[Review]

Locative Alternation: A Lexical-Constructional Approach


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1. Introduction

This monograph pursues two objectives: One is to provide a systematic account of the locative alternation in English, exemplified by (1) (p. 1).

(1) a. Jack sprayed paint onto the wall. (locatum-as-object variant)
   b. Jack sprayed the wall with paint. (location-as-object variant)

The other is to develop an adequate theory within the framework of construction grammar (Chapter 1). Iwata starts by reviewing two representative previous studies, i.e. Pinker (1989) and Goldberg (1995, 2002) (Chapter 2). It is pointed out that Pinker’s lexical rule account, which assumes that one variant is derived from the other, is untenable because it is difficult to prove the derivational asymmetry. In this connection, a derivational account which assimilates the locative alternation in English to the putative one in German and posits a zero morpheme is also shown to be implausible (Chapter 10). It is argued that while the problem with a derivational theory can be avoided by Goldberg’s constructional account, which does not appeal to a process of derivation, her theory also has its own problems. To surmount the problems with Goldberg, Iwata advances a constructional theory which takes a radically usage-based view, called a lexical-constructional approach (Chapter 3). Iwata’s theory differs from Goldberg’s in two major respects: Firstly, it introduces lower-level constructions; secondly, it takes a detailed look at verb meanings. As for the first point, lower-level constructions are proved to be useful in characterizing the location-as-object variant (Chapter 4). As for the second point, Iwata divides verb meanings into two

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types according to whether or not they encode scenes very similar to the scenes denoted by VPs (Chapter 6). This distinction figures in explaining variable behavior verbs (Chapter 7). In addition, it is shown how an in-depth examination of verb meaning solves a range of questions concerning putative non-alternating verbs (Chapter 5) and verbs of removal (Chapter 9). It is also pointed out that morphologically complex verbs like *overload* and *overspray* can be accounted for in the same way as non-prefixed verbs (Chapter 10). Moreover, it is demonstrated that Iwata’s analysis can also accommodate the locative alternation in Japanese, indicating that the English locative alternation and the Japanese equivalent are governed by essentially the same principle (Chapter 11). Finally, Iwata examines the feasibility of the proposed analysis from the point of view of acquisition and claims that his account, which concurs with Tomasello’s (2003) acquisition model, is more plausible than both Pinker’s (1989) and Goldberg’s (1995, 2006) analyses (Chapter 8).

The range of research topics discussed in this book is too broad to cover here, so I will confine myself to issues which are directly related to the above mentioned objectives. After introducing some of the fundamental ideas and mechanisms of Iwata’s lexical-constructional analysis in section 2, we will see how Iwata’s theory achieves the two objectives in sections 3 and 4. Section 5 constitutes my concluding remarks.

2. Basic Ideas and Mechanisms

A constructional approach is a non-derivative theory based on the notion of a construction as a pairing of linguistic form and meaning (e.g. Goldberg (1995), Kay and Fillmore (1999), among others). In line with such studies as Boas (2003) and Langacker (1999), Iwata makes a serious commitment to a usage-based view of language and maintains that constructions are to be available at varying levels of abstraction. Following Croft (2003), Iwata introduces verb-specific constructions and verb-class-specific constructions. He illustrates how these lower-level constructions are obtained with the verb *put* as follows (pp. 36-37): One can abstract a verb-specific construction which pairs *put* with the syntactic frame [NP V NP PP] from occurrences like *John put the box on the desk* and *Mary put a dish on the table*. This syntactic frame is also compatible with other verbs with similar meanings such as *throw* or *move*, as in *John threw a ball into center field* and *John moved the piano into the bed room*. By abstracting over these, one gets a verb-class-specific construction associating the common seman-
tics with the syntactic frame. The same syntactic frame is compatible with still other verbs with slightly different meanings, which belong to other verb classes, as exemplified by *John helped Mary into the room*. An abstraction from these constitutes the so-called caused-motion construction. Iwata concurs with the view in Cognitive Grammar (e.g. Langacker (1987)) that a construction is a schematic form-meaning pairing extracted from usage events and a construction as a schema serves to sanction individual expressions which can be regarded as instantiating the schema or can be assimilated to the schema via similarity (p. 38).

In a usage-based perspective, verb meanings are also regarded as abstractions over usage events, but the verb meaning cannot be identified by simply removing the constructional meaning from the meaning of a whole expression since verb meanings and constructional meanings are not mutually exclusive (Croft (2003) and Langacker (2005a, b)). This leads Iwata to view verb meaning as something that is straightforwardly attributed to the verb (p. 88). On this view, the distance between verb meaning and VP meaning varies (pp. 89–95): With verbs like *load*, which encodes a scene virtually identical to the scene denoted by the VP, the verb meaning is close to the VP meaning (scene-encoding type); with verbs like *spread*, some constant characterizing the core meaning is inserted into the scene denoted by the VP and hence the verb meaning is far from the VP meaning (constant-insertion type); verbs like *spray* are located somewhere in-between. Iwata argues that since in usage events verbs rarely appear in isolation, it should be determined whether a full expression involving a verb, rather than a given verb alone, can appear in a particular construction or not (pp. 38–39).

In what follows, we will consider how this theory accounts for some representative issues pertaining to the locative alternation in English.

3. Analysis

3.1. The Location-as-Object Variant

In the literature of the locative alternation (e.g. Pinker (1989) and Goldberg (1995, 2002), among others), the difference between the locatum-as-object variant and the location-as-object variant is understood as that between change of location and change of state. While Iwata agrees with the characterization of the locatum-as-object variant, he queries the characterization of the location-as-object variant in terms of change of state and points out that the location-as-object variant does not behave like typical change of state verbs (pp. 22–25). Here we address two problems which emerge from
this characterization. A first problem is that the verb *break*, an uncontro-
versial change of state verb, cannot occur with a secondary location phrase,
which is possible with verbs like *kick* to specify the exact part acted upon,
but some location-as-object variants do allow this phrase, as shown below
(p. 23).

(2)  a. The horse kicked Penny *in the shin.*  (Levin (1993: 71))  
b. *The horse broke Penny *in the shin.*  (Levin (1993: 72))  

(3)  I lay on a towelled “wet bed” where I was treated to a Vichy
shower (a fancy term for being sprayed *from head to toe* with
warm water).  

Iwata overcomes this problem by drawing on lower-level characterization
(pp. 34–35). In Iwata’s theory, the location-as-object variant is not uni-
formly characterized in terms of change of state. Change of state verbs can
be instantiated by verbs like *cover* or *fill* as well as *break* and this is the
level that is responsible for the syntax and semantics of the variant in ques-
tion. Thus the location-as-object variant for a verb like *spray* is character-
ized in terms of the “cover” semantics whereas this variant for a verb like
*load* is characterized in terms of the “fill” semantics. These low-level sche-
mas allow one to explain the acceptability of (3). If the location-as-object
variant with *spray* has the “cover” semantics, it is expected that *cover* can
also appear with a secondary location phrase. Iwata reports that this is in
fact the case, citing examples like (4) (p. 35).

(4)  … and he was covered *from about his waist down* with coal …  

A second problem (pp. 53–60) is that while *break* is used to encode an
activity with a definite end-point, the location-as-object variant of *spray* can
be used to encode an activity which can be continued indefinitely, as shown
in (5a). Unlike the previous case, this property cannot be accounted for by
merely appealing to the *cover*-class-specific construction, since the location-
as-object variant of *cover* cannot be atelic, as shown in (5b) (p. 53).

(5)  a. John sprayed the wall with paint {in/for} ten minutes.  
b. John covered the ground with a tarpaulin {in/*for} ten sec-
onds.  

In solving this problem Iwata stresses that one need not draw on one and
the same schema in sanctioning a given expression (p. 55). His explana-
tion goes as follows (pp. 58–60): When *spray* in the location-as-object vari-
ant is sanctioned by the *cover*-class-specific construction, the telic reading is
available. As regards the atelic interpretation, it arises when the location-
as-object variant of *spray* is sanctioned by the *wipe*-class-specific construc-
tion, which associates the sense of exerting force over a surface with the
syntactic frame [NP V NP]. After all, verbs of surface contact like *wipe* are compatible with the atelic reading, as in (6) (p. 60).

(6) John wiped the table for five minutes.

These considerations indicate the significance of introducing lower-level constructions. This is one of the two main features of Iwata’s theory. In the ensuing three sections, we will be concerned with the other main feature of his theory, i.e. the importance of a detailed examination of verb meanings.

3.2. Variable Behavior Verbs

In explaining variable behavior verbs, the two types of lexical encoding proposed in Iwata’s theory, i.e. the scene-encoding type and the constant-insertion type, play an important role (pp. 101–115). Iwata shows that verbs of the former type exhibit complex patterns of alternation compared to those of the latter type. Let us first look at the scene-encoding type (pp. 101–106). The verb *wrap*, for example, can appear in the following syntactic frames (p. 101).

(7) a. He wrapped shiny paper around a present.
   b. He wrapped a present with paper.
   c. He wrapped a present in paper.

Iwata attributes these possibilities to a single scene’s compatibility with three different interpretations. *Wrap* encodes a scene of folding a flexible object like paper around another object like a present. When paper is highlighted, the wrapping scene is likely to be expressed as the variant in (7a). When a present is highlighted, the scene can be construed either as covering the present with paper, as in (7b), or as putting the present into the folded paper, as in (7c). The scene-encoding type also includes verbs whose meaning contain two scenes related via a scenario (e.g. *pack*) or via a higher-order schema (e.g. *trim*) (pp. 103–106).

Let us next consider the constant-insertion type, which is represented by denominal verbs (pp. 107–115). The denominal verb *brush*, for example, behaves as follows (p. 113).

(8) a. John brushed melted butter over the loaves.
   b. John brushed the loaves with melted butter.

(9) a. John brushed the crumbs onto the floor.
   b. John brushed the crumbs off the table. (Nemoto (2005))

Given that denominal verbs encode events which saliently involve the entity denoted by the related nouns, the variable behavior exhibited by *brush* can be accommodated straightforwardly. Scenes involving the use of the instru-
ment referred to by *brush* include a smearing scene, where a person distributes some liquid over a surface with the instrument, and a sweeping scene, where a person moves the instrument against a surface with the intention of moving some foreign substance away from the surface. Thus when *brush* is used to denote a smearing scene, it behaves like *smear*; and when the verb is used to denote a sweeping scene, it shows the same pattern of behavior as verbs like *sweep* or *wipe*.

This distinction is significant in that it helps elucidate the problems with some representative previous studies. Iwata points out that Pinker’s (1989) and Goldberg’s (1995) analyses are feasible for the scene-encoding type but not for the constant-insertion type (pp. 95–99); Levin and Rappaport Hovav’s (1998) lexical template approach is feasible for the constant-insertion type but not for the scene-encoding type (pp. 116–118).

### 3.3. Putative Non-Alternating Verbs

Through a survey of the attested data in the BNC, Iwata observes that verbs from Levin’s (1993) and Pinker’s (1989) lists of non-alternating verbs can indeed participate in the alternation: The verb *wind* and the verbs *dribble*, *drizzle*, and *slosh* from locatum-oriented classes can appear in the location-as-object variant; and the verbs *litter* and *clutter* and the verb *bind* from location-oriented classes can appear in the locatum-as-object variant (pp. 65–71). He argues that the location-as-object variant with verbs like *wind* and *dribble* and the locatum-as-object variant with verbs like *litter* and *bind* should receive distinct explanations.

Concerning the former type, Iwata claims that the occurrence of verbs in the location-as-object frame can be dealt with in the same way as an uncontroversial case like *spray* in the location-as-object variant (pp. 71–72). For example, *wind* can sometimes enter into the alternation, as shown below (p. 72).

(10)  a. He wound the wire around the pin.
    b.*? He wound the pin with the wire.

(11)  a. He wound a bandage around his arm.
    b. He wound his arm with a bandage.

Iwata points out that a winding scene with wire and that with a bandage are different: In the former, the location entity is unlikely to be covered; but in the latter the location entity can be covered and thus the scene can be expressed as the location-as-object variant with *wind*, sanctioned by the cover-class-specific construction.

Regarding the latter type, Iwata points out that the BNC count indicates
that the locatum-as-object variant with a verb like *litter*, as in (12a), is marginal and it can be analyzed as based on the locatum-as-object variant of *scatter*, which is commonly used in passive form and followed by the preposition *around*, as illustrated in (12b) (pp. 73–77).

(12) a. He left biscuit, cake, pies, fruit and bowls of custard littered around the shelves, but it remained untouched.  (p. 73)

b. Through the holes in the side of the Hongkong Banking Group building in Bishopsgate, papers fluttered on desks, books were scattered around the rooms.  (p. 74)

According to Iwata, the analogical extension from *scattered around/about* to *littered around/about* occurs via a higher-order schema of the form [NP be V-en around/about NP], which is extracted from a verb-specific construction [NP be scattered around/about NP] (p. 74).

3.4. Verbs of Removal

Some verbs of removal can participate in an alternation similar to that exhibited by verbs like *load*, as exemplified below (p. 133).

(13) a. Doug cleared dishes from the table.  (*from* variant)

b. Doug cleared the table of dishes.  (*of* variant)

While this alternation is fully discussed in Levin and Rappaport Hovav (1991), the relation between the two variants does not receive an adequate characterization. Iwata examines why *clear* alternates contrary to the expectation that change of state verbs do not alternate (pp. 138–142). *Clear* in the spatial sense as in (13) contrasts with *clear* in the abstract sense as in (14), which conforms to the general pattern of change of state verbs (p. 138).

(14) a. The judge cleared the accused of guilt.

b. *The judge cleared guilt from the accused.

(Levin and Rappaport Hovav (1991: 143))

*Clear* means “to cause something not to have something else” (p. 138). In the spatial domain, the entity referred to by the direct object is moved to some other place. In the abstract domain, however, it is not physically dislocated in space; rather it ceases to exist. With this difference in mind, Iwata explains the contrast between (13) and (14) as follows: With a clearing act in the spatial domain, one can interpret an entity denoted by the direct object either as an entity ceasing to exist, yielding the *of* variant, or as an entity moved to some other place, yielding the *from* variant. By contrast, a clearing act in the abstract domain does not entail physical dislocation of an entity denoted by the direct object. Thus it is not compatible
with the from variant.

4. Comparison

In the preceding section, we have seen that Iwata’s theory can explain an array of issues about the English locative alternation in a principled and systematic way, thus attaining the first objective. Now we turn to the second objective, i.e. to develop an adequate theory within the framework of construction grammar. Iwata’s theory can be said to achieve this objective on the grounds that it succeeds where Goldberg’s version of construction grammar fails.

The following fact (p. 20) demonstrates the divergence between Iwata’s and Goldberg’s accounts most clearly.

(15) a. He spread butter on the bread.
    b. He spread the bread with butter.

(16) a. He spread a blanket on the sleeping child.
    b. *He spread the sleeping child with a blanket.

In Goldberg’s theory, the verb meaning is represented as a set of participant roles and a verb is fused with a construction by matching role labels. Note that in Goldberg’s theory relevant constructions are held to be higher-level ones. The locatum-as-object variant is regarded as instantiating the caused-motion construction and the location-as-object variant is regarded as instantiating the causative plus with constructions (Goldberg (2002, 2006)). To explain the above fact this theory might differentiate the participant roles of the scene encoded by (15) from those of the scene encoded by (16), characterizing the former as the spreader, semi-liquid, and target roles and the latter as the spreader, non-liquid, and target roles. However, it remains to be explained why the set of roles involving the semi-liquid and not the non-liquid are compatible with the argument roles of the constructions in question (pp. 20–22, p. 98). By contrast, this fact can be captured in Iwata’s analysis (pp. 42–45). Iwata explains that in a spreading scene with a semi-liquid like butter, the location entity becomes progressively covered, but it is not the case with a spreading scene with a non-liquid like a blanket, where the spreading process is not coextensive with the covering process.

Iwata’s theory is in marked contrast with Goldberg’s in that it conducts a detailed examination of verb meanings and deliberates levels of schematicity of constructions. Emphasizing that these features are natural consequences of a constructional theory and a usage-based view, Iwata considers the reason why Goldberg’s theory sets higher-level constructions above lower-level
ones, contrary to the usage-based view (pp. 129–131). He attributes this to consideration of parsimony. As with Croft (2003) and Langacker (2005a, b), he points out that Goldberg shares with generativists a parsimony thesis which minimizes the redundant storage of linguistic knowledge. He concludes that this parsimony consideration leads Goldberg to neglect lower-level constructions.

5. Conclusion

By adopting a radically usage-based view, Iwata succeeds in developing a constructional theory which surpasses previous analyses in theoretical depth and empirical coverage. As befits the winner of the ELSJ Prize 2009, this book sets a good example to analysts who seek to construct a credible theory and explain a wider range of data in a coherent way. His examination of the observations reported in the literature based on an extensive corpus search and carefully thought-out discussion on corpus data suggest great possibilities for future research in alternation phenomena.

REFERENCES


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