

## FIVE SORTING FUNCTORS IN THE ENGLISH ARTICLE SYSTEM

Mitsuharu MIZUNO

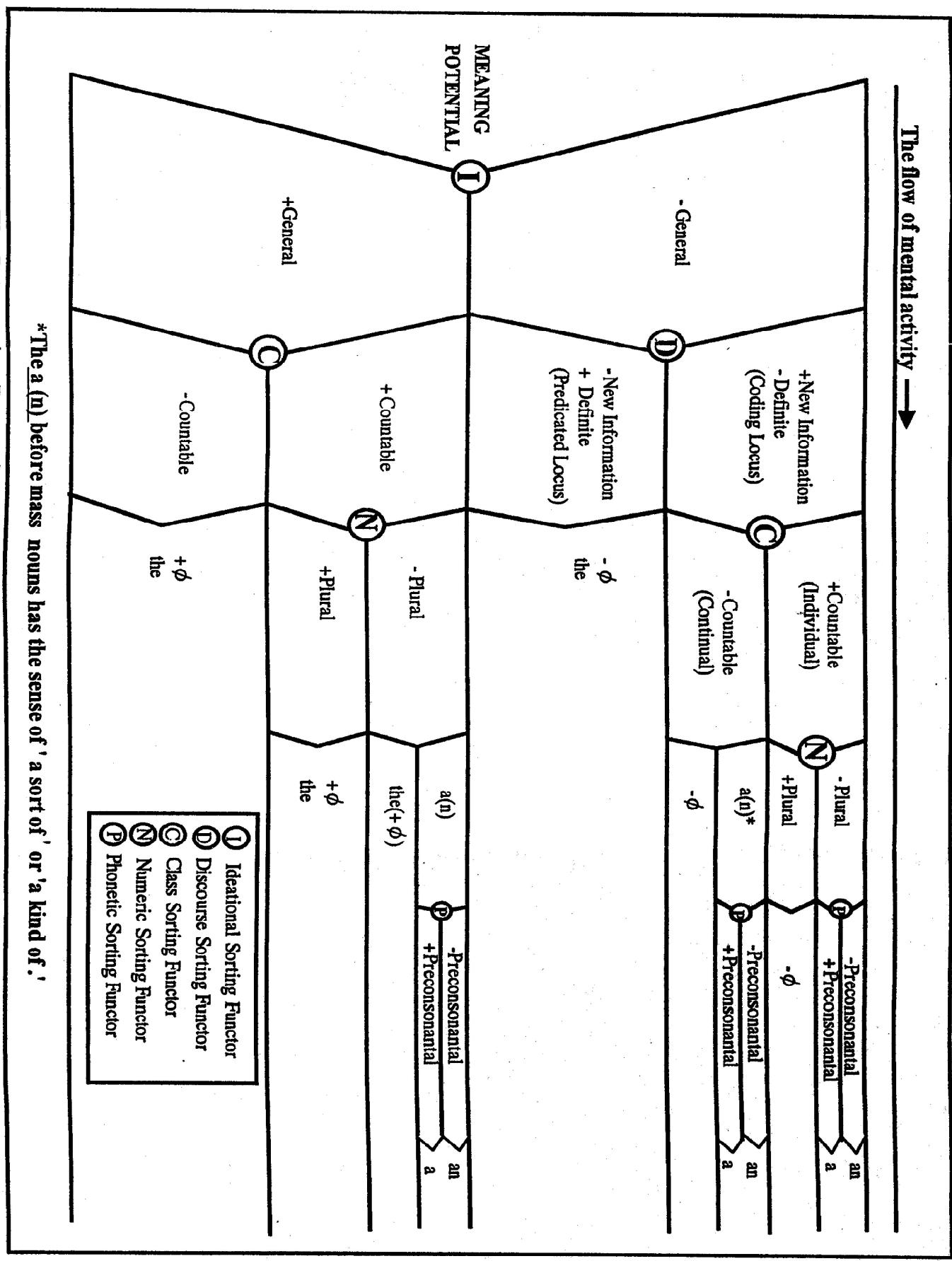
*Kanagawa University, Yokohama, JAPAN*

**Abstract :** The article in English performs a function to imply what aspect of all nature in the world the speaker is perceiving. Mizuno (1996) cleared up the English speaker's cognitive processing in the article usage. That is, they first consider the meaning potential of the substance, and decide the strategy for the article usage to employ five kind of sorting functors in the order of cognitive processing: (1) Ideational Sorting Functor, (2) Discourse Sorting Functor, (3) Class Sorting Functor, (4) Numeric Sorting Functor, and (5) Phonetic Sorting Functor. This paper verifies whether these sorting functors are able to illustrate the actual data.

**Keywords:** Ideational Sorting Functor, Discourse Sorting Functor, Class Sorting Functor, Numeric Sorting Functor, Phonetic Sorting Functor, Information Processing, Cognitive process, Gestalt, Formed Article, and Formless Article.

### INTRODUCTION

Difficulties in the article usage are closely interwoven not merely with native language interference, but also with discourse factors (Rutherford, 1987). Hence, acquisition of his complicated article system may take a lifetime of communication experiences



\*The a (n) before mass nouns has the sense of 'a sort of' or 'a kind of' !

Diagram 1. The Information Processing Model of Five Sorting Functors In English Article System.

unavailable to most ESL learners. However, this model may be a modest contribution to their acquisition. In terms of functional pragmatics this paper illustrates the underlying principle for the use of English articles with the diagram as seen above.

## 2. IDEATIONAL SORTING FUNCTOR

In the production process of an English NP, the native speakers first consider the meaning potential of the substance within an existing cognitive structure (or schemata), and decide the first strategy for the article usages. As a result the Ideational Sorting Functor classifies it into two groups: the generic(+General) and the specific(-General) as seen in Diagram.1

- (1) a. A table is a useful article of furniture. (+General)
- b. A table stands in the corner of the room. (-General)
- c. The table stands in the corner of the room. (-General)
- d. The table is a useful article of furniture. (+General)

## 3. DISCOURSE SORTING FUNCTOR

Moreover, in the case of handling the substance as the specific, the Discourse Sorting Functor operates to decide whether the referent is known or unknown to the addressee, or whether the information is given or new to him or her. The label at this stage may be like that of  $\pm$ Definite as seen in (2).

- (2) He has a cat and a dog, but only the dog is insured.

In the example here, a dog represents new information (+New Information) and indefinite information (-Definite), while the reverse is the case in the dog, where the referent is a particular object identified in some way by both interlocutors (Hawkins, 1991). This label differs from person to person. It may be referred to as  $\pm$ specificity or  $\pm$ presupposedness (Hirakouji, 1990).

In addition, this strategy also depends upon a common focus which participants share toward the object of their expressions (Mizuno, 1993). Participants, at any moment of their discourse, occupy a particular point in space and particular point in time. They are in a state of common awareness, at least concerning space and time. Within speech events that reflect this focus, the participants' spatial and temporal location may be regarded as the coding place and the coding time, or more generally as the coding locus (i.e., a spatio-temporal locus).

Moreover, they continuously make predictions that relate to other points in space and time. These individual points may be respectively regarded as the predicted place and the predicted time, or more generally the predicted locus. Examples of this contrast between φ and the in a deictic situation are as follows:

(3) a. There is a dog in the front of the car.  
 b. There is a dog in ϕ front of the car.

In (3a) the common focus is placed on the predicated locus: the car; therefore, 'the front' adheres to the NP. While in (3b) the common focus is placed on the coding locus: the dog; hence, 'ϕ front' is attached to that NP.

English speakers identify predicated locus by words there and then, a marked pair with th-, which is the same phonological element that introduces the marked the. Thus, the may signal that there and then are to be used as an underlying reference point in the speech event, while ϕ may signal that here and now are to be used.

In short, in each instance above, ϕ signals the use of more fundamental information in establishing a referent for an NP: the use of axiomatic information (in descriptive terms) placed in common focus during the early stages of discourse; in the case of spatial and temporal constructs, it signals the use of information that is in common focus, because of the participants' immediate location in space or time. By way of contrast, the signals the use of less fundamental information in establishing a referent for an NP: the use of localized bits of information (in descriptive terms) used through the discourse in providing any number of particular referents. In the case of spatial and temporal constructs, the signals the use of information provided by predicated reference points.

Thus, within spatial and temporal constructs, ϕ expresses the 'here' and 'now' as a controlling reference point, in contrast to the which expresses some 'there' or 'then'.

Here the case of omissions of the article (viz. nil article) and that of the zero article are two different events (Mizuno, 1991). That is, the opposite word of nil is ens (or being), but zero is a concept beyond the contrast between nil and ens. In ancient India, they regard zero as a part of ens. In current mathematics, zero is the original point on number line which divides numbers into plus and minus. Although the omissions of the article does not have any special meaning, in the case of zero articles a certain meaning such as 'abstraction', 'or' generalization', 'or' the generic sense' is added to the succeeding NP. Hence the zero articles should be named: the former as -ϕ, the latter as +ϕ. In this respect, the English articles should be divided ' in two : the formed articles and the formless articles. The former covers the the form and the a(n) form, and the latter does the ±ϕ forms.

#### 4.CLASS SORTING FUNCTOR

When the addresser recognizes the object as new or indefinite information , or grasps it in a participant-centered view , the Class Sorting Functor runs to decide the strategy for article use based on the countability of the referent . Namely, depending on whether

it is countable or uncountable. The former is referred to as countable nouns: concrete and formal individuals. Individual words include not merely physical substances such as boys and cars, but also metaphysical substances such as words, ideas, events, and laughs.

On the other hand, the latter is referred to as uncountable nouns: universal or abstract and formless mass. Mass words include not only physical substances such as water, tea, butter, and air, but also metaphysical words such as leisure, success, music, and safety. The zero article is the marker of unknown information to be added to these mass words. To be more precise, the use of indefinite article is based on the distinction between countable and uncountable nouns. Underlying this standard is the view of attributes peculiar to the language; how to recognize the referent and how to express it. The attribute is a whole that you see or think of that has particular qualities — a gestalt peculiar to a class. Above all, in Indo-European languages it is divided into two groups: individuality and continuity. The individuality is a gestalt as an individual things peculiar to the class of substances. Individual words have no continuity, but boundedness. In reverse side, the continuity is universal to a class of substance. The words which possess continuity are mass words, they have no properties of individual objects. For instance, the marker of individuality, the a(n) is never attached to both material nouns and abstract nouns. That is to say, although the infinitive articles are added to the individual objects such as apples, eggs, and candies, as soon as they are deprived of the individuality, they are expressed as food.

Material nouns are the words which English natives regard as a set of related substances on a continuum. To be more precise, 'the food is something that a living thing takes in itself to survive.' English natives tend to take the word "food" as a continuum, which retains no fixed outline. In other words, though the referent is the same substance, the presence of indefinite article clearly shows the difference

between the view from the side of continuity and that from the side of individuality.

The following is a good illustration of this case:

(4) a. I've never seen a rain like this in the summer before.

b. -  $\phi$  Rain is common in the Pacific Northwest.

Even if the referent is the same substance, forms of the words to be expressed differ depending on which side of the attribute you grasp it from. A different mode of expression comes from the differences in perceptions among languages. This is also the case even with metaphysical substances. Let's consider the following example.

(5) There are other things by which he may give them an idea of his thoughts or feelings.

In (5) 'idea', 'thoughts', 'feelings' are metaphysical substances, they are realized as a finite particular gestalt respectively. Therefore, the marker of individuality sticks to these words. However, such concepts as 'thoughts' and 'feelings' are mostly assumed as non-countable nouns in Japanese. Therefore, the greatest care must be taken in handling noun countability (Yoon, 1993). We must note the fact that a number of nouns have both count and non-count usages as seen in (6).

(6) a. The river water is cleaner and the fish are back.

b. I like -  $\phi$  fish better than meat.

In short, the important concept that essentially determines noun countability is "gestalt," or "total structure" which designates an individual articulate whole that cannot be made up by the mere addition of independent elements.

## 5. NUMERIC SORTING FUNCTOR

If the substance of the referent is an individual word , the Numeric Sorting Functor further classifies it into two groups based on the number ( $\pm$ plural ). While, if the substance of referent is a mass word, this functor no longer operate.

## 6. PHONETIC SORTING FUNCTOR

Furthermore , if the substance is countable, the Phonetic Sorting Functor performs to decide whether it is preconsonantal or not, 'a' or 'an' is put before the NP as seen in Diagram I. On the other hand, if the referents are general things, they are divided into  $\pm$ countables by the Class Sorting Functor. If they are +countable, the Numeric Sorting Functor files them into  $\pm$ plural ones. In addition, if it is indefinite singular, 'a' or 'an' is chosen by Phonetic Sorting Functor. In this process, the reason why correct usages of indefinite articles is significantly delayed in general may be that a(n) needs to go through more sorting processes than the or  $\pm\phi$ .

## 7.THE GENERIC EXPRESSIONS

On the other hand, if the referent is a general thing, there are three choices in the use of articles. It is merely for the generic expression of the articles. However, these generic expressions never share the same content with one another. Let's examine the following examples in (7).

### (7) [Common Noun]

- a . Acoelacanth has limblike fins to crawl about on the sea bottom in its search for prey .
- b. The coelacanth was found in 1938 off the coast of southern Africa.
- c . It was long supposed that  $\pm\phi$  coelacanths became extinct about 60 million years ago.
- d. $\pm\phi$  Man is a reed, the weakest in nature, but he is a thinking reed.
- e.The customers that bought the blouses gave them back because they didn't fit.

## [COLlective Noun ]

- f. Ajury passes judgment on the defendant.
- g. The jury must be impartial.

## [Proper Noun]

- h. The Eskimos are a Mongoloid people.
- i. + Ø Eskimos don't live in igloos anymore.

## [Abstract Noun]

- j. Bats are able to fly in the dark .

## [Adjective]

- k. In America, the poor are entitled to receive food stamps .

## [Material Noun]

- l. + Ø Air is a mixture of gasses.
- m. We are looking for the bread that has no preservatives .

Here the A in (7a) has a sharp image of individual concreteness, while the The in (7b) has a formal nuance which is rather an ideal or abstract expression. The plural form in (7c) is often used as a general expression because it has a nuance in which an indefinite number of individuals are in existence. However, we should say that the case of (7d) is an exception. And (7e) no longer has the generic sense. Moreover, all of the following examples but (7m) are the case of the generic expression. But the definite article before material noun has no generic sense. In addition, it must be noted that the a(n) before mass nouns has the sense of 'a kind of' or 'a degree of' as seen in 'a mixture' of (7l). Heyer(1990) classifies the definite generics into kind generics and default generics: the former has properties that apply to the kind itself as seen in (7b), while the latter does those that determine certain properties of all or typical members of the kind as seen in (7g). This may be a new point of view.

## 8.CONCLUSION

As we have seen above, the native speaker's selective principle for the use of English articles is the mirror of their view of the world. They tend to analyze all of the substances of referent, and to recognize them through the principle of binarity. The function of English articles is to encircle the extent of the referent of succeeding an NP, and to specify the meaning of the NP through limiting it in quantity (or number) and by :  $\pm$ new information to the participants . The principle of binarity is central to article use in English. Therefore, non-natives of English whose first language has no article system (e.g., native Japanese speakers) have cognitive constraints which come from their oriental holistic point of view, which opposes the occidental analytic point of view seen in Western language native speakers whose L1 has article system.

## REFERENCES

Cziko, G.A.(1986). Testing the language biogram hypothesis: A review of children's acquisition of articles. *Language* 62, 878-898.

Hawkins, J.A.(1991). On ( in)definite articles : implicatures and (un)grammaticality predictions. *Journal of Linguistics* 27, 405 -442.

Hirakouji, K.(1990). Articles in English - grammar and linguistic performance. *Tohhokugakuin Daigakuronshu , Eigo Eibungaku* 81, 17 -28.

Horowitz, F.E.(1989). ESL and prototype theory : Zero vs. definite article with place names *International Review of Applied Linguistics in Language Teaching* 27(2), 81 -98.

Koga, K.(1992). A cognitive approach to definiteness : From specific to generic. *Journal of the English Linguistic Society of Japan* 9, 152-175.

Master, P.A.(1987). A cross-linguistic interlanguage analysis of the acquisition of the English article system. *Dissertation Abstracts International* 48(6), 1448A.

Master, P.A.(1990). Teaching the English articles as a binary system. *TESOL Quarterly* 24(3), 461-478.

Mizuno, H.(1986). *Interlanguage Analysis of Article Errors in English among Japanese Adult Learners in Acquisition-Pcor Environment*. Doctoral Dissertation, Teachers College, Columbia University . Published by University Microfilm International , Michigan 1986.

Mizuno, M. (1991). The essence of zero and nil. *Kanagawa University Studies in Language* 13, 83-88.

Mizuno, M.(1993). Cohesion and discourse deixis on English articles. Paper presented at the British Council Applied Linguistic Conference . Waseda University in 1992. *Kanagawa University, Studies in Language* 15, 71-92.

Mizuno, M.(1994). A semantic analysis of the articles: individual concepts *Kanagawa University Studies in Language* 16, 119-128.

Mizuno, M.(1996) An information processing model of the article system in English. Papers from the Thirteenth National Conference of The English Linguistic Society of Japan.

Meyers, S.A.(1993). *In Search of Genuine Article: A Cross-Linguistic Investigation of the Development of the English Article System in Written Compositions of Adult ESL Students*. Dissertation Abstracts International 53(7), 2352 A.

Parish, B.(1987). A new look at methodologies in the study of article acquisition for learners of ESL. *Language Learning* 37, 361-383.

Rutherford, W. E. (1987). *Language Grammar : Learning and Teaching*. Longman, London.

Stewart, P. and Richard, F.F.(1994). 'An' to 'A' in American speech : language change in progress. *English Today* 37, Vol.10, NO.1.

Thomas, M. (1989). The acquisition of English articles by first-and second language learners. *Applied Psycholinguistics* Vol.10 (3).

Yoon, K.K. (1994). Challenging prototype descriptions : perception of noun countability and indefinite vs. zero article use. *International Review of Applied Linguistics in Language Teaching* 31 (4), 269-287.