

## The Idea of a Classifier System: Theoretical Problems in the Analysis of Japanese Noun Specification

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Research over the past two decades has come to the consensus that classifiers (and their relatives, class nouns) are important for revealing cognitive patterns of categorization, but that in many cases they do not otherwise organize coherent categories, whether classical taxonomic or prototypical (Beckwith 1997<sup>1</sup>). The contradiction is emphasized by the fact that what appear to be clear examples of classifier agreement are often bafflingly unacceptable. Thus some linguists have, with good reason, argued that classifiers actually do not classify anything (Lehman 1979, 1990). This problem is illuminated by a question raised by Pamela Downing in her recent book on Japanese classifiers: Why can a set of nouns marked by the same classifier be referred to anaphorically in summation with that classifier in some instances, but not in others? She illustrates this with the sentences in examples (1) and (2) (Downing 1996:115).<sup>2</sup>

- (1) *neko ip-piki, inu ni-hiki, buta go-hiki, zenbu de hap-piki o katte imasu.*  
cat 1-hiki dog 2-hiki pig 5-hiki all LOC 8-hiki ACC raising be.

'I'm raising one cat, two dogs, five pigs, eight animals<sup>3</sup> in all.'

- (2) *\*Kuruma ni-dai, sofa san-dai, terebi ichi-dai, zenbu de roku-dai o tsuida.*  
car 2-dai sofa 3-dai TV 1-dai all LOC 6-dai ACC inherited

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\* I would like to thank my informants, Rumiko Masubuchi, Mayumi Nakano, and Yasuko Ito Watt, for their generous assistance. I am of course responsible for all remaining oddities and errors. Abbreviations: ACC accusative, GEN genitive, NOM nominative, TOP topic, LOC locative.

<sup>1</sup> This topic is dealt with in some detail in Beckwith 1995, but unfortunately a serious computer error made somewhere in the publishing process has rendered the paper largely unreadable.

<sup>2</sup> I have modified her examples slightly to conform to the usage in this paper.

<sup>3</sup> The word "animals" is not present in the Japanese, but is supplied by Downing from the classifier *hiki* [+ ANIMALS]

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

Downing suggests that in the second sentence the "oddity" of the usage *zenbu de roku-dai*, translated by her as "six *dai* in all," is due to the relative heterogeneity of the objects enumerated. She says that ". . . the co-membership of the various subcategories included in the *dai* category is overridden by their distinctiveness at what is apparently a more basic level of classification" (Downing 1997:115). She concludes that classifier categories "may not be semantically homogeneous, but may instead contain members of different statuses, included on the basis of different semantic rationales" (Downing 1997:119). Her assessment refers in part to the fact that semantically there is a continuum of classifier types ranging from the synonymous and purely taxonomic types to the more or less purely prototypical or configurational types, and few people now would argue that configurational classifiers set up classical taxonomies.<sup>4</sup>

Since taxonomy-oriented approaches to classifier analysis have been criticized severely by specialists in classifier languages (Lehman 1979,1990:89-93), prototype theory has been considered more appropriate (Lakoff 1986). Nevertheless, attempts to define the implied categories of non-configurational classifiers such as *dai* have not been successful since it is difficult, if not impossible, to agree on either taxonomic heads or prototypes for their categories. One wonders what could be the class-head or prototype of the classifier *dai* in example (2), with its extremely heterogeneous referents. A relatively simple example of the best that can be hoped for from this approach can be seen in Figure 1, which gives Yo Matsumoto's prototype-based description of the category supposedly headed by *mune* [+ BUILDING], a classifier that actually has a very narrow range of reference.

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<sup>4</sup>Numerous studies of classifiers, including among other languages Japanese (Denny 1979), have described the entire system of a given language as a complex taxonomy.

Figure 1. Prototype analysis of *-mune* according to Matsumoto

(INANIMATE); BUILDING; RELATIVELY CLOSE TO MODERATELY LARGE BUILDINGS IN SIZE (centrality condition); RELATIVELY FLAT (centrality condition?); TALKED ABOUT AS PHYSICAL OBJECTS

e.g., stores, storehouses, factories, attached houses as a whole, etc. in the contexts less prototypical: police stands, skyscrapers

excludes: family sections of attached houses; the above referents in the contexts of

Downing gives "vehicles" as the "apparent prototype" of *dai* (Downing 1996:295), but although it may be the dominant usage referent it is clearly unacceptable if we consider the wide range of heterogeneous referents with which *dai* is commonly used, including the items listed in example (2) and many others. If we persisted in attempting to follow Matsumoto's model and did the same for *dai*, perhaps organizing the category around the prototype *BOXY MANUFACTURED OBJECTS*,<sup>6</sup> it would in fact take up several times the space of the example with *mune*, and would make much less sense.<sup>7</sup> In short, it would seem that such classifiers themselves do not establish either explicitly inclusive taxonomic categories or clear prototype-based categories, and that, at best, a given classifier only *implies* a vague category consisting of the things that it agrees with or refers to.

Downing's problematic sentence with *dai* in example (2) seems on the surface to support the more pessimistic of the current views, the argument that we should reject

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<sup>5</sup>Downing takes this analysis from one of the articles by Yo Matsumoto listed in her bibliography, but does not indicate which one of them is the source. It would seem likely to be Matsumoto's 1988 article "The Japanese Classifiers *ken* and *mune*: prototype and background of existence," in *Sophia Linguistica* 31:667-713, but this is unfortunately not available to me at the time of writing.

<sup>6</sup>Downing includes sponge cake as one of the things supposedly classified by *dai* (1996:295). However, my informants did not know this usage. It appears that Downing's information may be incorrect here.

<sup>7</sup>Matsumoto's version, as given in Downing (1996:295), is more doubtful than the example with *mune*.

the idea that classifiers categorize the nouns they co-occur with or refer to anaphorically. However, examples (1) and (2) are revealing. In example (1), the enumerated items--the cat, dogs, and pigs--are taxonomically basic-level items. All of them occur in folk-taxonomy one level down from the same superordinate level head ANIMAL, for which the central prototype is usually a medium-sized mammal. In example (2), a better translation into English might conclude, "six in all." However, the summation still would not make sense. The equivalent of the classifier *dai* in this position is the specifier *s* in English, so that a literal translation would be "six -s in all." In the absence of an inclusive noun, we want to ask, "Six what?"

We can improve example (2) by substituting *beddo* 'bed' for Downing's *sofa* 'sofa'<sup>8</sup> and *moratta* 'got' or 'received' for the uncommon verb *tsuida* 'inherited', and by dropping the unnatural-sounding accusative marker, as in example (3).

(3) \**Kuruma ni-dai, beddo san-dai, terebi ichi-dai, zenbu de mut-tsu moratta.*  
 car 2-dai bed 3-dai TV 1-dai all LOC 6-tsu got

(\*)'I got *two* cars, *three* sofas, and *one* TV, six (THING)s in all.'

However, example (3) is still weird. In Japanese, cars, sofas, and TVs are all *mono* 'THINGS' and are thus optionally classifiable with *-tsu* [+ INANIMATE] instead of *dai*, but it is still incorrect to refer to them all collectively as . . . *zenbu de muttsu* '. . . 6 in all'.

The items listed in this sentence are all basic-level inanimates, but they do not belong to the same basic-level taxonomic class or, for that matter, to some natural prototype class. In other words, they are not six different instances or types of 'the same *kind* of THING', unlike the cat, dogs, and pigs, which are different kinds of ANIMALS, and are accordingly all normally classified in Japanese with *hiki* [+ ANIMAL].<sup>9</sup> By contrast, to the

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<sup>8</sup>Two of my three informants objected strenuously to classifying *sofa* with *dai*.

<sup>9</sup>Other common animate classifiers are *wa*[+BIRDS and RABBITS], *too* [+LARGE ANIMALS], *-kata* [+

mind of a native English speaker and at least one native Japanese speaker, a car is 'a VEHICLE', a sofa is 'a piece of FURNITURE', and a television set is 'a piece of ELECTRONIC ENTERTAINMENT EQUIPMENT' or something of that sort.<sup>10</sup> Since classifiers are said to classify real-world objects--in other words, things corresponding to basic level and subordinate level nouns--a particular classifier has to agree with the head of a superordinate level immediately above the basic level members, not with the ultimate super-superordinate head, which in this case is *mono* 'THING'.<sup>11</sup> In examples (2) and (3), *dai* is expected to do both, and it does not work.

One conclusion that has been drawn from the difficulty in analyzing classifier categories is that classifier categories are different from classical taxonomies (Downing 1996:26) and seem more akin to prototype categories (Lakoff 1986). Some who have taken this path have dealt at great length with the typological semantics of configurational classifiers, analyzing them into categories according to extension in one, two, or three dimensions, and so on (Denny 1979, Denny and Creider 1986:227-228). They have had little success with inanimate classifiers of the "kind" or heterogeneous type, where they have used prototype theory, wherein "categories are organized by their central points and not their boundaries" (Denny 1979:324, citing Rosch 1973). Unfortunately, this approach does not have much chance of coming up with a good general model because the majority of classifiers in Japanese are neither configurational nor taxonomic--Denny counts only seven configurational classifiers for Japanese (Denny 1979:319), and there are about the same number of animate classifiers, while there are between 47 classifiers of all kinds in everyday active use, out of a total of

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HUMANS (honorific)] and *mei* [+HUMANS (honorific)].

<sup>10</sup>Note the English classifier phrases, common with superordinate level nouns.

<sup>11</sup>One informant objected to example (3) on the grounds that it feels wrong to switch classifiers in a summation. This feeling is certainly true for Mandarin also.

around 150 (Downing 1996:294-310).

The problem seen in examples (1) and (2) appears to involve class-inclusion, and apparently taxonomy. As we can see from examples (2) and (3), the different basic level noun categories referenced by the same classifier cannot be directly connected to each other by an overarching head (either the same classifier or one that does refer to an inclusive superordinate level). Thus it is clear that classifiers cannot directly head or refer to explicitly or implicitly multiple categories. But if we provide an appropriate inclusive noun for the classifier to agree with, as in example (4), where the summation (*zenbu de mono muttsu moratta* 'I received six things in all') includes a full classifier expression, the sentence becomes more acceptable.<sup>12</sup>

- (4) *Kuruma ni-dai, beddo san-dai, terebi ichi-dai, zenbu de mono mut-tsu moratta.*  
car 2-dai bed 3-dai TV 1-dai all LOC thing 6-tsu got

'I got six things in all: *two* cars, *three* beds, and *one* TV.'

Now, however, the classifier *tsu* [+ INANIMATE] refers directly to the superordinate noun *mono* 'thing'; it no longer refers to the enumerated items at all. Although example (4) is acceptable, it tells us nothing about the class membership of the basic-level items listed in the sentence. Moreover, as we have already seen in example (3), if we drop the noun and try to use *tsu* anaphorically, the sentence is unacceptable. It is thus clear that nouns can establish taxonomies, and classifiers can agree with or refer to them, but classifiers themselves cannot head their own classes, any more than adjectives can.

Let us look at another example. The classifier *hon* [+ EXTENDED] is well known in the literature from George Lakoff's prototype analysis in his book *Women, Fire, and Dangerous Things* (1987). With *hon*, which is one of the most productive configurational

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<sup>12</sup>The informant who did not like example (3) did not like example (4) for the same reason. See note 11.

classifiers and has one of the most heterogeneous sets of referents, we find the same principle operating. Although two pens, two rolled-up towels, and two baseball games are each counted *ni-hon* (lit., two-*hon*[+ EXTENDED]) 'two (whatever)s', we can not list them and then give as a summation *zenbu de roppon* 'all together six', as in example (5).

- (5) \**Empitsu ni-hon, taoru ni-hon, yakyuu ni-hon zenbu de rop-pon terebi de mita.*  
 pencil 2-*hon* towel 2-*hon* baseball.game 2-*hon* all LOC 6-*hon* television LOC saw.

\*'I saw two pencils, two rolled-up towels, and two baseball games, 6 (?)s in all, on TV.'

As with example (2), anyone hearing this sentence--in Japanese, English, or any other language--would undoubtedly be baffled by the weird assortment of things that the speaker is trying to count together, regardless of the presence--in Japanese--of the same classifier in the summation. The normal reaction would be to ask, "Six *what*?" (Or maybe, "Are you crazy?") However, if we bought, say, three pens, two pencils, and a Japanese writing brush, as in (6), we can sum them all up as *zenbu de roppon*, 'six in all'.

- (6) *Empitsu sam-bon, pen ni-hon, fude ip-pon, zenbu de rop-pon kat-ta.*  
 pencil 3-*hon* pen 2-*hon* brush 1-*hon* all LOC 6-*hon* bought

(\*)'I bought three pencils, two pens, and one writing brush, six (WRITING TOOL)s in all.'

The Japanese sentence in example (6) is perfectly acceptable for the reason that the classifier *hon*, like nearly all classifiers, classifies things at the superordinate level immediately above the basic level nouns being counted--that is, the things must be 'the same kind of thing' according to everyday perception--and in this case the Japanese perception, helped along considerably by the presence of the classifier *hon*, is that these are in fact the 'same kind of thing', namely ROD-SHAPED WRITING TOOLS. The implied common category head here is the immediately superordinate term, with which the classifier *hon* agrees, and *hon* can therefore be used anaphorically.

Now if we go back to example (3) and rewrite the sentence so that the things counted with *dai* remain within the same immediate superordinate category, we will have an acceptable sentence. Thus the Japanese sentence in example (7), in which all of the items listed belong to the category VEHICLE, is completely acceptable.

(7) *Kuruma ni-dai, basu san-dai, torakku ichi-dai, zenbu de roku-dai mita.*  
 car 2-*dai* bus 3-*dai* truck 1-*dai* all LOC 6-*dai* saw

(\*)I saw two cars, three buses, and one truck, 6 (VEHICLE)s in all.<sup>13</sup>

There is a difference in explicitness, and therefore acceptability, between the Japanese examples and the English equivalents, in examples (6) and (7). To an English speaker, these sentences are still wrong without the parenthetical additions, which tell us in each case what category of things is being counted. Since the Japanese configurational classifier *hon* refers to things that are saliently [+ EXTENDED], and configurational classifiers often function much as adjectives do in English, a literal translation of the Japanese summation in example (6) might be 'six longish things in all'. Of course this sounds stranger in English than omitting an appropriate superordinate noun, without which one still wants to ask, "Six what?" We learn in primary school that we "can't count apples and oranges." The reason is that in English we can only count things that are identical. This is why we need a noun with every summation in the examples given here.<sup>14</sup> In Japanese, though, the agreement of the same classifier with each item allows Japanese speakers to count non-identical things together, as long as

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<sup>13</sup>Verb choice can also narrow the reference enough that zero anaphora would work with *dai*. Consider the sentence \*6-*dai* (o) *tsuida* '(I) inherited 6*dai*' (unacceptable because the reference of *dai* cannot be determined) versus 6-*dai ga tomatte ita* '6 (vehicles) were stopped (e.g., in the road)'. The only moving objects that *dai* can be used with are vehicles such as cars, trucks, buses, etc., so the verb provides the additional necessary data that makes the sentence understandable and the zero anaphora usage of the classifier *dai* acceptable.

<sup>14</sup>Is it also somehow connected to the fact that English is not a pro-drop language (unlike Japanese, where classifiers are often used in place of pronouns, which are avoided)?

they belong to the same natural taxonomy, as do apples and oranges, which are both round, medium-sized fruits. Similarly, pencils, pens, and writing-brushes are all rod-shaped writing instruments, and can be counted together with the classifier *hon*.

It is thus clear that there is a *taxonomic logic constraint* on anaphora. Although classifiers may agree with nouns at any level, in anaphora classifiers can only agree with strictly taxonomic classes in which the members belong to the basic level (or its subordinate levels).<sup>15</sup> Classifiers simply cannot head complex classes, however logical such classes may seem. This holds true even for the instances of what appear to be agreement at a higher taxonomic level, such as with the classifiers *ri/-nin* [+ HUMAN]<sup>16</sup>, and *-hiki* [+ ANIMAL], which head the categories of HUMAN and ANIMAL respectively, because in folk taxonomy these superordinate heads are actually only one level above their basic level noun members. Although the general inanimate classifier *tsu* agrees with the noun *mono* 'thing', and therefore corresponds to a much higher superordinate level with many complex taxonomies under it, in anaphora it falls nevertheless under the same agreement constraint as all other classifiers, as we have seen in example (4). Thus each supposed 'classifier class' constructed by linguists is in fact grammatically a single taxonomy of basic level nouns (such as the animate classifiers) or a collection of separate taxonomies of such nouns that independently agree with the same classifier.

We should perhaps not be too surprised. The productiveness of the most frequently used configurational classifiers, such as *hon* [+ EXTENDED], *mai* [+ FLAT], and so on, may be attributed to their ability to semantically narrow the field of reference of the noun much in the manner of adjectives in English. Adjectives, which are similar to

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<sup>15</sup>The taxonomic logic constraint can constitute a test as to whether a given specifier is a classifier or a measure, since the constraint does not affect measure expressions. For example, it is perfectly acceptable to say, "I added two cups of milk, a cup of flour, and a cup of meat, altogether four cups, to the other ingredients in the bowl."

<sup>16</sup>For a discussion of *ri/-nin* see Beckwith 1999.

configurational classifiers in many respects, can normally not be used as anaphors for nouns either. Consider examples (8) through (10).

(8) *She brought her big black dog to the party; her boyfriend brought a yellow cat.*

(9)a *\*Did she bring her little?*

(9)b *\*Did she bring the little?*

(10)a *\*Who brought a yellow?*

(10)b *\*Who brought the yellow?*

By contrast, we use pronouns as anaphors all the time in English. If we provide pronouns and definiteness markers, we can also use adjectives as anaphors, as in examples (11) and (12).

(11)a *Did she bring her little one?*

(11)b *Did she bring the little one?*

(12)a *Who brought a yellow one?*

(12)b *Who brought the yellow one?*

However, the fact is that the adjectives themselves are not the grammatical anaphors, the pronouns are.<sup>17</sup>

While neither classical taxonomy nor prototype theory works well for most heterogeneous classifiers like *-dai*, or for most configurational classifiers<sup>18</sup> such as *mai* [+ FLAT], such classifiers function exactly the same as other classifiers with respect to the

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<sup>17</sup>Note that there are also specific implications here. Examples (11)a and (11)b imply that the woman owns at least two black dogs, one big and one small. In example (12)a the specifier *a* tells us that the speaker is asking about the colors of the cats at the party, while in (12)b the determiner *the* tells us that the speaker is asking about one particular cat.

<sup>18</sup>Downing distinguishes inanimate "quality-based" (configurational) classifiers from "kind-based" (non-configurational) classifiers (1996:75).

taxonomic logic constraint on class inclusion in anaphoric reference. In fact, any collection of objects considered to be 'the same kind of THING' can be referred to together with the same classifier, as in examples (1) with *hiki* [+ ANIMAL], (6) with *hon* [+ EXTENDED], and (7) with *dai* [+ BOXY-SHAPED MANUFACTURED THING], although *hiki* is a taxonomic classifier, *hon* a configurational classifier, and *dai* a heterogeneous classifier. In each of these cases, the things counted all take the same classifier and all occur at the same basic taxonomic level below their implied immediately superordinate taxonomic head. Thus, all kinds of ROD-SHAPED WRITING INSTRUMENTS take the classifier *hon* and can be referred to together anaphorically in summation with *hon*; similarly, several types of SPORTS EVENTS take the classifier *hon* and can be referred to together anaphorically in summation with *hon*. However, there is no grammatical relationship among these separate implied categories of things, even though they are marked by the same classifier; members of the category ROD-SHAPED WRITING INSTRUMENTS can not be counted together with members of the SPORTS EVENTS category even though both categories can take the same grammatical agreement marker.

As is generally recognized, taxonomic analysis is clearly applicable to the agreement categories of the animate classifiers *ri/-nin*, *-hiki*, *too*, and *-wa*, as well as the synonym classifiers *satsu* and *ma*. All of these may be considered true 'taxonomic classifiers' properly speaking (Beckwith 1998:128-130) because they correspond to the immediately superordinate level heads of their categories. There is thus a 1:1 correspondence between the grammatical agreement category and the semantic agreement category for each of these classifiers. However, since anaphoric usage--which occurs perhaps even more commonly than full classifier phrases--is always restricted purely to taxonomic sets, grammatically all classifier categories must be taxonomic. But then, how are the different, often semantically highly diverse taxonomic sets headed by the same classifier related, if they are related? This is especially problematic for configurational classifiers, which refer to semantic fields

often represented by adjectives in non-classifier languages.

John Lyons brought up this question years ago, although his intention was to point out the apparent redundancy of gender and classifiers (long noted in the literature) with the example in (13)a. He says, "it is as if . . . in English . . . the difference between *three bananas* and *three banana trees* would be made solely in the classifier--*three fruit banana* : *three tree banana*" (Lyons 1968:288). In fact, this is almost exactly what happens with some classifiers, as in example (13)b from Hungarian, a language that has classifiers as optional specifiers (Beckwith 1992:205).<sup>19</sup>

(13)a \**one fruit banana* : *one tree banana*

'one banana' : 'one banana tree'

(13)b *egy szem szőlő* : *egy to szőlő*  
one eye grape one root grape

'one grape' : 'one grapevine'

Since anaphora is the key to understanding classifier agreement, it would behoove us to look more closely at it. In most cases, classifiers cannot be used absolutely without an antecedent somewhere in the discourse, as seen in example (14), which is given by Downing (1996:63) as unacceptable. This kind of sentence is not possible in Japanese, any more than it is in English, without a noun antecedent--or without the speaker pointing to the real-life objects--because the semantic range of things that may be qualified by *rooru* [+ROLLED] 'roll' is too great.<sup>20</sup>

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<sup>19</sup>As the glosses indicate, the Hungarian does not actually say 'one fruit grape' and 'one tree grape'. Hungarian also has the option of using class nouns instead of classifier expressions when counting: *egy szőlő szem* 'one grape', *egy szőlő to* 'one grapevine'. Generally speaking, classifiers are used metaphorically; they have other primary denotations (if they are identifiable). The question of metaphorical extension in classifiers is dealt with by Lakoff (1986) and Becker (1986), among others.

<sup>20</sup>The oldest of my three informants objected to the classifier use of *rooru* 'roll', considering it still an unnaturalized noun, but the two younger ones considered it to be quite normal.

(14) \**Ni-rooru o sono hikidashi ni irete kudasai.*  
2-roll ACC that drawer LOC insert please

\*'Please put two rolls in that drawer.'

However, it has been noted that in some cases classifiers can occur absolutely--that is, without co-occurring nouns or previously occurring nominal antecedents to which they refer anaphorically. This is because these classifiers are considered by native speakers to be in a 1:1 correspondence with their nouns. In modern Japanese, these 'synonym classifiers' are: (*satsu* [+ VOLUME], used only for bound publications (books, magazines, etc.); *-ri/-nin* [+ HUMAN], used only for people, and *ma* [+ ROOM], used only for rooms.<sup>21</sup> These may be used absolutely, as in example (15), or anaphorically like any other classifier, as in (16).

(15) *Tanaka-san no apaato wa futa-ma shika arimasen*  
Tanaka-HON GEN apartment TOP 2-*ma* but not.exist

'Mr./Ms. Tanaka's apartment has only two rooms.'

(16) *Daidokoro ga hito-ma to beddoruumu ga hito-ma, zenbu de futa-ma arimasu*  
kitchen NOM 1-*ma* and bedroom NOM 1-*ma* all LOC 2-*ma* exist

'It has two rooms in all: one kitchen and one bedroom.'

The importance of anaphora is brought out by frequency statistics. While 82% of all occurrences (36 different classifiers) in Downing's small corpus were of only five

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<sup>21</sup>Downing (1997: 62-63, 160) gives no explanation for this phenomenon. Her example *hito-tsu-ni chikara-o awasete*, translated as 'gathering our strength into one' (according to one informant the expression sounds like a slogan; another informant suggested *chikara o hitotsu ni shite*, with the same meaning, would sound more natural) is not actually a classifier usage (*tsu* [+ INANIMATE]), although it may look like one; *hitotsu ni* is here, as often, an adverbial phrase meaning 'together'. The remaining example in Downing, involving use of *shitsu* 'room' as a classifier, is an innovation made out of the noun *shitsu* 'room' by the fiction writer from whose unidentified work the example is taken; it cannot be considered an established classifier, though if it were one it would also be in a 1:1 relationship with its noun referent.

classifiers (Downing 1996:18), a percentage that accords well with classifier frequency reported for other languages, in her study of an extremely limited sample taken from the same corpus (Downing 1996: 168, 286 n. 11) she found that all anaphoric uses of classifiers were of the strictly taxonomic classifiers *ri/-nin* [+ HUMAN] (48 out of 55 examples in her corpus), *-hiki* [+ ANIMAL], *wa* [+ BIRDS, RABBITS]<sup>22</sup>, and *tsu* [+ INANIMATE] (Downing 1996:169, Table 6.1).<sup>23</sup> While this distribution is not always true in real-life discourse, it is notable that the classifiers in her sample refer anaphorically to the same referents that pronouns do and exist within the same taxonomic animacy classification system.<sup>24</sup> Thus, at least in some usage styles, Japanese classifiers seem to refer to the same kinds of things that the gender-marked pronouns and portmanteau

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<sup>22</sup> Although *wa* may be used for birds and rabbits, it is more common to use *hiki*. The meaning of the classifier itself is 'wing', and not surprisingly the most popular folk explanation for the inclusion of rabbits in the set of nouns that can be specified with *wa* is because of their large, wing-like ears. However, this is certainly a folk-etymological explanation, only the most common of several popular explanations, which include the notion that rabbit 'tastes like chicken', or that rabbits hop like birds (Downing 1996:91), among others. In fact, the word 'rabbit' in Japanese, *usagi*, happens to be analyzable as two independent words, *u* 'cormorant', and *sagi* 'snowy heron'. Since the words *u* and *sagi* both refer to birds, the word *usagi*--though originally unrelated etymologically--has apparently acquired the classifier *wa* by semantic overlap: classifier *wa* [WINGED ANIMAL] *u+sagi* → classifier *wa*[WINGED ANIMAL] *usagi*. The word *u* also means 'the Hare', one of the 12-year animal-cycle names, but since the word *usagi* is known both in Old Japanese and in the only known relative of Japanese, Old Koguryo--where it is *\*usigam*--the form *u* appears to be a reduction from the original longer word. The general animal classifier *hiki* can also be used instead of *wa*; this may account for the disagreement voiced by my informants (and Downing's) about whether butterflies can be counted with *wa*.

<sup>23</sup> Unfortunately, Downing provides no examples. Since *tsu* occurs anaphorically so few times in her sample, one wonders if perhaps it is not truly anaphoric, but simply an otiose slot-filler. It is used in several common set expressions, as in the phrase *hitotsu ni* 'together', cited above, and is required with any numeral usage: for example, an abstract number not referring to anything still requires a specifier. In fact, *tsu* is used so often in counting (except for purely mathematical counting, in which case the Chinese numerals are used, *sans* classifiers) that the native numerals from one to nine--the only numerals that can take *tsu*--have largely been reanalyzed as the basic forms. The use of the native numerals with classifiers other than *tsu* is restricted to *hito*- 'one' and *futa*- 'two'.

<sup>24</sup> Since Japanese has often been noted for its aversion to using personal pronouns--to the extent that some lengthy oral corpora include *no* usages at all (1996:179)--Downing's careful contrastive analysis of pronoun versus classifier usage is particularly interesting. One of her findings is that pronouns tend to be preferred for short striking distances, while classifiers are heavily preferred, almost to the exclusion of pronouns, for greater striking distances (Downing 1996:178-185).

gender morphemes of European languages do.

Of course, the gender categories of European languages are so restricted that they necessarily include incredibly heterogeneous assortments of things, which accordingly can mostly not be considered categories at all. In fact, this is the reason that gender is usually considered simply one of the agreement features of morphological form-class markers, which refer to natural classes only when marking animate referents. Since the classifier may be defined as a morpheme that combines the functions of specifier and semantic class agreement marker, it is in fact also a portmanteau morpheme, and indeed has almost exactly the same functions as the gender markers found in fusional languages such as Spanish and Arabic. It is therefore not surprising that the nouns classifiers agree with are also often so heterogeneous as to be unanalyzable as categories. From this point of view, the classifiers found in Asian agglutinative and isolating languages can be considered the functional *and* semantic equivalents of the portmanteau gender-number or gender-number-case markers found in European languages.<sup>25</sup>

However, there is still a major difference between classifiers and the morphologically bound gender markers of European languages. According to Downing, taxonomic analysis creates insuperable difficulties not only because the speaker may have the option of selecting either a taxonomic or a configurational classifier for a given 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'<sup>26</sup>"

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<sup>25</sup> Of course, it is well known that gender (or 'noun class') in African languages is also bound up with number.

<sup>26</sup> Actually, *ko* may be used--depending on the speaker--for any inanimate count noun, not only for "small, roundish objects," though not for "anything countable" (Downing 1996: 301).

(Downing 1996:128, her italics). Of course it is obvious that practically anything may belong to numerous taxonomies depending on how it is viewed, but it is significant that, as many have rightly pointed out, Japanese speakers have a certain amount of choice when it comes to using classifiers. In fact, in many languages the classifier choices speakers make are considered indications of their linguistic and cultural adeptness (Craig 1986:8). A recent study by Megumi Yui examines the latitude allowed speakers of Japanese and finds that much of the variation in classifier selection for numerous common nouns is identifiable with sociolinguistic factors such as age group of the speakers (Yui 1997), but in other cases the variation is due to the speaker's choice of qualifying point of view (Yui 1997, Becker 1986:335). The reason for the latter type of usage variation, to a large extent, is that configurational classifiers, and to some degree all other classifiers except the synonymous type, add a certain amount of semantic information to that conveyed by the bare noun--in other words, they do have an important qualifying function, akin to that of the adjectives in John Lyons' *banana* example. Classifier assignment is thus more or less variable, depending not only on semantic factors such as configuration but also on linguistic history,<sup>27</sup> individual speakers' visual perceptions and emotions, their competence level in the language, and other factors.

Nevertheless, when it comes to their putative classifying function, there is overwhelming evidence cross-linguistically that the explicit categories of things to which classifiers may explicitly and grammatically refer are in fact limited by the *taxonomic logic constraint* to strict basic (and subordinate) level taxonomies, as shown in the present analysis of Japanese. That is, the categories with which classifiers agree are internally purely taxonomic, but classifiers themselves cannot function as or refer to overarching superordinate heads of more than one category at a time, nor can they

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<sup>27</sup>See the discussion of the classifier *wa* in note 22.

agree with the superordinate heads of explicitly heterogeneous categories. Since from the point of view of *grammatical category* classifiers are only one of several types of specifier,<sup>28</sup> and since the overarching categories that they set up implicitly are comparable to the heterogeneous categories set up by European gender markers, it is clear that our putative classifier categories are on the whole largely the equivalent of the morphological form classes found in European gender languages. Classifiers can thus be considered, formally, the classifier language equivalent of the portmanteau gender-number morphemes of gender languages. THANK YOU.

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<sup>28</sup>The most important of the other types of specifier are measures, such as *cup* in note 15. Specification primarily marks the features of number, and count versus mass (Beckwith 1998:124-127).

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