

The Semantics of *be*-verb Constructions and the German Locative Alternation

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Abstract

German constructions with the verb prefix be- do not just alternate with simple-verb constructions that express a "goal" argument obliquely; they can also contrast with simple-verb constructions in which the "goal" argument appears as an accusative incremental theme. By focusing on these contrasting constructions we can distinguish the semantic contribution of be- from the meaning of the transitive construction itself, enabling a cognitive-semantic account of be-verb constructions that differs significantly from previous proposals. Be- describes a sustained (and typically iterative) interaction directed at a focal accusative landmark whose existence is independent of the event being described. In the process of examining be- verbs we can also gain a better understanding of incremental themes and of "holistic effects". The discussion also has general implications for the semantics of argument roles, challenging the idea that semantic roles are global units that can be transported from one construction to another.

Keywords: German; verb prefix; locative alternation; incremental theme; holistic effect

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1. Introduction

German verbs with the prefix *be-* are usually treated primarily in terms of grammatical alternations that shift an oblique object into the accusative direct-object position as in (1) or (2). At times the direct object of the *be-* verb may also correspond to a dative object of the simple verb as in (3). As (2) and (3) illustrate, *be-* can also serve to make an intransitive base verb transitive. *Be*-verb constructions may also be used to convert a nonverbal base into an applicative verb as in (4).

- (1) a. Sie haben Bäume auf die Wiese gepflanzt.
They planted trees on the meadow.
b. Sie haben die Wiese mit Bäumen bepflanzt.
They (*be-*)planted the meadow with trees.
- (2) a. Sie hat auf die Frage geantwortet.
She answered the question. (responded to it)
b. Sie hat die Frage beantwortet.
She (*be-*)answered the question.
- (3) a. Der Rechtsanwalt hat ihr geraten, ein Testament zu machen.
The attorney advised her [dative] to make a will.
b. Er hat sie bei der Abfassung ihres Testaments beraten.
He (*be-*)advised her [accusative] in drawing up her will.
- (4) b. Die Einwohner beflaggen ihre Stadt.
The residents are decorating their city with flags. ("*be*-flagging" it)

Be-verb constructions thus tend to be approached primarily as a grammatical alternative to (a) constructions — a stylistic device that enables a "goal" argument to be expressed as the direct object of the verb. Seen in this context there is no particular reason to look carefully at any further semantic contribution by the prefix *be-*; it seems simply to make the locational relation somewhat less explicitly precise than a preposition such as the *auf* of (1a) and to cause the "goal" to become more focally prominent at the expense of the "theme". There is also no particular reason to look more carefully at the semantic roles played by the "goal" and the "theme" arguments in (1b), since they are presumably the same as in (1a) except for differences in stylistic prominence.

One problem with this type of analysis is that it does not distinguish clearly between the semantic contribution of the prefix *be-* and the semantic effects of the transitive construction itself. The transitive construction alone can presumably account for a sense that the verb activity is carried out directly on the accusative object, and also that the accusative object is construed as a focal whole. As long as we are contrasting two different grammatical constructions, as in the (a) and (b) sentences, we cannot really isolate a separate semantic contribution for *be-*.

Although alternations such as those in (1)-(3) are clearly the most obvious and generally typical ones, we are not limited to them. It is also possible to find more direct contrasts such as those in (5), where a *be-* verb occurs in a comparable syntactic frame to that of other constructions: a simple verb as in (5c), a verb with another prefix as in (5d) or (5e), or a particle verb as in (5f). In the following discussion we will concentrate particularly on the contrast between *be*-verb constructions such as (5b) and transitive simple-verb constructions such as (5c). As we will see, the (c) constructions are actually the closest German counterparts to the "with" variant in the English locative alternation — which has an incremental theme in the direct-object position (Dowty 1991).

- (5) a. Er strich Salbe auf die schmerzende Stelle.
 He spread ointment on the sore area. (applied it via a stroking motion)
- b. Er bestrich die schmerzende Stelle mit Salbe.

He treated the sore area with ointment. ("*be*-spread"/"*be*-stroked" it)

- c. Er strich die Wand mit grüner Farbe.

He painted the wall with green paint. (covered it via a stroking motion)

- d. Er überstrich die Fensterrahmen mit Lack.

He coated the window frames with lacquer. ("over-spread" them)

- e. Er verstrich die Ritzen sorgfältig mit Gips.

He carefully filled the cracks with plaster. ("*ver*-spread" them)

- f. Sie strichen das Haus grün an.

They painted the house green.

Concentrating on contrasts such as (5b) and (5c) will lead us to think of *be*- as more than just a grammatical marker with primarily stylistic effects. It will lead us to identify a pattern of consistent semantic contrasts that recur over a wide range of examples, eventually suggesting a highly schematic cognitive-semantic analysis for *be*-verb constructions that differs significantly from prior accounts. This analysis will concentrate on the way that the event is construed to extend in time, finding the heart of *be*-*'s* meaning in a sustained interaction between a base-verb process and a focal accusative object (as opposed to a process whose temporal extension is defined by an incremental theme). Among other points, the account challenges the common assumption that *be*-*'s* meaning requires the direct object to be covered completely — i.e. that there is a holistic interpretation such as that found in the English locative alternation (and the German constructions like (5c)).

Although the primary concern throughout will be the semantics of *be*-verb constructions, the contrastive approach will lead inevitably to insights into the contrasting constructions as well. It will lead tangentially to a new account of the incremental themes in the (c) constructions, finding their essence in the notion of an abstract pathway that becomes realized by a path. Finally, the analysis has incidental theoretical implications for grammatical alternations generally. It implicitly challenges the assumption that there are global semantic roles such as THEMES and GOALS that can be shared by different constructions or transported unchanged from one construction to another by "rules".

1.1. Received analyses. Generally speaking, the recent literature on *be-* verbs has concentrated almost exclusively on alternating examples such as (1)-(3), in which *be-* verbs and simple verbs are not directly contrasting alternatives. Not surprisingly given this complementary distribution, the tendency has been to capture the contribution of *be-* essentially in terms of a formal rule shifting the syntactic realization of roles in the argument structure of the base verb.

Ursula Brinkmann (1997) — cited henceforth as UB — represents the mainstream of recent research into *be-* verbs in Germany. She adopts the formal analysis by Wunderlich (1987), which is in turn based on studies by Günther (1974, 1987) and Eroms (1980). Eroms formulated the notion that *be-* marks a "local phrase passive", in which a locative argument shifts into the direct-object position (replacing the theme or bumping it into an oblique *mit*-phrase), just as passive shifts a direct object into subject position (replacing the agent or bumping it into a *von*-phrase). Wunderlich develops that conception into a lexical rule of "preposition incorporation" within Lexical Decomposition Grammar. Observing the important parallels between *be-* and "P-prefixes" such as *über-*, *um-* and *durch-*, he traces the meaning of *be-* itself to an abstract underlying "topological" preposition (roughly the equivalent of *auf* or *an*, the German counterparts to English "on"). Olsen (1994) offers an analysis that is not significantly different from Wunderlich's for the purposes of this article.¹

Brinkmann and her predecessors offer a thorough account that is appealing in many ways, capturing a wide range of evidence with elegance and insight. From the standpoint of the evidence to be presented below however, three assumptions need to be called into question. One of these assumptions amounts to an empirical claim, namely the assumption that *be-*verb constructions involve a holistic effect like the one associated with the English "with" variant. This claim reflects an interesting blindspot in a body of work that stays admirably close to the detailed evidence, especially since Wunderlich (1987:303) explicitly acknowledges that a "holistic interpretation is by no means necessary" with *be-* verbs. It is true that extensive covering is a very common implication

in prototypical sentences like (1b) or (5b), but the evidence below will show that thinking of a holistic effect as a core aspect of the construction's schematic meaning obscures its more fundamental nature — particularly in contrast with the simple-verb constructions like (5c). I suspect that one reason for presuming a holistic effect is the habit of thinking of *be*-verb constructions as "The Locative Alternation in German" (the title of Brinkmann's book), thus calling for an analysis common to both English and German. Brinkmann's discussion of holistic effects consistently uses English examples rather than German ones.

The other questionable assumptions are basic theoretical ones: the notion that a rule derives a *be*-verb construction from an underlying structure like that expressly reflected in (1a) or (5a), and the almost universally held notion that roles such as "themes" and "goals" are semantic constants that happen to be manifested one way in an (a) construction and another way in a (b) construction. Thus when *be*-verb constructions contrast directly with "prefixless goal-object verbs" such as (5c), the tendency is to consider the two constructions primarily as grammatical alternatives rather than as contrasting semantic options. The (c) constructions are taken to be evidence that morphological marking with *be*- "is not always required" (UB 76-77).

The first questionable theoretical presumption in the Brinkmann/ Wunderlich account has been addressed by Michaelis and Ruppenhofer (2001) — henceforth M&R — who argue convincingly for a Construction Grammar approach rather than an "alternation-based account" with lexical rules. They analyze *be*-verb constructions to have a central semantic sense — "a THEME physically covers a LOCATION" (8) — which is then extended by metaphor and pragmatic strengthening to form a radial category of senses.

M&R thus introduce an important improvement in theory, recognizing that each construction has its own meaning and should be approached like all pairings of form and meaning in a language. The meaning of a construction reflects a paradigmatic choice — a contrast with other constructions that a speaker could have chosen instead. In practice though M&R tend to follow the other accounts and contrast the *be*-verb constructions only with the (a) constructions, without real consideration of

¹See also Becker (1971) for an analysis in terms of a "Case for Case" style "*be*-insertion rule".

the other constructional choices available to speakers of German. As a result, they propose a core meaning for *be*-verb constructions — "thorough coverage of a location by a theme" (40) — that does not distinguish *be*- verbs either from verbs with contrasting prefixes such as *über*- in (5d) or from the simple verbs in constructions like (5c). They also accept uncritically the notion "that the goal argument of a *be*-verb is construed as wholly affected by the action that the *be*-verb denotes" (M&R 23-24).

Speaking more generally, the basic theoretical insight in construction grammar should lead us to be wary of assuming that THEMES and LOCATIONS (or GOALS) are members of a fixed inventory of universally contrasting semantic roles, implying that all of the syntactic arguments in (5) will instantiate one of those global roles. As the discussion below will show, classifying the ointment in both (5a) and (5b) as THEMES obscures important differences in the meaning of the two constructions and in the semantic roles that the ointment plays in those constructions. The accusative object of (5a) and the object of the *mit*-phrase in (5b) are not members of the same functional category in contrast with other categories (such as INSTRUMENTS). The confusion that can arise when the semantic roles coded in a particular construction in a particular language are assumed to reflect a fixed inventory of global conceptual categories is even more evident if we say that the wounded area in (5a) and the wall in (5c) each fill a LOCATION (or GOAL) role. That description diverts our attention seriously from the important semantic contrasts that this article seeks to identify.²

²Further muddling the terminological situation is the use of "theme" to refer to the single participant in any conceptually autonomous thematic relationship, so that it subsumes patients, experiencers and movers but contrasts with causal entities such as agents and instruments (Langacker 1991: 287-8). (This is the sense in which an incremental theme is a kind of "theme".) The situation is also complicated by the existence of different constituent levels, particularly the implicit roles in the meaning of a base verb like *pflanzen*. Goldberg (1995) distinguishes the "argument roles" in constructions from the "participant roles" associated with verbs, but she also speaks of thematic roles with an intrinsic identity independent of any particular construction. Croft (2001) stresses the elimination of global syntactic categories, but like Goldberg he does not entirely eliminate global semantic categories, blurring the distinction between global role archetypes and coded contrasts in a particular language. The result can be an odd but commonly presumed

1.2. Some opening semantic observations. As we have seen, some recent scholarship has noted the semantic contrasts between *be-* and other verb prefixes such as *über-*. Otherwise, both recent and traditional accounts have tended to confuse *be-*'s semantic contribution with the semantic effects of the transitive construction itself. The most common general observation is that *be-* has a vaguely "intensifying" force, so that for example (1b) implies a more complete, systematic effect on the accusative object than (1a) implies for the oblique object.

If one combs the literature carefully though, one can find interesting and insightful observations about the meaning of particular *be-* verbs that are very much in the spirit of the account that will be advocated here. This is especially true of the more pedagogically motivated authors (e.g. Farrell or Schmitz) who are concerned to distinguish carefully between the *be-* verb and similar alternatives with a simple verb (or another prefixed verb). If we assemble these comments some interesting themes emerge which can serve as an impetus for the semantic analysis proposed in this article.

For example, Schmitz (1995:65-67) notes frequent cases where the *be-* verb describes a sustained systematic activity while the simple verb describes a relatively simple holistic act. Simple *antworten* in (2a) can describe any kind of response, including an evasive one, while *beantworten* means to provide a thorough and adequate answer to the question. Simple *raten* in (3a) means giving a single piece of advice while *beraten* means a sustained series of instructions ("eine zusammenhängende, systematische Anleitung"). We might say that the unprefixd (a) construction reports a simple event of *raten* or *antworten*, while the *be-*verb construction reports a sustained, iterated series of such events (carried out with respect to a constantly focal accusative object).

Further examples in which a sustained and iterated communicative process is directed at a focal object of attention include *belehren* ("instruct (*be-*teach)"), *beschimpfen* ("verbally abuse (*be-*scold)"), *bessprechen* ("discuss (*be-*speak)"), and several verbs expressing sustained lamenting (e.g. *beklagen*, *betrauern*, *beweinen*, *bereuen*). Simple *fragen* means to ask a question, while *befragen* means to conduct an extensive interrogation (Farrell 1977: 30). As Hennig Brinkmann (1962:415)

symbolic relation that has a construction-specific form but a meaning that instantiates universally given categories (a kind of transcendental signified).

comments: "Man *schwört einen Eid*, aber *beschwört seine Unschuld*" ("One swears an oath but be-swears one's innocence").

Similar comments can be made about several other verbs mentioned by Schmitz. Simple *drohen* ("threaten") with dative means to give a warning, while *bedrohen* means a sustained threat that amounts to being on the verge of actually attacking ("schon fast angreifen"). *Bedenken Sie die Folgen!* ("Consider, *be*-think the consequences") demands a more intensive (and temporally extensive) consideration than *Denken Sie an die Folgen!* ("Think of the consequences!"). The same sort of semantic distinction can also be observed with base verbs like *grüßen* ("greet") that take an accusative object even as simple verbs. Simple *grüßen* means essentially to say hello to someone, while *begrüßen* implies a more formal and elaborate reception such as the ritual of welcoming a guest into one's home. In these and many other examples *be-* seems to contribute what Hennig Brinkmann (1962:414) calls a durative element ("duratives Moment").

Farrell (1977:10-11) touches on similar themes at the elusive semantic core of *be-* in his discussion of *betreffen* ("apply to, affect, concern"). Simple *treffen*, which is used metaphorically in (6d), basically describes the singular physical event of hitting a target (as opposed to missing it). *Betreffen* "differs from the simple verb *treffen* in that the sense is not literal and that it does not denote one clear, forceful act. It rather suggests indirect effects and the diffusion of these over a wide area, and frequently carries the implication that the object is just one of a number of things affected."

(Since I will refer generally to distinctions between "(a) constructions" or "(c) constructions" in contrast to the "(b) constructions" with *be-* verbs, I will standardize the numbering of references to conform. In cases such as (6d), in which a simple verb occurs with an accusative object that is neither an accusative theme of the sort illustrated in (1a) or (5a) nor an incremental theme of the sort illustrated in (5c), I will consistently label the example as "(d).")

(6) b. Diese Vorwürfe *betreffen* mich nicht.

These reproaches do not apply to me. ("*be*-hit" me)

d. Er fühlte sich von den Vorwürfen nicht getroffen.

He did not feel that the reproaches applied to him. (feel himself hit by them)

Farrell's observation of a "diffusion" of effects is related to a generally acknowledged association between *be*-verb constructions and unbounded or "nonindividuated" "theme" arguments that do not occupy any particular restricted area of the landmark. (4b) could scarcely describe hanging a single flag, and a sentence such as **Sie bepflanzen die Wiese mit einem Baum* ("They are (*be*-)planting the meadow with a tree") would be extremely odd. In other words, *be*-verb constructions are linked to multiple individual applications that are distributed in space and in time.

There are many other similar contrasts mentioned in the literature, in which a *be*- verb marks the meaning of a simple verb by suggesting a sustained, systematic process directed at a focal accusative object of attention, a process that extends temporally or recurs and is often associated with a diffuse effect distributed over the target area. The careful contrast of *be*-verb constructions with (c) constructions below will elaborate and refine this initial impression.

2. Typical contrasts

This section will focus primarily on full locative-alternation sets such as (5) that describe an event in which a moving entity (such as the ointment) comes to occupy a location (such as the wounded area). I will refer to the moving entity in an "(a) construction" such as (5a) as an accusative *theme* and the oblique location as a *landmark* (LM). The accusative object of a "(b) construction" with a *be*- verb such as (5b) will be called an *accusative LM*, and the object of the *mit*-phrase in both the (b) and (c) constructions will be referred to as a "*theme*" (in quotation marks, since these semantic roles are not identical with the theme in the (a) construction). The accusative object of a simple-verb "(c) construction" such as (5c) will be called an *incremental theme*, reflecting its role as analyzed in Dowty (1991). The full significance of all of these distinctions should become apparent in the

course of the discussion. We will concentrate primarily on the contrast between the (b) and (c) constructions, leaving the semantic characteristics of the (a) construction largely presumed.

It is difficult to find perfectly contrasting *be*-verb constructions and simple-verb (c) constructions that hold all of the lexical items constant, because in most situations one or the other construction would be clearly preferred. It is occasionally possible to construct a neat set such as (7) or (8), although one of the constructions will clearly be the normal one and the other will be marginal and restricted in some way. In all cases though it is possible to find regular semantic patterns that determine which alternative will be preferred, and the contrasts can be extremely subtle and instructive.

- (7) a. Sie laden Fässer auf den Lastwagen.
They're loading barrels onto the truck.
- b. Sie beladen den Lastwagen mit Fässern.
They're (*be*-)loading the truck with barrels.
- c. Sie laden den Lastwagen mit Fässern.
They're loading the truck with barrels.
- (8) a. Die Mutter streicht Marmelade aufs Brot.
The mother is spreading jam on the bread. (applying with a stroking motion)
- b. Die Mutter bestreicht ein Brot mit Marmelade.
The mother is (*be*-)spreading a piece of bread with jam.
- c. Die Mutter streicht ein Brot mit Marmelade.
The mother is spreading a sandwich (open-faced) with jam.

The discussion will focus primarily on a relatively small set of typical examples and then gradually generalize and refine those observations. The eventual goal is an analysis that is schematic enough to account for the full range of constructions in which *be*- makes a semantic contribution.

That means that the schematic meaning will have to be extremely flexible, and the analysis will have to be very sensitive to changing semantic contrasts in particular contexts.

2.1. Defining a point of completion. As an opening observation consider the issue of how we know when the subject has finished with the base-verb process. In (9a) we know that the packing event has been completed when the goods in question have been moved into the car. Completion is defined essentially in terms of the theme, and if the theme is clearly bounded then so is the packing event. In a sentence such as (10a) the accusative object is also a classic incremental theme (an effected object), so that the painting event has been completed when the frescoes have been completed. In all (a) cases the extent to which the LM has been filled is irrelevant.

- (9) a. Sie packte die Waren in das Auto.
She packed the goods into the car.
- b. Sie bepackte das Auto (mit vielen Sachen).
She (*be-*)packed the car (with a lot of things).
- c. Sie packte den Koffer.
She packed the suitcase.
- (10) a. Man hat Fresken an die Decken gemalt.
They've painted frescoes on the ceilings.
- b. Man hat die Decken mit Fresken bemalt.
They've (*be-*)painted the ceilings with frescoes.
- c. Man hat die Wand gemalt.
They've painted the wall.

In (9c) on the other hand we know that the event has been completed when the suitcase has been filled and is ready to be closed up and carried off with its contents inside. Although the implicit "theme" is obviously a pragmatic factor in determining when that point has been reached,

completion of the packing event is defined primarily in terms of the suitcase. There may be clothes left over that the packer was not able to fit into it, and in any event the "theme" is not usually mentioned explicitly and thus cannot explicitly define the aspectual contour of the event. This point is perhaps clearer in an expression such as *ein Paket packen* ("wrap a parcel"), which clearly refers to closing up the package and preparing it for transport. The role of the accusative object in determining when the event has been completed is best illustrated in prototypical (c) sentences such as (5c) or the more regionally restricted (10c), in which the wall's boundaries obviously define the completion of the painting event. The event is completed precisely when the entire wall is filled with paint and ready for use.

The sentence in (9b) clearly contrasts with (9c) in this regard however. (9b) does not provide us with any intrinsic point at which we can know that the last item has been added and the packing event is complete. The process of *bepacken* is over when she stops putting things into (or onto) the car, and apart from purely pragmatic considerations there is no way to predict when that will be. Similarly there are pragmatic norms for assessing when the proper number of frescoes have been added to a ceiling and the artist will stop, but that point of completion is not defined by anything in the construction itself. The application process must stay located relative to the space defined by the ceiling, but within those spatial limits it can go on for an unspecified number of specific applications.

It is worth mentioning in this connection that the base verbs *füllen* ("fill") and *stopfen* ("stuff"), which describe filling a containing space and thus have an intrinsic point of completion defined by that containing space, do not normally occur in *be-*verb constructions (UB 76). Tellingly, in the rare cases when *befüllen* might occur, such as (12b), it describes an ongoing iterative activity with a multiplex of LMs and no built-in point of completion (M&R 48-49). If *bestopfen* were to occur it would presumably also describe an iterative process with no prospect of reaching a defined point of completion.

- (11) a. Er füllt Essig in die Flasche.

- Er pours ("fills") vinegar into the bottle.
- b. *Er befüllt die Flasche mit Essig.
*He (*be-*)fills the bottle with vinegar.
- c. Er füllt die Flasche mit Essig.
He fills the bottle with vinegar.
- (12) b. Betriebe, die Mehrwegflaschen befüllen
companies that (*be-*)fill returnable bottles
- (13) a. Sie stopften Wax in das Loch.
They stuffed wax into the hole.
- b. *Sie bestopften das Loch mit Wax.
*They (*be-*)stuffed the hole with wax.
- c. Sie stopften das Loch mit Wax.
They stuffed the hole with wax.

Together with the sustained nature of the process and of the focus on the accusative LM, this is the most general observation that can be made about *be-*verb constructions. The (c) events have an intrinsically defined point of completion, but the *be-*verb events do not. The *be-*verb process is directed steadily at a focal object of attention, but it does not necessarily stop when that object is reached or filled or affected in any other particular way. It simply stops arbitrarily when the subject discontinues it.

2.2. Serial applications with *be-*. Given that nothing in the construction determines the precise temporal extent of the process it makes sense that applicative *be-* verbs prototypically describe an iterative series which can be repeated an arbitrary number of times. The constructions are thus typically associated with multiplex "themes" that are added one at a time as in (1b), (4b), (7b), (9b) and (10b), or at least with a series of application subevents as in (12b) or — abstractly — the repeated advising described in (3b). Even when the "theme" is a mass such as the ointment in (5b)

or the jam in (8b) the verb *bestreichen* suggests adding it sequentially one portion or "blob" at a time. The base verb *streichen* ("stroke, move in a sweeping motion over a surface") is commonly combined with *be-* because it describes an activity that is usually iterated for the purpose of a cumulative effect.

In this regard the established set of *be-* verbs that describe the serial "bombardment" of a surface area are prototypical, and they are exclusively preferred rather than the simple verbs in a (c) construction. (14) and (15) illustrate the type, as does (30). (Other verbs include *beschmeißen*, *befeuern*, *belegen*.) A primary semantic effect of *be-* often seems to be conversion of a simple event such as *schießen* ("shoot") that is aspectually defined and holistic into an iterative event directed at a focal object of sustained attention. The constructions with *beladen* and *bepacken* are actually quite similar semantically to these serial "bombarding" images, as are many other verbs to be mentioned below (e.g. *benageln*, *bespritzen*, *betupfen*, *belecken*, *beklopfen*, *befallen*).

(14) Die Artillerie bestreicht die gegnerische Stellung.

The artillery (*be-*)sweeps the enemy position. (i.e. with artillery fire)

(15) Die Jungen werfen die Wand mit Kieselsteinen.

The boys pelt ("*be-*throw") the wall with pebbles.

We could also mention "illuminating" verbs such as *bestrahlen* ("*be-*ray") or *beleuchten* ("*be-*light") that describe the continual reintroduction of light into the accusative-LM area, whether the light is construed as a constantly regenerated mass or as a multiplex of rays. Compare also expressions that describe recurring sweeping contact with a surface as in (16) or (17).

(16) a. Der Schein seiner Taschenlampe strich über den Strand.

The light from his flashlight swept over the beach.

b. Die Scheinwerfer bestreichen das Gelände um das Lager.

The search lights (*be-*)sweep the area around the camp.

- (17) a. Das Meer spült ans Ufer.
 The sea washes onto the shore.
- b. Wellen bespülen den Strand.
 Waves wash over ("be-rinse") the beach.

2.2.1. Masses spreading to fill with simple verbs. At this point we are not yet ready to characterize the (c) constructions fully enough to contrast their semantics carefully with the serial application prototypically associated with *be*-verb constructions, but we can make a few preliminary observations. It is fair to say that the (c) constructions prototypically involve a mass while the *be*-verb constructions prototypically involve a multiplex. The use of unprefixated *streichen* in (5c) to describe painting a surface such as a wall or a bench is a particularly good example. It profiles the uniform spreading of a homogeneous mass that eventually occupies each point of the space in question, filling it.

In this respect *packen* in (9c) is somewhat atypical, since it presumably describes the serial insertion of separate items one at a time. Subtly though, the profile is now on the filling of the suitcase and its preparation for travel, not on the implicit sequence of inserting individual items. The implicit multiplex is being construed more like a vaguely uniform mass that spreads to fill the suitcase, and *packen* is in effect being used like *füllen* or *stopfen*. The use of simple *laden* in (7c) is similarly atypical, and it is in fact not nearly as common as *beladen*. It seems to invite us to imagine that the barrels spread uniformly until they fill the truck (preparing it to be driven off). The notion of uniform filling is clearly reflected in the exclusive use of simple *laden* to describe loading a gun or a camera: *ein Gewehr/ die Kamera (*be)laden*.

Thus a phrase such as *ein gestrichener Esslöffel Mehl* ("a level, smoothed tablespoon of flour") conforms to the semantics of the (c) construction since the flour is spread level to fill the spoon's volume perfectly and *bestrichen* could not replace the participle of the simple verb. The act of leveling requires a single uniform stroke that exactly covers the space and results in a new characteristic state for the spoon as a whole.

2.3. Some connotations of *be-* verb constructions. At this point then we have a tentative contrast between *be-*verb constructions and (c) constructions with a simple verb. An event described by a (c) construction is concluded when the accusative object has been filled, prototypically by a mass that is distributed evenly and uniformly. A *be-*verb construction generally describes an event without an intrinsic point of completion, and the event prototypically involves adding one piece of a multiplex at a time. Several more specific uses of the constructions follow as natural extensions.

2.3.1. Uneven application. Since *be-*verb constructions do not have intrinsic points of completion and typically describe the serial application of multiplexes (or blobs of a mass) as opposed to smoothly spreading masses, they are useful to describe applications that are uneven and sloppy. In fact they frequently suggest slapping something on to indeterminate thickness and generally creating a mess. The construction with *bekleben* in (18b) for example tends to imply creating a messy, layered impression. *Beschmieren* typically has pejorative connotations as in (19b), suggesting that the space is sullied. (*Schmieren* ("smear") is admittedly an intrinsically messy process, but (19a) and (19c) do not have pejorative connotations. The construal of (18c) and (19c) will be addressed below.) In fact there is a large group of *be-* verbs with definite "sully" implications (*beschmutzen, bedrecken, bekleckern, beklecksen, beflecken, bepissen, bespucken, beklieren, ...*).

- (18) a. Er hat Zeichnungen an die Wände geklebt.
He pasted drawings on the walls.
- b. Er hat die Wände seines Ateliers mit Zeichnungen beklebt.
He (*be-*)pasted the walls of his loft with drawings.
- c. Er hat die zerbrochene Vase geklebt.
He pasted the broken vase (back together).
- (19) a. Sie hat Creme ins Gesicht geschmiert.

She smeared cream into her face.

- b. Sie hat sich die Hände mit Tinte beschmiert.

She smudged ("*be*-smeared") her hands with ink.

- c. Sie hat die Fahrradkette geschmiert.

She greased the bicycle chain. (smeared it)

The operative semantic distinctions are nicely reflected in (20), where simple *malen* would describe the normal process of putting on lipstick (applying it evenly until the defined space has been filled in precisely and the job is complete). *Bemalen* in (20b) on the other hand implies applying the makeup unevenly or excessively.

- (20) b. Sie bemalt sich (zu sehr).

She puts on (too much) makeup. ("*be*-paints" herself excessively)

- c. Sie malt sich die Lippen.

She puts on lipstick. (paints her lips)

The messy appearance may also reflect that the applicative process went on too long, i.e., that the subject did not know when it was appropriate to stop. (20b) for example probably suggests that she put on too much makeup, not just that she applied it unevenly. *Bepacken* and *beladen* commonly suggest that the adding process goes on too long and that the cumulative load is heavier than appropriate, as in (21). Compare the explicit denominal "burdening" verb *belasten*.

- (21) Er war bepackt wie ein Lastesel.

He was loaded down ("*be*-packed") like a beast of burden.

2.3.2. Systematic application of a denominal "theme". We might also mention at this point the special type of *be*-verb construction with a denominal base verb as in (4) that incorporates the

"theme" argument and thus does not have an (a) variant with an accusative theme. As illustrated in (22b), these *be-* verbs are often associated with automated applicative processes in technical domains. Like the other *be-*verb constructions we have seen, these constructions have no intrinsic point of completion and they typically describe a sustained process carried out with respect to a focal LM. The communicative focus is on the systematic delivery, the recursive mechanical routine of introducing the root substance a portion at a time.

- (22) a. *Er lüftet (Luft) in das Zimmer.
 *He airs (air) into the room.
- b. Ventilatoren belüften das Zimmer.
 Fans ventilate ("*be-air*") the room.
- d. Er lüftet das Zimmer.
 He is airing (out) the room.

The contrast between (22b) and (22d) is subtle. (22d) does not have an incremental theme like the (c) constructions. It does however describe an event with a defined point of completion. According to Günther (1974: 255) *lüften* in (22d) suggests opening a window, as opposed to the ongoing ventilation implied by *belüften*. Even Günther (1974: 255) considers pairs like (23) to be synonymous, but in the terms proposed here the relationship between *heizen* and *beheizen* is exactly like that between *lüften* and *belüften*. *Beheizen* suggests a mechanism that recursively brings heat to the space. Simple *heizen* suggests a single complete act of causing the room to become warmer, e.g. by turning on the heat or building a fire. One other typical example is provided in (24).³

³This type of denominal *be-*verb construction is definitely productive, and Günther (1974: 129-30) provides a long representative list. Nevertheless, applicative denominal *be-* verbs are not really as common as we might expect at first. Most of them are quite restricted in usage, confined largely to technical domains and to non-finite forms (Günther 1974: 254), while the simple base verbs are the unmarked option in most everyday situations. An expression such as *die Maschine ölen* ("oil the machine") for example is functionally adequate to describe any normal events that would occur. It is

- (23) b. Er beheizt seine Wohnung mit Gas.
 He (*be-*)heats his apartment with gas.
- d. Er heizt das Zimmer.
 He is heating the room.
- (24) b. Man bewässert die Felder durch ein System von Kanälen.
 They irrigate ("*be-water*") the fields using a system of canals.

2.4. A first approximation of the prototypical meanings. Our understanding of the semantics of these constructions is still very provisional at this point and will need to be refined considerably as we examine them more carefully and extend the discussion to a larger set of examples. It may help to pause at this preliminary stage though and represent the prototypical images graphically as we have developed them to this point.

As a first approximation we might characterize the meaning of an applicative *be-*verb construction, such as *den Lastwagen beladen* in (7b), roughly as in Figure 1. The rectangle represents the space described by the accusative LM (the truck), and each ball represents a portion of the "theme" being introduced into the space (a barrel). The arrow represents the subject's activity (the loading activity) and it also usually reflects the paths taken by the "themes". The event as a whole consists of an iterated series of subevents that continue until they are arbitrarily discontinued. The event does normally end, but there is no way to predict at exactly what point that end will come — other than by pragmatic expectations. We could imagine a summary scan (Langacker 1987:144) of the series as a cyclic loop, with each subevent adding another part of the barrel supply to the LM

difficult to imagine a situation where it would be pragmatically important to specify that the application is iterative or uneven and has no intrinsic point of completion, or that the accusative object is not transformed into a new functional state of usefulness. In practice then *beölen* is a superfluous verb even when it might be easily comprehensible and semantically appropriate. In effect, German speakers do not usually need to make use of the added constructional possibility offered by *be-*, and they get along much as English speakers do with verbs such as "oil" or "paint".

space. And of course the accusative LM (the truck) is a constant presence, a sustained object of attention throughout the event.

By way of contrast, Figure 2 suggests a provisional first approximation of the schematic meaning of a prototypical simple-verb (c) construction such as (5c). The arrow again represents the subject's activity, e.g. stroking with a paint brush (and the accompanying path taken by the paint), but it is now understood to be superimposed on the space (e.g. the wall) so that it continues precisely until the entire relevant space has been filled. At the end of the event the painting activity has "run its course", the wall has been filled in, and the paint (represented by the shaded portion) has been left behind in its wake. We imagine the paint to spread uniformly, and the event is intrinsically complete precisely when the paint has occupied every point in the focal space. (In a less typical case such as (7c) with a multiplex such as barrels, then the multiplex-mass transformation applies and the barrels are construed to accumulate until the truck has been filled.)

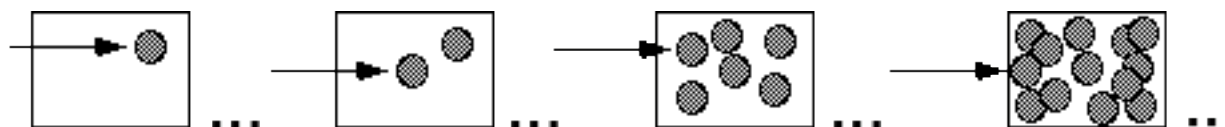


Figure 1: A schematic representation of an event described by a *be*-verb construction (first approximation).

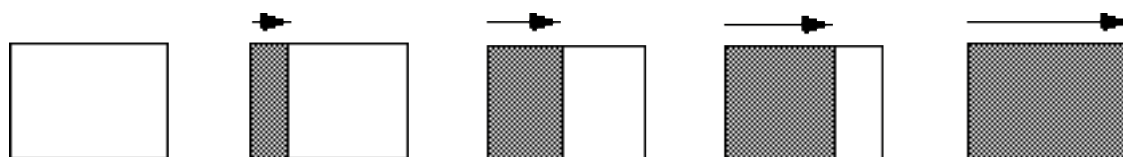


Figure 2: A schematic representation of an event described by a (c) variant with a simple verb (first approximation).

2.5. Transformed objects and (c) constructions. The role of the entities expressed as accusative objects (the truck, the wall) differs subtly but crucially in these two images. In Figure 1 the accusative LM is quite prominent as the focal object of attention and it has a constant presence throughout the event construal, but it is not the central entity in our conceptual frame. We focus mainly on the adding process represented by the arrow, and that is a recurring path *between* the workers and the truck. Figure 1 profiles the recursive introduction of the "theme" into the steadily focal accusative LM from outside. In Figure 2 on the other hand our main focal attention has shifted very subtly so that the wall does occupy the central position in our conceptual frame. The painting activity begins at the moment when the paint begins to occupy the wall space and ends when the wall has been filled. The wall's bounds contain the painting event and define it aspectually. The accusative object is an incremental theme.

A few further observations about (c) constructions can be made at this point in anticipation of a more refined analysis in section 4. For one thing, the wall plays a more integral role in (5c) than the truck in (7b). The accusative LM in (7b) is simply a location, a surface that "lies there" while the barrels are added to it. The incremental theme of (5c) on the other hand contains and channels the painting event, and it is the wall's process of becoming filled which defines the aspectual course for the event as a whole. In a sentence like (9c) with *packen* it is not unreasonable to claim that the suitcase is ultimately closed up as part of the meaning of the construction, so that the event is complete when it is made whole again.

It is also typical of (c) constructions that the accusative incremental theme is transformed into a new functional state. A painted wall is renewed, ready for use and in a sense redefined as it incorporates the paint as a new characteristic part of itself. The simple verb *kleben* in (18c) describes repairing the vase, making it whole again so that it is ready for use. Similar comments apply to the (c) constructions in (25) or (26). The simple verb *schmieren* in (19c) occurs with accusative objects that can be considered prepared (or repaired) and ready for use when the event is completed. Simple *spülen* in (27c) describes a cleaning operation that transforms the accusative object into a new state; the rinsed object is presumed to be clean. The loaded truck in (7c) is now

ready to be driven off, and the packed suitcase in (9c) is ready for travel. (7b) and (9b) on the other hand describe the applicative process without implying any transformation of the truck or the car. The object with *bepacken* is read more as a weight-bearing surface (UB 69, 81) than as a container that might incorporate the added entity as a new component part.

- (25) a. Er nagelt Bretter an die Wand.
He nails boards on the wall.
- b. Der Dachdecker benagelt die schadhafte Stelle mit Dachpappe.
The roofer nails roofing felt over the damaged area. ("*be-nails*" the area with)
- c. Der Knochen muß genagelt werden.
The bone has to be pinned.
- (26) a. Er kleistert ein Plakat an die Wand.
He pastes a poster on the wall.
- b. Er bekleistert die Tür mit Schmiere.
He (*be-*)smears the door with grease.
- c. Er kleistert eine schadhafte Stelle.
He plasters a damaged area.
- (27) a. Er hat nach dem Bohren das Blut aus dem Mund gespült.
After drilling he rinsed the blood out of his/her mouth.
- c. Er hat die Wunde mit Borwasser gespült.
He rinsed (out) the wound with a boric acid solution.

At times the contrasts are very subtle. Although the *be-*verb constructions in (8) or (28) seem nearly synonymous with their simple-verb counterparts in the (c) variants, they represent a fine contrast between accusative LMs and incremental themes. (8b) and (28b) simply describe an iterable application process (stroking motions with the knife). The (c) variants on the other hand describe a process that is completed when a finished product is created — an open-faced sandwich

ready to eat. As Hennig Brinkmann (1962:416) clearly recognized, the accusative LM with *be-* is not essentially transformed ("nicht in seiner eigentlichen Substanz verändert"). The bread in (8b) or (28b) is still the same piece of bread, only now with jam on it. Note that (28b) refers specifically to a slice of bread, but (28c) could not because only the word *Brot* has the potential to refer either to (a piece of) bread or to a sandwich, i.e., to a piece of bread that has been transformed into a combination of bread and whatever has been spread on it. Similarly in (8), if we say *eine Schnitte Brot* ("a slice of bread") then the *be-*verb construction is clearly called for and the (c) construction becomes inappropriate. The activity described in (8c) could create a sandwich; but it could not create a slice of bread.

(28) a. Sie schmiert Butter dick aufs Brot.

She smears a thick layer of butter on the bread.

b. Sie beschmiert die Scheibe Brot (mit Butter).

She spreads ("be-smears") the slice of bread (with butter).

c. Sie schmiert dem Kind ein Brot.

She spreads (smears) the child a sandwich (open-faced).

An extremely subtle, related observation concerns the relation of the "theme" to the entities expressed as accusative objects in the (b) and (c) constructions. Figure 1 suggests a cyclic introduction of the "theme" *into* the LM space, profiling its entry from the outside. Figure 2 suggests an accumulation of the "theme" *within* the bounds of the incremental theme, profiling the gradual filling of its interior. As a result, the "theme" in the (c) construction seems ultimately more like a new component *part* of the transformed object rather than a set of alien intruders introduced from outside. There is a real sense in which the incremental theme in Figure 2 has gradually emerged anew as a transformed entity in the wake of the event, re-constituted as a whole with a new component material. The wall in (5c) has taken on a new component part (the layer of paint), as has the *Brot* of (8c). The slice of bread in (8b) on the other hand does not have a new component part; it

maintains its old identity but it is now occupied by an alien substance. The bicycle chain in (19c) incorporates the grease as a new functional part, while the ink in (17b) occupies the hand and is not construed to be a component part of it.

2.6. Holistic effects. It is commonly claimed that the *be*-verb constructions involve the kind of "holistic effect" associated with the English "with" variants, implying that the accusative LM is covered in its entirety by the "theme". This claim may seem plausible in most cases as long as we are comparing the *be*-verb constructions solely with (a) variants as in (1), but it requires serious modification if we are going to distinguish *be*-verb constructions from (c) constructions.

To the extent that most of the *be*-verb examples we have seen thus far do typically suggest "thorough coverage of a location by a theme" (M&R) so that each subregion of the location is occupied by the "theme" (Brinkmann/ Wunderlich), it is largely because the *be*-verb construction is transitive and makes the accusative LM focal as a whole bounded entity. It is also because the application process is normally iterative and sustained and distributed, presumably continuing until the accusative LM has been substantially covered (as in the latter images of Figure 1). Moreover, the "theme" argument with a *be*-verb is nearly always unbounded, and the construction contrasts with the unmarked (a) construction in which the theme occupies a restricted region of the location. (If only one or two barrels were added and we had a clear image of their restricted extent, then there would be no reason not to use the (a) construction.) Finally, there is certainly nothing in the meaning of a *be*-verb construction that requires the process to end before the LM space has been significantly covered; on the contrary, it typically describes a sustained activity with no defined endpoint.

The incidental nature of these holistic implications becomes apparent though when the *be*-verb constructions are carefully contrasted with simple-verb (c) constructions. Sentence (7c) with simple *laden* for example does clearly say that the truck is filled completely (or at least that the job of loading it has reached an intrinsic conclusion defined in terms of the truck), while (7b) only suggests pragmatically that the loading is extensive. It is anomalous to say *#Er hat den Lastwagen*

schon geladen, und nun lädt er noch etwas auf den Lastwagen — in fact, it seems more clearly bad to me than its English equivalent (#?"He has already loaded the truck, and now he is loading something else onto the truck"). On the other hand, it makes sense to say *Er hat den Lastwagen schon beladen, und nun lädt er noch etwas auf den Lastwagen*.

The lack of a true holistic effect with *be-* will become particularly evident when we discuss the *begehen* paths below. There are also occasional counterexamples in more typical applicative constructions such as the use of *bekleiden* in (42), and there is no real holistic effect in typical "bombarding" sentences like (15) (from UB 71) or with "attending" verbs such as *bedienen* or *bewachen*. Further strong evidence that *be-* verb constructions do not necessarily involve a holistic effect while (c) constructions do comes from their differing behavior with respect to resultative expansion.

2.6.1. Resultative expansion. Since the incremental themes in the (c) constructions are transformed, it follows that they can take a resultative expansion when it is useful to specify their new state. The (c) variants of (29)-(30) illustrate this potential, as does a sentence such as *Er hat das Geländer blau gepinselt* ("He painted the handrail blue"). In fact, the presence of a resultative is often the primary motivation for using the (c) construction in the first place. (Compare Brinkmann's (UB 76) observation that *stopfen* is used with accusatives that do not refer to holes or cracks only if there is a resultative predicate as in *Er stopfte die Tasche voll* "He stuffed the bag full".) Such an expansion is not available with *bespritzen* or *beschießen*, however, as reflected in the (b1) examples.

- (29) a. Er hat Wasser auf ihn gespritzt.
He sprayed water on him.
- b. Er hat ihn mit Wasser bespritzt.
He (*be-*)sprayed him with water.
- b1. *Er hat ihn ganz naß bespritzt.
*He (*be-*)sprayed him completely wet.

- c. Er hat ihn ganz naß gespritzt.
He sprayed him (and got him) completely wet.
- (30) b. Sie haben die Festung mit schwerer Artillerie beschossen.
They bombarded ("be-shot") the fortress with heavy artillery.
- b1. *Sie haben die Festung sturmreif beschossen.
*They bombarded ("be-shot") the fortress ready to be stormed.
- c. Sie haben die Festung sturmreif geschossen.
They bombarded ("shot") the fortress (until it was) ready to be stormed.

It is often difficult to find pragmatically useful resultative expansions for the simple-verb constructions, but it seems to hold generally that they can in principle occur with resultatives: *die Brote fertig streichen* ("spread the sandwiches finished", i.e. complete the process of making them). On the other hand, one of the most striking features of *be*-verb constructions is that they do not allow a resultative expansion, even when it might seem sensible: **Sie beladen den Lastwagen voll*, **Man hat die Decken lila bemalt*, **Er begießt die Blumen naß*, **die Brote fertig bestreichen*.⁴

3. Factoring out the object of the *mit*-phrase

Figures 1 and 2 make prototypical instances of the constructions easy to visualize, and they have served to illustrate the observations made thus far. They are obviously misleading however in at least one important respect: they give unwarranted prominence to the "theme" entity being moved. These entities are focally prominent only as the accusative theme in the (a) constructions. In the (b)

⁴Olsen (1994: 225-7) notes that *be*-verbs can have adverbs like *vollständig* ("completely") or *zur Hälfte* ("half of [the LM]"), but only with an explicit *mit*-PP: *Er bepflanzte Beete vollständig mit Rosen* ("He (be-)planted the entire beds with roses"), **Er bepflanzte Beete vollständig*. She explains this behavior in terms of a "pertinenz" component conveyed by *mit* (cf. resultative "have"). In any event, these adverbials in effect specify the extent of the LM are clearly not resultatives (the flower beds do not become complete as a result of the event).

and (c) constructions they are either obliquely expressed (in a *mit*-phrase), incorporated into the base verb, or wholly implicit — and in any event they are virtually always "nonindividuated". In fact as we will see in this section, the *be*-verb construction itself does not require the existence of any "theme" argument at all, even implicitly.

3.1. *Be*- verbs without an obvious "theme" argument

3.1.1. Non-applicative variants. It is actually fairly easy to find *be*-verb constructions that do not involve any obvious entity corresponding to the ointment in (5b) or the frescoes in (10b), or even the implicit artillery fire in (14). To begin with there are instances such as (31) and (32) in which the process described by the base verb does not necessarily add anything to the accusative space. In fact if there is a theme argument prominent enough to be mentioned it is apt to be removed from the space rather than added — as reflected in the (a) variants.

(31) a. Er tupfte sich (mit einem Tuch) den Schweiß von der Stirn.

He dabbed the sweat from his brow (with a handkerchief).

b. Er betupfte die Wunde mit einem Wattebausch.

He (*be*-)dabbed the wound with a cotton wad.

c. Er tupfte sich die Stirn mit einem Taschentuch.

He dabbed his brow with a handkerchief.

(32) a. Er leckte sich das Blut vom Arm.

He licked the blood from his arm.

b. Die Katze beleckt die Wunde.

The cat is (*be*-)licking its wound.

c. Die Katze leckt ihre Wunde.

The cat is licking its wound.

Belecken suggests an iterative activity such as children licking a sucker or dogs licking their owners, activities that are not construed to have an intrinsic point of completion and which may or may not imply adding moisture or removing parts of the LM surface. *Betupfen* similarly describes a dabbing activity with no particular result that would define its successful completion, and it is neutral as to whether anything is added or removed in the process. The profiled event in both sentences is the dabbing or licking motion directed "positively" toward the accusative LM, and a *mit*-phrase is understood to be instrumental.

Similar comments apply to (33), in which the *be*- verb describes an attentive iterative activity directed at a focal accusative LM, in this case a systematic gardening activity (Schmitz 1995:67). The simple verb *schneiden* in (33a) is clearly associated with a theme that is removed rather than added to the LM. Compare also the "robbing" verbs such as *bestehlen* in (34) (or *berauben*, *beklauben*, *bemopsen*), or the "inheriting" verb *beerben*. All of these bases are associated with an (a) variant in which an accusative theme is removed from an oblique LM. The *be*- verbs on the other hand seem to describe an act directed toward the focal object of attention, without calling attention to the path of the "theme" being taken away (cf *ent*-).

- (33) a. Er schneidet Zweige vom Baum.
He is cutting branches from the tree.
- b. Er beschneidet den Baum.
He is trimming ("*be*-cutting") the tree.
- (34) a. Sie stahlen etwas von der alten Dame.
They stole something from the old lady.
- b. Sie bestahlen die alte Dame.
They robbed ("*be*-stole") the old lady.

3.1.2. Examining. The incidental nature of any "theme" argument is even clearer in (35b). The event described by *beklopfen* cannot transfer anything but energy to the accusative space. The only imaginable *mit*-phrase would be instrumental, and there is no (a) variant with an accusative theme. In fact, the general use of *be*- verbs for examining or inspecting an area provides strong evidence for taking the meaning of *be*-verb constructions to be more abstract than Figure 1 implies.

- (35) a. Sie klopfte ihm auf die Schulter.
She tapped him on the shoulder.
- b. Der Arzt behorchte und beklopfte meine Brust.
The doctor listened to ("*be*-listened") and (*be*-)tapped my chest.
- c. Sie klopfte das Schnitzel.
She pounded the schnitzel.

The use of *behorchen* in (35b) illustrates an interesting set of "examining" verbs that involve base verbs for sensory processes, such as *riechen* ("smell"), *fühlen* ("feel") and *sehen* ("see"). As illustrated in (36), these verbs have intransitive (a) variants for purposefully directing a sense toward a target and simple-verb (d) variants that describe becoming aware of an accusative object via the sense in question, as well as the *be*-verb constructions that describe systematically examining an area using the sense in question. As Becker (1971:140) observes with respect to these examples, the (d) variants differ from the *be*- verbs in that they do not necessarily describe a deliberate activity by the subject.

- (36) a. Er fühlt nach dem Lichtschalter.
He feels for the light switch.
- b. Er befühlt ihren warmen Körper (langsam und mit großer Zärtlichkeit).
He touches ("*be*-feels") her warm body (slowly and tenderly).
- d. Er fühlt ihren warmen Körper (neben ihm).

He feels her warm body (next to him). (senses its presence)

e. Er fühlt dem Patienten den Puls.

He feels the patient's pulse.

Whether the subject plays an agentive role is not the key semantic difference between the *be-*verb and the simple verb, though. Consider the simple verb *tasten* ("grope"), which is essentially like *fühlen* except that it tends to suggest a deliberate activity even when it takes an accusative object as in (37d). In fact, simple *fühlen* can also occasionally describe deliberately directing the sense toward an accusative target as in (36e).

(37) a. Der Arzt tastet nach dem Lichtschalter.

The doctor gropes for the light switch.

b. Der Arzt betastet den gebrochenen Arm.

The doctor examines the broken arm. ("*be-touches*" it)

d. Man kann die Geschwulst mit den Fingern tasten.

One can touch (and feel) the tumor with the fingers.

Even when both the (b) and (d) variants involve deliberate activity, there is still a definite semantic difference between the simple verbs *fühlen* and *tasten* and their counterparts with *be-*. The simple verbs describe a holistic act that ends with becoming aware of the accusative object via the sense in question, so that there is a kind of accusative theme that the subject takes possession of or "captures" using the sense.

All of the *be-* verbs, in contrast, describe a sustained search that involves repeated probes, for example touching something to test its quality or the type of material it is made of (*das Tuch betasten* "examine the cloth by *be-touching*") or whether it contains something such as ticks (*den Hund betasten* "examine the dog by *be-touching*"). As Farrell (1977:123) comments, simple *fühlen* can mean touching only one spot if that suffices to become aware of the whole, while *befühlen*

describes touching many spots or examining something between the fingertips. Unlike the simple verbs in the (d) variants, the *be-* verbs describe an iterative process with no built-in completion. It is the sustained iterative nature of the process that accounts for its implications of agentive control.

Similar comments apply to other base verbs, e.g. verbs of smelling or sniffing such as *schnuppern* and *schnüffeln*, and there are also lexicalized *be-* verbs for sustained examination (*beobachten*, *betrachten*, *besichtigen*, *bewundern*). Some base verbs — in particular verbs that involve touching but not necessarily feeling — have *be-* variants which fit the pattern of (36b) and (37b) even though they are not really verbs of sensory perception and they have no (d) variants, e.g. (35b) with *beklopfen*. Compare also *befingern* ("be-finger") and *befummeln* ("paw").

3.1.3. "Attending" generally. In fact it is fair to say generally that typical *be-*verb constructions profile a sustained activity carried out with respect to an object of sustained attention, and it is incidental to the meaning of the construction whether something tangible is transferred to the LM as a result. Compare the transition from *Er behandelt die Obstbäume mit Chemikalien* ("He is treating ('be-dealing-with') the fruit trees with chemicals") to *Der Arzt behandelt den Kranken (mit Medikamenten)* ("The doctor is treating the patient (with medication)") to *Er behandelt ihn wie ein kleines Kind* ("He treats him like a little child"); or from *Sie bearbeitet die Möbel mit Politur* ("She is treating ('be-working') the furniture with polish") to *Sie bearbeitet ihm den Rücken* ("She is massaging his back") to *Sie bearbeitet den Antrag* ("She is processing the application"). There is a long list of *be-* verbs — in addition to those already seen in this section — that describe events in which the subject simply tends to or takes care of the accusative LM in some way. The attention may imply actual recurring spatial contact, and it is often extended to more abstract and metaphorical iterated "vectors" directed at the LM. (Some other very common verbs in this general category include *bedienen*, *betreuen*, *besorgen*, *bewachen*, *begleiten*, *betätigen*.) There are also verbs for which the vectors are intended to repel, such as *bekämpfen* ("fight, 'be-struggle-against']"). Incidentally, *Der Staat bekämpft die Korruption* ("The government is (*be-*)combating corruption") seems more energetic and active than its simple-verb counterpart *Der Staat kämpft gegen die*

Korruption (Schmitz 1995:67), because it clearly implies a sustained, systematic struggle directed at a ceaselessly focal target.

3.2. Revised schematic image for *be*-verb constructions. In fact a case can be made that the *mit*-phrases with a *be*-verb have their normal schematic meaning in all instances and it is only an incidental aspect of the construction if the object of the *mit*-phrase comes to occupy the space designated by the accusative LM. In other words there is no coded distinction between the role of the ointment in (5b) and the "instrumental" cotton wad of (31b). Both are non-focal participants that accompany the main trajectory and are construed as somehow intermediate between the focal nominative subject and the focal accusative LM. They are "themes" only in the sense of 'moving entities', not in the sense of a semantic role that contrasts with "instruments" and is shared with the (a) construction.

In any event it is fair to say that an implicit or obliquely specified "theme" of some kind — an entity corresponding to the shaded balls of Figure 1 — is not a core part of the schematic meaning of the *be*-verb construction in the way that Figure 1 implies. In a typical sentence such as (7b) a base verb such as *laden* does imply a moved entity as part of its meaning and that entity is conventionally associated with an optional *mit*-phrase in the *be*-verb construction; but the moved entity does not play the same "role" that it plays as the accusative object in an (a) construction. Even when a moved entity is expressed, it is obviously never as prominent and individuated as Figure 1 would imply. A more accurate and general schematic representation of the meaning of a *be*-verb construction will look more like Figure 3. The optional "themes" (the dotted balls) represent a default assumption linked to many prototypical base verbs, i.e. that something identifiable crosses into the designated space along with the main trajectory. Strictly speaking though, the schematic profile of a *be*-verb construction is the arrow representing the verb activity, defined in terms of an iterable path entering the space expressed as an accusative LM that is an object of sustained focal attention.

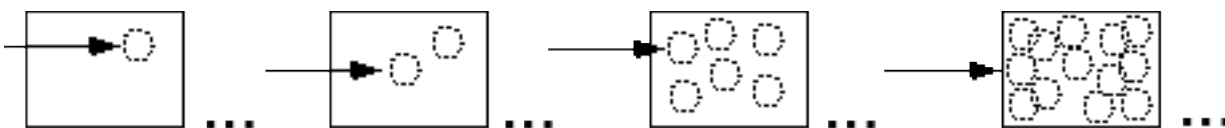


Figure 3: A schematic representation of an event described by a *be*-verb construction.

3.3. Simple verbs without an obvious "theme" argument. With regard to a putative "theme" argument being transferred to the accusative object, everything said about the *be*-verb constructions applies to the (c) constructions as well. There does not have to be any identifiable argument corresponding to the shaded area in (1c), and if there is one it is not as prominent as Figure 2 would imply. Thus we could repair Figure 2 much as we did Figure 1, replacing the shaded portion corresponding to the "theme" argument with a ghostly default effect on the accusative object.

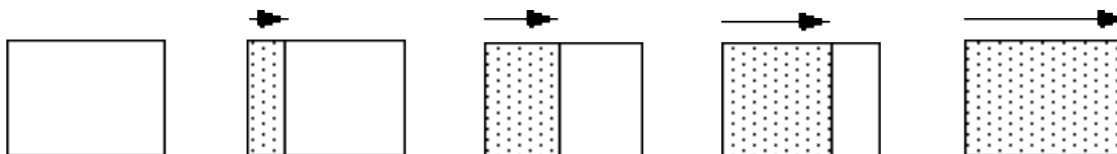


Figure 4: A schematic representation of an event described by a (c) variant with a simple verb (second approximation).

Figure 4 still cannot be quite right though. The reason is that some sort of effect on the accusative object is not just a default interpretation; it is a necessary part of the meaning of the construction. An important part of the contrast between the (b) and (c) variants — even in the absence of an identifiable "theme" argument — is that the (c) variants result in a transformed entity such as a dry forehead or a clean wound or a loaded gun or a newly created sandwich. If pragmatically sensible resultative expansions can be found, the simple verbs can still occur with them while the *be*-verbs cannot: *sich die Stirn trocken* (**be*)*tupfen* ("dab his brow dry"), *ihre*

*Jungen sauber (*be)lecken* ("lick her cubs clean"). There is something going on in the semantics of the incremental theme that we have not yet captured.

4. Abstract pathways and incremental themes

4.1. Accusative pathways. In all of the (c) sentences we have seen, the accusative object was transformed in some tangible way (most typically when a mass becomes a new component part of it). In other words, the accusative object of a (c) variant has not only been an incremental theme; it has also been an affected "patient" that emerges from the event in an altered state. That no longer seems to be the case in (38c), however, where a verb of motion occurs with an accusative pathway.

- (38) a. Ich bin auf dem/den Weg gegangen.
I walked on/onto the path.
- b. Im Winter ist dieser Weg oft nicht zu begehen.
In winter this path is often impassable. (can't be "be-walked")
- c. Ich bin den Weg in einer Stunde gegangen.
I walked the path in an hour.

Other examples with an unprefixated motion verb and an accusative pathway include: *einen Umweg fahren* ("take (drive) a detour"), *eine Kurve fliegen* ("fly a curve"), *5 km laufen* ("run 5k"), *die Polarroute fliegen* ("fly the polar route"), *Er ist/hat die Runde in 5:42 Minuten gefahren* ("He drove the lap in 5:42").

The event described in these (c) constructions does not transform the accusative object in any material way, and there is accordingly no resultative expansion. In all cases the accusative pathway seems to be an unaffected part of the setting rather than an active participant in the event, much like the accusative LMs we have been associating with *be-* verbs. I will argue however that these first

impressions are misleading. There is an important sense in which the accusative pathway in (38c) is "created" by the path event — namely as a particular manifestation of an abstract pattern. The relations in (38) are actually parallel to those in the other examples we have seen in a way that reveals the semantics of both accusative LMs and incremental themes in their purest form.

4.1.1. Accusative pathways as incremental themes. There are two key observations to be made about (38c) in comparison with (38b). The first is known, namely that the accusative pathways in constructions like (38c) function as incremental themes (specifically, Incremental Path Themes under Dowty's analysis). (38c) describes an event that extends together with the accusative pathway, occupying each point of the pathway in sequence until the pathway's conclusion has been reached. The (c) constructions with simple verbs clearly mean that the whole pathway is traversed.

(38c) thus contrasts with (38b), where the *be-* verb does not imply traveling the whole length of the pathway. The event described by the *be-*verb construction could well focus on only a small portion of the accusative LM, and might involve a very small number of "steps". For example, *Die Strecke ist stark befahren* ("The stretch of road is heavily (*be-*)traveled") does not necessarily mean that vehicles drive the whole stretch from beginning to end, only that a random portion of the road will probably contain many traveling vehicles. *Tanker können diese Route nicht befahren* does not just mean that the tankers cannot travel the whole route; it means they cannot travel any portion of the space defined by the accusative LM. Where English offers only two options, a construction usually interpreted to have an incremental theme ("Tankers cannot travel this route") and one with an oblique roadway ("Tankers cannot travel on this route"), German offers a third prefixed alternative that has a focal accusative LM — clearly with no "holistic effect".

4.1.2. Pathways vs. roadways. The second key observation reflects a subtle but crucial difference between the accusative LM of (38b) and the accusative pathway of (38c). In (38b) — and for that matter (38a) as well — the *Weg* has to be a real portion of the physical setting that already exists before this particular path event begins. This fact is implicit in Figure 3, as well as in the

accounts that derive the object of a *be-* verb from an underlying locative. It is also reflected in traditional descriptions of the object in *be-*verb constructions such as Curme's (1922: 434): "a definite, limited sphere or plane, upon which the action plays or over which it extends, or into which it penetrates". It is particularly evident in Hennig Brinkmann's insightful discussion of *be-* verbs (1962: 243,414-5). Brinkmann, who frequently anticipates the kind of analysis that cognitive semantics strives to achieve, stresses that the direct object of a *be-* verb refers to something that is presupposed to exist already independently of the subject ("Vorhandenes").⁵ The accusative LM in a *be-*verb construction is part of the given location for the path event.

What has not been so clearly observed, as far as I am aware, is that the accusative pathway of (38c) is fundamentally different. Unlike (38a) or (38b), (38c) could refer to hacking a new path through a jungle, creating a passageway that did not already exist independent of this particular event. Thus when the pathway could not be a pre-existing LM in the spatial setting, the simple verb is still an option but a *be-* verb is not (**eine Kurve befliegen*).⁶

This crucial semantic distinction is easy to overlook, obscured in part by an ambiguity in the everyday use of words such as *path* (or *Weg*). To see the relevant differences clearly we need to distinguish an abstract *pathway* from a concrete *roadway*. A pathway is a temporally ordered

⁵It follows in H. Brinkmann's account that the accusative object in a *be-*verb construction cannot be moved or created (anew) by the event, and that its independent existence allows *be-* verbs to describe temporally extended activities with respect to it. Essentially, my entire treatment of *be-* can be considered an elaboration of H. Brinkmann's central insight in terms of cognitive semantics.

⁶The unusual passage in (i) was cited by an anonymous reviewer as a counterexample to the principle that *be-* verbs require a pre-existing LM.

(i) Sie sind durch eine Fesselleine an einem Mast befestigt und befahren einen kreisförmigen Kurs mit höchstmöglicher Geschwindigkeit. [naviga.org/M_Beschreibung.htm]

They are fixed to a mast by a chain and (they) move on ("be-drive") a circular course at the highest possible speed.

The path in question here though is an unbounded recurring cycle whose shape is determined by a situation that exists prior to the TR's path, namely the restricted motion allowed by the tethered line. The route may not be physically manifest like a typical pre-existing roadway, but it does exist as part of the given setting independent of the path. The path cannot be said to create a particular instantiation of the pathway the way a plane creates a curve as it flies or a racecar creates a particular manifestation of a lap on a circular roadway. *Be-* is used rather than the simple verb because the course is not an incremental theme that measures the path (as it would if the laps were counted); the path is a cycle repeated an indefinite number of times.

sequence of locations waiting to be occupied (cf. *der kürzeste Weg zum Flughafen* "the shortest path/route to the airport" — understood as a series of instructions rather than as a set of physical streets). A roadway is a region of the setting that exists independent of any particular event (*ein steiniger Weg* "a rocky path/trail"). Unlike a pathway, a roadway does not have intrinsic sequence or direction; something can move in any direction on it (including laterally across it), and for that matter something can sit on it without moving at all. The *Weg* in (38b) is a roadway. A pathway on the other hand is a script waiting to be executed. It does not really exist — except in our minds — until something actually occupies each of its locations in the proper sequence and thus realizes its potential; and even then it is ephemeral. The *Weg* in (38c) is a pathway.

Another reason that the distinction between a roadway and a pathway is easy to overlook is that pathways typically happen to be superimposed on roadways so that the reference converges. It is a pragmatic fact that vehicles, people and other animals normally travel on prepared roads or trails, and whenever that is the case we will not notice any particular difference between the pathway in (38c) and the roadway in (38b). It seems odd to think of the *Weg* in (38c) as a purely abstract notion that is activated by the path event, since the expression also presumably designates a pre-existing trail that exists independent of this particular path event. Yet when it is clear that no prepared roadway exists as such before the path event, as in hacking a new path through the jungle or flying a curve or improvising a detour around an obstacle (or "elbowing one's way into the room"), we are not aware that the meaning of the incremental-theme construction has changed in the least. It is entirely incidental to the meaning of the simple-verb (c) construction whether a roadway already exists in the world before this particular path event takes place.

The relationship between a pathway and a path event is somewhat like that between a number and a particular counting event: the number defines the counting event ("measures it out") and the counting event instantiates the potential of the abstract number. In fact the accusative pathway in constructions like (38c) may be a measurement phrase such as "5 kilometers" or "5 minutes". Since such measurements cannot exist independent of a particular sequential instantiation, they are incompatible with a *be-* verb (*5 km (*be)laufen*).

4.1.3. Incremental themes as instantiated pathways. Constructions like (38c) convey a subtle sense that a "new" particular instantiation of the pathway is "created" by the path event (much as counting 5 apples is a particular new instantiation of the potential of the number 5). This particular instantiation may take place in a novel location (as in hacking a new trail through the jungle) or it may be a renewed instance of a common routine on a prepared course (as in driving a racecourse lap). Either way, the accusative pathway of (38c) is gradually instantiated along with and inseparable from this particular path event. It is not a pre-existing location in the setting; it comes into existence as a part of the event.

I am proposing that this distinction between the roadway *Weg* of (38b) and the pathway *Weg* of (38c) goes to the heart of the semantics of all of the (b) and (c) variants we are discussing. An accusative LM is an actual part of the setting that exists independent of the event; an incremental theme is an abstract pathway (an ordered potential sequence of locations) that can only come into actual existence when a particular path event activates its potential. An incremental theme is thus realized (in a sense "created") by the path event. In its purest form it is a pure pathway and there is no tangible effect on the occupied locations, although such tangible effects are typical. The incremental theme may become an "effected object" that comes into existence for the first time, such as a new trail hacked through the jungle; or it may become a sort of "re-effected object" that is brought into existence again in a new particular manifestation of an old type. Either way, the pathway of (38c) is comparable in every important way to the objects in "write a letter" (an effected object), or "read the book" and "sing the song" (re-effected objects).⁷

⁷An incremental theme may also gradually disappear as the event unfolds (as in "eat the apple"), in which case the (original conception of the) apple still defines the pathway of the eating event. Other common incremental-theme constructions like "mow the lawn" involve both alteration and (partial) disappearance.

The distinction between the accusative theme of (7a) and the incremental theme of (7c) can become very subtle when the accusative object of (7a) is a mass or multiplex that is moved a piece at a time. The "barrels" in (7a) largely define the aspectual course of the event. The loading activity begins with the first barrel and ends when the last one is on the truck, and the temporal extent of the event corresponds almost perfectly to the gradual depletion of the barrel supply (much like the image of an apple being gradually eaten). Still, the course of the event does not correspond perfectly

The most schematic meaning of an incremental theme might be represented as in Figure 5. The incremental theme is originally an abstract pathway, a sequentially ordered series of locations represented by the chain of circles and the directional arrow. This purely abstract sequential image is typically superimposed on a pre-existing entity in the setting, such as the wall in (5c), which defines the set of locations and is designated by the same expression as the incremental theme. The event typically leaves behind a material change in that object (the wall now contains new paint in each location that it defines), but that is only an incidental implication — albeit the most common pragmatically useful implication. In its essence the incremental theme is a pure potential sequence which defines the course of an event. As the event proceeds it leaves behind a summary-scanned trajectory that extends until the event has finished "taking shape" and becoming real, and that trajectory is usually tangibly manifested by a change such as the presence of paint.



Figure 5: A schematic representation of an event described by a (c) variant (with an accusative pathway/ incremental theme).

At first it seems odd to think of a two- or three-dimensional entity such as the wall in (5c) in terms of the pathway image of Figure 5, but the linear shape of the pathway reflects a temporal sequence and not necessarily any particular spatial shape. That temporal sequence can be superimposed on spatial regions of any shape, and the only restrictions on the specific order of

to the depletion of the barrels, and it is certainly not located wholly within the space they originally occupy. When the last barrel has been removed from the supply the event is still not complete until that barrel has been transported to the truck. The barrels of (7a) are a special kind of trajector in which all of the parts move in sequence until the complex as a whole has been moved; but the whole theme does eventually move. (A similar situation arises with nominative extending masses or multiplexes that ultimately move as wholes, e.g. "The audience slowly filed back into the auditorium".)

spatial locations are pragmatic ones — as long as each portion of the space is eventually occupied by the path so that the pathway is completed.

As a subtle example of the kind of (c) construction that contrasts with *be*-verb constructions, consider (8) again. The event described by (8c) (*ein Brot mit Marmelade streichen*) involves a linear stroking path for the agent's hand (and the knife) over each relevant location on the bread, and that sequence of locations is the pathway for the motion of the hand. As is very often the case, the hand's path also happens to converge with an applicative subtrajectory in which a mass (the jam) rides along and is left behind as a tangible manifestation of the summary-scanned trajectory. The *Brot* is an incremental theme for each of the converging trajectories, and in both cases the pathway is complete when each location that it defines has been "(ful)filled". The pathway is necessarily instantiated on this occasion by the hand's trajectory, and in the course of the event a tangible new manifestation of the *Brot* (an open-faced jam-sandwich) comes into existence as a re-effected object.

4.2. Spraying and scattering. As one further illustration of the explanatory potential of this analysis, consider the interesting properties of verbs of spraying or scattering such as *sprengen* ("douse with liquid") and *streuen* ("scatter, strew") in (39)-(40).

- (39) a. Sie hat Wasser über die Blumen gesprengt.
She sprinkled water over the flowers.
- b. Der Straßenwinterdienst besprengt die Straßen.
The winter maintenance crew (*be*-)sprinkles the streets.
- c. Mit einem Sprengwagen wird die Straße gesprengt.
The street is sprinkled (wetted down) using a street-sprinkling vehicle.
- (40) a. Er streut Zucker auf den Kuchen.
He sprinkles sugar on the cake.
- b. Er bestreut den Kuchen mit Zucker.

He (*be-*)sprinkles the cake with sugar.

c. Sie streuen die Straßen (mit Salz).

They sprinkle the streets (with salt).

There is an intriguing restriction on the use of these verbs in (c) variants. Where *bestreuen*, for example, can occur with a variety of surfaces as direct object (*den Boden mit Kies bestreuen* "be-scatter the ground with gravel"), simple *streuen* basically occurs in a (c) variant only to describe treating things such as streets (**Er streut den Kuchen mit Zucker*).

Unlike verbs such as *streichen*, in which the path of the base-verb activity converges with the path of the substance being applied, verbs such as *streuen* describe a causal activity that is spatially removed from the substance's subsequent path. There is an intervening space between the release of the scattered substance and its application to the LM surface. That situation is perfectly compatible with *be-*verb constructions, since the scattering event begins clearly outside the bounds of the LM anyway and there is recurring entry into the LM space.

On the other hand we would expect (c) variants to be unusual with simple verbs of scattering, spraying or pouring (*streuen, schütten, sprengen, spritzen, gießen*), which in fact they are. If they do occur, they are restricted to situations when the gap between the scattering activity and the spreading path over the surface is no longer evident. That occurs when the scattering activity itself involves an accusative pathway, i.e., when the activity is carried out by systematically moving over the whole accusative space while simultaneously scattering. Thus the constructions of (39c) and (40c) focus on the systematic movement of the vehicle or the workers as they cover the entire length of the roadway, which is interpreted as a pathway (an incremental theme).

In rare cases when simple verbs of spraying do occur with accusative objects that are not roads, the objects are still interpreted to describe a pathway (an ordered sequence of locations) for the base-verb activity itself. *Den Rasen spritzen/ sprengen* ("water the lawn") implies a path by the subject that systematically covers the whole lawn area, either a walking path or the projecting motion of a sprinkler. In other words, (c) variants with simple verbs of scattering (spraying, pouring) tend

to occur only when they can be interpreted so that the activity path can converge with the path over an accusative pathway. Presumably simple verbs such as *sprühen* ("spray"), *sieben* ("sieve") and *träufeln* ("drip, trickle") do not have (c) variants because they are never used to describe a moving dispenser following an itinerary such as a street.

5. Extending the analysis of *be-* verbs

5.1. Attributive participles, denominals and coerced variants. A commonly recognized characteristic of *be-*verb constructions — and of (c) constructions as well — is that the "theme" argument is "nonindividuated" (UB 103). If there were a clearly bounded "theme" then the (a) construction would be appropriate and the bounds of the theme would define a profiled restricted location that it occupies within the larger space suggested by the LM. There would be no reason to profile the bounds of the whole LM rather than those of the theme. Thus we would say *Er lädt ein Fass auf den Lastwagen* ("He loads a barrel onto the truck") rather than **Er belädt den Wagen mit einem Fass* ("He (*be-*)loads the truck with a barrel"). Besides, the notion of a serial application with no defined point of completion depends on an open-ended supply of the "theme" (as does the notion of filling the space defined by an accusative incremental theme).

Although the association between *be-*verb constructions and nonindividuated "themes" is overwhelmingly typical, there are occasional counterexamples such as (41) (which was supplied along with other similar examples by an anonymous reviewer). In order to account for these atypical occurrences we again need to look very carefully at the paradigmatic options available to speakers.

(41) Bald sah man sie, mit einem leeren Tragkorbe beladen, hastig über das Feld laufen.

[gutenberg.aol.de/anekdote/kuechenm.htm]

Soon one saw her go hurriedly across the field, laden ("*be*-loaded") with an empty basket.

To describe a situation such as this, in which a single clearly bounded entity occupies a LM, the obviously preferred option is an (a) construction that makes the theme focal. In an attributive participial construction like (41) however, with the LM rather than the "theme" as the subject of the participle, the (a) construction is not available. Only the (b) and (c) constructions come under consideration, in which the host location can be expressed as an accusative direct object in active voice. The (c) construction is clearly unacceptable in a situation like (41) though because the basket obviously does not spread to fill the person, become a component part of her or transform her into a new functional state. That leaves the *be*- verb as the only remaining alternative, and it has to be coerced into atypical duty.

The use of a *be*- verb here can be rationalized semantically as a special limiting case of the image in Figure 3, namely as a potentially serial application in which the process is arbitrarily broken off after only one application. Although the lack of a built-in point of completion with the *be*-verb construction typically suggests that the process goes on for a while before it is arbitrarily broken off, when there is no contrasting (a) construction there is no reason that the application could not also be stopped prematurely. Although the iterative aspect of the image is suppressed, there is still no intrinsic completion and the construction does contrast with a (c) or (d) construction.

Similar comments apply to *bekleiden* ("*be*-dress"), which is commonly used to describe a situation with an individuated "theme". *Bekleiden* is most commonly used as an attributive participle, so that the discussion of examples like (41) applies to it as well. In the case of *bekleiden* though, there is no good alternative with an (a) construction even in finite constructions, so that it may be coerced into duty even in non-participial constructions like (42). The reason is that its quasi-denominal base verb *kleiden* would be unacceptably awkward in an (a) construction (**einen Slip an*

sich kleiden), so that *bekleiden* competes in practice only with the (c) construction (and with other prefixed verbs such as *verkleiden*).

(42) b. Sie hat sich nur notdürftig mit einem Slip bekleidet.

She was only scantily dressed in a slip. ("be-dressed" herself with a slip)

c. Sie hat sich sportlich gekleidet.

She dressed (herself) in a stylishly casual way.

Semantically, *bekleiden* can be reconciled with Figure 3 as long as the contrast with an (a) construction is neutralized. Simple *kleiden* consistently describes finishing the job, transforming the object into a clothed state of readiness, while *bekleiden* typically describes putting on minimally necessary clothing as opposed to being unclothed (Farrell 1977:100). In other words, it describes dressing events that are not "completed" according to a prescribed script.

It follows from these considerations that *be-* verbs would generally be associated with attributive past-participial constructions, and they are (Günther 1974:244). It also follows that this association with participles would be particularly strong with denominal *be-* verbs, and it is (Günther 1974:135). Finally, it follows that denominal *be-* verbs will tend to stretch the semantic limits of the basic *be-*verb schema since they contrast only with (c) constructions (and occasionally with other prefixed verbs). In these cases the sense of serial application may give way to one that more vaguely implies sustained temporal effects as opposed to the completed act or transformation that would be conveyed by a simple verb.⁸

⁸When a simple verb appears as an attributive past participle corresponding to a (c) construction, it tends to describe its subject as a transformed participant which has been the patient of a completed prior act and is now in a new resulting state ready to do something itself. *Der Wagen ist geladen* means the car has been loaded and is ready to be driven away. The simple-verb participles primarily tell us that an event has been completed, while the verb *sein* profiles the implicit resulting state. If we really want to concentrate on the resulting state rather than the past event, we would normally prefer a stative adjective if an appropriate one exists. That is, rather than describing the truck as *geladen* we would prefer to call it *voll* ("full") or *fertig* ("finished") or *bereit* ("ready"). It is hard to imagine an adjective that could replace the attributive participle *beladen*, though. The past participle of a *be-*

Even with denominal applicatives though, a vaguely distributed "theme" is overwhelmingly typical. Applicative denominal *be-* verbs with a past participle are especially common when the presence of the root substance in the LM space seems to have arisen naturally, bestowed by vaguely unspecified circumstances that operate over time (rather than in a particular act that calls attention to an agent). Thus a sentence such as *Die Bücher sind bestaubt* ("The books are covered with dust (*be-dusted*)") profiles the sustained occupational effects of the alien intruder. There is no alternative with **gestaubt* that would suggest a single completed act, and the focus is more on the "sully" effects than on holistic visible covering (cf *über-*) or on an essentially altered functional state (cf *verstaubt*).

5.2. *Betreten* and the implicit effects of bounded events. The use of a *be-*verb construction with a nominative theme that is individuated and moving, such as in (38b) with *begehen*, also needs further mention. Such verbs can conform perfectly normally to the image in Figure 3. Both (43b) and (44) imply an iterated series of segments or "steps" that are systematically "applied" to the accusative LM — without truly filling it or transforming it. They are reminiscent of an examination tour such as (36) with *befühlen*. (44) admittedly implies a complete traversal of the rail line in sequence so that its object seems very similar to an accusative pathway, but the rail line is clearly a roadway that already exists and is not being (re-)created or transformed in any way. There is sustained interaction with a pre-existing focal LM.

(43) a. Wir sind viel in Deutschland gereist.

We traveled a lot in Germany.

b. Wir haben ganz Deutschland bereist.

We toured Germany. ("*be-traveled*" it systematically)

(44) b. Er hat die Eisenbahnstrecke begangen und die Schäden gemeldet.

verb is almost uniquely qualified to describe a continuing influence on a noun (as opposed to a completed verb event with a distinct resulting state), and that is a very useful function.

He (*be-*)walked the stretch of railway and reported the damages.

More problematic is the established use of *betreten* as in (45), which clearly refers to a single moment of entry and seems to have a defined point of completion (namely the moment that the subject sets foot in the room). The theme and the event seem individuated, but there is no grammatical coercion since an (a) variant is freely available. Here again though the *be-* verb suggests the "indirect effects" and the "diffusion of these over a wide area" that Farrell (1977:10) noted with *betreffen*. *Betreten* suggests initiating an abstract and sustained interaction that transcends the simple spatial act of stepping into a LM as in (45a). Even if the purely physical event can be localized in space and time, *betreten* suggests vaguely abstract indirect effects that are sustained in time — such as a decision-making process that leads up to the entry or a series of consequences that implicitly ensue. As Farrell (1977:106) observes, *betreten* usually suggests "an awareness that the entry is or has proved to be a fateful step", including situations where official permission to enter is at issue. (46) and (47) are typical uses. The use of *begehen* in (38b) is essentially the same, as are expressions such as *den Zug besteigen* ("board (*be-climb*) the train") that clearly suggest initiating a sustained interaction with the accusative LM.

(45) a. Er trat in das Zimmer.

He stepped into the room.

b. Er betrat das Zimmer.

He entered the room. ("*be-stepped*" it)

(46) b. Ich werde sein Haus nie wieder betreten.

I'll never set foot in his house again.

(47) b. Bevor man eine Moschee betritt, muss man die Schuhe ausziehen.

Before one enters a mosque one must take off one's shoes.

These observations also apply to other problematic examples in which the event described by the *be-* verb does not seem to be temporally sustained in any obvious concrete way. For example, Farrell (1977:138) mentions the use of both *gründen* and *begründen* to describe the founding of an institution. While the simple verb is more common and "suggests one clear act, therefore an official ceremony or act", *begründen* "is wider in its implications and is not limited to any official act or to particular stages" — suggesting "both the idea from which the foundation sprang and also consolidation". In other words *be-* subtly adds a sense of sustained mental deliberation or of enduring consequences. Compare also Farrell's comment (1977:233) that *bemerken* differs from simple *merken* ("notice") by implying "mental activity, however brief, after the sense perception, and an inference from the sense material".

(48) Der Lehrer hat den Fehler bemerkt.

The teacher (*be-*)noticed the mistake.

5.3. *Bewegen* and sustained influence. Another relatively problematic type for this or any other analysis is illustrated in (49). *Bewegen* ("move, put in motion") has a denominal base with no contrasting simple verb, and so it is coerced to some extent. It seems to describe a single complete act that gives impetus to an accusative theme, i.e., the *be-*verb construction seems essentially like a normal (a) construction. To some extent we could account for *bewegen* simply as a lexicalized verb that is not semantically analyzed as a *be-* verb, but it is still possible to discern a semantic contribution by *be-* at the core of *bewegen*. The *be-*verb construction adds subtle implications that the interaction between the subject and the moving accusative object is sustained, so that the event does not consist of a simple causal act that sets the accusative object on an ensuing path. Farrell (1977:222) comments that the motion implied by *bewegen* is typically "round about, to and fro, i.e. it does not indicate a change of position towards a destination" and it "rarely suggests a straight line". In other words, the accusative object does not engage in a path on its own separate from an ongoing influence by the subject. *Bewegen* suggests sustained control, keeping something moving

much like *betreiben* in (50). In fact *bewegen* can also be used to describe keeping something in operation (*Die Elektrizität bewegt die Maschine* "The electricity drives the machine").

(49) Ich kann den Arm jetzt wieder bewegen.

I can move my arm again now. ("be-path" it)

(50) Der Zug wird elektrisch betrieben.

The train is propelled ("be-driven") electrically.

The notion of a sustained influence on the behavior of an accusative object is evident with other *be-* verbs as well, for example *Er beschleunigte seine Schritte* ("He (*be-*)quickened his steps") or *Der Lehrer beschäftigte die Klasse mit Aufgaben* ("The teacher (*be-*)occupied the class (kept them busy) with assignments"). Compare also Schmitz's observation (1995:66) that the simple verb *auftragen* ("instruct") in *Er hat mir aufgetragen, Sie zu grüßen* ("He instructed me to give you his regards") essentially describes a simple request, while *Er hat mich beauftragt, Ihnen folgendes zu sagen* ("He (*be-*)instructed me to tell you the following") amounts to an official assignment from a superior. In other words, the *be-* verb implies sustained influence over the accusative object that goes beyond the simple base-verb act.

Many other *be-* verbs describe a bounded event that exercises a sustained influence on the accusative object. Some examples are provided in (51)-(53). Compare also verbs such as *bestrafen* ("(*be-*)punish"). Similarly, verbs such as *besiegen* ("(*be-*)conquer"), *bezwingen* ("master, '*be-*force") or *bewältigen* ("overcome, '*be-*prevail") describe bounded events that suggest both sustained influence and a sustained causal process. These verbs in effect blend imperceptibly with those to be discussed in the next section, in which the causal situation is itself sustained.

(51) Ihr Brief beunruhigte ihn.

Her letter upset him. ("be-anxiously" him)

(52) Der Artikel beleidigte den Kanzler.

The article (*be-*)offended the chancellor.

(53) Das Haus ist vom Sturm schwer beschädigt.

The house is heavily (*be-*)damaged by the storm.

5.4. "Active" states of sustained influence. Sentences like (54)-(56) are typical *be-*verb constructions with a nominative theme, describing a multiplex that distributes itself over an area and comes to occupy it. Similar examples in which a nominative theme moves in to stay could be added with verbs like *besiedeln* ("be-settle"). More clearly and concretely than *betreten*, these verbs suggest a consequential interaction with the accusative LM that continues after the initial act of occupation.

(54) Heuschrecken befallen weite Gebiete Afrikas.

Locusts are descending on large regions of Africa. ("*be-falling*" them)

(55) Die Kreuzritter besetzten Palästina.

The crusaders occupied Palestine. ("*be-set*")

(56) Ein Elektrounternehmen bezieht die leerstehende Schule.

An electronics firm is moving into the empty school building. ("*be-moving*" it)

At times *be-* combines with a base verb that expressly describes the resulting state of occupying a location, as in (57) or (58). In this case the *be-*verb construction suggests that the subject (or at least its interaction with the LM) is distributed over a variety of points, and it also adds a vague sense that the subject is actively sustaining the relationship. Despite the objectively stative nature of the relation, one gets the impression that there are abstract "vectors" of some kind corresponding to the arrows of Figure 3. Thus the forest in (57b) is not just located with respect to the property; it is construed to be actively "doing something" to it (Schmitz 1995:67). The construction in (58a) can describe a particular restricted portion of the house that the subjects occupy, leaving open whether other people live in the house as well (Schmitz 1995:66). The (58b) sentence on the other hand

means that the subjects are the only residents, since the image is distributed with respect to the accusative LM as a whole. The common use of *belegt* ("be-laid") to mean that a space is "occupied" is similar. Compare the active use of *besetzen* ("be-set") in (55) with the lexicalized use of *besitzen* ("be-sit") to describe possessing.

(57) a. Ein Wald grenzt an das Grundstück.

A forest borders on the property.

b. Ein Wald begrenzt das Grundstück.

A forest (*be-*)borders the property.

(58) a. Wir wohnen in einem Landhaus.

We reside in a country house.

b. Wir bewohnen ein Landhaus.

We inhabit a country house. ("*be-reside*" it)

At times the sense of temporally sustaining a stative relationship becomes dominant. Thus *behalten* is entrenched to describe retaining something in one's possession as in (59). Compare also the entrenched and lexicalized uses of verbs such as *bewahren* ("*be-preserve*"), *sich bewähren* ("*prove ('be-endure') oneself, stand the test of time*"), and *bestehen* ("*endure, last, survive ('be-stand')*").

(59) Sie können das Buch behalten.

You can keep the book. ("*be-hold*" it)

Most generally, a *be-* verb can describe a relatively abstract sustained influence on the accusative LM with a base verb that intrinsically implies an active "vector" of some kind even when there is no discernible motion directed toward the LM and the cause is construed to be a static "presence". Examples include *beeinflussen* ("*be-influence*"), verbs of domination like *beherrschen* ("*be-rule*"),

verbs of restricting like *beschränken*, *begrenzen*, *beengen* or *beeinträchtigen*, and verbs for emotionally burdening like *belasten*, *bedrängen*, *bedrücken*, *bekümmern*, *beklemmen*. Compare also verbs for being a pest or a bother like *belästigen*, as well as *bedrohen*.

5.5. Deadjectival verbs and applied qualities. *Be-* verbs do not often have deadjectival bases, as we would expect since they cannot describe transforming the accusative object into a new state. When they do occur, they typically suggest metaphorically "applying" the root quality a little at a time, as if it were an abstract "substance". Thus *befeuchten* ("*be*-moisten") or *benässen* ("*be*-dampen") describe adding moisture to the LM, not transforming it so that it necessarily becomes *feucht* or *nass* as a whole. The adjective often suggests a related nominal form, so that for example *bestärken* or *bekräftigen* (both of which can be glossed as "*(be-)*strengthen" and are typically used in abstract senses such as confirming an opinion) mean to add strength (*Stärke*, *Kraft*) rather than to transform something into the discrete new state implied by the adjective (*stark*, *kräftig*). The verbs consistently profile the additive process rather than the result. (60) provides another representative example, as do *beunruhigen* and *beleidigen* above. Compare also Farrell's (1977:140) comment that (61b) "suggests the capacity of the agent to produce the anxiety" while simple *ängstigen* in (d) profiles a resulting state that can be unfounded.

(60) b. Sie hat ihre Eltern durch ihr Verhalten betrübt.

She saddened her parents through her behavior. ("*be*-gloomied" them)

(61) b. Seine Drohungen beängstigen mich nicht.

His threats do not (*be*-)frighten me.

d. Ein böser Traum hat mich geängstigt.

A bad dream frightened me.

5.6. Other variants. Obviously there are many *be-* verbs we have not mentioned, and significantly different variants of many of those we have mentioned. Still, allowing for a relatively

small number of nonconforming lexicalized compounds and other historical oddities, I would claim that the whole range of *be*-verb constructions can be accounted for using the approach we have adopted here. The reader can test this claim against more complete lists of *be*-verb constructions such as those found in dictionaries or in Günther (1974) or Schröder (1992). The vast majority describe a sustained interaction between a subject and a focal accusative LM that is constantly present in the image as a region of the setting (most typically a surface area). They most typically involve a multiplex of "vectors" that correspond either to a serial applicative process, or to a sustained recurring transfer of force, or to a metaphorical extension of one of those images. Less typical instances involve more implicit abstract processes or consequences that persist in time, and these variants are particularly associated with contextual frames (such as denominal bases and attributive past participles) that restrict the paradigmatic options and coerce a strained use of a *be*-verb construction.

6. More general conclusions

A basic theme of the discussion of *be*-verb constructions has been that their semantics cannot be separated from their paradigmatic alternatives, and it is those contrasting constructions that set the limits on our interpretation of *be*-verb constructions. *Be*-verb constructions most typically contrast with a simple-verb (a) construction that implies a defined intrinsic point of completion, often one with an individuated theme that comes to occupy a restricted location with respect to an oblique LM. When an (a) construction is not available, for example with attributive past participles or verbs with a denominal "theme", then the meaning of the *be*-verb construction can be stretched into atypical uses. *Be*-verb constructions may also contrast with a (c) construction that has an accusative incremental theme, in which case the incremental theme is (re-)created by the occupation of all of its defining points in sequence. The incremental theme is typically filled by a uniformly spreading mass that eventually becomes a new component part of the transformed object. Although we did not

concentrate as much on other contrasts, there are also transitive simple-verb (d) constructions that typically describe a simple (non-iterated) event. There are also constructions with other verb prefixes (particularly *ver-* and *über-*) that serve as important defining contrasts for *be-* and will need to be included systematically in a thorough account of *be-*.

A careful consideration of the semantic differences between a *be*-verb construction and a (c) construction with an incremental theme reveals that the "holistic effect" often attributed to *be-* verbs is more properly restricted to the (c) construction. Whereas an extensive cumulative effect on the whole LM is only a common pragmatic implication of the *be*-verb construction, a holistic effect is an integral part of the meaning of a construction with an incremental theme.

The evidence also does not support an analysis in which either *be*-verb constructions or (c) constructions involve a THEME argument that plays the same semantic role as the accusative object of an (a) construction, and it most decidedly does not support the idea that (c) constructions involve a LOCATION or GOAL argument that plays the same role as the oblique LM of the (a) construction. Each construction has its own roles with their own semantics, as we would expect if we consider alternative constructions to be contrasting paradigmatic options each with its own meaning, rather than rule-derived variants of a common underlying proposition.

The role that particularly characterizes a *be*-verb construction is an accusative LM that is a constantly focal part of the setting and exists independent of the *be*-verb process and of any alien intruder which may come to occupy it. This role contrasts with the accusative incremental themes found with the (c) constructions. These are essentially accusative pathways, i.e. abstract sequential patterns with a built-in point of completion that can be instantiated by an event. Typically they are also objects altered into a new state with a new component part.

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Notes

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- 1. See also Becker (1971) for an analysis in terms of a "Case for Case" style "*be*-insertion rule".
- 2. Further muddling the terminological situation is the use of "theme" to refer to the single participant in any conceptually autonomous thematic relationship, so that it subsumes patients, experiencers and movers but contrasts with causal entities such as agents and instruments (Langacker 1991: 287-8). (This is the sense in which an incremental theme is a kind of "theme".) The situation is also complicated by the existence of different constituent levels, particularly the implicit roles in the meaning of a base verb like *laden*. Goldberg (1995) distinguishes the "argument roles" in constructions from the "participant roles" associated with verbs, but she also speaks of thematic roles with an intrinsic identity independent of any particular construction. Croft (2001) eliminates global syntactic categories, but like Goldberg he does not entirely eliminate global semantic categories, blurring the distinction between global role archetypes and coded contrasts in a particular language. The result is an odd symbolic relation that has a construction-specific form but a meaning that instantiates universally given categories (a kind of transcendental signified).

3. This type of denominal *be*-verb construction is definitely productive, and Günther (1974: 129-30) provides a long representative list. Nevertheless, applicative denominal *be*- verbs are not really as common as we might expect at first. Most of them are quite restricted in usage, confined largely to technical domains and to non-finite forms (Günther 1974: 254), while the simple base verbs are the unmarked option in most everyday situations. An expression such as *die Maschine ölen* ("oil the machine"), for example, is functionally adequate to describe any normal events that would occur. It is difficult to imagine a situation where it would be pragmatically important to specify that the application is iterative or uneven and has no intrinsic point of completion, or that the accusative object is not transformed into a new functional state of usefulness. In practice then *beölen* is a superfluous verb, even though it might be easily comprehensible and semantically appropriate to describe some events. In effect, German speakers do not usually need to make use of the added constructional possibility offered by *be*-, and they get along much as English speakers do with verbs such as "oil" or "paint".
4. Olsen (1994: 225-7) notes that *be*- verbs can have adverbs like *vollständig* ("completely") or *zur Hälfte* ("half of [the LM]"), but only with an explicit *mit*-PP: *Er bepflanzte Beete vollständig mit Rosen*, **Er bepflanzte Beete vollständig*. She explains this behavior in terms of a "pertinenz" component conveyed by *mit* (cf. resultative "have"). In any event, these adverbials in effect specify the extent of the LM and are clearly not resultatives (the flower beds do not become complete as a result of the event).

5. It follows in H. Brinkmann's account that the accusative object in a *be*-verb construction cannot be moved or created (anew) by the event, and that its independent existence allows *be*- verbs to describe temporally extended activities with respect to it. Essentially, my entire treatment of *be*- can be considered an elaboration of H. Brinkmann's central insight in terms of cognitive semantics.
6. The unusual passage in (i) was cited by an anonymous reviewer as a counterexample to the principle that *be*- verbs require a pre-existing LM.

(i) Sie sind durch eine Fesselleine an einem Mast befestigt und befahren einen kreisförmigen Kurs mit höchstmöglicher Geschwindigkeit.

[naviga.org/M_Beschreibung.htm]

They are fixed to a mast by a chain and (they) move on ("be-drive") a circular course at the highest possible speed.

The path in question here though is an unbounded recurring cycle whose shape is determined by a situation that exists prior to the TR's path, namely the restricted motion allowed by the tethered line. The route may not be physically manifest like a typical pre-existing roadway, but it does exist as part of the given setting independent of the path. The path cannot be said to create a particular instantiation of the pathway the way a plane creates a curve as it flies or a racecar creates a particular manifestation of a lap on a circular roadway. *Be*- is used rather than the simple verb because the course is not an incremental theme that measures the path (as it would if the laps were counted); the path is a cycle repeated an indefinite number of times.

7. An incremental theme may also gradually disappear as the event unfolds (as in "eat the apple"), in which case the (original conception of the) apple still defines the pathway of the eating event. Other common incremental-theme constructions like "mow the lawn" involve both alteration and (partial) disappearance.

The distinction between the accusative theme of (5a) and the incremental theme of (5c) can become very subtle when the accusative object of (5a) is a mass or multiplex that is moved a piece at a time. The "barrels" in (5a) largely define the aspectual course of the event. The loading activity begins with the first barrel and ends when the last one is on the truck, and the temporal extent of the event corresponds almost perfectly to the gradual depletion of the barrel supply (much like the image of an apple being gradually eaten). Still, the course of the event does not correspond perfectly to the depletion of the barrels, and it is certainly not located wholly within the space they originally occupy. When the last barrel has been removed from the supply the event is still not complete until that barrel has been transported to the truck. The barrels of (5a) are a special kind of trajector in which all of the parts move in sequence until the complex as a whole has been moved; but the whole theme does eventually move. (A similar situation arises with nominative extending masses or multiplexes that ultimately move as wholes, e.g. "The audience slowly filed back into the auditorium".)

8. When a simple verb appears as an attributive past participle corresponding to a (c) construction, it tends to describe its subject as a transformed participant which has been the patient of a completed prior act and is now in a new resulting state ready to do something itself. *Der Wagen ist geladen* means the car has been loaded and is ready to be driven away. The simple-verb participles primarily tell us that an event has been completed, while the verb *sein* profiles the implicit resulting state. If we really want to concentrate on the resulting state rather than the past event, we would normally prefer a stative adjective if an appropriate one exists. That is, rather than describing the truck as *geladen* we would prefer to call it *voll* ("full") or *fertig* ("finished") or *bereit* ("ready"). It is hard to imagine an adjective that could replace the attributive participle *beladen*, though. The past participle of a *be-* verb is almost uniquely qualified to describe a continuing influence on a noun (as opposed to a completed verb event with a distinct resulting state), and that is a very useful function.