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Japanese Numeral Classifiers:
A Syntactic, Semantic, and Functional Profile

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Semantic, and Functional Profile
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TRANSCRIPTION CONVENTIONS

Japanese examples are romanized phonemically, in accordance with the Kunreisiki system officially sanctioned by the Japanese government, with the exception that long vowels are indicated by a repetition of the vowel in question, rather than by a vowel marked with a circumflex.

All examples which are actual recorded uses of classifiers are accompanied by one of the following symbols, to indicate the genre in which they originally appeared:

O   - oral
FT - folktale
F   - (other) fiction
NF - non-fiction

Other examples have been constructed or elicited.

Glosses for the Japanese examples contain the following abbreviations:

COLL - collective marker	INST - instrumental marker
COM - comitative marker	LOC - locative marker
CONTR - contrastive marker	NEG - negative marker
COP - copula	NMLZ - nominalizer
CP - case particle	NOM - nominative marker
DAT - dative marker	OBJ - object marker
EMPH - emphatic marker	PL - plural marker
EVID - evidential	PP - pragmatic particle
GEN - genitive marker	PST - past tense marker
HON - honorific marker	Q - question marker
IMP - imperative marker	QUOT - quotative marker
	TOP - topic marker

Linguistic forms cited from languages other than Japanese appear in the transcription system used by the author of the work from which the example is drawn. In some cases, e.g., Burmese, this results in the use of more than one system for representing a single language.

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CHAPTER 1

INTRODUCTION

This dissertation is an attempt to provide a semantic, syntactic, and discourse-functional account of Japanese numeral classifiers, a group of morphemes which resemble in many ways the numeral classifiers described in accounts of other languages,[1] particularly those of Southeast Asia. Classifiers have recently become a topic of growing interest among linguists and anthropologists, and the past few years have seen the addition of two important dissertation length studies (Conklin 1981, Adams 1982) to the sizeable list of article-length treatments of the classifier systems of various languages. Useful attempts to synthesize what is known about the classifier systems of various languages have also been provided by works such as Denny 1976, Greenberg 1972, Adams and Conklin 1973, and, especially, Allan 1977.

These studies have in general focused on the semantic properties of classifier systems, most recently in the light of claims that the systems of different languages may share certain universal semantic traits. In the study I will present here, I consider not only the semantic properties of the Japanese numeral classifier system but also the discourse functions it fills. Although most treatments of classifier systems give a passing nod to the use of classifiers as noun substitutes, or note briefly the interplay between classifiers and number marking, detailed treatment of these aspects of classifier behavior has in general been lacking. For this reason the second half of this study is directed toward the question of how classifiers function in the construction of texts, rather than simply noun phrases, or at best, sentences.

The dissertation is organized as follows: In this introductory chapter, I provide a brief review of some of the more important issues that have been raised in the past by writers concerned with the numeral classifier systems of other languages. This is intended to serve as a backdrop for the treatment of Japanese which appears in subsequent chapters. I also describe the data collection methods I used in doing my study and provide a list of the classifiers considered. Subsequent chapters treat the history and

morphology of the system (Chapter 2), its semantic properties (Chapter 3), implications for the semantic analysis of classifier systems in general (Chapter 4), the anaphoric use of the classifiers (Chapter 5), the interaction of the classifier system with the plural marking system (Chapter 6), and the semantic effects of variations in the positioning of the numeral-classifier pair within the sentence (Chapter 7).

Problems in Defining Numeral Classifiers.

The first issue to be addressed, of course, is the question of what a numeral classifier is, how it has been defined in the various languages in which it is purported to occur, and how it will be defined for the purposes of this dissertation. In the literature, definitions like the following, provided by Burling (1965, p. 245) for Burmese, are the rule, defining a "classifier slot" contiguous to the numeral and categorizing as classifiers any forms that may fill the slot:

> The class of all classifiers can be given a clear syntactical
> definition: in Burmese it includes all morphemes which follow
> directly and in close juncture behna-, "how many," or the numbers ta-,
> "one," hna-, "two," θoun-, "three," etc., up to kou-, "nine."

Definitions of this type are, of course, possible only for individual languages, leaving us with the question of how to recognize a new numeral classifier language when we see one. Allan, in his survey of classifier phenomena (Allan 1977, p. 285) defines classifiers in terms of the following two criteria:

1. They occur as morphemes in surface structures under specifiable conditions [in the "classifier constructions" defined independently by each language].

2. They have meaning, in the sense that a classifier denotes some salient perceived or imputed characteristic of the entity to which an associated noun refers (or may refer).

It is not only numeral classifier languages which possess forms of this type, for, in Allan's taxonomy, numeral classifier languages constitute but one of four types of classifier languages:

I. Numeral classifier languages, e.g., Thai, in which classifiers are obligatory in many expressions of quantity.

II. Concordial classifier languages, e.g., Bantu and many Australian languages, in which the classifying formatives are affixed to nouns as well as their modifiers, predicates, and pro-forms.

III. Predicate classifier languages, e.g., Navajo, in which the verb

stem varies according to certain characteristics of the referent conceived of as participating in the event, either as actor or goal.[2]

IV. Intra-locative classifier languages, e.g., Toba, Eskimo, and Dyirbal, in which noun classifiers are embedded in some of the locative expressions which obligatorily accompany nouns in most environments.

Languages of all these types are considered "classifier languages" because they have classifiers, as defined above, at least some of which appear only in "classifier constructions" like the one defined by Burling for Burmese, and because at least some of these classifiers classify nouns according to the inherent characteristics of the entities to which they refer.

Interestingly, although Allan does define classifier languages in the terms just described, he is less stringent in his requirements of the actual classifiers themselves. He in fact includes in his inventory of classifier types markers of "quanta," even though they typically do not denote any "inherent characteristics" or even any "salient perceived or imputed characteristics" of the referent of the nouns with which they are associated. The fact that Allan mentions "inherent characteristics" at all thus seems to constitute a half-hearted attempt to draw a line between true classifiers and quantifiers, although both types are ultimately included in his classifier category because they share the privilege of occurring in the so-called "classifier constructions." In other words, quantifiers are included because they are morpho-syntactically indistinguishable from the "true classifiers" which make reference to "inherent characteristics."

The ambivalent treatment of quantifiers that we find here is not unique to Allan's work. Although some researchers have simply ignored this problem and included all forms which occur in classifier slots under the classifier rubric, sometimes cross-listing them as nouns or verbs as well, many investigators have employed a strategy similar to Allan's mention of "inherent features" in order to exclude from consideration both quantifiers and run-of-the-mill nouns which are morphologically identical to classifiers and may occur in "classifier constructions" although they perform a function different from that typically associated with classifiers.

Benton, in his interesting discussion of Trukese numeral and attributive classifiers (Benton 1968), follows an approach introduced by Pe

4)   Trukese (Benton 1968, p.117)

e-_pwopw_   pwopwu-n   pwuna
one-_tuber_   tuber-ATTRIBUTIVE PARTICLE   taro

'one tuber of taro'

Pe's definition of a repeater differs slightly from Benton's, allowing for the inclusion of forms which repeat not all but only part of the noun to which they are related, as in the Burmese example in 5).

5)   Burmese (Pe 1965, p.171)

luðegaun   hnə-_kaun_
dead person body   two-body   'two corpses'

Although the distinctions as they are drawn here seem clear enough, most languages for which descriptions of a numeral-classifier system exist appear to contain various problematic forms difficult to assign with any certainty to just one of these classes. If we focus on the terms which denote standard measures as representatives of the quantifier class, for example, we will have relatively little difficulty justifying our decision to distinguish them from classifiers, since forms such as _pound_ or _inch_ can be applied to any entity which possesses weight or extension, regardless of its other properties. It is true, however, that even such common properties as weight and extension are by no means associated with, or relevant in unitizing, all the entities or concepts which we might wish to enumerate. Although we might speak of 'a pound of sand' or 'an inch of paper,' we would be unlikely to refer to 'a pound of government' or 'an inch of student.' For this reason even the clearest members of the quantifier category, like true classifiers, carry some minimal information about the inherent properties of the commodity being quantified. We know at least that it is conceived of by the speakers of the language in question as possessing, for example, weight or extension.

This amount of information, however minimal it may appear, is not significantly less than that which is carried by the 'default classifiers' or 'unmarked classifiers' that fill the gaps in the classifier inventories of most classifier languages. The Chontal Maya classifier of this type, -_be_, for example, is used in enumerating such diverse referents as houses, swamps, hats, gourds, turtles, days, pieces of advice, and stories, referents that are not associated with one of the other, more specific, classifiers (Keller 1955). It would surely be difficult in this case to justify the position that -_be_, by virtue of being a true classifier, carries more information about the

inherent properties of the referents of the nouns with which it co-occurs than do forms like inch and pound.

The most clearcut cases of the quantifier category do differ from classifiers like -be, however, in that they impose a unit of measurement, the same unit of measurement, on all referents with respect to which they are used. That is, while a pound of sand and a pound of feathers have their absolute weight (and little else) in common, a -be of house and a -be of turtle do not. -be, like most true classifiers, is used to denote a natural unit of whatever it is being used to enumerate, the natural unit differing from referent to referent, but standard measure quantifiers are used to designate referents in the absence of or in disregard of any natural units.

For this reason, any of the standard measures of weight may be used, for example, with respect to an entity possessed of weight. The choice among them is significant and serves to delimit quantitatively different units of the commodity in question. With true classifiers, on the other hand, the speaker is often constrained in the choice of a classifier to be used with a given referent. If the referent is an animal, for example, he may be forced to use the animal classifier; if the referent is a fruit, he may be constrained to use the fruit classifier, thereby denoting a natural unit of animal or a natural unit of fruit rather than imposing a standard temporary measure. In the not infrequent cases where the speaker does have a choice among several classifiers in enumerating a particular referent, however, this potential criterion also loses force.

The situation becomes even more unclear when we move from the standard measure markers to other types of forms typically included in the quantifier category. Three especially problematic groups which Pe catalogues as quantifiers in his discussion of Burmese are those forms which denote referents in some particular (often temporary) configuration, those which designate partitions of individuals, and those which denote groups of individuals. Forms of these types, illustrated in examples 6), 7), and 8) below (from Pe 1965, p.176-80), are common in other classifier languages as well, so their treatment is not a problem unique to Burmese.

6) Burmese configuration-based quantifiers

a) khwe 'a coil' - used of rope, cord, or hair

b) `thoun 'a knot, something tied into a coil or some other form' - used of rope, hair

7) Burmese partition-based quantifiers

   a) shi? 'a joint, section, cut along the length' - used of bamboo or sugar cane

   b) ti? 'a piece chopped off from meat or fish'

   c) kɔ' 'an amount prised out of a pile or heap with a finger or with an implement such as a spade or shovel'

8) Burmese group-based quantifiers

   a) khain 'a stalk of fruits' - used of bananas, toddy palms, coco- and areca nuts

   b) si 'a bundle of long things' - used of sticks, bamboos, sugarcanes and flowers

   c) yan 'a pair of pieces of wearing apparel or ornaments' - used of sandals and shoes; earrings, wristlets, and bangles

The problem in distinguishing forms such as these from true classifiers should be readily apparent. Although they do, like standard measures, impose a unit of quantification such as a group, a pair, or a part, they are not usable with all referents which come in groups, pairs, or parts, but only with much more narrowly defined groups of referents which share a significant number of inherent traits of the type often exploited in "true" numeral classifier systems. Yan cannot be used with just any pair of objects, but only with paired items of apparel.

Difficulties such as these reflect the merit in Becker's suggestion (1975, p.114) that quantity and quality may be, not discrete semantic classes, but rather "polarities in a semantic continuum." Quantifiers resemble classifiers not only in that they co-occur with numerals, but in that they express units of enumeration. The difference lies in the fact that the units expressed by quantifiers are imposed units while the units expressed by classifiers are natural units. The greatest difficulties in distinguishing the two arise in cases where the language fails to recognize the existence of any natural units, as in the case of poi in Trukese, leaving the speaker no option but to use an imposed unit in enumeration, and in cases where the imposed units involve configurations, partitions, groupings, etc. of certain kinds of natural units, as with the Burmese forms cited in 6), 7), and 8).

Additional problems suggest that the notion of a continuum may also be relevant with respect to the classifier-repeater distinction. Pe's

treatment of Burmese, while calling for a three-way quantifier-classifier-repeater distinction, illustrates quite clearly some of the problems in implementing it.

In the clearest cases, the Burmese repeater is true to its name, repeating in its entirety the noun with which it co-occurs in enumerating constructions, filling the slot otherwise occupied by a classifier. Two Burmese examples of this type appear in 9).

> 9)   Burmese (Burling 1965, p.250)
>
>> a)   qéin   tagéin
>>   house   one-house   'one house'
>>
>> b)   myðu   tamyðu
>>   city   one-city   'one city'

These repeaters at first glance seem to differ significantly from true classifiers in terms of function, conveying, as they do, no information not already conveyed by the nouns they echo. Repeaters are not alone, however, in filling the classifier slot for no apparent purpose other than filling it, for the classifier inventories of various languages contain true classifiers which, although they are morphologically unrelated to the nouns with which they co-occur, are used only with a small class of referents already successfully represented by some noun in the language. These forms share the functional peculiarity of repeaters in that they carry no information additional to that transmitted by the nouns with which they co-occur. Because of the existence of unique classifiers like these, repeaters cannot be clearly distinguished from true classifiers on semantic grounds.

In addition, some of the Burmese "repeaters" cited by Pe co-occur not only with the noun they repeat, but with other nouns as well, in which case they are no longer repeaters. The Burmese form kauŋ, for example, is, according to Pe, used as a classifier for subhuman beings and animals, dead people's spirits and ghosts, and (facetiously or in anger) any person. Among the words denoting animals is the noun kauŋ itself, meaning 'body,' 'creature,' so only in cases where kauŋ the classifier is used with kauŋ the noun in enumerating constructions does it become a repeater. An example of this type appears in 10):

> 10)   Burmese (Pe 1965, p.182)
>
>> ə-kauŋ   tə-gauŋ
>> NOUN PREFIX-creature   one-creature   'one creature or body'

The counterintuitive result of this way of viewing the situation is that the same form, kaun, is used in the same syntactic slot, with the same meaning, is sometimes considered a classifier and sometimes a repeater, simply because it replicates the form of the full noun in one case but not the other. Since this distinction, unlike the classifier-quantifier distinction, does not appear to correlate with any semantic or syntactic properties of note, I will dispense with it for the remainder of this dissertation, considering all Japanese forms of this type to be true classifiers so long as they meet the other criteria listed below.

Another problem arises, however, with the fact that a form indistinguishable from a full noun may sometimes appear in direct collocation with a numeral, unaccompanied by any other full noun interpretable as the head of the construction. Some authors choose to treat forms of this sort as unclassified nouns, others as classifiers minus full noun heads. An example appears in 11):

11) Japanese (0)

Akai huirutaa-to midori-no huirutaa-o desu ne hito-koma
red   filter-COM   green-GEN filter-OBJ COP   PP one-frame

hito-koma kawaribankoni kakeru wake yo ne?
one-frame in turn   put on NMLZ PP PP

'They put on red and green filters in turn, frame by frame.'

Across languages, these so-called "unclassified nouns" tend to denote abstract referents such as units of time, colors, kinds, grades, classes, geographical areas, social units, etc., but once again the boundaries between true classifiers, unclassified nouns, and classified nouns is unclear, for the behavior of the forms in question is often somewhat erratic. They sometimes occur in direct concatenation with numerals, as in 11), thereby earning the rubric "unclassified," but these same forms may also in some cases act as true nouns and appear along with a full numeral-classifier pair. This possibility exists in Japanese, as example 12) illustrates:

12) Japanese

a) "unclassified" use:

hito-iro
one-color   'one color'

b) noun use:

hito-tu-no   iro
one-inanimate-GEN   color   'one color'

The classifier system of Japanese thus merges, in typical fashion, into nouns on the one hand, quantifiers on the other, making the establishment of clearcut boundaries a difficult enterprise. The task of drawing the classifier-noun boundary is plagued by cases like that of _iro_, illustrated in 12) above, and the classifier-quantifier line is complicated by the existence of forms like those in 13):

13) _soku_ 'pair of footwear' (= specific quantity (two) + specific referent class (footwear))

kire 'slice' (= partition possessing a characteristic shape (and often a characteristic function - eating) achieved by a particular process (slicing))

teki 'drop of liquid' (= temporary partition of a member of a specific referent class (liquids) with various natural units)

This ambiguity arises in spite of the fact that many forms which are clearly members of only one category or the other do exist, as with _meitoru_ 'meter,' or _mai_ 'flat, thin object.'

Definition of the numeral classifier in Japanese.

Because the classifier category in Japanese is, thus, like other natural categories, blessed with core members and plagued with peripheral ones, it is with a recognition of the arbitrariness of the enterprise that I propose, for the purposes of this study, the following definition of a numeral classifier in Japanese:

1. It may directly follow a numeral.

2. It readily co-occurs with a noun denoting the referent whose number is indicated by the numeral-classifier construction.

3. It denotes a natural unit of the referent, whose (usually but not necessarily inherent) characteristics dictate its choice.

The first of these criteria has no bearing on the problematic cases; it is fulfilled by all of them.

The second criterion rules out the clearest cases of the so-called "unclassified" abstract nouns which sometimes collocate directly with numerals. Although true classifiers do not _always_ appear in the company of a noun denoted the enumerated referent, they do so readily, as shown in 14):

14) I-_kken-no_   mise-_ga_   hiraite-ita node,
     one-_building_-GEN shop-NOM   was open   since

hairu koto-ni sita. (F)
enter NMLZ-DAT did

'Since one shop was open, (I) decided to go in.'

By contrast, "unclassified" nouns, such as time words, for example, do not readily co-occur with a co-referring noun, as the naturalness of 15a) over 15b) illustrates:

15a) mi-kka   tatte   'three days later'
     three-day pass

  b) hi-ga   mi-kka   tatte   'three days later
     day-NOM   three-day pass

While 15b) is certainly not ungrammatical, it is by comparison with a) a marked means of expressing the passage of time and is most likely to be used in an emphatic context.

The third criterion listed above rules out standard measures like ritoru 'liter' and meitoru 'meter,' which impose a unit on the referent with respect to which they are used, as well as forms like hako 'box(ful),' kire 'slice,' and retu 'line, string,' which denote containers, partitions, and groupings whose choice is unconstrained by the nature of the referent with respect to which they are used (except in the marginal sense discussed earlier, p.5). Left within the purview of the study, however, are forms like soku and teki, because their choice is governed by the properties of the entities to which they are used to refer and because the quantities they specify can be seen as natural units.

Although even the definition presented here fails to resolve all the problematic cases, it does succeed in circumscribing the class I am interested in investigating here – those forms which represent an alternative linguistic categorization scheme for referents already categorized by means of the true nouns of the language.

Classifier Corpus Considered in This Study.

At the outset of my study, I consulted lists of classifiers included in a number of descriptions of Japanese[3] and found that they contained over 150 forms conforming to the criteria established above. To ascertain which of these forms are used most frequently and by the broadest range of informants, I consulted a newspaper word frequency count

published by the Japanese National Language Research Institute (<u>Studies on the Vocabulary of Modern Newspapers</u>) and also analyzed the results of 1) a sample of classifier uses drawn from both oral and written texts and 2) a questionnaire on classifier usage which I designed and administered.

On the basis of the questionnaire results, I reduced the original list of forms to two more useful sets that will be referred to at different points in the discussion which follows: a list of core classifiers used frequently by all speakers (the "core inventory"), and a larger list including forms frequently added to the core to fill out the full classifier inventory of individual speakers (the "extended inventory").

Classifier Usage Sample.

The sample of classifier usages is composed of the first 50 classifier uses encountered in five modern works of fiction (250 total)[4] and the first 250 uses encountered in a number of taped and transcribed casual conversations.[5] Although these examples were collected primarily for use in analyzing the discourse roles occupied by classifiers and they in no way constitute an exhaustive sample of classifiers in use, it is of interest to note that they include considerably fewer than the original inventory of 154 forms. Only 36 different classifiers appear at all, and 82% of the uses involve a mere five classifiers, lending support to my hypothesis that the number of classifiers in frequent use is quite limited.

Questionnaire.

A similar conclusion is suggested by the results of the questionnaire, which was designed to elicit data on the use of 154 forms which appeared to meet the classifier criteria which I had established to guide my investigation. With respect to each form, subjects were asked:

Do you use this form?

Have you ever heard or seen this form used?

If you use the form yourself, give an example of its usage, using the pattern Noun + Numeral + Classifier.

If you use the form yourself, or if you have seen or heard it used, describe as best you can what kinds of referents it is used to enumerate.

Informants were also provided space in which to enter any forms which I

had neglected to include. The full text of the instructions to the informants, and an English translation, appear in Appendix 1.

As the instructions for the questionnaire suggest, the task of filling it out was a demanding one, requiring considerable time and effort on the part of each respondent. Fifteen subjects, ranging in age from 21 to 53 (mean age 35) completed the questionnaire. Eight of the subjects were male, seven female, and most of them had spent most of their lives in the Tokyo area, although no attempt was made to control for possible dialect differences in usage.

Of the 154 forms listed on the questionnaire, there were 27 which all fifteen informants said they used.[6] These core classifiers, along with a brief description of the referent classes with respect to which my informants claimed to use them, are listed in Table 1 below. Those referents whose names appear first are central to the category; those whose names appear in parentheses are not included by many speakers. Also noted for each classifier is the lexical stock from which the form derives, indicated by I for indigenous forms, S-J for Sino-Japanese forms, and W for borrowings from Western languages. A list of all the forms included on the questionnaire appears in Appendix 2.

TABLE 1

CORE INVENTORY

1. dai (台 - S-J) - furniture, machines, land and air vehicles
2. hiki (匹 - S-J) - animals (excluding birds, for some speakers)
3. hon (本 - S-J) - long, slender objects such as pencils, trees, threads, roads, lines; (items following a trajectory, such as TV programs, letters, telephone calls, baseball hits).
4. kabu (株 - I) - rooted plants, roots and bulbs; shares of stock.
5. ken (軒 - S-J) - buildings or parts of buildings acting in some functional capacity, such as a home or shop
6. ken (件 - S-J) - incidents, occurrences, such as robberies, fires, accidents
7. ki (機 - S-J) - airplanes (other air vehicles such as helicopters, rockets
8. ko (個 - S-J) - small objects of roughly equivalent extension in all

three dimensions, such as fruits, candies, stones; also coins. (General inanimate classifier for some speakers.)

9. ku (勾 - S-J) - haiku [17-syllable poems] (other short poems)

10. kyoku (曲 - S-J) - pieces of music

11. mai (枚 - S-J) - flat, thin objects such as sheets of paper, pieces of cloth, dishes, items of clothing, phonograph records, leaves, rugs, coins

12. mei (名 - S-J) - human beings [honorific]

13. mon (問 - S-J) - questions, problems

14. mune (棟 - I) - buildings

15. nin (人 - S-J) - human beings

16. satu (冊 - S-J) - books, magazines, notebooks, books of tickets, pads of paper

17. seki (隻 - S-J) - large boats

18. soku (足 - S-J) - pairs of footwear

19. soo (艘 - S-J) - small boats

20. syoku (食 - S-J) - meals

21. teki (滴 - S-J) - drops of liquid

22. ten (点 - S-J) - points in a score, items in an inventory, works of art

23. too (頭 - S-J) - large animals

24. toori (通 - S-J) - methods, opinions

25. tu (一 - I) - inanimates, concrete or abstract [general classifier]

26. tubu (粒 - I) - small, grainlike objects such as grains of rice, grapes, gems, pills, drops of liquid

27. tuu (通 - S-J) - letters and postcards, documents; (telephone calls)

While the list of forms in Table 1 is apparently central to the classifier inventory of any adult Japanese speaker, it probably does not exhaust the list of forms used by most speakers. Respondents to my questionnaire, for instance, claimed to use from 59 to 113 (mean 81) of the 154

forms about which they were questioned, and there were 73 forms claimed by a majority of respondents.

These figures should, of course, be accepted with a certain amount of caution, since people's assessments of their own behavior are often at odds with their actual behavior, and some of my subjects, confronted with such a lengthy list of forms, may have felt that their competence as users of Japanese was at stake in answering the questionnaire. A much more conservative estimate of the number of forms used by individual speakers was arrived at in a study by Sanches (1977) in which subjects were asked to fill elicitation frames with the appropriate classifier. In that study, the mean number of forms used by adult speakers was only 36 for those over thirty, 28 for those under thirty.[7]

Even if my figures are somewhat exaggerated, though, they do indicate that speakers have at their disposal a body of classifiers considerably more numerous than the core group used frequently by all speakers. In an attempt to approximate the total resources available to the average speaker, I have compiled the 46 forms in addition to the core inventory which a majority of my questionnaire respondents claimed to use, arriving at the "extended inventory" shown in Table 2.

TABLE 2

EXTENDED INVENTORY

1. bu (部 - S-J) - newspapers, magazines, books, pamphlets, documents
2. dai (題 - S-J) - problems, topics, test questions, titles
3. dan (段 - S-J) - steps, levels, stairs
4. eda (枝 - I) - tree branches
5. han (犯 - S-J) - crimes
6. hati (鉢 - S-J) - potted plants, (pots)
7. hatu (発 - S-J) - outbursts such as gunshots, farts, fireworks
8. hen (編 - S-J) - literary works
9. heya (部屋 - I) - rooms, usually in the home
10. hin (品 - S-J) - items of merchandise
11. huri (振 - I) - swords
12. husa (房 - I) - things in clusters, such as bunches of grapes or

bananas, tassels, wisteria

13. kapuseru (カプセル- W) - capsules of medicine

14. ki (騎 - S-J) - riders on horseback

15. ki (基 - S-J) - large stationary objects such as machines, graves, gateways, stone lanterns

16. ko (戸 - S-J) - households, houses

17. koku (国 - S-J) - countries

18. koo (校 - S-J) - schools

19. kyaku (脚 - S-J) chairs, (other legged furniture

20. kyoku (局 - S-J) - TV stations, government bureaus; go and syogi matches

21. maki (巻 - I) - rolled up objects such as scrolls, spools of thread, rolls of tape, toilet paper

22. men (面 - S-J) - flat surfaces such as mirrors, tennis courts

23. peizi (ページ- W) - pages

24. ren (連 - S-J) - strung together objects such as necklaces, dried fruit, items in a series , (trains)

25. rin (輪 - S-J) - flowers

26. rooru (ロール- W) - rolls of paper, cloth, film, etc.

27. ryoo (輌 - S-J) - train cars; (trucks)

28. sao (棹 - I) - chests; (flags); (stick-shaped sweets)

29. siito (シート- W) - sheets of stamps, (other flat, thin objects); seats

30. situ (室 - S-J) - rooms

31. soo (層 - S-J) - layers

32. suzi (筋 - I) - long, slender objects, usually seen as a line across a background, such as smoke, rivers, sinews, roads, trickles of liquid

33. sya (社 - S-J) - companies, shrines

34. syu (首 - S-J) - poems

35. tai (体 - S-J) - entities of humanlike form, such as mannequins, gods, corpses, robots, Buddhist statuary

36. taku (卓 - S-J) - tables and desks

37. tama (玉 - I) - globular masses such as piles of noodles, balls of yarn; (small, round objects such as pearls, candies, light bulbs)

38. ten (店 - S-J) - shops

39. tokoro (所 - I) - things occupying a location, places, spots

40. too (党 - S-J) - political parties

41. tuuwa (通話 - I) - telephone calls

42. tyaku (着 - S-J) - major items or suits of clothing

43. tyoo (挺 - S-J) - long, slender implements, usually with handles, such as knives, guns, hoes, violins, candles

44. wa (羽 - I) - birds, (rabbits), (winged insects)

45. za (座 - S-J) - entertainment troupes

46. zen (膳 - S-J) - trays, pairs of chopsticks

47. zyoo (錠 - S-J) - pills

It is the core and extended classifier inventories shown in Tables 1 and 2 that constitute the focus of the semantic analysis presented in Chapter 3.

Classifier Issues of General Interest.

Now that I have defined the object of study and described the data collection methods used, I would like to briefly discuss a few of the topics that have been raised in the literature on classifiers in other languages, and which merit attention here. In the chapters that follow, I will address each of these issues from the perspective provided by Japanese.

1. The universality of the semantic parameters underlying classifier systems. It has frequently been remarked that there is a certain limited set of semantic properties that are repeatedly used, cross-linguistically, in defining the referent classes associated with classifiers. Adams and Conklin, for example, in a report on their investigation of the classifier inventories of 37 Asian languages, conclude (Adams and Conklin 1973, p.1) that "numeral classification is based primarily on the parameters of animateness, shape or function which are attributed to the head noun." In addition, they claim, these parameters are implicationally ordered with respect to their encoding in classifier systems.

Animacy, in the form of a human/non-human distinction or an animate/inanimate distinction, is always encoded, Adams and Conklin find, and the categories based on the three basic shapes of long, round, and flat also appear with considerable regularity. Secondary parameters such as rigidity, size, regularity, etc., are also relevant in many cases, but they typically combine with the primary parameters instead of serving as the sole basis for a classification. Functional parameters, which define such classes as, for example, tools, weapons, and written materials, also appear quite frequently, but, unlike the shape and animacy parameters, seem to be quite language-specific, reflecting the cultural preoccupations of the speakers of the language.

Allan comes to similar conclusions in his survey (Allan 1977), which is based on descriptions of a broader sample of languages than those considered by Adams and Conklin. In Allan's view, nouns are classified on the basis of characteristics akin to what Locke called "primary qualities," perceivable by more than one of the senses, while "secondary qualities," such as color, taste, smell, and sound, which are typically perceived by only one sense, are not utilized. In his list of primary qualities, Allan includes material, shape, consistency, size, location, arrangement, and quanta, listing the animacy and function parameters mentioned by Adams and Conklin as subtypes of the material parameter.

Although Allan includes in his classifier category the quantifiers that I, like Adams and Conklin, have taken pains to exclude, both of these surveys stress the perceptual salience of, in particular, the shape parameters that are frequently encoded in classifier systems, Allan emphasizing their perceivability by more than one sense, Adams and Conklin emphasizing the primacy of vision over the other senses which are not involved in detecting shape. The point here, one which has been widely accepted, is that the classifier systems of different languages tend to resemble each other because they encode categories based on perceptual parameters that are universally salient regardless of the language spoken by the perceiver.

If these claims are in fact true, classifiers enter the growing class of linguistic phenomena thought to be related to the perceptual mechanisms and predilections shared by all human beings, since similar claims have been made with respect to, for example, the development of basic color terms in a

language (Berlin and Kay 1969), the salience of "basic level" vocabulary items (Rosch et al 1976), and the order and manner in which children acquire lexical items (Anglin 1977, Clark 1977, Nelson 1973). Clark (1977) has even gone so far as to argue that there are certain universal categories with pre-determined perceptual salience that show up both in numeral and verbal classifier systems and the overextensions that children make in learning the meanings of lexical items.

These universalist claims are taken up in Chapter 4, which includes an evaluation of the extent to which the semantic parameters in question are represented by the Japanese classifier system, along with an evaluation of the importance of the classifiers that represent them in the functioning of the system as a whole.

     2. **The semantic role of classifiers.** The proposal that classifiers tend to be associated with categories of particular perceptual salience suggests that the semantic loads carried by classifiers and by regular nouns may differ in some systematic way. Denny (Denny 1976) has attempted to characterize this difference, arguing that classifiers serve to place objects in a few especially important classes different from and additional to those associated with common nouns. While nouns must provide descriptions of the world specific enough to allow the hearer to pick out particular referents, the primary function of classifiers is not referential, Denny claims. Rather, they serve to denote the membership of referents in classes defined by the ways in which we, as human beings, interact with them. This interaction may be physical (giving rise to classifiers defined in terms of parameters of shape or substance), functional (reflected in classifiers for such groups as, say, vehicles), or social (manifested in, for example, classifiers for animates vs. inanimates).

In a similar vein, Benton (1968) suggests that the speaker can, by the use of classifiers, extend or clarify the meanings of the common nouns with which they co-occur. Benton has in mind here, in particular, cases where a single noun may co-occur with more than one classifier, each of which corresponds to and picks out different attributes of the referent to which the noun refers, as in 15) below.

15) Trukese (Benton 1968, p.110)

    a)   e-_ew_   núú
          one-_general_ coconut 'one coconut (fruit)'

    b)   e-_fóc_   núú
          one-_cylindrical_ coconut 'one coconut (palm)'

    c)   e-_wo_   núú
          one-_log_ coconut 'one coconut log'

In this way classifiers provide, as Benton puts it (p.143), "a means for ordering the universe, and a method for structuring concepts without multiplying vocabulary."

Benton, in ascribing to the classifiers in Trukese the functions he does, differs in his orientation from Denny, who stresses the opposition between referential indicators and cultural signposts, but both descriptions depend, in the end, on the belief that classifiers and common nouns provide alternate categorizations of reality, classifiers filling a semantic role complementary to the one filled by nouns. These issues are also discussed in the light of Japanese evidence in Chapter 4.

    3. **The structure of the semantic field.** One interesting problem typically encountered in analyzing a classifier system is whether to treat its members as members of a lexical set or members of a syntactic set, for they often possess some characteristics of both types. The decision involved here, although it is an important one, usually receives little explicit attention. Burling's discussion of the problem with respect to Burmese (Burling 1965, p.244 ff.) constitutes the sole significant exception. In Burling's words,

> "in some ways, the choice of which numeral classifier to use in a sentence seems similar to the choice among nouns: one picks the term which corresponds to the extralinguistic situation, the situation in the world to which one wishes to refer. In other ways, however, the choice of numeral classifier more closely resembles the choice among grammatical markers such as the choice of the particular form of the plural in English, where the speaker is constrained by the internal syntactical rules of the language, and the alternatives convey no distinction in meaning whatever."

The decision the linguist makes here, with respect to the grammatical/lexical status of these forms, will have a considerable effect on his expectations regarding the nature, or, in fact, the existence, of any semantic field they might be thought to map. In approaching the classifier system of a language, it is reasonable, for example, to expect to discover

taxonomies, partonomies, chains, etc., structures of the type that have been described for other lexical fields or subfields, or is it more likely that we will have to content ourselves with a bivalent opposition or two?

The answer here surely differs from language to language, depending on a variety of factors, such as the transparency and accessibility of the meanings associated with the classifiers and the open or closed nature of the class they constitute. Some languages, like Tzeltal (Berlin 1968), for example, have been reported to have several hundred classifiers and a productive method for coining new ones, and languages of this type surely merit a treatment different from that to be accorded languages with vestigial systems composed of a mere three or four terms.

The confusion surrounding this issue is reflected in a multiplicity of analytical approaches. Some investigators have chosen to analyze classifier systems as lexical fields, defining each member in terms of the real world referents with respect to which it is used and proposing internal field structures of various types to account for the relations among the members. The Japanese system, for example, has elicited two analyses (Sanches 1977 and Denny 1979) in which it is treated as an elaborate taxonomic hierarchy. Others have chosen to view the choice among classifiers as governed, not by the properties of the referents with which they are associated, but by fixed associations with the common nouns of the language - a given noun is seen as grammatically triggering a particular classifier.

The issues I have outlined here are treated from several perspectives in the chapters that follow. Because the classifier inventory used by present-day speakers of Japanese is quite extensive, I do not attempt a full-scale analysis of the semantic relations uniting all the members of the category. In Chapter 3, I do, however, present a catalog of the behavioral and distributional traits which distinguish the members of the inventory from each other, arguing that the classifier category should not be seen as a homogeneous set of forms. Here I also directly address the adequacy of the taxonomic analyses proposed by Denny and Sanches and describe a number of semantic characteristics which should figure, I feel, in any comprehensive semantic analysis of the field.

4. __Interaction with plurality markers__. Various researchers have commented on the relationship between numeral classifiers and plural markers, in some cases drawing very broad conclusions based on the assumption that the two types of forms convey similar types of information. T'sou (1976, p.1216), for example, hypothesizes that

> "the use of nominal classifiers and the use of the plural morpheme are in complementary distribution in natural language. More concretely, ... either a) a natural language has either nominal classifiers or plural morphemes, or b) if a natural language has both kinds of morphemes, then their use is in complementary distribution."

As we will see below, T'sou's hypothesis is clearly falsified by the data from Japanese, which possesses not only numeral classifiers, but several plural markers which may appear with nouns which are accompanied by classifiers as well. The fact that both of these types of markers may appear in collocation with the same head noun is not too surprising, in spite of T'sou's predictions, if we consider that the discourse roles of the two sets of forms differ considerably, and that neither set of forms indicates number __exclusively__. This is not to imply that T'sou's intuition is completely wrong – the information carried by the two kinds of markers overlaps in most cases, and, although the two systems may not be in complementary distribution, as T'sou suggests they should be, they are by no means independent of each other. The details of the interaction of these two systems in Japanese are discussed in Chapter 6.

5. __Discourse functions of classifiers__. Most descriptions of classifier systems contain at least passing mention of the fact that numeral-classifier pairs can be used with no co-occurring head noun, as noun substitutes. This sort of usage, like the usage of pronouns in English, typically occurs when the identity of the referent in question is made sufficiently clear by the context, either linguistic or non-linguistic, as in the Vietnamese examples in 16):

16) Vietnamese (Nguyen 1957, p.130)

   a) Tôi có ba con mèo, hai __con__ trắng, một __con__ den.
       'I have three cats, __two__ white and __one__ black.'

   b) Bà muốn mua mấy quả? Ba __quả__.
       'How many (fruits) do you want to buy? __Three__.'

Classifier uses of this type assume importance in Japanese because of

the tendency to avoid the use of second and third person pronouns. Although these pronouns do exist, they are used quite sparingly, leaving the speaker who wishes to make successive references to a particular entity the primary options of a full noun and ellipsis. The use of the first of these options amounts in many contexts to a surfeit of information, while the second may carry with it considerable danger of confusion, bearing as it does no explicit information about the identity of the referent that it marks. Classifiers are used here to fill the gap, providing more information than ellipsis and obviating the necessity for returning to full nominal reference in potentially ambiguous situations. Examples like the one in 17) are common:

17) Koosinzyo-no   otoko-wa   tyokusetu watasi-o
    detective agency-GEN male-TOP directly   me-OBJ

    tazunete-kimasita. Ano   kyoodai-wa
    ask-came   those older brother and younger sister-TOP

    yaneurabeya-ni tozikomotte-imasita kara,   kootugoo desita yo.
    attic-LOC   were locked up   because fortunate was   PP

    Ima hutari-wa   ryokoo-ni dete-iru, to itte-okimasita. (F)
    now two-person-TOP   trip-DAT are gone QUOT   said

    'The man from the detective agency came directly to me. The
    brother and sister were tucked away in the attic, which was
    fortunate. 'The two of them are away on a trip now,' (I) said.'

Not only do classifiers in Japanese act, in this way, as (pro)noun substitutes, they also play an important role in the specificity indicating system. As the differing acceptability judgments on the two Japanese renderings of the accompanying English gloss illustrate in 18), a difference in specificity is often conveyed by the position of the classifier, with the pre-nominal position in a) traditionally treated as the specific position, the pre-verbal position in b) treated as non-specific:

18) 'How about smoking a cigarette?' (non-specific)

    a) * I-ppon-no
         one-long, slender object-GEN

       tabako-o   sutte-mimasyoo.
       cigarette-OBJ   smoke-let's see

    b) Tabako-o   i-ppon
       cigarette-OBJ   one-long, slender object

       sutte-mimasyo.
       smoke-let's see

In its capacities as noun substitute and specificity marker, the classifier construction fills discourse functional roles which supplement

its semantic role.   Details on its use in these ways are presented in Chapter 5 and 7.

In sum, with this dissertation I have aimed at presenting a well-rounded portrait of a morpheme class which is small enough to be manageable yet which possesses a number of interesting traits worthy of investigation.   It lies at the frequently disputed boundary between grammar and lexicon; it represents categories asserted to be of special cognitive salience; it participates in the functioning of an anaphoric system constructed along lines quite different from those exploited in the standard Indo-European languages.   It is my hope that the treatment presented here will shed a bit of light on the intriguing data which it seeks to explain.

FOOTNOTES

[1]The descriptions that have been used here as points of comparison are the following:

Apache - Hoijer 1945
Athapaskan - Krauss 1968
Australian languages - Capell 1939, 1940, Worsley 1954
Austroasiatic - Adams 1982
Austronesian - Conklin 1981
Bantu - Alexandre 1967, Richardson 1967, Worsley 1954
Burmese - Becker 1975, Burling 1965, Pe 1965
Chinese - Chao 1968, Coyaud 1973, Erbaugh to appear, Henne et al. 1977,
     Karlgren 1923
Chipewyan - Carter 1976
Chontal - Keller 1955
Classical Chinese - Coyaud 1973, Dobson 1974, Schafer 1948
Dyirbal - Dixon 1972
Eyak - Krauss 1968
Fula - Arnott 1967, Lacroix 1967
Gilbertese - Silverman 1962
Grusi - Manessy 1967
Haida - Krauss 1968
Hupa - Haas 1967
Iban - Omar 1972
Jacaltec - Craig to appear
Kamba - Whitely 1963
Old, Middle, and Modern Khmer - Jacob 1965
Malay - Omar 1972
Navaho - Hoijer 1951, Landar 1964, 1965, Sapir 1932
Nung - Saul 1965
Swahili - Whiteley 1967
Tai - Conklin 1981, DeLancey to appear
Tarascan - Friedrich 1969
Tem - Manessy 1967
Thai - Haas 1942, Placzek to appear
Tiv - Arnott 1967
Tlingit - Krauss 1968
Trukese - Benton 1968
Tzeltal - Berlin 1968, Berlin and Romney 1964
Tzutujil - Dayley 1981
Vietnamese - Nguyen 1957
Yurok - Haas 1967
Miscellaneous - Adams and Conklin 1973, Allan 1977,
     Goral 1976

[2]The characterization here might profitably be broadened to include noun incorporating languages like those described in Mithun (to appear).

[3]Lists of classifiers were drawn from Haguenauer 1951, Hoozyoo 1973, Lewin 1959, Osida 1965, Satow and Ishibashi 1942, and Yano 1968.

[4]The works used were: Shuusaku Endoo, Umi to Dokuyaku; Zyunnosuke Yosiyuki, Ansitu; Seityoo Matumoto, Harikomi; Ayako Sono, Hosi to Uo no Koimonogatari; and Ken Kaikoo, Natu no Yami.

[5]The oral texts used were oral narratives collected and transcribed by the Chafe research project at Berkeley described in The Pear Stories (Wallace Chafe, ed.) and transcribed conversations published in Gengo Seikatu (a linguistics journal), Subarasiki Nakama (a collection of TV interviews), and Syoosetu yori Ki nari (a group of interviews collected by Zyuuzoo Itami).

[6]Actually, only 26 of these forms were claimed by all informants, since the general inanimate classifier tu did not appear on the questionnaire. I omitted it because I feared that speakers would be reluctant to recognize it as an independent morpheme, rather than as part of the abstract numerals in which it appears. I had no hesitation, however, in attributing its use to all

my informants. See Chapter 3 for usage figures and acquisition data which justify this assumption.

[7]It is not clear from Sanches' report of her study how many elicitation frames were presented to each subject, i.e., whether they actually had the opportunity to produce all the forms included in my questionnaire. Another point of procedure which is not clarified is whether or not subjects were allowed to give multiple responses to a particular elicitation frame. If not, speakers may have refrained from producing many of the more specific but stylistically marked forms which were claimed by the respondents to my questionnaire.

The striking discrepancy between the results of my survey and those of Sanches, then, can probably be explained in terms of the underelicitation possible with her methodology and the conscious manipulation and self-inflation possible with mine. Whatever the actual number of forms typically used by adult speakers, however, it clearly exceeds the 27 forms listed in Table 1.

CHAPTER 2

THE JAPANESE SYSTEM - HISTORY AND MORPHOLOGY

Conclusive information regarding the origins of the classifier system in Japanese is not available to us, for its appearance pre-dates documentary evidence. Already in the eighth century A.D., classifier forms which are clearly borrowed from Chinese appear in such works as the Koziki (712), the Nihon Syoki (720), and the Manyoosyuu (759), the documents which constitute our first extensive written records of the language.

The inclusion of Sino-Japanese forms in these early records has given rise to speculation that Japanese possessed no indigenous classifier system antecedent to the contact with China that revolutionized so many features of Japanese language and culture. This is the view expressed, for example, in Yule and Burnell (1903), who attribute the existence of classifier systems in both Japanese and Korean to the influence of Chinese.

A different view, one which appears to be based on a careful appraisal of the earliest evidence, and which has been noted favorably by subsequent scholars, has, however, been proposed by Ikegami (1940). Ikegami argues that although there can be no doubt that the classifier inventory of Japanese underwent an explosive expansion upon contact with Chinese, there existed an indigenous system antecedent to the advent of Chinese influence.

Before outlining the evidence for each of these views, a word is in order about the morphology of the eighth century numeral system and the difficulties inherent in trying to reconstruct with any certainty the nature of the classifier system of that period.

The Numeral System of the Eighth Century

Modern Japanese is characterized by the presence of two co-existing numeral systems, one indigenous, the other of Sino-Japanese origin. Both of these systems are attested in eighth century documents, although, as I will describe below, there are many instances where it is impossible to determine which system a given numeral expression is intended to represent.

Although there is some minor dispute about the exact phonetic realizations of some of the indigenous numerals of the eighth century, the

following list of hypothesized forms (from Tukisima 1969) enjoys wide acceptance:

Table 1

Indigenous Japanese Numerals of the Eighth Century

1	hitö[1,2]	8	ya
2	huta/hutu	9	kokono
3	mi	10	too/-so[3]
4	yö	100	momo/-ho
5	i/itu	1000	ti/titi
6	mu	10,000	yorodu
7	nana		

These indigenous forms appeared in various positions within the sentence, as the examples in 1) below illustrate.

1a) Directly preceding a noun:

momo-tori-no koe
100-bird-GEN   'the voices of 100 birds'

b) Directly preceding a classifier:

yo-tu-no hemi
4-general classifier-GEN snake   'four snakes'

c) Separated from a noun by an intervening particle:

inisie-no   nana-no sakasikihito-domo
old days-GEN 7-GEN   wise man-PL

'seven wise men of olden times'

d) Directly preceding a verb:

hitatinokuni-no huta-narabu tukuba-no yama
Hitati-GEN   two-line up Tukuba-GEN mountain

'the two lined up mountains of Tukuba in Hitati'

Although eighth century documents contain numerous instances of the use of the indigenous numerals one through ten, there are relatively few attestations of the numerals over ten, with the exception of the forms for multiples of ten. The rarity with which the other numerals appear is often attributed to the complexity of the indigenous Japanese system for forming them, which involved the insertion of the form amari 'plus' between each digit in the expression. The numeral classifier or noun with which the numeral was concatenated was also sometimes repeated after each digit, as illustrated in 2):

2a) Numeral-amari-numeral: too amari mi
                                   10 + 3   '13'

  b) Numeral-amari-numeral-classifier:

    too amari huta-ri
    10   + 2 people '12 people'

  c) Numeral-classifier-amari-numeral-classifier:

    miso tose amari nana tose
    30 year + 7 year '37 years'

It is easy to imagine how cumbersome the use of this system would become in the case of numbers containing over two digits, and this is the reason, many scholars have suggested, that the Sino-Japanese numerals soon gained favor, to the extent that the present-day system, illustrated in Table 2, contains only the indigenous numerals one through ten. With the exception of a few frozen expressions like yorodu no hito 'all people' (literally, '10,000 people'), the Sino-Japanese system is used for expressing all numbers over ten, and the Sino-Japanese forms are often preferred over the surviving indigenous forms even for expressing numbers below eleven. A few Anglo-Japanese forms, e.g., wan 'one,' tuu 'two,' surii 'three,' have also appeared recently, but they do not yet constitute a systematic challenge to the other two systems.

Table 2

Present-Day Japanese Numerals

	Indigenous	Sino-Japanese
1	hito-[4]	iti
2	huta-	ni
3	mi-	san
4	yo-	si[5]
5	itu-	go
6	mu-	roku
7	nana-	siti
8	ya-	hati
9	kokono-	ku/kyuu
10	too	zyuu
100	---	hyaku
1,000	---	sen
10,000	---	man
100,000,000	---	oku
1,000,000,000	---	tyoo

It is impossible to identify the exact point at which the Sino-Japanese numerals came into use in Japan. Tukisima (1965) notes that Chinese characters representing numerals can be found in Japanese inscriptions dating from as early as the fourth century A.D., but the authorship as well as the pronunciations associated with these inscriptions are too unclear to permit us to draw any firm conclusions about the use of Sino-Japanese numerals at that time.

Brainerd and Peng (1968) argue that the process of borrowing the Chinese numerical system was a lengthy one, with Chinese characters used at the outset to represent, not Sino-Japanese forms, but indigenous Japanese numerical expressions like those in 2) above. By the end of the Tang Dynasty (618-907 A.D.), however, the Chinese numerals themselves had been fairly well assimilated and were in regular use.

The Classifier System of the Eighth Century

Like numerals, classifiers appear in the earliest Japanese documents, but as with numerals, interpretation of their status is hindered by the complexity of the writing system and the shallow time depth of the documentary evidence available, as well as the lack of a clearcut distinction between classifiers and common nouns, a problem which persists to the present day.

Impediments to evaluating the system.

A. The writing system. The Japanese writing system as it comes to us in eighth century documents represents an early stage in the development of the mixed ideographic and phonetic system used in Japan today. The reader interested in a detailed description of the eighth century system might consult Lange (1973) for an English account or Nakata (1972) for a Japanese account, but since a satisfactory description here would lead us far afield, I will confine myself to a brief summary focused on explaining why the interpretation of the eighth century documentary evidence is so problematic.

The introduction of Chinese characters (henceforth kanzi) in Japan, like the introduction of Chinese numerals, is difficult to date. Although Chinese characters had been used circa 300 A.D. in Chinese documents to phonetically represent Japanese proper names, the first apparent use of kanzi

to represent Japanese in Japan is on swords and mirrors dating from approximately 400 A.D. The use of kanzi at this time, however, was largely confined to the foreigners who imported them and to a few Japanese specialists. Even in the Suiko Period (592-628 A.D.), there was still heavy dependence on the knowledge of Korean scholars, but by the beginning of the eighth century a literate Japanese class had begun to arise.

The first real texts that the Japanese learned to read and write in kanzi were kanbun, texts in the style of literary Chinese. There were various fashions, of varying degrees of fidelity to the original Chinese, of reading these texts, but they can be roughly grouped into two styles, known as ondoku, 'reading in the on (Sino-Japanese) pronunciation' and kundoku 'reading in the kun (indigenous Japanese) pronunciation.' These two styles of reading paved the way for the mixed semantic/phonetic representation of Japanese itself which is attested, in confused and incipient form, in the eighth century documents that we are concentrating on here.

In the semantic representation system, Japanese words came to be represented by the kanzi associated with their Chinese synonyms. Thus, for example, the kanzi 谷 was used to represent the indigenous Japanese word tani 'valley' because it bore the meaning 'valley' in Chinese. In this way, then, certain kanzi came to be consistently associated with certain indigenous Japanese forms on the basis of semantic links with the words they originally represented in Chinese.

The use of this system, though, was not without difficulties. One problem arose in the choice of a single kanzi to represent a particular Japanese word, since there were often several semantically related Chinese words (and hence characters) from which to choose. In the absence, then, of any supreme orthographic authority, the same Japanese word was often represented by the characters for more than one semantically related Chinese word. The reverse situation of course arose as well, when several semantically related Japanese words corresponded to but a single Chinese synonym, the result being that the same character was used to represent more than one Japanese form.

Difficulties also arose from another source, for, although this system worked quite well for content words with clear Chinese equivalents, it was unwieldy for representing grammatical elements with no clear Chinese

counterparts. These grammatical elements typically came to be represented by kanzi used phonetically, setting up a dichotomy which survives to the present day, with content words most often represented by kanzi, grammatical elements by the syllabaries composed of symbols which are simplified forms of kanzi once used phonetically.

Kanzi used in the phonetic system for representing Japanese acquired their phonetic values in two different ways, each related to one of the primary methods for reading kanbun texts, _ondoku_ and _kundoku_. In the _ongana_ system, Japanese words containing syllables similar in pronunciation to Chinese morphemes came to be represented with the kanzi used to represent those Chinese morphemes, with no regard for the meaning originally associated with the kanzi. Thus, for example, the indigenous Japanese word _yama_ 'mountain' was sometimes represented by a combination of the kanzi 夜 , meaning 'evening' and bearing the Sino-Japanese pronunciation /ya/ and the kanzi 麻 , meaning 'hemp' and pronounced /ma/.

Like the semantic representation system, the ongana system was not without difficulties. Because of the lack of a universally accepted orthographic authority, because of the reduction of various Chinese forms to the same Sino-Japanese syllable, largely through the loss of the Chinese tone distinctions, and because of the existence of several competing source Chinese dialectal pronunciations, the end result was a very confusing orthographic system in which numerous kanzi with the same Sino-Japanese pronunciation were used to represent a single Japanese syllable and some kanzi were used to represent more than one Japanese syllable.

In the second phonetic representation system, known as _kungana_, kanzi were pressed into service to represent homonyms, or near-homonyms, of the Japanese forms with which they had been associated by means of the semantic representation system. Thus, for example, the character 谷 which was originally used to represent the word _tani_ 'valley' eventually came to be used to represent the form _dani_ 'even.'

The characters used phonetically in this way are the precursors of the standardized syllabaries that were in wide use in Japan by the tenth century, but the ongana and kungana systems as they existed in the eighth century were chaotic. In both systems there were many exceptions to the ideal of one-to-one correspondence between character and Japanese syllable. According to

the <u>Nihon Bungaku Daiziten</u> (<u>Comprehensive Dictionary of Japanese Literature</u>), in fact, no fewer than 56 different characters were at one point used to represent the Japanese syllable /si/, the average being 14 characters per syllable. In addition, the two systems of phonetic representation were often intermingled with each other and with characters used semantically within a single text or stretch of text. Although understanding of poetic conventions and the existence of some near-contemporary commentaries simplify the problem in some cases, we are faced in many instances with considerable indeterminacy in attempting to reconstruct the pronunciation (and hence the indigenous or Sino-Japanese origin) of the form associated with the use of a particular character.

As I noted earlier in my discussion of the two Japanese numeral systems, these orthography-related issues pose a significant problem for the scholar interested in reconstructing the details of the indigenous Japanese grammatical system and in dating the distortions introduced by the imitation of things Chinese. Just as it is unclear in many cases, for example, whether the character 五 'five' is to be pronounced /go/ (Sino-Japanese) or /itu(tu)/ (indigenous Japanese), the readings, and thus the origins, of forms filling the post-numeral "classifier slot" are also called into question.

A case of this type is provided by the character 巻 , which is still associated with two pronunciations today, <u>kan</u> and <u>maki</u>, both of them used as classifiers for rolled up objects such as scrolls or rolls of film. Although, for this particular character, there are confirmed instances of its being used to represent both of these pronunciations from early on, it is not difficult to imagine how the orthographic system I have described could frustrate the efforts of the analyst interested in discovering the antecedence relationship between members of pairs like this one.

<u>B. Lack of a clearcut distinction between nouns and classifiers</u>.
The problem of distinguishing classifiers from quantifiers and unclassified nouns, discussed in Chapter 1, is not of recent origin. As Ikegami (1940) traces in detail, the earliest lists and explanatory descriptions of counting expressions in Japanese indiscriminately include members of all three of these classes, and it was not really until the eighteenth century that Japanese linguists began to recognize a distinction between true classifiers

these other two classes of forms.

This problem arises even in the most comprehensive inventory of indigenous eighth century classifiers available, an appendix to the _Zidaibetu Kokugo Daiziten_ (_Comprehensive Historical Dictionary of Japanese_), Volume 1, where many forms which seem more noun-like than classifier-like are included in the list of 188 forms cited. This inventory is prefaced by a careful discussion in which the dictionary editors note the existence, in eighth century documents, of numeral constructions containing post-numeral elements of the following five types:

a) Noun-like suffixes bearing abstract meanings,
    e.g., ya_tari_ '8 _human beings_'

b) Nouns bearing concrete meanings, usable either independently or
    in post-numeral position, e.g., momo_tori_ '100 _birds_'

c) Nouns that follow a numeral plus the genitive particle _no_, e.g.,
    koko-no _ko_-ra (9-GEN _child_-PL '9 _children_'

d) Compound expressions containing the general classifier _tu_ plus a
    full noun, e.g., hito-_tu-matu_ (one-_general classifier-pine_)'

e) The general classifier _tu_ followed by the genitive particle _no_ and
    a full noun, e.g., iho-_tu-no misumaru_ (500-_general classifier-
    GEN string of beads_) '500 strings of beads'

Defining classifiers (_zyosuusi_) as "expressions which denote fixed categories and append to quantifiers to form numerals" (p.843), the editors of the dictionary choose to include in the category only forms of types a) and b), but they note that forms of type b), because of their syntactic independence, constitute a deviation from the prototypically classifier-like forms which appear in constructions of type a).

Although a line can of course be drawn between forms of types a) and b) for purposes of comparing the indigenous Japanese classifier system with descriptions of other systems, the fact that forms of both types could appear in the classifier slot without benefit of an intervening genitive particle, the fact that Japanese scholars failed to recognize the distinction for centuries, and the fact that the line between classifiers and nouns is still difficult to draw, in some cases, in present-day Japanese, all conspire to suggest that classifiers as I have defined them here may not have constituted a distinct class for speakers of eighth century Japanese. For this reason, use of these eighth century data in evaluating general claims about the nature of classifier systems must be undertaken with care.

<u>Chinese influence on the system.</u>

In spite of the various difficulties I have noted, early Japanese documents contain a significant number of verified uses of forms which appear in post-numeral position and may not appear independently, some of them clearly associated with pronunciations which are not borrowed from Chinese. The possibility still exists, however, as Ikegami clearly explains, that the notion of a numeral classifier slot adjacent to the numeral appeared in Japan only upon the importation of Chinese, regardless of whether all the forms enlisted to fill that slot were borrowed from Chinese as well.

In keeping with such a hypothesis, the actual classifiers could have been derived in two ways, corresponding to the <u>ondoku</u> and <u>kundoku</u> methods of reading kanzi mentioned above. In the ondoku case, classifiers used in Chinese would simply have been adopted for use in Japanese in their Sino-Japanese pronunciation. This is clearly the origin of a large number of the Japanese classifiers; in fact, they constitute the majority of classifiers in use today.[6] In the kundoku case, the character used to represent the Chinese classifier appropriate for counting a particular referent would be inserted by the writer in post-numeral position, following the Chinese model, but it would be pronounced when read aloud as an indigenous Japanese word of related semantic value. Ikegami (p.20) cites a clear case of this type, its pronunciation clarified by the poetic context in which it appears, which dates from 850 A.D.:

3) 八   千   巻
    ya   ti   maki
    8   1000   <u>scroll</u>   '8000 scrolls'

Though the method of counting written materials in terms of the number of scrolls used here is clearly modeled on the Classical Chinese <u>chuan</u>[4] (巻), the word <u>maki</u>, a nominalization of the verb <u>maku</u> 'to roll up,' is not. It is in this way that the indigenous forms which appear in the classifier position in early documents might have been pressed into use only upon contact with the Chinese model, Ikegami suggests.

Upon examining the now suspect indigenous forms, however, one is immediately struck by significant differences among them in how closely they are bound to the numerals which precede them. While some of these forms collocate quite regularly with the indigenous numerals listed in Table 1, with little morphophonemic variation, the paradigms associated with other

forms exhibit considerable variation. The indigenous classifier for humans, for example, appears as ri (hito-ri '1 person') in collocation with some numerals, tari (mi-tari '3 persons') with others, and other forms exhibit similar alternations.[7]

The existence of forms like these, which are strictly bound to the numerals which precede them, suggests, in Ikegami's view, an origin more historically remote than that of the less tightly bound forms, an origin which antedates Chinese influence. Thus, even if some of the apparent indigenous classifiers can be shown to be mere translations of their Chinese counterparts, forms like (ta)ri argue for the hypothesis that Japanese possessed an indigenous classifier system, however explosive its expansion upon contact with Chinese.

Conformity to general expectations regarding the structure of classifier systems.

There can be no dispute about the fact that our earliest records of the classifier system of Japanese contain many forms which are either borrowed from Chinese or indistinguishable from homophonous nouns. It would require a much broader data base and considerably more detailed analysis to determine the individual status of each putative classifier and the role it played within any semantic structure the system as a whole might have possessed. It is easy enough to note, however, many points at which the indigenous system (stripped of its Chinese borrowing) conforms to expectations about classifier systems that have begun to emerge on the basis of cross-linguistic research.

The animacy distinction found to be universally coded in the languages surveyed by Adams and Conklin is marked in the eighth century Japanese system by numerous forms used exclusively for humans and animals, most strikingly the very common and very morphologically entrenched form (ta)ri, used for humans. The importance of the human/non-human distinction is also reflected in the fact that the general classifier tu, although it may be used to refer to animals, is not used to refer to individual human beings.

Numerous shape-based categories are also encoded. Some are quite narrowly defined, differing little from the kinds of categories often

associated with common nouns, but others are quite broad, encoding at least two of the three basic shape dimensions frequently cited as primary organizing parameters for classifier systems. The forms _kara_ and _o/oti_ were used for long, thin objects, for example, while forms like _omo_, _omote_, and _hira_ were available for references to saliently two-dimensional objects. Only round objects, of the three basic shape types, appear to lack their own classifier, but the gap here was filled by the use of the general classifier _tu_.[8]

The system also contains markers of many of the small functionally defined categories that we have come to expect, e.g., _hata_, used for counting looms, as well as markers of the culturally-salient categories that often find their way into classifier systems. An example of this last type is provided by the form _hasira_, which is used for counting gods and exalted persons, although the forms (_ta_)_ri_ and _tokoro_ are also available for counting humans, reflecting the cultural preoccupations of a very status-conscious people.

Lastly, it is interesting to observe the presence, at this early stage in the system, of the default form _tu_, which could apparently be used in referring to virtually any entity except a human being (and gods?). Although, as I have explained, it is impossible to know how long a history the classifier system had had by the eighth century, _tu_ represents an extremely abstract category, in striking contrast to the very narrow referential classes associated with the more noun-like members of the system, such as _hata_, mentioned above, or _ka_, used only for counting oars.

The presence of forms representing these two extremes in our earliest records of the system thus prevents us from characterizing its subsequent development as one of either increasing abstraction or increasing differentiation, although it has at times been fashionable to suggest that "primitive" languages tend to lack words denoting abstract concepts.[9] Considered in these terms, eighth century Japanese was apparently no more primitive than twentieth century Japanese.

Morphology and Syntax of the Present-Day System

Numeral Stock - Classifier Stock Correspondences. As I noted in my discussion of the history of the numeral and classifier systems in Japanese, there are three sets of numerals below eleven available for use with classifiers in enumerating constructions, although the Sino-Japanese forms must be used in all cases calling for a numeral over ten. The choice of numeral stock to be used with a particular classifier is not random, although it is not perfectly regular either, as the discussions in Kenboo 1976 and Martin 1975 illustrate. In general, a classifier co-occurs with a numeral (in the case of numbers one through ten) drawn from the same lexical stock to which it belongs, following the pattern established for other word formation processes in the language. Thus, Sino-Japanese classifiers tend to co-occur with Sino-Japanese numerals, indigenous classifiers with indigenous numerals.

This generalization is, however, by no means watertight. Classifiers borrowed from Western languages tend to co-occur with Sino-Japanese numerals, rather than the English-based wan, tuu, surii, probably because the numerals over surii in this series have yet to become firmly established. These cases do not account for all the exceptions, though, as is illustrated by the trends reflected in Table 3, drawn from Kenboo 1976.[10]

Table 3[11] Classifier Types			
Classifier / Numeral	Indigenous	Sino-Japanese	Western
Indigenous (hito-)	◯	•	•
Sino-Japanese (iti-)	•	◎	◯
Western (wan-)	X	X	•
◎ extremely common ◯ of intermediate frequency		• extremely rare X non-existent	

As we see here, combinations which do conform to predictions based on lexical stock congruity appear quite frequently, as in, to cite examples from

the core list, hito-tubu 'one-grain' (indigenous + indigenous) or iti-mai (S-J + S-J), but Kenboo also presents examples of the types listed in 4) below, which illustrate each occurring class of exceptions to the rule.

4a) S-J numeral + indigenous classifier:

iti-wa 'one-bird'

b) Indigenous numeral + S-J classifier:

hito-kokyuu 'one-breath'

c) Indigenous numeral + Western classifier:

hito-siizun 'one-season'

d) S-J numeral + Western classifier:

iti-kapuseru 'one-capsule'

Martin (Martin 1975) also notes that some speakers appear to feel uneasy using classifiers collocated with the indigenous numerals above 'four' or 'five,' switching to Sino-Japanese numerals at that point although indigenous forms are available through 'ten.'

Numeral-Classifier Assimilation Patterns. As we shall see below, Japanese classifiers enjoy a certain amount of syntactic freedom, appearing in various positions within the sentence, but they are quite strictly bound to the numerals which precede them. A number of assimilative processes obscure the boundaries between many of the Sino Japanese numerals and the classifiers which follow them, although these patterns are not followed with absolute regularity, as minimal pairadigms like the one in 5) below illustrate.

5)

		hun 'minute'	hon 'long, slender object'
1	(iti)	ippun	ippon
2	(ni)	nihun	nihon
3	(san)	sanpun	sanbon
4	(yon)	yonpun	yonhon

In spite of the existence of various exceptional and variant forms, a number of rules governing the numeral-classifier assimilations patterns can be described. With the exceptions of the rules regarding the idiosyncratic behavior of the numerals yon 'four' and zyuu 'ten,' none of them are unique to numeral-classifier pairs, since the patterns they represent are observable elsewhere in the Sino-Japanese vocabulary at large. Briefly stated, the

major assimilatory processes are the following:

A. Numeral assimilation processes.

1. Numeral-final /ti/ or /ku/ is replaced by a consonant homorganic with the following voiceless consonant, as in 6):

6) hati 'eight' + satu 'volume' hassatu

roku 'six' + ko 'small three-dimensional object' rokko

Although unstressed high vowels often delete after voiceless consonants and this particular process applies fairly regularly throughout the language with respect to morphemes ending in /ti/ or /tu/, the patterns involving /ki/ and /ku/ are more difficult to describe, and the numeral-classifier assimilations that concern us here exhibit some special peculiarities. Most notably, although the numerals iti 'one,' roku 'six,' hati 'eight,' and hyaku 'hundred' are all susceptible to this process, siti 'seven' appears to be exempt. Unassimilated variants also exist for numeral-classifier pairs involving numerals other than siti, as in the appearance of hatiko 'eight small three-dimensional objects' side by side with the assimilated form hakko.

2. Special cases.

a. Zyuu 'ten,' when it appears with classifiers beginning with voiceless consonants, loses its long vowel, replacing it with /u/ or /i/, and triggering a gemination of the initial consonant of the classifier, as in 8):

8) zyuu 'ten' + ken 'building' zyukken, zikken

b. yon 'four' often but not always appears as yo before classifiers with voiced initials, especially voiced dental consonants, as shown by the examples in 9):

9) yon 'four' + nin 'person' yonin

yon 'four' + en 'yen' yoen

yon 'four' + dai 'vehicle or mounted machine' yondai/yodai

B.   Classifier assimilation processes.

1.   Classifier-initial voiceless consonants often voice following numerals ending in the moraic nasal, although _yon_ 'four' does not trigger this process, as the examples in 10) illustrate:

10)   _san_ 'three' + _ken_ 'building'   _sangen_
      yon 'four' + _ken_ 'building'   _yonken_

2.   Classifier-initial /h/ becomes /p/ following a numeral-final consonant, including any assimilatory numeral-final consonants produced by rule A1.   Following moraic /n/, this /p/ may be voiced in accordance with rule B1, as is shown in example 11b).   Once again, the behavior of _yon_ 'four' is exceptional in many cases, as examples 11c) and d) illustrate.

11a)   _iti_ 'one' + _hon_ 'long slender object   _ippon_
   b)   _san_ 'three' + _hon_ 'long slender object'   _sanbon_
   c)   _yon_ 'four' + _hun_ 'minute'   _yonpun_
   d)   _yon_ 'four' + _hon_ 'long slender object'   _yonhon_

More detailed descriptions of these rules, with discussion of their application in other areas of the Japanese lexicon, can be found in Martin 1952 and McCawley 1968, and lists of frequent and unusual forms appear in most textbooks.

Syntactic Positions. Numeral-classifier pairs may appear in many sentential positions.   Often, like most nouns, they are accompanied by case particles, but they also appear unaccompanied, enjoying a freedom of distribution paralleled only by the most adverbial of nouns, such as those referring to units of time.

The sentential positions occupied by numeral-classifier pairs have often been divided into the "appositional" and the "adverbial" on the basis of whether the pair is felt to be more closely related to a noun or to a verb within the sentence, but Martin (Martin 1975) distinguishes six types of numeral-classifier structures, differentiating among major construction types which are often lumped together as appositive or adverbial although, as we shall see in Chapter 7, specific constraints in many cases govern the choice of one as opposed to the others.

The list below includes five of the six patterns included in Martin's taxonomy. The sixth, which Martin calls "reduced appositional ellipsis," is omitted because sentences containing it are, by Martin's admission, of doubtful grammaticality as carriers of the partitive meaning he associates with them. The pattern labels and examples for these first five patterns are drawn directly from Martin 1975. The last two patterns listed are my additions to the inventory, differing from Martin's five in that they contain no nouns co-referential with the numeral-classifier pairs. These last two patterns are included for the sake of completeness and for ease of reference in later chapters.

1. Basic (#-C1-GEN N-Case particle)

   e.g., Ni-mai-no   irogami-o   totta.
         2-sheet-GEN colored paper-OBJ   took

   '(I) took (the) two sheets of colored paper.'

2. Inverted apposition (N #-C1-Case particle)

   e.g., Irogami ni-mai-o totta.

   '(I) took (the) two sheets of colored paper.'

3. Adverbialization (N-Case particle #-C1)

   e.g., Irogami-o ni-mai totta.

   '(I) took (the) two sheets of colored paper.'

4. Preposed adverbialization (#-C1 N-Case particle)

   e.g., Ni-mai irogami-o totta.

   '(I) took (the) two sheets of colored paper.'

5. Appositional ellipsis (N-GEN #-C1-Case particle)[12]

   e.g., Irogami-no ni-mai-o totta.

   '(I) took two of the pieces of colored paper.'

6. Pronominalization (#-C1-Case particle)

   e.g., Ni-mai-o totta.

   '(I) took (the) two sheets.'

7. Reduced adverbialization (#-C1)

   e.g., Ni-mai totta.

   '(I) took two sheets.'

In dealing with actual examples of classifier usage, it is not clear in all cases exactly which of these patterns is involved, because the case particles ga (NOM), o (OBJ), and ni (DAT), as well as the topic particle wa,

which may replace them, are often omitted in colloquial speech. Since all the patterns listed above do at times appear in non-elliptical form, though, I have included them here as a starting point for the exposition in Chapter 7.

This concludes my survey of the history and the morphological and syntactic rudiments of the classifier system. With this information as a backdrop, I will proceed, in the next chapter, to discuss various semantic properties of members of the system, using as my primary objects of inquiry the basic classifier inventory and the extended inventory listed in Tables 1 and 2 of Chapter 1.

FOOTNOTES

[1]The umlaut here is used to indicate that the vowel is a member of the otu (乙) rather than the koo (甲) vowel series. Three present-day Japanese vowels, /i/, /o/, and /e/, were represented in eighth century documents by two distinct sets of orthographic symbols when they appeared in certain phonetic sequences, and the two members of each of these pairs are known as the koo member and the otu member. Morae which are pronounced /ki/ in present-day Japanese, for example, were represented, in this way, by two sets of symbols, as the eighth century representations for the present-day forms tuki and kimi illustrate:

tuki 'moon' - 菊 杞

kimi 'you' - 伎 美
　　　　　　 仅 天

It is unclear whether the vowels represented by these two sets of symbols were phonetically distinct in the eighth century, having merged subsequently, or whether the use of the two sets of symbols was simply an orthographic convention similar to the use, in present-day Japanese, of special symbols for representing the grammatical particles o and wa, in spite of their phonetic identity with other morae represented differently.

[2]h is used here to represent a sound which has evolved into [h] in present-day Japanese but whose phonetic realization in the eighth century was probably closer to [pɸ].

[3]-so and -ho were combining forms of too and momo.

[4]The hyphen indicates that the present-day indigenous numerals are bound forms, indistinction to the Sino-Japanese forms and to the eighth century indigenous forms, which were sometimes used independently.

[5]The forms si '4' and siti '7' are often replaced by the indigenous forms yo(n) and nana, respectively, even within the context of a series of Sino-Japanese numerals. This is often attributed to the fact that the mora si is homophonous with the Sino-Japanese morpheme meaning 'death.'

[6]Detailed speculation regarding the development of the classifier systems of Japanese and Chinese, and observations on the differences between them, can be found in Watanabe 1951.

[7]For some speculation regarding the development of these forms, see Yasuda 1978.

[8]There is in addition a very commonly used Sino-Japanese classifier for three-dimensional objects, ko, but I am confining the discussion here to indigenous forms.

[9]This is the point of view expressed, for example, by Levy-Bruhl in How Natives Think (1962):
... while it cannot be denied that those who speak these languages have a concept of hand, foot, ear, etc., their concepts do not resemble ours. They have what I should call an "image-concept," which is necessarily specialized. The hand or foot they imagine is always the hand or foot of a particular person, delineated at the same time. Powell tells us that in many Indian tongues of North America there is no distinct word for eye, hand, arm, or the other parts or organs of the body; but such are always found incorporated with or attached to a pronoun which signifies the possessor. ... The nearer the mentality of a given social group approaches the pre-logical, the more do these image-concepts predominate. The language bears witness to this, for there is an almost total absence of generic terms to correspond with general ideas, and at the same time an extraordinary abundance of specific terms, those denoting persons and things of whom or which a clear and precise image

occurs to the mind as soon as they are mentioned. (pp.168-70)

[10]Kenboo includes in his inventory of "classifiers," and in his illustrative examples, a number of forms which I have excluded from my inventory on various grounds. This fact does not, however, affect the validity of the arguments presented here regarding the influence of the lexical stock on numeral-classifier collocation patterns.

[11]Although the indigenous numeral-indigenous classifier pattern conforms to expectations as well as the S-J numeral - S-J classifier pattern does, it is coded here as being less frequent than the S-J - S-J pattern. This is because indigenous classifiers are on the whole much less common than S-J classifiers.

[12]Martin assigns the label "appositional ellipsis" here because he considers constructions of this type to be reduced forms of constructions of the type:
Irogami-no ni-mai-no irogami-o totta.
'(I) took two sheets of colored paper of the colored paper.'

CHAPTER 3

SEMANTIC PROPERTIES OF THE SYSTEM

In this chapter and the one that follows, I will address a number of issues surrounding the semantic structure of the Japanese classifier system. The findings I present here are of relevance for more than the description of Japanese since they also bear on a number of universalist claims that have been made about the semantic properties of classifier systems in general. As I mentioned in Chapter 1, for example, it has been suggested that classifiers differ semantically from common nouns, since they encode only a few important classes of entities defined by the way humans interact with them. For this reason, it has been proposed that classifiers may be used in combination with nouns to expand the referential capabilities of the lexicon as a whole without vastly increasing the number of members which compose it. It has also been claimed that the striking regularity with which certain types of categories are encoded in classifier systems cross-linguistically indicates the existence of classificatory parameters of universal perceptual salience.

I will delay explicit attention to these issues until Chapter 4, concentrating in the present chapter on a detailed discussion of the semantic properties of the limited set of classifiers defined in Chapter 1. As we shall see, these classifiers together constitute a very heterogeneous system, differing one from another in terms of a number of distributional traits, which can be explained by differences in their semantic makeup.

Distributional differences.

Among the distributional traits which distinguish the various classifiers are the following: frequency of use, breadth of use, ability to appear with no nominal antecedent, order of acquisition by children, and alternations with other classifiers.

1. Frequency of use. Both the data I have collected and the data contained in the Japanese National Language Research Institute's Studies on the Vocabulary of Modern Newspapers indicate the existence of wide disparities in the frequency with which the different members of the

classifier system are actually used.

Table 1 below presents the frequency with which each classifier appeared in my sampling of the classifiers used in modern fiction and colloquial conversation. The frequency scores following each form listed in the table are the raw numbers of occurrences in the data base described in Chapter 1, a sample of 500 forms composed of the first 50 uses in each of five works of fiction and the first 250 forms encountered in a number of transcribed conversations and conversational segments. Although the number of forms tabulated here is quite limited, reducing the counts of the less frequently occurring classifiers to near zero, Table 1 clearly indicates that there is a small group of forms that are used with overwhelmingly greater frequency than the remaining forms.

Table 1

Frequency Distribution of Classifiers Included in 500 Form Sample
Ordered by Overall Rank

RANK	FORM			REFERENT CLASS	TOTAL#	%	ORAL#	%	WRITTEN#	%
1	nin	(人	)	human beings	201	40%	88	35%	113	45%
2	tu	(ㄇ	)	inanimates	115	23%	63	25%	52	21%
3	hiki	(匹	)	animals	32	6%	19	8%	13	5%
4	hon	(本	)	long, slender objects	31	6%	13	5%	18	7%
"	mai	(枚	)	flat, thin objects	31	6%	17	7%	14	6%
6	ken	(軒	)	buildings	11	2%	2	1%	9	4%
"	ko	(個	)	small 3-D objects	11	2%	8	3%	3	1%
8	syoku	(色	)	colors	7	1%	7	3%	---	---
9	mei	(名	)	human beings (honorific)	6	1%	4	2%	2	1%
"	teki	(滴	)	drops of liquid	6	1%	2	1%	4	2%
11	tuu	(通	)	letters, documents	5	1%	2	1%	3	1%
12	dai	(台	)	furniture, vehicles, etc.	4	1%	1	---	3	1%
"	men	(面	)	flat surfaces	4	1%	3	1%	1	---
"	satu	(冊	)	books, etc.	4	1%	3	1%	1	---
"	wa	(羽	)	birds, etc.	4	1%	3	1%	1	---
16	hatu	(発	)	outbursts	3	1%	1	---	2	1%
17	koma	(齣	)	frames of film, etc.	2	---	2	1%	---	---
"	ma	(間	)	rooms	2	---	---	---	2	1%
"	situ	(室	)	rooms	2	---	---	---	2	1%
"	tubu	(粒	)	small, grainlike objects	2	---	1	---	1	---
"	zyoo	(条	)	long, slender objects	2	---	1	---	1	---
22	eda	(枝	)	tree branches	1	---	1	---	---	---
"	ha	(派	)	factions	1	---	1	---	---	---
"	hati	(鉢	)	potted plants	1	---	---	---	1	---
"	hin	(品	)	items of merchandise	1	---	1	---	---	---
"	kabu	(株	)	rooted plants, etc.	1	---	1	---	---	---
"	kakokugo	(ヶ国語)		languages	1	---	---	---	1	---
"	kasyo	(ヶ所	)	places	1	---	1	---	---	---
"	ken	(件	)	incidents	1	---	1	---	---	---
"	ryoo	(輛	)	train cars	1	---	---	---	1	---
"	si	(氏	)	human beings	1	---	---	---	1	---
"	soku	(足	)	pairs of footwear	1	---	---	---	1	---
"	suzi	(筋	)	long, slender objects	1	---	1	---	---	---
"	syuu	(州	)	states	1	---	1	---	---	---
"	zi	(字	)	letters (characters)	1	---	1	---	---	---
"	zyoo	(錠	)	pills	1	---	1	---	---	---

Table 2 presents a slightly different picture. It is based on the frequency counts presented in <u>Studies on the Vocabulary of Modern Newspapers</u>, compiled by the Japanese National Language Research Institute. This study is based on a corpus of nearly 2,000,000 words[1] drawn from three daily newspapers, the <u>Asahi Sinbun</u>, the <u>Mainiti Sinbun</u>, and the <u>Yomiuri Sinbun</u>, as opposed to the prose and conversational uses tabulated in Table 1. Because the study does not distinguish homographs, it was not possible to derive from the tabulations an accurate count for <u>all</u> classifiers in the system, so the table presented here sins by omission of those forms which may in fact be fairly frequently used but whose listings are potentially contaminated by the inclusion of homographic forms.

Table 2

Frequency Distribution of Forms Listed in
Studies on the Vocabulary of Modern Newspapers,
Ordered by Percentage of Classifier Uses Listed

RANK	FORM				REFERENT CLASS	% OF CLASSIFIER USES
1	nin	(	人	)	human beings	34%
2	tu	(	⌒	)	inanimates	17%
3	mei	(	名	)	human beings (honorific)	11%
4	hon	(	本	)	long, slender objects	4%
5	mai	(	枚	)	flat, thin objects	4%
6	sya	(	社	)	companies, shrines	2%
7	dai	(	台	)	furniture, vehicles, machines	2%
8	kakoku	(	ヶ国	)	countries	2%
9	kasyo	(	ヶ所	)	places	2%
10	ken	(	件	)	incidents	2%
11	ko	(	個	)	small 3-D objects	2%
12	ko	(	戸	)	houses, households	1%
13	situ	(	室	)	rooms	1%
14	ki	(	機	)	airplanes, etc.	1%
15	men	(	面	)	flat surfaces	1%
16	ren	(	連	)	strung together objects	1%
17	seki	(	隻	)	large boats	1%
18	hiki	(	匹	)	animals	1%
19	satu	(	冊	)	books, etc.	1%
20	too	(	党	)	political parties	1%
21	rin	(	輪	)	flowers	1%
22	ken	(	軒	)	buildings	1%
"	koo	(	校	)	schools	1%
24	si	(	氏	)	human beings	1%
25	tuu	(	通	)	letters, documents	1%
	Other				(46 forms, each accounting for less than 1% of the total)	7%

In spite of these difficulties, however, Table 2, like Table 1, illustrates a wide discrepancy in the frequency with which the various classifiers are used. Both tables show that nin and tu far outstrip the other classifiers, and that classifiers denoting categories united by a common shape (shape-based classifiers), especially hon and mai, are used relatively more often than most of the "kind-based" classifiers, such as situ 'room,' ken 'building,' etc., which encode categories already encoded in the common noun system as well. There are, of course, significant differences between the findings presented in the two tables, probably due to the very different subject matter treated by newspaper journalists as opposed to fiction writers and conversationalists. The frequent use of the form mei 'human being (honorific)' in the newspaper count, for example, is probably due to its use in advertisements and statistical reporting, for it is rarely used in conversation except when employees of a business are addressing or referring to their customers.

Despite these differences between the two counts, though, the major finding is clear: some classifiers are used with very great frequency, the two forms nin and tu together constituting 51% (Table 2) to 63% (Table 1) of the total classifier uses considered. The behavior of these two forms, and, to a lesser extent, the forms of intermediate frequency, such as hon 'long, slender object' and mai 'flat, thin object,' presents a striking contrast with forms such as kyaku 'chairs, (other legged furniture),' which appears to be used quite infrequently although a majority of my informants claimed to use it.

2. Breadth of use. Table 3 orders the classifiers I included on the questionnaire described in Chapter 1 on the basis of the number of respondents (out of a total of 15) who claimed to use them. Forms not claimed by any respondent have been eliminated. Like Tables 1 and 2, Table 3 shows that there are clear discrepancies in the number of speakers using the various classifiers.

Table 3

Classifiers Listed on Questionnaire Ordered by Number
of Informants Claiming to Use Them

Number of Informants	Classifier		Referent Class[2]
15	dai	(台)	vehicles, machines, furniture
	hiki	(匹)	animals
	hon	(本)	long, slender objects
	kabu	(株)	rooted plants, roots, bulbs; shares of stock
	ken	(軒)	buildings
	ken	(件)	incidents, occurrences
	ki	(機)	airplanes, (other air vehicles
	ko	(個)	small 3-D objects
	ku	(句)	haiku
	kyoku	(曲)	pieces of music
	mai	(枚)	flat, thin objects
	mei	(名)	human beings [honorific]
	mon	(問)	questions, problems
	mune	(棟)	buildings
	nin	(人)	human beings
	satu	(冊)	books, magazines, notebooks
	seki	(隻)	large boats
	soku	(足)	pairs of footwear
	soo	(艘)	small boats
	syoku	(食)	meals
	teki	(滴)	drops of liquid
	ten	(点)	points, artworks, items in an inventory
	too	(頭)	large animals
	toori	(通)	methods, opinions
	tu	(つ)	inanimates, concrete or abstract [the general classifier]
	tubu	(粒)	small, grainlike objects
	tuu	(通)	letters, postcards, documents
14	dai	(題)	problems, topics, test questions, titles
	han	(犯)	crimes
	hatu	(発)	outbursts
	koo	(校)	schools
	kyaku	(脚)	chairs, (other legged furniture)
	men	(面)	flat surfaces
	peizi	(ペイジ)	pages
	sya	(社)	companies, shrines
	syu	(首)	poems
	tyaku	(着)	major items and suits of clothing
	wa	(羽)	birds, (rabbits)

13	hati	(鉢)	potted plants, (pots)
	huri	(振)	swords
	husa	(房)	things in clusters
	kapuseru	(カプセル)	capsules of medicine
	ko	(戸)	houses, households
	ryoo	(輌)	train cars, (trucks)
	situ	(室)	rooms
	too	(党)	political parties
12	hin	(品)	items of merchandise
	kyoku	(局)	stations, bureaus; go and syogi matches
	tai	(体)	entities of humanlike form
	tuuwa	(通話)	telephone calls
	tyoo	(挺)	long, slender implements usually with handles
	zyoo	(錠)	pills
11	bu	(部)	magazines, books, pamphlets, documents
	koku	(国)	countries
	maki	(巻)	rolled up objects
10	ren	(連)	strung together objects
	rin	(輪)	flowers
	soo	(層)	layers
	suzi	(筋)	long, slender objects
	tokoro	(所)	things occupying a location, places, spots
9	dan	(段)	steps, levels, stairs
	eda	(枝)	tree branches
	hen	(編)	literary works
	ki	(騎)	riders on horseback
	ki	(基)	large, stationary objects
	sao	(棹)	chests; (flags); (stick-shaped sweets)
	siito	(シート)	sheets of stamps, (other flat, thin objects); (seats)
	taku	(卓)	tables and desks
	ten	(店)	shops
	zen	(膳)	pairs of chopsticks, trays
8	heya	(部屋)	rooms
	rooru	(ロール)	rolled up objects,
	tama	(玉)	globular masses, (small round objects)
	za	(座)	entertainment troupes
7	bi	(尾)	fish
	kan	(巻)	rolled up objects
	kata	(方)	human beings [honorific]
6	gun	(軍)	military units, sports teams

	hari	(張)	items made with a stretched string or fabric
	hasira	(柱)	gods, spirits of the dead, human bones
	hyoo	(長)	charts
	koma	(駒)	chesspieces
	kuki	(茎)	plants
	kuti	(口)	donations, bonds, applications, swords
	too	(灯)	electric lights
5	an	(案)	plans, cases, items
	huku	(幅)	scrolls
	koma	(齣)	frames of film; scenes in movies, plays, narratives
4	koo	(行)	banks
	kusari	(闋)	snatches of music or talk
	sen	(線)	lines on a musical score, railway lines, cords
3	kan	(管)	flutes
	kase	(桛)	thread
	ki	(机)	desks
	ryuu	(流)	flags
	sasi	(差)	dances, pieces of dance music
	satu	(札)	documents, paper money
	zi	(寺)	temples
2	moto	(本)	trees, plants
	seki	(席)	seats
	si	(枝)	long things
	tei	(艇)	small boats
	yoo	(葉)	flat, thin things
1	gu	(具)	clothing, dishes, weapons
	hai	(杯)	squid, octopus; boats
	huu	(封)	letters
	ka	(架)	shelves
	kasane	(襲)	clothing
	kazari*	(飾)	Christmas decorations
	mon	(門)	cannons
	ritu*	(律)	precepts
	ryuu	(粒)	candies, pills
	tare*	(垂)	drops of liquid
	tubo	(壺)	pots
	turi*	(釣)	fish
	tyoo	(張)	objects which are stretched or contain a stretched string
	ziku	(軸)	scrolls
	zyoo	(条)	beams of light
	zyuu*	(什)	furniture, utensils

3. **Ability to appear with no accompanying noun or nominal antecedent.** Although the boundaries here are not ironclad, the individual classifiers also differ in terms of the ease with which they may be used alone, as the sole indicator of the identity of a referent, without benefit of a nominal antecedent or a co-occurring noun. The classifiers which appear in 1), for example, appear with relative ease in such contexts, while the forms in 2) typically do not:

1a) yuuzin, desi-tati-ga okutta kakuzi-no
     friend student-PL-NOM gave individual-GEN

   ronbun-o i-ssatu-ni matometa mono de-aru. (F)
   paper-OBJ 1-book-DAT collected thing COP

   'It is a collection in one volume of individual papers contributed
   by friends and students'

b) Kono mae, huinrando-ya sueeden-ni ikimasita
    recently Finland-and Sweeden-LOC went

   toki-ni mite kansin sita-n desu ga,
   time-LOC see admiration did-NMLZ COP but

   ni-man-toka ni-man-go-sen-nin-ga sunde-iru
   20,000 or 25,000 people-NOM are living

   oookina danti-ga tukurarete-ite, ... (O)
   big housing development-NOM be built

   'I saw them and was impressed by them when I went to Finland and
   Sweden recently - they have built these big housing developments
   where 20-25,000 people are living, ...'

c) Sikyoku-wa oodoori-kara yoko-e
    branch office-TOP main street-SOURCE side-GOAL

   haitta hurumekasii biru-no usugurai
   entered oldish building-GEN gloomy

   san-situ-o sime, ... (F)
   3-room-OBJ occupy

   'The branch office occupies three gloomy rooms in an oldish
   building off the main street, ...'

d) hito-tu-ni tikara-o awasete, ... (O)
    1-inanimate-DAT power-OBJ combine

   'Gathering our strength into one'

2a) * Ni-rooru-o sono hikidasi-ni irete kudasai.
       2-roll-OBJ that drawer-LOC put please

   'Please put two rolls in that drawer.'

b) ?* Asi-no   ura-to   kutu-no   aida-ni
    foot-GEN other side-COM shoe-GEN space-LOC

hito-tubu-mo   hairu-to
1-small, grainlike object-even enter-and

aruku koto-ga kurusiku naru.
walk NMLZ-NOM painful become

'If even one little piece of something gets between the sole of
your foot and your shoe, it's painful to walk.'

4. **Order of acquisition**. In a report on the acquisition patterns of
children learning the Japanese classifier system, Sanches (1977) presents
some consistent findings on the order in which children master the members of
the system. Starting at around age two and a half, children tend to acquire
what Sanches calls the "cardinal numbers," i.e., the forms including _tu_, then
proceed to master a "basic" set of classifiers which are generally learned by
age five or six. This basic set includes the forms listed (with their adult
glosses) in Table 4, below.

Table 4

Basic Classifiers Acquired First by Children
(from Sanches 1977)

1.   _tu_   - inanimates, concrete or abstract (general classifier)
2a. hon   - long, slender objects
 b. mai   - flat, thin objects
 c. nin   - human beings
 d. hiki   - animals
 e. dai   - vehicles, machines, furniture
 f. ko   - small objects of roughly equal extension in all three
              dimensions

After these basic forms are acquired, Sanches reports, satu (used for books) and wa (used for birds and rabbits) are most likely to be acquired next, followed by soo (small boats) and ken buildings). After these initial ten forms, there is little predictability to the order in which the remaining forms will be acquired.

5. Alternation with other classifiers. Referent classes differ considerably in the fixity of their attachment to particular classifiers. For certain classes, whenever a member is mentioned, a single classifier is invariably used. Snakes, for example, so long as they are alive, are always referred to with the animal classifier hiki. Although they are long and thin, snakes cannot be referred to by means of the classifiers hon or suzi, either of which may in general be used to refer to rope-like objects. The examples in 3) illustrate this restriction:

3a) Ori-no-naka-ni   hebi-ga   san-biki mieru.
    cage-GEN-inside-LOC snake-NOM 3-animal can be seen

    'You can see three snakes in this cage.'

b) *Kono ori-no-naka-ni hebi-ga san-bon mieru.
                                long, slender object

c) *Kono ori-no-naka-ni hebi-ga mi-suzi mieru.
                                long, slender object

Other referent classes, however, are associated with a range of classifier options. Rooms in a home, for example, may be denoted with any of the classifiers for rooms (all in fairly frequent use), i.e., heya, ma, or situ, or they may trigger the use of the default classifier tu. Items of clothing may take either the clothing-specific classifier tyaku or the shape-based classifier mai 'flat, thin object.' Trees may be denoted with the rooted plant classifier kabu or the shape specifier hon 'long, slender object.'

Similarly, some classifiers may be replaced with more general forms for the purpose of combining the referents which they are being used to denote with those denoted by some other classifier, as in 4), while others, like nin and hiki, may not, as example 5) illustrates:

4)   Dewa, ringo san-<u>ko</u>   -to
      well, apple 3-<u>small, roundish object</u>-COM

      banana ni-<u>hon</u>-de-wa
      banana 2-<u>long, slender object</u>-COP-CONTR

      doo ka, to iu to, iti-nensei-wa   magotuku.
      how Q QUOT say and first grader-TOP be confused

      Zenbu-de itu-<u>tu</u>   da... (NF)
      together 5-<u>inanimate</u> COP

      'Well, if we ask "How about three apples and two bananas?" the
      first grader will be confused. All together, it's five...'

5a) % Boku-wa inu-to hu-<u>tari</u>-de   sanpo si-nagara
       I-TOP   dog-COM 2-<u>person</u>-INST walk do-while

      'While I was taking a walk with my dog,' ...

  b) * Boku-wa inu-to ni-<u>hiki</u>-de sanpo si-nagara
                   <u>animal</u>

      'While I was taking a walk with my dog,' ...

Semantic Properties Influencing Distribution.

The distributional differences illustrated above can largely be explained by appeal to a number of semantic properties possessed by some members of the classifier category but not others. The first of these properties concerns the nature of the referent class associated with the classifier.

1. **Nature of the referents associated with the classifier.** The notion that the nature of the referents associated with a word will affect the lexical status of that word is something of a linguistic commonplace and is reflected, for example, in the assumption that the names for important concepts will themselves become important. Although there are certainly difficulties which arise when this claim is pushed too far, it is relevant for our purposes here because the Japanese classifier system, like other classifier systems, accords distinctly different treatment to referents of three types: animates, concrete inanimates, and abstracts.

<u>Animate referents.</u>

That animates should be treated as a class apart is hardly surprising, since the animate/inanimate distinction (or the human/non-human distinction) is always relevant in describing classifier systems,[3] according to Adams and Conklin (1973), and since animacy[4] is often involved in distinctions drawn in the operation of other segments of the grammars of various languages, e.g., split case marking, the structure of pronoun systems, plurality marking (Comrie 1981).

Within the Japanese classifier system, the animate/inanimate split is reflected by the fact that animate referents, with very rare exceptions, are <u>always</u> referred to with one of the limited number of animate classifiers, never with the default classifier <u>tu</u> or any of the other members of the system (to be discussed below) which are available to re-classify inanimate referents or plug holes in the classificatory system.[5] As the <u>hebi</u> 'snake' examples in 3) above illustrated, a snake is always an animal for counting purposes, no matter how long and thin it may be.

There are two systematic classes of exceptions to this generalization which do not, however, significantly diminish its force. The first group, as in 8), involves the use of the classifier <u>ko</u> (個), which is typically used for small, three-dimensional concrete objects:

6) I-<u>kko</u>-no   ningen   tosite, ...
   1-<u>small, roundish object</u>-GEN human being as

   'As an <u>independent, individual</u> human being, ...'

In cases of this type, <u>ko</u> is being used to exploit its independent, non-classifier meaning of 'individual,' 'autonomous,' which appears in such expressions as <u>ko-ko-no mono</u> 'various individual things.' That the <u>ko</u> in such cases is not being used to re-classify the animate referent as inanimate is shown by examples like 7), where <u>ko</u> co-occurs with <u>nin</u>, the standard classifier for human beings:[6]

7) 1-<u>kko</u>-no   ningen-ga   hu-<u>tari</u>
   1-<u>small, roundish object</u>-GEN human being 2-<u>human being</u>-NOM

   izyoo atumaru to, syakai-ga   dekiru.
   over gather and   society-NOM be created

   When more than two <u>individual</u> human beings gather together, a society is created.'

The second class of exceptions, which actually form part of a much larger pattern, as I will show later in my discussion of prototypes within the

classifier system, involves atypical or marginal instances of the animate categories - animals which are dead, for instance. There is a special classifier, tai, for the corpses of humans and other large animals, and tu and various non-animate classifiers may also be used to denote dead animals, as examples 8) through 10) illustrate. Note by contrast the unacceptability of nin 'human being,' hiki 'animal,' and too 'large animal' with these referents, which retain the physical form, but not the vitality, of animate beings.

8a)   Sitai-ga   mi-ttu   mitukatta.
        corpse-NOM 3-inanimate were found

        'Three (human) corpses were found.'

b)   Sitai-ga san-tai   mitukatta.
               corpse

c)   * Sitai-ga san-nin mitukatta.
              human being

9a)   Hori-ni-wa   inu-no sitai-ga
        ditch-LOC-TOP dog-GEN corpse-NOM

        huta-tu   mieta.
        2-inanimate could be seen

        'There were two dead dogs in the ditch.'

b)   * Hori-ni-wa inu-no sitai-ga ni-hiki mieta.
                              animal

c)   * Hori-ni-wa inu-no sitai-ga ni-too mieta.
                           large animal

10)   Sanma   san-bon   katte-kita.
        mackerel 3-long, slender object buy-came

        'He bought three (dead) mackerel (as food).'

Gods and spirits also appear to be marginal animates,if their behavior with respect to classifiers is any indication. Although a special classifier for deities, hasira, does exist, it is no longer commonly used, and speakers appear to differ on whether to assign these beings to the human category, and use nin, or to the realm of the inanimates, where they take the default inanimate classifier tu.

Aside from the exceptional cases I have just described, then, the classifiers used to denote animate referents are distinguished as a group by the fact that they are always used when such referents are denoted, never ceding to the default form tu or the shape-based classifiers. It is also interesting to note that it is only with respect to animate, or more properly, human referents, that the system provides for the expression of deference

toward the addressee or toward a third person referent. In formal speech, nin is typically replaced with its honorific variant mei, as the author of the following newspaper commentary remarks with some chagrin:

> Tatoeba, resutoran-ni hairu. Iriguti-no tokoro-de, maneezyaa rasiki hito-ni "San-nin nan da keredo, seki-wa aru?" to kiku. Suru to, aite-wa kanarazu "San-mei-sama desu ne" to iu guai-ni, "nin"-o "mei"-ni kaete hukusyoo suru.
>
> "Let's say I go into a restaurant. At the entrance, I ask the apparent manager, "There are three (nin) of us. Do you have seats?" Without fail, the other responds, "There are three (mei) of you?," replacing "nin" with "mei" and repeating what I have said.
> (Mainiti Sinbun 12.3.79)

In addition, both mei and nin (but no other classifier) may bear the honorific prefixes and suffixes which are otherwise restricted to co-occurrence with nouns. Although the forms in 11), where nin and mei co-occur with the honorific affixes o and sama are quite common, even the receptionist in a veterinarian's office would not be able to use the forms in 12), which couple the animal classifier hiki with honorific affixes. This is in spite of the fact that the honorific prefix o/go may be used with full nouns referring to animals and other non-human referents, as 13) shows:

11a) O-hitori   desu ka? 'Are you alone?'
     HON-1-human being COP Q

  b) Nan-mei-sama   desu ka?
     Q-human being (honorific)-HON COP Q

     'How many of you are there?'

12a) * Go-i-ppiki   desu ka? 'Is it alone?'
       HON-1-animal COP   Q

  b) * Nan-biki-sama desu ka? 'How many are there?'
      1-animal-HON   COP   Q

13) Tanaka-san-no   o-inu   desu ka?
    Tanaka-HON-GEN HON-dog COP   Q

    'Is it Mr. Tanaka's dog?'

We thus find that although the linguistic representation of social status is an important element in the overall structure of the Japanese grammatical system,[6] its manifestation within the classifier system is quite limited, finding expression only among those classifiers used to refer to humans. Even then, there are forms available only to express deference, not the self-denigration which is also an important part of the honorific system in general and which underlies the use of humble verb forms like itasu 'do' and humble noun affixes like domo 'COLL.' Just as the classification of objects is reduced to a much smaller number of distinctions in the passage from the

full common noun system to the classifier system, the honorific system is similarly reduced.

Within the animate subsection of the classifier system, the distinction between human and non-human is also well maintained. Although some speakers accept sentences like the one in 14), where the human classifier is used with the instrumental particle de to neutralize a conflict between a human and an animal classifier, such uses are largely confined to the forms hitori-de '1-person-INST' and hutari-de '2-person-INST,' which are used in conventionalized fashion to express the notions 'alone'[8] and 'together,' respectively.

14) % Boku-wa inu-to   hutari-de   sanpo si-nagara, ...
       I-TOP   dog-COM 2-human being-INST walk do-while

    'While taking a walk with my dog, ...'

Most speakers, however, find such examples somewhat unnatural and prefer to avoid the use of any classifier in such cases. The constraints are even more severe in constructions involving numbers other than 'one' and 'two,' or case particles other than de, as the unacceptability of 15) and 16) illustrates.

15) * Watasi-tati-wa inu-to   san-nin-de   sanpo si-nagara, ...
       I-COLL-TOP   dog-COM 3-person-INST walk do-while

    'While taking a walk with our dog, ...'

16) * Watasi-to inu hutari-ga   heya-ni hairu to, ...
       I-COM   dog 2-person-NOM room-LOC enter and

    'When the dog and I entered the room, ...'

Uses of the type in 17), where an animal classifier is used with respect to a human referent, are also quite limited and quite marked in stylistic effect:

17) Kodomo san-biki iru   karu   nee, inu-toka
    child 3-animal exist because PP   dog-or

    neko, kawanakutemo, omosiroi. (0)
    cat   even not raise interesting

    'Since we have three children, it's plenty interesting even if we don't raise a dog or a cat.'

This example is clearly a playful use of language.

The heavy restrictions imposed on the use of non-human classifiers for humans is also illustrated by the impossibility of neutralizing a human/non-human classifier conflict, as in 16), with hiki rather than nin.[9] Although 14) may be acceptable for some speakers, 18) is totally unacceptable,

illustrating that among the various kinds of animates, it is the supremely animate, i.e., humans, who most strongly require that their status be explicitly marked by the classifier, and who allow the use of an animal or inanimate classifier only under the extremely limited range of circumstances that I have just outlined:

18) * Boku-wa inu-to ni-hiki-de   sanpo si-nagara, ...
      I-TOP   dog-COM 2-animal-INST walk do-while

    'While I was taking a walk with my dog, ...'

Abstract referents.

Having noted the ways in which the classifiers associated with animate referents are set apart within the classifier system, we can now turn to the way in which abstract entities are represented. Even rather cursory examination of the lists of primary and secondary classifiers reveals that the system contains only a few classifiers reserved for use in denoting abstract entities: ken 'incident,' toori 'method,' han 'crime,' tuuwa 'phone call.' There are numerous forms available for counting entities with both abstract and concrete manifestations, e.g., kyoku 'piece of music,' but there are few forms used exclusively for abstract concepts.

The abstract domain is thus like the animate domain in that a relatively small number of strictly abstract terms are available, but there is an important difference in the way in which those terms are used in the two cases. While animates are almost always denoted with one of the strictly animate classifiers, denotation of abstracts is not similarly constrained. Tu is used very frequently, and in other cases full abstract nouns are simply appended to the numerals, as in 19):[10, 11]

19a) kozin-no   songen-to   ryoosei-no   honstituteki
     individual-GEN dignity-COM both sexes-GEN basic

     byoodoo-no   ni-genri ... (NF)
     equality-GEN 2-principle

     'the two principles of individual dignity and fundamental
     equality of the two sexes ...'

  b) kazoku-mondai-wa   syakai-mondai-no
     family-problem-TOP society-problem-GEN

     iti-bunya-tosite-wa toriagerarete-inai. (NF)
     1-area-as-CONTR   be treated   NEG

     'family problems are not treated as one sort of societal problem'

Although both animate and abstract referents are associated, then, with rather sparsely populated areas of the classifier system, classifiers for animates are used frequently and consistently to refer to these referents, while the classifiers for abstracts are not. On the whole, as the counts in the previous section illustrate, the abstract classifiers are used rather infrequently, with _tu_ often taking their place. There also appears to be considerable flux in this part of the system, with full nouns often appearing in classifier position, always with the inherent possibility that they will one day become full-fledged members of the classifier system, usable in the company of another co-referring noun, as many nouns, like _tuuwa_ 'phone call' or _toori_ 'method,' have in the past. By contrast, none of the animate classifiers are of recent adoption, and the apparent stability of the existing members of the animate subsystem makes it much less likely that novel usages could gain a permanent foothold.

A question, of course, arises as to _why_ the classifiers for abstract should be scarce and unstable compared to members of other portions of the system. Oono (1978) has ventured the opinion that by comparison with, say, a language like Sanskrit, Japanese is a "concrete" language, its speakers' preoccupation with real world detail reflected in the earliest recorded stages of the language by the dearth of abstract nouns and infrequent use of _sa_, a suffix roughly equivalent to English _ness_ used for deriving abstract nouns from adjectives. Even today, Oono argues, this predilection is reflected in the preference for using expressions like the one in 20) at the expense of the more "abstract" variant in 21) (Oono 1978, p.66):

20) Kinben-to-iu   koto-wa   taisetu   desu.
     diligence-QUOT NMLZ-TOP important COP

     'Diligence is important.' Literally, "The thing that is called 'diligence' is important."

21) Kinben-wa   taisetu   desu.
     diligence-TOP important COP

     'Diligence is important.'

Be this as it may (and I have my doubts here as to both the greater "abstractness" of 21) and the concreteness of Japanese as a whole), Japanese is not the only classifier language with few members devoted to the abstract areas of the referential universe. Similar findings have been reported for Vietnamese (Nguyen 1957), Malay and Iban (Omar 1972), and Tai (Conklin 1981).

In Vietnamese, according to Nguyen (p.131-2), "nonclassified nouns" are of the following types:

a. Nouns denoting substance matter, color, smell, tastes, noise, etc.

b. Nouns denoting time units

c. Nouns denoting geographical areas, regions, or administrative or social units

d. Nouns denoting kinds, grades, classes of things, groups of people, including army units

e. Several additive constructions using two nouns denoting synonymous or related items

f. Compound nouns, most of which are Chinese loans, e.g., forms meaning 'independence,' 'influence,' 'happiness,' 'result,' 'liberty,' etc.

The abstract orientation of the list is apparent. A similar list appears in Pe's treatment of the Burmese classifier system (Pe 1965, p.181). In Malay and Iban, "the occurrence of classifiers with abstract nouns is very restricted" (Omar 1972, p.94), and such nouns often take the "neutral" classifier _iti_. In Tai, "almost all nominals must be classified. If any are not, then abstracts are the most likely to be found without a classifier." (Conklin 1981, p.364.) What these various descriptions conspire to create is a picture of the numeral classifier as a semantic unit which is inherently most useful with respect to concrete, perceivably individual entities, with the result that classifiers for abstract referents are underused by comparison with classifiers for both animate and inanimate concrete referents.[12]

Concrete inanimate referents.

After the classifiers for animates and abstracts have been separated out, those that remain are the classifiers for inanimate concrete objects. Like the abstract classifiers, these forms may generally be replaced by _tu_, or by other members of the concrete system, but they provide a much more complete coverage of the referential space, and nouns are rarely drafted to stand in the classifier slot. Together, the concrete classifiers encompass two rather distinct sub-groups. One comprises the quality-based classifiers, like _hon_ 'long, slender object' and _ren_ 'strung-together object,' which are .

used for categories containing extremely disparate referent types which all, nonetheless, share at least one particular property (such long-and-slenderness or strung-togetherness). The other comprises the kind-based classifiers, like ki 'airplane, (other air vehicles)' and ken 'building,' which denote categories whose members share a number of properties. The various concrete inanimate classifiers also differ greatly among themselves in terms of the fixity with which they are associated with their respective referent classes and in the density with which they cover the referential landscape.

Turning first to the issue of density, we find that the concrete kind-classifiers are distributed quite unevenly. There are very few classifiers, for example, for denoting features of the landscape (urban or rural), natural objects, or inseparable parts of wholes. Classifiers devoted exclusively to enumerating plants, parts of plants, or plant products are also noticeably few in number. These thin spots in classifier coverage, though, do not necessitate, as in the case of abstract referents, the pressing into service of common nouns, for the quality-based classifiers, defined as they are by (primarily shape-related) parameters of near-universal relevance, are always available to fill any gap in the system. In the case of objects so massive or amorphous that choice of a shape-classifier is problematic, tu is available as a last resort.[13]

At the opposite extreme from features of the landscape, etc., are referents (such as buildings, vehicles, and, especially, written materials) which are associated with much more densely populated areas of the system. The 73-item core-extended inventory presented in Chapter 1, for example, contains five terms used to denote buildings or their parts, five terms for vehicles, and six terms for written communications, documents, or works of art.

It is of interest to note here the fact that, although Japan has traditionally been a nature-oriented agricultural society, the present-day classifier system contains surprisingly few classifiers used exclusively for natural features, natural objects, or plants, or even classifiers associated with categories centered around the plant-related metaphors of leaf-like, stem-like, etc.[14] which are so prevalent in other classifier systems. Similarly, although religious practices and artifacts are still significant

in the lives of many Japanese, there are no strictly religion-related classifiers in common use.

Consider Table 5, which contains a list of classifiers which appear in at least one of the twentieth century sources I consulted, but which two or fewer of the respondents to my questionnaire claimed to use, suggesting that they are very marginal members of the system at present.[15]

Table 5

Rarely Used Members of the System

aku	(悪)	- ruffians, villains
e	(柄)	- tools with handles
gai	(蓋)	- cone-shaped hats, other cone-shaped objects
gu	(具)	- tools, clothing
hai	(杯)	- boats, squid, octopus
hei	(瓶)	- flower vases
huu	(封)	- letters, packages
ka	(架)	- shelves, supports
ka	(顆)	- small, roundish objects, e.g., grains, jewels
kake	(掛)	- things hung on something, e.g., thread, collars, stirrups
kasane	(襲)	- clothing
kasira	(頭)	- Buddhist images, daimyoos, headwear, animals
katage	(片食)	- meals
katamai	(片枚)	- suitcases, storage chests
kazari	(飾)	- litters
kei	(茎)	- long, thin objects, e.g., brushes, grasses
kon	(喉)	- fish
koo	(口)	- people, implements
kori	(梱)	- packed, wrapped objects
kosi	(腰)	- things attached to the waist, e.g., swords, scabbards
kotu	(笏)	- ink sticks
ku	(躯)	- religious idols, gods
ku	(口)	- people, implements
mimi	(耳)	- pairs of rabbits
mon	(門)	- cannons
moto	(本)	- trees, plants
nagare	(流)	- flags
ritu	(律)	- Chinese poems
ryoo	(領)	- armor
ryuu	(粒)	- small, grainlike objects

sage	(提)	- hanging objects, e.g., hakama, sake bottles
saya	(莢)	- beans in the pod
seki	(席)	- seats, performances
si	(枝)	- long, thin objects
si	(至)	- beats of the pulse
si	(翅)	- birds
sue	(提)	- tubs used in bathing
suwari	(据)	- piles of rice cakes, etc.
syuku	(鎧)	- suits of armor
tare	(垂)	- hanging objects, e.g., mosquito nets
tei	(艇)	- small boats
tei	(蹄)	- hooved animals
titu	(帙)	- books kept in sheaths
tomae	(戸前)	- storehouses
too	(套)	- folded documents, clothing, etc.
tubo	(壺)	- pots
turi	(釣)	- hanging objects, e.g., mosquito nets
tyoo	(貼)	- packets of powdered medicine
tyoo	(張)	- objects made with stretched string, fabric, or paper, e.g., bows, lanterns
u	(宇)	- buildings, especially shrines and temples
yoku	(翼)	- birds
yoo	(葉)	- flat, thin objects, e.g., paper, leaves
zai	(剤)	- medicines
ziku	(軸)	- scrolls
zyoo	(条)	- long, thin things, e.g., rivers, arrows
zyu	(樹)	- standing trees
zyuu	(什)	- poems

As we can see if we sort the terms listed here on the basis of semantic family, it contains numerous forms related to either religion or nature, as well as forms denoting artifacts that have indisputably lost their former cultural status. Classifiers of these types are listed below, in Table 6.

Table 6

Rarely Used Classifiers Related to Obsolete Artifacts,
Nature, or Religion

Obsolete Artifacts:

gai - cone-shaped hats and other cone-shaped coverings
kazari - litters (for carrying travelers)
kosi - things attached to the waist, e.g., swords, scabbards
kotu - ink sticks
ryoo - armor
sage - things hung from the wrist, e.g., small bottles
syuku - suits of armor
tubo - pots of a type called 'tubo'

Natural Objects:

Animals	Plants
hai - octopus and squid	moto - trees, plants
kon - fish	saya - beans in the pod
mimi - pairs of rabbits	zyu - standing timber
si - birds	
tei - hooved animals	
yoku - birds	

Religion:

kasira - Buddhist images, daimyoos, headwear, animals
ku - religious idols, gods
u - buildings, especially shrines and temples

These examples illustrate that the classifier system may be sensitive to not only the actual demise of particular artifacts, like those listed in the first part of Table 6, but also to the decline in importance of whole areas of culture as broad as religion and interest in natural phenomena.

In any case, it does appear to be true that the nature of the referent class will have some effect on the status of the corresponding classifier within the system. The clearest effect can, of course, be seen in cases where the obsolescence of the referent itself results in the obsolescence of the classifier. But the actual nature of the referent will also be of some significance. If the referent is animate, it is obligatory that it be marked as such by the use of one of the small number of non-neutralizable, frequently

used forms associated with the animate referent classes. If it is in addition, human, honorific variants on the standard classifier will be available. If the referent is abstract or very large, e.g., a feature of the landscape, it may be denoted by one of a limited number of abstract classifiers, but it will most frequently be marked with the default form _tu_ or, in certain contexts, a full noun inserted in the classifier slot. Concrete inanimate referents, if they are of sufficient importance, may be denoted by a kind-based classifier specific to the category to which they belong, or if a kind-based form is unavailable or inappropriate in context, they will take one of the quality-based classifiers, or _tu_. Because the Japanese classifier system, like those of other languages, is focused primarily on the enumeration of concrete entities, the speaker generally has a much greater range of alternate forms available to refer to such entities.

2. _Referential Range of the Classifier_. As the examples cited thus far have suggested, the classifiers vary considerably in terms of the breadth of the referent classes with which they are associated. To appreciate the extent of the discrepancy, we need only consider _tu_, which may be used with respect to virtually any inanimate referent, concrete or abstract, and _siito_, which is used by most speakers only in referring to sheets of postage stamps. The remaining classifiers fall at various points in the continuum defined by extreme examples of these sorts.

I raise the issue of referential range here because it appears to have an important effect on distribution and behavior. Many of the most widely and frequently used members of the system are associated with broad referential ranges. The more specific members of the system, on the other hand, are often avoided in colloquial speech in favor of the more general terms. Conklin has noted a similar tendency in Tai and Austronesian, where the use of the more specific classifiers is a mark of formal style (Conklin 1981).

Although I would not go so far as to characterize the more specific classifiers in Japanese as markers of "formal" style, they do appear to mark careful language use in the same way as any high type/token ratio does. While the writer of a newspaper article or a novel might pride himself on his exactness of expression or his verbal agility and use some of the more specific classifiers like _hai_ for squid, _ryuu_ for flags, or _ki_ for desks,

participants in colloquial conversation often dispense with them, using in their stead the more general forms listed. The greater frequency of use of the more general terms, then, is not merely a reflection of the fact that the referent classes which they denote contain a greater number of members with respect to which they may be used; the more specific the form, the more marked it is stylistically. Consider the example in 22):

22) "Sika yo, sika yo, ni-<u>hiki</u>." Nobiagaru-to, ookina
    deer PP   deer PP 2-<u>animal</u>   stand on tiptoe-and big

    sika-to   tiisana sika-ga ni-<u>too</u>   sissoo-site-iru. (F)
    deer-COM small   deer-NOM 2-<u>large animal</u> be dashing away

    '"Deer, deer, two of them." When I stood on tiptoe, I could see a
    large deer and a small deer dashing away.'

The author here has exploited the relative markedness of the classifiers used to mark the switch from colloquial speech (and the use of <u>hiki</u>) to detached narrative (and the use of the more specific term <u>too</u>). Just as <u>hiki</u> is used in the stead of the more specific <u>too</u> in this example, <u>hon</u> 'long, slender object,' may take the place of <u>rin</u> for flowers, <u>dai</u> 'furniture, vehicle, or machine,' or <u>tu</u> 'inanimate,' may be used instead of <u>taku</u> for tables. These choices of the general term over the more specific are especially common in cases where the emphasis is on the number, rather than the nature, of the items involved, and the classifier acts merely as a carrier for the numeral.

23a) siwa-no   hito-<u>tu</u>-hito-<u>tu</u>-de   tuyu-ga   kessyoo-
     wrinkle-GEN 1-<u>inanimate</u>-1-<u>inanimate</u>-LOC liquid-NOM crystal-

     no yoo-ni hikatte-iru ... (F) cf. <u>hon</u>
     like   is sparkling

     'On <u>each</u> wrinkle the liquid sparkles like crystals ...'

b) Beddo hito-<u>tu</u>-to   teeburu-hito-<u>tu</u>-de   heya-wa appai
    bed 1-<u>inanimate</u>-COM table-1-<u>inanimate</u>-INST room-TOP full

    de, ... (F)
    COP

    'With (just) a bed and a table, the room was full ...' cf. <u>dai</u>,
    <u>taku</u>, <u>kyaku</u>

Similar nonchalance with respect to the choice of a classifier occurs in cases where the class of the referent at issue has been clarified earlier and talk is now proceeding about members of the pre-established set. My primary informant has suggested, for example, that one would under normal circumstances be unable to use <u>tu</u> in place of <u>dai</u> or <u>ki</u> in counting airplanes, but if one were the owner of an airline, or if discussions about airplanes were always the order of the day, <u>tu</u> might be possible. The switch from <u>mai</u> to <u>tu</u>

in 24) would seem to be a variant on this type of usage:

24) Nan-mai-ka-no   motto tiisai "kiti-to itazura"-ni
    Q-flat, thin object-Q-GEN more small "wit-COM mischief"-NOM

    mitita   tyookoku-no   bubun-o katta. ... Hito-tu-wa ...
    filled   sculpture-GEN part-OBJ bought 1-inanimate-TOP

    teema-ni sita mono de, moo hito-tu-wa ... koozu
    theme-DAT done thing COP other 1-inanimate-TOP design

    de atta. (F)
    COP

    'He bought a number of smaller carvings full of "wit and mischief.
    ... One of them was based on the theme of ..., and another was a
    representation of ... .'

Frequently, these colloquial or number-emphasizing uses involve not
only one of the more general forms, like dai or hon, but the most general form,
tu, which, along with nin, appears to occupy a level apart from the other very
general forms.[16] Not only are tu and nin used with overwhelmingly greater
frequency than the others, they may also appear with no nominal antecedent or
accompanying noun, as shown in 25) and 26):

25a) Ano, moo hito-tu, kyuukantyoo-ga iru-n   da kedo
     Um more 1-inanimate Mynah bird-NOM exist-NMLZ COP but

     ne. (O)
     PP

     'Um, another thing, we have a Mynah bird.'

   b) go-rin-no hata-wa   "sekai-wa hito-tu"-no   syootyoo
      5-ring-GEN flag-TOP   world-TOP 1-inanimate-GEN symbol

      da ga, ... (NF)
      COP but

      'the flag with its five rings is the symbol of the idea that "the
      world is one," but ...'

26a) rondon-de itiban-tiisai sutainuei-hooru-tte ne,
     London-LOC most-small   Steinway Hall-QUOT   PP

     go-hyaku-nin-sika   hairanai toko de ne, ... (O)
     500-human being-only enter-NEG place COP PP

     'in a place called Steinway Hall, the smallest place in London,
     which accommodates only 500 people ...'

   b) Sina-ni   itta rentyuu-wa taitei
      China-LOC went bunch-TOP   for the most part

      hitori-ya   " hutari-   wa yatteru yo.(F)
      1-human being-or 2-human being CONTR killed PP

      'Most of the guys in the bunch who went to China killed a person or
      two.'

Similar phenomena have been reported with respect to the human and
general inanimate classifiers for other languages. Burling (1965), for

example, cites the Burmese sentence in 27):

27) (Burmese) Lêiyauʔ sâjinté 'Four people wish to eat.'

noting that "the fact that it is people, rather than animals, who wish to eat is indicated only by the choice of -yauʔ as the classifier." (p.247) In the same vein, Conklin (1981, p.108) cites the Lii sentence in 28), remarking that the general classifier ʔan[1] often appears in sentences of this type, which contain only a classifier and no noun.

28) (Lii) suu[1] au[1] kii[2] an[1]-aa[4]
     you take/get how-many CLFR-question

'How many (items) did you get?'

Interestingly, it is not only these two rather general classifiers, but also those which are extremely specific that can be used with no nominal antecedent to clarify the identity of the referent.

29) Watasi-ni ategawareta-no-wa, ganzyoona tukuri-no
    I-DAT assigned -NMLZ-TOP solid construction-GEN

    hito-ma-dake-no bessoo de aru. (F)
    1-room-only-GEN separate building COP

'I was assigned a solidly built outbuilding with a single room.'

Examples of this type have also been reported in other languages (Conklin 1981), and are especially common when repeaters are involved. The final picture that results, then, is one in which those classifiers with extremely broad referential ranges (like tu) or extremely narrow referential ranges (like ma, or repeaters) may appear with no co-occurring or antecedent noun in contexts which would be closed to classifiers of intermediate referential range (except for the human classifier, which constitutes a principled exception, to be discussed below).

This discrepancy, of course, leads us to ask whether there might be some similarity between the extremely general and the extremely specific forms which predisposes just these members of the system to appear unaccompanied. Conklin, in her treatment of Tai classifier systems (Conklin 1981), argues that these two groups of forms resemble each other in terms of the (light) semantic loads they bear, by comparison with the heavier loads associated with classifiers of intermediate referential range. As she puts it (p.68),

> If classifiers are very widely applicable, ... they tell little about the nouns they apply to, for they are so widely used. Likewise extremely specific classifiers ... are so closely identical in reference to the noun that they tell little about it. Those in the middle ground are most informative about the nouns, creating comprehensible, semantically meaningful categories.

Conklin then goes on to suggest that "the lighter the semantic load of the classifier, the more likely that the noun phrase will be abbreviated" (p.70), explicitly tying the issue of semantic load to the phenomenon we are considering here with respect to Japanese.

Although I must admit to considerable confusion over Conklin's discussion of the notion of semantic load, I find that I cannot agree with what I take to be her position here. If both very general classifiers, such as _tu_, and very specific classifiers, such as _ma_ 'room,' are considered to bear light semantic loads, this assessment holds true only when the semantic load is evaluated as the increment to the semantic load carried by the noun with which the classifier co-occurs. If the total amount of information carried by forms of these two types is, on the other hand, evaluated independently of any co-occurring noun, it is clear that the use of one of the more specific forms has the potential for conveying vastly more information than a form like _tu_, which tells us nothing more than the fact that the referent in question is inanimate. For this reason, I find Conklin's explanations of little help here.

This is not to say, however, that the notion of semantic load is irrelevant to the discussion, for I would argue that it is, in fact, the _heavy_ semantic load borne by the specific classifiers that enables them to appear without a co-occurring or antecedent noun more readily than other classifiers of broader referential range. This is true because the potential usefulness of a classifier as the sole indicator of a referent is obviously dependent on the ability of that classifier to uniquely pick out the appropriate referent within context. This ability is considerably diminished when the referent class associated with the classifier is so broad that it encompasses any number of possible referents within the context in question, as it is more likely to do with classifiers with broader referential ranges.

To the extent, then, that a classifier is able to satisfy the addressee's curiosity about the identity of the referent, it will be easier to use independently, as in the example in 29). Even when the referent is clearly identifiable on the basis of the information given by the classifier, though, there is often a reluctance to use a classifier in the stead of a full-fledged noun in _introducing_ a referent. My primary informant, for example, was

reluctant to accept sentences like those in 30) as entirely natural, even though the classifiers which they contain are clearly adequate to convey the identity of the referents in question.

30a) ? Mada wakai no-ni, moo   san-sya-ni
     still young though already 3-company-LOC

tutometa koto-ga   aru.
worked   NMLZ-NOM exist

'Even though he is still young, he has already worked for three companies.'

b) ? ha-ppyaku-hiki-mo   iru   ookina doobutuen desu.
     800-animal-even   exist big   zoo   COP

'It's a large zoo with 800 animals.'

c) ? Asahayaku itumo iti-wa-ga   toki-o tukuru.
     early   always 1-bird-NOM time-OBJ make

'There is a bird that always crows early in the morning.'

The unnaturalness of these sentences in spite of their interpretability derives, I would suggest, from the fact that it is typically the job of classifiers to acknowledge rather than to assert the participation of the member of some category in the state or activity described by the sentence. Even when there is no chance of misunderstanding, as in the sentences in 30), the use of an unaccompanied classifier creates the impression that crucial information has been slipped into the sentence without the linguistic fanfare (i.e., the use of a noun) which it is due, an impression akin to what we feel when a speaker violates an anaphoric island or inserts a proper noun without ascertaining in advance its interpretability for the listener he is addressing. As Denny has argued, it is not the job of classifiers to pick out referents, although they may carry enough information (especially if they are very specific) to do the job if necessary. By contrast, the anaphoric use of these same classifiers is not at all unnatural, once the referents in question have been introduced with a full noun.

The likelihood that a classifier will be drafted for these not entirely legitimate purposes is also affected, not only by the referential specificity of the particular form, but by the properties of the classifier morpheme itself. Those classifiers which also serve as full-fledged nouns, such as toori 'method,' or heya 'room,' are particularly prone to appear with no nominal accompaniment. This, of course, comes as no surprise, since classifiers used in this way are usurping what is essentially a noun slot.

The closer the classifier used in this way comes to approximating a noun, both in terms of semantic detail and actual morphology, the better.

It should by now be clear that the appearance of very general classifiers without nominal accompaniment cannot be explained in the same terms as the appearance of the very noun-like specific classifiers. _Tu_, in particular, is the worst possible member of the system with respect to the traits which I have noted as requisite for a classifier to be able to appear in what is functionally a noun slot. What recommends _tu_ for this slot can be seen, however, when we consider examples like those cited in 25). Here we see that _tu_ is used, not as a means of picking out any particular referents that the speaker has in mind, but merely as a filler of the post-numeral position, which must be occupied in order for the numeral to be able to appear. _Tu_ is thus performing a grammatical function quite distinct from the semantic function performed by the more specific classifiers when they appear without nominal antecedent.

The human classifier _nin_, which is the only classifier of intermediate referential range to share this distributional property with _tu_ and the more specific forms, resembles both in ways that facilitate its appearance without an antecedent. Like the specific forms, _nin_ is to a certain extent capable of satisfying the curiosity of the addressee about the identity of the referent(s) in question, since the boundary between human and non-human represents a significant semantic split with numerous semantic and pragmatic consequences. In this sense, then, _nin_, like the specific forms, carries a heavy semantic load. On the other hand, _nin_ represents a semantic distinction which is frequently grammaticized, and, like _tu_, it sometimes appears merely to fill out a case frame or facilitate the appearance of a numeral, rather than indicate the category membership of particular referents. Uses of these sorts are illustrated by example 26b), above, and 31) below.

31)   Aite-wa   tokutei-no _hitori_   dewa nai
         partner-TOP fixed   1-_person_ COP NEG

         daroo   si   ne. (F)
         probably and PP

         '(You) probably haven't been involved with just one particular person, have you?' (lit. '(Your) partner probably hasn't been one particular person.')

As the preceding discussion has illustrated, then, not all members of

the classifier system which appear without a nominal antecedent do so for the same reason, or in the same capacity. The very specific forms, along with nin, carry enough (lexical) information to enable them to serve as noun substitutes, picking out particular referents or denoting lexical categories well defined enough to satisfy the curiosity of the addressee. The semantically impoverished tu may appear in what are superficially similar contexts, but in such cases it serves merely as a grammatical placeholder rather than as a bearer of lexical material. Nin, although it carries more semantic weight, also appears in this capacity. While the extremely specific or general referential ranges of these forms thus enable all of them to appear without nominal antecedents, their converging behavior is due to different explanations in each case.

3. **Type of Semantic Cohesion Within Referent Class**. As I noted earlier, a basic distinction can be made between "kind" classifiers and "quality" classifiers. Kind classifiers are associated with what Hunn (1977) has called "inductive" categories. These are composed of members which, if we take a featural view of category membership, share a number of physical, functional, and ontological traits. Ken, the classifier for buildings, for example, is used with a group of referents which share the same physical composition, characteristic function, method of construction, etc. The categories represented by such "kind" classifiers are then in a sense those which are "given" by the world as humans experience it,[17] and they often duplicate categories which are represented in the common noun system as well.

Quality classifiers, on the other hand, represent that Hunn calls "deductive" categories, whose members, from a featural perspective, share a very limited number of properties, often no more than one or two. Members of a single quality classifier category, for example, may have nothing in common other than the fact that they are all long and slender (hon), or that they are all strung together (ren).[18] Categories of this sort certainly do not fall among those which are "given" by the world, and their boundaries typically cut across rather than reinforce those of common noun categories.

Although the assignment of a given classifier to one of these two semantic subcategories is not always easy,[19] the kind/quality distinction is a conceptually useful one and allows us to account, as we shall see, for some

of the behavioral properties of classifiers of the two types.

One important difference between the two sets of forms involves their capacity for conveying new information. Since the classifiers of kind are often clones of categories which are also encoded within the common noun system, the choice of one of them is largely predictable, given a particular head noun, so that the classifier itself ends up in most cases carrying very little information. It is thus largely redundant.

Quality classifiers, on the other hand, encode information different in kind from that carried by most nouns, and are thus in a position to serve two functions to which kind classifiers are less well-suited:

a)   adding information beyond that carried by the nominal

b)   serving as default classifiers for referents which do not fall into any categories marked by the kind classifiers.

Adding information.

Many nouns, in the fashion of a Chomsky who can be met or a Chomsky who can take up five feet on a bookshelf, refer to multifaceted referents, or to a grouping of metaphorically or metonymically related referents, in a way that can be disambiguated by the choice of classifier. Both kind- and quality-classifiers may be used in such cases, as shown by the examples in 32) through 35):

32a) denwa   iti-dai (KIND)   'one telephone'
     telephone 1-furniture, vehicle, or machine

  b) denwa i-ttuu (KIND) 'one telephone call'
          letter

33a) kisya iti-dai (KIND)   'one train' or 'one train car'
     train 1-furniture, vehicle, or machine

  b) kisya iti-ryoo (KIND)   'one train car'
           train car

34a) budoo hito-tubu (QUALITY) 'one grape'
     grape 1-small, grainlike object

  b) budoo i-kko (QUALITY)   'one bunch of grapes' 'one grape'
           small roundish object

  c) budoo hito-husa (QUALITY) 'one bunch of grapes'
            cluster

35a) ume i-<u>ppon</u> (QUALITY)   'one plum branch'
     plum i-<u>long, slender object</u>

 b) ume i-<u>kko</u> (QUALITY)   'one plum'
            <u>small, roundish object</u>

 c) ume iti-<u>rin</u> (KIND)   'one plum blossom'
            <u>flower</u>

The classifier of kind as well as quality is useful in the capacity illustrated here because, although it does in general duplicate a noun category, this category may merely overlap with or subsume one of the senses of the particular noun with which the classifier co-occurs, rather than being identical to it. Thus, in 32a), for example, the general furniture and machine category associated with <u>dai</u> allows the speaker to clarify the fact that it is a telephone as machine, i.e., the physical object, which is in question, ruling out the phone call sense which is clinched in 32b) by the use of <u>tuu</u> instead.[20]

In addition to this role in disambiguation, which may be fulfilled by classifiers of any sort, the quality-classifiers may be used, much like modifiers, to add small increments of unpredictable or surprising information to that which is already carried by the noun. In such cases, the classifier is not conspiring with the noun to specify the category the speaker has in mind; it is, rather, carrying information additional to or irrelevant to the category membership of the referent(s).

36a) Hoosu-no saki-o   yubi-de   tubusu-to, mizu-wa
     hose-GEN end-OBJ finger-INST squeeze-and water-TOP

     ni-<u>hon-</u>   no kiri-ni   natte ... (F)
     2-<u>long, slender object</u> GEN mist-DAT become

     'when he squeezed the end of the hose with his fingers, the water
     became two <u>streams</u> of mist, ...'

 b) nan-<u>mai</u>-ka-no   motto tiisai "hiti-to itazura"-ni
    Q-<u>flat, thin object</u>-Q-GEN more   small "wit-COM mischief"-NOM

    mitita   tyookoku-no   bubun-o katta. (F)
    full of sculpture-GEN part-OBJ bought

    'he bought a number of smaller <u>flat</u> pieces of a sculpture that was
    full of "wit and mischief"'

In 36a), <u>hon</u> is used to impose on <u>kiri</u> 'mist,' a noun which normally does not co-occur with a classifier, a distinctive shape which is in no way implied by the noun itself, and in 36b), <u>mai</u> is used similarly, much as an adjective might be, to add information about the shape of the pieces of sculpture.

Similarly, in 37), <u>ten,</u> a classifier for works of art, is used of postage

stamps (which would normally take mai) in order to convey the idea that these stamps are not simply something to paste on your letters; they are of artistic value.[21]

37) mottomo igi aru kityoona nihon-no yuubin-kitte
    most significant valuable Japan-GEN postage stamp

    go-zyu-tten-o   hazimete gin-de   saigen-sita
    50-work of art-OBJ first   silver-INST re-issue-did

    sinseina hukusei-no   korekusyon (A)
    genuine reproduction-GEN collection

    'the first collection of genuine silver reproductions of fifty of the most valuable and significant postage stamps of Japan'

In a related use, shape-denoting quality classifiers may be collocated with nouns which would normally take some other classifier, in order to express the fact that the referent in question is not a standard case of the category represented by the noun, that it deviates from the norm by virtue of the unusual shape or size which it possesses. This is how the classifier mai functions in 38):

38) (on a doll pattern) asi yon-mai   'four feet'
                         foot 4-flat, thin object

Although asi would normally be counted with hon or tu, it takes mai here because the feet in question are not real feet but feet printed on a sheet of paper.

By contrast, the kind-classifiers are seldom used in this way, with the choice of an ordinarily inappropriate classifier being used to signal some unusual trait of the referent in question. Although joking uses are always possible, of course, as with example 17) above (p.62), it would normally be unacceptable to use the classifiers too and hiki to distinguish between a large and a small turtle, say, although the criterion for distinguishing between the two forms is size, just as shape is the only relevant criterion in deciding on the use of one of the dimension-classifiers. Turtles are hiki, not too, and if the speaker wishes to refer to differences in size, he must resort to the use of modifiers, since this area of the classifier field is not available for encoding individual or temporary differences among the members of a category in the way that the shape classifiers are. While the quality-classifiers may be put to what are essentially modifying purposes, then, the kind-classifiers may not.

Serving as Default Classifiers.

Although the general inanimate classifier _tu_ is of course the default classifier par excellence, the quality classifiers also provide the speaker with a means for accommodating referents which have no pre-coded spot of their own within the kind-classifier system. Because all concrete referents possess some sort of shape, and because the quality classifier group is dominated by shape-denoting forms such as _hon_, _mai_, _ko_, and _tubu_, it is easy to see how these forms could be useful, although not necessarily too informative, in the enumeration of referents which have been newly invented, discovered, or introduced to speakers of the language. The shape-classifiers also seem to be particularly amenable to metaphorical extension,[22] as when _hon_ is used for baseball pitches and telephone calls, thus expanding from their initial realm of concrete referents to provide a means for referring to abstracts, which are sorely underrepresented by the kind-classifiers.

From this point of view, then, the shape-classifiers, like the more general classifiers, can be seen as occupying an especially important place in the system. Although it may be the kind-classifiers which fulfill the prediction that the classifier system will provide labels for a few categories of special cultural importance, it is largely the quality-classifiers that allow the system to be used in enumerating _all_ referents, filling in the gaps that separate the more culturally important categories which merit their own kind-classifiers. As we saw earlier, they also allow the speaker to avoid the use of the standard classifier associated with a particular referent in cases where that referent somehow deviates from the norm or possesses idiosyncratic traits of particular relevance in that particular context. This cut in the system, between kind-classifiers on the one hand and quality-classifiers on the other, then, is quite significant, for it reflects the distinction between the part of the classifier system which is bound to the noun system (and thus largely redundant) and which is too fixed for adaptation to individual communicative needs, and the part of the system which is independent of the noun system, containing only a few categories of broad enough applicability to make them very useful as a means for filling any gaps in the resources provided by the noun-based portion of the system. While the kind-classifier system may actually change radically

over time, in response to the constant changes in culture, and cultural value, the quality-classifier system is likely to remain stable, in spite of the constantly changing referent classes associated with each of its members, because of the enduring value of the categories which it encodes, and because of the opportunity it affords users of the language to adapt the system to their own communicative needs.

4. **Internal Structure of the Referent Class.**

In her paper on the acquisition of Japanese classifiers, Sanches (1977) argues that the likelihood of a particular classifier being extended to use with new referents is dependent on the type of definition associated with that classifier. She distinguishes between "taxonomy-specific" classifiers (cf. my kind-classifiers), which are defined merely by a list of members, and "shape-specifiers" (cf. my quality classifiers), which are associated with some sort of a "generative rule" for membership. As she puts it,

> ... I am convinced that what is responsible for the shrinking numeral classifier system, and, more importantly, for the pattern of shrinkage that occurs, is the interaction of the way in which they are learned in combination with the changes in material and social culture that are occurring. That is, we have seen that most of the numeral classifier forms in Japanese can be analyzed as classifying items that all belong to the same taxonomic domain. These forms are learned in relation to the items they classify, in lists, rather than as representative of categories of criterial attributes that are potentially generalizeable to an infinite variety of items. Shape classifiers, on the other hand, applicable as they are to a wide variety of items from a range of taxonomies, demand to a greater extent internalization of the semantic features to which they refer, rather than simple association with a limited set of lexical items. Given this listing rule by which forms are learned plus the shift in material objects and their lexical representation, we can only expect the system to atrophy.

> This has already happened to classifiers of many traditional things that have disappeared from the scene and for which only a few members of the older generation know the "proper" classifier. The fact that when a new thing replaces an old - for example when reenji '(western-style) cooking range' replaced kamado '(traditional) hearth' - and the old classifier is not extended to it confirms our conclusion that the classifier was represented in the speaker's competence, not by generative semantic rules, but by a listing procedure. (p.61)

Given the importance of the distinction between kind- and quality-classifiers discussed in the preceding section, the issue Sanches raises here is of some interest. As I will show, however, Sanches' attempt to equate kind-classifiers with listing definitions and quality-classifiers with "generative rules" finds no support in the intuitions of the speakers I interviewed or the dictionaries I consulted. These sources do show,

however, that another structural parameter, i.e., organization around a representative category member, may be relevant in explaining the behavior of at least some members of the classifier system.

Although it would be hopelessly naive to expect the off-the-cuff responses of Japanese speakers, or even the definitions provided by Japanese lexicographers, to provide a clear reflection of the listing/rule split proposed by Sanches, neither the respondents to my questionnaire nor the definitions listed in the dictionaries I consulted suggested that these two definition techniques might be mutually exclusive. The definitions obtained from these two sources can be roughly grouped into the following four types:

1. Specification of kind by means of reference to a roughly equivalent noun category. (inductive rule)

    e.g., hiki - doobutu 'animal'

       ken - tatemono 'building'

       kyoku - ongaku 'music'

       ko - mono 'thing'

2. Listing of members

    e.g., dai - kuruma, zitensya, kikenrui 'cars,

              bicycles, machines'

       ko - kudamono (ringo, mikan, meron, ...),

            kesigomu, kozutumi, tokei, ... 'fruit

            (apples, tangerines, melons, ...), erasers,

            parcels, watches, ...'

       tai - butuzoo, itai 'statues of the Buddha,

            corpses'

3. Citation of a single representative member of the category

    e.g., sao - tansu nado 'chests, etc.'

       ki - hikooki nado 'airplanes, etc.'

4. Specification of characteristics of members of the category
(deductive rule)

    e.g., Shape: <u>hon</u> - <u>hosonagai mono</u> 'long, thin things'

           Size: <u>tubu</u> - <u>komakai mono</u> 'very small things'

           Part: <u>kyaku</u> - <u>asi no tuite iru mono</u> 'things
with legs'

           Function: <u>soku</u> - <u>haku mono</u> 'things worn on the
legs'

           Associated action: <u>ki</u> - <u>suete oku mono</u> 'set up/
installed things'

In addition to one-technique definitions of these types, my subjects also provided many which were combinations of various techniques, different subjects often using different techniques for defining the same classifier, as in 39):

    39) <u>mai</u>: <u>nyuuzyooken, saiken, moosikomiyoosi, nado
sirui</u> 'papers, like platform tickets, bonds, application forms, etc.'

        <u>kami, sukaahu, burausu, syatu</u> 'paper, scarves, blouses, shirts'

        <u>sizyoo no mono: satu, teesyupeepaa nado</u> 'paper-shaped things; paper money, tissue paper, etc.'

        <u>taira de usui mono</u> 'flat, thin things'

As this example shows, subjects vary greatly in their ability to arrive at a general description that matches all or most members of the category associated with a particular classifier. While one speaker may produce a single, all-encompassing list of features, others may list exemplars of the category or even arrive at another different yet equally plausible generalization that appears to account for the inclusion of most of the members of the category. Although the verbalization need not directly reflect the structure of the associated mental representation, this sort of individual variation is probably also typical of the way in which information about the same lexical item is stored in the minds of different (highly competent) speakers of the same language.

The defining of a classifier category by means of listing its members can thus be seen, not as a technique peculiar to the definition of kind-classifiers, but as a last-ditch technique which is available for either

quality- or kind-classifiers when no more generally applicable mans of characterizing the referent class as a whole is available.

Significantly different, I feel, from these cases of what might be termed "definition by accrual" are cases in which the referent class denoted by a classifier appears to be centered on some one representative member or group of members. In the data that I have collected, there are certain phenomena which I have interpreted as indicators of the existence of this sort of representative member, rather than simply a homogeneous group of referents of equal status. These phenomena are:

a. Frequent appearance of a particular category member in examples given by respondents to my questionnaire

b. Ability of this member (unlike others) to appear as the referent of the classifier with no co-occurring or antecedent noun to clarify its identify

c. Inability of this member to appear with another classifier, even tu, although other members of the referent class may

The first criterion is self-explanatory. In filling out my questionnaire, subjects were requested to both characterize the entire referent class associated with the classifier and to list an example of their usage of the classifier in question. For certain classifiers, as in the case of wa 'bird, (rabbit) (winged insects),' where eight out of twelve subjects listed niwatori 'chicken,' a majority of subjects listed a single particular referent or subclass of referents as their example, suggesting that the classifier was particularly strongly associated with category members of that type.

The second criterion is based on the fact that certain classifiers may be used without a co-occurring or antecedent noun only with respect to certain referents and not others. In 40a), for example, although there is no noun present, dai is interpretable as a reference to cars. In 40b) and c), on the other hand, it fails as a means of referring to an appliance or piece of furniture (b) or a machine in a factory (c), even though these referents are also perfectly legitimate members of the dai category.

40a) hyaku-dai-ga   hairu tyuusyazyoo desu
     100-furniture, vehicle, or machine enter parking lot COP

'It's a parking lot that will accommodate 100 cars/vehicles.'

b) ?? Daidokoro-ga semakute,
   kitchen-NOM small

   iti-dai-mo   suete-okenai.
   1-furniture, vehicle, or machine-EMPH can't install

   'The kitchen is so small that not even a single appliance/piece of
   furniture will fit.'

c) ?? kooin-tati-wa   hutari-de
   laborer-PL-TOP 2-human being-INST

   iti-dai-o   atukau.
   1-furniture, vehicle, or machine-OBJ run

   'Two factory workers together run one machine.'

The third criterion relies on the fact that certain of the members of some classifier categories may be denoted by means of other classifiers as well, while others may not. On the logic that those category members which are most distinct from members of competing categories (and thus are not eligible to be denoted by the labels of those competing categories) and are in addition not prone to take the default classifier (tu), are good members of the category whose label they consistently bear,[23] I have interpreted these members as more representative than their more fickle co-members. Mai, for example, is always used in referring to sheets of paper, while it may be replaced with other classifiers such as ko (個), or tu when used to refer to dishes, by tyaku when used with respect to items of clothing, etc.

The results of these three criteria do not always coincide, of course. In some cases, as with nin, the referent class as a whole, not just its more representative members, is permanently associated with the classifier, leaving no room for alternation with other forms. In other cases, all members of the category (as with the very noun-like classifier heya 'room') or no members of a very broad category (as with hiki 'animal') may occur without benefit of a co-occurring noun to clarify the reference, eliminating the possibility of using the no-antecedence criterion in evaluating prototypicality. Considerations of these sorts greatly limit our ability to generalize about the nature of the representative members associated with the classifier categories, but there is clear evidence from at least one of the three criteria mentioned that at least the classifiers listed below in Table 7 (and probably many more) are associated with a non-homogeneous referent class which contains representative members of the sorts listed in the second column of the chart.

Table 7

Classifiers Associated With Representative Members

Classifier	Representative Members	Criterion 1 (listing)	Criterion 2 (no antecedent	Criterion 3 (no alteration
dai	vehicles	x	x	x
kyaku	chairs	x	x	x
ki	airplanes	x	x	
tuu	letters	x	x	
satu	books	x	x	
wa	chickens	x	x	
hon	pencils	x		x
mai	paper	x		x
sao	chests	x		
too	livestock	x		

As one of the best examples of the representative member-related behavior of the forms listed here, we can consider dai. On the listing task, eleven out of thirteen responses involved mention of land vehicles, and two other informants mentioning instead a tape deck and a tape recorder. With respect to criterion 2, as example 40), above, illustrates, dai may appear without a nominal antecedent with reference to vehicles but not with reference to appliances, furniture, or machines. As for criterion 3, dai is typically not replaceable (with tu) when it is used with respect to vehicles, while the default form is unexceptional when used with respect to appliances or machines of other sorts.

Although the effects listed in Table 7 are not identical to those cited by Rosch in her investigation of the prototypes associated with English noun categories, or by other scholars in related studies (e.g., Coleman and Kay 1981, Anglin 1977, Labov 1973), they do suggest that just a featural characterization of the meanings of the various classifiers in the system may not be adequate. While the analyst may be capable of concocting a featural specification that accounts for the inclusion of most members of the category, this analysis will not reflect the differences in status among the various members of the category which influence, as Table 7 shows, the way in which the classifier is used synchronically, and which could certainly

influence as well the way in which the category will expand or shrink over time.[24] The classifier _tuu_, for example, which has traditionally been used with respect to letters and other written documents, is now used by some speakers with respect to telephone calls as well. This extension of the category has presumably occurred because phone calls (regardless of their lack of relation to other written documents) are like letters in that they serve as a means of mediated communication.

It is unclear exactly what sort of special membership status it is that produces the prototype effects illustrated by the _tuu_ example, or by the items listed in Table 7. In the work of Rosch and her colleagues on what she now calls "representative" category members, Rosch discusses a number of possible explanations for the special status of such members, including the hypotheses that the representative exemplars represent the mean of the attributes associated with the category, that they possess traits of particular importance or memorability, that they are maximally different from members of contrasting categories, that they are the most frequently encountered members of the category, and that they are the first members of the category encountered. On the basis of her work, Rosch finally comes to the conclusions that "the items that have most attributes in common with other members of their own category also have fewest attributes in common with related contrast categories" and that "the most representative exemplars of a category have maximal within-category and minimal between-category similarity." (Mervis and Rosch 1981, p.99-100.)

When we turn to the "representative members" of the classifier categories listed in Table 7, however, it is apparent that they do not in all cases correspond to the characterization Mervis and Rosch provide. In some cases, the "representative members" may merely be members of a particular sub-category which is perceived of as distinct although it is lumped into the same classifier category with other subcategories (which contain the "less representative" members of the classifier category). Although it may be possible to discern a logical basis for grouping all these subcategories under the aegis of a single classifier, this logic may not be of particular salience to the speaker, and the separation among the various subclasses may be so strong as to create a situation that verges on homonymy, at least in a synchronic psychological sense. This phenomenon is illustrated by the

oddity of the sentences in 41), where the co-membership of the various subcategories mentioned is a particular classifier category is overridden by their distinctiveness at what is apparently a more basic level of classification. Such sentences would be out of place anywhere but in a counting lesson.

41a) * Kuruma ni-dai, sofua san-dai, terebi iti-dai,
      car   2-dai   sofa 3-dai   TV   1-dai

   zenbu-de   roku-dai-o tuida.
   all together 6-dai-OBJ inherited

   'I inherited two cars, three sofas, and one TV, six dai in all.'

b) * Kaban-ni-wa   hon i-ssatu, nooto   yon-satu,
   briefcase-LOC-TOP book 1-satu   notebook 4-satu

   kittetyoo   go-satu, zenbu-de   zyuu-i-ssatu-ga
   book of stamps 5-satu all together 11-satu-NOM

   haitte-imasu.
   are entered

   'In the briefcase there is one book, four notebooks, and five books of stamps, eleven satu in all.'

In cases of this sort, the apparent representativeness of members of one of these subcategories may be due to its relatively greater salience (for whatever reasons) by comparison to the other subcategories in question, rather than to its representation of any "central tendency" of the larger classifier category as a whole.

In other cases, it appears that the representative member slot is occupied by the most commonly encountered member of the category, as with domestic livestock within the large animal category (too), chickens within the bird category (wa), airplanes within the air vehicle category (ki). If the Japanese bird category bears any resemblance to the one that has been described with respect to English,[25] it is clear that the chicken can in no way be seen as representing the central tendency or "prototype" of the category, yet it is equally clearly the category member that first springs to mind when speakers are asked about wa. Cases of this sort show the merit in Lakoff's (1984) suggestion that not only "prototypical" members in Rosch's sense but also "ideal" members, "paragons," "instantiations of the social stereotype for the category," "most salient members," etc., may also be the source of "prototype effects."

Indeed, insofar as the admittedly limited data which I have collected can be relied upon, it would seem that only mai and hon might be represented by

exemplars conforming to the Mervis and Rosch characterization, and even in these cases the match is problematic. Both of these shape-classifiers are used with a wide variety of referents of various sizes, degrees of flexibility, and degrees of abstraction. The "representative examples" in both cases, however, are both concrete and small enough to be manipulable. This trend is also visible in the case of _ko_, although no single referent was listed as an exemplar with the regularity of paper and pencils for _mai_ and _hon_.

That these particular members of the _hon_ and _mai_ categories are maximally distinct from neighboring classifier categories is suggested by the fact that they may not appear with any other classifier. In this regard they are unlike some other referents, such as plates, bottles, or coins, whose relative dimensionality is susceptible to more than one interpretation, allowing for the use of more than one of the dimension-classifiers, or those very large or abstract referents which may also be denoted with the default form _tu_.

In a sense, these "representative" members of the _hon_ and _mai_ categories are also special in that they epitomize, not only the _hon_ and _mai_ referent classes, but the sort of referent that merits the most concentrated attention of the classifier system as a whole, i.e., relatively small, individuated concrete objects. It should thus come as no surprise that it is these referents that serve as the best exemplars of the categories to which they are assigned, serving as the basis for the dimensional metaphors which reach out and bring in members less readily perceived initially in terms of those dimensions, i.e., abstracts and very large or extended objects. Because of the semantic diversity which these categories ultimately achieve, though, attempts to use the corresponding classifiers as cover terms for the wide range of entities with respect to which they apply results in sentences no less ludicrous than the _dai_ and _satu_ examples shown in 41). There are simply very few contexts in which trees, strings, and TV broadcasts, or plates, sheets of paper, and carpets constitute groupings of any functional significance.

Although it would require considerably more research to ascertain, then, exactly what the source of the prototype effect is in each of the cases I have cited, it is clear that a classifier unaccompanied by a noun may tend to

evoke certain members of the associated referent class more readily than others, and that this tendency may hold for speakers as a group, rather than varying unsystematically across individuals. If so, such facts should be incorporated into any semantic description of these forms.

Because it neglects such complexities in the extensional composition of the classifier categories, Sanches' attempt to characterize kind- and quality-classifiers as essentially different semantic types (one associated with lists of referents, the other with generative rules) can be seen as an oversimplification at best. Although it may sometimes be easier to sum up the logic behind the herding of a group of referents into a single quality-classifier category, such a category, once constituted, is no more likely than a kind-classifier category to be semantically homogeneous. This is because the vast majority of classifiers of both types are associated with both intensional and extensional information about the categories they denote, and evaluation of some potential new member (at the level of either _langue_ or _parole_) may proceed on the basis of either type of information. That is, a new member may be attracted into the category either because the speaker judges it to possess the characteristics possessed by many, most, or all members of the category, or because it bears some similarity to particular members of the category as presently constituted. It is presumably such a process that has produced categories like the one reported for Garo (Adams and Conklin 1973) which contains round objects such as stones, balls, eyes, and coins, and round fruits, but also bananas (which resemble oranges and mangoes in that they are fruit, although they are not round). Although I have no diachronic evidence to back up my claim, it seems likely that representative members would be more powerful than non-representative members in this member-attracting capacity.[26]

Since extension-based expansion of this sort would appear to be available for any category which in fact has extensions, the source of Sanches' claim about the gloomy prospects for classifiers associated with listing definitions is considerably mitigated. So long as there is a single referent associated with the classifier, there is potential for expansion. Although I don't have the resources to pursue it here, it would be of considerable interest to investigate the circumstances under which the extensional approach is chosen over the intensional in evaluating the

candidacy of a potential category member.[27] It may be, for example, that in cases where the classifier is associated with some large referent class, the sheer number of members meeting the intensional requirements for membership may in fact work against member-focused expansion. No such obstacle would exist in the case of categories composed of but a single member, or of a few members bearing no obvious intensional relationship to each other, as in the case of, for example, sao 'chests, flags, poles, samisens, stick-shaped sweets,' where it is only extension-based assimilation that is possible.

What I hope to have illustrated with this discussion is that neither the rationale behind the composition of a particular classifier category nor the prospects for its future growth can be assessed a priori on the basis of its inductive or deductive nature. Although it may be possible for the analyst to detect a logic which accounts for the inclusion of many, if not all, members of the category, there is no guarantee that it is this rationale that has attracted all existing members of the category. Individual members, especially those which occupy one of the prototype roles discussed, may be equally powerful in affecting the course of development of the category, and it may in fact be necessary to recognize several distinct, though not necessarily incompatible, logics as the ties which bind the category together and the vectors which provide directions for its future growth.

Summary of Semantic Properties of the System.

With this inventory of the semantic parameters which distinguish the members of the Japanese classifier system from each other, I hope to have provided at least a partial explanation for the distributional discrepancies noted at the beginning of the chapter. Far from being drone-like fillers of a single grammatical slot, charged with a certain uniform set of functional roles, the individual classifiers differ significantly one from the other, both in terms of the semantic nature of the categories they represent and in terms of the distributional properties they exhibit.

One important factor in determining the frequency with which a form will be used, for example, is the nature of the referent class with which it is associated. As we have seen, the requirement that animate referents be unambiguously marked as such results in frequent use of the animate

classifiers and their failure to alternate with other members of the system, and presumably influences their early acquisition by children. By contrast, the relative lack of concern accorded abstract referents results in a very different distributional pattern for classifiers for abstracts - they are used infrequently, they are not among the first to be acquired, and they alternate regularly with the general inanimate classifier tu, or sometimes give way to nouns drafted to fill the classifier slot.

The classifiers for concrete inanimates exhibit yet another pattern - the system contains a number of forms devoted to concretes, and there is considerable variation and alternation among the many forms available. This is due in large part to the existence of both kind-classifiers, which are typically associated with rather narrow "inductive" categories, and quality-classifiers, which denote "deductive" categories united by semantic parameters of wide applicability. The quality-classifiers are of special importance to the system because of their ability to accommodate any stray referents without a kind-classifier of their own, and to convey unpredictable or surprising information not carried by the noun with which they co-occur. For this reason, the quality-classifiers generally outstrip the kind-classifiers for inanimate concretes in frequency and breadth of use, order of acquisition, etc. Because of the very breadth of the categories which they encode, though, they are generally restricted to uses in which they co-occur with a full noun that specifies the identity of the referents in question. Many of the kind-classifiers are not so restricted, precisely because the referent classes with which they are associated are so narrowly circumscribed that the classifier alone can convey nearly as much information as a full noun.

A narrow referent class is not always required in order for a classifier to be able to stand alone, however. The most general member of the system, tu, in fact exhibits the same behavior, serving as a dummy inanimate argument slot filler in cases where no particular referent is being denoted. Yet other members of the system may appear without nominal antecedents or accompaniment if they are associated with a referent class which contains some clear representative members which stand out amongst their peers; it is as a reference to these members that an unaccompanied use of the classifier is interpreted. Cases of this sort illustrate that we can no longer make do with

the convenient fiction of the homogeneous lexical category bounded by a set of features shared by all its members. Some members are simply more equal than others.

Because of the behavioral consequences of the semantic parameters discussed in this chapter, any adequate characterization of the system as a whole must take into account the distinctions noted between animate, abstract, and concrete inanimate referents, between broad and narrow referential ranges, between inductively and deductively organized categories. It must also reflect the fact that these categories may not be semantically homogeneous, but may instead contain members of different statuses, included on the basis of different semantic rationales.

Implications for Representation of the Lexical Field.

Since the members of the system thus differ considerably among themselves in terms of the breadth and internal heterogeneity of the categories they represent, as well as the nature of the semantic parameters uniting them, arriving at a psychologically real representation of the semantic field is no easy matter. Considerable progress has been made in the past few years in developing means for incorporating such properties of natural categories into the semantic descriptions of individual lexical items. Many problems still arise, however, in describing a whole lexical field in terms that do not presuppose a discrete and neatly two-dimensional partition of the semantic terrain. These problems are particularly acute in the case of a lexical field like the classifier system, because it covers a vast array of referents (all enumerables) with a very limited number of terms; this necessitates the use of categories of extreme internal diversity and semantic flexibility.

To date, there have appeared two attempts to describe the internal semantic structure of the Japanese classifier system - one by Sanches (1977), and one by Denny (1979a). Both researchers summarize their findings in the form of taxonomic trees; these are reproduced in Figures 1 and 2 below.

Figure 1

Numeral Classifier Domains in Japanese (nonliterary, by single units)
(from Sanches 1977, p.54)

1	Containers (not considered here)
2	Taxonomy-specific classifiers
2.1	Inanimate human artifacts
2.1.1	relatively smaller -ko
2.1.2	relatively larger -dai
2.1.3	Vehicles -dai
2.1.3.1	Wheeled vehicles -dai
2.1.3.1.1	on tracks - ryo:
2.1.3.1.2	not on tracks -dai
2.1.3.2	Winged flying vehicles -ki
2.1.3.3	Ships
2.1.3.3.1	relatively smaller -so:
2.1.3.3.2	relatively larger -seki
2.1.3.3.3	Warships - tan
2.1.4	Furniture and implements
2.1.4.1	legged -kyaku
2.1.4.2	non-legged -sao (with drawers, chests)
2.1.4.3	Fire receptacles -sue
2.1.4.4	Hanging scrolls -fuku
2.1.4.5	Eating implements -zen
2.1.4.6	Saleable -hin
2.1.4.7	Work of art -ten
2.1.4.8	Framed, nonhanging calligraphy -ka
2.1.4.9	Metal implements -cho
2.1.5	Clothing -chaku
2.1.6	Weapons
2.1.6.1	Swords -furi
2.1.6.2	Guns
2.1.6.2.1	smaller (pistols) -chō
2.1.6.2.2	larger (cannon) -mon

2.1.6.2.3	Ammunition
2.1.6.2.3.1	small -tama
2.1.6.2.3.2	large - hatu
2.1.7	Printed and written works
2.1.7.1	bound - satsu
2.1.7.1.1	relatively thick (volume) -kan
2.1.2.1.2	relatively thin (copy) -bu
2.1.7.2	unbound -tsu
2.1.7.3	Literary works -hen
2.1.7.3.1	nonpoetry -hen
2.1.7.3.2	poetry
2.1.7.3.2.1	shorter -ku
2.1.7.3.2.2	longer -shu
2.2	Living things
2.2.1	Animal
2.2.1.1	Human -nin
2.2.1.2	Nonhuman -hiki
2.2.1.2.1	Mammals -hiki
2.2.1.2.1.1	Deer -te̅
2.2.1.2.2	Fish -bi
2.2.1.2.3	Birds -wa
2.2.1.2.5	Large domestic mammals -to:
2.2.1.2.6	Dead animals -tai
2.2.2	Nonanimal = vegetable -kabu
2.2.2.1	Leaf -yo̅
2.2.2.2	Flower -rin
3.	Shape specifiers, by predominant dimension
3.1	One-dimensional -hon
3.2	Two-dimensional
3.2.1	length predominating -suji
3.2.2	length and breadth equally important -mai
3.2.3	height and breadth equally important -men
3.3	Three-dimensional -ko
3.3.1	length and breadth predominating -hen
3.3.2	Cubic -cho̅

Figure 2

Semantic Features of Some Japanese Classifiers
(from Denny 1979a, p.320)
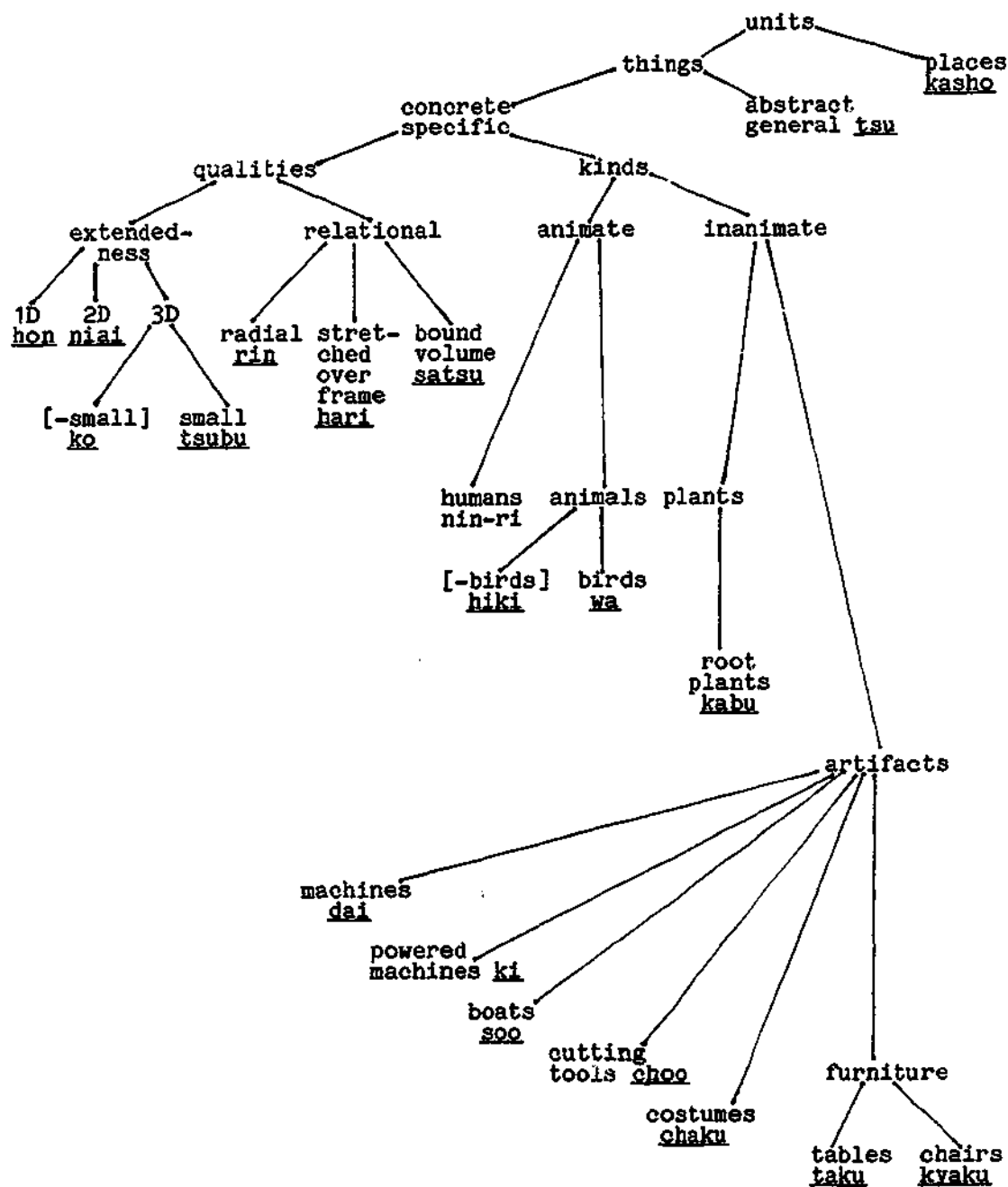
Obvious at first glance are the rather striking differences between the two analyses, although they also share significant points of similarity. Much of the discrepancy probably derives from the fact that the two researchers were working with different data bases and with different goals in mind. Sanches' analysis was based on data obtained in interviews with over 300 informants and accords relatively equal attention to all the forms elicited, one of the primary goals of the analysis being a forecast of the historical prospects for the system as a whole. Denny, on the other hand, relied primarily on data obtained from interviews with only two informants and was concerned not so much with the overall structure of the system as with the theoretical implications of the existence of particular classifier categories of certain types.

It is of interest that, in spite of these differences in stated aims, both Sanches and Denny have chosen the taxonomic tree as the format within which to formalize their findings Since the anthropological, linguistic and psychological literature of recent years has contained many discussions of the shortcomings of the taxonomy, both as an analytic tool and as a psychologically real representation of semantic structure,[28] it is not irrelevant to ask why this choice of representative structure was made by both researchers.

Denny fails to provide explicit justification for his decision;[29] he may simply be relying on a well-established descriptive tradition as something of a default technique for representing the semantic distinctions encoded in the classifier system. Sanches, on the other hand, makes a point of referring to the markedness relations uniting the various members of the field and arguing that the "unmarked" members, which occur at the higher levels of the taxonomic structure, are the most important and stable members of a system which now appears to be in decline. It is presumably the desire to represent these differences in status which led her to choose the taxonomic tree as the framework for her discussion.

While the differences in semantic breadth which characterize the various classifiers are certainly an important characteristic of the system and should figure in any representation of the field, intensive work with my primary informant has suggested that the classifier system may in fact contain a limited number of true superordinacy relations of the sort that a

taxonomic representation is designed to capture. Sanches does not explicitly describe the methodology used to assign the various classifiers to the taxonomic nodes at which they appear; in my work I postulated the existence of a superordinacy relation only when the more general term could be used for all members of the category denoted by the more specific term. Applying this methodology to the core-secondary list of classifiers in Chapter 1, I was able to verify in the speech of my informant only the relations shown in Table 8:

Table 8
Verified Superordinate-Subordinate Pairs

	Superordinate	Subordinate
1.	dai 'vehicles, furniture, machines'	ryoc 'train cars, ki 'air vehicles' taku 'tables, desks'
2.	hen 'literary work'	ku 'poems' syu 'poems'
3.	hiki 'animals'	too 'large animals'
4.	heya 'rooms'	situ 'rooms' ma 'Japanese style rooms'
5.	nin 'human beings'	mei 'human beings' (honorific)
6.	hon 'long, thin objects'	huri 'swords'
7.	tu 'inanimates'	most classifiers for inanimates

Sanches' taxonomy may contain many more superordinacy relations than I was able to verify if, in establishing it, she relied on an intuitive analysis of the inclusion relations among the referent classes associated with the various classifiers, instead of an analysis of the behavior of the classifiers themselves. In Sanches' hierarchy, for example, ko 'spherical' dominates tsubu 'relatively small, solid' and teki 'relatively smaller, liquid,' but if we examine the actual distributions of these classifiers, we find that ko may in general not be used with reference to grains or drops of liquid, which must be denoted by tubu and teki instead. Sanches also includes in her taxonomy nodes, such as "ships," or "living things," which represent covert categories if they represent anything at all, since there are no actual classifiers used exclusively for all ships or all living things.

Because of these quirks of Sanches' methodology, the tree she arrives at is quite well-developed, containing subsystems of up to four levels of taxonomic depth.

I would claim, however, that the sheerly linguistic evidence which I considered presents a more faithful picture of the field, although it indicates the existence of only the superordinancy relations shown in Table 8, which are quite limited in number and do not in fact involve all the members of the field. These findings suggest that the taxonomic hierarchy may not be the optimal means of representing the system, since its primary emphasis is on superordinacy relations, which do not appear to figure significantly in relating the various members of the field to one another.

The taxonomy is also an awkward means of representing this particular field because it is not designed to accommodate either internally heterogeneous categories or the co-existence of categories based on different (and crosscutting) semantic rationales (such as those encoded by the kind- and quality-classifiers). As we have seen, however, both of these properties are characteristic of the Japanese classifier system.

The difficulty can be seen if we take as a starting point Kay's (1971, p.869) definition of a taxonomic structure:

> A relational structure ... is a taxonomic structure just if it satisfies the following two axioms:
> First, there is exactly one member of T which strictly includes every other member. This member is called the unique beginner. ...
> The second axiom involves the notion 'partition.' A partition is a division of a set into subsets that places each member of the original set in exactly one of the subsets. ...

Setting aside the initial problem of deciding on a unique beginner for the field (there in fact appears to be none), we soon encounter the problem of how to integrate both kind- and quality-classifiers into a single taxonomy. Because classifiers of the two types encode different semantic perspectives, some referents could be included in more than "exactly one" of the subsets which the classifiers represent. A sword, for example, might be referred to by means of a shape-based (quality) classifier (hon 'long, slender object'), a kind-classifier (huri 'sword'), or, if it is considered a work of art, a function-based (quality) classifier (ten).[30] Cases like this would violate strictures like the following, which Kay, in his 1971 specification of the taxonomic model (p.870), lists as an explicit consequence of the axioms and definitions which he provides:

> If two distinct taxa have any members in common, then one of them strictly includes the other. That is, any two distinct taxa are either mutually exclusive or in the relation of strict-inclusion.

In fact, this difficulty arises not only because of the possibility of adopting a kind- or quality-based view of a particular referent; similar conflicts may also arise _within_ a single one of these domains. Within the shape domain, the same coin, being both round and thin, may be denoted with either _mai_ 'flat, thin object' or _ko_ 'small, roundish object.'

It is impossible, though, to avoid this difficulty by, say, making all the shape-classifiers superordinate to the kind-classifiers associated with referents possessing the appropriate shape, because the kind-classifier category may unite referents of various shapes. Although all the members of the _huri_ category (swords) could safely be assigned to a slot subordinate to _hon_, for example, innumerable difficulties would arise with other forms. How would all the exemplars of _sao_ (chests, flags, and sweets) be included, for example, or all the exemplars of _zen_ (trays, chopsticks) as subordinate to a single shape-classifier?

The alternative solution of assigning each of these classifier types to a separate branch of the tree is equally unsatisfactory, since many of the classifiers, as we have seen, are associated with very heterogeneous referent classes, with some members united in terms of one type of semantic parameter, the remainder in terms of another. Thus, as I noted earlier, categories like the one associated with _hon_, which encompasses both long, slender objects and means of mediated communication, straddle the line between kind- and quality-classifiers making it impossible to assign these classifiers to just one branch of the taxonomy, as required by this solution.

It is also impossible to create distinct taxonomies for, say, kind-classifiers, shape-based quality classifiers, and function-based quality-classifiers unless certain classifiers are to be included in more than one of the resultant systems, for none of these systems stands alone. _Tu_, for example, participates in all of them, filling in the interstices among the more clearly bounded semantic domains associated with the more specific forms. Similarly, the shape classifiers fill in the gaps in the kind-classifier system for concrete inanimates, and the kind-classifier system provides forms for denoting entities for which no options are provided in the quality-classifier systems, as in the case of animates.

The establishment of a taxonomy which incorporates all the members of the classifier system is also complicated by the methodology that must be used to discover superordinacy relations, and the sensitivity of that methodology to the internal heterogeneity of some of the classifier categories. The issues that arise here are slightly different from those involved in investigating a noun taxonomy, because with nouns we may ask the informant such questions as "Is A a kind of B?" or "What kind of thing is an A?" or "What are the different kinds of B?", thereby arriving at the inclusion relations that hold among the categories encoded. With classifiers, this methodology is inapplicable, since classifiers are not _labels_ for classes of referents in the way that nouns are. It makes no sense to ask an informant, "Is a _too_ a kind of _hiki_?" since there are no referents that would be _labeled too_ or _hiki_ in the way that there are referents that would be labeled _bird_ or _robin_.

In the absence of this technique, we must derive our information about superordinacy relations by first ascertaining which referents may be denoted with a particular classifier, such as _too_, then checking whether other members of the classifier inventory, such as _hiki_, may also be used whenever _too_ is applicable. Ultimately, we may postulate superordinacy relationships in cases where one form may be used in all instances where one or more other (subordinate) terms may be used, but not vice versa. Thus, to draw a parallel from the noun system, since all things that we may call "robins" may also be called "birds," but not vice versa, we may induce that the "bird" category is superordinate to the "robin" category.

When we attempt to apply this methodology to the classifier system, however, we are faced with several difficulties posed by the internal heterogeneity of many of the categories that are encoded. One sort of difficulty arises, of course, when subgroups of the members of a particular category are included in it on the basis of different semantic rationales, resulting in the creation of a grouping which cannot be seen as subordinate to any other single member of the system because the members it unites are so disparate. While the trunks denoted with _sao_, for example, could also be denoted with _dai_, suggesting that _sao_ might be assigned a slot subordinate to _dai_ within the system, the inclusion of flags and sweets in the same _sao_ category makes such an assignment impossible. Although it might be possible to dismiss such cases as mere instances of homonymy, the validity of such a

solution is cast into doubt because all members of the category are, in fact, included on the basis of some relation with the basic 'stick' meaning of the classifier morpheme itself.

In the more commonplace case of classifiers associated with referent classes which are non-homogeneous by virtue of their inclusion of more and less representative members, additional problems arise, since a given referent may differ from another not only in the degree of goodness of membership in the category associated with the classifier typically used to denote it, but in its goodness of membership in superordinate categories as well.[31]

The category associated with the classifier kyaku, for example, is clearly internally heterogeneous. While some speakers may use kyaku for all legged furniture, even ladders, many use it only with respect to chairs, which seem to constitute the central members of the category, even for those who use the term more broadly. The behavior of dai, the classifier for furniture in general, and the most likely immediate superordinate for kyaku, clearly reflects the internal complexity of the kyaku category, since it may felicitously be used, according to my primary informant, only with respect to those referents which are not central members of the kyaku category. Although dai may appear in the place of kyaku with respect to a ladder or a bed, say, it would not be used in reference to a chair unless the chair were somehow atypical like, perhaps, a throne.

Degree of membership-related problems of this sort have also been pointed out by critics of the taxonomic hierarchy as a model for folk biological taxonomies. Randall (1976), for example, notes that folk taxonomies often fail to exhibit complete transitivity of the inclusion relationship. Although the taxonomic model would seem to predict that if taxon B is subordinate to taxon A, and taxon C is in turn subordinate to taxon B, then C should also be subordinate to A, breakdowns of the transitivity principle are not infrequent. Oaks are trees and scrub oaks are oaks, but scrub oaks are not trees.

Kay (1975) suggests that cases like this often arise with taxa that are not prototypical members of the taxon that immediately precedes them. A scrub oak, for example, is not a typical oak. To solve the difficulty, Kay proposes that for folk taxonomies (but not academic taxonomies), it might be

possible to do away with the axiom stipulating that a given taxon can be immediately preceded by at most one other taxon. Relaxation of this requirement would allow for the existence of taxonomic structures containing cycles of the type illustrated in Figure 3, where a single taxon, such as "scrub oak" here, is immediately preceded by more than one taxon.

Figure 3

Example of a Cycle in a Taxonomic Graph
(from Kay 1975, p.158)
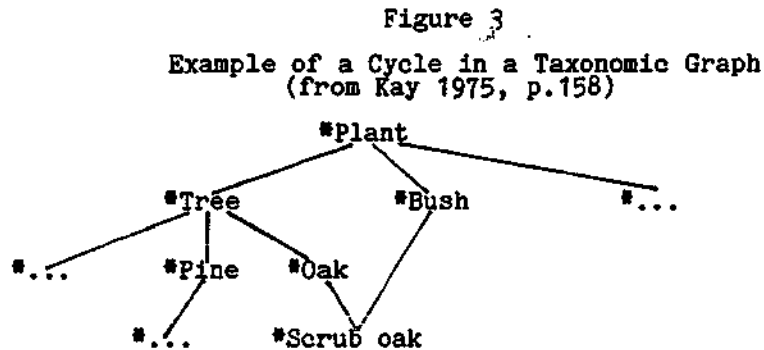
In determining whether a scrub oak is in fact a tree or a bush, the shortest immediate precedence chain is given priority, making it a bush rather than a tree.

As Kay illustrates with this proposal, ad hoc solutions to the problems posed for the taxonomic framework by internally heterogeneous categories can be devised. Using them, however, may actually mask serious incompatibilities between "the taxon" as it has traditionally been conceived of and the often heterogeneous natural categories that these taxonomic nodes actually represent.

In cases of the sort addressed by Kay above, a given taxon shows conflicting partial loyalties to more than one potential superordinate. The cases which become apparent in investigating the Japanese classifiers (with the methodology described) are slightly different, since they involve the apparent inapplicability of any superordinate. That is, very good members of certain categories appear to be denotable only by means of the more specific classifier (such as kyaku, in the example cited above), while the potential superordinate (such as dai) is usable only in the case of referents which are marginal members of the subordinate (kyaku) category. It is as if solid membership in the narrower category effectively removes the referent

from the domain of the superordinate term,[32] leaving within its purview only those referents which will fit into no more specific category. While the traditional taxonomic model assumes the sort of relation between superordinate (upper case letters) and subordinates (lower case letters) shown in Figure 4, I would suggest that Figure 5 is a more accurate representation in many cases.

Figure 4

A

| a | b | c |

Figure 5

A
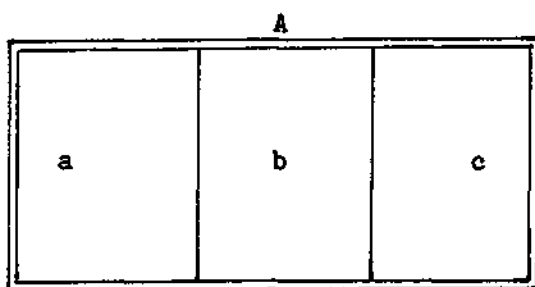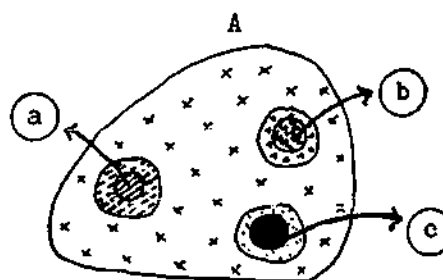
In Figure 4, the semantic territory of the superordinate term, A, is completely partitioned into subterritories, each denotable either by means of its own label, a, b, or c, or by means of the superordinate term A. In Figure 5, on the other hand, large portions of the territory of A are not assigned to any subordinate term, with the result that A is the only label available. In cases where subterritories have been distinguished and labeled, their internal heterogeneity is reflected in heterogeneous naming patterns. While the core members of the category may be denoted only by means of the subordinate label a, b, or c, the remaining members may be referred to either by means of the subordinate term or the superordinate term A.

One might object, of course, that the view of the field which is shown in Figure 5 appears with classifiers only because of the methodology, i.e., investigation of usage patterns, to which we are reduced in analyzing the field. We might gain a similar impression, one might argue, in investigating a noun taxonomy if we relied on the same methodology, although reluctance to use the superordinate label might in fact be related to factors other than a reluctance to recognize the referent in question as simultaneously a member of both subordinate and superordinate level categories. It has been found, for example (Rosch, et al. 1976; Downing 1980) that speakers tend to use midlevel, "basic" level terms, such as chair, more often than super- or

subordinate terms (such as _furniture_ or _Chippendale chair_), although it is quite unlikely that they would deny that Chippendale chairs are one kind of chair and that chairs are one kind of furniture.

Even with nouns, though, there is a sense in which clear membership in a subordinate category diminishes the identity of the referent as a member of the superordinate category, as well as the likelihood that the superordinate label will be used. If we had to decide on a superordinate level characterization of a robin or a chicken, we would probably agree that both are members of the "bird" category. In referring to either, however, we would be unlikely to use the word _bird_, because in both cases the more specific label conveys much more information about the crucial traits of the bird in question. The chicken, for example, is probably most significant for the culinary uses to which it may be put, but this dimension is totally neglected or obscured if the speaker decides to use the label _bird_ instead of _chicken_. To this extent, it _is_ more of a chicken than a bird. Cases of this sort are not that uncommon - once you become President, you are no longer just a Dixon, Ill. hometown boy. By contrast, a superordinate label _is_ likely to be used if the bird in question is clearly a bird but not, say, a common one, or one recognized for particular traits which set it apart from the rest of birddom.

In other words, when a referent fits well into a subordinate level categorization, mention of which conveys significant information about that referent, it is to the speaker's advantage to use that term instead of a less informative superordinate.[33] For referents which are not central to any subordinate level category, and with respect to which use of a subordinate term may in fact be misleading, the use of the superordinate is a convenient alternative, in effect plugging the interstices which separate the core of one subordinate category from that of another.[34] In the classifier system, this characterization may in fact fit not only superordinate kind-classifiers, such as _dai_, but also apply to the quality-classifiers as a group, since both can be seen as a means of supplementing the limited number of distinctions encoded in the lower levels of the kind-classifier system. This technique is probably of even greater usefulness in the case of classifiers than in the case of nouns because the classifier system consists of so many fewer terms and, consequently, much broader interstitial areas where referents owe no particular allegiance to any of the subordinate level

terms.

Viewing the system from this perspective, we can see that forcing it into a traditional hierarchical model not only distorts the nature of the relationships which hold among the categories associated with the members which compose it; it also fails to represent the very important interdependency which unites the kind- and quality-classifiers. Although the small number of superordinacy relations which appear within the system do explain some regularities of use, more or less following the markedness hypothesis proposed by Sanches, the internal heterogeneity of the classifier categories and the kind/quality split are certainly of equal if not greater importance, yet they cannot be incorporated in any comfortable way within the hierarchical taxonomic model. Although it may be possible to patch up the model to account, at least in some ad hoc way, for some of these problems, this may not be the best solution. At the very least, the model should be coupled with another which can accommodate the messiness of natural categories; at best it should give way to a serious attempt to represent the considerable amount that is now known about the psychological properties of lexical categories. Such a venture would undoubtedly be of profit in the representation of lexical subsystems other than the classifiers, although the problems in applying the present model emerge with particular clarity in this domain.

FOOTNOTES

[1]The Studies actually include analyses of what are called "long words" (2,000,000 words) and "short words" (3,000,000 words), with the "short word" count including forms that would best be called "roots" rather than "words" in English. For this reason, I have cited the 2,000,000 word "long word" count here.

[2]In cases where the referent class listed by my informant(s) differs significantly from that listed in the published source from which I originally drew the form, the classifier is marked with an asterisk. See Appendix 2 for the "standard" use of the asterisked forms.

[3]See, for example, Conklin 1981 for extensive demonstration of the importance of animacy in the classifier systems of Tai and Austronesian.

[4]Animacy is not necessarily a semantic primitive, associated as it is with such traits as the ability to locomote, the ability to act, the ability to think, etc., each of which may be associated individually with the operation of some grammatical rule. Since these characteristics do tend to cluster, though, and since they do tend to imply the animacy of their possessor, "animacy" becomes a convenient rubric under which to group them for the purposes of this study.

[5]This pattern is not restricted to Japanese. Conklin makes similar observations with respect to Tai (Conklin 1981), and Burling (1965) notes that the Burmese residual classifier khu, like Japanese tu, may not be used with respect to people, animals, or sacred beings. Rare and interesting exceptions do, of course, exist. Conklin (1981), for example, mentions that in White Tai, a species of sparrow-hawk distinguished by its speckled markings, is classed with fishnets and other knitted or woven articles, and in Shan ringed snakes are classed with other striped things.

[6]In this usage, ko may also be used in a classifier-like way with respect to abstract nouns which would ordinarily take tu instead:

Kagayakasii dentoo-no   ue-ni   tatu
brilliant   tradition-GEN top-LOC stand

1-kko-no   gakumon   de aru. (F)
1-small, roundish object-GEN discipline   COP

'It is a self-standing discipline based on a distinguished tradition.'

[7]For a description of the honorific system, see Harada 1975.

[8]In this sense, hitori-de may be used with respect to animals and even inanimate referents, as in:

a)   Hibari-ya suzume-wa, minna sizen-ni sinde-iku
      lark-COM sparrow-TOP all   naturally die-go

      zyaa nai, hitori-de. (O)
      COP NEG   1-human being-INST

      'Don't even such animals as larks and sparrows all naturally die alone?'

      Kono go-wa   zibun hitori-de   imi-o   motu.
      this word-TOP self 1-human being-INST meaning-OBJ possess

      'This word alone carries a meaning.'

[9]Cf. Givon 1970, which describes the resolution of human/non-human gender conflicts in Bantu in favor of the "unmarked" and non-human category.

[10]See Backus 1972 for a discussion of the factors conditioning the

choice of the numeral-noun construction (as opposed to the numeral-classifier construction) in Japanese.

[11]This strategy is also used occasionally in referring to human beings, as in the example below, but such usages are much less frequent than in the case of abstracts, probably because they tend to carry a distinctive statistical or reportorial tone inappropriate in conversational contexts but suitable to the more formal types of linguistic contexts in which abstract concepts are often discussed.

sikago-ni   sumu,   iti-amerika-simin-ga kyuu-nihon-rikugun-no
Chicago-LOC live   1-America-citizen-NOM old-Japan-army-GEN

guntoo hito-huri-o motte ... (NF)
sword 1-sword-OBJ have

'An American citizen living in Chicago has an old Japanese army sword ...'

[12]The possibility also exists, of course, as the standard line of reasoning goes, that societies start out using, and providing linguistic labels for, relatively concrete concepts, only later finding more abstract categories to be of use, in the classifier system or elsewhere. This is the premise underlying the Berlin and Kay (1969) explanation for the order in which color terms develop and it could with equal ease be applied to classifier systems by hypothesizing that these systems start out with labels for categories of concrete objects of immediate cultural or intellectual relevance and that it is only later, as the civilization process proceeds and more abstract concepts, including the concept of abstract number divorced from any particular concrete instantiation, enter the cultural inventory, that the classifier system either expands to include them or gives way to a limited, more grammatical expression of the abstract concept of number. There may be something to such speculation as this, but, with respect to Japanese, there is no evidence to support the notion that the classifier system has become increasingly abstract over the years. From the earliest recorded stages of the language, there have been indigenous classifiers for abstracts in use, although many of them, like the forms used today as abstract classifiers, were also used as nouns.

[13]Tu is in fact much more of a last resort here than it is when used for abstract referents. While a speaker could use tu in referring to virtually any abstract referent without compromising his reputation as a competent user of the language, his choice of tu over many of the concrete classifiers which are available would be considered substandard.

[14]Only eda, which is used for branches, kabu, which is used for roots or bulbs and for rooted plants, and rin, which is used for flowers, are used exclusively for the plant part rather than all objects having a similar shape. The categories encoded by the various shape-based classifiers do often include plants or plant parts as core members, as with hon for trees, branches, and stems, mai for leaves, ko for fruits, and tubu for grains. These classifiers, though, are not lexically derived from morphemes meaning 'tree,' 'leaf,' etc., as comparable forms in other languages often are (Conklin 1981). Although there are some forms in the system which do explicitly acknowledge their dependency on a plant-based metaphor, e.g., yoo ('leaf'), used for leaves, cards, and paper, kuki ('stem'), used for long, thin objects, these forms are seldom used, typically giving way to the standard shape-based forms like hon and mai, whose referential ranges include or overlap with their own.

[15]It is, of course, difficult to assess on this basis whether these terms were ever robust members of the system, since mere appearance in an inventory says nothing about frequency or range of use.

[16]Conklin (1981) describes a similar phenomenon in White Tai, where the "neutral" classifier $?an^2$ is so broad in its meaning that it allows classifier doubling, whereby both $?an^2$ and a more specific classifier are used with respect to a single referent.

[17]For extensive discussion of the properties of natural categories, see the work of Eleanor Rosch, in particular the recent summary in Mervis and Rosch 1981.

[18]In fact, in some cases, it is not clear that all members of the category share _any_ traits at all. As Lakoff (1984) illustrates in his detailed discussion of the _hon_ category, some members of the category may merely be said to metaphorically possess the trait(s) in question, or they may be included in the category by virtue of some metonymic association with more core members.

[19]This is because some members of the system are associated with categories which can be arrived at only by the co-application of both inductive and deductive principles. Both the boat category and the animal category, which, I would argue, are inductively given, are split up in the classifier system into two subcategories (_seki_ and _soo_, _hiki_ and _too_, respectively) on the basis of (the deductive parameter of) size.

The category associated with the primarily deductive classifier _hon_ can also be seen as the result of the co-application of the two sorts of criteria, since, in addition to concrete objects which are unquestionably long and slender, it also includes a number of referents which can be seen as members of the (inductive) subfamily of "indirectly transmitted communication." Consider the examples listed below:

a) Hagaki   i-ppon   kureru dewa arimasen. (F)
    postcard 1-long, slender object give COP NEG

    'He didn't even send a postcard.'

b) Ni-san-bon-no   tegami-o
    2-3-long, slender object-GEN letter-OBJ

    yuubinuke-ni nageirete-itta.
    mailbox-LOC throw in-went

    'He threw two or three letters into the mailbox.'

c) Boku-no tokoro-e kita denpoo-ga
    I-GEN   place-GOAL came telegram-NOM

    yon-zyu-ppon-gurai   atta   ka na. (O)
    40-long, slender object-approximately existed Q PP

    'I think there were about 40 telegrams that came to my place.'

d) Denwa-no   i-ppon-gurai
    telephone-GEN 1-long, slender object-approximately

    kakete-mo ii   noni, ... (F)
    make-even good though

    'even though it wouldn't have hurt to make a phone call, ...'

e) Iti-niti-ni san-bon-mo   tuzukete
    1-day-LOC   3-long, slender object-EMPH in a row

    eiga-o   mitara, atama-ga itaku   natta.
    movie-OBJ saw-when head-NOM painful became

    'Seeing three movies in a row on one day gave me a headache.'

f) san-yon-hon-no   bangumi-o   rekki-site-
    3-4-long, slender object-GEN program-OBJ list

    itari-suru rei-mo   sukunaku-naku, ... (NF)
         example-too rare-NEG

    'and cases where (a child) listed three or four (TV) programs were not unusual ...'

There are several possible explanations for why hon may be used with all these referents in spite of the variation in their actual physical shape. One is that the original form of indirect personal communication, the letter, originally had a sticklike, hon shape, since it was rolled up into a scroll. It retained hon as its classifier even when its shape changed to the flat envelope that we know today, and hon was then extended to use with other forms of personal communication made possible by modern technology. The use of hon with bangumi 'program' might, on the other hand, have been borrowed from its use with reels of film (which are, after all, long and sticklike when unrolled), although the mechanism by which television images are projected is quite different. Yet another explanation is suggested by sentences like the one in g):

g) zyu-ppon-ni   san-bon-wa
    10-long, slender object-LOC 3-long, slender object-CONTR

    kanarazu hitto-o utu ... (NF)
    always   hit-OBJ hit

    'they always make a hit on three (pitches) out of ten ...'

which illustrates the use of hon with items moving through space from one point to another, as do letters, TV waves, etc.

Whatever the ultimate explanation for the inclusion of all these members in the hon category (and more than one of the hypotheses I have suggested may in fact be relevant), it is clear that they constitute a cohesive group relatable only through metaphor or historical explanation to the "long, slender" property which is shared by most (concrete) members of the category. (See Kenboo 1976 for additional "specialized" uses of hon.)

Although cases like this plague any attempt to cleanly split up classifiers of the two types I have described, it is equally difficult to try and arrive at any adequate representation of the system which does not recognize the distinction. As we shall see, there are fairly striking differences in the ways in which the two types of classifiers are used.

[20]Many referents have several classifier options conventionally associated with them, each emphasizing different properties which they possess. Mirrors, for example, may be classified with either men or dai, men emphasizing the mirrored surface itself, dai the mirror's function as a piece of furniture. Trees may be counted with kabu, which emphasizes the tree's status as a living plant, or hon, which emphasizes its static shape as a fixture in the landscape. Mune, used of an apartment, focuses on the physical structure itself, while ko (戸) emphasizes its function as a family residence.

These alterations may involve quality- as well as kind-classifiers. The housewife referring to cloves that she intends to stud a ham with may use the classifier hon, which emphasizes their sticklike shape, but if she merely intends to add them to a bouquet garni, she may use tubu instead, their relative dimensionality having become irrelevant.

[21]The use of ten as opposed to mai here also makes it clear that we are talking about fifty types of stamps, as opposed to fifty tokens.

[22]Interestingly, this does not appear to be true of mai, the classifier for flat, thin objects. This finding echoes Clark 1977, where she notes that the spatial parameter of flatness (unlike other spatial parameters) is rarely reflected in the lexical overextensions characteristic of child speech.

[23]These criteria are, of course, not foolproof, since the possibility always exists that culturally salient referents will be endowed with multiple means of referring to them, leaving only referents of marginal importance with but a single referential option. Various factors have induced me to dismiss this possibility for the purposes of the present analysis, however:

1. The unavailability of the default classifier tu for the "representative" members picked out by this criterion suggests that they are, at the least, not marginal members of the categories associated with the classifiers consistently used to denote them.

2. The "representative" members indicated by the use of this criterion

do not conflict with those suggested by the other two criteria considered.

3. Label-loyalty of this sort has been used as a measure of codability (hence, cultural value) since Brown and Lenneberg introduced the concept in 1954.

4. The work of Rosch and her colleagues has suggested that "the items that have most attributes in common with other members of their own category also have fewest attributes in common with related contrast categories. Both family resemblance and dissimilarity from contrast categories are highly correlated with ratings of representativeness for superordinate and basic level natural categories and for artificial categories." (Mervis and Rosch 1981, p.99) Although I would not argue that "representative" category members of the sort I have singled out in my discussion here are identical to the "prototypes" that have been much discussed in the psychological literature, their maximal dissimilarity to members of neighboring classifier categories (as indicated by the impossibility of using other classifiers in denoting them) suggests that they may in fact be very good category members rather than, as the devil's advocate might suggest, culturally irrelevant entities suffering from the lexical underrepresentation that is their due.

[24]See Lakoff 1984 for a prototype-based discussion of Annette Schmidt's diachronic data on the Dyirbal noun class system.

[25]In Rosch's research on the prototypicality judgments of American English speaking college students, she found that category members like robin and sparrow were rated as most birdlike (1.02 and 1.18, respectively, on a scale of 7), while the chicken rated only a lowly 4.02. The discrepancy between Rosch's findings and the apparent status of the chicken as representative of the wa category may be due to the fact that Rosch's experimental instructions very clearly focused her subjects' attention on central members of the bird category, while my instructions (to simply list the first example that came to mind) may have tended to elicit instead frequently encountered members of the wa category. (One could argue against this interpretation, though, on the basis of the fact that Battig and Montague's norms for English speakers, in which subjects were asked simply to list all the members of a category, e.g., bird, that they could think of in a limited period of time, show a significant correlation with Rosch's results, although their instructions were more similar to those I used.) Another more intriguing possibility is that the prototypes for classifier categories and their corresponding common noun categories may differ. I hope to investigate this question in the future; if this were in fact the finding, it would lend some significant support to the claim (see Denny 1976) that classifier categories and noun categories are of different semantic types.

[26]See Kenboo 1976 for interesting lists of recent, extended uses of the classifiers ki (基), hon and men.

[27]See Brooks 1978 for a discussion of the importance of analogy in making category judgments.

[28]See for example Hunn 1976, Kay 1975, and Randall 1976.

[29]Denny's taxonomic tree in fact encodes no lexicalized superordinacy relations, although it is primarily taxa united by this relation that a taxonomy is designed to represent. Unless we consider the labeled but unlexicalized nodes in Denny's tree to represent covert taxa, then, the tree as presented does not constitute a true taxonomy.

[30]One might note that superficially similar cases arise in the analysis of noun systems without being taken as counterevidence to the existence of a taxonomy. Forms like produce or pet, for example, which encode functionally defined groupings of plants and animals, cannot be incorporated into the biological taxonomies which contain taxa like those denoted by mammal, canine, etc., and are best assigned to an alternative parallel system of classification. As we shall see below, however, this sort of solution is unworkable in the case of the classifier system because of the heavy interdependencies among the different types of classifiers.

[31]Actually, as I discussed earlier, there are various sorts of special

membership status (other than good/poor) that are equally difficult to represent within the taxonomic model, e.g., salient, familiar, socially sanctioned, etc.

[32]This is not true in all cases. Membership in a subordinate level category does not necessarily supersede membership in the superordinate taxon; much depends on the relative importance of the two particular taxa involved. With respect to noun taxonomies, for example, much has been made of the fact that the mid-level, "basic level," or "generic level" affiliation of referents is typically the most psychologically salient (Rosch, et al. 1976). In accordance with this principle, we might expect to find that the basic level affiliation of a referent might remove it from the domain of superordinates more readily than affiliation at levels subordinate to the basic one would be able to eclipse basic level identification.
With respect to the Japanese classifier system, however, I have been able to discern no one general principle of this type to predict when members of a particular classifier category will be easily denotable by means of a superordinate term, and when they will not. There does not appear to be any "basic level" within the classifier system, since those classifiers which are most used and which appear to be the most difficult to replace, do not occupy any one stratum of semantic generality. While _taku_ 'table, desk,' for instance, is easily replaced with the superordinate term _dai_, _satu_ 'book, magazine,' etc., resists replacement. To explain cases of this sort, it may be necessary to appeal to such notions as "cultural salience," which books (like animates) presumably possess to a greater degree than tables. In other cases, other factors may be crucial. Some speakers, for example, resist using _hiki_ 'animal' in the place of _wa_ 'bird, (rabbit), (winged insect),' while they show no such qualms in using it instead of _too_ 'large animal.' Here the inconsistent behavior of _hiki_ may be related to the fact that large animals are more characteristic than birds of the animal (_hiki_) category as a whole. Because a robin is an extremely representative bird, in other words, but is not particularly representative of the larger "animal" category, use of _hiki_ is much less appropriate than it would be with respect to a horse or a cow. So it is the internal heterogeneity of the _superordinate_ category that is crucial in this case.
As these examples illustrate, the various patterns of interaction between superordinate and subordinate level categories within the classifier system cannot be summed up in terms of any one principle. It is clear, however, and this is my point here, that none of these patterns are easily representable within the traditional taxonomic model.

[33]The applicability of this maxim is, of course, dependent on the linguistic context in which the use occurs, and it could be easily set aside in the interests of redundancy-avoidance, style, etc.

[34]The anthropological and psychological literature is, in fact, full of studies contending that superordinate terms, by comparison to midlevel terms, tend to be added to the lexicon later, used less frequently, and acquired later by children. See, for example, Anglin 1977; Rosch, et al. 1976; Berlin, et al. 1973.

CHAPTER 4

INSTANTIATION OF UNIVERSAL SEMANTIC TRENDS IN THE

JAPANESE CLASSIFIER SYSTEM

As I mentioned in Chapter 1, it has been claimed by a variety of researchers that the inventory of classifiers that a language will possess is to some extent predictable, since classifiers, cross-linguistically, encode categories of a special semantic type, or a certain limited number of types. It has also been suggested that because of the special semantic properties of the classifiers, they may be put to distinctive uses within the sentence, supplementing the information provided by the nouns without vastly increasing the number of lexical items which compose the linguistic system as a whole. In this chapter, I will describe these hypotheses in somewhat greater detail and evaluate their validity in the light of the evidence provided by the Japanese classifier system.

Hypothesis 1: Classifiers represent categories of a distinctive semantic type.

The observation that there are certain semantic categories which classifier languages encode virtually without exception has led to speculation that classifiers are somehow "special" semantically, that their semantic role is distinct from that of other parts of speech. It has been noted, for example, that in language after language there are classifiers which encode categories of animates (as opposed to inanimates) and categories defined on the basis of the three basic shapes of long, flat, and round (extended in one, two, and three dimensions, respectively, in Denny's terminology). Different authors take different approaches in explaining why these regularities exist, and why they should be observable in the classifier system, rather than in some other portion of the lexicon.

One explanation for the frequent encoding of animacy and dimensionality is that these distinctions are of particular perceptual salience to all human beings, regardless of culture. Clark (1977), for example, draws the parallel with child language acquisition and points out that the patterns of

overextension that characterize the child's early attempts to use lexical items often involve the very same parameters that are encoded in classifier systems. The two cases of overextension taken from Clark (p.455) and cited in Table 1, below, for example, are based on the shape parameters of "round" and "long and thin," which frequently appear in classifier systems as well.

Table 1

Overextensions in Child Language (Clark)

	Lexical item	First referent	Expanded domain of application
a.	nénin	breast, food	button on a garment, point of bare elbow, eye in portrait, face of person in photo
b.	tee	stick	cane, umbrella, ruler, (old-fashioned) razor, board of wood, all stick-like objects

Clark explains the parallel here in the following terms (p.450):

The properties chosen as criterial for category membership by young children are presumably those that are the most salient for the young child. The same properties appear to govern numeral and verbal classifier systems. I will suggest that these natural categories may be universal precisely because they have a common cognitive basis.

Both classifier systems and overextensions of the sort cited in Table 1 depend, in Clark's view, on an "a priori categorization process" which is highly dependent on the visual form (i.e., shape) of the entities classified, with additional physical properties, e.g., size and orientation, serving as secondary classificatory parameters. Although classifications based on function may also appear in classifier systems or motivate overextensions, they differ from the shape-based classifications in that they are language- or culture-specific.

Adams and Conklin concur with Clark in emphasizing the importance of vision-related parameters in defining classifier categories, and they suggest some possible reasons for the primacy of vision (Adams and Conklin 1973, p.8):

One of the most fascinating facts of numeral classification is its

> dependence on the visual feature of form. There are no metaphors based on sound, feel, taste, or smell. ... [which are perhaps] less useful because the impressions gained from them are more time based and transitory. Also the visual impression requires less intimacy with or closeness to the object concerned.

Allan presents a somewhat different, though related, explanation for the importance of parameters of shape. It is not solely the fact that shape is a visually perceived quality that determines its relevance to classifier systems, Allan argues, for color, another visually perceived quality, is never encoded in such systems. This may be, Allan suggests, because colors vary with variations in lighting and become totally useless as classificatory cues in the dark. Furthermore, color resembles qualities of taste, smell, and sound (which are also virtually absent from classifier systems) in that it is perceivable by one sense alone. Qualities like these are not exploited, he suggests, in adherence to the old principle about not putting all your eggs in one basket.

Shape differs from color, sound, etc., in that it is perceivable tactilely, as well as visually, conforming to the constraint that Allan ultimately proposes (Allan 1977, p.298):

> The characteristics denoted by the categories of classification must be perceivable by more than one of the senses alone.

Although Allan's explanation for the frequent encoding of the three basic shape parameters in classifier systems thus differs somewhat from Clark's, and from Adams and Conklin's, his final conclusion would seem to express equally well the gist of their findings (Allan 1977, p.307-8):

> The recurrence of similar noun classes in many widely dispersed languages from separate families, spoken by disparate cultural groups, demonstrates the essential similarity of man's response to his environment. ... That languages should classify entities along similar lines is not surprising if one takes the view that human perceptions are generally similar, and that they stimulate a cognitive classification of the world which is reflected by linguistic categories and classes.

This sort of explanation for the recurrent encoding of categories of certain semantic types has the ring of plausibility, but it fails to explain why it should be classifier systems, rather than some other segment of the grammar, to which the task of representing these categories should fall. The missing link in this argument has been provided by Denny, who treats it in some detail in a series of articles (Denny 1975, 1976, 1979a, 1979b, to appear, Denny and Creider 1976). The basic thrust of Denny's work is that classifiers serve "to place objects within a set of classes different from and

additional to those given by the nouns" of the language, and that "these classes are concerned with objects as they enter into human interactions" (Denny 1976, p.122).

Objects may be deemed interactionally related, and hence denoted by means of a single classifier, on the basis of three types of criteria, Denny proposes. Physical criteria of the sort noted by Clark, Allan, etc. constitute one of these types, but functional or social criteria may provide equally legitimate grounds for grouping referents into classes which are of interactional significance.

The possibilities for physical interaction with an entity are defined, in Denny's view, by such features as its spatial configuration and the strength of the materials of which it is composed. The existence of classifiers for long, thin objects, for example, or for flat, rigid objects, can be traced, then, to the uniform potential for physical interaction, e.g., manipulation, associated with members of groups defined in terms of such parameters. The importance of functional interaction, determined by the use of the entity in question, is reflected in the existence of separate classifiers for such groups of entities as vehicles, books, or baskets. Although entities of these types may share physical interaction properties with each other, and with members of other categories as well, their functional value is more salient for speakers of the language, and they are classified in terms of function rather than their equally available physical traits. The third type of interaction which Denny mentions as relevant to the structuring of classifier systems, social interaction, is exploited in the creation of classifier categories composed solely of animates, for example, or of members sharing a particular social or kinship status.

Although it is, on Denny's analysis, parameters of these three types that are exploited in the creation of numeral classifier systems, the extent to which parameters of each type will be exploited, and the way in which they will be exploited, varies from language to language. Denny's evidence for this view represents an important development of his theory, for it relates the frequent exploitation of physical (like functional and social) criteria in classification to cultural as well as perceptual sources.

To illustrate cultural variability in the exploitation of perceptual parameters which are universally available, Denny cites the way in which the

parameters of non-extendedness[1] (also called roundness, three-dimensionality), extendedness in one dimension (long and thinness, one-dimensionality), and extendedness in two dimensions (flatness, two-dimensionality) are incorporated into the classifier systems of Toba and Eskimo, on the one hand, and Athapaskan and Algonquian, on the other.

Eskimo and Toba possess, in Denny's taxonomy, "distal style" classifier systems characterized by several distinctive traits. First, the nominal classification system in these languages is embedded within the locative system, so that noun classification is used only with reference to entities which are in certain locations. In Toba, for example, the extendedness variables are utilized only in the classification of objects which are in view; they are not exploited in referring to objects which are coming into view, going out of view, or out of view.

Secondly, the Toba and Eskimo systems require of the entity to be marked with an extendedness classifier that it be extended to a "significant degree." Thus, for example, while a small object such as a pencil might be marked by the "extended in one dimension" classifier in some languages, Eskimo requires that objects taking this classifier be as long as a gun, or a broom.

Thirdly, the Eskimo and Toba systems are characterized by the absence of classifier categories defined with the help of the "secondary" physical feature of flexibility, which has been found to occur quite frequently in other classifier languages, contributing to the definition of such classes as "flat and rigid," "long and flexible," etc. No such secondary physical feature is of relevance in Eskimo, and in Toba, it is horizontal vs. vertical orientation, as opposed to flexibility, that is relevant.

All three of these traits, Denny maintains, are characteristic of the "distal style." By contrast, Algonquian and Athapaskan systems are of the "proximal style," as indicated by such considerations as the fact that the nominal classification system may be embedded within verbs of handling (as opposed to, in the case of Toba, within the locative system), the fact that even small objects may be associated with one of the extendedness-marking classifiers, and the fact that the parameters of flexibility and hardness, as well as extension, are encoded in the system.

These differences in "style" are not random, Denny contends, but are

related to the culture of the speakers of the language in much the same way as is the exploitation of different social and functional variables within the classifier system. As he puts it (Denny 1979b, p.108),

> The Eskimo and Toba, who hunt in open treeless environments, employ a distal style in which nominal classification is embedded in locative systems especially revolving around the distinction 'in view/not in view,' and in which distal variables and distal values for the extendedness variable are employed. The Athapaskans and Algonquians, who hunt in closed forest environments, employ a proximal style in which classification is embedded in verbs of handling, proximal variables such as hardness and flexibility occur, and the extendedness variable has proximal values.

Because of the differing cultural preoccupations of these two types of societies, then, with the first stressing interaction at a distance, the second stressing manual manipulation, the physical variables which are equally accessible to speakers of all languages are differentially incorporated into the classifier system.

Regardless of the effects of cultural preoccupations, though, the members of classifier systems will, in Denny's view, distinguish themselves because they "are not concerned with establishing reference to the many things in the world but with communicating a few especially important classes that objects fall into by virtue of ways we interact with them." "Roughly speaking," Denny says, "nouns have more to do with what is out there in the world, and classifiers more to do with how humans interact with the world." (1976, p.125)

It is Denny's position, then, that

a) classifiers encode categories different in nature from those encoded by common nouns

b) those categories are defined on the basis of the parameters of physical, functional, and social interaction

c) the choice of which of the various features of physical, functional, and social interaction will be exploited within a given classifier system is subject to the influence of the culture of the speakers of the language of which the classifier system is a part.

Hypothesis 2: Because of their distinctive semantic properties, classifiers can be used to systematically supplement the information carried by nouns.

If it is true, as suggested by Denny's arguments above, that classifiers encode only a few culturally important categories defined on the basis of how human beings interact with their members, it is apparent that the semantic load carried by classifiers differs in a significant way from the semantic load carried by many common nouns. Although it is of course true that certain common nouns denote categories of the types most frequently associated with classifiers, it is also true that the common nouns of a language provide a much more dense and highly articulated lexical representation of man's experience, providing distinctive labels even for entities and concepts of minimal cultural importance or perceptual salience.

There is also abundant evidence (including that presented in Chapter 3) that the categories encoded by classifiers are not simply a limited subset of those encoded by the common nouns. Although one might hypothesize that classifiers simply mark a small number of fairly general categories which include the members of all the more specific categories marked by common nouns, this is not the case. While there is a constant relationship between the referents of a noun like chair, for example, and the category superordinate to chair, furniture, of the sort that enables us to predict that anything that we may call a chair, we may also call furniture, there is not necessarily any such constant relationship between members of the categories denoted by nouns and the categories denoted by classifiers.

In Japanese, for example, the national flag may consistently be referred to with the word kokki 'national flag,' or with the noun superordinate to kokki, hata 'flag,' but the choice of classifier to be used in counting such flags is not fixed. Depending on whether the flag is flying or folded up flat, different classifiers may be used. Examples like this one appear in virtually all descriptions of classifier systems, and illustrate quite clearly that classifiers mark categories which are not only more limited in number than the categories marked by the common nouns of the language, but which are in many cases different from and independent of the categories recognized by the common nouns. In this way classifiers provide a means for categorizing entities alternative to the one provided by the common noun

system.

Benton's description of Trukese (Benton 1968) provides especially clear support for this contention. Trukese possesses two different sets of classifiers, termed 'numeral' and 'attributive' by Benton. Not only may a given Trukese noun sometimes co-occur with more than one member of each of these classifier sets, as in the Japanese kokki example cited above; the two sets are so independent of each other that knowledge of which attributive classifier should be applied in speaking of a particular referent does not enable the speaker to know which numeral classifier would be appropriate (and vice versa). The Trukese system thus constitutes a case where the taxonomies reflected by the classifier system differ not only from those encoded in the common noun system; they also differ one from the other. In this way, the Trukese speaker has at his disposal three relatively independent means of encoding categorical information about a given referent. As Benton puts it (Benton 1968, pp.142-3):

> The judicious use of classifiers ... makes possible the extension of meaning of a particular base with a minimum of ambiguity. Nouns thus often have a highly generalized meaning, different segments of which are expressed with the aid of different classifiers. Within the classifier systems themselves similar patterns emerge. There are points of overlap, and points of contrast. Where the use of different classifiers within a system reveals different shades of meaning, the juxtaposition of numeral and possessive attributive classifiers may extend the process further. The classifiers in Trukese thus at the same time provide a means for ordering the universe, and a method for structuring concepts without multiplying vocabulary.

To the extent that the mutual independence of the noun and classifier systems in Trukese exemplifies the norm for classifier languages, we can expect to find, as Benton did, that the classifiers provide a useful semantic supplement to the noun system. This is the substance of Hypothesis 2.[2]

Evaluation in the light of the evidence from Japanese: Hypothesis 1.

If we integrate the two universalist hypotheses that I have just presented, we arrive at a picture of the classifier system as providing for speakers of the language a system of categorization different from and additional to the one encoded in the common noun system. This system is typically composed of a small number of members which represent categories of special interactional significance within the culture.

When we turn to the Japanese classifier system, we find that it does, as

expected, provide means of denoting categories which are of undisputed cultural importance, and whose members share physical, functional, and/or social traits of the sort singled out by Denny. There are classifiers for long, slender objects (hon, suzi, zyoo), for flat, thin objects (mai, men), for objects sharing a certain internal configuration (ren, satu). There are classifiers for buildings (ken, mune), works of literature (hen, ku, syu), crimes (han), and many other groupings which share some functional significance within the culture. There are classifiers for humans (nin, mei, kata), for honored humans (mei, kata), and for animals (hiki, wa, too), which are used in a way (see Chapter 3) that sets them apart from classifiers for other (inanimate) referents of different social value. To this extent, the Japanese system thus conforms to expectation.

When we examine the total composition of the system, however, our faith in the cultural importance of each of the categories encoded may begin to waver. Even the core/secondary inventory of most broadly used terms listed in Chapter 1 includes forms which denote such categories as tree branches, capsules of medicine, riders on horseback, and entertainment troupes, none of which would appear to be of high cultural value in present-day Japanese society except, perhaps, by the circular criterion that any category which merits its own classifier is bound to be of importance.

There are a number of possible explanations for the encoding of such apparently trivial categories. Some, of course, are relics of the past. Riders on horseback (ki) and swords (huri), for example, are presumably granted membership in the system only on the basis of their historical value.

In other cases, classifiers may have been added to the system in order to provide a means for distinguishing between multiple senses of the nouns with which they co-occur, or different aspects of the referents associated with those nouns. Although sheets of postage stamps and telephone conversations may not at first glance appear to be so significant that they merit encoding, for example, classifiers for them do exist. The inclusion of the first allows the speaker to clarify, at the post office, whether he wishes to buy a single stamp or a while sheet of them; without the option provided by siito, only the form mai 'flat, thin object,' equally applicable in both cases, would be available. Tuuwa, the classifier for phone conversations, functions in a similar way, signalling, in combination with the noun denwa 'telephone' the

fact that it is the communicative act accomplished with the phone rather than the apparatus itself which is in question.

Yet another factor which has probably contributed to the inclusion of forms of marginal cultural significance is the grammaticization of the classifier slot and the ease of creating new forms to fill it. When a speaker wishes to refer to a particular referent and finds no classifier more specific than _tu_ available, it is possible to draft a member of the noun system for use in the classifier slot, as shown in 1):

1)   Akai huirutaa-to midori-no huirutaa-o desu ne, hito-_koma_
         red   filter-COM green-GEN filter-OBJ COP PP   one-_frame_

         hito-_koma_ kawaribankoni kakeru wake yo ne?
         one-_frame_ in turn   put on NMLZ PP PP

'They put on red and green filters in turn, _frame_ by _frame_.'

This technique, which is also illustrated by the use of _siito_ and _tuuwa_ (both originally nouns), is most often used with abstract referents and has in recent years resulted in an amazing influx of sports- and technology-related terms borrowed from English and taken into the classifier system.[3]

The speaker may also resort to the technique of isolating the second half of a Sino-Japanese compound (which frequently represents a category superordinate to that denoted by the compound as a whole) and using it as a classifier, as shown by the examples in 2):

2a)   kai_sya_ (会社) 'company'
                             ⟶ _sya_ (社) – classifier for
       zin_zya_ (神社) 'shrine'   companies,
                                           shrines

  b) hikoo_ki_ (飛行機) 'airplane' ⟶ _ki_ (機・) – classifier for
                                          airplanes,
                                          (other air
                                          vehicles)

A glance at the core-secondary classifier inventory in Chapter 1 will confirm that many of the categories encoded clearly conform to the semantic role that Denny has laid out for them. But, as the examples I have just cited illustrate, the system has also been adulterated, for various mundane reasons, with members of doubtful cognitive or cultural primacy.

A second difficulty in interpreting the Japanese system as representing a consistent semantic rationale arises when we consider the internal composition of some of the classifier categories which _do_ appear to represent categories of the predicted semantic types. The shape-based classifiers _hon_ and _mai_, for instance, clearly exemplify the sort of perceptually salient,

interactionally relevant category we would expect to find in a classifier system. If we examine the list of referents denotable by means of each of these forms, however, we find that they include items of such disparate sizes, degrees of flexibility, and functions that the mere information that they are long and slender, or flat and thin, is actually of little predictive value. It is hard, for example, to imagine what manipulation or recognition schema might involve entities as diverse as rugs, leaves, and phonograph records, in spite of the fact that all of them are associated with the classifier mai, and can be seen as flat and thin.

The semantic value of the classifier becomes even more diluted in cases where some members of the classifier category bear only a metaphorical relation to the core members, or are related to some members of the category on the basis of properties not shared by all of them. If it is correct to assume, for example, that the use of the classifier hon carries with it the information that the referent in question is long and slender, this information is presumably of some interest when the referent is a core member of the category, such as a pencil or a stick, which may demand a particular motor reaction because of its physical properties. Its relevance is much more difficult to discern, however, when it is applied to a baseball pitch or a TV broadcast or a telephone call. To the extent that a classifier category (or any lexical category, for that matter) is adulterated, in this way, by the inclusion of referents which cannot be comfortably assimilated elsewhere in the system, the use of the corresponding classifier will lose semantic force. So, even though a classifier system may include members whose "definitions" involve semantic parameters of the predicted types, the corresponding referent classes may in practice be so diffuse that the classifier in use fails to carry any useful information at all.

This is not to say, of course, that by indulging in metaphor- or extension-based expansion of the sort described, a lexical category automatically degrades itself to meaninglessness. Up to a certain point, speakers are presumably able to discern the core meaning associated with the term and assume that it applies in a "significant enough" proportion of the cases in which the term is used for it to remain a profitable strategy to rely on the applicability of that sense. Because the number of classifiers employed by a language is usually fairly limited, though, and because a very

large proportion of the referential universe must typically be accommodated into that limited number of classifier categories, classifiers may be more prone than other, larger lexical categories to the degenerative process I have described. At any rate, and this is my major point here, the sheer existence of classifier categories of the predicted types does not guarantee that those classifiers, when used, will convey information about the very useful physical, functional, or social parameters which they are said to represent, and which have in fact been used to justify the existence of classifiers as a separate lexical class.

The heterogeneity of the referent classes associated with such classifiers as hon and mai in fact raises the possibility that a rationale other than perceptual salience or interactional relevance may be behind the regular appearance of such classifiers cross-linguistically. As I noted in Chapter 3, the classifier system of Japanese resembles others in that it is focused on providing means for enumerating concrete referents; very few classifiers are devoted to strictly abstract referent classes, and the classifier slot is often filled with the default form tu, or with drafts from the common noun system, when abstract referents are involved. This concentration of the classifier system on concrete referents provides another potential explanation for the ubiquitous appearance of classifier categories united on the basis of the size and shape of the referents which they contain: these are properties which all individuatable concrete entities possess. Since all referents must be accommodated somewhere within the system, and since the system may contain only a limited number of members, what better way to ensure representability than to include categories into which all referents may be wedged if necessary, sheerly by virtue of their properties as concrete objects. In other words, these parameters may be particularly frequently encoded in classifier systems not simply because they are of perceptual salience, but because they are universally (or near-universally) present.[4]

In summary, then, the Japanese classifier system fails to provide unequivocal support for the notion that classifiers represent categories which are of privileged semantic status, containing referents united on the basis of parameters of high perceptual or cultural salience. While the Japanese inventory clearly contains many members which meet these

specifications, it contains many others which do not. The inclusion of these forms which represent categories of no apparent high cultural value can be related to both the grammaticization of the classifier slot and the ease with which new classifiers can be created from existing lexical resources.

Even to the extent that the categories represented by the classifier inventory do conform to the semantic characterization I have described, there is evidence that that conformity may not be due to the reasons that have been proposed. While the inventory does contain, for example, classifier categories whose core members share physical properties of the expected type, these categories are often adulterated by the inclusion of metaphorically or extensionally related referents which fail to possess these properties, thereby diluting the semantic coherence of the group. This sort of semantic adulteration is a convenient solution for the problem of finding at least one classifier category into which all possible referents may be assimilated, but its ultimate result is the destruction of the semantic rationale that has been used to link the classifier systems of different languages.

Evaluation: Hypothesis 2.

Even if not all the classifiers of a language can be said to conform to a semantic characterization of the sort considered in the preceding section, it is still possible that they encode categories distinct enough from those encoded by the noun system to enable them to effectively supplement the information carried by the nouns. When we consider the inventory of classifiers in Japanese, it is clear that some of them, most notably the quality-classifiers which denote categories united on largely deductive grounds, do encode semantic distinctions which crosscut those encoded in the noun system. They are thus at least in principle available for "structuring concepts without multiplying vocabulary."

Lexical interrelation of the classifier and noun systems.

As a first step in evaluating the independence of the two word classes from each other, we can consider the provenience of the actual morphemes which are used as classifiers. There are significant differences in the degree to which the classifier morphemes (and the characters used to represent them)

can be associated with meanings independent of their uses as classifiers but only a very few forms, like <u>mai</u> 'flat, thin object' and <u>tu</u> 'inanimate,' are confined to use as classifiers. Most, like <u>ko</u> 'small, roundish object' and <u>nin</u> 'human being,' are used in other capacities as well, and there is typically some relation between the sort of referents that they, as classifiers, are used to denote, and the senses which they bear in their non-classifier uses as nouns or noun roots. <u>Nin</u>, for example, is used both as a classifier for human beings and as a root meaning 'human,' as in the examples in 3), and this relationship is quite transparent to the present-day speaker of Japanese:

3) <u>nin</u>: 'man, person'

  <u>ninzyoo</u> (<u>nin</u> + <u>zyoo</u> 'feeling') - 'sympathy'

  <u>ningyoo</u> (<u>nin</u> + <u>gyoo</u> 'shape') - 'doll'

Not only are the relations between the meanings of these forms in their classifier and non-classifier uses often transparent, they appear to fall into a limited number of regular patterns. Those which are of special importance in Japanese are shown in Table 2, with supporting examples drawn from both Japanese and other languages exhibiting the same pattern.

Table 2
Recurrent Semantic Relations Between Numeral Classifier Referent Class and Independent Sense of the Classifier Morpheme

1. The classifier morpheme independently denotes a class identical or superordinate to the classifier category.

  <u>ken</u> (件) classifier for incidents = 'matter, case'

  <u>ki</u> (機·) classifier for air vehicles = 'machine'

  (Dioi) <u>pi</u>[3] classifier for debts, credits, accounts = 'debt, credit' (Esquirol and Williatte 1908)

  (Siamese) <u>pon</u>[2] classifier for fruits = 'fruit' (Conklin 1981)

2. The classifier morpheme independently denotes a part possessed by members of the classifier category.

  <u>too</u> (頭) classifier for large animals = 'head'

  <u>kyaku</u> (脚) classifier for legged furniture, especially chairs = 'leg'

(Vietnamese) nóc classifier for housing units, homes
= 'rooftop' (Goral 1976)

(Indonesian) ekor classifier for animals = 'tail'
(Conklin 1981)

3. The classifier morpheme independently denotes an action
associated with the members of the classifier category.

tuu (通) classifier for letters and documents
= 'to pass'

huri (振) classifier for swords = 'to shake'

(Tzutujil) jub'aa7 classifier for pieces of tortilla or bread,
from b'a7 = 'to chew' (Dayley 1981)

(Dioi) fa¹ classifier for showers and storms = 'to rinse, bathe'
(Esquirol and Williatte 1908)

(Burmese) si classifier for all land transport (including horses
and elephants) except trains = 'riding thing' (Pe 1965)

4. The classifier morpheme independently denotes an exemplar
possessing the traits (most often dimension) shared by members of
the classifier category.

suzi (筋) classifier for long, slender objects = 'sinew'

(Siamese) cuk² classifier for topknots, bulbs of onion, garlic,
beets, turnips = 'topknot' (Conklin 1981)

(Dioi) paou¹ classifier for old people, government men, respected
people such as mandarins, one's host = 'grandfather'
(Esquirol + Williatte 1908)

5. The classifier morpheme independently denotes the action which
results in the creation of members of the classifier category.

maki (巻) classifier for scrolls, rolls of ribbon, etc.
= 'to roll up'

(Sunda) bakit classifier for pairs, especially of buffalo
= 'to tie together' (Conklin 1981)

(Siamese) muan¹ classifier for cigars, cigarettes, rolled ceri
leaves, small rolls made with the fingers, (for some
speakers) rolls of linoleum = 'to roll (up)' (Conklin 1981)

6. The classifier morpheme independently denotes the
beneficiary/goal of the activity in which the members of the
classifier category participate.

soku (足) classifier for pairs of footwear = 'foot'

kyaku (客) classifier for tea sets = 'guest'

(Burmese) le? classifier for objects constantly handled, such as
implements, weapons, musical instruments = 'hand' (Pe 1965)

(Dioi) souang³ classifier for bedclothes, covers = 'bed'
(Esquirol and Williatte 1908)

In addition to the patterns presented in Table 2, I have found, in
reports on languages other than Japanese, that a seventh pattern recurs quite
frequently, although it is absent in Japanese:

7. The classifier morpheme independently represents a quality which the members of the classifier category share.

(Indonesian) bentuk/bentok classifier for rings, wheels, lips, fingers = 'curved' (Conklin 1981)

(Tzutujil) juluub classifier for wet things, from lub = 'wet' (Dayley 1971)

(Dioi) kiep[1] classifier for planks, beams, flat stones, wood shavings, tiles, coins, ricecakes = 'flat' (Esquirol and Williatte 1908)

(Burmese) pa classifier for supernormal persons (Buddhas, Minor Buddhas, saints, monks), the Law, precious things like gems, deities, members of royalty, (in olden days) Court officials = 'proximity' (Pe 1965)

There are of course some classifiers which have no independent senses, or whose classifier categories are composed of members who bear more than one relation to the independent sense of the classifier, or a relation that is difficult for the present-day analyst to decipher. There are also some minor patterns, such as metonymic and metaphoric associations, which occasionally appear, but not with the frequency of the seven patterns listed above. I have tentatively analyzed the examples in 4) and 5) in this way:

4a) zen (膳) classifier for trays, pairs of chopsticks, = 'tray'

b) (Lao) kɔːŋ classifier for armies = 'drum' (Roffe and Roffe 1958)

c) (Siamese) čaak^2 classifier for stages, acts of plays = 'curtain' (Conklin 1981)

5a) (Vietnamese) lòng classifier for courage = 'innards, bowels, entrails, intestines, tripes, heart, feelings' (Goral 1976)

b) (Vietnamese) ngoi classifier for stars, graves, temples, movie stars = 'throne, kingship, status, rank, dignity, station, position' (Goral 1976)

The dual noun/noun root - classifier status of many of the morphemes which participate in the Japanese classifier system (and other classifier systems as well) is a clear indication, I think, that the semantic outlooks encoded by the two word classes are typically not totally independent. While the noun and classifier uses of a particular morpheme are associated with identical referent classes only in the case of pairs of Type 1 above, the semantic interdependency is strong enough with pairs of the other types listed that knowledge of the sense of the morpheme used as a noun will typically provide the hearer with a fairly good clue as to the composition of the corresponding classifier category.[5]

This is not to say, of course, that the boundaries of the classifier

category will be totally predictable on the basis of the corresponding noun category. This lack of predictability is partly due, as we have seen, to the fact that there are at least six common paths (in Japanese) along which the names for these categories are chosen, allowing for at least six possible interpretations from the start. In addition, the classifier may be associated with only some subset of the referents bearing the trait indexed by the classifier morpheme. Although the morpheme too, meaning 'head,' is used as the classifier for large animals, for example, not all things with heads are included in the category.

In other cases, although the independent meaning of the classifier morpheme may be related to some of the members of the classifier category along one of the lines of extension described above, it may be totally unrelated to other members of the category and thus not serve to indicate the parameters which unite the category as a whole. Mune, one of the classifiers for buildings, for example, independently means 'ridgepole' and was presumably first adopted as a classifier for buildings because it names a standard part for the traditional building. Mune is now used, though, as a classifier for large apartment buildings, built without ridgepoles, because of other points of similarity with the original members of the mune category. Similarly, soku, the classifier for pairs of footwear, bears the independent meaning 'foot,' referring to the part of the human body to which the members of the classifier category are related. In some dialects, however, soku is now used as well in enumerating pairs of gloves, in spite, one might say, of the original meaning of the classifier morpheme which labels the category.[6]

Examples of this sort show that even though the name for a classifier category can often be related to the members of the referent class associated with the classifier, the relation is not completely regular, need not mirror the semantic traits that unify the category, and may not apply equally to all of its members. This is not the same as saying, however, that the choice of a name for the category is totally arbitrary, or that it will have no effect on its diachronic fate.

As we have seen, most of the classifiers in the present-day Japanese system bear independent meanings which the speaker can still relate to the members of the classifier category via one of the lines of extension listed in Table 2 above. Furthermore, the actual morpheme or character chosen to

represent the category may have important effects on the growth of the classifier category through time. Consider, for example, the classifier sao. As a noun, the word sao means 'pole,' and it has been used to count chests and flags because these referents, despite their obvious points of difference, were at some point in history carried on poles. It is not by the same logic, though, that the sweets which are also counted with sao are included in the category. Rather, it is more likely that their sticklike (sao-like) shape suggested their inclusion in the sao category by virtue of a relationship with the original meaning of the classifier morpheme very different from the one which had motivated the inclusion of chests and flags. An extreme case of this type is represented by the now-obsolete kasira, where a profusion of disparate relations with the original sense of the category label appears to have united the category, which included Buddhist images, lords, things worn on the head, and animals. Kasira itself means 'head.'

What I have tried to illustrate here, then, is that the independent (noun) sense of the morpheme which is used to label a classifier category may bear a significant relationship to the sense in which it is used as a classifier, and may in fact encourage the growth of the classifier category in one semantic direction as opposed to another. To the extent that this is true, of course, the ability of the classifier system to provide an independent semantic supplement to the common noun system is compromised.

Importance of classifiers representing deductive categories.

In spite of these lexical interdependencies between the noun and classifier systems, the possibility still exists that the classifier system serves a useful semantic role, since it does after all include some members which are not clones of noun categories. The most notable of these are of course the quality-classifiers, which are organized, at least at their cores, on the basis of deductive parameters which crosscut the boundaries of the (largely inductive) noun categories.[7] If classifiers of this type can in some sense be seen as dominating the system, arguments for its semantic utility retain their plausibility.

When we examine the core and secondary inventories of classifiers presented in Chapter 1, however, we find that deductive forms, even when generously construed, constitute less than one-fourth of the 73 forms

listed.[8,9] If we consider the usage figures presented in Tables 1 and 2 of Chapter 3, it is also apparent that the quality-classifiers account for only a small minority of the classifier uses in the texts tabulated. Even if we include under the quality-classifier rubric such marginal forms as _satu_ (which is usable with bound papers of various sorts but is almost always used with respect to books), the quality-classifiers account for only 18% of the uses represented in Table 1, 14% of those in Table 2.[10] The majority of uses, by contrast, involve only two classifiers - the default inanimate classifier _tu_ and the human classifier _nin_, both of which are generally incapable of conveying information additional to that represented by any co-referring nouns in the company of which they might appear.

Since, as I explained in Chapter 3, _tu_ and _nin_ are distinguished from other members of the system by more than the overwhelming frequency with which they are used, though, it is also reasonable to consider the profile which the quality-classifiers assume when these two forms are eliminated from the picture. Viewed in this way, they look much stronger; the shape-based forms _hon_, _mai_, and _ko_ (個) in particular figure prominently, and together the quality-classifiers account for 28% (Table 2) to 55% (Table 1) of the uses of non-_tu_/_nin_ forms. Although it is clear, then, that the quality-classifiers (which are most clearly capable of semantically reinforcing the nouns) do not dominate the system in Japanese, they do make a respectable showing, and the usage profile of the system would clearly be considerably altered if these forms were suddenly eliminated from the inventory.

From these facts, we can see that although the system of categorization encoded in the classifier system is not completely independent of that enshrined in the noun system, the classifier inventory does contain a fair number of commonly used forms which are at least in principle capable of carrying information additional to that conveyed by the nouns. This is quite striking, since the system as a whole is composed of a severely limited number of forms. All in all, then, the classifier system can be viewed as a secondary classification system which overlaps significantly with the primary classification system encoded by the nouns but which also retains the capacity for making an independent semantic contribution.

Possessing the capability for semantic action and realizing that capability are of course two different matters, and Denny's (1976) claim that

classifiers generally do not serve the (noun) function of providing "specific enough descriptions of the world that a hearer can determine a particular reference" would seem to be borne out by the data from Japanese. Although, as I will describe in greater detail in the next chapter, numeral-classifier pairs are sometimes used in the absence of a co-referring NP to refer anaphorically, they are generally not used to introduce referents[11] or to make predications about them. This is in spite of the fact that semantically equivalent full nouns may serve either of these functions. Numeral-classifier pairs may sometimes fill the predicate slot in the sentence, as in 6), but uses of this type occur only when the focus is on conveying information about number, or when the pair is being used anaphorically.

6) Kaiboo-ni   tatiatta   kazu-wa
    dissection-LOC witnessed number-TOP

    zyuu-ni-nin   datta   ga, ... (F)
    12-human being   COP-PST but

    'The number of people present at the dissection was twelve, but ...'

By contrast, except in the case of the very specific noun-clone members of the system, it would be highly unusual to answer a question about the nature of a referent (as opposed to its number) by using a sentence containing a classifier used as a predicate. While sentences like 6) are perfectly acceptable, the one in 7) is not; for it to sound natural, the numeral-classifier pair must be replaced by a full-fledged noun, as in 8).

7) Speaker A: (giving B a choice between two birds and two turtles)

    Hosii-no-wa   dotira desu ka?
    desirable-NMLZ-TOP   which COP Q

    'Which is it that you want?'

    Speaker B:

    * Ni-wa-no hoo   desu.   'It's the birds.'
      2-bird-GEN side   COP

8) Speaker A:

    Hosii-no-wa dotira desu ka?

    Speaker B:

    Tori-no hoo desu.
    bird-GEN side COP   'It's the birds.'

These patterns are consistent, I think, with my earlier observation that the classifiers are typically used merely to acknowledge the membership of a

referent in a particular category, rather than to inform us of that fact or to identify the referent in question. This of course restricts the speaker's ability to exploit the semantic potential of the classifier except when it is being used anaphorically (to be discussed in Chapter 5), or when it is used in the company of a co-referring noun.

If we turn our attention to cases where the classifier co-occurs with a noun, we find that there are occasions in which it does in fact carry a semantic load. This occurs, of course, when a single noun is capable, as in 9), of appearing with more than one member of the system, with the choice of classifier signalling which of the senses of the noun, or which of the various aspects of the multifaceted referent denoted by the noun, is at issue.

9a) kitte iti-siite 'one sheet of (postage) stamps'
     stamp one-sheet

 b) kitte iti-mai   'one (postage) stamp'
     flat, thin object

On occasion a classifier may also be used to add bits of unpredictable or surprising information to that which is already carried by the noun. This is illustrated in 10), where the classifier for long, slender objects is used with a noun meaning 'mist' to express the notion 'stream of mist.'

10) Hoosu-no saki-o   yubi-de   tubusu-to   mizu-wa
     hose-GEN end-OBJ finger-INST squeeze-and water-TOP

     ni-hon-no   kiri-ni natte ...
     2-long, slender object-GEN mist-DAT become

     'when he squeezed the end of the hose with his fingers, the water
     became two streams of mist'

Such uses are quite infrequent, however. Of the 500-item sample of classifier usages which I collected, fewer than 5% were of the types illustrated in 9) and 10). By contrast, 23% involved the use of the totally uninformative placeholder tu.

Conclusion.

Overall, we can conclude, I think, that although the classifier system of Japanese does possess the capability to supplement the semantic distinctions represented by the noun system, its members are not of a uniform semantic type, and they are not consistently exploited for this purpose. While many of the classifiers do indeed represent categories which would

appear to be of "interactional significance," as predicted by Denny, they are intermingled with a number of forms which represent categories of very doubtful interactional primacy. The adulteration of the system with forms of this sort can be explained by the grammaticization of the classifier slot, and the ease with which new members can be created. The semantic deterioration of the system can also be seen in the dilution of the semantic coherence of categories which would at first glance appear to conform to the "interactional utility" hypothesis, but have been adulterated with inclusions mediated by metaphorical or metonymic associations, or by their relation to some subset of the bona fide members of the category. The resulting semantic impurity of the system as a whole should come as no surprise, since it follows from principles of growth which are common to all lexical systems. Careful analysis of any other classifier system would undoubtedly turn up similar findings.

In spite of this semantic decadence, however, the classifier system is still different enough from the noun system that it retains the capability to supplement it in some cases. Although many of the categories encoded by the classifiers echo those of the noun system, and are in fact marked by morphemes borrowed from it, portions of the system, particularly the quality-classifiers, are equipped to make semantic contributions to the sentences in which they appear. The data I have collected, however, suggest that this option is exploited quite infrequently. This is probably due in part to the fact that the choice of classifier is fixed for many nouns, in part to the fact that the classifier slot is not a favored one for presenting new information - it is typically used instead for acknowledging rather than asserting category membership.

Although the evidence from Japanese thus does not provide stunning support for the two universalist semantic hypotheses with which I began this chapter, it does not disconfirm them either. What it does illustrate is the way in which universal tendencies are likely to be manifested in actual languages, i.e., in a form mitigated by the other properties of the language.

Take, for example, the notion that classifier systems tend to provide means for the expression of categories of special perceptual or cultural significance. Given the predilections of Japanese society, this hypothesis might lead us to expect to see a well-developed array of classifier options

for referring to individuals of different social statuses. In fact, however, there is only one honorific form (mei) which is used with any consistency, making the classifier system considerably less flexible in expressing status-related notions than other segments of the grammar (most notably the verb system). It seems plausible to suggest, however, that it is precisely because social status distinctions are marked so well by other segments of the grammar that they can safely be neglected within the classifier system. In other words, that might seem like a surprising omission if we apply our universalist hypotheses to the classifier system in isolation becomes quite ordinary when we consider the broader linguistic context in which that system is embedded.

Similarly, the system may come to deviate from the (semantic universal) norm if it becomes grammaticized or involved in the service of secondary functions which are independent of the semantic distinctions which it encodes. However dispensable the Japanese classifiers may have been when they first entered the language, it is clear that they now occupy a grammatical slot which must be filled, and the means which have been developed for creating new fillers for that slot have contributed to the breakdown of the semantic integrity of the system. As Meillet has put it with respect to the marking of gender in Indo-European languages (Meillet 1923),

> ... all the cases cannot be directly explained. Once the category has been created, one is led to apply it throughout the language. The grammatical machinery compels all animate nouns to be either masculine or feminine. And the apportionment between the two genders can sometimes depend on very little. It is then often difficult to distinguish between cases in which the distinction had a clear meaning and those in which a gender was attributed to this or that word, simply because the language assigned every noun to one of a fixed number of "genders."

As I will describe in the chapters that follow, the classifiers in Japanese have also come to play a role in the marking of referentiality distinctions, and they participate in the anaphoric system as well. Although it is unclear at this point what effect these other roles of the system may have had on its overall semantic composition, precedents for change due to competing loyalties of this sort do exist. In Roti, for example (Conklin 1981), the use of classifiers as enumerators has been severely restricted by a constraint against their appearance when the lexical meaning of the classifier is already encoded in the noun with which it co-occurs, i.e., in semantically redundant contexts. This weakening of the system is

being counteracted, however, by a requirement that the classifier be used to mark instances where the number reported is smaller than expected and therefore requires emphasis.

Seen in this light, the Japanese system probably manifests the semantic characteristics expected of it no less strongly than any other classifier system would be found to, were its actual use and interaction with other lexical and grammatical subsystems carefully analyzed. Given all the caveats and mitigations which surround the instantiation of universals in a particular language, it is in fact fairly amazing that such cross-linguistic generalizations are ever detected in the first place.

FOOTNOTES

[1]Denny 1979b details the author's reasons for adopting the terminology "extended in one-dimension," "extended in two dimensions," and "non-extended" in preference to the more common "long," "flat," and "round."

[2]Denny (1976, to appear) makes related claims about the functional division of labor between classifiers and nouns, although he does not ascribe to the two types of forms the same functions Benton does. In Denny's view, it is the job of nouns to (1976, p.125) "provide specific enough descriptions of the world that a hearer can determine a particular reference." Classifiers, by contrast, are used to specify the culturally important categories which are instantiated in the referents denoted by the nouns. Information of this sort may be useful, Denny suggests, in orienting the hearer toward the types of predicates that are likely to figure in the developing text. Because he has not yet elaborated it in any detail, this hypothesis is still difficult to evaluate; what is crucial here, however, is that it, like Benton's characterization, amounts to a claim that classifiers and nouns are capable of working in concert semantically.

[3]Consider, for example, sutorooku '(swimming) stroke,' kikku 'swimming kick,' tatchidaun 'touchdown,' kuootaa '(football) quarter,' geemu 'game,' siizun 'season,' etc.

[4]Cecil Brown invokes the same principle (Brown 1979, p.807) in explaining which semantic parameters are most typically chosen to distinguish the deduction-based taxa included in folk zoological taxonomies. "Highly salient dimensions," he says, "pertain to large and varied sets of objects. Dimensions are not particularly salient if they only apply to a small number of different objects." For this reason, he continues, "since all biological organisms vary on the basis of size, there is a strong tendency to incorporate this dimension in the categorization of plants and animals." As an illustration, he cites the fact that many folk zoological systems encode (at the "life form" level) an opposition between WUG (=insects and other small animals such as spiders, worms, and sometimes snails, frogs, tortoises, crabs, etc.) and MAMMAL, an opposition which represents a binary division (on the basis of size) of all the animals that are left over after the "highly distinctive discontinuities" FISH, BIRD, and SNAKE are lexically encoded. What Brown is describing here would seem to be exactly parallel to the use to which the shape-based members of the Japanese classifier repertoire are put – to serve as a backup system for classifying on the basis of universally applicable "highly salient" dimensions such as size, shape, etc. those entities which fall through the induction-based classificatory system provided by the kind-classifiers.

[5]I am not arguing here that the seven patterns which I have listed in any way exhaust, govern, or adequately characterize in detail the semantic relations between the composition of classifier categories and the independent senses of the classifier morphemes. I have in fact argued extensively against such assumptions with respect to N + N compounds (Downing 1977), and am only suggesting here that the relations which I have listed are common and likely to occur to the speaker who is seeking to guess the nature of the category associated with some classifier he has never encountered before, or who is setting up and labelling some novel classifier category. The actual boundaries of the classifier category are much more likely to determine the degree to which the semantic relation in question conforms to the list above, rather than the reverse.

[6]Interestingly, Dobson (1974) reports that this same form was originally used in Chinese as a classifier for animals, with four equalling one animal. Hence the classifier which was originally associated with its referent class on the basis of a part-whole relation has come to be used in present-day Japanese on the basis of an equally transparent but totally different sense relation, i.e., goal or beneficiary (Type 6 above).

[7]See Hunn 1977 for a discussion of the roles played by inductive and deductive criteria in the establishment of folk biological taxonomies. The

thrust of his argument is that such systems are largely defined by inductive criteria, with deductive criteria coming into play only when a superordinate category does not naturally fall into two or more inductive categories. On Hunn's account, then, such systems contain no _purely_ deductive categories, but rather at best deduction-based subdivisions of inductive categories. For counterarguments to Hunn's claims, see Rinnert 1979, where it is argued that under one interpretation of the data she considers, "there do not appear to be restrictions as to which criteria can be applied to differentiate kinds at different nodes" (p.285).

[8]In "generously construing" the notion of a deductive category, I have disregarded the fact that apparently deductive categories sometimes contain members included on the basis of alternative rationales, and sometimes appear to be focussed on representative members which may be more significant than the unifying traits themselves in governing the assimilation of new members into the category. The core-secondary classifiers which I have adjudged to be deductive, given these terms, are: (Core): hon, ko (個), mai, satu, tubu; (Secondary): hatu, hin, husa, ki (基), maki, men, ren, rooru, soo, suzi, and tama.

[9]It is also important to bear in mind the fact that some of the kind-classifiers are also capable of being used informationally. See Chapter 3 for a discussion.

[10]The forms included as quality-classifiers were: hon, mai, ko (個), men, satu, hatu, tubu, hin, suzi, ren, yoo, ki (基), husa, and kyuu.

[11]Exceptions to this generalization are discussed in Chapter 3.

CHAPTER 5

THE ANAPHORIC USE OF CLASSIFIERS IN JAPANESE

One feature of numeral classifiers that is often noted is their ability to appear as "noun substitutes." The examples listed in 1) are characteristic of those that are usually cited:

1a) Siamese (Conklin 1981, p.76)

khun[1] hen[5] pet[4] kii[4] tua[1] /
you   see   duck   how many body

hok[2] tua[1]
six   BODY

'How many ducks did you see?' 'Six.'

b) Vietnamese (Nguyen 1975, p. 130)

Tôi có hai quyển sách, một quyển mỏng, một quyển dầy

'I have two books, one thin and one thick.'

Naked numeral plus classifier pairs of this sort are quite common in Japanese, and may serve a number of purposes within the text. In this chapter I will concentrate on their use in denoting specific referents which have already been introduced into the text and which might be marked by any of a number of anaphoric devices, including ellipsis, pronouns, epithets, and full nouns. As I hope to illustrate, classifiers used in this way occupy a unique slot in this system of anaphoric alternatives for two reasons. First, like nouns, they are useful in that they may appear at a considerable distance from their antecedents, often at a remove which excludes the use of ellipsis or pronouns. In addition, they constitute a stylistically neutral anaphoric option for the speaker anxious to avoid the ponderous repetition of full nouns or the social overtones attendant on the use of third person pronouns.

Uses of numeral-classifier pairs unaccompanied by nouns.

Before proceeding with my discussion of these anaphoric uses of the classifier, it is important to note that numeral-classifier pairs unaccompanied by nouns may serve a variety of other functions, both referential and non-referential, within the text. Non-referentially, they may act as in 2), where i-ppiki '1-animal' stands alone as the predicate, or as

in 3), where <u>san-nin-de</u> '3-person-ly' serves as an adverb:

2) A: (continuing a conversation about goldfish)

Nan-biki-gurai   katte-iru no?
How many-animal-approx. be raising NMLZ

B: <u>I-ppiki</u> desu. (O)
   <u>1-animal</u> COP

A: 'How many are you raising?'

B: '<u>One</u>.'

3) Kono mae, koko-de, <u>san-nin-de,</u>
   this before here-LOC <u>3-person-INST</u>

iti-do, taidan   simasita ne. (O)
1-time   conversation   did   PP

'The three of us talked here once before, didn't we?'

Acting in a referential capacity, they fill a number of additional roles:

1. Introducing referents. As I mentioned in the preceding chapters, classifiers may sometimes be used without benefit of anaphoric or exophoric anchoring on initial mentions of referents, as in the example in 4):

4) ganzyoona tukuri-no <u>hito-ma</u>-dake-no
   solid construction <u>1-room</u>-only-GEN

bessoo   de aru. (F)
separate building COP

'it is a solidly built outbuilding with <u>a single room</u>'

Introductory uses of this sort are possible, however, only with certain members of the classifier system, as discussed in Chapter 3, and they reveal more about the weakness of the boundary between true noun and true classifiers than they do about the ability of classifiers to serve as noun <u>substitutes</u>.

2. Introducing additional members of categories already introduced. Classifiers may act in a role akin to that of what Lyons has called "pronouns of laziness," substituting for "expressions that are identical, but not necessarily co-referential, with antecedent expressions" (Lyons 1977, p.674), as in example 5):

5) Sono asa,   komori-zawa-ni-wa,   nana-hiki-no
   that morning Komori Lake-LOC-CONTR 7-animal-GEN

iwana -ga   nobotte-ita. Zyootaroo-zawa-ni-wa
bull trout-NOM had risen   Zyootaroo-Lake-LOC-CONTR

<u>san-biki</u>, usiro-zawa-ni <u>yon-hiki</u>, koiwake-zawa-ni
<u>3-animal</u> Usiro-Lake-LOC <u>4-animal</u> Koiwake-Lake-LOC

<u>san-biki</u>-ga ita. (F)
<u>3-animal</u>-NOM existed

'That morning, seven bull trout had appeared in Komori Lake. In Zyootaroo Lake, there where three, in Usiro Lake, four, and in Koiwake Lake, three.'

3. Singling out subsets of groupings of referents already introduced. In a related usage, naked numeral-classifier pairs are often used to focus contrastively on different individual members of a larger grouping of referents that has already been introduced into the text, as in example 6):

6) Amerika-no byuuikku mitaina ookina kuruma de ne,
America-GEN Buick like big car COP PP

mae-ni hutari suwattete sa, hitori-wa
front-LOC 2-person were sitting PP 1-person-CONTR

taaban-o maita indozin de sa, kore-ga unten
turban-OBJ wrapped Indian COP PP this-NOM driving

siteru. De, moo hitori-wa arabiazin da yo
was doing and other 1-person-CONTR Arab COP PP

ne, hutari-tomo usiro-nanka minai-n da yo. (O)
PP 2-person-both back-etc. not look-NMLZ COP PP

'It was a big car, like an American Buick, and there were two people sitting in the front seat. One was an Indian wearing a turban, and he was driving. The other one was an Arab, and neither of them looked back or anything.'

4. Referring to exophorically or anaphorically anchored individuals. As I mentioned above, I will be most interested in this chapter in the way in which the identity of particular referents is carried throughout a text by the use of anaphoric markers of various sorts, so examples of this type will constitute the bulk of the data for the discussion that follows. The use of numeral-classifier pairs to refer to antecedents present in the extra-linguistic environment is exemplified by 7), where hutari '2-person,' accompanied by the honorific marker o-, is used in conventionalized fashion as a plural second-person pronoun, and by 8), where hiki 'animal' is used to refer to two dogs in the vicinity of the speaker:

7) Ano toki, mukasi-no hanasi-o sita kara sa,
that time past-GEN story-OBJ did because PP

o-hutari-ni, kyoo-wa kinkyoo hookoku-o
HON-2-person-SOURCE today-CONTR present report-OBJ

site morai-tai-to omou-n da kedo ne. (O)
do receive-want-QUOT think-NMLZ COP but PP

'Since (we) talked about the past that time, today (I) would like to hear from the two of you about what's going on at present.'

8) Soko-de hoete-iru ni-hiki-ni esa-o yatte.
there-LOC barking 2-animal-DAT food-OBJ give

'Give some food to the two animals barking over there.'

More common in narrative are anaphorically anchored examples of the sort shown in 9), where the numeral-classifier pair is used, like an ellipsis or true pronoun, to carry the identity of individuals who have already been mentioned.

9) Syuuiti-wa   Singo-no musuko da   keredomo,
    Syuuiti-TOP Singo-GEN son COP   but

    Kikuko-ga   kono yoo ni site made
    Kikuko-NOM to   this extent

    Syuuiti-to   musubarete inakereba naranai
    Syuuiti-COM be bound   if not unacceptable

    hodo, hutari-wa   risoo-no huuhu na-no   ka,
    extent 2-person-TOP ideal-GEN couple COP-NMLZ Q

    Singo-wa utagai   dasu to kagiri-ga nakatta. (F)
    Singo-TOP   doubt   QUOT limit-NOM not exist

    'Even though Syuuiti was his son, Singo couldn't help wondering
    whether they were such an ideal couple that Kikuko should be
    linked to Syuuiti to this extent.'

It is on examples of this type that I will concentrate my attention in what follows.

The Anaphoric System of Japanese.

The anaphoric system in which these classifier constructions participate is very complicated and has been the subject of intensive if selective study. The analyses that have resulted run the gamut from extremely pragmatic treatments, such as that of Mikami (1970), who essentially adopts the position that anything that is recoverable in context may be ellipted, to very syntactic treatments, like that of Ohso (1979), who attempts to describe ellipsis phenomena within a Ross Constraint-like format. Because I am interested in the behavior of these classifiers within the context of the entire narrative or conversation within which they appear, I will situate my discussion here within what has been written thus far about the discourse behavior of the various classes of forms mentioned, largely neglecting the literature on intrasentential constraints.

The major focus of the discourse-oriented literature has been on ellipsis, which is often described as the Japanese equivalent of the English pronoun, used instead of a full noun in cases when a referent has already been introduced (typically by means of a full noun) and there is no danger of

ambiguity. Some work has also been done by Hinds (1975) on the behavior of explicit third person pronouns, the general conclusion being that they are used sparingly by comparison with English pronouns because of competition from the ellipsis option and because of the heavy stylistic and emotional overtones which they carry. There is also a considerable body of literature on the use of first and second person pronouns, but I will also disregard that here, since it is largely concerned with social distinctions irrelevant to the use of classifiers. I am not aware of any data-based treatments of the behavior of demonstratives or epithets in discourse.

While initial mentions of referents typically (and not surprisingly) involve full nouns, ellipsis can in some sense be seen as the unmarked alternative for post-initial mentions. This is the perspective advocated by Li and Thompson (1979) for Mandarin and by Hinds and Hinds (1979) for Japanese. In their discussion of modes of referring to participants in Japanese narrative, Hinds and Hinds propose that there is typically a three-step progression in which the participant is introduced by means of a noun marked for case, referred to on the second mention with a noun phrase bearing the topicalizing particle wa, then denoted subsequently by means of ellipsis. True third person pronouns play no part in this scenario, although they are available, and the return to the use of a full noun in referring to a participant that has already been referred to by means of ellipsis is seen as the result of a context which is "specifically marked in some way." This notion that ellipsis is the unmarked mode of denoting participants in post-initial appearances also receives some statistical support from Clancy's analysis of a number of Japanese oral narratives (Clancy 1980), in which she found that ellipses accounted for 79% of post-initial "mentions" of human characters and that true pronouns were never used in the narratives she considered.

Among the alternatives to ellipsis on post-initial mentions, the use of full nouns has been most carefully studied by Clancy, who detected several conditions capable of triggering a return from ellipsis to explicit mention. The least surprising of these is potential ambiguity due to a long interval since the last mention of the referent in question or the intervention of other characters, particularly when they appear in subject position. In addition, she found that nouns are often used, even when ellipsis would not be

ambiguous, at episode boundaries, where they serve to re-establish the referent in "another world," as in example 10), or to mark a shift in the kind of action being reported, as with shifts from the presentation of background information to presentation of the plot line, etc.[1]

10) ... Sono kago-no, ... nasi-o   ko zitto
        that basket-GEN   pear-OBJ   intensely

     miru wake ne? Hosi hosikutte sa. ... De,
     see NMLZ PP   desi-desirable PP   and

     .. tabun sono ko-wa   zenzen sono ...
     probably that child-TOP at all that

     nasi-o   to totteru otoko-no hito-to
     pear-OBJ pi- picking male-GEN person-COM

     kankei   nai   to omou   no ne? (O)
     relation not have QUOT think NMLZ PP

     '(He) stares at the pears, ... in that basket, you know? Want,
     wanting (them). ... And, .. (I) think maybe that kid had no
     relation at all to the man pi- picking those ... pears.'

Hinds and Hinds make similar observations with respect to the written narratives which they examined and go so far as to claim that ellipsis is blocked across episode[2] boundaries (Hinds and Hinds 1979, p.202).

Clancy also found that the likelihood that a particular character would be mentioned explicitly on post-initial mentions was related to the status of that character as main or peripheral:

Inexplicit forms of reference are used for the current hero, at times even despite ambiguity, creating the impression that the story is being told from this character's point of view. Explicit forms of reference are used for peripheral figures and to maintain clarity. (Clancy 1980, p.195)

The effectiveness of this strategy is illustrated by the example in 11), where in spite of the elliptical references to the boy and the intervention of another character (the girl), it is clear to the Japanese listener that it is the boy who is being referred to as the fascinated traveler:

11) Hasitte koo   itte wa, ano-- onna-no
     running this way going PP um-- female-GEN

     ko-ga   kotti-kara   kita wake. Tyotto   ki
     child-NOM here-SOURCE came NMLZ   a little pre-

     ano-- kami-no nagai ne? Onna-no ko-ga
     um   hair-GEN long PP female-GEN child-NOM

     kite, ... sosite, sono hito-ni   mitoretyatta
     come   and then that person-DAT fascinated

     wake. Itta n   da kedomo, ... (O)
     NMLZ   went NMLZ COP but

'(He) rode along like this, uh-- a girl came from here. A rather pre- uh-- ... with long hair, you know? A girl came, ... and then, (he) was fascinated with that person. (He) went along, ...'

Return to explicit mention may also be motivated by what Hinds and Hinds call "subjective" factors, such as the speaker's desire to give additional information about the participant in question, or the need to indicate the important points, or "peaks," of the narrative by the use of the "rhetorical underlining" that the extra words provide. These considerations are similar to those cited by Bolinger (1979) in his treatment of pronominalization in English, where he argues, in a vein that applies equally well to Japanese, that:

> The main error of formal treatments of "pronominalization" has been to regard the presence of a pronoun rather than a noun as due to a sort of mechanical process CAUSED by the presence of a noun at this or that location rather than as a pragmatic choice between a nominal with a richer semantic content and a nominal with a leaner one. (1979, p.308)

Aside from full nouns, the only other (semi-) explicit alternative to ellipsis that has received any attention from a discourse perspective is pronominalization. The use of pronouns is subject to heavy social constraints, as Hinds' 1975 study explains, but the conditions governing the actual use of pronouns in cases where they are socially appropriate have yet to be worked out in any detail. Hinds (1978) has proposed a "structural condition for the use of pronouns in Japanese conversation":

> Pronominalization occurs when the antecedent has been listed in the discourse registry. Pronominalization is used to contrast, emphasize, or to reintroduce a paragraph, segment, or detail topic. (1978, p.174)

but predicting when an explicit pronoun will appear is still a tricky business at best. Li and Thompson (1979) draw similar conclusions with respect to Mandarin, citing a study in which speakers showed great variability when they were confronted with mini-texts and asked whether they would use pronouns or ellipses to fill in various slots that had been left open. Although Li and Thompson do arrive at a "basic principle governing the occurrence of pronouns in Chinese discourse":

> The degree of preference for the occurrence of a pronoun in a clause inversely corresponds to the degree of its conjoinability with the preceding clause. (1979, p.330)

They also state (p.328) that "the occurrence of pronouns in Chinese narrative discourse does not seem to be governed by any absolute rules" and that "where speakers decide to break the string of zero-pronouns seems to be a matter of

personal preference, with no governing principles discernible at present."
Questionnaires administered by Hinds to Japanese speakers produced similar
results (Hinds 1975).

The overall picture that these various studies present is one in which
nouns are used in initial mentions of referents, ceding to less explicit
forms, most often ellipses, on subsequent mentions. A return to more
explicit forms may be conditioned by the possibility of ambiguity, the need to
mark or emphasize discourse boundaries of various sorts, or by the speaker's
desire to manipulate the (main/peripheral) status of referents within the
text. Given this general overview, we can ask how classifiers fit into the
picture.

The Role of Classifiers within the Anaphoric System.

The role of the classifier within the anaphoric system has not been
studied in any detail, in Japanese or any other language, so far as I am aware.
In his discussion of the various anaphoric markers in Japanese (Hinds 1978),
Hinds does briefly mention the role of what he calls "quantifiers," lumping
them together with epithets and claiming that the "structural conditions"
governing their appearance are essentially identical to those governing the
appearance of explicit pronouns, with the exception that they may also be used
to introduce referents into conversation for the first time. Since Hinds
fails to provide a clear definition of exactly what he considers an epithet to
be, and also provides no support for equating the constraints on epithets and
the constraints on quantifier constructions, though, his remarks provide
little explicit guidance for the enterprise at hand.

As data for my analysis here, I used the twenty-seven non-contrastive
anaphoric examples of classifier usage which appeared in the 500 item sample
which I collected from oral and written sources, and I supplemented these with
additional examples drawn primarily from novels in order to bring the total
number up to fifty-five. Even a cursory glance at these examples reveals the
existence of some very striking tendencies with respect to both the
classifiers and the numbers which appear in these constructions, as Table 1
shows.

Table 1A

Distribution of Classifiers in Anaphoric Examples
Collected (Total = 55)

Classifier	Number of Instances
nin (human beings)	48
tu (inanimates)	4
hiki (animals)	2
wa (birds, (rabbits), (winged insects))	1

Table 1B

Distribution of Numerals in Anaphoric Examples
Collected (Total = 55)

Numeral	Number of Instances
1	---
2	41
3	12
4	1
5	1

Neither of the tendencies illustrated here represents any absolute constraints on this construction, I would argue, but they are not mere accidents of my data sample either. The fact is that non-contrastive anaphoric uses of classifiers occur most often with the classifier nin, used to denote people, and with small numbers other than 'one.'

The infrequent appearance of numbers over 'three' in these anaphoric classifier constructions may be related to my informant's intuition that it is awkward to use these forms unless the members which compose the grouping referred to are thought of as distinct individuals, not just mere category tokens which together amount to the sum denoted. The larger the number, the less likely it is that the individuals composing the grouping will be conceived of as individuals. In addition, although individual referents may often be introduced into a text by means of their participation in some larger group, if they are of enough interest to merit repeated mention, they are likely to shed their group identity as the text proceeds and be referred to as

individuals instead. This is not always the case, however, as the existence of stories about seven samurai, three little pigs, etc. illustrates.

More interesting, and more puzzling in a sense, is the absence of forms containing the number 'one.' As I will explain in the next chapter, 'one' + classifier constructions are often used quite differently from constructions involving the other numerals, and they appear very frequently in introductions of specific referents, used in much the same way as English _this_ ('There was this guy.') or _a certain_. Example 12), the beginning of a traditional folk tale, illustrates this sort of usage.

12) Kikaigasima-wa nihon-no minami-no hate-no yoona
    Kikaigasima-TOP Japan-GEN South-GEN tip-GEN-like

    tokoro-ni aru   sima   desu. Mukasi-   mukasi,
    place-LOC exist island COP   long ago - long ago

    soko-ni   _hitori_-no   ryoosi-ga arimasita. (FT)
    there-LOC _1-person_-GEN fisherman-NOM existed

    'Kikaigasima is an island somewhere near the southern tip of
    Japan. Long, long ago, there was _a_ fisherman who lived there.
    ...'

Examples of this sort appear regularly in both written and oral texts and represent one of the most common uses of 'one' + classifier constructions. The failure of 'one' to appear anaphorically could conceivably be related to the indefinite-marking flavor which it often carries in these introductory uses; another possible explanation resides in the fact that most of the referents which are mentioned repeatedly (and are thus subject to attenuated representation) within texts are single individuals. Since ellipsis is the favored option for repeated reference to individuals whose identity is not in doubt, and since the designation 'one person' would not be of much distinguishing value in cases when it _was_ in doubt, the absence of 'one' + CL cnaphoric constructions may be explicable in terms of the low contrastive information potential associated with 'one' as compared to the other numerals within a typical narrative or conversation. Since 'one' + CL does not appear even in cases where there _is_ an opposition between a single character on the one hand and a grouping of characters on the other (a circumstance which would render the singular/plural distinction informational), though, this explanation is a partial explanation at best.

With respect to the virtual monopoly of _nin_ on the classifier slot in these constructions, the governing factor seems to be the fact that people, as

opposed to referents of other sorts, are most likely to be the topic of any extended discussion in which repeated reference to particular individuals is required. Other classifiers, even those like _mai_ "flat, thin object' or _ko_ 'small, roundish object,' which crosscut the categories encoded by the nouns of the language, are in principle usable in anaphoric constructions. Interestingly, though, I found no classifiers of these sorts in the sample I considered, and when I elicited them from informants, they always co-occurred with a demonstrative article, which was apparently required to establish the definiteness of the referents in question. _Nin_, by contrast, frequently appears in this pattern without benefit of a definitizing demonstrative. What we are examining here, then, is the way in which the classifier _nin_ fits into the system for anaphoric mention of _human_ referents, since the other classifiers are by comparison rarely used anaphorically. Once again, because of its role in denoting referents that bear a special semantic status, _nin_ can be seen as an exceptional member of the classifier system rather than simply as one of its most important members.

Having established the fact that these anaphoric classifier constructions are used primarily with respect to groupings of individuatable human referents, we can now ask whether they provide for the Japanese speaker any options not available elsewhere in the anaphoric system. In many respects, they behave similarly to explicit anaphoric forms of other sorts (nouns, epithets, pronouns). The trait that they most obviously share with these other sorts of forms is the ability to clarify which referent it is that is being referred to in contexts where there is some potential ambiguity, or where, in fact, explicit intervention is needed to block the interpretation that it is some alternative referent that is involved. Such situations often arise at points of subject switch, since the addressee is likely to interpret the absence of an explicit subject as an indication that the subject of the preceding sentence continues to occupy that role in the present sentence as well. The prevalence of this pattern of using ellipsis for mentions of default occupants of the grammatical subject and/or topic role, along with explicit mentions for other characters, is reflected in the sort of major character/minor character reference patterns remarked upon by Clancy and illustrated by example 11) above.[3]

Anaphoric classifier constructions are also used for many other

functions for which an explicit form of some type (as opposed to ellipsis) is required - providing emphasis through repetition, marking discourse unit boundaries, serving as anchor points for the introduction of new participants, providing heads to carry modifying structures. The next question to ask is whether the anaphoric behavior of classifiers differs in any way from that of other explicit forms, if they fill any unique slot in the system. In short, the answer is "yes," as we can see if we compare the functions they serve, and the "striking distance" within which they may appear, with those of other sorts of anaphoric forms.

Striking Distance.

By "striking distance," I mean the distance between the most immediate antecedent mention and the anaphoric mention of the referent in question. This distance can, of course, be measured in various ways, but for purposes of comparison I have confined myself to three measures suggested by Clancy in her discussion (Clancy 1980) of the anaphoric use of ellipses and nouns to refer to human characters in Japanese oral narratives, i.e., number of intervening clause boundaries, number of intervening sentence boundaries, and number of intervening mentions of other characters.

I have modeled my methods here as closely as possible on Clancy's,[4] although they do not take into account some factors which are very important in determining what sort of anaphoric form will be appropriate at a particular point in a text. Distance from the antecedent mention, for example, is measured without regard to whether the "mention" is explicit or elliptical, or whether it bears a case particle or the topic marker wa. The number of other referents intervening between the antecedent and anaphoric mentions of the referent in question is tabulated on the basis of the actual number of such referents (types), disregarding the number of times each is mentioned (tokens). These properties of the method of tabulation do not invalidate it; it is important to remember, though, that the figures on which it is based represent simply one of a number of possible approaches to the problem.

I should also mention the fact that, although I have taken pains to follow Clancy's methods as closely as possible, the source texts which I used represented a variety of text types (both oral and written) which go well beyond the oral narratives on which Clancy based her study, and which present

problems not encountered in Clancy's corpus. In dealing with these features of my corpus, I relied on the principles described in Footnote 4, and, because of my adoption of these principles, my method of tabulation may differ in some minor respects from Clancy's. For these reasons, the tabulations for ellipses and nouns (taken from Clancy's study) should be seen merely as a backdrop for my finding regarding the use of third person pronouns and anaphoric classifiers. For ease of presentation, though, I have included all four tabulations in the same tables.

These caveats duly noted, we can turn to Tables 2, 3, and 4. The figures for nouns and ellipses are taken from Clancy 1980, and the figures for classifiers and (third-person) pronouns are based on the 55-item classifier sample I mentioned earlier and the 252 pronouns which appeared in the same text segments from which my classifier corpus was drawn. The percentages shown are percentages of the total number of uses of each type, i.e., nouns, ellipses, etc. In Table 2, for example, 33% of the classifier uses occurred one clause boundary away from the most immediate antecedent, 42% occurred two to four clause boundaries away, and so on.

Table 2

Relative Antecedent-Anaphor Distances
Measured in Number of Intervening Clause Boundaries

% mentions
of each type

Number of clause boundaries

Ellipses   Classifiers
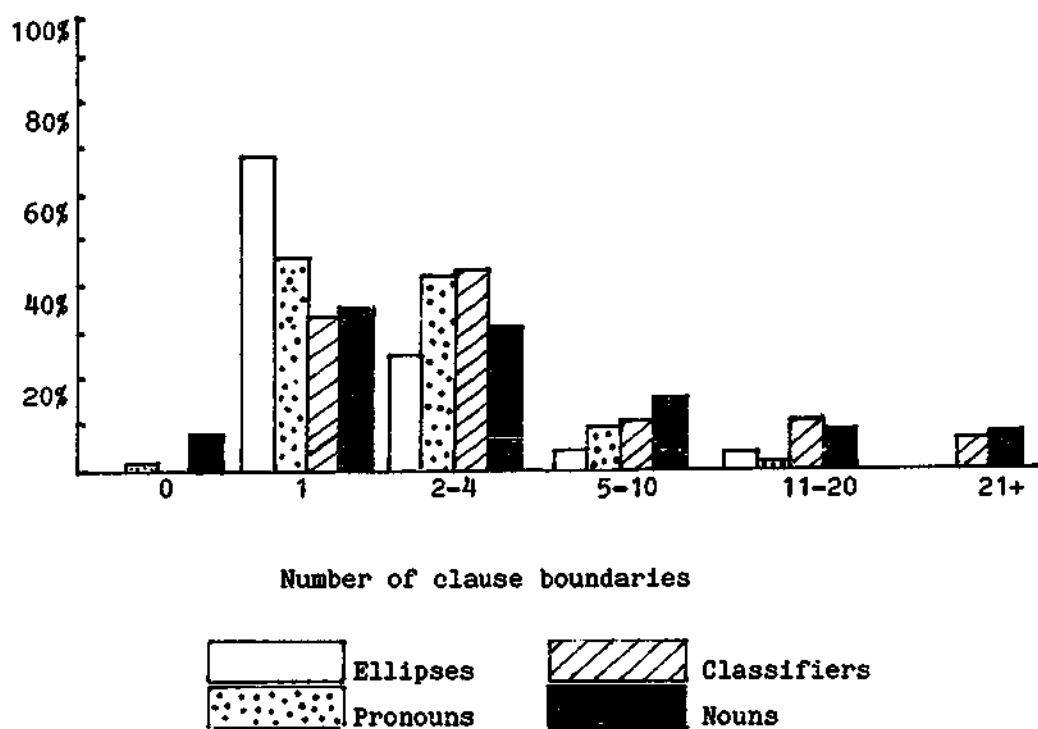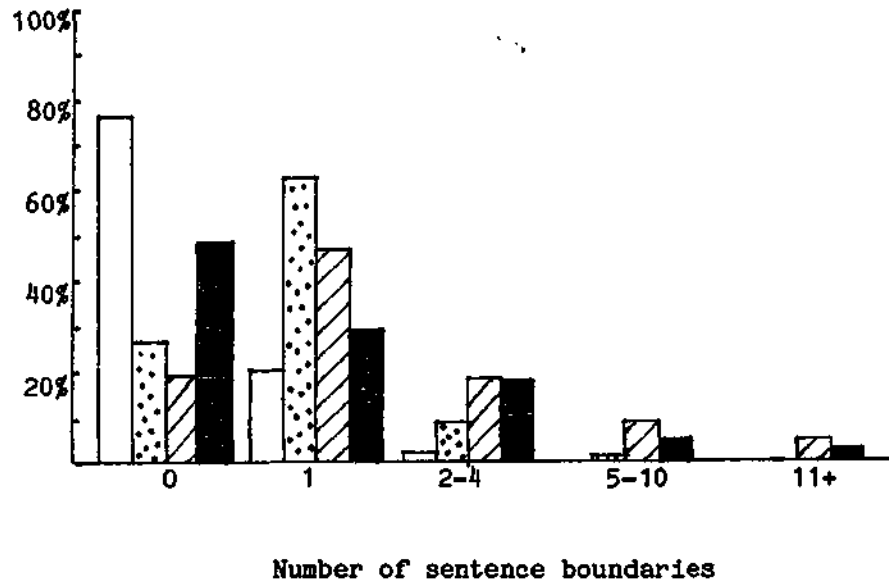Pronouns   Nouns

Table 3

Relative Antecedent-Anaphor Distances
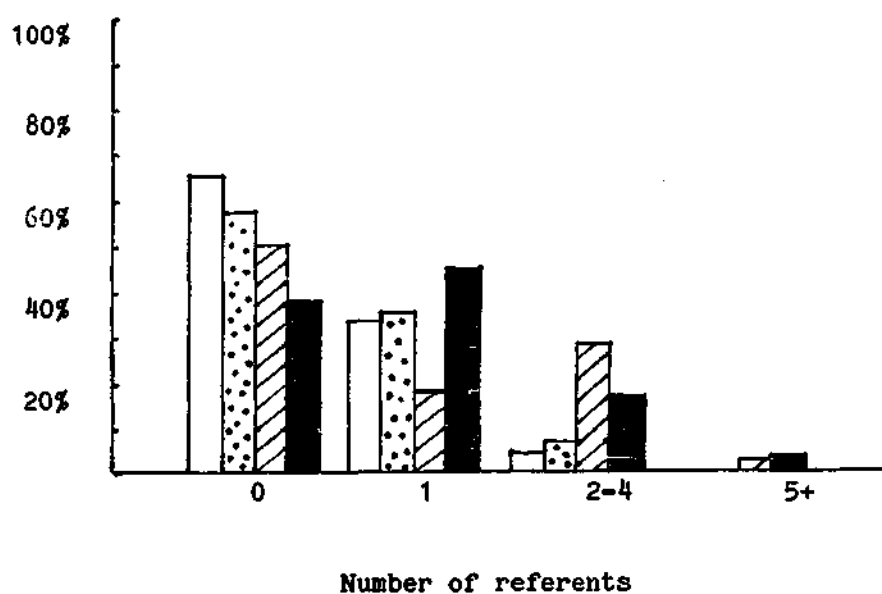Measured in Number of Intervening Sentence Boundaries

% mentions
of each type

Number of sentence boundaries

Table 4

Relative Antecedent-Anaphor Distances

Measured in Number of Intervening Referents (Types)

% mentions

of each type

Number of referents

Considering first of all Clancy's results, it is clear that most elliptical mentions of a referent occur within fairly close range of the antecedent mention, nearly 100% occurring within four clauses' range, one sentence's range, or one intervening referent's range of the antecedent. The full noun profile is quite different - although full nouns may be used in anaphoric mentions even within the same clause as the antecedent mention, their total striking distance is much greater, with one-fourth of the anaphoric full noun uses in Clancy's texts occurring at a remove from their antecedents that exceeds the maximum striking distance of ellipses.

This contrast is hardly surprising, of course, since the identifiability of a referent fades fairly rapidly in the absence of explicit mention and is restored by explicit mention. Because full nouns are the most explicit anaphoric forms available, their use in effect moots the recoverability question; if they are used at a point at which the referent is no longer recoverable, there is no problem, because they contain in them enough information to re-establish the referent from scratch if necessary.[5]

The behavior of full nouns and ellipses is not my real concern here, however, and I have included Clancy's tabulations in my tables only to provide a frame of reference against which to consider the behavior of anaphoric classifier constructions and pronouns. As Tables 2 through 4 show, pronouns and classifiers differ both from each other and from ellipses and full nouns in terms of their striking distances, pronouns showing a greater resemblance to ellipses, classifiers resembling nouns. The discrepancy is also reflected in the figures in Table 5, where the mean antecedent-anaphor distance for classifiers is anywhere from two to three and a half times that of pronouns for each measure included.

Table 5

Mean Antecedent-Anaphor Distance for Pronouns
and Anaphoric Classifiers

	# Clauses	# Sentences	# Referents
Third Person Pronouns	2.33	.92	.53
Classifiers	6.19	3.17	1.10

As these figures suggest, and as a perusal of the 252 pronoun uses considered here confirms, Japanese third person pronouns resemble their English counterparts in that they appear to be applicable only so long as the person to whom they are used to refer is "given" in the sense defined by Chafe (1976), i.e., assumed by the speaker to be in the consciousness of the addressee at the time of the utterance. By contrast, the striking distance of anaphorically used classifiers appears to extend beyond the bounds of givenness as defined by Chafe, perhaps conforming better to the notion of givenness used by Halliday (1967), i.e., recoverable from the preceding discourse.

One occasionally encounters uses of pronouns and classifiers which appear to conform only marginally to these constraints. Although Chafe argues briefly against the notion of degrees of givenness, for example, pronouns may sometimes appear when the givenness of the referent in question is only inferrable,[6] so long as there is no possibility of confusion. In 13), for instance, the Italians are referred to with kare-ra although the "antecedent" for the pronoun can be computed only by combining the previous speaker's remarks about the French with the present speaker's mention of Italy. In other words, no direct antecedent exists. It is unclear whether examples of this sort would conform to Chafe's notion of givenness or not.

13) A: (talking about the French national character)

Ano kuni-ni   iru to ne, tune-ni, koo,
that country-LOC be and PP usually

syutyoo site-inai to humitaoseretyau kara.
assertion not do and get trampled because

Dakedo, totemo ii   tokoro-mo   aru no ne,
but   really good points-too exist NMLZ PP

B: Sore-wa ne, boku-mo itaria-ni ite-mo
   that-TOP PP I-too   Italy-LOC be even

wakatta-n   da-kedo, kare-ra-wa zettaini
understood-NMLZ COP-but he-COLL-TOP absolutely

zibun-ga warui-tte koto iwanai no ne,
self-NOM bad-QUOT NMLZ not say NMLZ PP

akirakani zibun-ga matigatte-ite-mo ne. (0)
clearly   self-NOM be wrong-even   PP

'A: Because, in that country, usually, (you) get trampled if
(you) don't stand up for (yourself), of course, (it) has (its)
good points too.
B: Speaking of that, I saw the same thing in Italy. They will
never admit they're wrong, even when they clearly are.'

Example 14) presents a parallel case of anaphoric classifier usage at a
point in the text which is at an extreme remove from the preceding mention of
the grouping referred to. Although the identity of the referents in question
is still recoverable, it is probably available to the reader only after a
fairly active search of his memory.

14a) Kikuko-wa satoko-no kata-ni   te-o   oite,
     Kikuko-TOP Satoko-GEN shoulder-LOC hand-OBJ place

oite, "ozisama-to daibutusame-e   itterassyai ne.
place Grandpa-COM Big Buddha-GOAL go-IMP   PP

Otigosan-mo   dete, odori-mo aru wa." Husako-ni
Little Princess-too go out dance too exist PP Husako-by

Husako-ni sasowarete, singo-mo deta. ...
Husako-by invited   Singo-too went out

b) San-nin-ga   keidai-ni   tuku   to, tigogyooretu-ga
   3-person-NOM grounds-LOC arrive when line of little prin-

         daibutu-no   mae-no   isi-no mito-o
cess-NOM Big Buddha-GEN front-GEN stone-GEN path-OBJ

nette-iru   tokoro datta. (F)
filing along time   COP-PST

a) 'Putting (her) hand on Satoko's shoulder, Kikuko said, 'Why
don't you go to the Big Buddha with Grandpa? The Little Princes
will be there, and there will be dancing too. Invited along by
Husako, Singo went too. ...
b) When the three of them arrived at the grounds of the temple,
the line of Little Princes was just filing along the flagstone
path leading to the Buddha.'

Shortly after the introduction of the threesome with the lines in 14a),

they are mentioned elliptically several times. Between the last elliptical mention and the mention with _san-nin_ in 14b), though, 75 clause boundaries and 41 sentence boundaries are crossed, and seven other human referents are mentioned, making for an antecedent-anaphor distance atypical even for classifiers. The discussion touches on topics as diverse as bonsai techniques and the main character's memories of a young woman he had been in love with years before. The sentence containing the _san-nin_ is the first in a new sub-heading of the chapter which is marked with a Roman numeral.

In spite of these considerations, though, the referent intended by the author is still recoverable. The three people in question set off for the temple two pages earlier, and now that we read that three people have arrived, it is easy enough to recover their identity, and to put the intervening material into perspective as a digression of sorts. This example thus constitutes a rather extreme case of a use to which anaphoric classifiers are often put -- topic re-establishment.

Interestingly, my primary informant also reports that the use of a pronoun in the place of _san-nin_ here would have been interpretable as well, although the antecedent must be recovered from a segment of the text which clearly exceeds the boundary of information given in Chafe's sense. This suggests that the textual range within which a pronoun may be used may be extended by contextual clues which guarantee its interpretability. By virtue of their deviancy, though, uses of this sort may create a special pragmatic or stylistic effect, as do other deviant uses such as the insertion of a pronoun in the first sentence of a text as a device to immediately draw the reader into a world where that pronoun is assumed to be interpretable. In spite of these cases, though, the fact remains that the striking distance of Japanese third-person pronouns is typically much shorter than that of anaphoric numeral-classifier pairs, as Table 5 shows, leading us to ask why.

The answer might of course be that the discrepancy here is sheerly arbitrary, pronouns having by convention been established as markers of givenness in Chafe's sense, classifiers having been assigned a broader range which encompasses and goes beyond that of pronouns. The effect could, however, in some measure be dependent on the nature of the information which each class of forms carries. The pronouns carry information about number (singular/plural) and sex, although plural pronouns containing the masculine

kare may denote groupings including female members as well. Since both nin and the pronouns are used only with respect to human referents, the difference in semantic load thus reduces to an opposition between sex and singularity/plurality in the case of the pronouns, and absolute (plural) number in the case of the classifiers.

It is clear why the range of interpretability of singular pronouns should be as severely restricted as it is, since texts frequently revolve around the activities of numbers of individual human participants, any of which might in principle be referred to as kare 'he' or kanozyo 'she.' In the case of the plural pronouns, though, we might expect to find striking distances more akin to those of the classifiers, since the groups of referents to which plural pronouns apply would in many contexts be likely to stand out by contrast with individual referents, the mere fact of their plurality being sufficient to identify them. When we compare the behavior of the singular and plural pronouns in the data collected for this study, though, we find that the plural forms pattern like the singulars, rather than imitating the behavior of the classifiers. As an explanation for the unique anaphoric behavior of the classifiers, then, we are left only with the fact that they carry information about absolute number. Although it is easy enough to imagine contexts within which this information might be useful, it would seem to represent a somewhat marginal increment over the information carried by the plural pronouns.

When we compare the actual use of anaphoric classifiers and plural pronouns, though, we find that while they may resemble each other closely in the sorts of information they carry, they differ in the tenacity of their attachment to the referent groupings which they have been used to denote. The pronouns are true shifters, gaining and shedding referents with fair rapidity as the text progresses. Classifiers, on the other hand, sometimes follow the pronominal pattern, but they also may be used throughout a text to denote a particular fixed grouping of referents, even when other groups of the appropriate semantic dimensions intervene between antecedent and anaphoric mentions. This is what happens in the example in 15), where hutari '2-person' functions similarly to the English the twosome, denoting the pair in question (Isii and the woman) even when it is immediately preceded by the mention of another pair of individuals who could be referred to with hutari

had the form not already been temporarily pre-empted.

15) Yuki-wa   saisyo-no, Isii-ga   tanni   saigo-no
    Yuki-TOP first   Isii-NOM   simply   end-GEN

    wakare-ni   oona-ni   ai-ni   kita-to iu
    parting-DAT woman-DAT   see-DAT   came-QUOT

    kangae-o   teisei   seneba   naranakatta.
    thought-OBJ   revision   if not do   would not do

    San-yon-ken-no   hyakusyooya-ga   aru
    3-4-building-GEN   farmhouse-NOM   exist

    tokoro-ni deta.   Ko-o   otte-iru
    place-LOC came out child-OBJ   carrying

    rooba-ga   siroi   me-o   site tatte-ita.
    old woman-NOM   white   eye-OBJ do   was standing

    Yuki-ga   hutari-no   koto-o   kiku to, ...
    Yuki-NOM   2-person-GEN   NMLZ-OBJ   ask when

    'Yuki was forced to revise (his) original hypotheses that Isii had
    come merely for a final parting from the woman.   (He) came upon a
    grouping of three or four farmhouses.   An old woman carrying a
    child stood and watched (him) coldly.   When Yuki asked about the
    two people, ...'

A similar sort of temporary appropriation of pronouns as the label for a
fixed referent or group of referents within a particular context may also
occur, but this is a more marked device and tends to give the impression that
the referent in question is something of an obsession for the narrator or
character from whose viewpoint the story is being told, since it always
remains in the foreground of at least the narrator's consciousness and serves
as the baseline against which the narrative proceeds in spite of the
intervening mentions of other characters. The permanent assignment of
anaphoric classifiers, by contrast, does not have this effect.

The difference in behavior here emerges clearly if we consider the
entire (short story) text that contains the example cited in 15). In the
course of the story, the author uses both classifiers and pronouns (kare-ra)
to refer to the couple in question. Five out of the six uses of the classifier
form involve re-introducing the couple, usually after mentions of
intervening characters, as in 15). Kare-ra, on the other hand, is used only
within paragraphs where hutari has first been used to re-establish the pair.

As this discussion has hopefully illustrated, the long striking
distance of classifiers (whatever its ultimate explanation) makes them very
useful for re-introducing referents which have been textually evoked but have
been "unused" for a significant period since their introduction. At the

other end of their range, in close proximity to their antecedents, classifiers are also useful in avoiding possible ambiguities without introducing the surfeit of information or stylistic heaviness which repetition of the full noun would carry, or the social overtones attendant on the use of a third-person pronoun. It is to these issues that I now wish to turn.

Stylistic Neutrality.

The exact nature of the "social overtones" carried by the pronouns has been the subject of considerable speculation, and apparent differences in intuition from one native speaker to the next, coupled with a very rapidly changing culture, has led to a fair amount of confusion as to how to characterize the stylistic effect of these forms.

One thing most speakers seem to agree on is that there is such a thing as "overuse" of pronouns, which can lend a text an affected air, or the feeling that it is an "overspecified" translation modeled on a Western language. In Hinds' very interesting study of speakers' attitudes toward and reported usage of pronouns (Hinds 1975), 71% of his respondents reported feeling that the use of kare and other third-person pronouns is "affected." Only 16% reported that they felt no reaction when they heard these forms used, while the remaining 13% found them "sophisticated" (10%) or "vulgar" (3%). Kare is clearly not the unmarked form that he is in English.

Hinds also argues that the use of one of these pronouns implies that the speaker knows the referent to whom he applies it fairly well, and in addition, that it carries "obligatory emotional associations" (Hinds 1978, p.175). It is clear that this sort of coloration, coupled with the nuance of affectation which many speakers attribute to the use of these forms, could impose serious limitation on their usefulness as anaphoric markers, regardless of distance from the antecedent mention. If this characterization is correct, in other words, it could indicate another reason for the incorporation of classifiers into the anaphoric system of the language.[7]

After examining the use of third-person pronouns in the texts (oral and written) from which I drew my classifier examples, I have concluded that Hinds is correct in arguing that the pronouns impose a perspective on the references which they effect which is missing from the anaphoric use of classifiers. I

would disagree, however, with his claim that they carry obligatory emotional
overtones, or that they imply that the speaker knows the referent personally,
and "fairly well." Consider the examples in 16) and 17):

16) De, kare-wa nizyuuroku-de hazimete   kekkon
    and he-TOP 26-at   - for the first time marriage

    suru-n desu karu   ne, renin-wa (O)
    do-NMLZ COP   because PP Lenin-TOP

    'Because he got married for the first time at 26, Lenin
    did.'

17) Dakedo otoko-no syasei-tte   no-wa   naze-ka sa,
    but   man-GEN ejaculation-QUOT NMLZ-TOP why-Q PP

    hutuu-no-mama zya   mienai   wake desyoo? (laughter)
    usually   COP-TOP can't be seen NMLZ right?

    De, poruno eiga-tte no-wa   doo suru ka tte iu too ...
    and porno movie-QUOT NMLZ-TOP how do   Q QUOT   if

    sono syunkan-ni, zenbu ano nuku-n   desu yo. (...)
    that moment-LOC all   um pull out-NMLZ COP PP

    De ne, boku-ga soo iu   haado-poruno-no
    and PP I-NOM that kind of hard porn-GEN

    san-bon-date-o mite-ta   toki-ni ne, aru   eiga-no
    triple bill-OBJ was seeing time-LOC PP 'a certain movie-GEN

    naka-de,   maa, soo iu   nuite-wa pa-tte siin-ga
    middle-LOC well that sort of pull out pa-QUOT scene-NOM

    nan-kai-mo dete-kuru wake desyo? Sono uti-no ikkai-ga
    Q-time-EMPH appear   NMLZ right? that among one-time-NOM

    ne,   mazutyatte ne, hontooni ityatta wake,
    PP   bad   PP really   went off NMLZ

    nukanaide.   De, ittyatta mon da kara,   kare-ga
    without pulling out and went off NMLZ COP because he-NOM

    moo, beddo-o tataite kuyasigatta   wake. (O)
    EMPH bed-OBJ hit   was chagrinned NMLZ

    'But (you) usually can't see it when a man comes, right?
    (laughter) But what (they) do in porno movies is, at that moment,
    (they) pull (it) out. ... And when I went to this hard porn triple
    bill one time, in this one movie there were lots of scenes like
    that where (they) pulled (it) out and came, right? But this one
    time, (they) messed up, and (he) really came, without pulling (it)
    out. And because (he) fucked up and came, he was just pounding
    the bed in frustration.'

These two examples are very clear cases of speakers using pronouns to
refer to people with whom they have had no personal interaction, and, in the
case of 17), with whom they would never want to be associated. Although
examples of this sort undermine Hinds' claim that the use of third-person
pronouns implies some personal familiarity between the speaker and the
referent, taken together with others of Hinds' findings, they suggest another

generalization concerning the social overtones associated with pronoun use.

In the results of various questionnaires he administered, Hinds (1975) claimed to find confirmation for the following additional hypotheses about the use of pronouns (Hinds 1975, pp.154-5):

Hypothesis 3. _kare_ is not used to refer to family members. There are degrees to which _kare_ is avoided in these cases. There is a strong prohibition against using _kare_ to refer to members of older generations (and babies). The prohibition becomes less rigid in reference to siblings. For extended family members, that is, cousins, there is no prohibition other than the general constraints imposed for other members of society.

Hypothesis 4. _kare_ is not used to refer to social superiors. ... However, it is not simply the case that _kare_ is avoided when referring to any social superior. Significantly if the social superior has some kind of relationship to the speaker, _kare_ is avoided to an even greater degree.

Hypothesis 5. _kare_ is not used to refer to people in the public sphere ... generally borne out, although not to the degree that there is a prohibition against using _kare_ to refer to nuclear family members.

Hypothesis 6. _kare_ is used more often in direct translations from Western languages than in spontaneous conversation.

Hyphothesis 7. The extensive use of _kare_ is considered improper.

All of these observations, as well as the appearance of examples like 16) and 17), can be explained if we consider _kare_, etc., to be usable only when the speaker is absolved of the need to express the relative status relation that holds between him and the referent in question. In cases where the referent is an older member of one's family, a teacher, an older friend, or a respected member of society, it is typical to express one's inferior position relative to that referent by the use of a status-marked form of some sort, rather than the status-neutral pronoun. The use of a pronoun in such cases may in fact be considered improper. When the referent is a friend close to one's own age, a sibling, a stranger, a public or historical personage (like Lenin) with whom one has no personal relationship, or an individual in the public domain to whom one owes no respect (like a pornographic movie star), the use of a pronoun is more likely.

Although the social constraints on the use of _kare_, etc. are thus perhaps not as restrictive as Hinds' characterization would lead us to believe, it is clear nonetheless that pronouns are in no sense the unmarked mode of explicit anaphora in Japanese. They are disqualified from this role both by their abdication from the social-relation indicating axis which plays such an

important role in the Japanese grammatical system as a whole, and by the stylistic overtones of "affectedness" which many speakers associate with their use.

One might speculate, in fact, that these two aspects of the stylistic effect of _kare_, etc., are not unrelated. Part of the affected tone associated with the use of pronouns undoubtedly derives from the fact that the use of explicit anaphoric forms, as opposed to ellipses, can lend to a Japanese text a feeling of "super-clarity" or "overspecification" which is typical of close translations from Western languages. Since the use of Western languages and familiarity with Western culture still retain some positive social value even in present-day Japan, it is not surprising that such mimicry of Western anaphoric patterns might take on an affected aura.

It also seems plausible, though, that a speaker's decision to withdraw from the social network which unites him and the referent he refers to with _kare_ could have a similar effect, since by using a pronoun, the speaker is defining a clear boundary between himself and the referent in question, and is asserting his own perspective on that referent. This sort of withdrawal from the social network can easily lend a text a formal or antiseptic tone which is not too far from affectedness, and it blocks the subtle shifts of perspective (from speaker/narrator to character and back again) that occur readily when ellipses rather than pronouns are used.

In addition to the fact that the pronouns themselves do not explicitly encode status distinctions, their use is also considered disrespectful because it violates what amounts to a taboo on the use of personal pronouns in general. This taboo is reflected in the avoidance of first and second person as well as third-person forms, and in the rapid rate of replacement that has dogged the personal pronoun system over the centuries.[8] Many of the second- and third-person forms, for example, have been derived from nouns and verbs referring to the location of the person denoted, while first person forms have been drawn from the pool of nouns available for denoting low status individuals. As pronouns, however, these forms have typically lost their original, euphemistic senses, only to be replaced by new terms uncontaminated by the pronominal taboo.

The classifier constructions we have been discussing, then, provide a useful anaphoric option when the speaker wishes to explicitly refer to third

person referents without either marking their social status (by choosing an appropriate euphemism) or patently disregarding it (by using a third person pronoun). While the classifiers themselves reflect social distinctions no better than the pronouns do, they are drawn from a different segment of the lexicon, one whose primary task is semantic rather than deictic. In avoiding pronoun use by resorting to a numeral-classifier pair, the speaker is thus exploiting a technique similar to the one involved in the appropriation of a new pronoun from the ranks of the noun or verb system of the language.

Given these considerations, we can see that classifiers possess not only a striking range which allows them to serve as useful supplements to the anaphoric options provided by ellipsis and pronouns, but also a social and stylistic neutrality which allows the speaker to avoid the impersonal or affected tone that often accompanies pronouns.

Additional Advantages.

Numeral-classifier pairs may also be recommended for use in a particular situation because they provide a means of anaphorically representing a group of referents in an evenhanded way, without focusing the reference on one as opposed to others of the individuals involved in the grouping, or because the numerals which they contain carry information which is useful at that particular point in the text.

The evenhanded effect of the numeral-classifier pair takes on significance by comparison with the proper noun-plus-collective marker or pronoun-plus-collective marker pairs which may also be used to denote human referents. Appended to common nouns, the 'collective' or 'plural' suffixes which figure in these constructions act as true pluralizers and imply the existence of a group composed solely of members of the category denoted by the noun. When they are used with pronouns or proper names, though, the semantic effect is to indicate a grouping centered around the referent denoted by the pronoun or name to which the suffix is attached, rather than a homogeneous grouping of members of co-equal status. Thus, for example, while kodomo-tati 'child-PL' will be used to refer to a group of children, kare-tati 'he-COLL' will be used to denote a grouping centered on the referent of kare and Tanaka-san-tati 'Tanaka-HON-COLL' a grouping centered on Mr./Ms. Tanaka.

It is clear that the anaphoric use of classifiers provides a neutral

alternative to the use of these focus-centered proper noun or pronoun-plus-collectivizer forms, an alternative that may be exploited when the speaker wishes to accord equal attention to the various members of the grouping in question while at the same time maintaining their separability. In example 18), for example, the author chooses the form _hutari_ '2-person' to refer to the couple Yasuko and Singo, thereby avoiding the destruction of their identities as individuals by the use of a collective noun of some sort, such as _huuhu_ 'couple,' and also avoiding the nuance that the couple is centered around one member or the other, which would have been conveyed by the use of, for example, _singo-tati_ 'Singo-COLL' or _kanozyo-tati_ 'she-COLL.'

18) Yasuko-no imooto-no   omokage-wa. _hutari_-no
    Yasuko-GEN younger sister-GEN shadow-TOP _2-person_-GEN

    kokoro-no soko-ni   atta   wake da. Singo-mo Yasuko-mo
    heart-GEN bottom-LOC existed NMLZ COP   Singo-too Yasuko-too

    imooto-no   hanasi-wa   sinai keredomo, wasureta
    younger sister-GEN talking-TOP not do but   forgotten

    wake dewa nakatta. (F)
    NMLZ COP   NEG-PST

    'The image of Yasuko's younger sister remained in the heart of
    each of them. Neither Singo nor Yasuko spoke of the sister, but
    (neither) had forgotten (her).'

Since the classifiers obligatorily occur in the company of numerals, their choice over other anaphoric forms may also be dictated on occasion by the usefulness of the information carried by the numeral. In 19), for example, mention of the number of butterflies involved in the dance described is crucial to the image conveyed, making the numeral-classifier pair the ideal anaphoric device.

19) tyoo-wa   itabei-ni   syasen-o
    butterfly-TOP wooden fence-LOC oblique line-OBJ

    egaite, rinka-no   matu-no
    trace   neighboring house-GEN pine-GEN

    mae-e   deta.   _San-wa_-ga
    front-GOAL went out _3-bird (rabbit)_ (_winged insect_)-

        tate-ni   narande, sono tate-no sen-o
    NOM vertically line up that vertical line-OBJ

    kuzusazu   kankaku-mo midasazu,   matu-no
    without disturbing space-too without disturbing pine-GEN

    mannaka-o   hayaku kozue-e   agatte-itta. (F)
    very center-OBJ quickly treetop-GOAL rise-went

'Tracing an oblique line against the wooden fence, the butterflies came out in front of the pine tree in the neighbor's yard. The three of them lined up vertically, and without breaking the line, without varying the distances between (them), quickly rose up the center of the pine tree to the very top.'

Conclusion.

As all of these examples have shown, there are contexts in which the numeral-classifier pair is an especially useful anaphoric device, particularly when human referents are involved. It resembles other explicit forms in its ability to block potential ambiguities and clarify references, but it is unique in that it couples a long striking distance with avoidance of the stylistic overtones often attendant on the use of nouns or third-person pronouns. The numeral-classifier pair also represents the group of referents in a more evenhanded way than is possible with forms containing one of the collective suffixes, and in some cases it carries crucial information about exact number which cannot be provided by other anaphoric forms. For these reasons, it is a useful addition to the Japanese anaphoric inventory.

FOOTNOTES

[1]This example and the following one are Clancy's examples (54) and (65), respectively, although I have added the morpheme-by-morpheme glosses.

[2]Hinds and Hinds define episodes as units which maintain "a unified participant orientation, or a unified temporal or spatial setting" (Hinds and Hinds, 1979, p.201).

[3]While this sort of default assignment of the subject or topic is most often blocked by explicit mention of the new occupant of the role, it may also be effected by the explicit mention of the default referent in a different slot, forcing the addressee to search out some other plausible subject or topic from among other referents present in the context.

[4]Following Clancy, the number of clauses and sentences intervening between two mentions of a referent was counted by tabulating clause and sentence boundaries. If, for example, a referent was mentioned in one clause and then again in the immediately following clause, the second mention was recorded as appearing after one intervening clause. The only verb forms which were not counted as marking separate clause boundaries were aspectual forms following main verbs ending in -te, e.g., iru 'professive/perfective,' and evidentials such as rasii (desu), no (desu), etc. Sentence boundaries were assigned in accordance with orthographic sentence boundaries, including those which appeared within quotations embedded in larger narrative sentences. Because of the many differences between the sentences which appear in oral and written texts, the tabulations of clause boundaries (which bear a more consistent significance regardless of mode) in Table 2 are probably more meaningful than the figures for sentence boundaries in Table 3.

Greater difficulties were presented by the task of calculating the number of referents intervening between antecedent and anaphor. Although Clancy does not discuss the issue (perhaps because her texts are shorter and more homogeneous), I sometimes had difficulty in identifying not only the intervening referents, but also the antecedent mention in question. Some of the difficulty, of course, is due to the fact that ellipsis is so commonly used, but this was largely resolved by counting an elliptical mention to have occurred whenever a noun phrase filling a particular case role was required by a verb but did not appear explicitly. (See Clancy for details.) Further difficulties occurred in cases where no clear antecedent was ever established linguistically, or when the anaphor referred to a group of referents which had most recently been referred to as individuals, rather than as a grouping, sometimes with only some subset of the grouped referents having figured in the preceding text.

In the cases of the first sort, when the identity of the referent intended by the speaker absolutely could not be ascertained (even with the help of a native speaker), the example was stricken from the corpus. This occurred with only one of the pronoun examples collected. When the anaphor denoted a referent which had received no explicit antecedent mention but whose existence was heavily implied by some other segment of the text, that segment was counted as the antecedent, as when 'Italy' served as the antecedent for a use of 'they' to refer to Italians in general. The pronoun corpus contained three examples of this sort.

In cases of the second type, involving split antecedents, several principles were followed. When the anaphoric mention was preceded by mentions of only a subset of its referents, these mentions were not counted as antecedents, but rather as mentions of intervening referents. Skipping over these mentions, I looked for the most recent mention (explicit or elliptical) of the entire grouping of referents. When the entire grouping was mentioned within a single clause, but with each member individually represented, e.g., 'John danced with Mary,' as opposed to 'John and Mary danced,' or 'They danced,' that clause was counted as containing the antecedent mention. In one case, the referents subsequently grouped together in an anaphoric mention were never mentioned earlier within a single clause, but the action resulting in the grouping was described. In this case it was that clause which was treated as the antecedent.

A third group of problematic cases, involving the use of pronouns following quotations spoken by the referent of the pronoun, were ultimately

excluded from the tabulations represented in Tables 2-4. These examples constituted a significant subset of the pronoun examples (34 out of 252) and accounted for the exclusion of one classifier example as well, but since I could not arrive at a satisfactory means of calculating the extent to which quotes might evoke the identity of the speakers in question, I simply set them aside. Although the exclusion of these cases (which all appeared in written texts) has undoubtedly affected the figures for pronouns which Tables 2-4 present, the effect of their inclusion would undoubtedly be to increase the represented difference between pronoun and classifier behavior, rather than weaken it.

A fourth group of special cases involved examples where mentions of physical parts of the referents in question intervened between the anaphor and the preceding mention of the person as a whole. Reasoning that evocation of the part in such cases would bring with it the whole to which it is inalienably attached, I counted mentions of the parts as antecedent mentions in the three pronoun examples of this sort.

In calculating the number of referents intervening between antecedent and anaphor, I again followed Clancy and counted an intervening referent whenever the case frame of an intervening verb required it. Once a particular referent had been counted, however, it was not counted again, no matter how many times it reappeared within the antecedent-anaphor gap. The count here was also limited to referents of the same semantic class, i.e., humans in almost all cases, on the grounds that referents of other classes do not have the same capacity for disturbing the givenness of the referent, that is, intervening in the identification process.

[5]In any careful analysis of this question, it would be essential to consider the modifiers and particles which accompany the anaphoric noun use in question. If the noun bears no adjuncts other than the topic marker wa, chances are that it is being used anaphorically (although there are exceptions to this generalization too). If it bears a case particle instead, and is accompanied by a demonstrative designed to redirect the hearer/reader to the correct referent, it is a more tentative sort of anaphoricity that is involved. If it bears a case particle plus adjectives designed to re-evoke information conveyed earlier in the text, the speaker is providing considerable assistance to the hearer in constructing what may be a very weak antecedent-anaphor link, and the 'anaphor' may verge on being in effect a reintroduction.

[6]See Prince 1979 for a useful taxonomy of types of givenness.

[7]The anaphoric use of classifiers is, as we have seen, restricted to cases where the number of referents involved is greater than one, so it is available only as an alternative to the use of the plural pronouns kare-ra, kanozyo-tati, etc. Although I have not done any quantitative analyses of what anaphoric forms are used with singular referents when pronouns are not appropriate, I suspect that the slack is taken up by heavier use of ellipsis, and by the use of proper names, kin terms, and occupational titles. While these forms may be a bit heavier stylistically than the third person pronouns, repeated use of a proper name throughout a text is quite unremarkable and constitutes a very workable alternative to pronoun use. This may be less true with respect to plural referents, since the concatenation of more than one name results in a significantly heavier and more unwieldy label.

[8]For a more detailed explication of these points, see Sansom 1928 and Suzuki 1973.

CHAPTER 6

THE USE OF CLASSIFIERS AND PLURAL MARKERS

AS INDIVIDUATORS

It is my goal in this chapter and the following one to describe the ways in which the Japanese classifiers participate in the system for indicating not only number, but also the degree of referentiality of the noun phrases with which they are associated. In this chapter I will examine the relationship between numeral classifiers and plural markers, describing their interaction against the backdrop of the universalist observation that the classifier languages typically do not possess obligatory plural marking. As we shall see, the two systems share not only the task of expressing the number of the referents denoted by noun phrases, but also that of conveying information about the referentiality of those noun phrases.

Markers of Number in Japanese.

Although it is commonly noted that number is not an obligatory grammatical category in Japanese, information about number may in fact be carried by any of a number of sentence elements. Martin (1975 p.143-54) contains a nice discussion of forms that function in this way, including:

1. Explicit counting devices, typically a classifier preceded by a numeral or a form such as _suu-_ 'a number of'

2. Collectivity or plurality-marking noun suffixes and "quasi-suffixes," such as _-tati_ 'PL/COLL,' _-ra_ 'PL/COLL,' _-ren_ 'group,' _-dan_ 'group,' _-rui_ 'various kinds,' _nado_ 'etc.,' _sono ta_ 'and others,' etc.

3. Pluralizing prefixes, such as _ta-_ 'many' and _syo-_ 'various'

4. Reduplicated nouns or numeral-classifier combinations, such as _simazima_ 'islands' (< _sima_ 'island') or _i-kken i-kken_ 'building by building' (< _i-kken_ 'one building')

5. Nouns with inherently plural referents, such as _oyako_ 'parent(s) and child(ren)' (< _oya_ 'parent' + _ko_ 'child'), _hutago_ 'twins,' _huuhu_ 'husband and wife/couple,' etc.

6. Verbs requiring semantically plural arguments, such as _atumaru_ 'to gather (intr.)'

As this listing shows, though number may not be a grammatical category of Japanese, various means of specifying it are available to the Japanese speaker who needs them. It is quite obvious that indicating number is not the primary semantic function of all these forms. It is perhaps less obvious but no less true that it is not the sole function of any of them.

As we have seen, the numeral + classifier forms carry, in addition to information about number, information about the semantic class of the referent. The use of reduplicative forms often carries a distributive meaning, as in 1):

1)   Hurui kabegami-wa   tokoro-dokoro-ni yabureta mama de, (F)
      old   wallpaper-TOP place-place-LOC torn   in a state

      'The old wallpaper, torn here and there, ...'

The choice among the various pluralizing suffixes, on the other hand, is related to the distinctions represented in the honorific system, with -tati and -ra serving as relatively neutral forms usable with most nouns denoting humans, -domo serving as a humble form, and -gata as a respectful form. It is thus acceptable to refer to a group including oneself with the forms watasi-tati 'I-PL' or watasi-domo 'I-PL(humble),' but not *watasi-gata 'I-PL(respectful). By contrast, anata-gata 'you-PL(respectful)' but not *anata-domo 'you-PL(humble)' may be used as a plural second-person pronoun.[1]

Because all of the number-indicating or number-reflecting devices in Martin's list also carry other sorts of information as well, a single sentence may contain several of them without giving the impression of undue redundancy, as the examples in 2) illustrate:

2a)   Sono san-nin-gumi-no   otoko-no ko-ga
      that 3-person-group-GEN male-GEN child-NOM

      hitotu-zutu   mango-o   kaziri-nagara, ... (O)
      1-inanimate-each mango-OBJ nibble-while

      'The group of three boys, each of them nibbling on a mango, ...'

b)   Ozisan-to, sono-hutari-no   otoko-no
      uncle-COM that-2-person-GEN male-GEN

      ko-tati-to   Kaeko -ga,
      child-PL-COM Kaeko -NOM

      kotatu-ni   atatte-imasita. (F)
      heated table-LOC were warming

      '(Our) uncle, his two sons, and Kaeko were warming themselves at the heated table.'

In the discussion that follows, I will concentrate on just the two sets

of number-marking forms illustrated in example 2b), i.e., plural-marking suffixes and numeral-classifier pairs, consigning the use of the other sorts of forms listed to the role of backdrop. One reason for confining my discussion in this way is, of course, the fact that I am primarily interested here in the behavior of the classifiers. My decision to treat the behavior of plural markers as well derives from an interest in universalist claims that there may be some sort of antipathy between numeral-classifier systems and obligatory plural marking. While plural marking in Japanese is not obligatory, it is not a matter of free variation, either, and its patterning suggests a refinement of the claims of Greenberg (1972) and Sanches and Slobin (1973), to which I will now turn.

Universalist Claims Regarding the Co-occurrence of Numeral Classifiers and Plural Marking.

In their 1973 paper, Sanches and Slobin advance the following hypothesis:

> if a language includes numeral classifiers as its dominant mode of forming quantification expressions, then it will also have facultative expression of the plural. In other words, it will not have obligatory markings of the plural on nouns. (Sanches and Slobin 1973, p.4)

In support of this hypothesis, Sanches and Slobin present the chart reproduced (with one modification noted in the text of their paper) as Table 1 below. Of the some seventy languages surveyed and represented in the table, only five (those in Quadrant IV) appear to possess both numeral classifiers and obligatory plural marking.

TABLE 1

NUMERAL CLASSIFIER - PLURAL MARKER CORRELATIONS

(from Sanches and Slobin, p.7)

Numeral Classifiers

	(+)		(-)
Obligatory Plural Marking (-)	ADI (ABOR-MIRI)	KHMER	HAWAIIAN
	BAHASA INDONESIA	KIWAI	KAPINGA-
	BAHNAR	(KEREWA) (?)	MARANGI (?)
	BENGALI	KOREAN	MARANAO
	BOUGAINVILLE	LAO	MIWOK
	(5 languages)	MAM	POKONCI
	BRAO (PROU, LUE)	MOPAN MAYA	RABINAL
	BUGINESE	NAHUATL	RAROTONGAN
	BURMESE	NEWARI (?)	SEEDIK (?)
	CHAM	NICOBARESE	SUNDANESE
	CHINESE	NORTH ROGLAI	TORUMAN
	CUNA	PAHRI (?)	VITI (FIJIAN)
	DAFLA	PASHTO (?)	YUKI
	GAR (NMONG)	PERSIAN	
	GARO	SONSORAL	
	GILBERTESE	TARASCAN	
	GUAYMI	THAI	
	HUPA	TIBETAN	
	JACALTEC	TONGAN	
	JAPANESE	TSELTAL	
	KANJOBAL	VAYU	
	KAREN	VIETNAMESE	
	KAROK	WIYOT (?)	
	KHARIA	WOOLEAN	
	KHASI	YUROK	
		YUCATEC Q.I	Q.II

Q.IV   Q.III

(+)	KHAMBU (?)	ENGLISH, etc.
	NOOTKA	CHAMORRO (?)
	PALAUAN (?)	COOS
	SAMOAN (?)	CHINGPAW (?)
		LEPCHA (?)
	TLINGIT	

Japanese, we should note, appears in Quadrant I, which contains languages possessing numeral classifiers and either no plural marking or facultative plural marking.

Commenting on the tendencies reflected in Table 1, Greenberg (1972) argues that classifiers seldom appear in languages with obligatory plural markers because they reflect the existence of a collective/singulative system which is at odds with the governing logic of the singular/plural system. In a singular/plural system, the unmarked noun typically represents an individual member of the category represented by the noun, and the addition of a plural marker is required to represent plurality of individuals. In a singulative/collective system, by contrast, the unmarked noun is "collective," i.e., neutral with respect to number, and "singulative" marking is required to explicitly denote individual referents.

As an example which is easy for English speakers to grasp intuitively, Greenberg cites the English form police, which constitutes a singulative/collective pocket in a language which is dominantly singular/plural. Because it is collective, i.e., neither singular nor plural, police may be used in a sentence like Last night I was picked up by the police, regardless of the number of officers involved in the arrest.

As an example of a language with a more pervasive singulative/collective system, Greenberg cites Omani Arabic. Here the addition of the feminine suffix -a to a collective noun creates a "noun of unity" which may be used to refer to individual instantiations of the category denoted collectively by the unmarked noun. Thus, for instance, be9uːd 'gnats' yields be9uːda 'one gnat.'

In the typical classifier language, Greenberg argues, classifiers act much like these nouns of unity, serving to separate out individual referents. "Even in the most elaborate system, all the classifiers are from the referential point of view merely so many ways of saying 'one,' or, more accurately, 'times one.'" (Greenberg 1972, p.10.) The rarity of languages containing both numeral classifiers and obligatory plural marking can thus be related to a discrepancy in the semantic nature of the unmarked nouns with which the two sorts of forms co-occur.

Mixed systems do exist, however, as the tentative placement of five languages in Quadrant IV of Table 1 suggests. Greenberg proposes that such

systems are the result of the inclusion of a singulative/collective subsystem within a language which is dominantly singular/plural. Sanches and Slobin take a somewhat different tack and suggest that either the plural marking system or the classifier system in such mixed languages may be "weakly developed." They also provide a historical scenario for the rise of mixed systems, proposing that they may often be the result of prolonged contact between languages of different genetic affiliations. In other words, languages with both classifiers and obligatory plural marking are not seen as representing a stable linguistic type.

Plural Marking in Japanese.

Japanese appears in Quadrant I of Sanches and Slobin's table because it possesses both numeral classifiers and "facultative" plural marking. As I hope to show in this chapter, however, Sanches and Slobin's decision to assign all languages without obligatory plural marking to the hodgepodge "facultative" category obscures sub-generalizations about which nouns will take plural markers and which will not. Although Japanese exhibits superficial conformity to Sanches and Slobin's predictions in that it couples numeral classification with "optional" plural marking, this "optionality" is not equivalent to free variation. Plural marking is obligatory with some noun phrases, "optional" with others, and unacceptable with others.

To the extent that plural markers are not always required for references to plural referents, Japanese does appear to conform to Greenberg's hypotheses about the behavior of numeral classifier languages. Consider the sentence in 3):

3) Takai hana-to aoi iro-no me-o motta
long nose-COM blue color-GEN eye-OBJ had

ningyoo-wa iti-niti zyuu nazo-no yoona bisyoo-o
mannequin-TOP all day long riddle-GEN-like smile-OBJ

ukabete-iru. (F)
expressed

'The mannequin, with its long nose and its blue eyes, smiled enigmatically all day long.'

This example, with its reference to what are presumably the two eyes of the mannequin, illustrates that plural marking is not obligatory in Japanese. In fact, if we try adding a plural marker to me, we will find that we are

dealing with one of the nouns that is <u>prohibited</u> from carrying plural marking.

When we consider noun phrases of various semantic types, we find that all the logical possibilities are represented - some require plural markers, some tolerate plural markers, and some reject them. Consider first the examples in 4), 5), and 6):

4a)   Ima, tookyoo-to iu daitokai-ni   iru <u>kodomo-tati-o</u>
         now   Tokyo-QUOT   large city-LOC be <u>child-PL-OBJ</u>

         mite-iru to, zuibun kawaisoo da to   omou no
         look at and really sad   COP QUOT think NMLZ

         wa, ... (O)
         TOP

         'What I find really sad when I see the <u>children</u> of the big city of Tokyo today is ...'

  b)   Ima, tookyoo-to iu daitokai-ni iru <u>kodomo-o</u> mite-iru to,
         zuibun kawaisoo da to omou no wa, ...

5a)   ?? Ima, tookyoo-to iu daitokai-ni iru <u>neko-tati-o</u> mite iru
                                         <u>cat-PL-OBJ</u>

         to, zuibun kawaisoo da to omou no wa, ...

         'What I find really sad when I see the cats of the big city of Tokyo today is ...'

  b)   Ima, tookyo-to iu daitokai-ni iru <u>neko-o</u> mite-iru to,
         zuibun kawaisoo da to omou no wa, ...

6a)   * Ima, tookyo-to iu daitokai-ni aru <u>tatemono-tati-o</u>
                                        <u>building-PL-OBJ</u>

         mite-iru to, zuibun okasii to omou no wa, ...
                      strange

         'What I find really strange when I see the buildings of the big city of Tokyo today is ...'

  b)   Ima, tookyoo-to iu daitokai-ni aru <u>tatemono-o</u> mite-iru
         to, zuibun okasii to omou no wa, ...

The unacceptability of <u>tatemono-tati</u> in 6a), like the unacceptability of <u>me-tati</u> in 3), is typical of the failure of nouns denoting inanimate referents to take plural markers. This prohibition in fact typically extends to nouns denoting any sort of non-human referent, although their use may be marginally acceptable with respect to individual animals which are personified or in which the speaker takes a particular interest; it is under these conditions that <u>neko-tati</u> might be used in 5).

While lexical nouns with inanimate referents may not carry plural markers, it is not the case that all noun phrases referring to inanimates reject plural marking, as example 7a), in contrast with 7b), shows:

7a) Mise-no   to-o   akete kodomo-o   tureta titi-oya-ya,
    shop-GEN door-OBJ open child-OBJ brought father-or

    koibito-o tomonatta   seinen-ga haittari, detari suru.
    lover-OBJ accompanied youth-NOM enter   leave do

    Kore-ra-no kao-no   naka-ni-wa, ... (F)
    this-PL-GEN face-GEN middle-LOC-TOP

    'Fathers with children, youths with their lovers opened the door
    of the shop and went in and out. Among these faces, ...'

b) * Kono kao-tati-no naka-ni-wa, ...
     this face-PL-GEN middle-LOC-TOP

While the noun phrases in both 7a) and 7b) refer to the same (non-human)
referents, they differ in that the plural suffix in a) is attached to a
demonstrative pronoun, while in b) it is attached to a common noun. This
distinction is crucial and holds generally for noun phrases denoting non-
human referents - when a common noun is used, plural marking is unacceptable;
when a demonstrative pronoun is used, plural marking is possible.

The choice of a pronoun as opposed to a common noun has parallel effects
on the acceptability of plural marking when the referents involved are human.
Consider the example sentences in 8). 8a) presents an attested sequence of
sentences; b) and c) present variations on a) of different degrees of
acceptability:

8a) (Original) Kanzya-wa   hyakusyoo-no okami-ya
               patient-TOP farmer-GEN   wife-and

    sono kodomo-ga ooi. Kare-ra-wa genkan-no
    that child-NOM many he-PL-TOP entrance-GEN

    agarikuti-ni kosi-o   orosite ... matte-ita. (F)
    porch-LOC   hips-OBJ lower   were waiting

    'The patients were primarily farmers' wives and children. They
    would wait, sitting in the entranceway, ...'

b) OK Kanzya-tati-wa hyakusyoo-no okami-ya sono
      patient-PL-TOP

   kodomo-ga ooi. Kare-ra-wa genkan-no agarikuti-ni

   kosi-o orosite ... matte-ita.

c) * Kanzya-wa hyakusyoo-no okami-ya sono kodomo-ga

   ooi. Kare-wa genkan-no agarikuti-ni kosi-o
        he-TOP

   orosite ... matte-ita.

The common noun kanzya 'patient' in the first sentence and the pronoun kare-ra
'he-PL' in the second sentence in 8a) both refer to the same group of
referents. In the original form shown in a), the author has chosen to mark

only the pronoun as plural, leaving kanzya unspecified for number. As examples b) and c) illustrate, kanzya could be successfully replaced in this context with the plural-marked form kanzya-tati, but kare-ra could not drop its plural marker; the plural pronoun is required.

With these (human) referents, then, the choice of a common noun as opposed to a pronoun affects the acceptability of plural markers just as it does in the case of non-human referents. In this case, though, the use of a pronoun renders plural marking obligatory, while in the case of non-human referents, use of a (demonstrative) pronoun merely makes plural marking possible.

As these various examples suggest, the likelihood that a plural marker will be suffixed to a noun phrase depends on both the nature of the referents being denoted (human or non-human) and the nature of the noun phrase being used to denote them (noun or pronoun). I would argue, however, that it is not the fact that the referent is human or the noun phrase a pronoun per se that triggers the appearance of the plural marker. Both human referents and the referents of pronouns in general are typically of interest as individuals, and it is this property which results in their more frequent appearance with plural markers.

Plural markers may appear, in other words, with just those noun phrases that are used by the speaker to refer to particular individuals, or to particular reifications of a category. This is opposed to their use in referring to the whole category denoted by the noun or to referents in their capacity as members of the category.[2] I would like to refer to noun phrases of the first type as "referential." Using this definition, we can see that personal or demonstrative pronouns are highly referential, while common nouns may be either referential or non-referential, depending on the circumstances of their use. It follows, then, that demonstrative and personal pronouns in Japanese are more prone than common nouns to bear plural markers.

Among the most highly referential noun phrase types we find are not only pronouns but also proper nouns and those kin and status terms which are used in Japanese as pseudo-proper nouns.[3] Like personal pronouns, these forms must take one of the plural suffixes when they are used to refer to a grouping, resulting in sentences like the one shown in 9).[4]

9)   Endoo-san-tati-to hanasi-o suru to,   watasi-no
     Endoo-HON-PL-COM talk-OBJ do   when I-GEN

     gehinna   bubun-ga hikidasarete-kuru no. (O)
     low class part-NOM pulled out - come NMLZ

     'When I talk with Mr. Endoo et al., my vulgar side comes out.'

As I mentioned earlier, common nouns referring to non-human referents may not carry plural markers. But if we turn to the behavior of common nouns denoting humans, we find that nouns preceded by demonstrative articles are more likely to carry plural marking than are nouns without such deictic or anaphoric anchoring. This pattern is also explicable in terms of the degree of referentiality typically associated with noun phrases of each type, since nouns bearing demonstrative articles are usually not only referential but specific as well, while their article-less counterparts may be used either referentially or non-referentially.

In fact, demonstrative plus noun combinations typically forego plural markers only if the sentence contains some other explicit marker of number, or if the speaker wishes to subordinate the identities of the particular referents in question to their status as members of the category denoted by the noun, thereby, in effect, rendering the NP non-referential. The standard pattern is illustrated in 10):

10) Heya-ni hairu to,   misiranu otoko-ga san-nin
     room-LOC enter when strange man-NOM 3-person

     matte-ita. Sono otoko-tati-ga titi-o
     were waiting that man-PL NOM father-OBJ

     torimakoo-to sita toki-ni watasi-wa
     tried to surround time-LOC I-TOP

     muisikini   himei-o   ageta.
     involuntarily scream-OBJ raised

     'When (we) entered the room, three strange men were waiting (for us). When the men moved to surround Father, I screamed involuntarily.'

By contrast, the non-plural-marked version shown in 11) is unacceptable in this context:

11) * Sono otoko-ga titi-o torimakoo-to sita toki-ni
       watasi-wa muisikini himei-o ageta.

Unlike examples of the sort cited thus far, which involve a noun phrase that includes a demonstrative article, nouns without demonstratives appear quite frequently without plural markers. In many cases, as predicted, the noun is being used non-referentially and appears merely to invoke the

category with which it is associated, rather than to denote particular members of that category. In such cases, as in 12) and 13), plural suffixes do not appear:

12) Tooru hito-mo   sukunai miti de aru. (F)
    pass by people-too scarce road COP

    'Nor are there many people on the road.'

13) Onna-demo yari-hoodai   da kara   na. (F)
    women-even doing-no limit COP because PP

    'Because there wasn't even any limit on women, you know.'

One common pattern involves the use of the common noun without plural marker to introduce the referents in question followed by subsequent mentions containing the plural-marked noun (or, of course, ellipses and proforms):

14) Mention 1: Masutaa-to onazi-yoona katati-no
              master-COM same-like   shape-GEN

    kitune-no yoona kao-o   motta otoko-ga
    fox-GEN   -like face-OBJ had   man-NOM

    iku-nin-mo   suwatte-ita.
    a number-people-EMPH were sitting.

    'Any number of men with fox-like faces like the (gas station)
    owner's were sitting (there).'

    Mention 2: Watasi-tati sinpei-o   izimeru toki,
               I-PL   recruit-OBJ tease   time

    kare-ra-no hosonagai zoo-no   yoona me-wa
    he-PL-GEN long, thin elephant-GEN -like eye-TOP

    marude   bisyoo-demo site-iru yoo datta.
    completely smile-EMPH are doing EVID COP-PST

    'When (they) teased us recruits, their beady little eyes seemed to
    be laughing.'

    Mention 3: Ano otoko-tati-mo ima-wa   doko-ka-de
               that man-PL-too   now-CONTR somewhere-LOC

    gasorin-sutando-no syuzin-ni natte-iru   kamosirenai. (F)
    gas station-GEN   owner-DAT have become probably

    'Those men too are probably gas station owners somewhere now.'

Examples of this sort illustrate quite clearly that it is not any inherent property of the referent that conditions the presence of a plural marker. In all three mentions here, the referents remain constant. What changes is the relative weight the writer assigns to the category membership of the referents on the one hand, their status as individuals on the other. When the emphasis is on category identity, the plural marker is avoided; when it is on individual identity, the plural marker is used.

The prevalence of the pattern illustrated in 14), whereby referents are

introduced _without_ a plural marker and mentioned subsequently _with_ one, presumably stems from the fact that category membership is a convenient and informative means of introducing hitherto unfamiliar referents. Once these referents have been introduced, the speaker/writer is free to manipulate them as individuals rather than as mere instantiations of the category denoted by the noun. The process here is similar to the introduction of referents in English texts with the noun plus indefinite article, which gives way on subsequent mentions to the definite article.

A related example appears in 15), where it is only the absence/presence of the plural marker on _syoohu_ 'prostitute' that marks the distinction between prostitutes/prostitution in general and a few prostitutes in particular:

15) Ima, watasi-no temoto-ni   i-ssatu-no   usui
    now   I-GEN   at hand-LOC 1-volume-GEN thin

    zassi-ga   aru. Kenkyuusi-to-demo
    magazine-NOM exist professional journal-QUOT-EMPH

    itta seisitu-no zimina zassi   da ga, _syoohu-no_
    QUOT quality-GEN sober magazine COP but _prostitute_-GEN

    tokusyuu-o   site-ite, sono naiyoo-no
    special edition-OBJ is doing   that content-GEN

    iti-bu-ni _syoohu-tati_-no   zadankai-ga
    1-part-LOC _prostitute-PL_-GEN round table discussion-NOM

    aru. (F)
    exist

    'Lying next to me is a thin magazine. It's a low-key magazine, almost like a professional journal in tone, a special issue devoted to _prostitutes/prostitution_, and it contains a round table discussion among _some (actual) prostitutes_.'

In its first use here, _syoohu_ appears without a plural marker, and refers to prostitutes in general, to the category of prostitutes. In its second use, it bears a plural marker which marks the switch in orientation from generic prostitutes to the particular group of prostitutes participating in the round table discussion. Examples of this sort are quite common. Another illustration appears in 16):

16) Ooba-kangohutyoo-ga _kazoku-tati_-no karada-o
    Ooba-head nurse-NOM _family-PL_-GEN body-OBJ

    unpansya-kara dekiru   dake
    trolley-SOURCE as much as possible

    saegiroo-to   naka-ni   haitta. (F)
    trying to separate middle-LOC entered

'Trying to separate _the family members_ from the trolley as much as possible, Chief Nurse Ooba stepped between them.'

Like its English counterpart, 'family,' the noun _kazoku_ is clearly collective and could not appear in this context without the presence of _-tati_, which serves, not to indicate the presence of more than one family, but to break the family in question down into its individual members, each of them with their own individual bodies.

Even when a noun is being used to refer to all the members of the category it denotes, and no particular members of the category have been mentioned, a plural marker may be used to convey the speaker's concern with the members of that category as individuals. The example in 17), for instance, is drawn from a text in which the speaker makes repeated generic references to the Japanese children of today:

17) _Kodomo-tati_-ni-totte-no sizen-to iu no-wa,
     child-PL-as concerns   nature-QUOT NMLZ-TOP

     kono tookyoo-kara mattaku   naku nattyatta n
     this Tokyo-SOURCE completely NEG became   NMLZ

     daroo   ka, to   kangaeta toki-ni ne, (0)
     probably Q   QUOT thought time-LOC PP

     'When I thought about whether nature hadn't completely vanished from Tokyo as far as _our children_ are concerned, ...'

By drawing the referentializing power of the plural marker _-tati_ here, the speaker emphasizes his sympathy toward the children and his interest in their well-being as individuals, conveying a tone similar to the English _our_ which I have used in the gloss.

If we sum up the information presented thus far, we find that plural marking is far from being a "facultative" feature of Japanese. It is most likely to appear in NPs denoting referents of high inherent individuality (humans)[5] which are also of significance as individuals in the text which is being constructed. These two criteria are most clearly met when shifters such as personal pronouns or proper names are used to denote groups of human referents; in such cases plural marking is obligatory. When, by contrast, the referents are non-human and the NPs non-shifters (common nouns), plural marking is unacceptable. In cases where one of these two features is present, but not the other, the speaker is permitted a certain freedom in his decision to use or avoid plural marking. In such cases the presence or absence of the plural marker will be crucial in indicating to the reader/-

addressee the degree of referentiality of the NP in question, as illustrated by the example in 15), above.

Plurality Splits in Japanese and Other Languages.

Japanese is not unique in requiring plural marking for some referents and not others, for some NP types and not others. Many of the other languages listed by Sanches and Slobin as possessing non-obligatory plural marking also evidence "plurality splits," as they have been termed by Smith-Stark (1974):

> One can say that plurality splits a language in that it is a significant opposition for certain categories but irrelevant for others. In particular, it splits the category of noun such that for some nouns, plurality is distinguished from the singular, while for others the distinction may be irrelevant (t.i. it becomes neutralized). Such a split may occur with respect to any of the mechanisms used to mark plurality, of which verb-argument concord, noun-modifier concord, direct marking of a noun, and direct marking of the noun phrase seem to be the four principle types. Where any one of the mechanisms for expressing plurality is neutralized for a subset of nouns, I will say that a split has occurred. (Smith-Stark 1974, p.657.)

After studying a number of languages with plurality splits, Smith-Stark came to the conclusion that these splits were governed by a small number of semantic features which can be arranged into the hierarchy reproduced as Figure 1.

Figure 1

Hierarchy of Features Controlling Plurality Splits

(from Smith-Stark 1974, p.665)
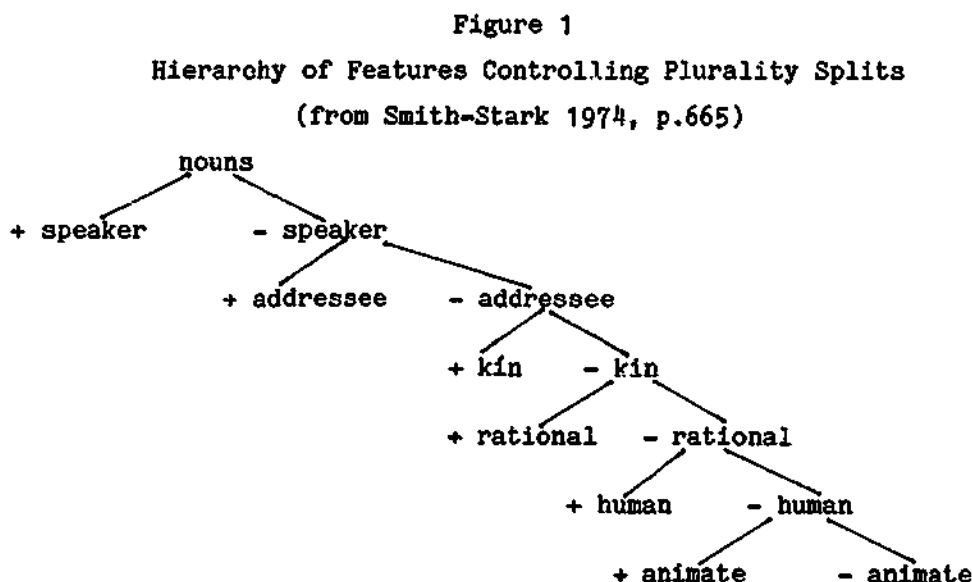
As the governing logic behind this hierarchy, Smith-Stark tentatively suggests "likelihood of participation in the speech event":

Thus, the speaker is always and the addressee virtually always involved in the speech event. Of third person nouns, one is most likely to talk to someone who is rational and human, then to someone who is human, then to an animal; and one is probably least likely to communicate with an inanimate object (under normal conditions). Whether kin are more likely to be communicated with than any other group in a universal sense is not clear. This would potentially vary from culture to culture. (Smith-Stark 1974, p.664-5.)

As the description of the Japanese plural marking system in the preceding section has presumably suggested, Japanese can in some respects be seen as conforming to the expectations represented in Smith-Stark's hierarchy. Plural marking is obligatory in the case of first- and second-person pronouns (speaker and addressee). It is also obligatory with proper names, including kin terms used in that capacity. There is also a significant split in the way human and non-human referents are marked for plurality, and the split falls in the way Smith-Stark suggests it should.

On the other hand, there are various features of the Japanese system which are not represented in the hierarchy. Because it reflects only the permanent ontological status of referents (as anchored in a particular speech event), it cannot take account of the shifts in status which a given group of referents may undergo in the course of a text. Yet, as we have seen, it is in Japanese not only the semantic class of the referents, but their textual prominence as individuals that determines the appropriateness of plural marking.

What these facts from Japanese suggest is that there may be more than one hierarchy (or continuum, or scale) which is of relevance in determining plural marking; these are conflated somewhat unsystematically in Smith-Stark's hierarchy as it stands. One might be a scale of inherent individuality of the referents, a scale which would depend on the real world category membership of the referents and which would overlap significantly with Smith-Stark's hierarchy. Another would be a scale of individual identifiability within the linguistic context. A third would be a scale of textual participation reflecting the extent to which the referents denoted are central to the content being presented at a particular point in the text. Together these scales provide an index of the salience of the referents as individuals; to completely describe the behavior of the plural markers in Japanese, all three would be required. Whether all three would be relevant to the description of all other split plural systems remains to be seen.

In addition to its usefulness in describing the Japanese data, such a system would also have the advantage of being based on a parameter (individuality) which has been shown, by Greenberg and others, to be widely relevant in the description of enumeration systems of all sorts. This cannot be said of the parameter "likelihood of participation in speech event."

Universalist Claims Reconsidered.

Having characterized the conditions under which plural marking appears in Japanese, we are now in a position to return to the issue with which I began this chapter - the distinction between collective/singulative and singular/plural systems and the stance of Japanese with respect to the dichotomy.

The issue is complicated somewhat by the fact that pronouns and common nouns both take the "plural markers," with different semantic effects. Because -tati or -ra is required whenever one wishes to use a personal pronoun with reference to more than a single individual, and because the semantic result is to denote a collectivity, rather than a plurality, of referents, it is clear that the pronominal system is composed of forms whose referents are inherently individuated rather than collective.

The noun system, however, presents another picture. Plural referents may be indicated by means of common nouns free of a plural marker; plural marking is obligatory, as we have seen, only when the speaker wishes to emphasize the individuality of the referents composing the grouping in question. When a plural marker is added, the semantic effect is to denote a grouping of individuated members of whatever category is indicated by the noun to which the marker is appended. In other words, the noun plus plural marker combination serves to denote a true plurality, rather than a collection.

Although Japanese does possess plural markers in addition to classifiers, then, it does not significantly compromise Greenberg's claim that classifier languages are generally collective/singulative. Indeed, the facts summarized above indicate, as Greenberg predicts, that common nouns in Japanese do not denote only singular referents. Although plural marking is available, it is used only when the speaker wishes to denote reified

individuals.

From this perspective, the (collective) noun can be seen as combining with either numeral-classifier pairs or plural markers when there is a need to clarify the fact that it is individual members of the category denoted, rather than simply all or any members of the category, which are in question. The system can thus be seen as a stable one, with a consistent internal logic, rather than as a transitional system harboring competing subsystems, as Sanches and Slobin have suggested may be the case with languages which possess both classifiers and plural marking.

This is not to say that numeral-classifier pairs and plural markers perform redundant functions. Although there is some overlap, and elements of both sorts serve to pick out individuated referents, their functions also diverge in some respects, a fact which is reflected in the different privileges of textual occurrence enjoyed by the two sets of forms. While plural markers typically appear only with highly referential noun phrases, classifiers often serve merely to single out for attention some subset of the total number of individual members of a category denoted by the noun phrase, without suggesting that these members are of any particular salience as individuals.

Because of this difference in usage, classifier constructions and plural markers should not be viewed as competing candidates for the same semantic slot. Forms of both types may profitably appear within a single noun phrase, as in example 2b), above, and they may also supplement each other by appearing at different points in the series of mentions associated with a particular referent during the course of a text. Consider the sequence in 18):

18) Mention 1: Iku-nin-mo-no   onna-no
                a number-person-EMPH-GEN woman-GEN

kao-ga   me-no   mae-no   kuukan-ni naranda.
face-NOM eye-GEN front-GEN space-LOC lined up

'The faces of a number of women lined up before (my) eyes.'

Mention 2: Sono onna-tati-no naka-de-wa,
           that woman-PL-GEN middle-LOC-TOP

watasi-no kodomo-o orosita   kao-mo mazitte-ita.
I-GEN   child-OBJ aborted   face-too was mixed

'Among those women was the face (of one) who had aborted a child of mine.'

This sequence represents a pattern which is typical with groups of human referents, i.e., introduction with a noun plus a classifier construction, followed by explicit mentions involving just a noun or a noun plus a plural marker (as in Mention 2). By contrast, my data contains no examples of the reverse ordering, that is, introduction with a noun plus plural marker followed by a noun plus a classifier construction.

The reasons for the prevalence of the sequential pattern illustrated in 18) should be clear from the preceding discussion. As I have argued, plural markers are used only with highly referential noun phrases, and they indicate the speaker's concern for the grouped referents as individuals. When referents are first introduced into a text, however, they generally lack most of the properties which make for high referentiality, at least from the addressee's point of view. They have no history within the text, and they do not yet figure significantly in the developing content line.

In introducing with a plural marker a group of referents that he has no reason to suspect is known in advance to this addressee, then, the speaker would be committing a violation akin to the use of the definite article on an initial mention in English. This problem can be avoided by using a classifier construction, which, like the plural markers, specifies the referents in question as non-singular and individuated on the initial mention. Then, once their identity has been established for the addressee, the referents may be referred to with a noun bearing a plural marker which signals the importance of the grouped referents as reified individuals. The classifier construction may, of course, be repeated when necessary, but it typically gives way to a simple noun, or a noun plus plural marker, as the text proceeds, in the interest of the standard injunction to avoid repeated mention of information which is known and not needed for purposes of identification. As this discourse scenario illustrates, classifiers and plural markers in Japanese complement each other, each serving a useful role in the delineation and presentation of individual referents.

Summary.

As we have seen in this chapter, none of the devices for indicating number in Japanese carries information about number alone. For this reason, more than one of these devices may occur in a single sentence or clause without resulting in redundancy. This generalization applies even to plural markers and numeral-classifier pairs, two devices which have been said to represent two incompatible logics, the plural marker appearing when the noun system is basically singular/plural, the classifier appearing when it is basically collective/singulative.

Contrary to such claims, the data considered here shows Japanese to be a language in which both plural markers and numeral-classifier pairs combine with inherently collective nouns not only to indicate number, but also to indicate the fact that it is individual instantiations of the category denoted by the noun, rather than the category it denotes as a whole, which are involved in the predication expressed by the sentence.

In spite of these similarities, though, the two sorts of forms differ in subtle ways. The plural marker is used only when the NP to which it is appended is highly "referential," in the sense that the speaker conceives of its referents to be of significance as individuals, rather than as mere instantiations of the category which serves as a means of denoting them. This significance may result from the inherent nature of the referent class to which the referent belongs, from the visibility of the referent in the preceding text, or from the role it is destined to play in the text which is to come. Use of the classifier construction, by contrast, is not restricted to such cases.

The property of the plural marker just mentioned explains the structure of the plurality split in Japanese, whereby some NPs require plural marking, some tolerate it, and some reject it. It is those NPs which are necessarily referential, such as personal pronouns, that require plural marking, and those NPs whose referents are least likely to be of individual importance, such as common nouns referring to non-humans, that reject it. This leaves the speaker a true option with respect to plural marking only with NPs which may be used either referentially or non-referentially, such as common nouns referring to humans.

FOOTNOTES

[1]For a more detailed discussion of the distributional properties of each of these suffixes, see Hinds 1978, p.138 ff.

[2]The distinction I am making here is a slightly attenuated version of the distinction Givon (1981) makes between NPs whose specific identify will be important in the subsequent discourse, and those which will be important only by virtue of their generic type membership. Cf. also Hopper and Thompson's (to appear) distinction between "manipulable" and "non-manipulable" NPs.

[3]See Suzuki 1973 for a full description of the use of these terms.

[4]It is pertinent to mention here the fact that the semantic effect of the addition of what I have been calling the "plural markers" differs, depending on the nature of the NP to which they are appended. -Tati and -ra have in fact typically been characterized as collectivizers, rather than as pluralizers. Martin, for example, evaluates the situation as follows:
> To begin with, the meaning of the suffixes is not plurality of the noun itself; but rather the reference is to a COLLECTIVE that includes - or centers on - the noun. Thus boku (~) means 'I (a male),' yet boku-tati or boku-ra can mean a group of 'us' that includes one or more females. (Martin 1975, p.145.)

-Tati and -ra do indeed act as collectivizers, in the sense that Martin describes, when they co-occur with pronouns, like boku, or, as in example 9), proper names. This fact has apparently led scholars to overlook the face that when these forms appear with unmodified common nouns, they act instead as true pluralizers. In these cases, they indicate the existence of a number of members of the category denoted by the head noun, rather than a mere collection of individuals (their category membership irrelevant) grouped around a particular member of that category.
Consider, for example, the sentence in i):
i) Kodomo-tati-ga siken-o ukeru   aida-ni
    child-PL-NOM   test-OBJ receive period-LOC

    okaasan-tati-ga kono heya-de matu yotei desu ga.
    mother-PL-NOM   this room-LOC wait plan COP but

    a) 'The plan is for the mothers to wait in this room while the children take the test.'
    b) 'The plan is for Mother and the others to wait in this room while the children take the test.'
Contrary to what we would expect if -tati and -ra always acted as collectivizers, we find that kodomo-tati may be interpreted here only as a true plural, i.e., 'children.' The possibility of interpreting okaasan-tati as either a plural ('mothers') or a collective ('Mother and others') is due to the fact that okaasan itself may be used, as in English, either as a common noun or as a proper name. The addition of -tati in the first case yields a plural, in the second case a collective.
Although the semantic effect of the addition of these suffixes thus differs in the way I have just described, I have referred to them uniformly throughout the text as "plural markers." This is done for the sake of rhetorical ease.

[5]The dimensions of humanness and animacy are of course frequently relevant in describing grammatical phenomena, so it is unremarkable that they are relevant here as well. One discussion of the effects of humanness which is striking in its similarity to the claims I have made here can be found in Du Bois 1980, where the author invokes the inherent importance of humans as individuals to explain some curious aspects of the use of the definite article in English. It is this factor which explains, for example, why it is possible to say "The boy scribbled on the living room wall" when it is not clear which wall is meant, but not when it is unclear which boy is meant.

CHAPTER 7

THE SYNTACTIC POSITION OF THE NUMERAL-CLASSIFIER PHRASE[1]

In the preceding chapter, I compared the use of plural markers and classifiers by relying on a very generalized notion of the pragmatic effects of the classifier construction. While this stance was adequate for the purpose of delineating by contrast the properties of the plural markers in Japanese, it in fact neglected some very important differences attendant on the placement of the classifier construction in one sentence position as opposed to another. In this chapter I will consider the effects of the position of the numeral-classifier pair within the clause, distinguishing each of four positional variants in terms of the emphasis it places on the individuality of the referents denoted and the relative salience it accords the information carried by the numeral-classifier pair and the noun phrase it accompanies. I will focus in particular on the so-called Q-Float construction, setting forth a discourse-functional explanation for the severe constraints on the noun phrases with which it may co-occur.

Position of the Classifier Relative to the Noun Phrase.

When both a numeral-classifier pair and a noun are used in a single sentence to refer to the same referent(s), the classifier construction may assume a number of positions relative to the noun. As I noted in Chapter 2, Martin (1975, p.777) distinguishes six classifier constructions on the basis of the relative positions of classifier, noun, and case particle. In my discussion here, I will concentrate on only four of these, eliminating Martin's Types 4 (Preposed adverbialization) and 6 (Reduced appositional ellipsis). I have excluded these because they are difficult to identify with certainty (due to particle dropping) and because their properties do not differ significantly from those of two patterns I will discuss, my Types 3 and 2a, respectively.

As data for my observations, I have used the 238 unambiguous examples of these four construction types which appear in my 500-item sample. The number

of examples used is considerably reduced from the total of 500, both by the exclusion of items which contain only a numeral-classifier pair (with no co-referring noun phrase), and by my decision to exclude the many examples which involved particle deletion, making it difficult to classify them with certainty as examples of one type as opposed to another. All the examples used, in other words, conform exactly to the structural description listed for the type under which they are included.

The four constructions which I will consider are the following:

1. Individualizing: #-CL-GEN NP-Case Particle (Martin's "basic")

2. Appositive:

    a. NP #-CL-Case Particle (Martin's "inverted apposition")

    b. NP-GEN #-CL-Case Particle (Martin's "appositional ellipsis")

3. Adverbial: NP-Case Particle (...) #-C1 (Martin's "adverbial-ization")

Construction Type 1: Individualizing: #-C1-GEN NP-Case Particle.

This construction is quite common, constituting 45% of the 238 examples considered. Scholars comparing it with Type 3 constructions (N - CP (...) #-C1) often mention the fact that the Type 3 (floated) version cannot convey what is alternately described as the specificity or the definiteness which the Type 1 (non-floated) version may carry. Inoue (1978), for example, cites the minimal pair reproduced in 1) in support of her contention that the floated construction should not be seen as deriving from its non-floated counterpart, since their meanings differ, as the glosses illustrate.

1a) Type 1 (non-floated):

Mae-o   hasitte-ita   ni-dai-no   zyooyoosya-ga
front-OBJ were traversing 2-vehicle-GEN car-NOM

tukamatta.
were caught

'The two cars ahead (of us) were caught.'

b) Type 3 (floated)

Mae-o   hasitte-ita zyooyoosya-ga ni-dai   tukamatta
front-OBJ were traversing car-NOM 2-vehicle were caught

'Two of the cars ahead (of us) were caught.'

As we shall see below, there are some special uses of this construction with the numeral 'one' in which the referent in question need not be specific, but the standard characterization of the Type 1 construction as specific does hold in the overwhelming majority of cases. Because it thus emphasizes the status of the quantified referents as individuals, rather than as mere random instantiations of the category denoted by the head noun, this construction is somewhat awkward in cases where the category denoted is such that its members are hard to conceive of as individuals, or where the distinctions between individuals is irrelevant. This property of the construction accounts for the relative unacceptability of 2a) by comparison with the Type 3 construction in 2b):

2a) Type 1: ? I-ppon-no   tabako-o
                1-long, slender object-GEN cigarette-OBJ

            sutte-mimasyoo.
            smoke-let's try

            'Let's have a cigarette.'

     Type 3: Tabako-o   1-ppon
              cigarette-OBJ 1-long, slender object

              sutte-mimasyoo.
              smoke-let's try

              'Let's have a cigarette.'

This fact also explains why Type 1 constructions are preferred in sentences like 3), where the speaker has in mind particular individuals who happen to be describable as tomodati 'friends,' and why they are dispreferred in sentences like 4), where any three members of the category hisso 'secretary' will do, and where their individual identities are in fact not even known to the speaker.[2]

3a) Type 1: San-nin-no   tomodati-o matte-imasu.
              3-person-GEN friend-OBJ am waiting for

              '(I) am waiting for three friends.'

  b) Type 3: ? Tomodati-o san-nin matte-imasu.
                friend-OBJ 3-person am waiting for

              '(I) am waiting for three friends.'

4a) Type 1: ? San-nin-no   hisyo-o   sagasite-imasu.
                3-person-GEN secretary-OBJ   am looking for

              'I am looking for three secretaries (e.g., to hire).'

  b) Type 3: Hisyo-o   san-nin sagasite imasu.
              secretary-OBJ 3-person am looking for

'I am looking for <u>three secretaries</u>.'

The Type 1 construction is also distinguished by the fact that the noun which it contains always refers to a <u>category</u> (as opposed to a simple grouping of referents). This characteristic of the construction takes on significance by comparison with Type 2a constructions. As we shall see in the next section, with Type 2a constructions, the noun involved may refer to particular referents rather than to a category to which the referents belong, and the noun phrase slot may even be occupied by a pronoun. This is not possible with Type 1 constructions, as the minimal pair in 5) illustrates:

5a) Type 1:   * <u>Hutari-no   kare-ra-ga</u> kita.
             <u>2-person-GEN he-PL-NOM</u> came

'The two of them came.'

b) Type 2a: <u>Kare-ra hutari-ga</u>   kita
            <u>he-PL   2-person-NOM</u> came

'The two of them came.'

The Type 1 construction is also distinctive in that the numeral-classifier pair and the category-denoting noun jointly define <u>and exhaust</u> the grouping at issue; this is in contrast to the Type 3 construction where the noun appears first, establishing a grouping which the numeral-classifier pair <u>subsequently</u> delimits, making it clear that the predication applies only to some subset of the original whole. By contrast, the noun phrase in Type 1 constructions co-occurs with the numeral-classifier pair in a single constituent of the sentence, and that constituent serves to define the grouping in question with a single stroke. It is only individuals defined by this intersection of category and number which enter into the predication, and there is no emphasis on the fact, as there often is with Type 3 constructions, that the larger grouping contains members other than those singled out by the numeral-classifier pair. The focus is thus on picking out particular individual members of the category denoted by the noun, rather than invoking the participation of some number of random instantiations of that category, their individual identity irrelevant. This contrast between the Type 3 construction is illustrated quite well by Inoue's examples in 1) above.

<u>Special Uses with the Number 'One.'</u>
Because it possesses the various properties just outlined, the Type 1

construction is frequently used in combination with the numeral 'one' to serve a number of functions unrelated to the expression of number or classifier category. Of the 238 examples of numeral-classifier combinations which I considered in this section of my study, a full 99 involve the use of the numeral 'one,' and of these 99, 51 participate in Type 1 constructions. Uses of this sort typically involve not only the minimal number ('one') but also the minimal classifier (_tu_ 'inanimate'). They can be roughly grouped into three categories, according to the functions that they serve, i.e., sheer individuation, definiteness blocking, and hedging. Examples of each are listed below.

1. Sheer Individuation. Type 1 constructions containing the number 'one' are often used in contexts where no numeral-classifier pair is required grammatically, but where the speaker wishes to emphasize the fact that he is talking about one instantiated member of the category in question. Uses of this sort occur especially frequently with abstract nouns, perhaps because abstract concepts possess less inherent individuation than most concrete concepts. An example of the type of usage appears in 6), where the sentence could equally well appear without the numeral-classifier pair:

6) Watasi-o hitori-no   kanzya de-wa   naku, nanika
    I-OBJ   1-person-GEN patient COP-CONTR NEG   some

    zikken-no   buttai-demo   toriatukatte-iru
    experiment-GEN physical body-EMPH are treating as

    yoona seikakusa, hizyoosa-ga   atta.   (F)
    -like exactness' insensitivity-NOM existed.

    '(He) had a certain impersonality and precision, as if (he) saw me
    as some kind of physical specimen, rather than as a patient.'

The information carried by the numeral and the classifier is expendable here, and the pair is included merely to emphasize the speaker's view of himself as living flesh and blood, rather than as simply some random representative of the patient category.

The effect of the example in 7), where the numeral-classifier pair is similarly not required, depends on the effect of the Type 1 construction in the same way. Although it is clear that the speaker has no particular stick in mind, the metaphor emerges much more vividly when the focus of the comparison is presented as an actual stick, as opposed to simply the generalized category as a whole:

7)   Zibun-no karada-ga sidai-ni   kootyoku-o   okosite,
      self-GEN body-NOM   gradually rigidity-OBJ produce

      i-ppon-no   boo-no   yoo-ni
      1-long, slender object-GEN stick-GEN -like

      natte-yuku no-o   kanziru. (F)
      become-go NMLZ-OBJ feel

      '(I) would feel my body gradually going stiff, until it was like a
      stick.'

2. **Definiteness Blocking.** In the absence of definite and indefinite
articles, Type 1 classifier constructions containing 'one' may also be used
to block the interpretation that the referent in question exhausts the
category denoted by the noun with which the classifier co-occurs, or to de-
definitize a noun phrase that the addressee would otherwise (on the basis of
the context) associate with a particular referent. A case of the first sort
is shown in 8):

8)   Sore-ga, watasi-tati-no, otona-no   hitotu-no
      that-NOM I-PL-GEN   adult-GEN 1-inanimate-GEN

      tutome demo aru-n desu yo. (O)
      duty   COP-NMLZ COP PP

      'That is one of our responsibilities as adults.'

Here the numeral-classifier pair serves to make it clear that, in the
speaker's view, adults have a number of responsibilities, and that 'that' is
merely one of them.

     In 9), on the other hand, the example cited is drawn from a text which has
contained repeated mentions of a particular girl, making it difficult for the
writer to achieve the categorical rather than individual reference he now
wishes to achieve simply by using the noun syoozyo 'girl.' With the addition
of hitori-no '1-person-GEN,' however, he is able to make it clear that he is
referring merely to one particular instantiation of the syoozyo category as
such, stripping the syoozyo in question of all the other aspects of her
identity that have accumulated in the course of that text:

9)   Kono ie-wa   hitori-no   syoozyo-o suikonde-
      this house-TOP 1-person-GEN girl-OBJ swallowed

      simatta koto-o   omoiukabe, sono sirosa-ga
      up   NMLZ-OBJ remember   that whiteness-NOM

      syoozyo-o kabe-ni nurikometa bakari-no
      girl-OBJ wall-LOC painted in just-GEN

      atarasisa-no yoona genkaku-o   motta. (F)
      freshness-GEN -like illustration-OBJ had

      '(I) remembered how the house had swallowed up a girl, and (I) had

illusion that its whiteness was due to the fact that the girl had just been sealed up in the wall.'

An even clearer case of this sort of usage appears in 10), where the author switches from presenting a number of observations about a particular prostitute to a more general discussion of the sort of feelings the prostitute has described herself as having. The numeral-classifier pair here quite explicitly transforms the woman from the individual previously under discussion to a mere individual member of her group, causing the English translation to appear as 'a prostitute,' rather than 'the prostitute.'

10) Ni-zyuu-nen mae, <u>hitori-no   syoohu-no</u>
     20-year   before <u>1-person-GEN prostitute-GEN</u>

     kuti-kara   deta "tuide-ni   ikite-iru"-to iu
     mouth-SOURCE came in passing am living-QUOT

     kotoba-wa, sore-to onazi naiyoo-o samazamana
     word-TOP   that-COM same content-OBJ various

     hyoogen-de   ii-arawasu koto-ga dekiru. (F)
     expression-INST say-express NMLZ-NOM is possible

     'The concept that twenty years ago came from <u>a prostitute's</u> mouth in the words "living in passing" could be expressed in many different ways.'

3. Hedging. A different use of the Type 1 classifier construction with the number 'one' is illustrated in 11), where it acts as a hedge on the appropriateness of the noun used to describe the referent in question:

11) ... zibun-ga hagete-te iya   da-to
         self-NOM is bald unpleasant COP-QUOT

     omotte teire-o   suru, zyabuzyabu ironna mono-o
     think repair-OBJ do   glug-glug various thing-OBJ

     kaketari   suru -tte no-wa   ne
     put on, etc. do -QUOT NMLZ-TOP PP

     kekkyoku   ma, <u>hitotu-no</u>
     in the final analysis PP <u>1-inanimate-GEN</u>

     <u>sabetu-koozoo</u>   de aru, ... (O)
     <u>discrimination</u>   COP

     'In fact, putting various things on (your hair) because you're bald and don't like it is <u>a form of discrimination</u>.'

This sort of usage, which relies on the presence of the default classifier <u>tu</u> as well as the numeral 'one,' is carried to its extreme in sentences like the one in 12) where <u>tooge</u> 'pass' is used metaphorically, with the presence of the numeral-classifier pair the only explicit clue that a literal interpretation is not intended:

12) kare-wa zibun-ni-wa   kankei-no   nai   kore-ra
    he-TOP self-DAT-CONTR relation-GEN   not exist this-PL

    kyoozyu-tati-no antoo-ga   asita-wa   hitotu-no
    teacher-PL-GEN secret feud-NOM tomorrow-TOP 1-inanimate-

    ___tooge-ni kakaru no   da to   kangaete, ... (F)
    GEN pass-LOC strike NMLZ COP QUOT thinking

    'Thinking that the next day would be critical (lit. a mountain
    pass) for the secret feud among the professors in which he had no
    interest, ...'

In this example, the numeral-classifier pair could not appear in any other
position relative to the noun, because none of the other positional variants
is capable of hedging the appropriateness of the head noun in the way that the
Type 1 construction is. The Type 2a variant shown in 13), for example, would
be distinctly odd:

13) ?? kare-wa zibun-ni-wa kankei-no nai kore-ra kyoozyu-tati-no
    antoo-ga asita-wa tooge hitotu-ni kakaru no da to kangaete, ...

These hedging uses of the Type 1 construction with the number 'one' can
be seen as a simple variation on the indefinitizing function illustrated in
examples 8) through 10), since in both cases the numeral-classifier pair
serves notice that the referent in question is but one member or one type of
member (perhaps atypical) of the category denoted by the noun. All three of
these sorts of uses of the Type 1 construction with the number 'one' (for
individuation, indefinitization, and hedging) in fact depend on the ability
of this construction to refer to particular, instantiated members of the
category denoted by the noun it contains. It is interesting to note in this
regard that forms of all three types may typically alternate with the form aru
'a certain,' which, like its English counterpart, is frequently used in
introductions of specific individuals, and which also lends itself to use as a
hedge.3 Thus, the uses of 1-C1-GEN in 8) and 10), for example, could be
replaced by aru, as could the use shown in 14a):

14a) Imamura Syoohei-no dokyumentarii-no naka-ni,
     Imamura Syoohei-GEN documentary-GEN middle-LOC

     hitori-no   syoohu-ga   dete-kuru wake ne. (O)
     1-person-GEN prostitute-NOM appears   NMLZ PP

     'In a documentary by Syoohei Imamura, this prostitute appears.'

b)   Imamura Syoohei-no dokumentarii-no naka-ni,
     aru syoohu-ga dete-kuru wake ne.

While these "special" uses of the Type 1 construction typically occur
with the number 'one,' they rely in achieving their effect on the general

properties of the construction, and for this reason do not appear with the other classifier constructions, which are specialized for different functions.

Construction Type 2: Appositive.

I have included under this heading two construction types which, although they are syntactically distinct, represent an appositive relation between the noun phrase and the numeral-classifier pair. In other words, in these constructions, the numeral-classifier pair specifies the number of referents denoted independently by the noun phrase, rather than, as in the Type 1 construction, narrowing the scope of the predication from the entire category denoted by the noun phrase to some particular number of members of that category. Because it is the noun phrase which heads the Type 2a construction and the numeral-classifier pair which heads the Type 2b construction, though, the two patterns differ somewhat in the uses to which they are typically put.

Construction Type 2a: NP #-CL-Case Particle.

Constructions of Type 2a appear with the lowest frequency in the sample I considered, constituting only 13 (5%) of the total 238 examples. One reason for this low frequency is my decision to exclude from analysis any forms which clearly involve particle deletion. Since Type 2a constructions are typically used on repeat mentions of referents, since repeat mentions often involve the particle wa, and since wa is readily deletable in many speech contexts, this decision probably resulted in a greater loss of underlying Type 2a constructions than constructions of the other three types considered.

One use of Type 2a forms is in inventories and lists, as shown in 15):

15) umebosi   hito-tubu,   misosiru,
    pickled plum 1-small, roundish object Miso soup

    sore-to takuwan-ga   nakeraba   mesi-o
    that-COM pickled daikon-NOM if not exist meal-OBJ

    tabeta yoona ki-ga   sinai. (F)
    ate   -like feeling-NOM not do

    'Without a pickled plum, some Miso soup, and some pickled daikon,
    (I) don't feel as if (I) have eaten.'

Although these listing uses are not uncommon, the vast majority of Type 2a forms in my sample appeared in non-initial mentions of referents, where they repeated information about number already known to the addressee. The information value of the numeral-classifier pair in these cases was thus quite attenuated by comparison with Type 1 constructions, where it frequently carries new information about number, and Type 3 constructions, where it must do so. The Type 2a pattern is also distinguished by the fact that the noun slot may be filled by referential noun phrases of any sort, including pronouns (as shown in 16)) and proper names (as shown in 17)). This possibility, as I noted above, is ruled out for Type 1 constructions, which must contain a category-denoting noun phrase.

16) Anata-gata hutari-o   nokkeru   to, hoka-no
    you-PL-(HON) 2-person-OBJ give a ride and other

    hito-o   nosete-agerarenai. (O)
    person-OBJ give a ride-cannot give

    'If (we) give you two a ride, we can't accommodate anyone else.'

17) Taroo-tati go-nin-ga   haitte-kita.
    Taroo-PL   5-person-NOM came in

    'Taroo et al, the five of them, came in.'

If the Type 1 construction were to be used in sentence 17), for example, Taroo-tati would be interpreted as referring to a category of individuals all known as Taroo, rather than to a variously named group of five centered around one person named Taroo:

18) Type 1: Go-nin-no   Taroo-tati-ga haitte-kita.
             5-person-GEN Taroo-PL-NOM came in

    'The five Taroos came in.'; *'Taroo et al, the five of them,
    came in.'

As these examples show, the Type 2a construction is typically used in circumstances quite different from those that elicit the use of the Type 1, or, as we shall see, the Type 3 construction. In these Type 2a repeat mentions, the speaker's focus is primarily on picking out the referent(s) in question (a process which may be aided by expressing information about number which is already known) rather than on conveying any new information about the number of those referents. The numeral-classifier pair is thus of very low prominence here, by comparison with constructions of Types 1 and 3.

In some cases, in fact, the number specified in the Type 2a construction is so completely predictable that the construction serves merely to emphasize

that the number mentioned _exhausts_ the number of referents in question, often carrying the implication that the number is smaller than might be expected. For this reason, the rueful remembrance of Kaeko's sister in 19) takes the form of a Type 2a construction:

19) Haha-no   nakunatta yoru,   hitobito-no doozyoo-wa,
     Mother-GEN died   evening people-GEN sympathy-TOP

     Kaeko hitori-ni   atumarimasita. (F)
     Kaeko 1-person-DAT collected

     'The night that Mother died, everyone's sympathy fell on _Kaeko alone_.'

As in the case of the special uses of the Type 1 construction with 'one,' uses of this sort (which are also most common with 'one') can be seen as a natural extension of the Type 2a form. In sentence 19), the information about number which is presented is already known to the addressee. In fact, since Kaeko is a proper name, we would be surprised to find any numeral but 'one' in the classifier slot. The focus of contrast here is thus not on the number per se, but on the fact that Kaeko exhausts the grouping in question, i.e., the people who received sympathy. In neither "standard" nor "exhaustive" uses of the Type 2a construction, then, is the information about number presented as salient. When this number is at odds with expectations, though, it may become the focus of contrast in the way I have just described.

Construction Type 2b: NP-GEN #-CL-Case Particle.

This construction is also used relatively infrequently by comparison to the very common Types 1 and 3, and constitutes only 16 of the 283 items in the sample considered.[4] An example appears in 20):

20) _Kanozyo-to, imooto-no   Kaeko-no hutari-wa,_
     she-COM younger sister-GEN Kaeko-GEN 2-person-TOP

     sono toti-o   motode-ni tabete-iru no desu. (F)
     that land-OBJ capital-as were eating NMLZ COP

     '_The two of them, she and her younger sister Kaeko_, were supporting themselves with that property.'

This construction resembles Type 2a in that the noun phrase it contains may denote individual referents rather than a category (as shown in 20)), for example, and in that it signals an appositive relation between the noun phrase and the numeral-classifier pair. Because it is headed by the numeral-classifier pair rather than the noun phrase, though, it presents the

information about number which it carries with greater prominence, and it is often used, not only on the repeat mentions typical of the Type 2a construction, but on introductory mentions of referents, when their number is not yet known, as shown in example 21):

21) Yuki-wa maki-o kata-ni katuida mura-no
Yuki-TOP firewood-OBJ shoulder-LOC carried village

syoonen-no san-nin-ni deatta. (F)
-GEN youth-GEN 3-person-DAT met

'Yuki met three youths from the village carrying firewood on their shoulders.'

Construction Type 3: Adverbial: N-Case Particle (...) #-Cl.

Classifier constructions of the third type are instances of what is often called Q-Float, since the Q(uantifier) can be seen as having "floated" from its original pre-nominal position to a position external to the noun phrase. An example appears in 22):

22) Sono asi-ni-wa, yubi-ga ro-ppon aru. (F)
that leg-LOC-TOP toe-NOM 6-long, slender object exist

'On that foot, there are six toes.'

Constructions of this type are quite common in my sample, especially in initial mentions of referents. 54% of the introductory mentions collected, in fact, use this construction, and 78% of the uses of the construction appear in introductions. As the preceding discussion has suggested, Type 3 forms can be distinguished from the other classifier constructions in terms of three traits:

a. The noun phrase independently establishes a category or group of referents which the numeral-classifier pair subsequently delimits.

b. The numeral-classifier presents new information.

c. The NP is foregrounded.

Because the noun and the numeral-classifier pair in the Type 3 construction function as separate constituents, the construction has sometimes been characterized as "adverbial," by contrast with the Type 1 construction, where the numeral-classifier pair is perceived as being much more closely bound to the noun. The adverbial flavor of the construction is especially apparent in its use in distributive constructions such as the one

shown in 23); Type 3 forms, in fact, constitute 80% of the distributive uses of classifier constructions in my sample.

23) Enban-wa iti-mai-zutu   tonde-iki, ... (F)
    disk-TOP 1-flat, thin object-each fly-go

    'The disks flew one by one, ...'

In some cases the numeral-classifier pair may in fact constitute the entire predication of the sentence, as in 24):

24) Eeeto, usagi-ga   nee, zenbu-de ni-zyu-ppiki gurai,
    uh   rabbit-NOM PP together 20-animal   approx.

    ita   no ne, (C)
    existed NMLZ PP

    'Uh, there were about twenty rabbits, all together.'

Because the numeral-classifier pair in these constructions always carries new information about the referent of the noun, the Type 3 construction is inappropriate for repeated mentions of the same referent(s) when both their identity and their number is already known, and it is also inappropriate in other contexts where the number of referents involved is predictable. This is illustrated by the unacceptability of the b) (Type3) version of the original Type 1 sentence shown in 25a):

25a) Type 1: Aoi hutatu-no   me-ga   i-tten-ni
             blue 2-inanimate-GEN eye-NOM 1-point-LOC

             tyuumoku site-iru yoo-ni gyoosi site-iru.
             focus   be doing -like stare were doing
             (F)

             '(Its) two blue eyes were staring as if they were focused on a single point.'

   b) Type 3: *Aoi me-ga hutatu i-tten-ni tyuumoke site
              -iru yoo-ni gyoosi site-iru.

Since eyes typically come in pairs, it would be unusual indeed if the numeral in 25) conveyed new information. For this reason, the Type 3 variant in b) is ruled out[5] Apparent violations of this rule may occur only when the speaker wishes to emphasize the numeral in question, as in 26):

26) Ano hutari-wa   hutari-tomo   hito-o   korosita
    that 2-person-TOP 2-person-EMPH   person-OBJ killed

    kako-o   motte-iru no da. (F)
    past-OBJ have   NMLZ COP

    'Both of them have killed someone.'

Emphatic uses of the sort illustrated in 26) can be compared with the special uses of the Type 1 and Type 2a forms described earlier. Consider the sentences in 27a) through c). They contain Type 1, Type 2a, and Type 3 forms,

respectively:

27a) Type 1: Mai-niti, mai-niti, <u>hitotu-no</u>
     every day every day <u>1-inanimate-GEN</u>

     <u>burausu-o</u> kite soozi-o site-ita.
     <u>blouse-OBJ</u> wearing cleaning-OBJ did

     'Day after day, (she) did the cleaning
     wearing <u>the same blouse</u>.'

  b) Type 2a: Mai-niti, mai-niti, <u>burausu hitotu-o</u>
     kite, soozi-o site-ita.

     'Day after day, (she) did the cleaning
     wearing <u>only a blouse</u>.'

  c) Type 3: Mai-niti, mai-niti, <u>burauso-o</u> hitotu
     kite, soozi-o site-ita.

     'Day after day, (she) did the cleaning wearing <u>one
     blouse</u>.'

As the glosses indicate, each of these sentences lends itself to an interpretation very different from those associated with the other two. Since 'one' is the unmarked number with respect to blouse-wearing, the fact that it is explicitly mentioned in each of these sentences leads the hearer to draw certain inferences. The inferences differ in each case, however, depending on the classifier construction used.

A speaker who wished to imply that the blouse in question was the same day after day would choose the Type 1 form shown in a), since this is the form used to single out particular instantiations of a general category. A speaker who wished to imply that a blouse was the <u>only</u> garment being worn (against all expectation) would choose the Type 2a form shown in b) since, as we saw earlier, this construction is often used to emphasize the fact that the referent in question exhausts the group bearing that relation to the predicate. And, finally, the Type 3 variant shown in c) would be chosen by the speaker who wished to present the information about the number of blouses involved as new information. Since most people wear only one blouse at a time, however, even this relatively neutral form would in this case lead to an inference on the part of the hearer, i.e., that the speaker had some expectation that more than one blouse might be worn. All three classifier constructions are thus possible, and all three carry very different implications.

In addition to the stricture that it must carry new information, the Type 3 construction is also subject to other constraints whose correct formulation

has been the topic of considerable debate. Everyone agrees that certain sentences are unacceptable in spite of the fact that the numeral-classifier pair carries new information. Consider the minimal pairs in 28) and 29):

28a) Kantoku-ga   hitori-no   onna-syasyoo-to
     director-NOM 1-person-GEN woman-conductor-COM

   modotte-kita. (F)
   return-came

   'The director returned with a conductress.'

 b) * Kantoku-ga onna-syasyoo-to hitori modotte-kita.

29a) Hari-no hitotu-kara,   hadaka-denkyuu-ga
     beam-GEN 1-inanimate-SOURCE   naked-1lightbulb-NOM

   takai koodo-de turusarete-iru no-ga
   long cord-INST was suspended NMLZ-NOM

   mieta (F)
   could be seen

   '(I) could see a naked light bulb hanging from one of the beams by
   a short cord.'

 b) * Hari-kara hitotu, hadaka-denkyuu-ga takai
      koodo-de turusarete-iru no-ga mieta.

Different scholars have proposed different explanations for the unacceptability of the b) (Type 3) versions of such sentences. Shibatani (1978), for example, has proposed that the Q-Float process is governed by the case roles of the nouns from which float occurs. Only those nouns bearing the particles ga (nominative) or o (objective) allow Float. Since the sentences in 28) and 29) involve instead nouns bearing the particles no and kara, Float is blocked.

As evidence that it is the case role and not the grammatical role of the noun that determines floatability, Shibatani presents the minimal pairs reproduced in 30) and 31) (Shibatani 1978, p.246):

30a) Kore-ra-no san-nin-no   gakusei-ni
     this(Gra...-PL-GEN 3-person-GEN student-DAT

   huransu-go-ga   wakarimasu.
   French-NOM   understand
   (Grammatical Object; Nominative case)

   'These three students understand French.'

 b) * Kore-ra-no gakusei-ni, san-nin huransu-go-ga
      wakarimasu.

31a) Kore-ra-no san-nin-no gakusei-ga
     (Grammatical subject; Nominative case)

   huransu-go-ga   wakarimasu.
   (Grammatical object; Nominative case)

'These three students understand French.'

b) Kore-ra-no gakusei-ga, san-nin huransu-go-ga
wakarimasu.

As 30a) and 31a) show, the verb wakaru allows its subject to bear either of two case particles, i.e., ga (nominative) or ni (dative). Although gakusei serves as subject in both of these sentences, Q-Float is not possible in 30), where the case particle involved is ni, while it is possible in 31), where the case particle involved is ga. In Shibatani's view, such pairs as these provide conclusive evidence that it is the case role, and not the grammatical role, of the noun which is crucial in determining whether Q-Float will be possible in a given sentence.

Shibatani's argument is directed primarily at the claims of Inoue, who has argued in favor of a grammatical role analysis of the phenomenon, and who has provided what she interprets as counterexamples to Shibatani's claims. Most important for her argument is the existence of Q-Float examples like the one in 32)(example 31 in Inoue 1978, p.173), which involves nouns bearing the case particle ni rather than the ga or o to which Shibatani claims Q-Float is restricted:

32) Watasi-wa dantaikyaku-o   tomeru
    I-TOP   group traveler-OBJ   lodge

    syukusya-ni ni-san-ken   atatte-mita.
    lodge-DAT   2-3-building   hit-tried

    'I tried two or three lodges that put up group travelers.'

While examples of this type can, of course, be used to argue against Shibatani's claims, they also falsify the generalization that it is only subject or direct object noun phrases from which quantifiers may float. Inoue, who favors an analysis based on grammatical relations, gets around the difficulties posed by examples like this one by adding to the list of grammatical roles allowing Q-Float a third role which she calls "semi-direct object" (huku mokutekigo). In this category she includes both noun phrases with ni of the sort shown in 32) and noun phrases with o of the sort shown in 33):

33) Watasi-wa hasi-o   hutatu-ka mittu
    I-TOP   bridge-OBJ 2-inanimate or 3-inanimate

    watatta to   kioku site-iru.
    crossed QUOT memory am doing

'I remember crossing <u>two or three bridges</u>' (from Inoue 1978, p.173)

Although one might suppose that cases with <u>o</u> would be accounted for either by Shibatani's case-marking theory or by the standard subject/direct object role account, Inoue argues that sentences like 33) with "traversal objects" do not contain true direct objects.[6] Rather, these NPs, like the <u>ni</u>-marked NP in 32), co-occur with a limited subclass of <u>in</u>transitive verbs which are subcategorized precisely for these "semi-direct objects." The grammatical role explanation of the constraints on Q-Float is thus not ruled out, Inoue argues; we simply need to add to the inventory of grammatical roles permitting Float the new category "semi-direct object."

As for the unacceptability of sentences like 30b), where Float is not possible even from a noun phrase which is clearly a subject, Inoue argues that a special constraint is needed. Unlike direct objects, semi-direct objects, or subjects marked with <u>ga</u>, subjects marked with <u>ni</u> are incapable of acting as "the focus of the speaker's attention" (wasya-no siten-no mokuhyoo-ni narienai).[7] For this reason, even though these <u>ni</u>-marked NPs do belong to a grammatical category which typically allows Float, the process is blocked.

Inoue's final characterization of the constraints on the Q-Float process, then, may be stated as follows: Q-Float may operate on quantifiers associated with subject, direct object, or semi-direct object NPs so long as the NP in question is independently capable of serving as the focus of the speaker's attention. Inoue declines to specify in detail exactly what she means by "focus of the speaker's attention" and admits that there are many uncertainties remaining in her analysis.

I have no new arguments to add to this debate. All but one of the 104 examples of the Type 3 construction in my sample conform to the explanations of both Inoue and Shibatani,[8] and I have described the controversy here merely for the benefit of the English reader to whom the Japanese articles summarized are inaccessible.

Although I do not wish to enter the controversy on the terms established by earlier participants, I do wish to discuss a trend which is apparent in my data but which is not predicted by any of the Q-Float analyses we have seen. Consider Table 1.

Table 1

Distribution of Noun Particles Used in Type 3
Constructions

	Intrans. ga	Trans. ga	o	wa	no
Introductions:					
Referential	54	3	14		
Non-referential	3		7		
Repeat mentions	2		4	5	1
Number specification[9]	6			5	
	——	——	——	——	——
	65	3	25	10	1
	(63%)	(3%)	(24%)	(10%)	(1%)

What this table shows quite strikingly is that, of the NPs marked with the nominative particle ga, 65 (96%) appear with intransitive verbs, while only 3 (4%) appear with transitive verbs. Why should this be?

The answer to this question lies, I think, in some of the characteristics of the Type 3 construction which I have already noted. First, the floated quantifier presents the information about number which it carries as new. Secondly, the Type 3 construction is possible only with NPs that are "foregrounded."

In suggesting that "foregrounding" is relevant to Q-Float, I am taking my cue from Inoue's suggestion that Float is blocked with subject NPs marked with ni because they cannot act as "the focus of the speaker's attention." Although I am not sure exactly what Inoue had in mind in making her suggestion, I assume that it is akin to my notion of a foregrounded NP as:

a) Marked by one of the case particles high in the case hierarchy (i.e., ga, o, or ni)[10] or, less typically, wa.[11]

b) Associated with a referent newly introduced into the text, or, in the minimal case, at least as recently introduced as the referent of any other NP in the sentence.

What I am proposing with this characterization is that, like manner adverbials in English, this most adverbial of classifier constructions in Japanese is constrained in its potential attachments. It may not be interpreted as specifying the number of referents associated with just any NP in the sentence; rather, the NP with which it is associated must be salient in

terms of the semantic role which it fills, and its referent must possess a salient discourse status at that point in the text.

It is early in the textual history of the referent(s) in question that both of these requirements are most likely to be fulfilled, and we do in fact find that most of the instances of floated classifiers in the sample under consideration occur very early on, i.e., in the introductory mention of the referent(s). A full 78% of Type 3 constructions appear in the first mention of the referent(s) which they denote. Half of the remaining uses occur, not in the first mention per se, but within the descriptive section of text which often surrounds the introduction of a major referent and which constitutes an island that briefly interrupts the flow of the narrative.

If we broaden our view and consider the use of classifier constructions of all types in the introduction of referents, we find that the sample used here yields the particle distribution shown in Table 2.

Table 2

Distribution of Noun Particles Used in Introductory Mentions
Involving All Four Types of Classifier Construction

	Intr. ga	Tr. ga	o	ni	de	to	no	wa	mo
Type 3 Intros.	65 (63%)	3 (3%)	25 (24%)				1 (1%)	10 (10%)	
Type 1, 2a, and 2b Intros.	32 (43%)	1 (3%)	21 (28%)	3 (4%)	2 (3%)	7 (9%)	5 (7%)	3 (4%)	1 (1%)
Total	97 (54%)	4 (2%)	46 (26%)	3 (2%)	2 (1%)	7 (4%)	6 (3%)	13 (7%)	1 ----

As these figures illustrate, the predominance of the "Q-Float Particles" _ga_ and _o_ is not restricted to introductions involving Type 3 constructions. While these particles constitute 89% of the particles used for Type 3 constructions, they also come to 71% of the particles used in introductions involving other constructions.[12] Even more importantly for the issues at hand, introductory mentions involving constructions of Type 1 and 2 also exhibit the striking split in the behavior of _ga_, with intransitive _gas_ constituting 43% of the total, as compared to only 3% transitive _gas_.

What these figures suggest is that the constraints on the Type 3 (Q-Float) construction are not arbitrary properties of the construction but rather reflections of the properties of introductions in general. More specifically, referents (or at least significant referents, as opposed to props) are most likely to be introduced as the subject of an intransitive verb or as the object of a transitive verb. Similar observations have been made with respect to other languages, e.g., Du Bois (to appear) with respect to Sacapultec, a Mayan language, Lambrecht (to appear) with respect to French, and Givon (1979) with respect to English, and they would seem to be explicable in terms of several cross-linguistic tendencies.

One of these is the tendency to introduce significant referents (typically human) by momentarily stopping the narrative and inserting one or more presentative or descriptive sentences devoted to the new referent.[13] Since descriptive and presentational verbs and constructions are typically intransitive, this tendency would account for the frequent appearance of intransitive _gas_, as opposed to transitive _gas_ in the introductory mentions tabulated here, and in the Type 3 constructions which are dominated by such mentions.[14]

A second tendency is to introduce at most one foregrounded new referent at a time. This constraint is, of course, once again easily fulfilled by assigning the new referent to the subject slot of an intransitive verb; there is no other major noun slot available for a competing referent to fill. The intransitive verb thus recommends itself for use in introductions by its tendency to comply with both of the constraints I have mentioned.

With a transitive verb, on the other hand, two major noun slots are by definition available - the subject slot and the direct object slot. It is the object slot which is typically chosen for introductions, I would suggest,

because of the tendency of the discourse topic to pre-empt the subject slot, leaving only the object slot available for new players.

In evaluating this hypothesis, we might consider the 46 examples in my sample of referents which are introduced as the object of a transitive verb. In 29 cases no subject NP is present, rendering the object NP the sole foregrounded NP, as in the case of subjects of intransitive verbs. In 15 of the remaining 17 cases where a subject NP is present, it is also the topic, and is marked as such with the topic particle wa. In other words, the subjects of all of these verbs are clearly backgrounded and pose no obstacle to a noticeable introduction of a new referent in the object slot. In only two of the 46 cases (neither of them involving the Type 3 construction) is there a newly introduced subject contained in the same sentence. Nor do the small number of cases in which a referent is introduced in the subject slot of a transitive verb constitute serious counterexamples to the hypothesis that at most one new referent will be introduced at a time, for although the typical distribution of old (subject) and new (object) is reversed in these sentences, the object is in each case so weak that the sentences taken as wholes are very low in transitivity.[15]

If these arguments are correct, the constraints on the Type 3 construction which have been remarked on by Shibatani, Inoue, and others, can be traced to constraints on the introduction of new referents. Because it presents the information about number which it carries as new, the Type 3 construction tends to appear in or very close to the initial mention of the referent(s) to which it is related, and these initial mentions typically involve the subject of an intransitive verb or the object of a transitive verb whose subject has been topicalized (and perhaps deleted). This pragmatic fact simplifies considerably the task of the hearer who is trying to link a floated quantifier with some NP in the sentence, and it also suggests an explanation for the virtual exclusion of NPs bearing particles other than ga or o from Type 3 classifier constructions.

The proponent of a syntactic solution to this issue could, of course, object at this point and argue that if the scenario which I have proposed is correct, then any "foregrounded" NP introduced by a case particle other than ga or o (most likely ni) should be a candidate for Q-Float. Nouns representing recipients, for example, should be able to launch floated

quantifiers in cases where both the giver and the object given are "old." Yet it is not clear that such sentences are always acceptable.

This objection is quite valid. What I would like to suggest, however, is that the scenario which I have sketched may account for the _rise_ of the constraints under discussion although it may not accurately represent the form which they now take in the minds of present-day speakers of the language. That is, what I have proposed is a discourse-based account of why the constraints on Q-Float should have been developed as they have; although the plausibility of the explanation is still transparent enough for us to be able to perceive it, these constraints may have, since their origin, become grammaticized (in a form similar to that proposed by Inoue or Shibatani). While the explanation which I have proposed may have historical relevance, in other words, the origin of these constraints in discourse may at this point have been overlaid with a grammatical veneer.[16]

Summary

With the preceding discussion, I hope to have illustrated how the different classifier constructions are used for different purposes, the choice among them depending largely on the importance of the referents denoted as individuals and the predictability of the information carried by the numeral-classifier pair.

The (Type 2) appositive constructions are the least constrained in their privileges of occurrence, although the Type 2a construction typically appears on repeat mentions of referents whose number is already known to the addressee. Unlike the Type 1 constructions, the appositive constructions may contain pronouns or proper nouns, since the numeral-classifier pair serves merely to add information about the referents denoted independently by the noun phrase rather than to limit the scope of the predication to some subset of the category denoted by the noun phrase, as with Type 1 forms.

The Type 1 construction also differs from both Type 2 and 3 constructions in that it explicitly indicates that the speaker is referring to some _particular_ individual members of the category denoted by the head noun. This is by contrast with the Type 3 construction, which is used to introduce referents merely in terms of their identity as members of the category or

grouping denoted by the noun phrase. In using this construction, the speaker disregards any importance the referents denoted may have as individuals, conveying instead only their group affiliation.

The Type 3 (Q-Float) construction is also distinguished by the fact that it appears only when the information about number which it carries is new. This condition is most typically met early in the textual history of the referent(s) in question with the result that the majority of uses of the Type 3 construction appear in either introductory mentions of participants or in the descriptive portion of text which often follows introductions. This pragmatic fact explains why the Q-Float construction is largely restricted to use with ga-marked noun phrases in intransitive sentences or o-marked noun phrases in transitive sentences, since it is these two sentence slots which are most often used for introductory mentions of significant participants.

FOOTNOTES

[1]I would especially like to thank Atsuroo Tsubomoto for many hours of helpful discussion on the topics discussed in this chapter.

[2]The existence of these pairs of sentences was pointed out to me by Hideo Teramura.

[3]As in_a_certain_haughtiness,_a_certain_lack_of_concern,_a_certain_je_ne_sais_quoi.

[4]Because I wish to restrict my attention in this section to cases in which both the numeral-classifier pair and a co-referring noun phrase appear, I have excluded from consideration here those morphologically identical examples in which the no intervening between the noun and the numeral-classifier pair expresses a possessive or partitive relation, rather than an appositive one. I have, in other words, considered examples like the one shown in i), below, and discarded ones of the sort shown in ii):

    i)   <u>aka-to   midori-no ni-syoku-no</u> huirutaa-no tuita
           <u>red-COM green-GEN 2-color-GEN</u> filter-GEN attached

           enban-mitaina mono-ga   sa, mootaa-de mawatteru
           disk-like   thing-NOM PP motor-INST is turning

           wake da yo ne? (O)
           NMLZ COP PP PP

           'A disklike thing with <u>red and green</u> filters attached to it turns by means of a motor.'

    ii)   <u>Titi-no   katte-ita   neko-no i-ppiki-ga,</u>
           <u>Father-GEN was raising cat-GEN 1-animal-NOM</u>

           sono toki heya-ni haitte-kimasita. (F)
           that time room-LOC enter-came

           'At that moment <u>one of the cats which Father was raising</u> came into the room.'

While these two examples are fairly clearcut cases of the appositive and partitive relations which I have attempted to distinguish, other cases, like the one shown in iii), are more problematic.

    iii) <u>Sono ziki-ni   naru   to mai-tosi   unzari</u>
           <u>that season DAT become and every-year became</u>

           <u>suru   hodo   kikasareru</u>
           <u>disgusted extent be made to listen to</u>

           <u>kyoku-no hitotu</u>   de atta. (F)
           <u>tune-GEN 1-inanimate</u> COP -PST

           'It was <u>one of those tunes that you always hear until you're sick of them around that time of year.</u>'

Here the noun phrase preceding the no is interpretable either as a modifier on hitotu (hence appositive) or as the marker of a larger grouping to which the hitotu belongs (hence partitive). Doubtful cases of this sort have ben included in the sixteen-item corpus of Type 2b forms considered.

[5]Kim (1982) adduces pairs similar to the one shown in 25) in support of his claim that Q-Float will operate in Korean and Japanese only if the NP from which the Q is floated is "presentative," i.e., "represent[s] information novel to the discourse." Although I agree, in essence, with the thrust of Kim's arguments, he fails to make a distinction between the newness of the referents denoted by the NP in these constructions and the newness of the

information about number carried by the Q. Although these two factors exhibit a significant correlation, one does not necessarily predict the other, and they must be distinguished to arrive at a correct characterization of the Q-Float process.

[6]For a detailed English discussion of this issue, see Jacobsen (1981).

[7]As independent support for this claim, Inoue points to the behavior of such NPs with respect to Tough Movement, which she claims is sensitive to the same factor. (Inoue 1978, p.174.)

[8]The one "aberrant" example is the following; it appears in an oral description of a cooking procedure and involves the genitive particle no:

Sosite, koo, ha-no   aida-ni   iti-mai
then   um   leaf-GEN space between-LOC 1-flat, thin

      iti-mai   siru-o   koo
object 1-flat, thin object broth-OBJ this way

ireru wake da.   (O)
put in NMLz COP

'Then, um (you) add the broth between the leaves, one by one.'

[9]I have included under this heading those uses of classifier constructions which appear immediately after the introduction of the referents in question. These constructions participate in the descriptive section of text that often surrounds introductions of significant referents and serve merely to clarify the number of referents involved. Because these uses thus differ in function from both initial and repeat mentions of the referent, I have isolated them in a separate category.
It is, in fact, debatable whether these examples should actually be counted as Type 3 constructions, although they possess its form superficially. Consider the example in i):

i)   Boku-wa ne, hato   katte-ita   -n   su   yo.
     I-TOP PP pigeon was raising NMLZ COP PP

     Hato-wa   ne, roku-zyuu-wa imasita kara ne. (O)
     pigeon-TOP PP 60-bird   existed because PP

     'I was raising pigeons. There were 60 pigeons.'

This example, and the others like it, could equally well be analyzed into a subject NP marked with wa followed by a predication containing the numeral-classifier pair. In spite of this fact, those examples do fit the characterization of the Type 3 construction that I have outlined because the number of referents is unknown, although the referents themselves have already been introduced (and sometimes even topicalized).

[10]See Teramura (1976) for a discussion of the Japanese case hierarchy.

[11]It is important to note that all the uses of wa in my data (and tabulated in Table 1) are in some sense exceptional. The five "repeat mentions" involving wa are all emphatic uses of the type illustrated in 26), and the remaining five uses are all marginal Type 3 uses of the type discussed in footnote 9. In addition, in all of them, wa is replacing an intransitive ga. For this reason, the existence of these cases does not constitute a significant weakening of the generalization proposed here.

[12]These figures rise to 100% and 77%, respectively, if we translate the discourse particles wa and mo into the case particles they are replacing.

[13]cf. Lambrecht's (1981) claim that referents are typically not both introduced and talked about in the same clause, and Givon's (1979) observation that "in general (in terms of text frequency), human languages employ a communicative strategy whereby there is only one bit of new information per proposition in discourse (defined, tentatively, in terms of

lexical word)" (p.52).

[14]See Du Bois (1980) for a discussion of descriptive and narrative modes and their influence on article choice in English.

[15]The three sentences of this type contain the following predicates:

i) enzetu-o   yari   'giving a speech'
   speech-OBJ doing

ii) kooyoo-o   site-ite   'putting forth red
    red foliage-OBJ doing   foliage'

iii) mati-o   nagarete-iru   'flows through the town'
     town-OBJ flow

Two of these sentences contain the verbs suru/yaru 'to do,' which function as verbalizers for virtually any noun, as shown particularly clearly by example ii). Neither of these sentences contains objects whose referents exist independently of the activity described or are affected by it. Sentence iii) involves a traversal object, widely recognized not to possess all the traits of prototypical direct objects (cf. Inoue's semi-direct object).

[16]For a similar discourse-based argument for the usefulness of ergative marking systems, see Du Bois (to appear).

CONCLUDING REMARKS

Now that I have described the composition of the Japanese classifier system and the semantic and pragmatic functions which its members serve, it is perhaps of some interest to mention my original impetus for choosing this topic as the subject of my dissertation research. Having read Sanches' 1977 paper, I was more or less convinced that the Japanese classifier system was on the road to its demise, when I ran across an article by a Japanese lexicographer remarking on the continuing growth of this supposedly moribund system. I was puzzled. Did both researchers have their facts straight? Were their analyses in fact in conflict, or did they simply reflect two different aspects of the issue?

Sanches' finding was that speakers under 30 used a mean of 28 different classifiers, while those over 30 used a mean of 36. The forms that were missing from the classifier repertoires of the younger speakers were usually fairly specific members of the kind-classifier system, and in their stead, these speakers were relying more heavily on the shape-based quality classifiers, and especially on the default form tu. In Sanches' view, the attrition rate among the kind-classifiers could be traced to the rapid changes in material culture which Japan has experienced in recent years; as various artifacts have become obsolete or insignificant, the use of the classifiers used to denote them has also declined, since they have not been adapted for use in denoting the new artifacts which have displaced the old. Given this state of affairs, as Sanches puts it (1977, p.61), "we can only expect the system to atrophy."

In striking contrast to Sanches, Kenboo finds the system to be quite robust, and capable of adaptation in response to cultural change. One method of adaptation can be seen in the use of old members of the system with respect to new referents. Men, for example, traditionally the classifier for objects with flat surfaces, such as mirrors, Noh masks, etc., is now used to denote sports arenas of all sorts, including tennis courts, swimming pools, and skating rinks. Similar extensions can be cited with respect to other long-time members of the system as well.

The system has also shown itself capable of assimilating new forms to

accommodate new referential needs. While the inventory of indigenous classifiers has remained relatively stable throughout the 20th century, the inventory of Sino-Japanese and, particularly, Western language-based classifiers has shown a striking turnover, as Kenboo's discussion illustrates. He notes, for example, the recent appearance of _rein_ (<English 'lane'), used for counting bowling alleys, and _syasen_ (lit. 'vehicle-line'), a Sino-Japanese translation of 'lane,' used to count lanes of traffic and avoid the ambiguity that would result if _rein_ were to be used in both senses.

Given Kenboo's findings, it is clear that Sanches' pessimism about the ability of the classifier system to add to its stock of forms is somewhat overstated. The boundary between the noun system and the classifier system is every bit as foggy today as it has been since the 8th century, making it a fairly easy matter to create classifiers from pre-existing nouns. So long as the noun system is able to keep up with cultural change (and it has certainly shown no faintheartedness in this regard), the classifier system will possess the potential to renew itself as well. Whether it will actually fulfill this potential is, of course, a different question, but, as Kenboo's examples illustrate, the system at present is showing no signs of sealing off its borders and stopping the influx of nouns.

Sanches' claims, of course, touch on not only the ability of the system to acquire new members to replace those that are lost, but also the willingness of speakers of the language to _use_ those forms. If younger speakers are not using the full repertoire of forms used by older speakers and are in addition not availing themselves of the many newly adapted forms, then Sanches' forecasts of doom may be justified. It is not apparent, however, what, aside from the proverbial carelessness of youth, would cause younger speakers to resist the new forms, for there do not appear to be other changes in the language which make the classifier system any more expandable than it has been all along.

It may be, though, that we are led to a false conclusion by defects in Sanches' method of sampling or presentation. The primary evidence given for the claim that the repertoire of classifiers used is shrinking, for example, is a comparison of the mean number of forms used by speakers over and under 30. In her sample, Sanches included 212 "adults" aged 18 to 73 but also 100 children aged 9 to 12 and an unspecified number of children aged 2 to 9. If

the repertoires of the children were included in the tabulations of mean number of forms used, it is not at all surprising that the under-30 totals are much lower than the over-30 totals. Sanches is not clear on this point.

Even if the results presented are based on tabulations of the adult responses only, it is possible that the elicitation task Sanches used was designed to test for the presence of the traditional members of the system but not the forms which have entered the system recently. If so, the results may have reflected the absence of some of the traditional forms from the speech of the younger speakers without giving them an opportunity to exhibit their use of the more innovative forms. Or it may simply be that Sanches' study caught the system at a peculiar point in history, a few decades into a period of explosive cultural change whose linguistic effects have not yet stabilized. A follow-up study in another twenty or thirty years would be of considerable interest from this perspective.

While we await the outcome of such a study, we can contemplate at least two possible scenarios for the future of the system. If Sanches' findings are in fact skewed in one of the ways I have suggested, then we have no reason to anticipate a radical change in the composition or use of the system in the near future. Tu, the quality-classifiers, and the more general kind-classifiers will continue to constitute, as they have for centuries, a stable base to which more specific kind-classifiers reflecting current cultural preoccupations can easily be added by tapping the resources of the noun system.

If, on the other hand, Sanches' findings are correct, and speakers are restricting themselves to an increasingly limited subset of the forms that are available, the system could eventually change from a highly permeable lexical class capable of representing a number of semantic distinctions to a small, closed class of grammatical markers. If the system were reduced, in this way, to the representation of a very small number of semantic distinctions, what effect would it have on the language as a whole? Having considered in some detail the various uses to which the classifiers are presently put by the speakers of Japanese, rather than simply the semantic composition of the classifier inventory as a whole, we can see, I think, that the usefulness of the system would not be significantly altered.

We can rely on two kinds of evidence in speculating about which

classifiers the system would be reduced to if it were to shrink substantially. The first is Adams and Conklin's cross-linguistic study in which they found that classifier systems always represented the animate-inanimate (or human/non-human) distinction and very frequently encoded categories centered around the basic shape metaphors of long, flat, and round, as well as some function-based categories whose composition varied from culture to culture. The second sort of evidence is the tendency displayed in the various distributional measures listed in Chapter 3, where the same limited set of forms repeatedly outstrips the other members of the system. Interestingly, both sources of evidence lead us to the same set of candidates for the core system - tu and nin, which represent the animate/inanimate split and are also by far the two most frequently used forms today, supplemented with the three basic shape-based forms hon, mai, and ko, and, perhaps, several crucial kind-classifiers, such as dai and hiki.

Reduced to just these seven members, or even reduced to just tu, nin, hon, mai, and ko, the system would still retain most of the capabilities that it now possesses. As we have seen, many of the members of the current classifier system are near-clones of members of the noun system and are thus disqualified from carrying any information additional to that which is carried by the nouns with which they might co-occur. The greatest potential for representing independent information inheres in the quality-classifiers, of which hon, mai, and ko are the most frequently used. Even if the system were to lose most of its kind-based members, then, it would retain much of its capability for semantic action so long as the shape-based classifiers were available. If the system were reduced to just tu and nin, this capacity would essentially be lost, but, as we have seen, only a small percentage of actual classifier uses fulfill the function of supplementing the information carried by the noun, so the functional effects of the loss of this potential would probably be minimal.

Even in this extremely reduced state, the system could continue to fulfill all the other functional roles which I have discussed. So long as a single member of the system was retained, for example, it could be used in the company of a noun to indicate that it is individual members of the category denoted by the noun, rather than the category as a whole, that are being referred to. The position of this form within the sentence could remain

flexible, allowing it to mark the referentiality-related distinctions currently associated with the positional variants of the classifier discussed in Chapter 7. And even a two-member system could continue to participate effectively in the anaphoric system, since it is largely the human classifier _nin_ which serves anaphoric goals.

A reduction of the classifier inventory to just five forms would not be so harmless, of course, if a different five forms were to survive. Together, this particular group of forms allows for representation of referents of all sorts, accords special status to the most important group of referents (humans), and has the potential to semantically supplement the noun system as well as carry out all the other classifier functions which appear in Japanese. Although the other forms which participate in the system today may enrich its semantic capacities or serve as helpful cultural signposts, they are in some sense merely frills, for a basic inventory along the universally-attested lines observed by Adams and Conklin could do the job almost as well.

APPENDIX 1

QUESTIONNAIRE INSTRUCTIONS

　この調査の目的は, 日本人の物の数え方を調べることです。この研究の第一段階として, どの助数詞(例えば, 「本」, 「冊」, 「枚」が実際に使われているか調べたいので, この調査表を記入していただきたいのです。

　以下にある助数詞の表には, あなたが実際に使っているものと使っていないものの両方が入っているかも知れませんが

　①実際に使っている助数詞の場合, その記載の右側にある「1)」の欄には, 「○」を書いて下さい。使っていないと思えば, ちゅうちょなく「×」をつけて下さい。

　②「2)」の欄には, 「1)」で「×」を書いた場合(つまり, あなたが使っていると思わない助数詞)の内で, 聞いたこと(または見たこと)があると思えば, 「○」を書いて下さい。聞いたことがあるかどうかはっきりしない場合は, ちゅうちょなく「×」を書いて下さい。

　③「1)」で「○」をつけた助数詞を, どのように使うか, 例を「3)」の欄に上げて下さい。その時, 「子供三人」のように「名詞＋数＋助数詞」の順で書いて下さい。

　④「1)」か「2)」で「○」をした助数詞は, (使ったり, 聞(見)たことがあるわけですが), どのような物を数える時に使われるか「4)」の欄で書いて下さい。出来れば, 「動物」なら, 「犬」, 「ねこ」などのように, その種類も細かに書いて下さい。

例:	助数詞	1)使うか	2)聞/見	3)例	4)指示物
	匹 ひき	○		犬三匹	動物：犬, ねこ, ぶた, など
	1)で「○」を入れたら空欄				

　ある記載についてコメントがあれば, 自由に書いて下さい。

English:

The object of this study is the investigation of the way in which Japanese speakers count things. As a first step in this research, I hope to discover which numeral classifiers, e.g., hon, mai, satu, are used at present, so I am requesting your cooperation in filling out this questionnaire.

The list of numeral classifiers below probably contains both forms that you actually use and forms which you do not.

1. If you actually use the classifier listed, mark column 1 to the right of the entry with a "o." If you don't use it, simply mark an "x."

2. In column 2, for those forms that you marked with "x" in column 1 (that is, classifiers you don't think you use), if you have heard them (or seen them) used, please mark an "o." If you are not certain whether you have heard the form or not, mark an "x."

3. For the classifiers that you marked with an "o" in column 1, please give an example of how you use them in column 3. Please write your example in the form NOUN + NUMERAL + NUMERAL CLASSIFIER, as in child 3 person.

4. For the forms that you marked with an "o" in columns 1 or 2 (that is, if you have used or heard or seen the form), please write in column 4 what sorts of things they are used to count. If possible, in cases like "animals," please specify the varieties, e.g., dog, cat, etc.

Example:

Classifier	1. Use it?	2.* Seen/Heard	3. Example	4. Referents
hiki	o		inu san-biki	animals: dogs, cats pigs, etc.
*If you answered "o" in column 1, leave blank.				

If you have any comments on any of the entries, please feel free to add them.

APPENDIX 2

FORMS LISTED ON QUESTIONNAIRE

The questionnaire I administered contained the forms listed below. Each is followed with a description of the referent class ascribed to it in the source from which it was drawn; this description in some cases differs from the descriptions produced by respondents to the questionnaire. Forms belonging to the core inventory described in Chapter 1 are preceded by a double asterisk; members of the extended inventory are preceded by a single asterisk; forms which were used by none of the questionnaire respondents are preceded by a +.

+ 1.	aku	(悪)	- villians, ruffians
2.	an	(案)	- items, cases
3.	bi	(尾)	- fish
* 4.	bu	(部)	- newspapers, complete sets of books, documents, sutras
** 5.	dai	(台)	- furniture, appliances, vehicles
* 6.	dai	(題)	- problems
* 7.	dan	(段)	- piled up things, levels
+ 8.	e	(柄)	- tools with handles, e.g., knives
* 9.	eda	(枝)	- branches; gifts
+10.	gai	(蓋)	- cone-shaped hats, other objects with that shape
11.	gu	(具)	- artifacts of various sorts, often in sets, e.g., clothing, tools, palanquins, sets of dishes, horse trappings
12.	gun	(軍)	- military units, sports teams
13.	hai	(杯)	- squid, octopus; boats
*14.	han	(犯)	- crimes
15.	hari	(張)	- objects made with a stretched string or piece of fabric, e. g., bows, kotos, paper lanterns, umbrellas, drums, curtains, mosquito nets

16. hasira   (柱) - gods, honored people, spirits of the dead,
                     Buddhist mortuary tablets
#17. hati   (鉢) - potted plants, mortars
#18. hatu   (発) - gunshots
+19. hei   (瓶) - flower vases
#20. hen   (編) - literary works
#21. heya   (部屋) - rooms
##22. hiki   (匹) - animals; sewing needles
#23. hin   (品) - items in an inventory
##24. hon   (本) - long, slender objects, e.g., trees, pencils,
                     squid, trains; movies; sports matches; books
25. huku   (幅) - scrolls
#26. huri   (振) - swords
#27. husa   (房) - objects in clusters, e.g., grapes, bananas,
                     wisteria
28. huu   (封) - letters, packages
29. hyoo   (表) - charts
30. ka   (架) - shelves, supports, trunks, screens, plaques
+31. ka   (顆) - small, roundish objects, e.g., grains,
                     stones, fruits, melons, jewels
##32. kabu   (株) - rooted plants, plant roots; corporate stocks
+33. kake   (掛) - things hung on something, e.g.,
                     bows, collars, neckties, stirrups
34. kan   (巻) - rolled-up objects, e.g., movie film, scrolls
35. kan   (管) - long, thin objects, e.g., brushes, flutes
#36. kapuseru(カプセル) - capsules of medicine
37. kasane   (襲) - clothing
38. kase   (桛) - reels of thread
+39. kasira (頭) - Buddhist images, feudal lords; animals;
                     things worn on the head
40. kata   (方) - human beings (honorific)
+41. katage (片食) - meals
+42. katamai (片枚) - suitcases, trunks
43. kazari   (飾) - litters
+44. kei   (茎) - long, thin objects, e.g., brushes, grasses;

stone lanterns

##45. ken   (件) - cases, incidents, legislative measures, proceedings
##46. ken   (軒) - buildings
#47.   ki   (騎) - riders on horseback
#48.   ki   (基) - large stationary objects, e.g., stone lanterns, gateways, gravestones, industrial machines
##49. ki   (機) - airplanes
50.   ki   (机) - desks
#51.   ko   (戸) - households
##52. ko   (個) - small, roundish objects, e.g., watches, eggs, fruits, hats, containers; solid objects generally
#53.   koku   (国) - countries
54.   koma   (駒) - chesspieces
55.   koma   (齣) - frames of film; scenes in movies, plays, narratives
+56.   kon   (喉) - fish
#57.   koo   (校) - school
+58.   koo   (口) - human beings; implements such as knives, swords, plates, etc.
59.   koo   (行) - banks
+60.   kori   (梱) - packed, wrapped objects, e.g., luggage, bales of raw cotton or silk
+61.   kosi   (腰) - things attached to the waist, e. g., swords, scabbards, hakama
+62.   kotu   (笏) - ink sticks
+63.   ku   (軀) - religious idols, gods
##64. ku   (句) - haiku
+65.   ku   (口) - human beings; implements such as knives, swords, plates, etc.
66.   kuki   (茎) - long, thin things, e.g., plants, brushes
67.   kusari (闋) - tunes
68.   kuti   (口) - swords; donations, bank accounts

#69.   kyaku   (脚) - legged furniture
##70. kyoku   (曲) - pieces of music, dances, dramas
#71.   kyoku   (局) - companies, broadcasting stations, bureaus;
                         games of go and syogi
##72. mai   (枚) - flat, thin objects, e.g., pieces of paper,
                         dishes, leaves, clothing; actors' roles
#73.   maki   (巻) - rolled-up objects, e.g., reels of wire or
                         thread, scrolls
##74. mei   (名) - human beings (honorific)
#75.   men   (面) - flat objects, e.g., mirrors, kotos, go
                         boards, Noh masks, plaques; sports
                         arenas, e.g., tennis courts
+76.   mimi   (耳) - pairs of rabbits
77.   mon   (門) - cannons, torpedo tubes
##78. mon   (問) - questions, problems
79.   moto   (本) - plants and trees, waterfalls
##80. mune   (棟) - buildings
+81.   nagare   (流) - flags
##82. nin   (人) - human beings
#83.   peizi   (ペイジ) - pages
#84.   ren   (連) - strung together objects, e.g., necklaces,
                         strings of fruit, strings of events; knit
                         things; hawks
#85.   rin   (輪) - flowers; wheels
86.   ritu   (律) - patterns of Chinese poems
#87.   rooru   (ロール) - rolled-up objects, e.g.,
                         toilet paper, paper towels
#88.   ryoo   (輛) - railway cars, heavy vehicles
+89.   ryoo   (領) - armor
90.   ryuu   (粒) - small, grainlike objects, e.g., grains,
                         pills, beads
91.   ryuu   (流) - hanging pieces of cloth, e.g., ornaments
                         curtains, flags
+92.   sage   (提) - hanging objects, e.g., hakama, sake bottles
                         hung from the wrist

*93. sao (棹) - trunks; poles; samisens; stickshaped sweets; flags

94. sasi (差) - dances, plays, pieces of dance music

95. satu (札) - documents, letters

**96. satu (冊) - books, magazines, notebooks, ticket books

+97. saya (莢) - beans in the pod

**98. seki (隻) - large ships; fish; birds; one member of a pair

99. seki (度) - seats; performances

100. sen (線) - railway lines; lines on a musical score

101. si (枝) - long, thin objects, e.g., brushes, swords, branches

+102. si (至) - beats of the pulse

+103. si (翅) - birds

*104. siito (シート) - sheets of stamps

*105. situ (室) - rooms

**106. soku (足) - pairs of footwear, stirrups, gloves

*107. soo (層) - layers

**108. soo (艘) - small boats

+109. sue (据) - tubs used in bathing, etc.

+110. suwari (据) - piles of rice cakes (moti), etc.

*111. suzi (筋) - long, thin things, e.g., roads, brooks, arrows, strings, towels

*112. sya (社) - shrines, companies

**113. syoku (食) - meals

*114. syu (首) - poems

+115. syuku (鎧) - suits of armor

*116. tai (体) - gods, Buddhist images, corpses

*117. taku (卓) - tables, desks

*118. tama (玉) - piles of noodles, round objects, e.g., onions, cabbages

119. tare (垂) - hanging objects, e.g., mosquito nets, curtains, bamboo shades

120. tei (艇) - small boats

+121. tei (蹄) - hooved animals, e.g., horses, deer, wild

boars

**122.	teki	(滴)	- drops of liquid	
**123.	ten	(点)	- works of art; items of merchandise; spots, points, drops of liquid	
*124.	ten	(店)	- shops	
+125.	titu	(帙)	- books kept in sheaths (titu)	
*126.	tokoro	(所)	- dignitaries; places, spots	
+127.	tomae	(戸前)	- storehouses, warehouses	
*128.	too	(党)	- factions	
+129.	too	(套)	- folded documents, clothing, etc.	
**130.	too	(頭)	- large animals, e.g., horses, elephants whales	
131.	too	(灯)	- electric lights	
**132.	toori	(通)	- methods, types	
133.	tubo	(壺)	- pots	
**134.	tubu	(粒)	- small, grainlike objects, e.g., grains, gems, beads	
135.	turi	(釣)	- hanging objects, e.g., mosquito nets	
**136.	tuu	(通)	- letters, documents	
*137.	tuuwa	(通話)	- telephone calls	
*138.	tyaku	(着)	- suits or major items of clothing or armor	
*139.	tyoo	(挺)	- implements, usually with a handle or long, shape, e. g., baskets, candles, forks, guns, razors, violins, rickshas, hoes, ploughs, chalk, scissors	
+140.	tyoo	(貼)	- powdered medicine wrapped in paper	
141.	tyoo	(張)	- objects made with a stretched string or piece of fabric, e.g., bows, kotos, paper lanterns, curtains, mosquito nets	
+142.	u	(宇)	- buildings, especially shrines and temples	
*143.	wa	(羽)	- birds, rabbits	
+144.	yoku	(翼)	- birds	
145.	yoo	(葉)	- flat, thin things, e.g., sheets of paper, leaves, postcards	
*146.	za	(座)	- shrines, Buddhist idols, Shinto music and	

dancing; theaters, theater troupes;
airplane seats

+147. zai   (剤) - medicines

*148. zen   (膳) - pairs of chopsticks, trays

149. zi   (寺) - temples

150. ziku   (軸) - scrolls

151. zyoo   (条) - long, thin things, e.g., rivers, arrows, washcloths

*152. zyoo   (錠) - pills

+153. zyu   (樹) - standing trees

154. zyuu   (什) - poems

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