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Remarks on Goldberg's Systematic–Metaphor Approach to Eventive Ditransitives

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1. Introduction

This paper addresses eventive ditransitives from the viewpoint of Goldberg's (1995) Construction Grammar. "Eventive ditransitive," as used here, is roughly equivalent to the double–object syntactic pattern with an eventive object realized as the second object, exemplified by *Chris gave Pat a kick*. The notion of "eventive ditransitive" is reminiscent of a syntactic phenomenon that comes under the label "sourceless problem" in dative construction, as illustrated in the double–object and dative sentence pair *Chris gave Pat a kick* / **Chris gave a kick to Pat*. Within the framework of Construction Grammar, Goldberg deploys a family of systematic metaphors and gives them free play so that multifarious phenomena in dative construction can be accounted for. A proposal such as Goldberg's, which tries to predict the grammaticality of eventive ditransitives on the basis of systematic metaphor, lies in metaphorical extensions being better motivated by calibrating the syntactic frame paired with semantics and pragmatics against what can be attributed to a difference in pragmatic specification. The actual dispute, then, concerns the relation of systematic metaphor to the information structure of the ditransitive argument structure construction. I agree with Goldberg's analysis to the extent that the aforementioned systematic metaphor involves eventive objects occurring exclusively in the ditransitive construction with their own independent semantics and pragmatics. This paper proceeds as follows: in section 2, I will for the most part confine our discussion to the semantic properties of eventive ditransitives for the introductory purposes of this paper; in section 3, I will survey the basic organization of Construction Grammar and the concept of construction; in section 4, I will consider a constructional account of eventive ditransitives; section 5 makes concluding remarks.

2. The semantic properties of eventive ditransitives

This section sets out the semantic properties of eventive ditransitives. Before it is possible to enter into a detailed discussion, I must try to clarify our central conception of eventive ditransitives. Eventive ditransitives are a class of cases involving the double–object construction where possession is clearly not the relevant semantic concept. They can be roughly paraphrased into the plain verb construction. Consider the following examples, as shown in (1)–(3).

- (1) a. Chris gave Pat a kick.
b. Chris kicked Pat.
- (2) a. Chris gave the car a push.
b. Chris pushed the car.
- (3) a. Chris gave Pat a nudge.
b. Chris nudged Pat.

There appears to be some kind of constraint on the use of each deverbal noun. Let us begin to

consider the semantic factors governing the use of eventive ditransitives.

- (4) a. I spilled the milk.
 b. *I gave the milk a spill. (Newman 1996: 203)

The difference in grammaticality, despite the fact that *spill* can be used both as a verb and as a noun independently of the eventive ditransitive, lies in the fact that the semantics of *spill* cannot be compatible with the meaning of the particular construction; it is because of the semantics of *spill* that *spill* is strongly associated with something one does accidentally, that (4b) is ruled out. In other words, the construction must refer to something done on purpose. Here we have one component of meaning in eventive ditransitives: intentionality or volition. Compare (5a) with (5b):

- (5) a. Chris missed the concert.
 b. Chris gave the concert a miss.

Both *miss* and *give (something) a miss* have the sense of "not experience (something)", but the eventive ditransitive construction must be interpreted as an intentional act of avoidance, whereas the plain verb could be intentional or non-intentional.

- (6) a. Chris gave the concert a miss on purpose.
 b. *Chris gave the concert a miss by accident.

Furthermore, there is another important component of meaning in terms of energy transference between the subject and object references. Consider the following pair of sentences presented by Newman (1996: 204).

- (7) a. Chris gave the ball a good throw.
 b. *Chris gave the ball a good catch.

In the case of throwing an object, the agent, or the thrower, initiates the energy flow and the theme, or the object thrown is an energy sink, so the energy flow is outwards from the agent. In (7b), on the other hand, the subject referent functions as an energy sink. The ball comes to rest in the hands of the catcher and energy flows from the ball to the catcher. To catch a ball, some activity affecting the ball must be initiated. However, the role of the catcher as a kind of endpoint in the energy flow seems to make a stronger impression than the role of the catcher as the initiator of the catch. Thus sentences in the periphrastic verbal frame are not a jungle of idiosyncrasies, but exhibit orderly and systematic behavior: the semantic properties, such as intentionality and energy transference from the subject referent to the object referent, can be consistent with those of the prototypical ditransitive construction with *give*. In addition, there is another component of meaning present in eventive ditransitives, that is, a fleeting or momentary meaning. Consider the following example in (8):

- (8) a. Chris was kicking the ball all day.
 b. *Chris gave the ball a kick all day.

According to Newman (1996: 203–204), (8a) can easily be used to describe an ongoing activity carried out over a prolonged period, while (8b) is not possible. This means that an eventive ditransitive construction has the semantic property of a fleeting singular action. Thus, the

semantic properties of eventive ditransitives are consistent with and motivated by such elements as i) intentionality, ii) energy transference, and iii) fleeting or momentary action.

3. The basic organization of Goldberg's (1995) Construction Grammar

In this section, I will briefly consider the concept of construction before going into the main theme. Recently there appear several approaches to generalizations about the range of possible interpretations for particular formal patterns. The recognition of subtle semantic differences between related syntactic subcategorization frames has been growing, and there has been increasing focus on the fact that there appears to be a strong correlation between the meanings of verbs and the syntactic frames they can occur in, leading many researchers to speculate that in any given language the syntactic subcategorization frames may be uniquely predictable from the verb's lexical semantics (e.g., Pinker 1989). Goldberg (1995), however, shows an advantage of the construction-based approach, where by recognizing constructions and verbs to be interrelated but independent, the nature of constructional meaning, the principles that relate verbs and construction, and the relations among constructions are brought to the foreground. The fundamental idea behind this construction-based approach to argument structure constructions is that constructions designate humanly relevant scenes, and that language evolved argument structures to encode such basic scenes. A distinct construction is defined to exist if one or more of its properties are not strictly predictable from knowledge of other constructions existing in the grammar. Constructions are taken to be the basic units of language. Phrasal patterns are considered constructions if something about their form or meaning is not strictly predictable from the properties of their component parts or from other constructions. That is, a construction is posited in the grammar if it can be shown that its meaning and/or its form is not compositionally derived from other constructions existing in the language:

- (9) C is a CONSTRUCTION iff $\forall \langle F, S \rangle$: C is a form-meaning pair $\langle F, S \rangle$ such that some aspect of F or some aspect of S is not strictly predictable from C's component parts or from other previously established constructions.
(Goldberg 1995: 4)

A list of some correlations that exist between form and meaning is provided in Table 1:

TABLE 1
Examples of correlations that exist between form and meaning

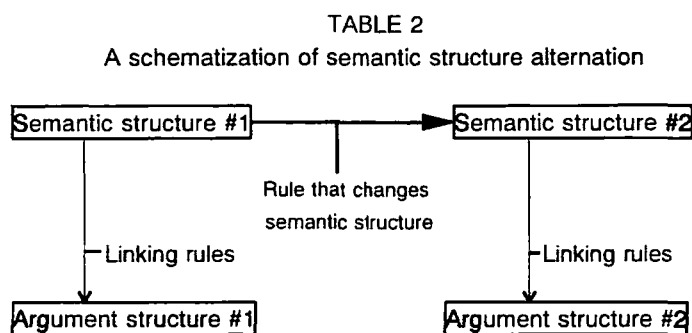
Construction Label	Meaning	Form
Intransitive Construction <i>The fly buzzed into the room</i>	X moves to Y	Subj V Obl
Caused-Motion <i>Pat sneezed the tissue off the table</i>	X causes Y to move Z	Subj V Obj Obl
Resultative <i>Sam talked himself hoarse</i>	X causes Y to become Z	Subj V Obj XComp
Ditransitive <i>Sally baked her sister a cake</i>	X causes Y to receive Z	Subj V Obj Obj2

The list of correlations that exist between form and meaning given in TABLE 1 are constructions because their form and associated meaning are not necessarily predictable from

the properties of their component parts or from other constructions.¹ On Goldberg's constructional account only a single form–meaning correspondence need be postulated, in that the skeletal syntactic structure is paired with a particular schematic semantic structure of its own. Consider the verb *bake* when used ditransitively, for instance.

- (10) a. Chris baked a cake for Pat.
 b. Chris baked Pat a cake.

There is no need to claim, the way Pinker (1989) does, that when a verb *bake* is used in the ditransitive, *bake* has an ad hoc sense which only occurs in the ditransitive construction. According to Pinker (1989: 63), when a dativizable verb alternates from what Pinker calls input to output verbs, a semantic structure is automatically assigned a new argument structure. Pinker illustrates argument structure alternation in the following general schema:



Pinker, from the lexical semantics point of view, argues that a major motivation for positing lexical rules is that they tell us which verb stems we can use with the construction. Pinker must postulate not only separate verb meanings but also a special form–meaning correspondence in the form of a set of linking rules. In other words, despite the fact that the double–object construction results simply from applying universal linking rules to the thematic core for double–object datives, the “X causes Z to have Y” argument structure, one of the necessary linking rules needs to be postulated specially for the construction.

Goldberg's viewpoint, as opposed to Pinker's (1989) lexical semantics approach, lies in the fact that it is not necessary to postulate the rules that alter the inherent semantics of verbs; the particular verb classes are conventionally associated with the construction. The overall interpretation, then, is an effect of the principles of integration, not rules operating on lexical semantics. Goldberg (1995) states that (10b) can only mean that Chris baked a cake with the intention of giving it to Pat. It cannot mean that Chris baked the cake so that Pat wouldn't have to bake it; nor can it mean that Chris baked the cake as a demonstration of cake–baking, or that Chris baked a cake for herself because Pat wanted Chris to have one.

¹ According to Goldberg, the ditransitive construction can be captured as follows:

(i) The Ditransitive Construction

Syntax: [Subj [V Obj Obj2]] (skeletal syntactic structure)

Semantics: X causes Y to receive Z (central sense)

The ditransitive construction prototypically construes a scene as involving successful transfer of an object from one party to another with the referent of the subject agentively causing the transfer.

Unless the "intended transfer" aspect of meaning is associated with the construction, we are forced to admit that *bake* means something like 'X causes Y to receive Z by baking.' There is no need to posit that when a verb like *bake* occurs in the ditransitive argument structure, we stipulate three semantic roles of its own which do not seem to be a part of its lexical meaning, that is, agent, patient, and recipient. Instead, the ditransitive construction itself supplies a recipient role in the creation of a new composite predicate. By recognizing skeletal syntactic structures as meaningful, Goldberg manages to obviate the need for stipulating semantic roles for verbs that do not seem to be a natural part of their meaning, precluding the need for a multiplicity of implausible verb senses. The same holds true for the occurrence of *kick* in the ditransitive construction.² This is a highly attractive feature of Goldberg's claim, undergirded with a well-developed theory of argument structure constructions. Now let us take a look at Goldberg's analysis of eventive ditransitives in the next section.

4. A constructional analysis

Goldberg posits that a construction exists independently of particular verbs that instantiate it. The ditransitive construction, in this view, is a grammatical construction, which pairs skeletal syntactic structure with schematic semantic structure of its own, prototypically construing a scene as involving successful transfer between a volitional agent and a willing recipient. Before entering into Goldberg's analysis of eventive ditransitives, let us make a brief sketch of the relation between the ditransitive construction and its prepositional paraphrase. The following examples as in (11)–(13) show dativization, where the (a) sentences are the ditransitives which can be paraphrased into prepositional datives using *to*

- (11) a. Chris gave Pat an apple.
 b. Chris gave an apple to Pat.
 (12) a. Chris sent Pat a letter.
 b. Chris sent a letter to Pat.
 (13) a. Chris threw Pat a ball.
 b. Chris threw a ball to Pat.

Following Goldberg (1995), each (a) expression in (11)–(13) can be referred to as Transfer–Caused–Motion Construction. When two constructions are found to be related by a metaphorical mapping, a metaphorical extension inheritance link, or I_M link is posited between them. I_M link is one type of inheritance links; the Transfer of Ownership as Physical Transfer metaphor accounts for the relation between the meanings of the two constructions.

As for dativization, both the ditransitive and the corresponding prepositional paraphrase, or, the transfer–caused–motion construction, are paired with identifiable semantics, and the

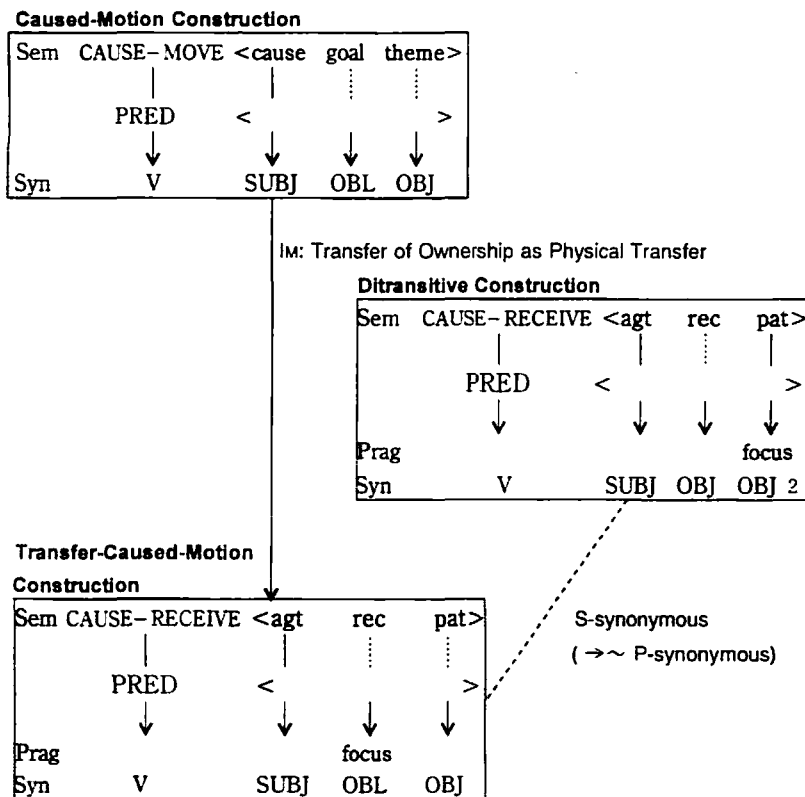
² According to Goldberg (1995), the occurrence of *kick* in the ditransitive construction (e.g. *Joe kicked Mary a ball*) cannot be taken as evidence that *kick*'s meaning has a transfer component. For example, *kick* can occur in several diverse syntactic patterns:

- a. Pat kicked Bob.
 b. Pat kicked at Bob.
 c. Pat kicked Bob black and blue.
 d. Pat kicked his way out of the operating room.

In none of these cases, except when used in the ditransitive construction, is transfer involved.

alternation itself can just be captured as a result of semantic overlap between the two constructions. Verbs may apparently "alternate" between the two constructions — only more so if their meaning can be integrated with each of the two constructional meanings. From this, it follows that the semantics of the transfer-caused-motion construction proves to be synonymous with that of the ditransitive construction; in spite of that, the semantic synonymy between the two does not constitute a motivation link, that is, the former has no inheritance from the latter. In Goldberg's (1995) view, the ditransitive and transfer-caused-motion constructions are not pragmatically synonymous; the semantic synonymy between them implies a pragmatic difference. The relation between Caused-Motion Construction, Transfer-Caused-Motion Construction and Ditransitive Construction is represented with the following diagram:³

TABLE 3
Relations among constructions



For the rest of this section I will confine our discussion to Goldberg's analysis of eventive ditransitives, and provide some problems. The actual dispute, then, concerns the relation of systematic metaphor involved in eventive ditransitives to pragmatic specification because it proves to be the crucial point in the dispute about Goldberg's explanation.

³ For the present discussion we will not go into the details of how the participant roles of a particular verb are fused with argument rules of the construction. See Goldberg (1995) for a full explanation.

To start with, let us consider the nature of systematic metaphor identified in Goldberg's approach.⁴ Systematic metaphor, whose source domain is compatible with the semantics of a construction, licenses expressions which instantiate the construction. That is, general metaphors may apply to constructions which have the relevant semantics. This does not always mean that every potential instance of systematic metaphor can appear in a particular construction, but only that the particular instances which are otherwise conventional will occur in the construction, as long as the semantic and pragmatic conditions are satisfied. In fact, we have a systematic metaphor that involves understanding an action directed at a person as an object given to the person. This metaphor is observed exclusively in the ditransitive expressions:

- (14) a. She gave him a kick.
 b. *She gave a kick to him.
 (15) a. She gave him a kiss.
 b. *She gave a kiss to him.
 (16) a. She threw him a parting glance.
 b. *She threw a parting glance to him.

The evidence for productivity of this metaphor is presented in the following examples:

- (17) Bob gave Joe a nudge/a jab/a karate kick to the jaw/a high five/a peck on
 the check. (Goldberg 1995: 94)

Here we need to bear it in mind that the use of the aforementioned systematic metaphor should be constrained not to produce the prepositional equivalent of an eventive ditransitive, or what Goldberg (1995) calls the transfer-caused-motion constructions, as the above (a) sentences in (14)–(16). Goldberg suggests that given that we have found such evidence in other linguistic expressions than the ditransitive expressions as will license the systematic metaphor crucially involved here, it turns out that it is only to the ditransitive constructions that the metaphor may eventually apply, but not to the transfer-caused-motion constructions.

Why should the (b) expressions in (14)–(16) be ungrammatical? Goldberg (1995: 95) argues that in (14a), for example, the action denoted by the eventive object *a kick* will be focused on and this is, in fact, what distinguishes *give a kick* from the verbal form *kick*, which can be readily used when the focus is not on the action performed. Moreover, such metaphorical extensions can be better motivated to occur with the ditransitive argument structure because the pragmatic properties of the ditransitive expressions are well suited to such periphrastic verbal expressions as *give a kick*, instead of *kick*; the ditransitive argument structure can inherit the specification that the action, but not the recipient, is the focused element. Thus, metaphorical extensions via systematic metaphor cannot readily occur with transfer-caused-motion constructions; hence ungrammaticality of (14b).

Considering information structure, the ditransitive construction is more likely to be used when the recipient is nonfocused and the transferred entity focused, typically encoded by a pronoun.

⁴ As cognitive semanticists argue, metaphors exhibit characteristic and systematic features (cf. Lakoff and Turner 1989). An important feature of Goldberg's systematic metaphor lies in systematicity: features of both source and target domains are joined so that the metaphor may be extended, or have its own internal logic.

The transfer–caused–motion construction, on the other hand, tends to require the opposite information structure. For example, (18a) and (19a) are infelicitous in terms of information structure.

- (18) a. #She gave an old man it.
 b. (She gave it to an old man.)
 (19) a. #She sold a slave trader him.
 b. (She sold him to a slave trader.) (Goldberg 1995: 92)

Goldberg further maintains that there are some cases in which metaphorical extension via systematic metaphor can occur with the transfer–caused–motion construction when the information structure is made more compatible. Observe the following examples:

- (20) When your father comes home, he's really going to give it to you.
 (21) Bill gave Mary a kiss and she was so happy that she gave one to everyone she ran into that day. (Goldberg 1995: 97)

Goldberg's above account faces problems of its own. Firstly, as far as the example (20) is concerned, grammaticality is not attributable to the information structure that is compatible with the ditransitive construction. The expression *give it to someone* shows high idiomaticity, which can be said to be synonymous with *tell someone something unpleasant*. A second problem is that (21) contains a "heavy" NP, which conveys focused information. Needless to say, (21) should not be dealt with on the same basis as eventive ditransitives like (14)–(16). It is significant that eventive ditransitives have few prepositional counterparts except when there is some condition imposed on the sentence structure at the request of the context in which a particular expression occurs. Let us observe the following examples:

- (22) a. *Liz gave a shove to Richard.
 b. The infection which Liz gave to Richard shocked us all. (Okuno 1989: 97)
 (23) a. *Noise gave a headache to John.
 b. Noise gave a headache to John, not to Paul. (Whitney 1983: 319)

Thus, it is true that a phase of the dispute about the striking regularity of eventive ditransitives may concern information structure, but Goldberg's account is not so fruitful in this direction as she insists, because ungrammaticality of the simple sentences like (22a) and (23a), which are not subject to any stylistic transformation, cannot be accounted for.⁵

To sum up, we have seen that according to Goldberg's (1995) analysis, a systematic metaphor, which involves understanding an action directed at a person as an object given to the person, plays an important role in allowing eventive objects to occur with the ditransitive argument structure, and the ungrammaticality of the transfer–caused–motion construction, based on the difference with regard to focus, is ascribed to the information structure with a particular pragmatic specification.

⁵ It should be noted that in both (22a) and (23a), the sentence–final *Richard* and *John* can be viewed as focused information, that is so–called new information.

5. Concluding remarks

What I have argued in the above is that according to Goldberg's (1995) construction-based approach, the very difference in pragmatics between dative constructions and double-object constructions in terms of information structure, can crucially explain the syntactic behavior of each construction; thus such expressions as *Chris gave Joe a kiss* and *Chris gave the door a kick* cannot occur in dative constructions, and moreover, systematic metaphors play a crucial role in metaphorical extensions between the central and periphrastic double-object constructions. Metaphorical extensions can be better motivated to occur with the ditransitive argument structure because the pragmatic properties are well suited to such eventive ditransitive expressions. Indeed, Goldberg is right in stating that in terms of constructional polysemy, extensions between grammatical constructions can be motivated by cognitively-principled conceptualization, but this is no true explanation.

Lakoff (1993), instead, observes that a corollary of the invariance principle is that image-schema structure in the target domain cannot be violated, and that inherent target domain structure limits the possibilities for mappings automatically. This might be a possibility. This general principle explains a large number of previously mysterious limitations on metaphorical mappings. In Lakoff's account, this holds true for a set of the eventive ditransitives. That is, it explains why we can give someone a kick, even if that person doesn't have it afterward, for instance. This is a consequence of the fact that inherent target domain structure limits automatically what can be mapped. Let us consider the ACTIONS ARE TRANSFERS metaphor almost equivalent to one of the systematic metaphors in Goldberg's analysis, where actions are conceptualized as transferred from an agent to a patient. The knowledge about the world, or part of the target domain knowledge, enables us to know that an action does not exist after it occurs. In the source domain where there is a giving event, the recipient, or the givee, possesses the object given after the giving event. But the target domain says that no such object exists after the action is over. The story is captured as target domain override in the Invariance Principle.

This view, grounded on a theory of metaphors but quite different from that of Goldberg (1995), suggests that eventive object ditransitives are not those which are derived from the prototypical ditransitive constructions by metaphorical extensions via systematic metaphor. As a possible solution to the problems confronting Goldberg's theory of systematic metaphors, metaphorical extension may be distinguished from conceptual reification, which means the process of regarding a concept or abstraction as an independent or real entity in relation to conceptualization. I will conclude that Goldberg's explanation at this level can be open to criticism as a linguistic theory of metaphors.

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