A Study on Some Korean Classifiers with Respect to Cognitive Semantics

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Lee, Heechul. 1998. A Study on Some Korean Classifiers with Respect to Cognitive Semantics. *Linguistics*, 6-2, 83-101. Three numeral classifiers (NC's, henceforth) will be discussed in this paper, one of which is *ssang*,[1] another *khyelley*, and the last *pel*, along with *ccak* and *ccok* related to those classifiers. Intuitively speaking, the first two numeral classifiers are used to count two separate entities as a unit, and the last one is used to count two or more entities as a unit. Nouns that go with either *ssang* or *khyelley* are assumed to denote a unit of two entities on their own right in a default case. *pel* will be discussed separately later. *ssang* is Sino-Korean whereas *khyelley* and *pel* are native Korean. **(Chonbuk National University)**

1. Semantics of the three classifiers

Examples classified with ***ssang*** , ***khyelley*** , and *pel* are as follows:

1) *ssang* : *yenin* (lovers), *pwupwu* (husband and wife), *ingkko* (macaw, a kind of bird), any kind of animals composed of a male and a female, *kwikeli* (earrings), *ceskalak* (chopsticks)
2) *khyelley* : *yangmal* (socks), *sinpal* (shoes), *kutu* (leather shoes), *cangkap* (gloves)
3) *pel* : *os* (clothes or suit), *suce wa ceskalak* (spoon and chopsticks), *papkulus kwa kukkulus* (rice bowl and soup bowl)

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1) For the transcription of Korean, I follow the Yale Romanization system.

None of the authors (Oh, 1991, 1994; Sohn, 1991, Yang, 1991, etc.) on Korean numeral classifiers seem to have tried to explain the different characteristics of the three classifiers above. Accordingly, no explanation about different category membership within a category and across categories was provided. In their papers, nouns categorized with each classifier were just enumerated with shared properties among the nouns. As a result, there do not seem to be any principles of using different classifiers for different nouns. In addition, the three classifiers apparently do not seem to show much difference. In this paper, as Sweetser (1987) did in the definition of *lie*, Idealized Cognitive Models[2] (ICM's, henceforth, also in Lakoff 1990) of folk taxonomy theories with respect to Korean classifiers denoting couple, pair, or set will be discussed. Subsequently, differences in cognitive systems among cultures will be discussed.

1.1 *ssang*

The original literal meaning of *ssang* is 'a couple.'[3] In ICM's, adult human beings have natural reproduction orientation to keep their species from going extinct. They have a natural tendency to form a pair composed of a male and a female for reproduction. Examples of NC constructions are as follows:

4) a. *han* *ssang-uy* *yenin*
one NC-GM[4] lover
'a couple of lovers'

2) According to Lakoff (1990), "we organize our knowledge by means of structures called ICM's, and category structure and prototype effects are by-products of that organization."

3) 'a couple' not in the sense of 'two or three', but in the literal sense of two entities as a unit.

4) Genitive marker

b *pwupwu* *han* *ssang* [5]
husband and wife one NC
'a couple of husband and wife'

This concept is naturally extended to animate things (animals other than human beings) since animals, like human beings, give birth to their young through the reproductive system. The canonical use of the classifier *ssang* corresponds to the sex-pairing ICM. Thus animals consisting of a male and a female are classified by *ssang* as follows:

5) *aengmusae* *han* *ssang*
macaw one NC
'a couple of macaws'

How inanimate things such as earrings and chopsticks are classified with *ssang* is an interesting question. This query will be answered with respect to radial category extension. As far as reproduction is concerned, human beings and animals can serve their reproductive function only as a unit composed of a male and a female in ICM's. As shown in the concept of *mother* (Lakoff, 1990, p. 74-76) which requires complexity of several models[6] in a technologically highly advanced society of today, the reproduction system is complicated. What about lesbians and gays? Do they form a couple classified with *ssang*? Examples are as follows:

6) a. * *tongseng* *yenaeca* *han* *ssang*
same sex lover one NC
'a couple of homosexuals'

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5) The difference between 4 a) and 4 b) in the word order of the numeral classifier constructions is that the word order in 4 a) is used in a formal style of speech or in written Korean. This will be discussed in detail later.
6) Lakoff refers to this as cluster models.

b. *tongseng*	*yenaeca*	*twu*	*myeng*
same sex	lover	two	NC[7]

'two homosexuals'

As stated earlier, the canonical use of the classifier *ssang* corresponds to the sex-pairing ICM. In example 6 a) above, however, a pair of homosexuals does not correspond to the sex-pairing ICM, which makes the example awkward. Homosexuals are conceived of as individual entities rather than as a couple, as shown in example 6 b). Thus *a couple of homosexuals* is denoted by *two homosexuals*.

Let us consider another way of explaining the usage of classifier *ssang* with respect to predicate calculus. (Wall et al., 1990) If x stands in a reproductive relation to y, the relation is put in a language of predicate calculus as R (x, y). The set of pairs for which R (x, y) is true, that is, the extension of the predicate R (x, y), can be called the relation of the reproductive function. If it is true that x stands in a reproductive relation to y, it is also true that y stands in a reproductive relation to x. Thus the set of an ordered pair (x, y) in R (reproductive relation) is the category composed of pairs of animate[8] members classified with *ssang*. If a pair (x, y) is in the set of a relation R, then a pair (y, x) is in the same set. Therefore, R is symmetric. Human beings and animals both classified with *ssang* have symmetrical relations to each other constituting a couple for reproductive function.

Earrings and chopsticks can also function only as a unit consisting of a pair of same entities in size, shape, color, etc. In the ICM, every human being has two ears. Human beings who wear earrings typically wear one on each side. One earring, a part of a pair, functions as an ornament together with the other earring.[9] If one earring x forms a

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7) *myeng* is a general NC for human beings in Korean. In this example, downgrading classifiers, *nyesek* (for male), *nom* (for male), or *nyen* (for female), can be used. If *ssang* is used, irony is connoted, since the speaker knows that the noun can not be classified with *ssang* and he uses it.

8) The word is added to include both human beings and animals.

pair with the other earring y, y forms, by default, a pair with x. The set of an ordered pair (x, y) in a pairing relation R corresponds to the category of pairs of earrings. If a pair (x, y) is in the set, then a pair (y, x) is also in the set. Earrings and chopsticks both have symmetrical pairing relations as part of their function. It seems to be possible to say that the classifier *ssang* is used for referents, one of whose components has a symmetrical functional relation to the other. Examples of NC constructions for earrings and chopsticks are as follows:

7) *kwikeli*	*han*	*ssang*	
earring	one	NC	
'a pair of earrings'			
8) *ceskalak*	*han*	*ssang*	
chopstick	one	NC	
'a pair of chopsticks'			

Other examples of referents which apparently seem to be potentially classified with *ssang* will be considered as follows:

9) ?[10] *supika*	*han*	*ssang*		
loud speaker	one	NC		
'a pair of loudspeakers'				
10)**catongcha*	*laitu*	*han*	*ssang*	
vehicle	light	one	NC	

9) In traditional Korean culture, men never wear earrings, and women, if so, wear both earrings. Some people may wear two different earrings a la mode. This is called a mode of unbalance. As the word 'unbalance' suggests, this is not a proto-typical way of wearing earrings. If a woman loses one earring, she does not wear the other. It is useless..

10) One respondent thinks that *ssang* is okay with *supika*, but I do not. So I put ? instead of * in front of the construction. Perhaps the respondent conceives a pair of speakers as two identical entities and as functioning properly only as a pair.

'a pair of headlights'

Speakers or lights in the examples above do not inherently come as a pair. Before the concept of stereo or even surrounding sound was developed, there had not been the concept of speakers coming as a pair.[11] We remember that we listened to a transistor radio which had a speaker inside it. Lights, likewise, function by themselves as in a desk lamp. There happens to be two headlights for vehicles. Speakers and lights are classified with *kay*, a general classifier, which is extensively used for inanimate things and which has an individuating function. The following examples lend support to the point made here.

11) *supika* *twu* *kay* *sa-ss-* *ta*
speaker two NC buy-PAST-DEC[12]
'I bought two speakers.'

12) *catongcha hedulaitu twu* *kay-ka* *kocangna-ss-ta*
vehicle headlight two NC-SM[13] broken-PAST-DEC
'Two headlights are broken.'

With respect to the function that speakers or headlights serve, it is served even by a single speaker or headlight. On the other hand, human beings and animals cannot serve the reproductive function by themselves. Nor can one chopstick or one earring serve its function by itself. Functionality plays an important role in assigning different classifiers.

Young generations who only experience audio system with two speakers might conceive two speakers as a unit, namely, as one *ssang*.

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11) The same respondent probably has been influenced by advanced technology which has made stereo sound possible and which necessitates a pair of speakers to enjoy the sound. Thus it may be plausible to tentatively say that science and technology change the cognitive system and cause radial category extension.
12) Declarative ending
13) Subject Marker

They are, however, likely to accommodate themselves to the older generations and adopt their use of classifiers for easier communicational functions.

Some body parts, such as eyes, ears, arms, hands, legs, and feet, are paired due to the vertical and horizontal symmetry of human bodies. When both of the respective body parts are mentioned, the numeral *twu* 'two' is not used since it is redundant by default.[14] Hence no classifier is used because classifiers are used with numerals except when classifiers are followed by *tang*. When it is necessary to specify one of two respective body parts, a classifier, *ccok*, is used.

As we will see, all the referents classified with *ssang, khyelley*, or *pel* are physically decomposable into their constituents, namely, their parts exist separately in their own right. By contrast, body parts are connected through the body trunk. Hence body parts are not classified with one of the three classifiers when referring to a pair of them.

Different cognitive systems among cultures are incorporated into the grammar of each respective language as in the cases of Korean numeral classifiers vs. English quantifiers. In English, glasses, scissors, and trousers are used by themselves as bare plurals or quantified by using *pair*, as in *a pair of glasses*. Koreans conceive of them as a unit by themselves since they are physically inseparable as in the case of body parts, as we see in the following examples.

13) *ankyeng* *han* *kay*
glasses one NC
'a pair of glasses'

14) * *ankyeng* *han* *ssang*
glasses one NC
'a pair of glasses'

14) English, for example, has an idiomatic expression, *to keep an eye on*, not *to keep two eyes on*. In ICM's, when one eye is oriented toward one direction, the other eye is oriented toward the same direction.

1.2 *khyelley*

The classifier *khyelley* seems to mean a pair in the sense that it is used for referents whose component pairs with the other component to serve the function of referents. *khyelley* seems to be restricted to a certain experiential domain, though, as we will get to see. Examples of *khyelley* construction follow:

15) *yangmal* *han* *khyelley*
sock one NC
'a pair of socks'

16) *han* *khyelley-uy* *cangkap*
one NC-GM glove
'a pair of gloves'

17) *sinpal* *han* *khyelley*
shoe one NC
'a pair of shoes'

18) *kutu* *han* *khyelley*
leather shoe one NC
'a pair of leather shoes'

The characteristics of the referents of nouns classified with *khyelley* are that each component of one *khyelley* of the referents of a noun (e.g. *sinpal*) is assigned a side (either left or right) according to the function it is supposed to serve. Both components might apparently look the same. Since the symmetry[15] of the human body does not necessarily give two body parts, if there are two, of the same shape, each component of the referents of nouns classified with *khyelley* is symmetrical to but not the same as the other. Thus side assignment to each component is important to its function. The difference between

15) The term symmetry is used in two different senses in this paper. Here it means geometric symmetry rather than a set of ordered pairs.

ssang and *khyelley* is that the former is used for referents of nouns, one part of which is the same as the other part if the referents are inanimate, whereas the latter is used for referents of nouns, one part of which is symmetrical to the other. Animate beings (humans and animals) classified by *ssang* can, of course, be neither the same nor symmetrical to each other.

In ICM's, every human being has two feet, two hands, etc. One sock, for example, can serve its function with respect to one foot which is on the same side assigned to the sock. At the same time, its function is relative to another sock which is assigned to the other side of feet. Only when each sock serves its function and both socks are eligible to be classified with *khyelley*, do both socks fulfill their function.

If x and y are classified with *khyelley*, and x is assigned the left side, then y is the right side. The set of pairs classified with *khyelley*, namely, the set of <(x, left), (y, right)>, corresponds to the set of members of the category classified with *khyelley*. The set of pairs is symmetrical in pairing relation. That is, a pair, <(x, left), (y, right)>, is the same as a pair, <(y, right), (x, left)>. The internal structure of each pair, <(x, left), (y, right)>, is different from that of each pair classified with *ssang*., <(x, y)>. In other words, side assignment plays an added role in differentiating referents classified with *khyelley* from those classified with *ssang*. The following examples are in order.

19) * *heduphon* *han* *khyelley (ssang)*
headphone one NC
'a headphone set'

20) * *kwimakay* *han* *khyelley (ssang)*
earmuff (to keep warm) one NC
'a pair of earmuffs'

Although there are two parts having contact with two ears, in the case of a headphone, the two parts are connected by an arch-shaped

spine and it is conceived of as a unit.[16] Likewise, two earmuffs contacting both ears are connected for wearing convenience. As we have seen, each component of referents classified with *ssang* or *khyelley* are physically separate from the other making up the same pair. In addition, before the stereo system was invented, there was no need for both ears to have contact with a headphone or an earphone. In the case of earplugs, things are a little more complicated, as in the following examples.

21) *heduphon* *han* *kay*
headphone one NC
'a headphone set'

22) *kwimakay* *han* *ssang*
earplug (to keep from noise) one NC
'a pair of earplugs'

23) *kwimakay* *twu* *kay*
earplug (to keep from noise) two NC
'a pair of earplugs'

It seems to be natural that *kwimakay* is classified with *ssang*. One earplug cannot serve the function of blocking noise at all, just as chopsticks cannot serve their function at all separately. The same noun can also be classified with *kay*, a general and individuating classifier. Thus *han ssang* becomes *twu kay*. Since things shaped similarly or things made of materials similar to the factory-manufactured earplugs can serve their function, I assume they are also classified with *kay* as separate entities.

One more characteristic to notice about referents classified with *khyelley* is that they wrap the limbs. They, not to mention, have contact with the limbs. It seems that *khyelley* is restricted in experiential domain to clothing related to human limbs, as one more

16) In English, a headphone set.

example shows:

24)	*suthakhing*	*han*	*khyelley*
	stocking	one	NC
	'a pair of stockings'		

1.3 *pel*

The classifier *pel* is far more different from *ssang* and *khyelley* than *ssang* is from *khyelley* in the sense that two or more than two different, separate entities that functionally go together are classified with *pel*, as shown in the following examples:

25)	*os*	*han*	*pel*	
	clothes[17]	one	NC	
	'clothes that go together'			
26)	*suce wa*	*ceskalak*	*han*	*pel* [18]
	spoon and	chopstick	one	NC
	'a spoon and a pair of chopsticks'			
27)	*papkulus*	*kwa kukkulus*	*han*	*pel* [19]
	rice bowl	and soup bowl	one	NC
	'a rice bowl and a soup bowl'			

As seen above, the referents of nouns classified with *pel* have their components depending less on each other in functioning than those of nouns classified with *ssang* or *khyelley*. For example, a rice bowl can function by itself and a spoon can, too. More importantly, there are different degrees of sameness between the components of each referent

17) Two pieces, three pieces, or a suit is meant by clothes here.
18) Silverware for meals in Korea consists of a spoon and chopsticks whereas it consists of a fork, knife, and spoon in America.
19) Rice and soup in a traditional Korean meal is like bread and butter in an American meal.

classified with one of the three classifiers. In other words, those of referents classified with *ssang* are the same, those of others with *khyelley* are less the same, and those of others with *pel* are different, as follows:

28) Conceptual continuum

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28, a) Sameness continuum

Same Different
<----------+----------->
ssang *khyelley* *pel*

28, b) Functionality continuum

None Full
<----------+----------->
ssang *khyelley* *pel*

pel extends its use to a piece of clothing as in the following example:

29) *campa* *han* *pel*
jacket one NC
'a jacket'

Abstract concepts such as two facets of an issue, and pros and cons are not classified with *pel*. Though a rice bowl and a soup bowl are classified together with *pel*, the contents of the containers are not, as the following example shows:

30) * *pap* *kwa* *kuk* *han* *pel*
rice and soup one NC [20]
'rice and soup'

It seems that the use of *pel* is also restricted in its experiential domain to clothes and meal utensils. Plates and cups might be classified with *pel*.[21] In that case, one *pel* of plates or cups is composed of more than two of those to serve their function in a table setting. Thus the number of plates or cups forming one *pel* depends on the size of a table setting in a situation. *seythu* (borrowed from an English word *set*) is usually used for plates and cups. *seythu* seems to be used extensively across experiential, functional domains, which I think deserves further study.

There are a couple of classifiers denoting a part. How they are related to the classifiers discussed so far will be examined in the following section.

2. Semantics of classifiers denoting a part

2.1 *ccak*

ccak intuitively means a half of a whole or one physical entity of a pair.[22] One *ccak* of something implicates that the other *ccak* is missing and that without the missing entity, that something cannot be complete, which is to say, that thing cannot serve its function. In its prototypical use, *ccak* can only go along with a numeral meaning one, as in the

20) As in bread and butter in English, rice and soup go together in traditional Korean meals.

21) cepsi han pel
plate one NC
'plates that go together for a certain table setting'

22) English has an expression, *better half*.

following example:

31) *ceskalak* *han* *ccak*
chopstick one NC
'a single chopstick'

It can also appear with a numeral meaning two as in the following part of a nursery rhyme:

32) *mues-i* *mues-i* *ttokkat-unka?*
what-SM what-SM be equal-INT [23]
'What is equal?'

ceskalak *twu* *ccak-i* *ttokkat-ayo*
chopstick two NC-SM be equal-DEC
'One chopstick is equal to the other chopstick.'

sinpal-ccak *twu* *ccak-i* *ttokkat-ayo*
shoe-NC two NC-SM be equal-DEC
'One shoe is equal to the other shoe.'

ccak used in the context of two *ccak* of chopsticks or shoes has the function of focussing on one individual member of a pair so that one component is compared with and said to be the same as the other. When *ccak* occurs with a numeral larger than two (sometimes a numeral denoting two), each *ccak* of the referents referred to by a noun is from different pairs. However many *ccak* of the referents there are, any *ccak* can never form a pair with another. An example follows:

23) Interrogative ending

33) *yangmal* *sey* *ccak*
sock three NC
'three socks'

As said in the previous paragraph, each of three socks, in the example above, does come from different pairs so that no two socks form a pair. Another interesting example follows:

34) *hwathwu* *han* *cang-i* *mocala*
card [24] one NC-SM be missing
'One card is missing.'

35) *hwathwu* *han* *ccak-i* *mocala*
card one NC-SM be missing
'One card is missing.'

As shown in the sentences above, *hwathwu* is classified with *cang*, a 2-dimensional classifier. It can also cooccur with *ccak*. Since *ccak* is used in a larger functional unit composed of four entities rather than two in the case of *hwatwu*, there exists a slight difference in focus between two sentences as put forth in footnote #26. *ccak* extends its use, in this case, to denote a member of a quartet. Another word similar in sounding to but different in meaning from *ccak* will be considered in the following section.

2.2 *ccok*

ccok, as a homonym, is used for two different grammatical functions, one as a classifier and the other as an incomplete noun.[25] Each

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24) Traditional Korean game cards are composed of 12 quartets. Sentence 34) means that a single card from a set of 48 cards is missing. On the other hand, sentence 35) means that a member of a quartet is missing.

25) By incomplete noun, I mean that it cannot occur by itself even though it

grammatical function has its own senses. Since *ccok* as a classifier is not directly related to the issue in this paper, a homonym as an incomplete noun will be dealt with briefly here. *ccok* denotes *direction* or *side*. The reason that *ccok* as an incomplete noun is discussed is that it is confused with *ccak* and that it helps to clarify the differences of the classifiers discussed so far. The following examples of a minimal pair are examined:

36) *ku* *mikukin-un* *kwikeli-lul* *han* *ccak-man*
the American-TM[26] earring-ACC[27] one NC-only

hay-ss-ta
do-PAST-DEC
'The American is wearing only one earring.'

37) *ku* *mikukin-un* *kwikeli-lul* *han* *ccok-man*
the American-TM earring-ACC one side-only

hay-ss-ta
do-PAST-DEC
'The American is wearing an earring only on one side.'

In sentence 36), *kwikeli* is classified with *ccak* whereas in sentence 37), it is not. The difference is that the former sentence is focussing on one earring while the latter is focussing on one ear (literally, one side of ears). To paraphrase those sentences, sentence 36) means that the American is wearing only one earring, whereas sentence 37) means that the American is wearing an earring or earrings on only one ear. Thus it is logically possible in sentence 37) that the American is wearing two earrings on one ear, but not on both ears. The same thing goes with

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functions like a noun grammatically.
26) Topic marker
27) Accusative marker

referents of nouns classified with *khyelley*.

Classifier *ccak* can be used for a component of referents classified with *ssang* or *khyelley* while it cannot for a component of those classified with *pel*.

3. Conclusion

As we have seen so far, classifiers denoting a couple, a pair, and a group on the one hand, and those denoting a half on the other, are related in their usage to the functionality of the referents with respect to their composing half (or possibly less than half). In other words, exactly to what degree a part composing a whole of the referents denoted by nouns can serve the functions supposed to be served by the whole seems to play an important role in assigning different classifiers to the referents.

The degree of sameness in shape of one composing half of referents as the other composing half plays a role in differentiating those classified with *ssang* from those classified with *khyelley*, due to the side assignment factor involved in referents classified with *khyelley*.

It seems that referents classified with *khyelley* are restricted in experiential domain to clothing related to human limbs.

Let's see how a generalized conceptual continuum can be represented for the referents discussed so far.

38) Generalized conceptual continuum

<one individual><--*ssang, khyelley*--><---*pel*----><two individuals>
<-+----------+----------+-----------+---------------+--->

apple	glasses	chopsticks	rice bowl &	2 pencils
	scissors	earrings	soup bowl	
	pants	husband & wife	spoon & chopsticks	
		socks	suit	
		shoes	three pieces	
		gloves	two pieces	

<--------*cook*------->

In this paper, some classifiers apparently having similar or the same meanings were investigated. In conclusion, there certainly exist differences in meaning and consequently in their usage among the classifiers. The differences were explained in relation to various aspects of the functionality of referents.

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