Project of Japanese Language Teaching Consigned by the Cultural Agency).
- Bolinger, Dwight L. 1950. "Rime, assonance, and morpheme analysis." Word. 6, 117-136.
- Brackbill, Yvonne and Kenneth B. Little. 1957. "Factors determining the guessing of meaning of foreign words." Journal of Abnormal and Social Psychology. 54, 312-318.
- Brown, Roger W., Abraham H. Black, and Arnold E. Horowitz. 1955. "Phonetic symbolism in natural languages." Journal of Abnormal and Social Psychology. 60, 388-393.
- Diffloth, Gerard. 1972. "Notes on expressive meaning." In Paul M. Peranteau, et al., eds. Papers from the Eighth Regional Meeting. Chicago: Chicago Linguistic Society. 440-447.
- \_\_\_\_\_. 1976. "Expressives in Semai." Austroasiatic Studies. Oceanic Linguistics, Special Publication 13. Honolulu: University of Hawaii Press. 249-264.
- Dixon, Robert M.W. 1971. "A method of semantic description." Danny Steinberg and Leon Jakobovits, eds. Semantics: An Interdisciplinary Reader in Philosophy, Linguistics and Psychology. Cambridge: Cambridge University Press. 436-471.
- Fillmore, Charles J. 1968. "The case for case." In Emmon Bach and Robert T. Harms, eds. Universals in Linguistic Theory. N.Y.: Holt, Rinehart and Winston. 1-88.
- \_\_\_\_\_. 1978. "On the organization of semantic information in the lexicon." In Donka Farkas, et al., eds. Papers from the Parasession on the Lexicon. Chicago: Chicago Linguistic Society. 148-173.
- Frei, Henri. 1970. "Cinquante onomatopées Japonaises." In David Cohen, ed. Mélanges Marcel Cohen. The Hague: Mouton. 359-367.



- Hattori, Siro. 1968. Eigo Kisogoi no Kenkyuu. A Study of English Basic Vocabulary. Tokyo: Sanseido.
- Householder, Fred W. 1946. "On the problem of sound and meaning, an English phonestheme." Word. 2, 83-84.
- Ihara, Masao and Mituharu Iwahara. 1938. "Kokugo syootyoo-on no hyoogensei ni tuite -- Hyoogen no sinrigaku V." (On expressiveness of Japanese idiophonemes -- Psychology of expression V). Sinrigaku-kenkyuu. 13, 411-428.
- Ikegami, Yosihiko. 1970. The Semological Structure of the English Verbs of Motion: A Stratificational Approach. Tokyo: Sanseidoo.
- \_\_\_\_\_. 1975. Imiron (Semantics). Tokyo: Taisyuukan.
- \_\_\_\_\_. 1978. Imi no Sekai (World of Meaning). Tokyo: NHK Syuppan.
- Inaba, Sinzyu. 1972. "Giseigo, gitaigo ni okeru boin-koozoo to haseigo to no kankei ni tuite." (On the relationships between vocalic structures and derived words among mimetic words). Seikei Kokuban. No. 5, 15-27.
- Isigaki, Yukio. 1965. "Giseigo, gitaigo no go-koosei to gokei-henka." (Word structures and word form changes of mimetic words). Gengo-seikatu. 171, 30-39.
- Izumi, Kunihiisa. 1976. "Giseigo gitaigo no tokusitu." (Characteristics of mimetic words). In Takao Suzuki, ed. Nihongo no Goi to Hyoogen. (Japanese Vocabulary and Expressions). Tokyo: Taisyuukan. 105-151.
- Jakobson, Roman. 1966. "Quest for the essence of language." Diogenes. 51, 21-37. Japanese trans. Nariaki Takeuti. 1967. "Gengo Honsitu no Tankyuu." Diogenesu Nihon-ban. (Diogenes Japanese edition). 1, 36-51.
- Jespersen, Otto. 1928. Language, Its Nature, Development and Origin. London: George Allen & Unwin.
- Johnson, Ronald C., Nancy S. Suzuki, and William K. Old. 1964. "Phonetic symbolism in an artificial language." Journal of Abnormal and Social Psychology. 69, 233-236.
- Kawamoto, Takao. 1974. "Nihongo no syootyoo-go no gogen -- Toku ni nantoo syogo ni kanren site. (1)." (Etymology of Japanese symbolic vocabulary -- with special focus on southern island languages). Nara Daigaku Kiyoo. 23, no. 1, 15-35.
- \_\_\_\_\_. 1975. "Nihongo no syootyoo-go no gogen -- Toku ni nantoo-syogo ni kanren site. (2)." Nara Daigaku Kiyoo. 24, 1-15.

- Kindaiti, Haruhiko. 1951. "Kotoba no senritu" (Melody of Language). Kokugogaku. 5, Rpt. in Haruhiko Kindaiti, ed. 1972. Nihongo On-in no Kenkyuu. (Studies in Japanese Phonology). Tokyo: Tookyoodoo. 78-110.
- \_\_\_\_\_. 1978. "Giongo gitaigo gaisetu." (Outline of mimetic words). In Turuko Asano, ed. (1978). 3-25.
- Kobayasi, Hideo. 1932. "Syootyoo no kenkyuu to hoogengaku." (A study of symbolism and dialectology). Kokugo to Kokubungaku. 9, no. 3. Rpt. in Kobayasi (1976) as "Syootyoo no kenkyuu e." (Toward a study of symbolism). 253-260.
- \_\_\_\_\_. 1933. "Kokugo syootyoo-on no kenkyuu." (A study of Japanese ideophones). Bungaku. 1. no. 8, 1-47. Rpt. in Kobayasi. (1976). 261-312.
- \_\_\_\_\_. 1965. "Giongo to giyoogo." (Onomatopoeia and mimetic words). Gengo-seikatu. 171, 18-29. Rpt. in Kobayasi (1976). 313-340.
- \_\_\_\_\_. 1976. Gengo Bigaku Ronkoo. (Studies in Linguistic Aesthetics). Kobayasi Hideo Tyosaku-syuu. (Works by Hideo Kobayasi). 5, Tokyo: Misuzu.
- Kozima, Koozaburoo. 1965. "Sizin to onomatope." (Poets and onomatopoeia). Gengo-seikatu. 171, 50-59.
- \_\_\_\_\_. 1972. "Onomatope kenkyuu zyosetu." (Introduction to the study of onomatopoeia). Ritumeikan Bungaku. No. 303, 8270847.
- \_\_\_\_\_. 1972. "Onomatope no syootyoo-teki yohoo." (Symbolic usages of onomatopoeia). Ritumeikan Bungaku. No. 305, 71-82.
- \_\_\_\_\_. 1972. "Onomatope Zyosetu." (Introduction to onomatopoeia). Ritumeikan Bungaku. No. 318, 957-975.
- \_\_\_\_\_. 1972. Gendai Bungaku to Onomatope. (Modern Literature and Onomatopoeia). Tokyo: Oohusya.
- Kuno, Susumu. 1973. The Structure of the Japanese Language. Cambridge: MIT Press.
- Kuroda, Sige-Yuki. 1973. "Where epistemology, style, and grammar meet: a case study from Japanese." In Stephen R. Anderson and Paul Kiparsky, eds. A Festschrift for Morris Halle. N.Y.: Holt, Rinehart and Winston. 377-391.
- Maltzman, Irving, Lloyd Morrisett, Jr. and Lloyd O. Brooks. 1956. "An investigation of phonetic symbolism." Journal of Abnormal and Social Psychology. 53, 249-251.

- Marchand, Hans. 1960. The Categories and Types of Present-day English Word-Formation. Wiesbaden: Otto Harrassowitz.
- Markel, Norman N. and Eric P. Hamp. 1960. "Connotative meanings of certain phoneme sequences." Studies in Linguistics. 15, nos. 3-4, 47-61.
- Martin, Samuel S. 1975. A Reference Grammar of Japanese. New Haven and London: Yale University Press.
- Masson, David I. 1952. "Synesthesia and Sound Spectra." Word. 8, 39-41.
- Matuoka, Takesi. 1958. "Kotoba to syootyoo." (Language and symbolism). In Yoshimoto Endo, et al., eds. Kotoba no Kagaku Vol. 3: Kotoba no Sinri. Tokyo: Nakayamasyoten. 130-148.
- McCawley, James D. 1968. The Phonological Component of a Grammar of Japanese. The Hague: Mouton.
- Miller, Roy Andrew, ed. 1970. Bernard Bloch on Japanese. New Haven and London: Yale University Press.
- Miron, Murray S. 1961. "A cross-linguistic investigation of phonetic symbolism." Journal of Abnormal and Social Psychology. 62, 623-630.
- Miyazi, Yutaka. 1978. "Giongo, gitaigo no keitai-ron syoo-koo." (On morphology of onomatopoeia). Kokugogaku. 115, 33-39.
- Morioka, Kenzi. 1971. "Nihon-bunpoo taikai-ron." (Japanese grammatical system). Gekkan Bunpoo. March, 143-156.
- Morita, Masako. 1953. "Go-on ketugoo no kata yori mita giongo, giyoogo -- sono rekisi-teki sui-i ni tuite." (Mimetic words seen from patterns of word-sound connection -- historical change). Kokugo to Kokubungaku. January, 47-59.
- Nakano, Hiroshi. 1978. "Giseigo, gitaigo no imeezi." (On Image of Onomatopoeia). Keiryoo-kokugogaku. 11, 312-317.
- \_\_\_\_\_. 1979. "Giseigo, gitaigo no imeezi. (2)." Keiryoo-kokugogaku. 11, 362-370.
- Newman, Stanley S. 1933. "Further experiments in phonetic symbolism." The American Journal of Psychology. 45, no. 1, 53-75.
- Ohala, John J. 1981. The role of acoustic frequency in the vocalization of man and animals." Draft version. University of California, Berkeley.

- Ookooti, Yasunori, ed. 1979. "Nit-tyuu giseigo taisyoo yoorei-syuu." (Collection of contrastive examples of Japanese and Chinese mimetic words). Tyuugokugo. No. 229, 2-16.
- Ookubo, Tadatosi. 1968. "Gendai Nihon Kyootuugo 'otomane-go' ron: giseigo to gitaigo." (Modern Japanese common language 'sound mimicking words': mimetic words). Kotoba no Utyuu. October, 2-22.
- Oono, Kazuo. 1975. "Nihongo onomatope no Eigo taioo hyoogen ni tuite." (English expressions for Japanese onomatopoeia). Kokugogaku Ronsetu-siryoo. 12, no. 1, 1-7.
- Saito, Mari. 1980. "A study of sound symbolism." BA thesis. Tokyo: International Christian University.
- Sakuma, Kanae. 1943. "Onsei-teki byoosya ni yoru gokoosei." (Word-formation based on phonetic expressions). In Nihongo no Gengoriron-teki Kenkyuu. (Linguistic Studies of Japanese). Tokyo: Sanseidoo. 1-51.
- Sapir, Edward. 1929. "A study in phonetic symbolism." Journal of Experimental Psychology. 12, 225-239. Rpt. in D.G. Mandelbaum, ed. 1949. Selected Writings of Edward Sapir. Berkeley and Los Angeles: University of California Press. 61-72.
- Sasaki, Syun. 1972. "Ookura-ryuu kyoogen siryoo ni okeru gisei gitai goi ni tuite." (On the mimetic vocabulary in the kyogen materials of the Okura school). Hiroshima Daigaku Kyooikugakubu Kiyoo. 20.
- Suzuki, Masako. 1965. "Mukasi no giseigo, gitaigo." (Mimetic words of the past). Gengo-seikatu. 171, 60-65.
- \_\_\_\_\_. 1973. "Giseigo gitaigo itiran." (A list of mimetic words). In Suzuki and Hayasi, eds. Hinsi-betu Nihon Bumpoo Kooza 10: Hinsi-ron no Syuuhon. (A Course in Parts of Speech in Japanese Grammar Vol. 10: Periphery of Parts of Speech). Tokyo: Meizi syoin.
- Suzuki, Syuuzi. 1978. "Gitaigo no naka no Kango." (Sino-Japanese words among mimetic words). In Kango to Nihonzin. (Sino-Japanese Words and the Japanese People). Tokyo: Misuzu. 139-179.
- Suzuki, Takao. 1962. "On-in kootai to igi-bunka no kankei ni tuite: iwayuru sei-daku-on no tairitu o tyuusin to site." (Associative and Dissociative Function of Some Metaphophonemic Contrast in Present-Day Japanese). Gengo-kenkyuu. 42, 23-29.

- Tamamura, Humio. 1971. "Zisyo to onomatope." (Dictionary and onomatopoeia). In Gengogaku to Nihongo-mondai: Iwakura Tomosane Kyoozyu Taisyoku Kinen Ronbun-syuu. (Linguistics and Problems of Japanese Language: Festschrift for Professor T. Iwakura). Tokyo: Kuroshio. 199-224.
- Tuzuki, Tuneso. 1965. "Hoogen no giseigo, gitaigo." (Mimetic words in dialects). Gengo-seikatu. 171, 40-49.
- Uemura, Yukio. 1965. "Onsei no hyoosyo-sei ni tuite." (On expressiveness of linguistic sounds). Gengo-seikatu. 171, 66-70.
- Ullmann, Stephen. 1962. Semantics: An Introduction to the Science of Meaning. Oxford: Blackwell.
- \_\_\_\_\_. 1973. Meaning and Style. Oxford: Blackwell.
- Watanabe, Minoru. 1952. "Syootyo-zi to ziritugo -- oto to imi." (Symbolic forms and independent forms: Sound and meaning). Kokugo-Kokubun. 21, no. 8, 37-54.
- \_\_\_\_\_. 1954. "Oto to imi (zyosetu) -- Hyoozyoo hyoogen no hakairyoku to titekei keisiki no teikooryoku." (Sound and meaning (an introduction): Destructive power of expressive expressions and resisting power of intellectual forms). Kokugo-kokubun. 23, no. 11, 35-50.
- Wescott, Roger W. 1971. "Linguistic iconism." Language. 47, 416-428.
- \_\_\_\_\_. 1971. "Labio-velarity and derogation in English: a study in phonosemic correlation." American Speech. Spring, 123-137.
- \_\_\_\_\_. 1975. "Allolinguistics: exploring the peripheries of speech." In Peter A. Reich, ed. The Second LACUS Forum. Columbia, South Carolina: Hornbeam Press. 497-511.
- \_\_\_\_\_. 1976. "The phonology and morphology of American English slang." In Robert J. DiPietro and Edward L. Blaust, eds. The Third LACUS Forum. Columbia: Hornbeam Press. 108-119.
- Yamaguti, Nakami. 1973. "Tyuuko syootyoosi no go-on ketugoo: seidaku ni mondai no aru gorei o tyuusin ni." (Word-sound connections of the mediaeval symbolic words: with special focus on the examples of the words that have problems in the voiceless-voiced pairs). Kokugo-gaku. 93, 17-47.
- Yasumoto, Yosinori. 1968. "Gendai bungaku ni miru gitaigo." (The mimetic words seen in modern literature). Kotoba no Utyuu. October, 23-32.

Yeung, Suk Wah Helen. 1979. "A phonetical comparison of sound symbolism in English and Japanese." BA thesis. Tokyo: International Christian University.

## II. Dictionaries and Encyclopedias

- Amanuma, Yasusi. 1974. Giongo Gitaigo Ziten. (Dictionary of Mimetic Words). Tokyo: Tookyoodoo.
- Asano, Turuko, ed. 1978. Giongo Gitaigo Ziten. (Dictionary of Mimetic Words). Tokyo: Kadokawa.
- Davies, Peter, ed. 1970. The American Heritage Dictionary of the English Language. Paperback edition. N.Y.: Dell.
- Gilman, E. Ward, et al. eds. 1978. The Merriam-Webster Thesaurus. N.Y.: Pocket Books.
- Ichikawa, Sanki, et al. eds. 1960. Kenkyusha's New English-Japanese Dictionary. Tokyo: Kenkyusha.
- Kokugo-gakkai, eds. 1955. Kokugo-gaku Ziten. (Encyclopedia of Japanese Linguistics). Tokyo: Tookyoodoo.
- Masuda, Koh, et al. eds. 1974. Kenkyusha's New Japanese-English Dictionary. Tokyo: Kenkyusha.
- Nihon Daisiten Kankookai, ed. 1972-1976. Nihon Kokugo Daiziten (The Great Dictionary of the Japanese Language). Vol's 1-20. Tokyo: Syoogakkan.