

## An Analysis of the Middle and Ergative Constructions in English

Mikio Hashimoto

Many verbs participate in different constructions, where the verbs need distinct argument structures. It is important to examine the argument structures of these verbs in order to consider the organization of lexicon. The representative cases are ergatives and middles, as shown in the following examples.

- (1) a. The window broke. (ergatives)
- b. John broke the window.
- (2) a. The book reads easily. (middles)
- b. John read the book.

The most obvious feature of middles and ergatives, as the above examples show, is that they are related in meaning and phonological form to transitives and that their subjects correspond to objects of the transitives.

Our goal is to propose a systematic account of the properties of middles and ergatives, based on two fundamental assumptions proposed in Nakau (1985, 1986), as follows:

- (3) a. A threefold distinction of predicate-types:  
      STATE, PROCESS, and ACTION
- b. The division between ACTOR and AGENT

The following lexical rules are proposed in order to capture the relation between intransitives (i.e. middles and ergatives) and the corresponding transitives.

- (4) a. Delete an ACTOR argument.
- b. Externalize an internal argument.

The above lexical rules explain the following properties of middles and ergatives.

- (5) a. Non-ACTION verbs do not change into middles and ergatives.
- b. By-phrases do not occur in middles and ergatives.
- c. Purpose-clauses do not occur in middles and ergatives.

Previous studies (Roeper and Keyser (1984), Fagan (1988), Roberts

(1985), etc...) assume that middles have the same argument structure as passives. Therefore, they have to stipulate (5b,c) since passives occur with *by*-phrases and purpose-clauses. In our proposal middles have the same derivation as ergatives, which means that they have the same argument structure. Then, they share the identical syntactic behavior.

The difference between them is due to the different predicate-types they belong to. ACTION verbs have to become STATE verbs or PROCESS ones through the application of the lexical rule (4b), since the presence of ACOTR characterizes an ACTION verb. The following examples show that middles belong to STATE verbs, while ergatives are PROCESS verbs, since ergatives are used in the progressive form, but middles are not.

- (6) a. \*Chickens are killing easily. (middles)  
 b. The boat is sinking. (ergatives)

The relation between lexical rule (4) and predicate-types is important, because the rule changes a predicate-type into a different one. This indicates that the argument structure have the close relation to predicate-types, since lexical rules only affect the argument structures. This gives rise to an insight into the lexical organization, since middles and ergatives share the way of syntactic realization, but they must belong to the different predicate-types. That is, the argument structure should consist of two pieces of information, as follows:

- (7) a. the number of  $\theta$ -roles and the distinction between external and internal  $\theta$ -roles  
 b. the content of  $\theta$ -role, or semantic functions

The first information (7a) is concerned with the way of syntactic realization of argument and (7b) is concerned with the predicate-types. Middles and ergatives have the same information about (7a), but they differ in (7b).