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Two Types of Derived Accomplishments

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Several recent studies of the resultative construction (Hoekstra 1984; Rappaport Hovav and Levin to appear) offer a uniform analysis of the two sets of sentences below, which all exemplify accomplishments derived from activities.

(1) a. The dog barked the neighbor awake.
b. The phone rang me out of my slumber.
c. Sleep your wrinkles away!
d. They drank the teapot dry.
e. The cattle ate the field bare.

(2) a. Tracy washed the soap out of shirt.
b. Pat rubbed the oil into the wood.
c. Sandy wiped the crumbs off the table.
d. The weaver rinsed the dye out of the material.
e. Terry swept the leaves off the sidewalk.

In contrast, in this paper we argue that these two sets of examples represent distinct phenomena and are derived in different ways. Our analysis provides a syntactic derivation for the examples in (1) and a lexical derivation involving the creation of a new lexical entry for those in (2). Thus, we will refer to the two types of examples, respectively, as syntactically-derived and lexically-derived accomplishments. We show, furthermore, how, if the distinction we draw is correct, the phenomena under discussion argue against a pure syntactic encoding of event structure (Borer 1994, in press; Erteschik-Shir and Rapoport 1995; Ghomeshi and Massam 1995; Goldberg 1995; Hoekstra 1992; Ritter and Rosen to appear), since such an encoding cannot naturally capture the difference between the two types of accomplishments.

In section 1 we set out the similarities between the examples in (1) and (2)—similarities that have been used to argue for a uniform account. Next, in section 2 we show that there are significant differences between the two that suggest a uniform account is untenable. After introducing our model of verb meaning in section 3, we present accounts of each set of examples as two distinct types of derived accomplishments in sections 4 and 5. Finally, in section 6 we discuss the implications of the two types of derived accomplishments for efforts to provide an entirely syntactic encoding of event structure.

1 The Uniform Approach

A uniform account of the two types of examples seems to be motivated by several common properties reviewed below.

• Both types of examples involve accomplishments derived from activities, as illustrated by applying standard aspectual tests to an example of each type. The (a) sentences show that the verbs are basically activities, the (b) sentences show that the uses in (1) and (2) are accomplishments.

(3) a. They drank for/*in two minutes.
b. They drank the teapot dry in/*for two minutes.

(4) a. Pat rubbed the wood for/*in two minutes.
b. Pat rubbed the oil into the wood in/for two minutes.

• Both types of examples involve two postverbal constituents, an NP and either a PP or an AP, with the latter predicated of the former.

• Both types of examples contain a postverbal NP that does not correspond to the verb's "normal" object. Consider first the examples in (1). The verbs in sentences (a)-(c) can be characterized as basically intransitive, so any object they take is not their "normal" object. Though the verbs in (d)-(e) can be used transitively as well as intransitively with an unspecified object interpretation, they cannot take the postverbal NPs in (1) as their sole complements, as shown in (5). The "normal" objects they take in their transitive use are chosen from different semantic fields than the postverbal NPs in (1). As discussed in Carrier and Randall (1992) and Levin and Rappaport Hovav (1995), these verbs are in their unspecified object sense in examples such as (1).

(5) a. ∗ The dog barked the neighbor.
b. ∗ The phone rang me.
c. ∗ Sleep your wrinkles!
d. ∗ They drank the teapot.
e. ∗ The cattle ate the field.

Turning now to (2), the verbs in these examples typically take objects that can be characterized as "surfaces" rather than "stuff": *Tracy washed the floor*, *Pat rubbed her arm*. They cannot take the postverbal NPs in (2) as their sole object, as shown in (6). The claim that a "surface" is the normal object of these verbs receives support from the fact that each sentence in (6) is acceptable on the somewhat nonsensical interpretation that the object is interpreted as a surface. That is, the interpretation of (6a) is that the bar of soap itself is washed, rather than being used to clean something else.

(6) a. ∗ Tracy washed the soap.
b. ∗ Pat rubbed the oil.

c. ∗ Sandy wiped the crumbs.

d. ∗ The weaver rinsed the dye.

e. ? Terry swept the leaves.

On the basis of the shared properties, Hoekstra (1992) argues that in all examples such as those in (1) and (2) the verb is followed by a small clause (SC) in which an XP denoting an achieved state is predicated of the postverbal NP, as schematized in (7).

(7) [NP V [$_{sc}$ NP PRED]] (Hoekstra 1992: 163, (55))

A small clause analysis is appealing as it reflects the shared properties of the two types of examples directly. First, the accomplishment interpretation can be tied to the syntactic configuration that the verb is found in. Accomplishments are characterized by a particular resulting state, and the small clause complement of the verb encodes this resulting state and the argument that it is predicated of. Second, the small clause by its very nature gives rise to two postverbal complements. Finally, the small clause analysis directly embodies the observation that the postverbal NP is not an argument of the verb since this NP is not a sister of the verb, but rather is inside the small clause that is itself the sister of the verb.

2 A Second Look at the Data

Although the shared properties of the two types of examples make a common analysis initially attractive, there is ample reason to question whether a uniform analysis is, in fact, viable. We now present evidence, much of it discussed briefly in Levin and Rappaport Hovav (1995), that suggests the two types of examples represent distinct phenomena and should be given different analyses.

• There are more restrictions on the "result phrases" in the examples in (2) than those in (1). The former take only directional PPs as the result phrase, contrasting with the more varied types of result phrases in (1). Furthermore, the NPs in the PP result phrases in (2) all correspond to the verb's "normal" direct object. Compare *Tracy washed the soap out of the shirt* to *Tracy washed the shirt*. This relationship does not hold of the examples in (1): *The phone rang me out of my slumber*, but **The phone rang my slumber*.

• The examples in (1) are much more transparently derived from the intransitive form of the verb than those in (2). They are all based on verbs which are (i) intransitive (e.g., *sleep* in (5c)) or (ii) independently allow their objects to be omitted (e.g., *eat* in (1e)). Obligatorily transitive verbs do not allow the type of postverbal complements characteristic of (1), as the following examples show.

(8) a. ∗ The enemy bombed the residents homeless.
(meaning: The enemies bombed the city)

b. ∗ The bears frightened the campground empty.
(meaning: The bears frightened the campers)
(Carrier and Randall 1992:187, (37a))

While the examples in (1) all preserve the meaning the verb usually has when it appears without the object, this is clearly not the case for the examples in (2). For instance, *Tracy washed the soap out of the shirt* does not preserve the reflexive meaning usually associated with *Tracy washed*. Furthermore, some verbs in (2) do not not normally allow their objects to be omitted at all. Consider, for example, *rub*: **Pat rubbed*.

• The postverbal NP in examples of the type in (2) readily form middles, while the postverbal NPs of the examples in (1) typically do not form felicitous middles.

(9) a. This dye rinses out easily.
b. This kind of oil rubs into the wood easily.

(10) a. ?? These people bark awake easily.
b. ?? This teapot drinks dry easily.

• We are unaware of any language which does not have, at least to a limited extent, alternations of the type in (2). Languages which have resultative constructions of the type in (1) are relatively rare. Languages which have alternations of the type in (2) but not of the type in (1) include Hebrew, French, and Italian. We illustrate with examples from Hebrew.

(11) a. Titeti et ha-ricpa.
I.swept ACC the-floor
'I swept the floor.'
b. Titeti et ha-perurim me-ha-xeder.
I.swept ACC the-crumbs from-the-room.
'I swept the crumbs from the room.'
c. ∗Satu et ha-kumkum yaveS/?ad yoveS.
they.drank ACC the kettle dry/to dryness

3 An Account of Possible Verb Meanings

In Rappaport Hovav and Levin (1995, to appear), we present an explicit theory of the derivation of verb meanings and their associated argument realizations. Using this theory as a starting point, we provide a nonuniform account of the derivation of the two types of accomplishments which captures both the similarities and the differences between them. In this section we summarize the major components of this theory. The following sections present our account.

This theory takes as its starting point a distinction between two aspects of a verb's meaning which is made either implicitly or explicitly by many researchers in lexical semantics (Grimshaw 1993; Hale and Keyser 1993; Jackendoff 1990, 1996; Rappaport Hovav and Levin 1995, to appear; Pinker 1989; among others). We term these the "structural" and the "idiosyncratic". The structural aspects of verb meaning are the grammatically-relevant aspects; they define the semantic classes of verbs whose members share syntactically- and morphologically-salient properties. Thus, they determine argument expression. The structural components of meaning turn out to be those that define the various ontological types of

events. In contrast, the idiosyncratic facet of verb meaning serves to differentiate a verb from other verbs sharing the same structural aspects of meaning; that is, it distinguishes between the members of semantic classes of verbs. The idiosyncratic component is not relevant to the verb's grammatical behavior. For convenience, we henceforth refer to the idiosyncratic element of meaning as the "constant," following its typical treatment in lexical semantic representations that take the form of a predicate decomposition.

Reflecting the existence of the two distinct components of verb meaning, our theory recognizes two types of building blocks of verb meaning. First, there is a basic stock of lexical semantic templates. As stated above these define the inventory of possible events, which following others (e.g., Foley and Van Valin 1984; Van Valin 1990, 1993; Pustejovsky 1991, 1995), we define in terms of aspectual verb types in the Vendler (1957)-Dowty (1979) sense. For this reason, we refer to these as lexical event structure templates.

[x $\text{ACT}_{<MANNER>}$ (y)]	(activity)
[x $<STATE>$]	(state)
[BECOME [x $<STATE>$]]	(achievement)
[[x $\text{ACT}_{<MANNER>}$] CAUSE [BECOME [y $<STATE>$]]]	(accomplishment)
[x CAUSE [BECOME [y $<STATE>$]]]	(accomplishment)

(From Rappaport Hovav and Levin to appear)

Second, there is an open-ended set of constants encoding "core" verb meanings, as described above. Each constant is associated with an ontological categorization, chosen from a fixed set of ontological types (e.g., state, thing, location, manner, ...), and with a name (i.e., a phonological string). The constant determines the minimal number of arguments of the associated event (see also Goldberg 1995; Van Hout 1996). The ontological category of the constant determines its basic association with a lexical event structure template; such associations are specified via a set of canonical realization rules. We consider the pairings of constants and lexical event structure templates effected by the canonical realization rules to constitute a basic verb meaning; the "name" associated with a particular verb meaning is contributed by the constant (Rappaport Hovav and Levin in press). Since the constant specifies what is idiosyncratic to a particular verb—i.e., its "core" meaning—we will say that the verb lexicalizes the constant. To take an example, the verb *rub* lexicalizes a constant which specifies a certain manner of surface contact involving motion; due to the nature of this type of surface contact, this verb is associated with two arguments, the actor and the surface, and is basically associated with an activity lexical event structure.

Extended verb meanings are built in a monotonic fashion, by a process of template augmentation, whereby existing templates may be augmented up to other possible templates. Stated differently, template augmentation must create meanings that are consistent with the inventory of lexical event structure templates. The well-formedness conditions constraining the association of lexical event structure templates—whether basic or derived via template augmentation—with syntactic structures presented in Rappaport Hovav and Levin (to appear) are set out below; for further discussion see Rappaport Hovav and Levin (to appear).

(12) **Subevent Identification:** Each subevent in the event structure template must be identified by a predicate in the syntax.

(13) **Argument Realization:**

a. There must be at least one argument XP in the syntax per subevent in the event structure template.

b. Each argument XP in the syntax must be associated with an identified subevent in the event structure template.

To show how the theory works, we briefly review a case study presented in Rappaport Hovav and Levin (to appear) which compares two verb classes: verbs of surface contact and motion (e.g., *wipe*, *rub*), which are basically two-argument activity verbs, and externally-caused change of state verbs (e.g., *break*, *dry*), which are basically two-argument accomplishment verbs. These two types of verbs differ in terms of the options for argument expression they have available, with the verbs of surface contact showing considerably more options for argument expression than the change of state verbs. From the perspective of this paper, what is of particular interest is that although verbs of surface contact may be followed by NPs that are not their "normal" objects (see section 1), this option is unavailable to externally caused change of state verbs.

We trace the differences in the behavior of the two types of verbs to a difference in their lexical event structures. An externally caused change of state verb is basically associated with an accomplishment event structure—a complex event structure consisting of activity and change of state subevents.

(14) [[x ACT] CAUSE [BECOME [y <*STATE*>]]]

Such an event structure is the most complex structure available in the inventory of lexical event structure templates and cannot be further agumented via template augmentation. In contrast, verbs of surface contact such as *wipe* have a basic association with an activity lexical event structure, which includes only a single subevent.

(15) [x ACT$_{<MANNER>}$ y]

Activity event structures can be augmented via template augmentation to give the more complex accomplishment template if there is an additional predicate to identify the additional subevent included in this template; only in this way can the well-formedness conditions, particularly (12), on the associations between event structure and syntactic structure be met. As we elaborate in sections 4 and 5, English has a variety of predicates that serve this function, giving rise, for example, to argument expressions and meanings such as the removing sense of *wipe* in *Terry wiped the crumbs off the table* or the putting sense in *Terry wiped the crumbs into her hand*. Comparable options are unavailable to *break*: since the state in the change of state subevent is specified by the constant associated with this verb, there is no way to vary the result of the action. Thus, *break* does not show the range of meanings that *wipe* does.

This account also explains previously observed differences in the range of direct objects available to the two types of verbs (Dowty 1991; Fillmore 1967, 1977) and differences in their behavior with respect to unspecified objects. In fact, this account is able to capture the

generalization mentioned above that verbs which allow postverbal NPs that do not correspond to the "normal" direct object are always basically activities and not accomplishments. A verb that is basically an accomplishment, such as *break*, has a complex event structure template with two subevents, as in (14). Therefore, by the well-formedness condition (13a), such verbs must have two arguments, and specifically, these arguments must be the actor of the activity subevent and the patient of the change of state subevent. Consequently, these verbs do not allow unspecified objects, as shown in (16), nor do they allow objects other than the "normal" object, as shown in (17).

(16) $*$ Kelly broke again tonight when she did the dishes.

(17) Kelly broke the stick against the fence.
(cannot mean *Kelly broke the fence*; compare *Kelly hit the stick against the fence*)

In contrast, activity verbs in their basic use have only a single subevent in their lexical event structure template, so that if, given the constant they lexicalize, they do take two arguments, they can leave one unexpressed since well-formedness condition (13a) only requires one argument per subevent. (Of course, semantic conditions on the unexpressed argument must be met; see Rappaport Hovav and Levin to appear for discussion.) Thus, the verb *sweep* lexicalizes a constant associated with a sweeper and a surface, but this verb can be used intransitively as in *Terry swept*. If the basic activity event structure template is augmented via template augmentation to give the template in (18), then a second argument will need to be expressed, but this argument must be the argument of the added change of state or location.

(18) [[x ACT y] CAUSE [BECOME [z <*STATE*>]]]

In particular, the second argument associated with the activity subevent need not be expressed even when a second argument needs to be expressed. Thus, these verbs will show flexibility as to their objects, allowing objects that are not their "normal" objects. However, the unacceptability of a sentence such as $*$*Terry wiped the crumbs* on the interpretation comparable to the acceptable *Terry wiped the crumbs off the table* shows that these nonstandard objects are licensed by the result phrase rather than by the verb itself.

We now consider the two types of derived accomplishments under discussion in the context of this theory of verb meaning and argument expression. We begin in the next section with examples of the type in (2); we turn to examples of the type in (1) in the following section.

4 An Analysis of Lexically-derived Accomplishments

In section 2, we presented extensive evidence that the examples in (2) represent a distinct phenomenon from those in (1). In this section we show how the evidence supports an analysis of (2) as accomplishments lexically derived via template augmentation from activities, where a single verb has two distinct but related lexical event structures and hence two distinct lexical entries. The association of the same verb name with two related lexical semantic representations arises because the constants associated with verbs are prototype concepts

and can be associated with a number of distinct but related events in constrained ways which we elucidate.

A verb in a particular use is a "constant" associated with a particular event structure template. Since the constants are prototype or cluster concepts (Austin 1940; Goldberg 1995; Lakoff 1987; Rosch 1973; Wittgenstein 1953), the same constant can be associated with a range of event types, as long as they are "similar enough". Part of the task of developing an explicit theory of possible verb meanings is articulating exactly what "similar enough" means. We propose that when one lexical event structure is created from a second by the process of template augmentation, sharing the same constant, they can both have the same name. In the case of the verbs of surface contact, we assume that the pure surface contact meaning is the basic meaning and the removal or putting meaning, which is characteristic of the accomplishments in (2), is derived by template augmentation, as suggested in the previous section. We assume that this process is lexical since it gives rise to two distinct, but related lexical entries associated with the same verb name, where both lexical semantic representations meet the requirements of basic lexical entries.

One verb name can be associated with two related lexical semantic representations with the same constant if the derived verb meets certain semantic and syntactic constraints which we set out below.

First, the material added by template augmentation must be appropriately identified in the syntax; that is, it must meet the well-formedness conditions, (12) and (13). Second, the added material must be compatible with the constant that the verb lexicalizes. Specifically, it must be construable as part of a prototypical event of the type named by the verb. We assume that any result which is a typically intended result of an activity can be construed as part of a prototypical event with the name of that activity. (See Kiparsky (in press) for discussion of a similar constraint on the interpretation of English denominal verbs.) Consider the verb *rub*. An event of rubbing typically involves the intention of application of stuff to a surface, in addition to the motion of something over a surface. This licenses the addition of the second subevent in (18).[1]

Third, the augmented event structure must be that of a possible lexical item. Specifically, we agree with Kiparsky (in press: (5b)) that "Simple predicates refer to single events (and consequently, simple causatives refer to direct causation)". Thus, if the resulting lexical event structure is a causative structure, it must be construable as a single unitary core event, i.e. it must be able to be interpreted as direct causation. (See section 6 below for further discussion of the nature of direct causation.)

These constraints explain the restricted range of result phrases which can appear in the lexically-derived accomplishments. In the case of the class of verbs under discussion, verbs of surface contact, the removal of a substance from a surface (or the application of a substance to a surface) can be conceived of as directly caused by the action of the surface contact and as part of a prototypical event of surface contact. Moreover, the reason the added subevent

[1]An event of rubbing can also involve the removal of a substance from a surface, as in *Lucy rubbed the markings off the furniture*, giving rise to a second, removal meaning. As we note in Levin and Rappaport Hovav (1991), specific verbs of surface contact differ as to whether or not they have both putting and removing meanings available; this depends on whether the manner lexicalized in the verbs can be used for one or both purposes in the real world. Thus, verbs like *rub* and *wipe* show both options. When the manner can be used only to remove a substance or only to apply it, then only one option is available. For example, the verb *vacuum* can only have the removal extended sense and not the putting extended sense (*Andrea vacuumed the sand off the floor*/**Andrea vacuumed the sand into the corner*).

contains the "normal" direct object (even if it does receive a different syntactic expression) is that it is in just such instances that the "result" can be seen as directly caused and part of a prototypical event of the appropriate sort.

On our analysis lexically-derived accomplishments are NOT derived from the unspecified object form of the activity. Therefore, the existence of lexically-derived accomplishment uses of verbs like *rub*, which do not normally allow unspecified object deletion, does not pose a problem.

Furthermore, given our analysis it is not surprising that the objects of lexically-derived accomplishments can easily become the subjects of corresponding middles. We assume, following Condoravdi (1989), that the middle has a generic interpretation where it predicates an inherent characteristic property of the subject of the middle which determines the progress of the event denoted by the verb. The direct objects in the examples in (2) are appropriate as such derived subjects, since they denote participants which undergo the change of location denoted by the verbs, and thus, their inherent properties can determine the progress of the event.

Finally, as mentioned, we expect to find verbs showing activity and lexically-derived accomplishment uses in all languages since the availability of both uses of a single verb is inherent in the nature of verb meaning. Languages may differ as to the number of verbs of this type they may have, but those verbs of this type that are included in a language's verb inventory would be expected to show activity and lexically-derived accomplishment uses.

5 An Analysis of Syntactically-derived Accomplishments

We propose that the accomplishments in (1) do NOT involve the creation of a second, accomplishment lexical entry from an activity one. Rather, we propose they are derived via a syntactic process of complex V^0 formation involving an activity verb and the result phrase. That is, a complex predicate is formed from a verb and either an AP or PP, possibly, along the lines described in Neeleman (1993) and Neeleman and Weerman (1993). Although we describe this as a syntactic process of complex predicate formation, more research is necessary to determine whether this process is, in fact, syntactic or whether it is actually a lexical process that involves the composition of two argument structures. What is important for us is that this process does not involve the creation of a new accomplishment lexical entry for a verb that is basically associated with an activity lexical entry, and, therefore, certain constraints on lexically-derived accomplishments will not be expected to apply to syntactically-derived accomplishments.

As noted in section 1, there are many languages which lack syntactically-derived accomplishments. We attribute their absence to differences among languages in the rules of complex predicate formation they have available (if any). Only some languages have the rule deriving complex V^0s with PPs and APs. Other languages may have rules of complex predicate formation involving other syntactic categories; for example, it is possible that certain compound verbs of South Asian languages and the restructuring verbs of Romance languages represent V–V complex predicates (Butt in press). Still other languages may simply disallow complex predicates. In contrast, we have not found, and do not expect to find, a language lacking the lexically-derived accomplishments because the properties of verb meaning that give rise

to them are universal.

The same well-formedness conditions, (12) and (13), constrain the relation between event structure and syntax for both the syntactically-derived and lexically-derived accomplishments. The shared constraints account for the generalization that both are built on verbs which are basically activities and not on verbs which are basically accomplishments. As discussed in section 3, only verbs whose basic association is with an activity event structure template allow the postverbal NP not to correspond to the normal direct object. Verbs whose basic association is with an accomplishment template must have two arguments since the template has two subevents, and there must be distinct arguments in the syntax to identify each of the subevents.

However, since syntactically-derived accomplishments do not involve the creation of a new basic lexical entry, they need not be construed as unitary core events, nor do they have to denote events of direct causation. Thus, *bark awake* is clearly not a possible simplex lexical item.

Furthermore, the added material in a syntactically-derived accomplishment need not be part of a prototypical event named by the base verb. For example, a prototypical event of barking is simply a sound emission event; it does not include any participants beyond the barker, and specifically need not include anyone awoken by the barking (cf. (1a) above), nor does barking have the typical intention of waking someone associated with it.

The absence of this constraint also explains why the postverbal NPs in (1) do not easily become the subjects of corresponding middles. Since these are not prototypical participants in the event denoted by the verb, there is no reason that any inherent property of theirs needs to determine the progress of such an event. For example, since *the neighbor* in (1a) is not a basic participant in an event of barking, no characteristic of a neighbor need determine the progress of the event of barking. If, as Goldberg (1995) claims, some middles based on syntactically-derived accomplishments are indeed acceptable, we would predict that it is because in these instances there is a closer potential connection between the postverbal NP and the event denoted by the verb.

6 Should Event Structure Be Read off of the Syntax?

We now consider the broader implications of the two types of derived accomplishments for the question of whether event structure should receive a purely syntactic encoding, as recently proposed by a number of researchers (e.g., Borer 1994, in press; Hoekstra 1992; Ritter and Rosen to appear; among others). The existence of the two distinct types of accomplishments is not easily captured in a framework in which event structure is directly read off of the syntax: there is no obvious way to distinguish between a result phrase added lexically and a syntactically-added one since they both receive the same syntactic encoding. Furthermore, we will argue that an effort to support the syntactic encoding of event structure by reducing a constraint on possible verb meanings to a syntactic constraint fails. Not only is the coverage of the syntactic constraint empirically inadequate, but a natural constraint on event structure can serve the same purposes as the syntactic constraint, rendering at least this syntactic constraint superfluous. (See Kiparsky (in press) for another argument to this effect based on the nature of English denominal verbs.)

Hoekstra (1992) uses the resultative construction to illustrate how the number, type, and projection of arguments associated with a verb depends on the event type of the sentence and not the verb's meaning. On his account, event structure is encoded—or read off of—the syntax. The accomplishment interpretation of a resultative construction, for example, is derived from a syntactic configuration in which an activity verb has a result small clause sister. Hoekstra supports this view of event structure by claiming that certain constraints on the range of meanings that verbs may acquire can be reduced to well-known syntactic constraints. (See Hale and Keyser (1993, in press) for arguments along similar lines intended to handle different phenomena.) Consider the observation that verbs do not usually appear with more than one "telicizing" phrase (Goldberg 1995; Levin and Rappaport Hovav 1995; Tenny 1987), as illustrated in (19).

(19) $*$ The kids ran the soles off their shoes to the park.

Hoekstra assumes that a VP is telic if it includes a small clause in which an XP predicates a result state of an NP, even in the absence of an overt XP, as in *Kim broke the vase*, where H assumes that there is an abstract result XP predicated of the thing broken; for this reason (20) is ruled out by the restriction against two telicizing phrases.

(20) $*$ Kim broke the dishes off the table.
(meaning: Kim broke the dishes and as a result they went off the table; cf. *Kim squeezed the ball through the crack*)

Hoekstra proposes that the restriction against two telicizing phrases reduces to a syntactic restriction against two small clause complements for a single verb. Hoekstra also attributes the ungrammaticality of resultatives such as (21) to the same constraint, providing additional support for it.

(21) $*$ The psychopath killed the village into a ghosttown.
(Hoekstra 1992: 161, (40f))

This sentence, which involves an obligatory transitive verb with a postverbal NP that is not its normal object, would otherwise be problematic for Hoekstra's small clause account, which allows verbs to freely take small clause complements. The reason this sentence is ruled out according to Hoekstra is that since *kill* is an accomplishment it takes a small clause complement that predicates the result state of its normal object; the resultative small clause would then be a second small clause complement.

A more comprehensive look at the distribution of telicizing phrases reveals that the constraint against two such phrases DOES hold of syntactically-derived accomplishments, which do not allow two overt telicizing phrases, but does not necessarily hold of lexical accomplishments, whether basic or derived. To see this, consider the following examples, which we take to involve lexical accomplishments; as discussed in Levin and Rappaport Hovav (1995), such examples are at least on the surface problematic for the constraint against two telicizing phrases.

(22) a. The cook cracked the eggs into the glass.
b. Terry sliced the mushrooms into the bowl.
c. They emptied the tank into the sink.

Goldberg (1995) notes that each of these sentences involves a change of state which is typically accompanied by a change of location. Specifically, an accomplishment verb is followed by a PP denoting a change of location attained by the theme simultaneously with the change of state denoted by the verb. It appears that this is allowed only if the change of location is a typically intended result of the change of state (cf. (20)). Since each change is encoded by a small clause on Hoekstra's account, such sentences violate Hoekstra's restriction against two small clauses and are ruled out, contrary to fact.

We offer an alternative account in which a natural constraint on event structure precludes the illicit cases with two telicizing phrases in (19) and (20), while allowing the erstwhile problematic cases in (22). Recall that on our account, the basic constraint on a lexically-derived accomplishment is that it denote a unitary core event, i.e., one of direct causation. Croft (1991:262) describes the "idealized cognitive model" of a simple event—an event that can be lexicalized as a verb; one of the defining properties of such events is that they involve nonbranching causal chains. We propose that it is this property that is at the root of the observed constraint against two telicizing phrases. In most instances the two results that two telicizing phrases represent instantiate a branching causal chain since there is no necessary connection between them. The examples in (22) are the exception, as in these the usual intention is to bring the two results about simultaneously, suggesting that there is only a single causal chain despite the two results. Thus, the nonbranching causal chain property which Croft attributes to simple events can be seen as a constraint on event structure which limits the complexity of a unitary event of direct causation. This constraint both renders Hoekstra's syntactic constraint superfluous and provides insight into the restriction on two telicizing phrases. Furthermore, we noted that the violations of the constraint against two telicizing phrases involve lexically-derived accomplishments; the reason on our account is that the constraint itself has its source in the nature of what constitutes a simple event. On the other hand, syntactically-derived accomplishments are subject to true syntactic constraints. Whether these accomplishments involve small clauses or complex predicate formation, two result phrases cannot be accommodated either because of the constraint against two small clauses or because of constraints on the number of arguments associated with a complex predicate.

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