Numericals and Classifiers in Korean and English

Young-Ok Lee
Kyung Hee University, Seoul, Korea
yolee@khu.ac.kr

ABSTRACT

Because the difference between Korean and English is so wide in almost every aspect of the language structure including phonology, syntax, and semantics the translation between the two languages raises lots of problems. Wilhelm von Humboldt (1836, 1988:54) has claimed that thought and language are one and inseparable from each other and on the basis of this Sapir-Whorf's hypothesis of linguistic relativity has developed. Thus, the study of language phenomena should be accompanied with the study of the background culture covering the social, historical, political, and economical aspects of the culture that may serve as the basis of the culture's value system. The culture's value system in turn works as a crucial factor for particular patterns of cognition and perception that lead to the establishment of the particular language structure.

In this study, we will consider the cultural differences between Korean and English reflected in the structural differences of numericals and classifiers, the basic elements to be considered in almost every structure of nominals that should be counted in numbers and classified along with a certain system of categories. Classifiers and noun categorization systems have long been a particular focus of interest in functional typology because they provide a unique insight into how people categorize various entities of the world through their language. The human language shows both universality and uniqueness in accordance with the characteristics of the language itself. The two languages have similarities and differences in the structure and use of them and we will show what element of cultural differences triggers such differences. The study will shed light on the

desirable direction of translation or intercultural communication including the two languages.

KEYWORDS

Numerials, classifiers, categorization, culture, translation

1. Introduction

Korean and English are two languages with different linguistic systems in terms of phonology, lexicon, syntactic and semantic structures including word order and patterns of expressing major meaning categories. These differences may be attributed to their social, political, economic backgrounds, as well as historical and cultural backgrounds of the two language systems. If we take the basic word order and the distribution and usage of commonly used vocabulary items as two barometers to measure the degree of difference of any two languages, Korean and English are to be listed near the top of the pairs that show the most difference with each other.

As Aikhenvald (2000) has argued, classifiers and noun categorization systems have long been a particular focus of interest in functional typology because they provide a unique insight into how people categorize the world through their language. The human language shows both universality and uniqueness in accordance with the characteristics of the language itself. Any two languages have similarities and differences in the structure and use of them and we will show what element of cultural differences of Korean and English triggers such differences. In this comparative study of Korean and English, we will look into the two languages' distribution and usage of

numericals and classifiers, the most basic and crucial components in any language. Numericals, the combination of numbers and units of items represented in noun forms, and classifiers for labeling a group of entities according to their common functional or semantic peculiarities, are very essential elements to determine the state and quality of nouns in sentences, but it will be shown that their representations are different between Korean and English. After discussing differences between Korean and English in the structure of NP (Noun Phrase), we will compare the two languages' distribution and use of numericals and classifiers in the subsequent sections and try to find the deep-seated cultural traits that contribute to such different language phenomena.

2. Differences between Korean and English

Various differences between Korean and English may be attributed to differences in their basic sentence structure as well as their distribution of vocabulary items. As was accounted for in Lee (2003), Korean may be classified as the action-dominant or verb-oriented language in comparison with English, which may be classified as object-dominant or noun-oriented language. This means that the two languages show differences in the relative frequency in the occurrence of verbs or nouns in a sentence. That is, the Korean phrase structure with the basic word order of SOV requires the verb or predicate at the end of the sentence, with various syntactic or pragmatic elements represented by the variation of sentential endings added to the verb stem. On the other hand, English phrase structure with the basic word order of SVO requires the object or other complements for the verb, which are realized in noun phrases, to occur at the end of the

sentence. It may be argued that this difference of the word class occurring at the final position of the basic sentence structure reflects the characteristics of the two languages: Korean as a verb-oriented language and English as a noun-oriented language.

Before discussing the main topic of this paper, the characteristics of numericals and classifiers of Korean and English, we will briefly summarize the main features of NP of both languages. First, in English transitive verb constructions, the object should occur after the verb. The object, realized in the form of a noun or noun phrase may again be modified by other words or phrases before or after the object. Thus, the head noun itself has much more diverse options for taking additional elements that serve as its modifiers. On the other hand, in Korean, the object of a transitive verb should occur before the verb and if there is a subject realized, two noun phrases are positioned in a sequence. The neighboring subject and object are distinguished from each other with the subject- or object-marking postpositions. These double occurrences of the same word class are highly cumbersome both for production and reception of the sentence construction by the speaker and the hearer. Such a difficulty may be counted as a factor that induces the omission of either subject or object in so far as there is no misunderstanding, that is, the referent is recoverable from the information given in the context. In addition, because the Korean head noun of the noun phrases should be positioned at the end of the phrase, all the modifiers for the head noun occur before that head noun. Due to these structural peculiarities, Korean noun phrases have much less options to be realized with various kinds of modifiers as in English, which allows diverse types of modifiers before and after the head noun such as articles, numerals, adjectives before the head noun and prepositional phrases, appositive noun phrases or noun clauses and relative

clauses after the head noun.

Second, the abundant number of prepositions with various meanings and functions developed in English cannot find their equivalent counterparts in Korean. In many cases, basic English prepositions that are widely used for time, place, instrument, manner, and others are to be transferred to some other word class in Korean translation. Consider the following examples:

(1) a. He jumped over the wall.
그는 담장을 뛰어서 넘어 갔다.
b. They talked me into joining in.
그들은 나를 계속 설득하여 가담하게 만들었다.
c. The teacher talked the boy out of leaving school.
선생님은 그 아이를 달래어 학교를 그만두지 않도록 하였다.
d. Don't lure him away from his studies.
공부하는 그를 꾀어 내지 마라.
e. Everything turned gold at a touch.
손을 대자 마자 모든 것이 금으로 변했다.
f. I always faint at the sight of blood.
피를 보기만 하면 언제나 나는 기절해 버린다.

For the English prepositional phrases with nouns or gerundives, Korean translations use verbs, transferring the simple English adverbial prepositional phrases to adverbial clauses with various tense-incorporating verbs. Thus, where it is enough to express with just one main verb in English, Korean has to enlist more than one verb. This fact is one important point that confirms the noun-orientedness of English and verb-orientedness of Korean.

Third, in English many subjects of transitive verbs, which are basically to convey the idea that a conscious agent gives a certain impact to the patient regardless of its consciousness or humanness,

are nonhuman entities. In other words, English abundantly uses the figurative process of personification, assigning the human characteristics to nonhuman entities. Korean transitive verbs are rarely used with nonhuman subjects, as shown in the following pairs of example sentences:

(2) a. The timeliness of the statement says everything.
때마침 그러한 말을 한 것만 보아도/만으로 다 알 수 있다.
b. His manner argues good upbringing.
그 사람의 매너를 보면/매너로 가정교육이 훌륭하다는 것을 알 수 있다.
c. Visitor arrivals do not tell the whole story.
도착한 관광객 수만 가지고/수만으로 전체적인 상황을 판단할 수는 없다
d. An explosion at a fireworks factory in southern China killed at least 27 people and injured 59 others.
중국 남부의 폭죽공장에서 일어난 폭발사고로 최소한 27명이 사망하였고 59명이 부상당하였다.

The subject of each of the English sentences in (2) denotes a nonhuman entity like some fact, phenomenon or behavior and these nonhuman entities are expressed as the agents for activities like saying, arguing, telling and killing, the typical and representative activities that human beings consciously perform. In the Korean version all of these subjects are expressed in the form of some clauses including verbs referring to the activities. These contrastive constructions may also be counted as important evidence that verifies the noun-orientedness of English and verb-orientedness of Korean.

In the next chapter, we will discuss the characteristics and distributions of Korean and English numericals and classifiers, the most basic mechanism essential for categorization of nouns.

3. Numericals of Korean and English

3.1. Numericals of Korean

Korean has developed a separate group of nouns that may be used to express the number of certain specific types of objects to which the numerals may be attached. In this paper, the unit of the special nouns that may serve as the head noun for numerals, that is, number words, is to be called 'numericals.' Lyons (1977: 460) confirms that the classifier that is employed in a language depends upon the nature of the entity or set of entities that is being referred to. Most of these numericals are classified as imperfect nouns or dependent nouns that cannot stand alone; they are to be preceded by some numerals. Woo (2001: 71) also confirms that the special classifiers that should occur with numerals are syntactically dependent on the occurrence of head nouns before them.

Certain common nouns may be used as numericals in isolated cases as shown in the following table.

Table 1: Korean Common Nouns Double-used as Numericals

Categories[1]	Examples
humans	사람, 반, 분단, 학생, 녀석, 놈
animals	무리, 떼
plants	마디, 줄기, 다발, 송이, 포기, 알, 알갱이, (파 한) 뿌리
food, containers or tools for different kinds of food	(쌀)자루, 가마, 섬, 되, 말, 병, 가닥, 가락, 조각, 방울, 알,입, 숟가락, 젓가락, 잔, 컵, 그릇, 냄비, 공기, 사발, 대접, 종지, 접시, 동이, 양동이, 바가지, 바구니, 층, 통, 포대, 토막
cloth, string	폭, 겹, 올
buildings, place	바탕, 자리, 다랑이, 발, 다리, 집, 반, 학교, 회사, 국가, 방, 마당, 계단, 층, 칸

time	차례, 시간
others	상자, 무더기, 부분, 방울, 알, 가닥, 가락, 조각, 짝, 쌍, 트럭, 차, 문제, 곡, 곡조, 책, (일) 점 (일) 획

Numericals listed in Table 1 are used to specify the units for counting but they can be used as independent nouns without being complemented by modifying elements in the form of counting numbers. Thus, this group of numericals should be distinguished from those that function as units for counting and cannot stand alone without supporting modifiers in the form of numbers. They are referred to as 'imperfect numericals'. The representative list of imperfect numericals is given in the next table[2].

Table 2: Korean Imperfect Numerals

Categories	Examples
person	명, 분, 인(人)
animal	마리, (말 한) 필
plant	그루, 단, 떨기
food	(쌀 한) 줌, (오징어 한) 축, (굴비 한) 두름, (고등어 한) 손, (물고기 한) 마리, (생강 열) 접, (물 한) 모금, (밥한) 술, (밤 한) 톨
clothes	(신발 한) 켤레, (양복 한) 벌, (이불 두) 채, (셔츠 한) 장
buildings, area	(집/아파트 한)채, (건물 두) 동(棟), (밭 한) 뙈기, 평, (논 한) 마지기
length	마, 척, 길, 도(度), 리, 밀리미터, 센티미터, 미터, 킬로미터, 마일
weight, volume	근, 되, 말
time	(다섯) 번(番), (오) 년(年), (제일) 회, (삼) 차(次) (시험), (두) 해, (열 두) 달, (2008) 년, (10) 월, (25) 일, (두) 시, (삼십) 분, (20) 초, (나이 열) 살, 세
others	(돌멩이 한)개(個), (나무 한) 개비, (한) 뼘 (길이), (자동차/세탁기 한) 대(臺), (책열) 권(卷), (종이 다섯) 장(帳), (연필 열)자루, (회초리 열) 대, (시한) 수, (책 한) 줄, (글자 한) 자, (책 열) 페이지/쪽, (바늘 한) 쌈, 묶음, 부, 회, 번, 면, 원, 점

The imperfect numericals listed in Table 2 cannot stand alone without the number words for counting the units and also common nouns representing the counted entities. The main function of these numericals is to provide the base for attaching the number words for some objects that should be counted by grouping them in certain categories. Thus, in Korean it is not possible to add the number words directly before the common noun like '책 (book)' as in English. Compare the following Korean and English examples:

(3) a. Korean: *두 책 주세요. // 책 두 권 주세요.
b. English: Give me two books.

The imperfect numerical '권' should be used to express the number of the books while '대' should be used to count the number of cars. It is a unique phenomenon that is not shared by English counterparts. English can directly put the number words before the noun if it is classified as countable.

3.2. Numericals of English

In contrast to Korean, English is not provided with a special group of unit words for carrying the number words for countable nouns. It is not necessary to enlist some special units for expressing the numerical information; the number words can be directly added before the countable nouns as shown in (3b). The only requirement for the addition of these number words is that the head noun should be countable. The concept of countability is crucial in expressing the numbers and for unaccountable nouns, the most representative of which is grouped as mass nouns with no natural bounds, such as *water* or *milk*. While countable nouns can express the number by

directly adding the number words in front of the nouns, some modifiers referring to their class features can be used as prepositional phrases with the preposition 'of' as for non-countable nouns.

In both Korean and English, the numericals may take two different structures: one is the number words directly occurring before the head noun; the other is the head noun modified by numericals before or after it. The first may be referred to as the simple numerical form, and the second is the expanded one. Apart from the difference in distributions of the nouns that may take the simple form, the major difference between Korean and English is found in the second type of numericals.

Korean may realize the expanded numericals in two ways. First, the head nouns occur first and then the number words in combination with numericals follow; the head nouns and numericals of imperfect nouns accompanying number words are in appositive relationships. As shown in (3a), first a description of the general reference is given and then this general description is specified with numericals in apposition to the first head noun. Second, the postposition '의' connects the head noun and the numericals, that is, the number words preceding the unit nouns as follows:

(4) a. 한 방울의 물 (~ 물 한 방울)
b. 한 잔의 술 (~ 술 한 잔)
c. 두 명의 학생 (~ 학생 두 명)

This construction, not so commonly used in informal spoken style, as shown in each of the parentheses, is not confined to numericals but widely used to make noun phrases modified by preceding phrases mainly with the meaning of possession, as shown in the following examples:

(5) a. 철수의 책상 (Cheolsoo's chair)
b. 아버지의 말씀 (father's saying)
c. 어머니의 친구 (mother's friend)

On the other hand, English uses the second type of extended forms for modifying nouns with classifiers by using prepositional phrases. This extended form of numericals or classifiers is very widely used in English. The preponderance of the use of this prepositional phrase with *of*, equivalent to the Korean postposition '의', may be regarded as one important aspect that reflects the noun-orientedness of English in contrast to the verb-orientedness of Korean. Though equivalent to the Korean postpositional phrases with '의', the *of* prepositional phrases of English are different from the Korean counterparts, in their function and the concomitant elements that co-occur with them as complements.

English has a group of quantifiers denoting the amount of the entity they refer to such as *no, some, any, many, much, few, little, rare* functioning like attributive adjectives in that they occur before the head noun. The Korean counterparts for most of these quantifiers are to be expressed with adverbs such as *별로, 조금, 살짝, 많이, 잔뜩, 무진장, 전혀*. Korean does not use adjectival words to express negative meaning of the whole sentence as in English. Just a few question words such as *몇* (how many), *어느* (which), *웬* (for what) may be analyzed to have similar attributive functions. The following pairs of Korean and English sentences confirm this contrasting feature of the two languages:

(6) a. No one dare predict the results.
아무도 감히 그 결과를 예측하지 못한다.
b. Not many people have heard of him.
그에 대해 들어 본 사람은 별로 없다.

?많지 않은 사람이 그에 대해 들어 보았다.

c. He has had the rare misfortune of losing to me.
그는 아주 드물게 불행히도 나한테 지기도 하였다.
?그는 나에게 지는 매우 드문 불운을 가지기도 하였다.

d. We've had a fair amount of rain this week.
이번 주에는 비가 꽤 많이 내렸다.
이번 주에는 꽤 많은 양의 비가 내렸다.

Except for (6d), the Korean counterparts for the English quantifying adjectives are realized in structures where adverbials like '감히, 별로, 드물게, 꽤 많이' are used. The negative determiners like 'no, few, little, rare' in English function much as attributive adjectives premodifying the head noun. In contrast, for Korean negative special auxiliary verbs like '지 않다' or '지 못하다' are added after the verb stem or negative prefixes '안' or '못' are directly attached in front of the verb.

The amount or quantity of an entity is expressed in various ways in addition to the exact number of the units of the entity; various classifiers or partitives[3] for measurement are used to categorize the entities according to their specific characteristics. Thus, in comparison to Korean, English utilizes a much wider range of classifying nouns, which reflects the noun-orientedness of English. It is possible to distinguish two different classes of classifiers according to their mode of derivation: first, a special group of nouns whose function is confined to categorizing or classifying entities; second, the group of classifiers derived from adjectives or verbs. In the next section the first group of classifiers will be discussed.

3.2.1. Pure Numericals without the Process of Derivation

Korean numericals, whether they are imperfect or perfect, are mostly pure nouns, not derived from other words. In contrast, English

numericals are realized both with pure and derived forms of nouns. In addition to special quantifiers for measure like *foot, gram, inch, kilogram, kilometer, meter, mile, knot, acre, liter, ounce, pint, quart, gallon, drum, pound, ton, yard*, etc., and number words like *decade, hour, minute, second, week, month, year, pair, dozen, score, hundred, thousand, million, billion*, etc., the representative group of numerical is mostly for counting the uncountable entities, including food items or other uncountable materials as shown in the following examples:

(7) Numericals in English according to the word groups they modify

A. Food or medicine:

a bar of chocolate; a barrel of apples, brandy, fish, powder; a basket of eggs, bread, fruit, palms; a bit of rice, beef, cake, cheese, sugar; a box of chocolates, cigars; a chunk of chocolate, meat; a cup of coffee, soup, tea; dash of lemon juice, soy sauce; a dose of Archibald Menzies's medicine, antibiotics, aspirin, bad medicine, vaccine; a glass of orange juice, milk, water, wine; grains of corn, salt; a keg of ale, beer, brandy, firework powder, porter, stout; a lump of butter, cheese, fat, meat; a morsel of bread, cheese, chop, fish, food, meat, raw flesh, soap; a nip of brandy, port wine, tannin, whiskey; a pack of cigarettes, peanuts; a packet of biscuits, chips, cocaine; a piece of bacon, ice; a scrap of butter; a shred of flesh; a sliver of lemon; a strip of land

B. Physical materials other than food:

a bar of soap, gold; a basket of flowers, woolen shreds, toiletries; a bit of paper, grass, manure, wood; a block of ice; a box of books, cigars, matches, soap, tissues; a chip of glass, ice, paint, stone; a chunk of concrete, gold, rock, data, text; dash of antiseptic, baby oil; grains of sand; an item of business, information, equipment; a layer of dust, old quilts; a lick of paint; a lump of clay, coal, plutonium, soil; a mound of hay, cigarette ash, fries, lava, papers, sand, rusty saucepans, newly-dug soil, vegetation; a nugget of flung fire, the liquid

amber and blood; a pack of cards, cigarettes, notes; a packet of candles, chips, envelopes; a patch of dry ground, earth, grass, green, land, wild flowers, snow, sunlight, wasteland; a piece of chalk, coal; land, wood; paper, ice; a plume of blue smoke; a small pool of blackened blood, little pools of water, warm pools of light; a large portion of its energy supplies, their material, a portion of their good fortune, shares; a row of candles, thatched cottages, gadgets, houses; a scrap of thick green leaf, material, paper; a sheet of paper; a shred of mist, moisture; a slab of concrete, mudstone, northern territory, white rock, wood; a sliver of glass, light, wood; a stick of chalk; a strip of land; a tuft of grass, the blackened reeds

C. Groups of people:
a posse of just 10 gunmen, reporters, Sally's friends, huge anti-fascists, desperate journalists, pupils

D. Body parts:
locks of hair; a patch of hairs, red skin; a row of black broken teeth; tufts of graying eyebrows; a tuft of hair

E. Animals:
a pack of alley cats, wolves, dogs

F. Clothes:
a bit of cloth, clothing; an item of clothing; a full line of winter wear; a scrap of clothing, hanky

It is interesting to note that certain numericals are also used for abstract concepts. Most of the entities classified into certain groups available to be counted are concrete materials whether man-made or natural. But some of these pure numericals are also used to describe abstract feelings or attitude of a person, events, or natural phenomena, which are not the object of counting. Thus, the numericals for these cases may be classified as those of metaphors. Some representative examples are shown below.

(8) Numericals for abstract concepts

A basket of competing currencies, pension plans, shares; a bit of care, conversation, excitement, judicious flattery, fun, luck, a mix-up, news, pampering, research; a chunk of consolation, conversational discourse, data, my life spent in darkness, St Bernard's writings, Sleeping Beauty, time; a dash of courage, wry cynicism, mercy, sense, socialism, truth; a dose of clap, history, practical experience, patience and forbearing, pragmatics, old-fashioned repression, purgatory, reality; a grain of doubt, sense; a gust of wind, laughter; an item of news, reports, mail; layers of experience; a lick of sense; a morsel of consolation, hope, proof, warmth and finery; a note of anger, boredom, disagreement, self-importance, serious intent, urgency, warning; a nugget of human interest, information, pure and isolated will, wisdom; a pack of lies; peals of laughter, the great peal of the Abbey bells, great peals of thunder; a piece of advice, evidence; a good portion of my summer walking; a round of applause, bickering, stinging attacks, talks; a scintilla of doubt, pure love, Bahamian pride, truth; a scrap of common ground, difference, hope, information, positive criticism, truth; a series of accidents, adventures, assertions, events, shocks, tests; a set of assumptions, characteristics, conditions, books, brakes, drawers, glasses, friends, risks; a shred of anger, belief, evidence, faith and confidence, news, ministry paperwork, proof, substance, temperament; a slab of truth, a vindictive slab of sarcasm; snippets of conversation

Many of these metaphors have food-related numericals as their source domain for abstract ideas or events – words like *chunk, dash, dose, grain, lick, morsel, nugget, portion, scrap, shred, and slab* are numericals mostly for counting food items. It is interesting to note that among these classifiers for nonhuman and abstract entities, those classifiers for referring to courage, doubt, sense, or truth such as *dash, grain, lick, scintilla, scrap* are used in negative sentences

where these classifiers are used to offer the extreme end of the negated element. That is, they are used as negative polarity items licensed to occur by negative contexts only. There are strong tendencies of co-occurrence for some classifiers while others are used in a more wide range of head nouns and hopefully the exact categorization is to be done in the future.

According to the categories of the referents, pure numericals may be classified as follows:

A. Groups of people:
an army of supporters; a bevy of bright young officers; the hordes of tourists that wandered about; a multitude of people; a phalanx of policemen
B. Groups of animals:
an army of rats; a covey of quail; a (small) herd of cattle; a pack of hounds; a school of mackerel, porpoises
C. Plants or Fruit:
a bunch of daffodils, grapes; masses of flowers
D. Inanimate objects, natural phenomena, abstract concepts:
a bevy of tariffs and taxes; a whole host of useful accessories; a wealth of information and data; a mass of books and papers

The numericals shown in these examples are all for expressing a large amount of the entities and it is possible to match some of them, though not so diverse as in English, with Korean pure numericals like '다수, 다량, 떼', or '무리'. However, for the next group of nouns that function as classifiers it is hard to find matching Korean counterparts.

3.2.2. Classifiers of English

Although mainly about the number of the unit nouns referred to, classifiers that will be discussed in this section are different from

pure numericals in that they are derived from verbs or adjectives and they carry additional meanings by assigning some image to the depicted objects. In this case, the classifiers carry the characteristics of metaphors indicating the degree of amount or quantity by transferring the image of the source domain to the great or small number of the target domain.

The following list shows the representative classifiers derived from verbs:

A. Groups of people:
a clutch of top officials to talk about government policy; Nanjing's recent crop of modernists; a large crowd of reporters; a noisy flock of tourists; a planeload of people; a predominance of black people; a preponderance of female students; a scrum of excited adults, East Berliners, photographers; a smattering of hearers, people; swarms of tourists

B. Animals:
flocks of geese; a great flush of insects; a swarm of bees, butterflies, ants

C. Plants:
a great clutch of bright red cherries; a fine crop of toadstools

D. Food:
a cut of lamb/meat; a drop of water, oil, whisky; my fill of cake; three helpings of dessert, a helping of roast beef and potatoes; truckloads of rice; a little pile of crumbs; a pinch of salt; a great selection of wines, a limited selection of dishes; a sip of water; a slice of bacon, bread, cake, meat; a splash of extra-virgin olive oil, light cologne, mineral water, whiskey

E. Inanimate objects, natural phenomena, abstract concepts:
an array of obvious and overwhelming problems; a barrage of angry questions; a clutch of films; a large collection of sporting trophies and medals; a crop of injuries; a dab of lipstick; a drift of twigs and old mortar; a sudden flash of lightning; a flicker of pleasure, a wing; a (whole) heap of work to do; a load of

problems; piles of books; a proliferation of new kimchi recipes; a puff of dust, wind; a scattering of merchants, fine museums, Roman Catholic dioceses and Jewish synagogues; a wide selection of designer fashions; a shower of bullets, confetti, water; a smattering of Latin, reviews, a smattering of statistics, communication, and linguistics; a snatch of conversation, dialogue, music, song, any symphony or concerto, sound, talk; a faint spark of protest, resentment; a splash of yellow, a few splashes of color; a squirt of ozone-friendly aerosol to keep my hair subdued; a stack of dirty dishes; Florida's deadliest swarm of tornadoes on record; a trace of wind; a trail of death and destruction; trickles of blood, earth, electricity, excitement, information, money, sweat, water; her tumble of dark hair, a tumble of petunias, ancient palaces and temples; a constant wash of muddled noise, a wash of red mud and cow-dung, a wash of color

Deverbal classifiers like *clutch, crop, flock, load, swarm*, which are used to describe groups of people, are also used to describe animals, plants, and food, and inanimate objects, natural phenomena, abstract concepts. They contain the meaning of the original verbs regarding the activity of the entities whether they are the agent or patient of the activity. Among these commonly used classifiers, *crop, load* and *swarm* are productive in that they are used for three different categories: people, plants, and natural phenomena for crop; people, food, and abstract concepts for *load*; and people, animals, and natural phenomena for swarm. The base verbs for these classifiers all describe the activity of a large number of entities emerging or getting loaded on some vehicles or gathering together into a particular space. Other deverbal classifiers shown above are all about the activity of a large number of the entities in a particular space.

A remarkable thing to note is that some of the deverbal classifiers

used for humans are basically about some inanimate entities that can be handled or carried by the human agents like *clutch* or *load*. This may be analyzed as a phenomenon of metaphors, putting the humans as nonhuman objects. This dehumanization may be considered the opposite process of personification, an important subcategory of metaphor, widely used for other nonhuman entities transferred into humans. The classifiers *flock* and *swarm* are also basically about animals like birds or insects gathering in large numbers. Thus, they may be included into the case of dehumanization. The other interesting classifier that may be interpreted as an example of dehumanization is *crop*. The meaning of *crop* as a verb is for plants for food to produce vegetables, fruit, grain, etc. Thus, the use of *crop* for classifying humans may be considered a case of dehumanization. The following sentence with a classifier that is to be used for nonhuman entities, mostly an expansion of rock, wood, or territory, may be another case of dehumanization:

(9) A whole slab of educated people, several generations of them, and especially ones from Britain, hate science.

For nonhuman entities like inanimate objects, natural phenomena and abstract concepts a much wider range of classifiers are used. The base verbs for these classifiers describe various activities humans perform about the entities or the movements of these entities for which their large number is a prominent component of their semantic features. You array problems, barrage questions, clutch films, collect trophies, heaps of work to do, load problems, pile books, and stack dishes. Or injuries crop up, new kimchi recipes proliferate, and tornados swarm as if they are plants or animals that can increase in number.

Deverbal classifiers may not be confined to describing a large number of some entities; they are widely used for describing the characteristics of the head nouns in addition to making them countable units.

There are a relatively small group of adjectives which are transferred into classifiers as shown in the following examples:

(10) a. The majority of my patients come to me from out of town.
b. There was an abundance of wine at the wedding.
c. Over the millennia a wild profusion of mythological explanations of philosophical questions spread across the world.
d. A rash of ugly new houses has been built for commuters near the railway station.

The adjectival bases for these classifiers are also about the great number of some entities engaged in some activities.

Even though there are many other deverbal and deadjectival nouns that are used to describe the head noun in the form of prepositional phrases, these deverbal and deadjectival nouns discussed above should be separated as numerical classifiers concerned with describing the large number of the entities along with particular activities typical to those entities. Although with more substantial data, we may be able to establish a more precise semantic map that guides the collocation or co-occurrence of classifiers and head nouns, it may be argued that the categorization of classifiers shown in this paper may work as some guidance for using correct classifiers.

For these elaborate classifiers developed in English there is no corresponding group of classifiers in Korean. Again, it may be interpreted as a reflection of the two languages' basic characteristics: noun-oriented English and verb-oriented Korean. While English

makes lots of derived nouns from verbs and adjectives to use them as classifiers in the form of prepositional phrases, Korean uses verbs or adjectives to describe large numbers of some entities in the course of some activities. Thus, the Korean counterpart for each of the sentences in (10) will be as follows:

(11) a 내 환자들은 대부분 다른 도시에서 옵니다.
b. 결혼식때 와인이 충분했다.
c. 수천년 동안 철학적 문제에 관하여 신화적 해석이 전세계에 두루 퍼져 있었다.
d. 기차역 주변에 통근자들을 위하여 보기 흉한 날림집이 여기저기 지어졌다.

4. Conclusion

In this paper, we have shown the English numerical classifiers may be categorized according to the entities they commonly occur together by adopting rough semantic categories like humans, animals, plants, food, and other inanimate objects, natural phenomena, and abstract concepts. As these classifiers are focused on the large number of the entities they modify, they may be termed as numerical classifiers. These numerical classifiers should be distinguished from pure numericals concentrating on the number itself.

Although some classifiers may have a double-use for more than one semantic category, there are some specific classifiers confined to certain groups of head nouns along with their semantic features. Thus, it shows that the use of classifiers is closely connected with the semantic features of the head noun they modify. It is remarkable that English has developed many classifiers produced through deverbal or deadjectival derivations. Also, there are many other classifiers

produced through metaphorization, not discussed in this paper but are very interesting in their cultural implications. The classifiers shown in the following examples may be considered to be the result of metaphorization:

(12) a. We've got bags of time.
b. I passed a hurdle of girls.

(13) a. Her hair fell over her shoulders in a cascade of curls.
b. I can't come out tonight because I've got a deluge of work to do.
c. A flood of cheap imports has come into the shops.
d. Beyond it we can hear a soft rolling ocean of voices.
e. Down below them was a sea of upturned faces.
f. The one certainty in this torrent of information is that he will have paid more than you.

(14) a. When I came back from my vacation I was faced with a mountain of paperwork.
b. The disease killed huge swaths of the population.

The use of water- or mountain-related concepts for abundance is also observed in Korean but not in the nominal structure of classifiers as in English. This may be understood as another case of evidence verifying the noun-orientedness of English and verb-orientedness of Korean. These patterns of classifiers in English with metaphorical meaning transference are to be contrasted with the Korean classifiers with rare corresponding verbal bases. Dehumanization is another interesting phenomenon of English classifiers although Korean language has some other structures that show similar processes of dehumanization, putting humans as nonhuman entities. In the

discussion of classifiers of Korean and English, it is worthwhile to note that in Korean different types of classifiers are applied to different head nouns according to the referents' social status even though the referents may be in the same semantic category.

It has been shown that English has developed classifiers used as metaphors as well as deverbal or deadjectival derivations, which again confirms the noun-orientedness of English and diverse cultural traits are reflected in them. With low context culture typical to individualistic English-speaking societies, the English system of numericals and classifiers reflects the fact that everything should be clearly specified with verified evidence and classified according to certain criteria. High-context culture typical to collectivistic Korean-speaking societies requires members to follow certain codes of conduct implicit but quite imposing and no exquisite analysis of the matter is encouraged. Vague expressions are enough resulting in much less robust development of numericals and classifiers.

The system of classifiers is very complicated in both Korean and English, each in different ways. It is found that they reflect not only the language's basic phrase structure but also their cultural background. Many of the differences as well as similarities of Korean and English that remain to be discussed should be researched further in many other important aspects for the improvement of intercultural communication between these two languages.

NOTES

1. Woo (2001) has analyzed Korean numericals but does not distinguish them according to their dependency. A numerical's dependency is a very important factor for distinguishing different types of numericals.
2. Quirk et al. (1972: 131) uses the term 'partitives' for 'classifiers' we used for this study. Partitives are confined to measuring numbers or amounts of some entities; thus, the

term ‘classifiers’ would be more appropriate to cover a much wider range of entities to be represented as certain groups.

3. ‘묶음’ may be the only one that is derived from the verb ‘묶다’. Except for this only case, no other classifiers or numericals in Korean are derived from other words.

REFERENCES

Aikhenvald, Alexander Y. (2000) *Classifiers: A Typology of Noun Categorization Devices*, Oxford University Press.

Im, Sung-Chool (2002) Typological Patterns of Motion Verbs in Korean, *Discourse and Cognition* 9(1), pp. 123-150.

Kövecses, Zoltán (2002) *Metaphor: A Practical Introduction*,

Lakoff, George (1987) *Women, fire, and dangerous things: What categories reveal about the mind*. Chicago: University of Chicago Press.

_____ (1993) "The contemporary theory of metaphor", in Andrew Ortony (ed.), *Metaphor and Thought*, (2nd edition), Cambridge: Cambridge University Press.

Lakoff, George, and JOHNSON, Mark (1980) *Metaphors we live by* Chicago: The University of Chicago Press.

Lee, Sook-Hee. (1992) *The Syntax and semantics of serial verb constructions*. Ph.D. Dissertation, University of Washington.

Lee, Young-Ok (2003) "Korean Location Movement Expressions: A Typological Approach in Comparison with English," 10th Harvard Korean Language Seminar.

_____ (2005) "Comparison of Korean and English Ways of Communication with Respect to the Use of Personification," presented at the Spring Conference of Communication Association of Korea.

Levin, B. and PINKER, S. (1991) "Introduction to Special Issue of *Cognition* on Lexical and Conceptual Semantics," *Cognition* 41: 1-7.

Oh, Sang-Ryong (1995) Korean Numeral Classifiers: Semantics and Universals. Discourse and Cognition 1: 231-259.

Reddy, Michael J. (1993) "The conduit metaphor: A case of frame conflict in our language about language", in Andrew Ortony (ed.), *Metaphor and Thought*, (2nd edition), Cambridge: Cambridge University Press.

Searle, John R. (1993) "Metaphor", in Andrew Ortony (ed.), *Metaphor and Thought*, (2nd edition), Cambridge: Cambridge University Press.

Talmy, Leonard (1988) "Force Dynamics in Language and Cognition," *Cognitive Science* 12: 49-100.
____ (2000a) *Toward a Cognitive Semantics, Vol. I: Concept Structuring Systems*, MA: MIT Press.
____ (2000b) *Toward a Cognitive Semantics, Vol. II: Typology and Process in Concept Structuring*. Cambridge, MA: MIT Press.
Woo, Hyung-Sik (2001) Research on the Categorization of Korean Classifiers. Seoul: Pakiceng.

Received: February 29, 2013
Revised: August 7, 2013
Accepted: August 18, 2013