The English dative alternation: The case for verb sensitivity[1]

MALKA RAPPAPORT HOVAV

The Hebrew University of Jerusalem

BETH LEVIN

Stanford University

We challenge the predominant view of the English dative alternation, which takes all alternating verbs to have two meanings: a caused possession meaning realized by the double object variant and a caused motion meaning realized by the *to* variant. Instead, we argue that verbs like *give* and *sell* only have a caused possession meaning, while verbs like *throw* and *send* have both caused motion and caused possession meanings. We show that the caused possession meaning may be realized by both variants. Concomitantly, we argue that verbs like *give*, even in the *to* variant, lack a conceptual path constituent, and instead have a caused possession meaning which can be understood as the bringing about of a 'have' relation. We reassess evidence for alternative approaches adduced from inference patterns and verb–argument combinations and demonstrate how our verb-sensitive analysis, when combined with an account of variant choice, provides a more insightful explanation of this data, while having wider coverage. Our investigation affirms proposals that a verb's own meaning plays a key role in determining its argument realization options. To conclude, we consider the crosslinguistic implications of our study, attempting to explain why so many languages lack a true dative alternation.

1. A VERB-SENSITIVE APPROACH TO THE DATIVE ALTERNATION

Any analysis of the English dative alternation must address the question of what gives rise to this alternation, particularly as it is not found in all languages. This alternation involves verbs that show two realizations of apparently the same arguments, as illustrated with *give* and *throw* in (1) and (2), respectively. We refer to these two argument realization patterns as

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the *to* variant (the (a) sentences) and the double object variant (the (b) sentences).

(1) (a) Martha gave an apple to Myrna.
    (b) Martha gave Myrna an apple.
(2) (a) Leigh threw the ball to Lane.
    (b) Leigh threw Lane the ball.

There are two major classes of analyses for this alternation. One assumes that both variants are associated with the same meaning, with this meaning allowing two argument realization options. The second assumes that the variants are associated with different but related meanings, with each meaning giving rise to a distinct argument realization pattern. We refer to the first class of analyses as the single meaning approach,[2] and to the second as the multiple meaning approach. The currently dominant approach is the multiple meaning approach, which assumes a nonderivational relation between the variants: each is associated with its own meaning, though these are not always truth-conditionally distinguishable, and each gives rise to its own realization of arguments (e.g., Beck & Johnson 2004; Goldberg 1992, 1995; Hale & Keyser 2002; Harley 2003; Krifka 1999, 2004; Pinker 1989). On most instantiations of the approach, the *to* variant expresses caused motion, to use Goldberg's (1995) characterization: an agent causes a theme to move along a path to a goal, where the movement and path are interpreted in the possessional field (Gruber 1965; Jackendoff 1972, 1983). The double object variant expresses caused possession – causing a recipient to possess an entity, with the notion of possession construed broadly, as is typical in natural languages. Sample semantic representations for the two variants are given in (3) and (4). Those in (3) are Krifka's (1999) linearized adaptations of Pinker's (1989) tree representations; the neo-Davidsonian representations in (4) are proposed by Krifka (1999).

(3) (a) *to variant*: NP_0 CAUSES NP_2 TO GO TO NP_1
    (b) *Double object variant*: NP_0 CAUSES NP_1 TO HAVE NP_2
                (Pinker 1989; as presented in Krifka 1999: 263, ex. (24))
(4) (a) *to variant*: Ann … the box to Beth.
        $\exists e \exists e'$[AGENT(e, Ann) $\wedge$ THEME(e, box) $\wedge$ CAUSE(e, e') $\wedge$ MOVE(e')
        $\wedge$ THEME(e', box) $\wedge$ GOAL(e', Beth)]
    (b) *Double object variant*: Ann … Beth the box.
        $\exists e \exists s$[AGENT(e, Ann) $\wedge$ THEME(e, box) $\wedge$ CAUSE(e, s) $\wedge$ s:
        HAVE(Beth, box)]

                (Krifka 1999: 265, ex. (31))

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[2] In some instantiations of the single meaning approach, the variants are derivationally related (e.g., Aoun & Li 1989, Baker 1988, Bresnan 1982, den Dikken 1995, Dryer 1986, Emonds 1972, Larson 1988, Ura 2000), and in other instantiations they are not (e.g., Butt, Dalrymple & Frank 1997, Wechsler 1995).

The two approaches differ as to what drives the dative alternation. On Baker's (1988) version of the single meaning approach, the variants are derivationally related because of his Uniformity of Theta Assignment Hypothesis, which requires variants in an alternation that are 'thematic paraphrases' to have the same underlying syntactic structure. Since, Baker claims, the variants are indeed thematic paraphrases – thus presupposing an answer to the single/multiple meaning question – they must have the same underlying syntactic structure. Instantiations of this approach tend to take the 'trigger' for the dative alternation to be case-related, involving the incorporation of a preposition whose complement is the goal (Baker 1988, Larson 1988). This approach, however, leaves unanswered why this particular set of verbs should be associated with preposition incorporation, and why one variant is sometimes appropriate, while the other is not, as in (5). Such examples are discussed in Green (1974) and Oehrle's (1976) influential studies and much subsequent work.

(5) (a) The noise gave Terry a headache.
    (b) *The noise gave a headache to Terry.

On the multiple meaning approach, the alternation is a direct reflex of the different meanings associated with each variant: each meaning gives rise to a distinct realization of arguments. In the *to* variant, the arguments of a dative verb are realized in the same way as the arguments of caused motion verbs (e.g., *Casey pushed/dragged the table to the wall*). The double object variant shows the realization of arguments reserved in English for events of caused possession. When one variant is appropriate and the other is not, as in (5), the explanation is linked to the meaning difference between the variants (e.g., Goldberg 1992, 1995; Harley 2003; Krifka 1999, 2004).

Almost all recent analyses take a uniform approach to the dative alternation. For all dative verbs, the variants are associated with either one meaning or two, depending on the general approach. An exception is Jackendoff's (1990: 197f.) treatment. He provides one analysis for the alternation with verbs like *give* and *sell*, whose meaning inherently involves change of possession (*give*-type verbs), and a different analysis for the alternation with verbs like *throw* and *kick* (*throw*-type verbs) – a class described as 'verbs of instantaneous imparting of force in some manner causing ballistic motion' (Pinker 1989: 110).

Jackendoff proposes that with *give*-type verbs, the two variants have conceptual structures that are identical in what he calls the 'thematic' tier, differing only in their 'action' tier. The action tier encodes the agent–patient relations in an event, while the thematic tier represents the event in terms of a theme and its location or path – it is a 'localist' semantic representation (Anderson 1971, Jackendoff 1983). Jackendoff suggests that *give* inherently takes three arguments, and on the thematic tier it involves a theme moving along a possessional path from a source to a goal – the recipient. In addition,

the recipient is analyzed as a beneficiary – a positively affected argument – on the action tier in the double object variant, but not in the *to* variant. This difference gives rise to the distinct argument realizations that characterize the variants, because the action tier to a large extent determines the choice of subject and object (Jackendoff 1990: 245f., 257f.). The *throw*-type verbs, on the other hand, are taken to basically select two arguments: an agent and a theme. For these verbs, each variant arises from the application of an adjunct rule, which augments the conceptual structure of the verb and, concomitantly, the number of arguments it takes. The *to* variant arises from the PP Adjunct Rule (Jackendoff 1990: 170), which, when applied to *throw*-type verbs, adds a PP representing a path conceptual constituent. The double object variant arises from the Recipient NP Adjunct Rule (1990: 199, 273), which adds a change of possession clause to the conceptual structure associated with the verb. This added structure brings with it a recipient argument, which is identified with the goal argument of the path conceptual constituent.

  Our approach to the dative alternation resembles Jackendoff's in that we treat *give*-type verbs differently from *throw*-type verbs, with the former having only a caused possession analysis and the latter having both caused motion and caused possession analyses. The table in (6) sets out the associations that hold on our 'verb-sensitive' approach between types of dative verbs and the meanings available to them in each variant.[3] It contrasts with what may be call the uniform multiple meaning approach, characterized by the associations laid out in the table in (7).[4]

(6) *A summary of the verb-sensitive approach*

	to Variant	Double Object Variant
give-type Verbs:	caused possession	caused possession
throw-type Verbs:	caused motion or caused possession	caused possession

(7) *A summary of the uniform multiple meaning approach*

	to Variant	Double Object Variant
All Dative Verbs:	caused motion	caused possession

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[3] Our analysis differs from Jackendoff's (1990) in two respects. First, we assume that the semantic representation of caused possession does not involve a path conceptual constituent; see section 3. Second, we do not ascribe two lexical entries, differing on the action tier, to *give*-type verbs; on our analysis the variants of *give*-type verbs do not differ at all semantically (see section 3).

[4] Although it attributes distinct meanings to the two variants, the uniform multiple meaning approach nevertheless accommodates the observation that with *give*-type verbs the variants are often equivalent truth-conditionally (Goldberg 1995: 91, Krifka 2004: 11, Pinker 1989: 83). When the inherent meaning of the verb is combined with the meaning of the caused motion variant it gives rise to exactly the same meaning as when the inherent meaning of such a verb is combined with the meaning of the double object variant.

On both approaches the double object variant is only associated with a caused possession meaning, but on the verb-sensitive approach the *to* variant is associated with both caused motion and caused possession meanings. Furthermore, some dative verbs, such as *throw*, may show either meaning in the *to* variant, while others, such as *give*, show only the caused possession meaning. The verb-sensitive approach has never been fully defended in light of all the data that has been adduced to support a uniform multiple meaning approach. We undertake to do just this.

The primary motivation for associating the *to* variant with a caused motion meaning is the preposition *to*, which suggests that the recipient is the goal of a possessional path. In section 3 we show that the properties of the *to* phrase with *give*-type verbs do not support this assumption, and we suggest that the semantic structure of these verbs lacks a path. Rather, as we show in section 4, *to* can appear with these verbs since it is semantically compatible with recipients. Other evidence that has been adduced for the uniform multiple meaning approach is examined in sections 5 and 6. The evidence involves differences between the variants purportedly found systematically across all dative verbs, and attributed to the distinct semantics of each variant. When these differences are more accurately characterized, however, they turn out not to be found consistently across the variants, and the meaning of the verb itself is largely responsible for them, consistent with our verb-sensitive approach. In section 7, following considerable other research, we argue that the choice of variant with *give*-type verbs is determined by information structure and heaviness considerations. We conclude in section 8 by asking why English has a dative alternation when not all languages do, suggesting that our approach to the dative alternation can explain this.

2. MAJOR CLASSES OF DATIVE VERBS

Before turning to the details of our proposal, we clarify our assumptions about the nature of verb meaning and the dative alternation through a closer look at the semantic classes of alternating verbs. We set apart those classes whose members are associated only with a caused possession meaning, listed in (8), from those whose members may be associated with either a caused motion or a caused possession meaning, listed in (9). Our classification and labels draw on previous studies, especially Pinker (1989: 110f.).[5] Pinker's 'illocutionary verbs of communication', which include some often-cited dative verbs, differ from other verbs in (8) in that they do not all

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[5] We omit Pinker's class of verbs of creation (e.g., *build, make, sew*), which take benefactives rather than recipients, as shown by their taking a *for* phrase rather than a *to* phrase in the variant with a prepositional phrase.

inherently take three arguments. These verbs, however, may be used in an extended sense to describe events of communicating messages, and, following Goldberg (1992), we assume that such events are necessarily construed as having recipients via the Conduit Metaphor (Reddy 1979). Given our focus on approaches to the dative alternation, we do not analyze these verbs in depth, though we do mention them and verbs of instrument communication briefly in section 5.

(8) *Dative verbs having only a caused possession meaning*
- (a) Verbs that inherently signify acts of giving: give, hand, lend, loan, pass, rent, sell, …
- (b) Verbs of future having: allocate, allow, bequeath, grant, offer, owe, promise, …
- (c) Verbs of communication: tell, show, ask, teach, read, write, quote, cite, …

(9) *Dative verbs having both caused motion and possession meanings*
- (a) Verbs of sending (*send*-type verbs): forward, mail, send, ship, …
- (b) Verbs of instantaneous causation of ballistic motion (*throw*-type verbs): fling, flip, kick, lob, slap, shoot, throw, toss, …
- (c) Verbs of causation of accompanied motion in a deictically specified direction: bring, take
- (d) Verbs of instrument of communication: e-mail, fax, radio, wire, telegraph, telephone, …

All current approaches to verb meaning posit a distinction between the core meaning of a verb and some structured schema representing an event type, be it a construction (e.g., Goldberg 1995, Kay 2005), a lexical event structure (e.g., Pinker 1989), or a syntactic representation (e.g., Borer 2003, Harley 2003, Ramchand to appear); see Levin & Rappaport Hovav (2005: chapter 7) for discussion. We refer to a verb's core meaning as its 'root' (Pesetsky 1995: 70), which encodes those meaning components entailed in all uses of the verb, regardless of context. Abstracting away from differences among approaches concerning the exact nature and place in grammar of the component of meaning that represents the event type, we refer to it as the 'event schema'. All analyses of the dative alternation agree that for a given verb a single root is associated with both variants; only ONE verb is shared by the two variants of the alternation. All analyses also agree that the caused motion and caused possession meanings are instantiated by distinct event schemas. Our analysis differs from the uniform multiple meaning analyses in the way in which these event schemas are associated with verb roots. Most importantly, the *give*-type verbs are only associated with a caused possession event schema, even in the *to* variant. This claim is supported by the contrasting behavior of the *give*-type verbs on the one hand, and the *send*- and *throw*-type verbs of (9) on the other. We first elaborate on the differences between these classes.

As noted by Goldberg (1997) and Pinker (1989), *give* lexicalizes caused possession and nothing more; therefore, its root does not contribute anything beyond what is already encoded in the caused possession event schema. The other verbs listed with *give* in (8a) are associated with further meaning components which refine the caused possession event schema. For example, *rent* and *lend* elaborate on the kind of possession involved: it is temporary for both and also involves payment and a legal contract for *rent*. In contrast, the verbs of future having, such as *bequeath*, *offer*, *owe*, and *promise* in (8b) (Green 1974: 90f., Pinker 1989: 111), specify what Koenig & Davis (2001) call a 'sublexical modality', i.e. a modal, negation, or temporal operator that modifies their 'situational core' meaning (akin to Croft's 'modulation' (2003a: 62)); the sublexical modality component restricts the possible worlds in which the change of possession holds.

While the *give*-type verbs entail change of possession but not change of location, the *send*- and *throw*-type verbs entail change of location but not change of possession. Something cannot be thrown, forwarded, sent, or mailed without changing its location, although the change may involve a location in cyberspace, as in *I sent him an e-mail*, or some other type of abstract location, as in *I sent $1000 to my Swiss bank account*. Most *throw*-type verbs describe events in which one entity instantaneously imparts a force to a second entity, the force recipient; as Jackendoff (1990) notes, they are basically two-argument verbs.[6] What distinguishes among such verbs is how the force is imparted; they have a manner root (e.g., *lob*, *throw*) or, perhaps, an instrument root (e.g., *kick*, *shoot*). They can also be used to describe events of caused motion in the *to* variant, presumably because events of imparting force may cause the force recipient to move along a path. Unlike *throw*-type verbs, the *send*-type verbs basically lexicalize caused motion and thus are three-argument verbs, taking an agent, theme, and spatial goal. They contrast with the *throw*-type verbs in not lexicalizing the manner in which an entity is set in motion, but they sometimes do lexicalize a means of transfer, as with *mail* and *ship*.

The difference in what is lexicalized by the root is apparently responsible for differences in the range of PPs allowed by verbs in the two classes. Verbs of both types take path phrases with sources as well as goals.

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[6] The verb *kick*, at least, is an exception. In its basic meaning, it describes a one-participant event involving a particular movement of an animate entity's leg. Since this motion is often exerted against a physical object, a force is imparted to this object, which may result in its being set in motion. For this reason, *kick* also qualifies as a *throw*-type verb. This verb is exceptional in a second respect: the force imparted by a kick need not always set the force recipient in motion, as when someone kicks a wall or a car; it shares this property with the verb *slap*.

(10) (a) Jill threw/kicked the ball from home plate to third base.
    (b) I sent/shipped the bicycle from my house at the beach to my house in the mountains.

Nevertheless, the *send*-type verbs take path phrases headed by a more restricted range of spatial prepositions than the *throw*-type verbs. Only the *throw*-type verbs allow a variety of spatial prepositions, as in the following (a) and (b) sentences, and prepositions indicating goal or direction other than *to*, as in the (c) sentences.

(11) (a) Fred threw/kicked the ball under the porch/behind the tree/over the fence.
    (b) Felicia threw/kicked the ball out the window/off the bench.
    (c) Jake threw/kicked the ball at/towards third base.
(12) (a) *Fred sent/shipped the box behind the factory/under the awning.
    (b) *Felicia sent/shipped the box off the shelf/out of the storeroom.
    (c) *Jake sent/shipped the box at/towards Carson.

The differences between the two types of verbs cannot be attributed to their association with a caused motion event schema, as this schema is available to verbs of both types.[7] Rather, the precise range of prepositions selected is determined by the nature of their roots. Although we will not fully explicate the relation between the root and the range of possible associated PPs, these observations support our general contention that many properties of dative verbs do not follow from their being in one variant or the other, but rather from the meaning lexicalized in their root.

    In fact, when individual dative verbs are scrutinized more carefully, the choice of PPs turns out to be even more complex. For instance, there are many uses of *send* with both a recipient and a spatial goal phrase, as in (13).

(13)   Anne is curious as to why her father sent her a telegram to America to return home at once …   (en.wikipedia.org/wiki/The_Web_of_Fear)

The analyses presented by Goldberg (1995) and Harley (2003) suggest that the caused motion and caused possession event schemas are necessarily in complementary distribution, but examples such as (13) suggests that it is not so. Rather, recipients and spatial path phrases are licensed by the meaning components encoded in the verb's root, and a single verb may be compatible with both.[8]

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[7] The verb *send* allows a wider range of spatial prepositions when it takes an animate theme, as in *Terry sent Pat behind the house/into the attic/out of the room*. As we discuss in section 6, such uses of *send* typically involve a caused motion meaning; most likely, they instantiate a slightly different sense of the verb in which one animate entity induces a second to go to some location.

[8] Even among the *give*-type verbs there is *hand*, which may simultaneously take a recipient and a directional phrase, as in *I handed Tracy the basket over the fence*. This verb lexicalizes

Furthermore, some, but not all, languages also allow *throw*- and *send*-type verbs also to be associated with a caused possession event schema (Croft et al. 2001, Levin 2004). As we discuss in section 3, causing a change in an entity's location, perhaps effected by imparting a force to that entity, may result in its having a new possessor. Thus, these verbs are also found in the double object construction, which may express the caused possession event schema.

To summarize, we have introduced three classes of dative verbs, the *give*-type, *throw*-type, and *send*-type, which are distinguished from each other by the kinds of meaning components lexicalized by their members. These meaning components, in turn, determine to a large extent the range of PPs compatible with the class members. We reinforce this point in the next section, where we examine the nature of the *to* phrases found with *give*-type verbs.

3. *GIVE*-TYPE VERBS DO NOT HAVE A PATH ARGUMENT

On the uniform multiple meaning approach, *give*-type verbs are associated with a caused motion meaning in their *to* variant. Since these verbs do not entail a change in the spatial location of their theme in this variant, the motion must be understood as being in the possessional field: the transfer of possession of an entity from a source entity to a goal entity, in conformity with a localist semantic analysis. In this section we argue that both variants of the *give*-type verbs are associated only with the caused possession meaning, analyzed as the bringing about of a 'have' relation – a relation which we take not to have a localist construal, contra Freeze (1992), Gruber (1965), Jackendoff (1983, 1990), and many others. Therefore, these verbs do not take a possessional path argument, and the recipient marked by *to* cannot be analyzed as the goal of such a path.

There are well-known differences between the *to* phrases found with *give*-, *throw*- and *send*-type verbs, differences which follow if *give*-type verbs only take possessional goals, while verbs of the other two types may also take spatial goals. For instance, the *to* phrase with *give*-type verbs cannot be questioned by the locative *wh*-word *where* (Levinson 2005), but the *to* phrase with *throw*- and *send*-type verbs may be.

(14) (a) *Where did you give the ball?
    (b) Where did you throw the ball? To third base.
    (c) Where did you send the bicycle? To Rome.

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a change of possession and in addition a change of location. The root must contain a change of location meaning component since it specifies that the change of possession is effected by hand, requiring it to be spatially realized. Apparently, verbs selecting a spatial goal, such as *send*, can systematically add a recipient, but those simply lexicalizing a recipient, such as *give*, cannot add a spatial goal.

Related to this, with *give*-type verbs, unlike *throw*- and *send*-type verbs, the preposition *to* only takes animate complements and not inanimate complements that designate places. As often noted (e.g., Goldsmith 1980: 430, Green 1974: 103), *London* in (15a) is acceptable only if it is a metonym for, say, the London office, an observation we return to in section 4.

(15) (a) I gave the package to Maria/*London.
    (b) I sent the package to Maria/London.
    (c) I threw the ball to Maria/the other side of the field.

Beavers (2006), Jackendoff (1983: 192), Krifka (2004: 11), and Rappaport Hovav (in press) point out that paths in transfer of possession events are two-point paths consisting of the original possessor and the recipient; they lack any internal structure. Thus, *give*-type verbs cannot take *to* phrases with modifiers further specifying the extent of the path (e.g., *halfway*), in contrast to *throw*- and *send*-type verbs.

(16) (a) *Susan gave the ball all the way/halfway to Bill.
    (b) Jake threw/kicked the ball all the way/halfway to Bill.
    (c) I sent/shipped the package halfway/all the way around the world to the Antarctic.

The *give*-type verbs, including the verbs of future having, are also not found with other spatial prepositions.[9]

(17) (a) *Fred gave/offered the ball under/behind/over Molly.
    (b) *Sam gave/offered the ball off the shelf/out of the basket.
    (c) *Jill gave/offered the ball at/towards Bob.

As mentioned in section 2, only verbs which lexicalize or strongly imply a change in physical location can license a PP with a locational or directional meaning. Therefore, the *give*-type verbs are incompatible with truly spatial PPs, even when used to describe an event of caused possession which involves an actual change in the location of the possessum, as most giving events with physical objects do.

On the strict interpretation of the Localist Hypothesis, all instances of change of possession are taken to involve the traversal of a possessional path. For verbs like *give* this should hold of both the *to* and the double object variants, and, indeed, Jackendoff (1990) makes precisely such a proposal. However, on the uniform multiple meaning approach, the double object and *to* variants must have distinct semantic representations. If the *to* variant encodes a change along a possessional path and thus involves a path

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[9] The verb *give* is found in a few collocations with particles, such *give the toys away* or *give the toys out*. These instances retain a sense of caused possession. The particles do not show a purely spatial meaning; rather, they may still take a *to* phrase introducing a recipient: *To whom/*where did you give the toys out/away? To the children.*

constituent, what semantic representation should the double object variant be assigned? One possibility is that the double object variant simply involves the causation of a state of possession, with possession not given a localist construal. This proposal is the one adopted by Krifka; see his representation in (4). We argue, however, that both variants of *give*-type verbs are associated only with the caused possession meaning and that the *to* variant does not have a possessional path constituent.

Unlike the *throw*- and *send*-type verbs, the *give*-type verbs are never found with *from*-marked source phrases.

(18)   *Josie gave/handed the ball from Marla (to Bill).

This restriction could follow if the subject of a *give*-type verb is lexically specified to be the source of a possessional path, since a single predicate cannot have two sources. The verb *give* would be analogous to verbs of commercial transaction. The subject – the seller – is the source in a selling event (Gruber 1965, Jackendoff 1972), and, consistent with the just-posited restriction, such sentences cannot take a second source phrase: *I sold the book from Mary/myself to Bill.* However, uses of *give* such as those in (19) cannot be said to involve a transfer of possession from one possessor to a second since the theme does not exist prior to the event. Such uses argue against the proposal that *give*-type verbs, even in the *to* variant, have an event schema which includes a path.

(19) (a) Give a fresh coat of paint to the front door.
                        (http://www.chapmanville.com/buy_sell.html)
      (b) One of the Jewish children is a spunky girl, who gave a black eye to the kid with the German roots before the start of the war.
                        (www.amazon.com/Border-Street-Aleksander-Ford/dp/
                                                B00001ZWUO)
      (c) Cultural commissioner Megan Whilden said that the five 'Artscape' pieces would 'give a festive air to Park Square, they're fun and interesting.'   (www.pittsfieldgazette.com/)

These sentences involve caused possession, and, hence, should be taken to involve the meaning of *give* found in the other examples discussed, as the relation between the recipient and the theme can be described using the verb *have*, as in (20).

(20) (a) The front door has a fresh coat of paint.
      (b) The kid with the German roots has a black eye.
      (c) Park Square has a festive air.

Although these uses involve metaphorical transfer (Goldberg 1992: 60), there are nonmetaphorical uses which also involve caused possession that is not spatially instantiated and do not involve transfer. For example, if a court gives a parent visiting rights, the court does not first have those rights;

it simply causes the parent to have the rights. There is no transfer of possession, but simply caused possession. Comparable examples with other *give*-type verbs also involve a relation that can be captured using the verb *have*, as in (21) and (22).

(21) (a) I promise a good time to all who come.
        (clubtrentino.freewebspace.com/calendar_for_club_trentino.htm)
     (b) Must an employer offer a job to a worker?
        (www.michigan.gov/wca/0,1607,7-191-28082-41841-F,00.html)
(22) (a) All who come will have a good time.
     (b) A worker will have a job.

(19) and (21), then, describe events of caused possession but do not involve transfer of possession. They suggest that the meanings of *give* and comparable verbs simply encompass caused possession.

Although *give*-type verbs do not lexicalize a transfer of possession, the subject of a *give*-type verb sometimes must be understood as a source, giving the impression that the verb's meaning does involve transfer of possession. For example, *Brett gave Leslie an apple* can only describe a scene in which Brett first has possession of the apple and then relinquishes it to Leslie. However, the transfer interpretation is obligatory only when possession is understood as physical control, and we suggest that this interpretation follows from the nature of this form of possession. It is well known that there are various types of possession (e.g., Heine 1997: 33f., Miller & Johnson-Laird 1976: 558f., Taylor 1996: 339f., Tham 2004), and one type involves purely 'physical control' of an entity, rather than actual ownership, as when someone in an office asks *Who has the stapler?* The verb *give*, as a lexical causative, must express direct causation (e.g., Fodor 1970, McCawley 1978), and what counts as direct causation of possession depends on the kind of possession involved. Physical control of an entity can only be directly caused by someone who originally has physical control of that entity through physical manipulation. As a result, there is an impression that the meaning of *give* involves the physical transfer of possession from a source to a goal (the recipient). But this is illusory. When possession involves an abstract entity and thus cannot involve physical control, someone can bring about a change of possession without being the original possessor. Moreover, the determining factor is not only that the possessum be a physical object, but also that the control be physical control. For example, a house can be given to the owner's heirs by a court, without the court ever having had possession of the house. If events of giving involve transfer of possession only in instances of physical transfer, then transfer of possession cannot be part of the meaning of *give*. If *give*'s meaning does not necessarily involve a transfer, it also does not involve a path. The *give*-type verbs, then, do not allow a source phrase because they lack a path in their event schema: their subject merely brings about a relation of possession.

The main motivation for assigning a *give*-type verb a path argument in the *to* variant is the use in this variant of a preposition which is homophonous with the allative marker *to*. Although the choice of preposition is not accidental, we attribute this choice to the meanings of the preposition itself, rather than to the meanings of the verbs in the *to* variant. It is fairly well-established that extended uses of prepositions often reflect metaphorical extensions of their basic meanings, with the Localist Hypothesis plays an important role in defining the structure of the space of extended meanings (Croft 1991, Lakoff & Johnson 1980: 59f., 135f.). For example, causes of change of state events are sometimes marked with the same prepositions as sources, as in (23a), where the cause is marked by *from* (Clark & Carpenter 1989; Croft 1991, 1998); and a result state may be marked by *into* or *to*, perhaps because such states are viewed as locations or goals in what Jackendoff (1983: 194f.) calls the 'identificational' field.

(23) (a) He died from exhaustion.
        (b) The water melted into/to ice.

In the same way, recipients may be indicated by the same preposition as a spatial goal because, as already mentioned, recipients can be metaphorically viewed as goals by the Localist Hypothesis.

Although such metaphorical extensions may determine the choice of preposition found with a verb, we claim that the appearance of a particular preposition does not fundamentally change the semantic type of the verb. In (23), for example, *melt* and *die* are surely change of state verbs and have not become change of location verbs. Only when the localist metaphor encompasses an entire change of possession event can the event be described using a verb which explicitly lexicalizes change of location, as shown in (24).

(24) (a) The court took the inheritance away from him
        (b) A hefty sum of money came to him from his grandfather.

This point can be reinforced by examining further instances of localist metaphors being used to describe a source domain that is not fundamentally locative: psychological states and events that involve changes in these states. Both may be described in localist terms, as in (25), again using verbs which lexicalize change of location.

(25) (a) The close brush with the law put the fear of god in him.
        (b) She fell in love/into a sulk/into a funk.

Yet the availability of such event descriptions does not mean that verbs of psychological state should themselves receive a localist analysis. First, in this domain there is not a unique localist analysis, as the examples demonstrate: in (25a) the psychological state is treated as the theme and the experiencer as the goal, while in (25b) it is the reverse. Second, verbs of change of psychological state largely pattern with verbs of change of physical state, and their

properties can be better explained if they are subsumed in a larger class of verbs of change of state. Furthermore, as Rappaport Hovav & Levin (2005: 285f.) point out, the argument realization patterns of verbs of change of state and verbs of change of location are distinct, calling into question an analysis which linguistically construes verbs of change of state as verbs of change of location via the Localist Hypothesis.

By the logic of the Localist Hypothesis recipients in some languages may be morphologically marked in the same way as goals are; however, this alone does not justify attributing a caused motion event schema to *give*-type verbs. Rather, the caused possession event schema with dative verbs gives rise to two different argument realization options. In the next section, we show that the two options are possible because recipients are semantically compatible with two kinds of morphosyntactic expressions in English. In section 8 we address the question why English should have these two options, when not all languages do.

4. THE SEMANTICS OF THE PREPOSITION *to*

We suggest that with all verbs the dative alternation involves an alternate realization of recipients, where a 'recipient' is generally an animate entity capable of possession, with corporations, governments, and other organizations qualifying as 'extended' animates (e.g., Goldberg 1995, Goldsmith 1980: 431f., Green 1974, Pesetsky 1995: 135f., Pinker 1989).[10]

As already suggested, recipients in English can be expressed either as a first object or as the object of the preposition *to*. Both the first object and the object of *to* are semantically restricted, though in different ways. The first object in the double object construction is dedicated to the expression of either a possessor or an intended or projected possessor (e.g., Goldsmith 1980, Green 1974, Oehrle 1976). Hence recipient, as a type of possessor, can be expressed as the first object. As we show in section 5, whether or not the recipient is interpreted as an actual or intended possessor depends on its verb.

The object of *to* is also semantically restricted, but much less so than the first object. English *to* indicates a wide range of argument types. It is difficult to give them a unified characterization, but they broadly fall under semantic categories which are covered by the dative case in languages where there is no dative/allative marker distinction (Aristar 1996, Blansitt 1988). These categories include recipients (possessional goals) and spatial goals (Haspelmath

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[10] The prototypical recipient is animate because the prototypical relation of possession involves an animate possessor and an inanimate possessum. However, possessors and thus recipients can be inanimate in certain instances of inalienable possession, as in *give the house a coat of paint* or *give the page a number*. The restriction that the first object must be an intended possessor is easily mistaken for an animacy restriction because of an overlap between the two notions, as McIntyre (2006) also discusses.

2003, Newman 1996), as well as some arguments that are not clearly goals, as with the English verbs *conform to*, *submit to*, *surrender to*, *yield to*, *restrict NP to*, *subject NP to*, as well as *belong to*, which takes a possessor which is not a recipient, and *adhere to*, *cling to*, *attach* NP *to*, and similar verbs, which take locations.

The first object in the double object variant is compatible with a subset of the argument types which *to* is compatible with. The dative alternation arises, then, 'because there are many cases in which the meaning of the dative [first object] position roughly coincides with the meaning of one or other of the prepositions [*to*, *for*]', to quote Goldsmith (1980: 424); see Pesetsky (1995: 141) and Wechsler (1995: 78) for similar proposals. Although the meaning of *to* is less restricted than that of the first object, it still follows from the morphosyntactic properties of English that *give*-type verbs will have two argument realization options.

Concomitantly, since *to* is compatible with both recipients and spatial goals, both are found in the *to* variant with *throw*- and *send*-type verbs. We pointed out in section 3 that with *give*-type verbs, the *to* phrase cannot be questioned by *where*; it can, however, be questioned by *to whom*, as in (26).

(26) (a) *Where did you give the ball?
     (b) To whom did you give the ball?

In contrast, as expected, verbs such as *throw* and *send* are compatible with *to whom*, as well as *where*, questions.

(27) (a) To whom did you throw the ball? To my brother.
     (b) Where did you throw the ball? To third base.
(28) (a) To whom did you send the package? To my brother.
     (b) Where did you send the package? To London.

We do not take a position on how many senses the preposition *to* has. We agree with Haspelmath (2003) that this is not the right question to ask. Grammatical morphemes in languages of the world typically encompass a wide range of closely related concepts, with comparable morphemes across languages differing from each other in the precise range of related concepts that they cover. Based on explorations of the ways in which morphemes may be associated with related concepts in a range of semantic fields, Croft (2003b: 133f.) and Haspelmath (2003) develop the notion of semantic map, which indicates natural affinities between morphemes and concepts by indicating how contiguous notions in a conceptual space are partitioned out by the morphemes of a language. (See Croft (2003b: 133) and Haspelmath (2003: 219) for further references.) In English, the preposition *to* covers not only the notion of goal, but also part of the conceptual space of possession-related concepts – specifically including the notion of recipient (Haspelmath 2003: 219f., Newman 1996: 90f.). In other languages, the area of conceptual

space that falls under this English preposition may be distributed over more than one adposition or case marker; see, for example, Haspelmath's comparison of English and French (2003: 214f.), as well as Blansitt's (1988) typological study of the larger conceptual space encompassing the notions of location, goal, and recipient.

For the most part, an argument expressible as first object can appear as the object of *to*; but in many instances an argument which can appear in a *to* phrase cannot appear as a first object. When a *throw-* or *send*-type verb is used to describe an instance of caused motion that does not also involve a transfer of possession, it has a purely spatial goal, and it is only found in the *to* variant. The consequence is the well-known observation that the double object variant typically arises with animates, since they are typical potential recipients (e.g., Green 1974: 103, Oehrle 1976).

(29) (a) Smith threw the ball to the first baseman/first base.
    (b) Smith threw the first baseman/*first base the ball.

In addition, because *to* is compatible only with possessors which are also recipients, there should be non-recipient possessors of three-argument verbs which are expressible as first objects but not in a *to* phrase. In fact, such possessors are found with verbs such as *cost, envy*, and *forgive* (e.g., Goldsmith 1980: 436f., Oehrle 1976: 142).

(30) (a) Smith envied Jones his good fortune.
    (b) *Smith envied his good fortune to Jones.
(31) (a) No one can forgive you that comment.
    (b) *No one can forgive that comment to you.
(32) (a) The recession cost my grandfather a raise.
    (b) *The recession cost a raise to my grandfather.

We have supported the verb-sensitive approach through a close examination of the *to* variant. We have argued that this variant can express the caused possession event schema as well as the caused motion event schema. In the next sections, we review two forms of evidence that have been taken to support the uniform multiple meaning approach, and show that they actually favor the verb-sensitive approach.

5. EVIDENCE FROM INFERENCE PATTERNS

Green (1974: 157) observes that 'Sentence (2a) [=(33a)] implies or entails that John has learned linguistics, while (2b) [=(33b)] merely states that he was a student of linguistics, and is neutral as to whether his teacher Mary had any success in her efforts'.

(33) (a) Mary taught John linguistics.
    (b) Mary taught linguistics to John.   (Green 1974: 157, ex. (2))

Goldberg (1992, 1995), Harley (2003), and Krifka (1999) – all proponents of the uniform multiple meaning approach – are among those who have suggested that this pattern is general, and that the double object variant is associated with what we call the 'successful transfer inference' – an inference that the *to* variant lacks.[11] This inference is attributed to the caused possession event schema associated with the double object variant, while its absence in the *to* variant is attributed to the associated caused motion event schema. The lack of a successful transfer inference in the *to* variant might be understood as a failure to attain a goal in a motion event, with the goal reinterpreted within the possessional field for dative verbs. If so, *to* phrases should in general allow an unattained goal interpretation – contrary to fact.

We will show below that the availability of an attained goal entailment is determined by the meaning lexicalized in the verb taking the *to* phrase. We then show that the same holds of the successful transfer inference: the inference is not uniformly available across all dative verbs in the double object variant, as would be expected if it were associated with an event schema; rather, the meaning of the specific verb plays a critical role in determining its availability. This inference, then, cannot be used to support the uniform multiple meaning approach to the dative alternation.

We begin, then, by examining the availability of the attained goal entailment with *to* phrases in the spatial motion domain. In some sentences, including some with dative verbs, the attainment of a goal is not entailed (it can be denied), as in (34), while in others it is entailed (it cannot be denied), as in (35).

(34) (a) We launched the rocket to the moon, but it blew up before it got there.
      (b) I threw the ball to Julian, but it fell short of him.
      (c) Lewis sent/shipped a bicycle to Sam, but it never arrived.
(35) (a) #Mark went to the store, but didn't get there.
      (b) #The cup fell to the floor, but landed on the stool.
      (c) #I pulled/dragged the box to the door, but stopped before I got there.

The minimal contrast between the caused motion sentences in (34) and the also causative (35c) illuminates the reason for a difference in the availability of the attained goal entailment. Although the path denoted by a PP headed by *to* is always bounded (Jackendoff 1983: 165, Zwarts 2005: 742), the theme

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[11] Despite its key role in arguments about the nature of the dative alternation, the very existence of the successful transfer inference is controversial. Jackendoff (1990: 297) writes that he has 'been laughed off the podium [trying] to present this claim in public'. Nevertheless, to the extent that such an inference is available it requires an account; see section 7.

is entailed to traverse the entire bounded path only if the event lexicalized in the verb, on the one hand, and the traversal of the path, on the other, are constrained to be temporally dependent – that is, when there is an event-to-event homomorphism (Rappaport Hovav in press). The *throw*-type verbs, which are semelfactives, contrast in this respect with verbs of causation of accompanied motion, such as *drag* or *pull*, which are activities (Beavers 2006), and verbs of these two types also differ with respect to the entailment of attainment of the goal. In these instances, then, the entailments of sentences with spatial *to* phrases are determined by the meaning of their verbs.

We now show that the same holds of the successful transfer inference: the meaning inherent in the verb plays a critical role in determining the availability of this inference. We further show that when successful transfer is entailed by a verb, the entailment appears in both the *to* and double object variants, while when a verb lacks this entailment, it is absent from both variants.

As mentioned in section 2, many *give*-type verbs – *give*, as well as *lend, rent, sell,* and *serve* – lexicalize caused possession; therefore, by their very nature they entail successful transfer in either variant, an observation which appears as early as Oehrle (1976: 129f.). This entailment is reflected in the oddness of denying successful transfer, as in (36) and (37), which illustrate the double object and *to* variants, respectively.

(36) (a) #My aunt gave/lent/loaned my brother some money for new skis, but he never got it.
     (b) #My brother sold Caroline his old car, but she never owned it.
(37) (a) #My aunt gave/lent/loaned some money to my brother for new skis, but he never got it.
     (b) #My brother sold his old car to Caroline, but she never owned it.

The exceptions among *give*-type verbs are verbs of future having, such as *promise, offer*, and *owe*, which fail to entail successful transfer in either variant.

(38) (a) Max offered the victims help, but they refused his offer.
     (b) Sarah promised Catherine her old car, but then gave it to her son instead.
(39) (a) Max offered help to the victims, but they refused his offer.
     (b) Sarah promised her old car to Catherine, but then gave it to her son instead.

As noted in section 2, these verbs have roots that involve a sublexical modality component which restricts the possible worlds in which successful transfer holds. For example, with *promise* the entailment of caused possession only holds 'in models in which the set of circumstances is restricted to those in which people honor their promises' (Koenig & Davis 2001: 85). The

presence and nature of the sublexical modality determines whether a verb will show a successful transfer entailment, and this property holds of the verb independent of the variant.

For verbs in other classes, as observed by Baker (1997: 89), Davidse (1996: 313), and Oehrle (1977: 206), among others, the successful transfer inference in certain instances of the double object construction is defeasible and hence an implicature.

(40) (a) I taught them English for an entire year, but they don't seem to have learned a thing.
  (b) I read him the figures, but when I looked up, he was gone.
                                        (Oehrle 1977: 206, ex. (4))
  (c) I throw you a lifeline and you giggle.
              (Leuven Drama Corpus; Davidse 1996: 313, ex. (79))
  (d) I kicked him the ball, but the wind blew it astray.

These examples show that the implicature is quite weak; see note 11. The critical observation is that none of the illustrative verbs is a *give*-type verb, and, specifically, as we now show, none has a meaning that involves an entailment of successful transfer.

Two of the verbs in (40) are *throw*-type verbs. As already mentioned in the discussion of *to* phrases, these verbs, being semelfactives, simply describe the moment a physical object is set in motion, and thus do not entail that the intended goal is attained – that is, they do not entail successful transfer. The lack of entailment holds across both variants.

(41) (a) I threw Mary the ball, but she was looking at the birds flying overhead and didn't even notice.
  (b) I threw the ball to Mary, but she was looking at the birds flying overhead and didn't even notice.

Although not included in (40), *send*-type verbs pattern with *throw*-type verbs with respect to successful transfer. When something is sent or shipped, it is intended to arrive at a destination, but arrival is not entailed (Oehrle 1976: 130, Wechsler 1995: 74). Once again, this holds of both variants, as shown in (42).

(42) (a) Lewis sent/shipped Sam a bicycle, but it never arrived.
  (b) Lewis sent/shipped a bicycle to Sam, but it never arrived.

And verbs of instrument communication also show the same pattern: *The reporter e-mailed/faxed the editor the story, but it never arrived/ The reporter e-mailed/faxed the story to the editor, but it never arrived.* As with the *send*-type verbs, something that is e-mailed or faxed is intended, but not entailed, to reach its intended destination.

Another set of dative verbs illustrated in (40) are verbs such as *read, teach*, and *write*, which basically lexicalize activities that necessarily involve

an agent. Most of these verbs, including *read* and *write*, basically describe events with two participants, neither of which is a recipient. As activity verbs, none entails caused possession, so when these verbs are found in the dative alternation, successful transfer is not entailed in either variant, contrary to what is commonly assumed.

(43) (a) The police read the detainees' rights to them, but not a single one was paying attention.
     (b) I wrote a letter to Blair, but I tore it up before I sent it.
(44) (a) The police read the detainees their rights, but not a single one was paying attention.
     (b) I wrote Blair a letter, but I tore it up before I sent it.

As discussed in section 4, the first object on its own contributes the interpretation of an intended possessor, not necessarily an actual possessor. Therefore, when a verb which does not lexicalize caused possession is found in the double object variant the first object has an intended possessor interpretation. As (43) and (44) show, there is no difference in this respect between the double object and *to* variants. It is only when the verb itself lexicalizes caused possession, as with *give* or *sell*, that the intended possessor interpretation is strengthened to an actual possessor interpretation in both variants. To summarize, the discussion of subtypes of dative verbs shows that the meaning of the verb – and not the event schema associated with a variant – determines the status of the successful transfer inference.

Krifka (2004: 6), a proponent of the uniform multiple meaning approach, admits that the purported successful transfer inference is not always present, and comments, 'But this may be due to a general possible conative interpretation of telic verbs, marginally possible in English, but less marginal in many other languages'. He introduces (45) as support.

(45) (?)Ann copied the manuscript, but she didn't finish it.

<div align="right">(Krifka 2004: 6, ex. (37))</div>

This example suggests that Krifka views the reading in which the copying event is completed as comparable to the successful transfer reading associated with dative verbs. Thus, he seems to suggest that dative verbs in the double object variant can have noncompletive readings (i.e. lack the successful transfer inference), just as other telic verbs can sometimes have an atelic interpretation. We agree with this observation, but we will show that when the conditions are delineated under which potentially telic sentences in English can have a noncompletive – Krifka's 'conative' – interpretation, once again the availability of this interpretation depends on the verb and not on the variant that the verb appears in.

The verb *copy* is an incremental theme verb (Dowty 1991, Krifka 1992, Tenny 1994), and the completive reading in (45) reflects a generalization about such verbs in English. When used in the simple past with a quantized

object, such verbs strongly imply that the process the verb denotes is complete with respect to the entire extent of the entity denoted by the verb's object. For instance, the sentences *Terry wrote a letter* and *Maxine memorized the poem* strongly imply that the letter was completely written and the poem fully memorized. However, the inference of completion is an implicature and not an entailment, and its availability is heavily influenced by pragmatic factors. Thus, incremental theme verbs may sometimes show noncompletive readings even with quantized objects (Filip & Rothstein 2006, Hay, Kennedy & Levin 1999, Kratzer 2004, Rappaport Hovav in press, Tenny 1994). For instance, *Alex read the newspaper* does not necessarily imply that the incremental process of reading the newspaper is complete. Contrast *Alex read the newspaper, but he didn't finish it* with (45). Furthermore, *read* and similar verbs can appear with temporal adverbials compatible with both telic and atelic verbs.

(46)   Alex read the newspaper for an hour/in an hour.

The same observation pertains to degree achievement verbs – verbs such as *cool, ripen*, and *widen* (Abusch 1986, Bertinetto & Squartini 1995, Dowty 1979: 88f., Hay, Kennedy & Levin 1999). These verbs are associated with a lexically specified scale and entail an incremental, directed change along this scale; in this sense, they are like incremental theme verbs. Again, as with incremental theme verbs, whether or not the change reaches an endpoint is determined pragmatically. For example, *The soup cooled* need not mean that the soup cooled completely.

Degree achievements and incremental theme verbs contrast with verbs traditionally classified as achievements. Such verbs lexicalize a simple, nonincremental transition from one state to another, whether a change of state (e.g., *die, break*) or a change of location (e.g., *arrive, reach*); thus, they are necessarily telic and when used in the past tense, they entail that the change lexicalized in the verb is actualized (Rappaport Hovav in press). For example, *Drew reached the station* entails that Drew was at the station, and *Marlow died* entails that Marlow was dead. The difference between verbs such as *cool* and *ripen* and verbs such as *arrive* and *die* is lexical; hence the availability of the completive reading in the past tense depends on the meaning lexicalized by the verb.

As suggested, the successful transfer reading is the dative verb analogue of the completive reading, and whether or not a dative verb has a successful transfer reading depends on whether or not it lexicalizes an incremental or a simple, nonincremental transition. The core dative verbs – such as *give, lend, rent*, and *sell* – lexicalize caused possession, a change which is nonincremental by its very nature. As shown in section 3, with these verbs there is a simple transition from the recipient not possessing the theme to the recipient possessing the theme; the theme does not incrementally traverse a path to the recipient. Furthermore, caused possession is entailed in both variants. In this

respect, these verbs pattern like other verbs lexicalizing a simple transition, such as *arrive*, *reach*, or *die*; none allows modifiers sensitive to an incremental transition.

(47) (a) *I lent the book partway/halfway/all the way/most of the way to Tony.
     (b) *I lent Tony the book partway/halfway/all the way/most of the way.

(48) (a) *Robin arrived partway/halfway/all the way/most of the way at the station.
     (b) *The old dog died partway/halfway/all the way/most of the way.

As already mentioned, in contrast to the *give*-type verbs, many other dative verbs, such as *read* and *throw*, do not lexicalize caused possession, and thus do not entail successful transfer on either variant. Moreover, when such verbs implicate successful transfer, as they are said to in the double object variant, this implicature cannot be the implicature of completion found with verbs of incremental change, such as *copy*, since, as we have shown, change of possession is not an incremental change. An implicature of completion is indeed found with some of these dative verbs, specifically those which, like *read* or *teach*, are incremental theme verbs; however, the implicature holds with respect to the incremental theme and not with respect to the change of possession. This is illustrated in (49):

(49) (a) Sandy taught the children the alphabet, but only got as far as the letter 'r'.
     (b) Maxine read the children *Goodnight Moon*, but they fell asleep before she got to the end.

To conclude, there is no reason to appeal to a uniform multiple meaning approach to account for the successful transfer inference. Dative verbs whose meaning entails successful transfer always show this entailment, independent of the variant, while dative verbs whose meaning does not entail successful transfer never show this entailment. Yet, even when this entailment is lacking, there is a defeasible successful transfer implicature in the double object variant, as Green observes. We suggest that to the extent that this implicature is available (see note 11), it is quite weak and has an alternative source, which we discuss in section 7. First, however, we examine a second type of evidence used to support the uniform multiple meaning approach.

6. EVIDENCE FROM THE DISTRIBUTION OF VERB–ARGUMENT COMBINATIONS

Certain verb–argument combinations, including idioms, are said to be restricted to one variant or the other, with the proposed explanation involving

the incompatibility of these combinations with the meaning associated with the other variant. Such an explanation, if valid, would support the uniform multiple meaning approach. In this section we reexamine this evidence and show that the restrictions on the distribution of verb–argument combinations are not consistently evidenced across variants, and that the fuller picture of the distributional facts supports the verb-sensitive approach.

Harley (2003: 41) and Krifka (2004: 3f.) argue that the caused motion meaning they attribute to the *to* variant explains why the double object variant in examples such as (50a) lacks a *to* variant counterpart, as (50b) illustrates.

(50) (a) Interviewing Richard Nixon gave Norman Mailer a book.

(Oehrle 1976: 44)

   (b) *Interviewing Nixon gave a book to Norman Mailer.

These examples describe causing the theme, *a book*, to come into existence, which results in the 'causee' – Norman Mailer – possessing a book; there is no transfer of possession from one possessor to another In the absence of a transfer, there is no real path, not even an abstract path within the possessional field; see section 3. Thus, the *to* variant, which purportedly encodes a path, is not available for this particular verb–argument combination (Krifka 2004: 3f.).

However, the allegedly nonexistent *to* variant (50b) becomes possible when the recipient is a heavy NP.[12] This suggests that its unacceptability does not have a semantic explanation, such as Harley's or Krifka's.

(51) (a) Nixon's behavior gave Mailer an idea for a book.
   (b) #Nixon's behavior gave an idea for a book to Mailer.
   (c) Nixon's behavior gave an idea for a book to every journalist living in New York City in the 1970s.

(Snyder 2003: 35, exx. (47a,b), (48))

Perhaps more important, in section 3 we argued extensively, based on examples such as (19) and (21), that *give*-type verbs do not encode a transfer of possession in the *to* variant either. In at least some examples that make this point, the *to* variant is acceptable even without a heavy recipient, as shown in (52).

(52) (a) We gave a fresh coat of paint to the house.
   (b) The five 'Artscape' pieces gave a festive air to Park Square.
   (c) You could give a headache to a Tylenol.

('DNRC Folk Sayings', *Dilbert Newsletter* 35;
http://www.dilbert.com/)

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[12] For our purposes we need not choose among the various understandings of heaviness (or weight); for a review and evaluation see Wasow (1997, 2002: 15f.).

The contrast in (50), then, cannot be explained with reference to a semantic property of the *to* variant.[13] The marginal status of (50b) must receive another explanation, and we return to it in section 7.

An idiom is a type of fixed verb–argument combination with a non-literal meaning. Harley (2003) adduces evidence from an asymmetry in the distribution of idioms to support the assignment of two distinct meanings – and thus two corresponding underlying syntactic structures – to the two variants of the dative alternation. Harley assumes 'lexical decomposition' in the syntax, along the lines proposed by Hale & Keyser (2002), positing the syntactic structures in (53)–(54) for the two variants. The 'abstract' prepositions P_{HAVE} and P_{LOC} represent predicates with possessional and locational meanings, respectively.

(53) *Double object variant* (Harley 2003: 46, ex. (21))
      [$_{vP}$ Agent [$_{v'}$ CAUSE [$_{PP}$ Goal [$_{P'}$ P_{HAVE} [$_{DP}$ Theme]]]]]
(54) to *variant* (Harley 2003: 46, ex. (23))
      [$_{vP}$ Agent [$_{v'}$ CAUSE [$_{PP}$ Theme [$_{P'}$ P_{LOC} [$_{PP}$ to Goal]]]]]

The participants in these structures are labeled agent, theme, and goal; we initially follow this usage, but will refine it later.

Harley claims that idioms with dative verbs are restricted to either the double object variant, like those in (55), or the *to* variant, like those in (56); in describing the data in this way she follows other observations in the literature (e.g., Green 1974, Machonis 1985, Nunberg, Sag & Wasow 1994, O'Grady 1998), though they have not been previously exploited for this purpose.

(55) read x the riot act, lend x an ear, show x the ropes, promise x the moon, give x the cold shoulder, give x the creeps, give x the boot, give x a headache, …
(56) send x to the showers, take x to the cleaners, send x to the devil, throw x to the wolves, push x to the edge, carry x to extremes

Harley assumes, as is accepted in the generative tradition, that all fixed parts of an idiom must form an underlying syntactic constituent (Marantz 1996, but see Nunberg, Sag & Wasow 1994 for discussion of this assumption). Given this assumption and the syntactic structures posited, if an idiom has one fixed DP constituent, this DP must be the sister of the head of the P′ in the structures in (53) and (54). Therefore, to meet the above constituency requirement, an idiom with a fixed theme should appear ONLY in the double object variant, an idiom with a fixed goal should appear ONLY in the *to*

[13] The examples in (52) have inanimate 'recipients'. In (50)–(51) the *to* variant is favored when the recipient is heavy, while the recipients in (52) need not even be heavy in the *to* variant. We propose a reason for this animacy effect in section 7.

variant, and no idiom with a single fixed DP should involve both variants. No idiom with a fixed element in the *to* phrase should be found in the double object variant, since in its underlying structure in (53) P$_{HAVE}$ and the fixed goal phrase do not form a constituent. Conversely, no idiom with a fixed theme should appear in the *to* variant, since in its underlying structure in (54) P$_{LOC}$ and the theme do not form a constituent.

In fact, these predictions are not borne out. Fixed theme idioms are not necessarily restricted to the double object variant, as (57) illustrates; see also Bresnan & Nikitina (in press).

(57) (a) Mr. Major was set to read the riot act to ministers …
                                                      (COBUILD)
     (b) Police lend an ear to the victims …   (COBUILD)
     (c) '… You want to give a wide berth to political discussion.'
              (*The Columbus Dispatch*, October 23, 2001, p. 02B; from
                                              LexisNexis Academic)
     (d) Gordie Gillespie still can give a piece of his mind to the umps …
              (*Milwaukee Journal Sentinel*, April 21, 1996, p. 1; from
                                              LexisNexis Academic)

Harley (2003: 45) and Richards (2001: 187, n. 4) are both aware of such data, but take these *to* variants to be the result of 'heavy NP shift', since when the open NP in such idioms is heavy, it can appear in the *to* phrase, as in (58). Harley writes that such examples 'are prosodically manipulated cases of well-behaved idioms' (2003: 47).

(58)   Oscar will give the boot to any employee that shows up late
              (Harley 2003: 43, ex. (19c); based on Larson 1988: 341, ex. (11c))

However, such *to* variants do not necessarily involve heavy NPs in their *to* phrases, as most strikingly shown in (57d). Furthermore, analyzing them as instances of heavy NP shift does not make sense. First, no other examples of heavy NP shift are accompanied by the insertion of a preposition, which Harley (2003: 67, n. 8) acknowledges. Second, inserted prepositions are typically semantically empty (e.g., the *of* in nominalizations), but *to* is certainly not. Third, the supposed output of heavy NP shift can itself undergo this process, as in *You want to lend to the victims of the disaster the most sympathetic ear possible*.

Idioms with fixed themes, then, can appear in either variant, independent of the heaviness of the open NP; thus, a basic assumption underlying Harley's account is incorrect. In fact, various studies, including several recent corpus-based and experimental studies, show that heaviness is only one of a range of factors which determine variant choice in the dative alternation (Bresnan et al. 2007, Gries 2003, Wasow 2002). Other factors include information structure, the semantic connectedness of constituents, and ambiguity avoidance; see section 7. Equally important, the availability of both variants

for verb–argument combinations involving *give*-type verbs is predicted by our analysis, which allows the caused possession event schema to be realized by either variant.

It is striking that Harley's fixed goal idioms – the idioms in (56) – truly do not show the dative alternation. This observation follows from our analysis. The first object in the double object variant must be interpreted as an intended possessor – being simply a goal is not enough, as noted in section 3. However, as observed by O'Grady (1998), fixed goal idioms do not involve a relation of possession between the theme and the fixed goal; for example, if you throw someone to the wolves, the wolves do not have that person, not even metaphorically. That is, these idioms have meanings that involve an abstract form of caused motion and are therefore incompatible with the double object variant. We further predict that idioms of this type should never involve *give*-type verbs, as these are only associated with the caused possession event schema. This prediction is borne out: none of the attested fixed goal idioms involves such verbs. The attested verbs include *carry*, *push*, *send*, *take*, and *throw*; these are all *throw*- and *send*-type verbs, as expected, since such verbs may be associated with the caused motion event schema. Thus, Harley is right in describing these idioms semantically as having a fixed 'goal'. In contrast, her fixed theme idioms involve a relation of intended possession, which is why they show the dative alternation. What Harley labels a 'goal' in these idioms is actually a recipient.

Harley (2003: 39) argues that the exclusion of fixed goal idioms from the double object variant should not be attributed to the requirement that the first object express a recipient, since even when the fixed goal phrase is animate, and thus a candidate for being a recipient, the relevant idioms still do not show the dative alternation. She cites (59) as evidence.

(59) (a) I sent the salesman to the devil.
　　　(b) *I sent the devil the salesman.　　　　　(Harley 2003: 37, ex. (14))

However, although the object of *to* in (59) is animate, and although most animate goals qualify as recipients, this particular animate goal does not. In particular, when *send* takes animate NPs as both goal and theme, there is usually no relation of possession between them; the example simply denotes caused motion. For instance, in *The teacher sent the naughty children to the principal*, the principal does not, as a result, have the children, whereas in *The teacher sent the principal a letter*, he does, as a result, have the letter: compare **The principal has the children* to *The principal has the letter*. The contrast in (59) arises because the example involves caused motion and not caused possession, which is necessary for the double object construction. However, occasionally there does exist a relation of possession between two animates. For example, professors have graduate students; hence, as expected, it is possible to say *I sent her my best graduate student*. Once again, the key to the

distribution of a verb in the dative alternation variants is whether the event involves intended possession.

Support for this analysis comes from Russian, which also has the idiom *send to the devil*, translated as *poslat' k chërtu*, which uses the Russian verb *poslat'* 'send' (T. Nikitina, p.c.). Crucially, in Russian *čërtu* 'devil.DAT' appears as the object of the preposition *k*, a preposition which can indicate spatial goals, rather than as a bare NP marked for dative case, the case of the recipient with *give*-type verbs. A bare dative NP may be found with *poslat'*, but only when describing events of caused possession, where the dative NP is a recipient, as in (60).

(60) Ja   poslal emu   knigu.
      I.NOM sent   he.DAT book.ACC
      'I sent him a book.'

However, in the idiom and in the Russian counterpart of the English *send to the principal* example, the preposition *k* must appear, suggesting that these examples indeed do not involve a recipient; see Levin (2007) for further discussion of the Russian data.

(61) Ja   poslal učenikov   k direktoru.
      I.NOM sent   students.ACC to principal.DAT
      'I sent the children to the principal.'

Finally, we predict the possibility of idioms – or, at least, verb–argument combinations – with fixed themes which appear only in the *to* variant; and crucially, we predict that such idioms should not involve a recipient. In fact, Richards (2001: 187) notes the existence of fixed theme idioms – or, perhaps, verb–argument combinations – which involve *give* but appear only in the *to* variant; some are listed in (62).[14]

(62) give birth to x, give rise to x, give way to x, …

Consistent with our analysis, these verb–argument combinations do not involve intended possession; in fact, *give* seems to have been 'bleached' of its possessional meaning in these examples. Two of them – *give birth* and *give rise* – have a coming-into-existence meaning, though it is more difficult to characterize the precise meaning of the third one.

A closer look at the distributional evidence, then, suggests that there is no inherent link between the fixed constituent in an idiom and the variant that

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[14] Richards (2001: 187) also lists *give chase to x* and *give the lie to x*, but a Google search shows that these combinations are attested in the double object variant. Such combinations might appear unexpected on Harley's analysis, since themes, by hypothesis, do not form a constituent with the verb in the *to* variant, though Richards (2001) attempts to reconcile them with Harley's analysis.

the idiom appears in.[15] Some idioms are found only in the *to* variant because they are not compatible with the semantic restriction on the first object of the double object variant; such idioms are not expected to alternate on any account. More importantly, idioms claimed to show only the double object variant may in facct appear in both variants. So the proposed generalization, which the different syntacticized semantic structures in (53) and (54) are meant to account for, is a non-generalization, and cannot count as support for the uniform multiple meaning account. Nevertheless, the overall preference for the double object variant in idioms with fixed themes needs an account; we come to it in the next section.

7. ACCOUNTING FOR THE ASYMMETRIES

Studies of texts show that the distribution of the double object and *to* variants of the dative alternation is largely governed by information structure and heaviness considerations (Arnold et al. 2000; Davidse 1996; Givón 1984a; Polinsky 1996; Ransom 1979; Snyder 2003; Thompson 1990, 1995; Wasow 1997, 2002). The choice of variant for a given pairing of theme and recipient is determined by the two interacting constraints in (63).

(63) (a) Information structure: Given material comes before new material.
     (b) Heaviness: Heavy material comes last.

In section 6 we showed that the heaviness of the recipient can influence the choice of variant for particular verb–argument combinations. When a given verb–theme combination is less than felicitous in the *to* variant, it often can be salvaged by making the recipient NP heavier, as illustrated in (64), previously cited as (51).

(64) (a) Nixon's behavior gave Mailer an idea for a book.
     (b) #Nixon's behavior gave an idea for a book to Mailer.
     (c) Nixon's behavior gave an idea for a book to every journalist living in New York City in the 1970s.

                                        (Snyder 2003: 35, exx. (47a,b), (48))

We still need to explain why (64b) is not fully felicitous when the recipient is light. As hinted in section 6, the animacy of the recipient seems to be a factor, as the infelicity of a *to* variant with a light recipient disappears when the recipient is not animate, as illustrated in (52), repeated here.

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[15] An open question is why idioms that show the dative alternation almost always have a fixed theme and only rarely have a fixed recipient; see Levin & Rappaport Hovav (2005: chapter 6) for some discussion. (This generalization crucially distinguishes recipients from spatial goals, since there are idioms with fixed spatial goals and variable themes, as in (56), and idioms with fixed themes and variable spatial goals, such as (62).)

(65) (a) We gave a fresh coat of paint to the house.
      (b) The five 'Artscape' pieces gave a festive air to Park Square.
      (c) You could give a headache to a Tylenol.

('DNRC Folk Sayings', *Dilbert Newsletter* 35;
http://www.dilbert.com/)

We suggest that the animacy effect is a consequence of information structure. When a sentence is heard without context, the hearer supplies a default information structure. When such a sentence uses the *to* variant, the NP in the *to* phrase is interpreted as new material, while the direct object is interpreted as given, in line with (63a). For some choices of arguments, this default interpretation is unlikely, resulting in a sentence which is judged infelicitous out of context. For other choices, this interpretation is more natural, with the sentence judged felicitous out of context.

Recipients are typically human and, thus, more likely to be familiar in a discourse than themes, which are typically inanimate.[16] Therefore, all other things being equal, recipients should tend to precede themes; but this word order is only possible in the double object construction, where the recipient is expressed as first object and the theme as second.[17] The differential felicity of the examples in (64) can be understood from this perspective. In the scenario underlying these sentences it is likely that the recipient, *Mailer*, is the topic of conversation, and thus given, while the theme, *an idea for a book*, is new information. The double object construction is preferred, as the contrast between (64a) and (64b) shows. This preference may be overridden by heaviness considerations, as in (64c). However, with an appropriate context in which the notion of an idea for a book is given, the theme can precede the recipient, requiring the *to* variant, as in (66). Here, this variant may even be preferred to the double object variant.

(66) A: It is very difficult to get an idea for a book simply from an interview.
      B: Well, interviewing Nixon gave an idea for a book to Mailer.

Although idioms with fixed theme objects do occur in the *to* variant, they are nonetheless overwhelmingly found in the double object variant, and in isolation sound best in that variant. This preference arises because the idiom chunks found with *give*, such as *the creeps*, *the boot*, *the riot act*, and *the cold*

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[16] Brown's (1983) study of topic continuity in English examines several measures that suggest that humans are more topical than nonhumans. For further discussion of the intricate connections between animacy, givenness, topichood, and even semantic roles, see Comrie (1989: 198f.), Dahl & Fraurud (1996), and Givón (1984b: 364).

[17] Recipients also precede themes in the heavy NP shift version of the *to* variant, as in *I gave to my mother the book she had been wanting for years*. As the double object variant is the less marked option for expressing the recipient before the theme, it should be preferred when heaviness and information structure considerations permit either option. Anttila (in press) suggests that prosodic considerations determine when this shifted version is preferred.

shoulder, are hardly likely to represent given information. Some, like *the riot act*, are not referential in their idiomatic use. Furthermore, since the recipient is typically given, it is likely to be pronominal and hence light. Consequently, such idioms will occur overwhelmingly in the double object variant (Bresnan & Nikitina in press). As mentioned, if the recipient in these idioms is heavy, the *to* variant becomes possible, and even preferred, as in (67), though it is not difficult to find *to* variants even without a heavy NP in the *to* phrase, as in (68).

(67) (a) … it is unreadable, guaranteed to give a headache to anyone who looks hard at the small print.
        (*The Guardian*, September 17, 1992; from LexisNexis Academic)
    (b) 'Doing my taxes' gives a headache to 22 percent of Americans surveyed for Bristol-Myers Squibb, which makes Excedrin pain-relief medicine.
        (*The Buffalo News*, March 21, 1993; from LexisNexis Academic)

(68) (a) Gordie Gillespie still can give a piece of his mind to the umps
        (*Milwaukee Journal Sentinel*, April 21, 1996;
        from LexisNexis Academic; =(57d))
    (b) … Nevarez says that he has done more than simply give a fresh coat of paint to the site …
        (*San Antonio Business Journal*, March 29, 2004)

Wasow (2002: 83f.) reports that there is a strong tendency for the degree of 'semantic connectedness' between constituents to influence their order in a clause: all other things being equal, constituents which are semantically connected tend to be adjacent. As Wasow points out, this means that constituents of transparent collocations are more likely to be adjacent than constituents of noncollocations, while constituents of nontransparent collocations, i.e. idioms, are even more likely to be adjacent. This accounts for the results of a corpus study he conducted in which there was a significantly higher incidence of noncanonical word order due to heavy NP shift with idioms such as *take into account* than with nonidioms such as *bring to an end*. Turning to dative verbs, with idioms such as *give a piece of one's mind*, the tendency to have the recipient closer to the verb because of information structure considerations conflicts with the tendency to keep semantically connected constituents together. In (68a), the theme *a piece of his mind* contains a pronoun, anaphoric to the agent subject of the clause. This property perhaps makes the theme more likely to be given than the recipient, so with this particular verb–argument combination the tendency for given material to precede new material favors the *to* variant, as does the tendency to keep semantically connected constituents together. We are not aware of any study that examines the interaction of semantic connectedness, heaviness, and information structure with dative verbs, but we would expect that (68a) is

representative of instances in which a *to* variant occurs with a light NP in the *to* phrase.

Similar considerations might explain the apparent obligatoriness of the double object variant when *give* is combined with the name of an illness. This obligatoriness has been explained by proposing that such verb–argument combinations involve the creation of the theme rather than a transfer of the theme. As pointed out in section 6, such explanations are problematic. But an alternative explanation is possible, as noted by Erteschik-Shir (1979: 453), though she casts it somewhat differently than we do. An illness is usually new information, requiring it to be expressed after the recipient, as in the double object variant. In a context in which the illness is old information, the *to* variant is possible, as in (69), a sentence from a blog written by a sick mother with sick children. (We do not cite Erteschik-Shir's example as it does not adequately control for heaviness effects with pronouns.)

(69)   I think it's time you give your lovely illness to someone else!!!
        (http://www.momswearingpuke.com/forums/index.cfm?topicid=3797)

These considerations can also explain verb-specific preferences for one variant over the other (Wasow 2002, also Davidse 1996). Corpus studies reveal that *sell* is used more often in the *to* variant, while *give* is found more often in the double object variant (Wasow 2002: 87). The reason is that the recipient is more likely to be known in the description of a giving event than in the description of a selling event. Although our proposed explanation needs to be corroborated empirically through a corpus study, we believe that it is plausible. Sellers tend to be identified by their merchandise (theme) and do not typically know their customers (recipient). In contrast, things (theme) are usually given to people or groups (recipient) that have been previously identified; here givenness and heaviness work together to favor the double object variant, since *give* is more often used with pronominal recipients than *sell*. In fact, the three verbs which appeared most frequently in the double object variant in Wasow's study were *give*, *show*, and *tell*, all of which are likely to appear with known recipients. There are other verbs which pattern like *sell*, including *fax* and *send*. The recipient need not be part of the scene described by these verbs (e.g., it is optionally expressed), making it likely that it is not given and thus favoring the *to* variant.

We can now return to an issue we have not yet addressed completely: the successful transfer inference. Although verbs which do not lexicalize caused possession, such as *throw* and *teach*, do not entail successful transfer in the double object variant, as discussed in section 5, it has been repeatedly claimed that this variant is associated with an invited inference of successful transfer. Since the double object and *to* variants provide distinct syntactic realizations for the same proposition, there must be a reason for choosing one over the other. As already suggested, the choice is usually made on the

grounds of heaviness and information structure. We propose, however, that when these factors do not play a decisive role, so that both variants are in principle available, Gricean considerations enter into the choice between variants, and it is these that are behind the successful transfer implicature. We propose that as the first object is a form dedicated to the expression of possessors, when a speaker chooses to express a recipient in this way rather than in a *to* phrase, an implicature is generated that the causation of possession of the theme by the recipient is successful, since prototypically a possessor is in actual possession of the theme.

8. WHY DOES ENGLISH HAVE A DATIVE ALTERNATION?

Our study of the dative alternation has focused on English, but it has implications for understanding the distribution of this alternation across languages. At the heart of our analysis is the proposal that in English the alternation arises for different reasons with *give*-type verbs and with *throw*- and *send*-type verbs, since only with the *throw/send*-type verbs does the alternation reflect two event schemas, one with a recipient and the other with a spatial goal. If a language consistently marks goals and recipients differently, unlike English, we might expect only the *throw*- and *send*-type verbs to show a kind of dative alternation in this language. In fact, Russian is just such a language: when *send*-type verbs express caused possession, they take a dative NP, but they may be found with the allative preposition *k* when they express caused motion. Compare (70) to the Russian counterpart of *send to the principal* in (71), which as discussed in section 6 describes caused motion.

(70) Ja   poslal direktoru   knigu.
     I.NOM sent   principal.DAT book.ACC
     'I sent the principal a book.'

(71) Ja   poslal učenikov   k direktoru.
     I.NOM sent   students.ACC to principal.DAT
     'I sent the children to the principal.'

In contrast, *give*-type verbs, as they are associated only with the caused possession event schema, are not found with the allative preposition *k* in Russian.

(72) *Ja   dal knigu   k Borisu.
      I.NOM gave book.ACC to Boris.DAT
      'I gave a book to Boris.'

This data suggests that more extensive crosslinguistic investigation is likely to reveal that *give*-type verbs are not attested with allative prepositions in languages in which the morphological expression of recipients and spatial goals does not overlap.

If the counterparts of English *give* were easily associated with the caused motion event schema, these verbs should appear with a clear spatial goal marker across languages, since, as far as we know, all languages have a means of expressing change of location. However, this does not appear to be the case. Unlike the causative and locative alternations, which are widely attested, many languages lack a dative alternation (Harley 2003, Haspelmath 2005, Siewierska 1998).[18] English shows the alternation for the *give*-type verbs because it has two morphosyntactic realizations for recipients, as recipients are independently compatible with the semantic domains of both the preposition *to* and the first object.

The question, then, is why English has developed two options for marking recipients, especially since many other languages have only one. We suggested that information structure and heaviness are among the factors determining when one variant is favored over the other. These two factors are known to interact with word order crosslinguistically. Since English has relatively fixed word order, the two argument realization options defining the dative alternation allow English to satisfy competing demands on word order that arise in the expression of caused possession events. If this analysis is correct, the dative alternation with *give*-type verbs should not be necessary in a language which has relatively free word order and, thus, can maintain the same mode of argument realization while allowing for a reordering of arguments. There is evidence that supports this proposal.

The dative alternation arose in Middle English at about the time that the system of morphological case marking eroded and word order, which had previously been quite free, became fixed. McFadden (2002) and Polo (2002) present studies which together document the complex interplay of factors that led to the emergence of the dative alternation. Here we can only sketch salient details. Old English lacked the dative alternation and allowed the theme and recipient to appear in either order as full NPs, with the former marked for accusative case and the latter for dative case; in fact, both orders are well-attested (Allen 1995: 48, McFadden 2002: 108, Polo 2002: 129). With the erosion of the morphological case system for full NPs and the gradual introduction of the *to* variant, in which the theme precedes the recipient, McFadden (2002) shows that a preference developed for interpreting the first of two full postverbal NPs as a recipient and the second as a theme – that is, as in the double object construction. Polo (2002) further shows that theme–recipient order became exclusively expressed via the *to* variant once third person pronouns also lost the

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[18] A crosslinguistic survey by Haspelmath (2005) of the argument realization options of *give* shows that this verb manifests a dative alternation in at most 39 out of 378 languages surveyed. These numbers are striking, though a full appreciation of their implications must await a closer examination of the individual languages surveyed.

accusative/dative case distinction. The result is what is called the dative alternation.

This correlation is observed elsewhere. Among the Germanic languages, Dutch, which like English has relatively fixed word order and lacks an accusative/dative case distinction, has a dative alternation (e.g., Hoekstra 1991, Van Belle & Van Langendonck 1992).

(73) (a) Jan gaf Marie een boek.
           'Jan gave Marie a book.'
      (b) Jan gaf een boek aan Marie
           'Jan gave a book to Marie.'   (Hoekstra 1991: 351, ex. (2))

In contrast, German, which has maintained a morphological distinction between dative and accusative case and allows fairly free word order within the VP, does not show a dative alternation with core dative verbs such as *give*. Russian, which has quite free word order and a well-developed morphological case system, also lacks the dative alternation with *give*, as already noted. In German the allative preposition *zu* is not found with *give*-type verbs, as shown in (74), nor is the allative preposition *k* found with these verbs in Russian, as shown in (72); both languages use the bare dative case for recipients.

(74) *Ich   gab einige   Blumen   zu diesem   Mädchen.
       I.NOM gave some.ACC flowers.ACC to this.DAT girl.DAT
       'I gave some flowers to this girl.'   (Hameyer 1979: 235, ex. (2))

Our study suggests that the only substantive evidence for assuming that *give*-type verbs are associated with a caused motion event schema is that recipients can be marked in the same way as spatial goals are (e.g., English *to*; Blansitt 1988). Associating *give*-type verbs with a caused motion event schema fails to explain any other properties of these verbs successfully, and turns out to be a mere restatement of this morphosyntactic generalization. The suggestion that *give*-type verbs express caused motion parallels another frequently made suggestion: that possession is actually a subtype of location, so that the possessor with stative verbs of possession is to be analyzed as a location (Benveniste 1960; Freeze 1992; Jackendoff 1972, 1983; Lyons 1967). However, as Tham (2004) points out, this assumption simply captures the generalization that often, though not always, possessors are morphosyntactically marked in the same way as locations are. Once the argument realization options for possessors and locations are examined more carefully and the semantics of locative and possessive predicates is compared, there is ample reason to distinguish possessors from locations; see Tham (2004) for details. We assume that a more thorough typologically-informed exploration of the morphosyntactic devices available for argument realization across languages, especially if accompanied by a deeper investigation of the semantic properties of the related predicates, such as that begun in Levin (2007),

will support the picture we have sketched in which possession is not represented as location and causation of possession is not represented as caused motion.

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Authors' addresses: (*Rappaport Hovav*)
Department of English, The Hebrew University of Jerusalem,
Mount Scopus, 91905 Jerusalem, Israel.
E-mail: mhovav@mscc.huji.ac.il

(*Levin*)
Department of Linguistics, Stanford University, Margaret Jacks Hall,
Stanford, CA 94305-2150, U.S.A.
E-mail: beth.levin@stanford.edu