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Semantic Constraints on the Middle Construction in English

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Van Oosten (1977, 1986) introduces the notion of "responsibility" as a crucial constraint on middle formation in English. He argues that the subject of middle constructions must be perceived as responsible for the action denoted by the verb. However, it is unclear what factors characterize the notion of responsibility. Our goal in this joint research is to make this notion clear. We propose that it can be characterized by three factors: pre-existence, specification, and volitionality.

First, let us consider the notion of pre-existence. In active sentences, the entity which appears in the subject position must be pre-existent to the action of the verb, because it can be responsible for the event described by the verb. The entity which appears in such a position of a middle construction must also be pre-existent, for it is understood to be responsible for the action of the verb. Consider the following examples:

(1) a. {The ground/*A hole} digs easily.
   b. {The wall/*This picture} paints easily.
   c. This novel {reads/*writes} easily.

The reason for the unacceptable sentences in (1) can be explained by the notion of pre-existence; the referents of the subjects are construed as coming into existence after the denoted actions. Furthermore, we can explain the following examples by extending the domain to which the notion of pre-existence applies.

(2) a. This book {sells/*buys} easily.
   b. Unsold stocks buy back easily. (Endo (1986))

In (2a), it can be said that buy describes an event in which the object purchased is understood as coming into existence in the domain of one's possession after the action of buying. On the other hand, sell describes a situation where objects (goods) are understood to be already in existence in this domain before the action of selling. Interestingly, in the case of buy back in (2b), it can form an acceptable middle construction. This is because the objects bought back can be considered to have been originally in existence in the domain of one's possession. The same line of analysis will account for the pairs like English {teaches/*learns} easily: what is taught is pre-existent, whereas what is learned is non-pre-existent in the domain of one's knowledge.

The second factor of responsibility is specification. When the event is more specified in some way, the nature of the object of the verb will be more responsible for the action of the verb. Consider the following contrasts:
(3) a. This wall {hits/hits down} easily.
    b. Mt. Fuji {climbs/climbs up} easily.
Comparing the predicates hit and hit down in (3a), the event described by the latter is more specific than the one by the former. This does not mean that adding some particle to a verb always specifies the relevant event. In (3b), the event described by climb is more specific than the event by climb up. That is, in this case, the particle up, unlike down in (3a), make the event less specified. At any rate, in both cases the more specific event does undergo middle formation. This is because the property of the object in such specific events can be more responsible for the action of the verb than that in less specific events. Furthermore, the notion of specification can explain the examples like This meat {chews/bites} easily and This book {shelves/puts on the shelf} easily: the properties of the objects chewed and shelved are understood to be more responsible for the action than those of the objects bitten and put.

The last factor of responsibility is volitionality, which, unlike pre-existence and specification, only animate entities (humans or animals) can bear. The human agent can be the most responsible for the action of the verb, for it may possess the volitionality. So in an event where the volitional agent exists, there also exists something responsible for the event. In other words, the existence of volitionality warrants the existence of a responsible entity. In a middle construction, the object of a verb (patient) is understood to be more responsible than the human agent. This implies that the construction requires something (patient) to be responsible by nature. Then, if a verb does not require a volitional agent, it cannot form an acceptable middle construction: no entities can be responsible for the action of the verb. Consider the following contrast:

(4) The desert {crosses/wanders} more easily than the prairie for settlers with large wagons. (Tenny (1987))
Tenny (1987) claims that the unacceptability of wander as a middle should be attributed to the lack of an end point in its event. However, we argue that this is due to the lack of volitionality in the event described by wander (cf. John volitionally {crossed/wandered} the desert). That is, while cross requires the existence of some entity which bears the responsibility for its action, wander does not; no entities can be responsible for the action of the latter. In the same way, we can explain why static verbs like know and believe do not undergo middle formation; the events described by these verbs do not contain a volitional agent (cf. ??I intentionally knew/believed the truth).

To conclude, each of these three factors (i.e. pre-existence, specification and volitionality) is a necessary condition for determining the notion of responsibility, which is a crucial constraint on the middle construction in English.