There and Back Again: A Semantic Analysis

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Abstract

This paper presents a cross-linguistic survey of the interpretations that decomposition adverbs like *again* permit. The survey distinguishes two different types of predicates that are combined with *again*: lexical accomplishments like 'open the door', on the one hand, and combinations of a motion verb with a directional Prepositional Phrase (PP) on the other (for example, 'walk to the summit'). There is systematic cross-linguistic variation with the latter type of predicate: a language only permits a restitutive reading of *again* with such a predicate if the language has resultative constructions. I argue that in these languages the PP can function as a result phrase. In languages without resultatives, the PP cannot be a result phrase, and a restitutive reading is impossible. The data support an analysis of restitutive *again* that is sensitive to the presence of a result phrase in the syntax.

1 INTRODUCTION

Sentences like (1) are known to be ambiguous—the two readings possible for (1) are paraphrased in (1′).

(1) Bilbo opened the door again.

(1′) a. Bilbo opened the door, and that had happened before. **(repetitive)**

b. Bilbo opened the door, and the door had been open before. **(restitutive)**

Analyses of the ambiguity of (1) have alternatively been structural (the ambiguity arises because two different syntactic structures are possible for (1): McCawley 1968; Stechow 1995, 1996, among others), or lexical (the ambiguity arises because *again* has two different meanings: see, for example, Fabricius-Hansen 1983, 2001; Kamp & Rossdeutscher 1994).

In this paper, the availability of restitutive readings is tested across languages. An important aspect of the cross-linguistic survey is that I test two different types of predicates. One type is illustrated by (1) above: lexical accomplishment predicates. Another type of predicate is the combination of an activity verb with a directional PP, which I call a goal PP construction (following Beck & Snyder 2001a,b). An example is given in (2a).

(2) a. Bilbo walked to the hall.
b. Bilbo walked to the hall in ten minutes.

It has been observed (in particular by Aske 1989) that there is cross-linguistic semantic variation with this type of predicate. In English, *walk to the hall* behaves like an accomplishment predicate, as modifiability with a temporal delimiter in (2b) shows. On the other hand, this is impossible for example in Spanish:

(3) Bilbo anduvo hasta la caverna (*en diez minutos).
Bilbo walked up-to the hall (in ten minutes)

In English, the combination of a goal PP construction with *again* permits a restitutive reading (cf. (4)). This is not the case in Spanish and in many other languages. It turns out that there is systematic cross-linguistic variation in this respect. Generalization (**G**) summarizes the most important empirical result.

(4) Bilbo walked to the hall again.

(4′) a. Bilbo walked to the hall, and he had done that before. (**repetitive**)
b. Bilbo walked to the hall, and he had been there before. (**restitutive**)

(**G**) Sentences like (4), in which a goal PP construction is combined with *again*, are ambiguous between repetitive (4′a) and restitutive (4′b) in a language only if that language permits resultative constructions like (5). If a language does not permit resultatives, then the analogue of (4) only has the repetitive reading (4′a).

(5) Thorin hammered the metal flat.

Restitutive readings with lexical accomplishment predicates do not follow the same cross-linguistic pattern. They are available in languages that do not permit restitutive readings with goal PP constructions. We will see that these results have consequences for the semantic analysis of goal PP constructions on the one hand, and for the analysis of *again* on the other. More specifically, I propose that there is parametric variation in the semantics of goal PP constructions, to the effect that they express accomplishments in languages that have resultatives, but non-accomplishment change of state predicates in languages that do not have resultatives. Moreover, I argue that our cross-linguistic findings support a theory of *again* according to which the repetitive/restitutive ambiguity is structural.

The structure of the paper is as follows. In section 2, I present the two competing analyses of *again* (structural and lexcial). In section 3, I introduce our test case, goal PP constructions, and show that there is systematic cross-linguistic variation in their interpretation, correlated with the availbility of resultative constructions. Section 4 presents the cross-linguistic data on restitutive *again*. I provide an analysis of those data in section 5, and explain why they favour the structural ambiguity analsysis. Section 6 concludes the paper.

2 ANALYSES OF RESTITUTIVE *AGAIN*

This section introduces representatives of the two types of analysis of the repetitive/restitutive ambiguity. One kind of analysis views the ambiguity as purely structural. In these analyses the meaning of *again* is constant. Modern representatives are Stechow (1995, 1996) and Rapp & Stechow (1999); they are anticipated in Generative Semantics (McCawley 1968). Alternatively, *again* has been analysed to be ambiguous between a repetitive reading and a 'restitutive' reading (e.g. Fabricius-Hansen 1983, 1995, 2001; Kamp & Rossdeutscher 1994; Jäger & Blutner 2000) (Dowty's 1979 analysis in the framework of Montague Grammar shares aspects of both; see Stechow 1995, 1996 for discussion of Dowty's proposal). I take Stechow (1995, 1996) and Fabricius-Hansen (1995, 2001) to be appropriate representatives of the two main theoretical approaches in this ongoing debate. They will be discussed in turn. The two types of analysis lead to different expectations regarding the prerequisites for availability of a restitutive reading. We will work out these differences to make use of later, for the analysis of our cross-linguistic data.

2.1 *A structural analysis (Stechow 1995, 1996)*

This subsection introduces Stechow's (1995, 1996) analysis of the repetitive/restitutive ambiguity, which is the analysis we will eventually adopt and support. I first discuss Stechow's analysis for syntactically complex predicates[1] like resultatives, which is where it receives its intuitive support from (section 2.1.1.). Section 2.1.2. extends the analysis to lexical accomplishment predicates like *open* in (1). In section

[1] I use the term 'complex predicate' for predicates that consist of more than one predicative expression. For the time being, these are resultative constructions. My intention is to use the term in the sense of Snyder (2001)—see section 3. The reader will note that we follow Stechow (1995) in assuming structures with a small clause for resultatives. There has been considerable debate in the syntactic literature as to whether a small clause analysis (e.g. Stowell 1983; den Dikken 1995) or a complex predicate analysis (e.g. Larson 1988) is more appropriate. I do not attempt to contribute to this debate and assume Stechow's small clause analysis for semantic convenience.

2.1.3. I report findings by Rapp & Stechow (1999) that indicate that a lexical parameter for the adverb is involved in determining availability of restitutive readings.

2.1.*1* *Complex predicates.* The basic idea behind the structural analysis of the repetitive/restitutive ambiguity is that *again* always indicates repetition. What varies is just what is repeated: the whole event described, or just its result state. Example (6) with a resultative construction provides a good illustration of this approach. It can mean either (6′a) or (6′b). What is repeated in (6′a) is the whole event of Sally hammering the metal flat; in (6′b), just the result state of the metal being flat is repeated.

(6) Sally hammered the metal flat again.

(6′) a. Sally hammered the metal flat, and that had happened before. **(repetitive)**

b. Sally hammered the metal flat, and the metal had been flat before. **(restitutive)**

Before we can explain this ambiguity, we need to develop a semantic analysis of resultatives. We will follow Stechow (1995), who suggests that a special interpretation priniciple is at work that combines the result phrase (the Adjective Phrase (AP) *flat*) with the verb (here: *hammer*), by introducing a causal element into the interpretation. We should note that the same basic intuition, that the causal component in this construction is not the meaning of any lexical item in the construction, and that this component is what permits us to combine the verb with the result phrase, has been expressed prior to Stechow in different theoretical frameworks (see, in particular, Goldberg 1995; Jackendoff 1990; Levin & Rappaport Hovav 1995). I concretely report and use Stechow's analysis, which relies on the same theoretical background as this paper. Stechow (1995) proposes that (7a) has the Logic Form (LF) in (7b). The verb *hammer* combines first with a small clause and then with an object Noun Phrase (NP). The object NP 'the metal' raises to semantically bind the empty pronominal (PRO) subject of the small clause.[2]

(7) a. Sally hammered the metal flat.

b. [[the metal] [1[$_{VP}$ Sally [$_{V'}$ t1 [$_{V'}$ hammered [$_{SC}$ PRO1 flat]]]]]

[2] Logical Forms are presented in the notation of Heim & Kratzer (1998). The only unusual aspect of these LFs is the adjunction of an index (1 in the example) to the sister of the moved phrase. This is interpreted as predicate abstraction, semantically binding all variables with that index (in the example, t1 and PRO1).

The LF in (7b) is not interpretable by standard mechanisms of composition. The transitive verb *hammer* looks for an argument of type ⟨e⟩, and finds instead a propositional category (the small clause). Stechow proposes that a special principle of interpretation is responsible for the combination of the verb and the small clause. A variant of his principle is given in (8). I have made some formal changes in the principle which come from my use of a Davidsonian event semantics (Davidson (1967)); I use ⟨i⟩ as the semantic type of events and I will call properties of events, ⟨i, t⟩, propositions. The basic intuition behind the principle is the same as Stechow's: the resultative is true iff an event of the kind denoted by the verb causes a becoming of the small clause proposition. Thus the principle combines the verb with the small clause by inserting a CAUSE BECOME component that glues them together.[3]

(8) Principle (R) (Stechow (1995)):
If $\alpha = [_V \gamma\ _{SC} \beta]$ and β' is of type ⟨i, t⟩ and γ' is of type ⟨e, . . . ⟨e, ⟨i, t⟩⟩⟩ (an n-place predicate), then
$\alpha' = \lambda x1 \ldots \lambda xn \lambda e.\gamma'_e(x1) \ldots (xn) \ \&\ \exists e'[\text{BECOME}_{e'}(\beta') \ \&\ \text{CAUSE}(e')(e)]$

I follow Stechow (1995, 1996) in assuming the standard semantics for CAUSE from Lewis (1973) and from Dowty (1979) for BECOME—informal versions adapted to our framework are given in (9) and (10) (see Lewis, Dowty and Stechow for discussion and more precise definitions).

(9) [[BECOME]] (P)(e) = 1 iff e is the smallest event such that P is not true of the prestate of e but P is true of the result state of e

(10) [[CAUSE]] (e′)(e) = 1 iff e′ occurred, e occurred and if e hadn't occurred then e' wouldn't have occurred

Let's apply the principle to our example structure in (7b); the relevant substructure is (11). The result of applying principle (R) is a two-place predicate, which will be true of two individuals and an event iff the event is a hammering of the first individual by the second and there is another event which is a becoming flat of x1 (the subject of the small clause) caused by the first event. The interpretation of the whole structure in (7b)

[3] I represent the meanings of natural language expressions as translations into a standard λ-categorial language. The implicit event argument of predicates will often be written as a subscript for readability. When our formal language contains non-standard expressions (like CAUSE and BECOME), a meaning for those will be provided.

will add binding of the PRO subject of the small clause and filling of the individual argument slots by the usual interpretation mechanisms.

(11) $[_{V'}$ hammered $[_{SC}$PRO1 flat]] →
$\lambda x \lambda y \lambda e.\text{hammer}_e(x)(y)$ & $\exists e'[\text{BECOME}_{e'}(\lambda e''.\text{flat}_{e''}(x1))$ & $\text{CAUSE}(e')(e)]$

(12) [[the metal] $[1[_{VP}$ Sally $[_{V'}$ t1 $[_{V'}$ hammered $[_{SC}$PRO1 flat]]]]] →
$\lambda e.\text{hammer}_e(\text{the\_metal})(S)$ & $\exists e'[\text{BECOME}_{e'}(\lambda e''.\text{flat}_{e''}(\text{the\_metal}))$ & $\text{CAUSE}(e')(e)]$

(12′) Sally's hammering the metal caused it to become flat.

Thus the resultative will be true of an event e iff e is an event of Sally hammering the metal which causes another event that is the metal becoming flat. This is an intuitively appropriate description of the semantics of the resultative construction. Note that the principle adds a CAUSE BECOME component to the semantics; according to Dowty (1979) this is what characterizes accomplishments predicates. I generally use the terms 'activity' and 'accomplishment' in the sense of Vendler (1967) and Dowty (1979)—see Dowty for various criteria for these aspectual categories of predicates. Principle (R) thus turns the event type denoted by the verb in the construction into an accomplishment predicate when the result phrase is added.

Stechow (1995), conjectures that this interpretation principle may be available in some languages, but not others. This could account for the variation in the acceptability of resultatives across languages. I will come back to this point in section 3 when we talk about cross-linguistic variation in the availability of resultative constructions.[4,5]

Before we return to the repetitive/restitutive ambiguity, a comment on the notion of causation. Lewis (1973) distinguishes between

[4] Note that principle (R) cannot be freely available as an interpretation principle throughout the grammar, even in those languages that by assumption have it. (i) below, for example, cannot have a resultative meaning of the kind described. I hypothesize that application of principle (R) is limited to 'morphological' domains within syntax, as the tie to compounding, found by Snyder (2001) and reported in section 3, suggests. In this case, the node dominating hammer and the Small Clause in (7b) would more appropriately labeled V^0.

(i) a. Otto snored that his roomate left.
b. Otto's snoring caused his roomate to leave.

[5] An anonymous reviewer observes that under this analysis, one might expect that (ia) be able to mean (ib). I concur that this is a caveat of this analysis of resultatives, as it stands. It is noted in Beck & Johnson (2004) that there is no good theory of the distribution of empty pronominal elements in such constructions. I can only reiterate the need for such a theory here.

(i) a. Peter drank [PRO under the table].
b. Peter drank himself under the table.

immediate causation and causal explanation (where we say that ϕ caused φ if there is a series of causal connections leading from ϕ to φ). It is important to note that our data require an interpretation of CAUSE as immediate causation. For example, (7a), would not be true if Sally's hammering so startled the elephant Benjamin that he sat down unexpectedly, thereby flattening the metal. Thus CAUSE cannot be interpreted as causal explanation. This holds quite generally for resultatives (as noted recently for example by Bittner (1999)). This aspect of the interpretation of resultatives is lost in our paraphrases (since the English verb *cause* does permit an interpretation as causal explanation), but must be taken to constrain this application of principle (R) as well as all subsequent cases interpreted with its help.

The above analysis of resultatives allows us to capture both readings of (6) straightforwardly. The resultative LF in (7b) contains two propositional categories that could be modified by *again*: the entire VP or just the small clause 'PRO flat'. The two LFs are given in (13). Using principle (R) these structures can straightforwardly be interpreted as (14) and (15) respectively ('t_m' stands for the referent of 'the metal').

(13) a. [$_{VP}$ [the metal] [1**[$_{VP}$** [$_{VP}$ Sally [$_{V'}$ t1 [$_{V'}$ hammered [$_{SC}$PRO1 flat]]] again]]]

b. [$_{VP}$ [the metal] [1[$_{VP}$ Sally [$_{V'}$ t1 [$_{V'}$ hammered **[$_{SC}$** [$_{SC}$PRO1 flat] again]]]]]

(14) $\lambda e''.\text{again}_{e''}(\lambda e.\text{hammer}_e(\text{t\_m})(\text{S}) \;\&\; \exists e'[\text{BECOME}_{e'}(\lambda e^{\star}.\text{flat}_{e^{\star}}(\text{t\_m})) \;\&\; \text{CAUSE}(e')(e)])$

(14′) Once more, Sally's hammering the metal caused it to become flat.

(15) $\lambda e.\text{hammer}_e(\text{t\_m})(\text{S}) \;\&\; \exists e'[\text{BECOME}_{e'}(\lambda e''.\text{again}_{e''}(\lambda e^{\star}.\text{flat}_{e^{\star}}(\text{t\_m})) \;\&\; \text{CAUSE}(e')(e)])$

(15′) Sally's hammering the metal caused it to become once more flat.

I assume that *again* makes (roughly) the semantic contribution in (16). It denotes a relation between a predicate of events and an event. It presupposes that there was a preceding event of which the predicate is true; it asserts that the predicate is true of the event (see Stechow 1995, 1996; Fabricius-Hansen 2001; Klein 2001 and references in these papers for discussion and further considerations; the semantics in (16) will serve for our purposes).

(16) $[[\text{again}]](P_{\langle i,\, t\rangle})(e) = 1$ iff $P(e) \;\&\; \exists e'[e' < e \;\&\; P(e')]$
$= 0$ iff $\sim P(e) \;\&\; \exists e'[e' < e \;\&\; P(e')]$
undefined otherwise.

2.1.2 *Lexical accomplishments.* Interestingly, a repetitive/restitutive ambiguity is also possible with predicates that do not provide us with a result state in such an obvious fashion. An example is (17).

(17) Sally opened the door again.

(17′) a. Sally opened the door, and that had happened before.
b. Sally opened the door, and the door had been open before.

The lexical accomplishment predicate *open* allows a restitutive reading, even though there seems to be no phrase in the syntax that would independently express a result state and that could be modified by *again*. Stechow proposes a solution to this problem in terms of decomposition (resurrecting ideas from generative semantics). Thus the transitive verb *open* comes apart into the adjective *open* and a CAUSE BECOME component. Importantly, Stechow assumes that this decomposition is reflected in the syntax. (18a) underlyingly has the structure in (18c), where *open* is decomposed into a phonologically empty verbal head and the adjective *open*. In overt syntax the adjective incorporates into the verbal head and appears as the transitive verb *open* (cf. (18d)).

(18) a. Sally opened the door.
b. $\text{open}_{TV} = \text{open}_{Adj}$ + BECOME + CAUSE
c. $[_{VP}$ Sally $[\emptyset_V\ [_{SC}\ \text{open}_{Adj}$ [the door]]]]
d. $[_{VP}$ Sally $[[\emptyset + \text{open}_{Adj}]_V\ [_{SC}$ t [the door]]]]

The verb, while phonologically empty, is semantically non-vacuous: it contributes the CAUSE BECOME component. Its semantics is given in (19). Thus the structure in (18c) is interpreted in (20a) and the sentence (18a) means (roughly paraphrased) (20b)—an intuitively appropriate description of its truth conditions. Note that the small clause expresses the result state of the opening event, the door being open.

(19) $[\emptyset_V] \rightarrow \lambda p \lambda x \lambda e.\exists P[P_e(x) \,\&\, \exists e'[\text{BECOME}_{e'}(p) \,\&\, \text{CAUSE}(e')(e)]$

(20) a. $\lambda e.\exists P[P_e(\text{Sally}) \,\&\, \exists e'[\text{BECOME}_{e'}(\lambda e^{\star}.\text{open}_{e^{\star}}(\text{the\_door})) \,\&\, \text{CAUSE}(e')(e)]]$
b. There was an action of Sally's that caused the door to become open.

Back to restitutive *again*: now of course there obviously are two appropriate adjunction sites for *again*: the whole VP or the small clause. Two possible LFs for (17) are given in (21). Compositional interpretation of these structures yields (22) and (23). Thus we derive the repetitive/restitutive ambiguity of (17).

(21) a. [VP [VP Sally [$\emptyset_V$ [SC $open_{Adj}$ [the door]]]] again]
b. [VP Sally [$\emptyset_V$ [SC [SC $open_{Adj}$ [the door]] again]]]

(22) a. $\lambda e''.again_{e''}(\lambda e.\exists P[P_e(S) \& \exists e'[BECOME_{e'}(\lambda e^{\star}.open_{e^{\star}}(t\_d)) \& CAUSE(e')(e)]])$
b. Once more, there was an action of Sally's that caused the door to become open.

(23) a. $\lambda e.\exists P[P_e(S) \& \exists e'[BECOME_{e'}(\lambda e''.again_{e''}(\lambda e^{\star}.open_{e^{\star}}(t\_d))) \& CAUSE(e')(e)])]$
b. There was an action of Sally's that caused the door to become once more open.

The structural ambiguity theory assumes only the repetitive lexical entry for *again* in (16) above. This implies that in the case of restitutive readings, *again* modfies a result state predicate, and syntactically adjoins to a constituent that expresses that result state. The attractive feature of this theory is that there is just one *again*: *again* expresses repetition. The rest follows the pattern of regular syntactic ambiguity. On the negative side, the theory forces us to assume that in the case of lexical accomplishments, lexical decomposition in the syntax provides the necessary result state denoting constituent. We will see that the competitor of this theory, to be discussed in section 2.2, avoids this consequence. But first, we have one more thing to say about adverbs like *again*.

2.1.*3* *Finding result states: A parameter.* It is worth pointing out that few adverbs have access to result states in the way that *again* does. Adverbs like *never* or *repeatedly* cannot have readings that parallel the restitutive reading of *again*:

(24) a. Gandalf never/repeatedly opened the door.
b. Gandalf did something that caused the door to come to be never/repeatedly open

(25) a. Gandalf painted the door red repeatedly.
b. Gandalf's painting the door caused it to come to be red repeatedly.

In (25), for example, imagine a paint that for a couple of weeks changes its colour according to the temperature. Even so, (25a) can only mean that Gandalf repeatedly applied paint. The adverb *repeatedly* cannot find the result state in a complex predicate or the result state in a decomposition structure. In fact, the only adverbs that I found in the literature reported as being able to do so are (translations of) *almost* and *again* (hence the term decomposition adverb used for them, e.g. in

Stechow 1995, 1996). Example (26) describes the relevant (result state modifying) reading for an example with *almost*. Interestingly, it seems to be a lexical property of a given adverb whether or not it has access to the result state in a decomposition structure. German *fast*, the equivalent to *almost*, does not, as observed by Rapp & Stechow (1999). A relevant example is given in (27)—the reading in which *fast* would modify the result state 'the door is closed' is indeed impossible.

(26) a. The dwarves almost closed the door.
b. The dwarves did something that caused the door to become almost closed.

(27) a. ... weil Ottilie die Tuer fast schloss.
since Ottilie the door almost closed
'since Ottilie almost closed the door.'
b. # Ottilie did something that caused the door to become almost closed.

There are also adverbs that are synonymous with *again* that still do not permit restitutive readings. An example noted by Rapp & Stechow (1999) is the German adverb *erneut* ('anew'),[6] which in contrast to the otherwise equivalent *wieder* does not permit a restitutive reading in (28).

(28) Maria hat die Tuer wieder geöffnet. (repetitive/restitutive)
Maria hat die Tuer erneut geöffnet. (repetitive/ *restitutive)
Maria has the door again opened
'Maria opened the door again.'

Rapp & Stechow conclude that it is a lexical property of a given adverb whether or not it can look inside a decomposition structure. They capture this with their Visibility Parameter[7] for adverbs (a D-adverb is a decomposition adverb; the formulation in (29) presupposes that the question of visibility arises only for a subset of adverbs in the first place).

[6] A similar effect seems to exist in Hebrew, where informants get a restitutive reading more easily with *me-xadaS* (lit.: anew) than with *od pa'am* (lit.: one more time) or *shuv*. In Serbian/Croatian, *ponovo* (lit.: anew) seems to allow a restitutive reading more easily than *opet*, at least for some speakers. In Spanish, on the other hand, both *otra vez* (lit.: one more time) and *de nuevo* (lit.: anew) seem to allow restitutive readings, and similarly for Kannada *thirga* and *punaha*. It does not seem possible to infer from the morphological make-up of the adverb whether behaves like a decomposition adverb.

[7] The term 'parameter' is their choice; it should be clear that this is not a Universal Grammar parameter in the usual sense that is set for the grammar of a language. This 'lexical parameter' is set in the lexicon for each adverb. Rapp & Stechow offer more empirical support for their proposal than I report here, specifically interaction of *fast* and tense in German.

(29) The Visibility Parameter for decomposition adverbs (Rapp & Stechow (1999)):
A D-adverb can/cannot attach to a phrase with a phonetically empty head.

Here is how visibility applies to (28): The AP that we get from decomposition is not accessible to *erneut* because it does not have a phonetically overt head. The boldface category in (30) is the only one visible to *erneut*. On the other hand, *wieder* can access both overt and phonetically empty result states, i.e. both the AP and the VP in (30). Compare Rapp & Stechow for more discussion.

(30) [Maria [$_{\mathbf{VP}}$ [Ø + open$_{\mathrm{Adj}}$]$_{\mathrm{V}}$ [$_{\mathrm{AP}}$ t [the door]]]

There is a complication to this picture: Rapp & Stechow are not concerned with complex predicates like resultatives, and in particular do not investigate the question how visible the result state of a complex predicate is compared to a result state expressed by a syntactically independent phrase on the one hand, and the result state in a decomposition structure on the other. It turns out that the distinction matters. The adverb *fast*, for example, is able to access result states expressed by the result phrase in a complex predicate construction, like the example in (31) with a resultative. This is not true of *erneut*. (32) provides a parallel example in which the restitutive reading is impossible. Thus, there is evidence that visibility decreases from ordinary syntactic phrases to complex predicate result states, and further to decomposition result states.[8]

(31) a. . . . weil Ottilie den Tisch fast sauber gewischt hat.
since Ottilie the table almost clean wiped has
'since Ottilie wiped the table almost clean.'
b. Ottilie's wiping the table caused the table to become almost clean.

(32) a. . . . weil Ottilie den Tisch erneut sauber gewischt hat.
since Ottilie the table again clean wiped has
'since Ottilie wiped the table clean again.'

[8] It is interesting that many of the most natural examples of restitutive *again* in English involve result states that are, to some extent, visible. Examples are given below (result states marked with *up* and *back*, respectively; both from: *The Hobbit*, or, *There and Back Again*, by J.R.R. Tolkien, Unwin Paperbacks, Fourth Edition, 1981, pages 97 and 233 respectively). Context makes it clear that the intended reading is restitutive. I have not investigated this further.

(i) ' "I must see if I can't find a more or less decent giant to block it up again," said Gandalf, "or soon there will be no getting over the mountains at all." '
(ii) 'Now if you wish, like the dwarves, to hear news of Smaug, you must go back again to the evening when he smashed the door and flew off in rage, two days before.'

b. # Ottilie's wiping the table caused the table to become once more clean.

I conclude that visibility comes in three stages: all adverbs can access full-fledged syntactic phrases; some adverbs can in addition find the result state in a complex predicate construction (*again, almost, fast, wieder*, but not *erneut*); a subset of those can even look inside a decomposition structure (*again, almost, wieder*, but neither *erneut* nor *fast*). I suggest to revise the visibility parameter as in (33). The setting of the parameter is marked in the lexical entry of an adverb. We will see below that visibility phenomena like the ones discussed here exist cross-linguistically.

(33) The visibility parameter for adverbs:
An adverb can modify
(i) only independent syntactic phrases
(ii) any phrase with a phonetically overt head
(iii) any phrase
The default setting is (i).

Let us summarize the predictions made by the structural analysis: A restitutive reading with *again* is expected to be possible for a predicate only if that predicate is internally complex, i.e., involves more than one property of events. On the restitutive reading, *again* semantically modifies a result state, and syntactically attaches to the constituent that denotes that result state. Typical examples for such predicates are accomplishment predicates (also achievements, but we will not be concerned with achievement predicates in this paper). Additional restrictions on the availability of a restitutive reading may arise from the visibility parameter. *Pace* visibility, the theory makes restitutive *again* a detector of the internal syntactic and semantic complexity of a predicate.

2.2 *A lexical ambiguity analysis (Fabricius-Hansen 1983, 1995, 2001)*

It is now time to introduce the alternative theory of the repetitive/restitutive ambiguity, which locates the source of the ambiguity not in syntax, but in a lexical ambiguity of *again*. I will take Fabricius-Hansen (1995, 2001) as the representative of this type of analysis.[9] The basic

[9] I should stress that my presentation of this work is much simplified in respects that are not crucial to the point I want to make, and therefore in many ways does not do it justice. This concerns, for example, the description in terms of lexcial ambiguity: Fabricius-Hansen's actual analysis is in terms of polysemy. Other simplifications concern the role of the presupposition associated with *again*. See, in particular, Fabricius-Hansen (2001) for interesting discussion.

idea here is that besides an *again* that expresses repetition, there is a second meaning of *again* which expresses reversal of direction and will lead to what we call the restitutive reading. This is illustrated with (34):

(34) (The temperature was falling all morning.) Now it is rising again.

The adverb *again* can be used in this example without there having to be a preceding rising of the temperature. Instead, it seems to be licensed by virtue of the fact that there is a preceding *falling* of the temperature. Fabricius-Hansen calls this the counterdirectional *again*. Thus besides the repetitive *again* that we are already familiar with, repeated in (35a), there is also counterdirectional *again* given in (35b) (both are adapted to our framework and simplified in ways that do not matter for the points made here; see Fabricius-Hansen for discussion).

(35) a. $[[\text{again1}]](P_{\langle i,\ t\rangle})(e) = 1$ iff $P(e) \ \&\ \exists e'[e' < e \ \&\ P(e')]$
$= 0$ iff $\sim P(e) \ \&\ \exists e'[e' < e \ \&\ P(e')]$
undefined otherwise.

b. $[[\text{again2}]](P_{\langle i,\ t\rangle})(e) = 1$ iff $P(e) \ \&\ \exists e'[e' < e \ \&\ P_c(e') \ \&\ \text{res}_{P_c}(e') = \text{pre}_P(e)]$
$= 0$ iff $\sim P(e) \ \&\ \exists e'[e' < e \ \&\ P_c(e') \ \&\ \text{res}_{P_c}(e') = \text{pre}_P(e)]$
undefined otherwise.

Counterdirectional *again* applies to a predicate of events P and an event; it presupposes that there is a preceding event of which the counterdirectional predicate P_c of P is true, and the result state res_{P_c} of which is the starting point, or prestate pre_P, for the new event. Applied to our temperature example, the relevant concepts are given in (36). The counterdirectional predicate to a rise is a fall, and the result state of a falling event is an event of the temperature being low (perhaps a local minimum on the temperature curve). Given that these are the concepts involved, the restitutive or counterdirectional reading of our example amounts to (37).

(36)

predicate P:	$\lambda e.\text{rise}_e(\text{the\_temp})$
counterdirectional predicate P_c:	$\lambda e.\text{fall}_e(\text{the\_temp})$
possible prestates of P, pre_P:	$\lambda s.\text{low}_s(\text{the\_temp})$
possible result states of P, res_P:	$\lambda s.\text{high}_s(\text{the\_temp})$

(37) a. The temperature is rising again.

b. $\lambda e.\text{rise}_e(\text{the\_temp}) \ \&\ \exists e'[e' < e \ \&\ \text{fall}_{e'}(\text{the\_temp}) \ \&\ \text{res}_{P_c}(e') = \text{pre}_P(e)]$

Thus (34) is true of an event if that event is a rising of the temperature, and there is a preceding falling of the temperature the result of which is the starting point for the rise. This seems a good description of the relevant reading of (34). Compared to the structural analysis of restitutive *again*, this analysis relies on conceptual (as opposed to syntactic) prerequisites: the availability of the concepts of a counterdirectional predicate, a result state of an event and a prestate of an event. (38b) and (39) apply this analysis to our original example (38a); the analysis is straightforward.[10]

(38) a. Sally opened the door again.
b. $\lambda e.open_e(the\_door)(S)$ & $\exists e'[e' < e$ & $close_{e'}(the\_door)(S)$ & $res_{P_c}(e') = pre_P(e)]$

(39)

predicate P:	$\lambda e.open_e(the\_door)(S)$
counterdirectional predicate P_c:	$\lambda e.close_e(the\_door)(S)$
possible prestates of P, pre_P:	$\lambda s.closed_s(the\_door)$
possible result states of P, res_P:	$\lambda s.open_s(the\_door)$

Let's compare this analysis to the structural ambiguity theory. An attractive feature of the lexical theory is that we do not need to structurally decompose lexical accomplishment predicates. The syntactic structure from which we derive an event description is irrelevant on this analysis. All that matters is that the event described is reversible, and thus there is a counterdirectional predicate conceptually available. The price we pay for this simplicity is that we have to assume a second lexical entry for *again*.

It looks as if the lexical analysis were somewhat more tolerant regarding which predicates give rise to a restitutive/counterdirectional reading. Fabricius-Hansen notes that atelic change of state predicates like the predicates *fall* and *rise* that motivated our discussion (called degree achievements by Dowty 1979) permit a counterdirectional reading. It seems that it suffices that a predicate express a change of state (telic or atelic) for restitutive/counterdirectional *again* to be possible. The structural analysis made it appear that only accomplishments and achievements (telic transition events in Fabricius-Hansen's terms), which have a clear result state, permit restitutive readings. The question arises what the structural theory could say about the temperature example (and other predicates of this kind). Stechow (1996) provides an analysis of the predicate *rise* along the lines illustrated below (see Stechow for more details). The sentence (40a) is receives the analysis in

[10] Actually it doesn't have to be Sally who closed the door—somebody else could have done it, or the wind could have blown it shut. This will be irrelvant to anything we say below. I will not pursue the question of which participants of an event have to be carried over to the counterdirectional predicate under this analysis.

(40c) and is true of an event e if at the end of e, the temperature is higher than it was at the beginning of e. *Again* in (41a) can then be interpreted in the scope of BECOME, leading to (41b).

(40) a. The temperature rose.
b. The temperature became higher.
c. λe.BECOME$_e$(λe′.MORE(λd.d-high$_{pre(e)}$(the_temp))(λd.d-high$_{e'}$(the_temp))))
d. MORE (D)(D′) = 1 iff max(D′) > max(D)
e. Let S be a set ordered by ≤ Then max(S) = ιs[s ∈ S & ∀s′ ∈ S[s ≤ s′]]

(41) a. The temperature rose again.
b. λe.BECOME$_e$ (λe′.again$_{e'}$(λe″.MORE(λd.d-high$_{pre(e)}$(the_temp))(λd.d-high$_{e''}$(the_temp)))))

Thus the sentence has a reading on which it is true of an event e if at the end of e, the temperature is higher than it was at the beginning of e; it presupposes that once before, the temperature was higher than at the beginning of e. Hence the example will be true in a situation in which the temperature rises after a preceding fall, as desired. For the structural analysis, a restitutive reading invariably requires that a result state denoting constitutent be available as the adjunction site of *again*. This makes decomposition in the syntax necessary—a step that may seem fairly natural for the case of accomplishment predicates like *open*, but perhaps less natural for *rise*.

On the other hand, Stechow builds his structural theory on the basis of a set of data that indicate that the prerequisites for restitutive *again* are indeed syntactic, and not purely conceptual. These facts are illustrated by the word order effect in German (42a) vs. (42b):

(42) a. because Ottilie die Tür wieder öffnete.
(restitutive, repetitive)
because Ottilie the door again opened
b. weil Ottilie wieder die Tür öffnete.
(repetitive only)
because Ottilie again the door opened

'because Ottilie opened the door again.'

A restitutive reading is possible if *wieder* follows the direct object, but not if it precedes it. Stechow's analysis is, in a nutshell, that the direct object in German obligatorily moves to a fairly high position in the syntax (SpecAgrO, for Stechow). If *wieder* precedes the object, then

wieder is higher in the structure than the CAUSE BECOME component and must take scope over it (resulting in the repetitive reading, the only reading of (42b)). If *wieder* follows the direct object, it could be either above or below the CAUSE BECOME component, and both readings are possible (resulting in an ambiguous example like (42a)). The structures for (42a,b) are sketched in (43). The word order effect shows that conceptual availability of a counterdirectional predicate is not sufficient for the restitutive reading to be available. Availability of a restituive reading depends on syntactic factors. This lends strong support to a structural theory of restitutive *again*.

(43) a. [Ottilie [$_{\text{AgrOP}}$ [die Tür] [$_{\text{VP}}$ (wieder) [$_{\text{VP}}$ Ø$_{\text{V}}$ [$_{\text{SC}}$ (wieder) [$_{\text{SC}}$ offen]]]]]
b. [Ottilie [$_{\text{AgrOP}}$ wieder [$_{\text{AgrOP}}$ [die Tür] [$_{\text{VP}}$ Ø$_{\text{V}}$ [$_{\text{SC}}$ offen]]]]]

It seems fair to say, then, that given the current state of the debate around restitutive *again*, both analyses have their attractions, and for both this comes at a cost. The issue of restitutive *again* is a much discussed problem, and a lot more arguments in favour of one or the other type of analysis could be reported. This is not what I want to do here (compare instead Stechow 1995, 1996; Fabricius-Hansen 2001; Jäger & Blutner 2000; Klein 2001 and references therein). The goal of this paper is to bring forth a new type of evidence that this debate has to take into consideration. For this purpose, what is crucial are the prerequisites that each theory has to assume for the availability of the restitutive reading. Under the structural theory, those prerequisistes are lexical (setting of the visibility parameter for the adverb) and structural (a result state denoting constituent for *again* to adjoin to). For the lexical theory, the prerequisites are lexical (availability of counterdirectional *again*) and conceptual (a change of state predicate that counterdirectional *again* can modify). Our cross-linguistic data differentiate between the two theories on the basis of those prerequisites. The next section introduces the cross-linguistic test case.

3 GOAL PP CONSTRUCTIONS

Remember that our crucial empirical finding concerns combinations of an activity predicate and a PP expressing a goal, like (4), which we call goal PP constructions (henceforth: goal-PPCs). Our generalization can be described as in (**G′**). In this section, we will gather evidence that the semantics of goal-PPCs is subject to cross-linguistic variation, and provides a promising test case for the two theories of restitutive *again*

that I introduced. More precisely, we will see that the semantics of goal-PPCs varies systematically with the availability of resultatives.

(4) Bilbo walked to the hall again.

(**G′**) A goal PP construction in combination with *again* has a restitutive reading only in languages that permit resultatives.

We will first look at cross-linguistic variation in the availability of resultatives and introduce Snyder's (2001) position that this is the result of the setting of a genuine grammatical parameter. Then, resultatives will be tied to goal-PPCs, and we will see that variation in the interpretation of goal-PPCs is correlated with the proposed parameter (as argued by Beck & Snyder 2001a).

3.1 *The complex predicate parameter*

It is well-known that the availability of resultative constructions like (44a) varies across languages (see Snyder 2001 and references therein, e.g. Green 1973; Levin & Rapoport 1988; Aske 1989; Talmy 1991). For example, the Spanish translation of (44a) in (44b) is ungrammatical.

(44) a. Mary beat the metal flat.
b. Mary golpeó el metal (*plano).
Mary beat the metal (*flat).

In Synder (2001; see also Snyder 1995) it is argued that this contrast is the result of the setting of a genuine parameter of grammar. Besides governing availability of resultatives, that parameter governs the availability of a whole set of other constructions which he calls complex predicate constructions. Complex predicate constructions in English include *put*-locatives, double-object constructions, and verb-particle constructions like (45). Crucial evidence for Snyder's position comes from child language acquisition. The constructions mentioned are all acquired by English learning children at approximately the same time. His hypothesis (simplified for our purposes) is summarized in (46).

(45) Bilbo picked up the Arkenstone.

(46) Complex Predicate Parameter (Snyder 2001):
One grammatical parameter is responsible for the availability of complex predicate constructions (resultatives, verb-particle constructions and others).

Snyder further observes that the availability of complex predicate constructions is dependent on compounding: Complex predicate constructions are possible in a language only if root compounding is productive. Once more, acquisitional data support this conclusion: children

tend to learn complex predicate constructions shortly after they have acquired compounding, and crucially, no child in Snyder's study acquired a complex predicate construction before they had acquired root compounding. Snyder proposes that complex predicate constructions involve a morphological compound at some level of representation. See Snyder (2001) for discussion and details.

I suggest, following Beck & Snyder (2001b), that availability of principle (R) from section 2 is part of the Complex Predicate Parameter. If a language lacks (R), then resultative structures like (44) will be uninterpretable. This can account for their unacceptability in that language, as hypothesized in section 2. For the purposes of this paper, I will in fact regard principle (R) as a central part of the Complex Predicate Parameter.

3.2 *Goal PP constructions across languages*

Beck & Snyder (2001a) propose that the Complex Predicate Parameter is involved in yet another point of cross-linguistic variation: goal-PPCs. In English, the verb *walk* is an activity predicate, as shown for instance by the ungrammaticality of modifying *walk* with a temporal *in*-phrase. It is well-known that when we add a PP expressing the goal of the walk, modification with a temporal *in*-phrase becomes grammatical—indicating that the predicate 'walk to the summit' is an accomplishment predicate rather than an activity. This has already been observed by Dowty (1979), for example. Importantly, this is a systematic phenomenon; some further illustration is provided in (48). Higginbotham (2000) notes that examples like (48d) are ambiguous.

(47) a. * Paul walked in an hour.
b. Paul walked to the summit in an hour.

(48) a. Paul swam to the island (in 10 minutes).
b. The baby crawled under the bed/behind the sofa (in 10 minutes).
c. Sally hopped up the stairs/across the meadow (in 10 minutes).
d. I walked around the fountain in an hour/for an hour.

It is this type of predicate that we call a goal-PPC: an activity verb combined with a goal phrase. Aske (1989) (drawing on work by Talmy 1985; compare also Levin and Rappaport Hovav 1995 and references therein) explores cross-linguistic variation in such constructions. He notes that Spanish permits the analogue of English 'walk to the summit' as a grammatical string; however, modification with a temporal *in*-PP is

ungrammatical. This indicates that there is a subtle semantic difference between English 'walk to the summit' and Spanish 'caminar hasta la cima'. The English predicate behaves like an accomplishment predicate while the Spanish predicate does not. Aske concludes that Spanish does not permit what he calls telic path phrases, in which the PP is a result state predicate. He relates this to the absence of resultatives in Spanish. Note that this is very much in line with, and in fact anticipates, our idea of relating goal-PPCs to the Complex Predicate Parameter and resultatives.[11] Aske further observes that a verb of motion combined with a purely locative PP gives rise to a directional/locative ambiguity in English, but can only be locative in Spanish—clearly a phenomenon related to the effect with directional 'to'.

(49) Pablo camino hasta la cima (* en una hora).
Pablo walked up-to the summit (* in one hour)

(50) a. John swam under the bridge.
b. Juan nado debajo del puente (*en una hora).
Juan swam under the bridge (in an hour)

Beck & Snyder (2001a) investigate how general Aske's phenomenon is cross-linguistically. In the table in (51) below I report their results. The grammaticality of modifying a goal-PPC with a temporal *in*-PP was tested in languages that allow the plain goal-PPC as a grammatical string (last column in (51)).[12] All relevant data are reported in Appendix A.

Before we proceed, a comment is in order on the translations we chose for the English goal-PPC. Our criteria for regarding a particular translation of 'Suresh walked to the village' as the analogue of the English sentence in that language are (i)–(iii).

(i) the truth conditions of the translation imply (a)–(c):

(a) Suresh arrived at the village (i.e. he didn't walk *towards* the village).

[11] Other researchers have, like Aske, made a connection between result phrases in resultative constructions and goal PPs combined with verbs of motion: Goldberg (1995), Jackendoff (1990) and Levin & Rappaport Hovav (1995).

[12] Interestingly, this is not always the case. In Basque, for example, the direct translations of goal PP constructions are ungrammatical. A paraphrase with 'go by foot' has to be used for *walk* plus goal PP, for instance. So Basque does not allow goal PP constructions at all.

(i)* Suresh etxe-ra ibili zen.
Suresh home-to walked Aux
Suresh walked home.

(ii) Suresh oin-ez herrira joan zen.
Suresh foot-by village-to go Aux
Suresh went to the village by foot.

(b) Suresh was away from the village at some point (i.e. he didn't walk *within* the village).
(c) The sentence describes an event of walking by Suresh.

(ii) the surface form of the goal-PPC is as close to English 'V PP' as possible in that language (e.g. no adverbial paraphrases).
(iii) The verb by itself is an activity predicate by the criteria of Vendler/ Dowty (e.g. it does not mean 'arrive').

As the reader will see, a certain amount of variation in the translations is unavoidable. This concerns for example the choice of the preposition. Not all languages offer the same possibilities for path-related prepositions. Our choice was governed by the truth conditional requirements under (i). Some further comments on other minor variations are made in Appendix A for specific languages. Where we could not in good conscience regard any translation as the analogue of an English goal-PPC, we excluded the language from consideration (e.g. Basque, Russian). Finally, it should be stressed that the predicate 'walk to the village' is to be regarded as a representative of goal-PPCs in general.

(51)

language	(R)-parameter	goal PP + temporal in PP
English	+	ok
German	+	ok
Japanese	(+)	ok
Korean	+	ok
Mandarin	+	ok
French	–	*
Hebrew	–	*
Hindi/Urdu	–	*
Spanish	–	*

The results obtained matched perfectly with the setting of the Complex Predicate Parameter (abbreviated as (R)-parameter, in the second column in (51)).[13] The setting reported for the parameter is based on the criteria in Snyder (2001), specifically availability of resultatives. We differ from Snyder's assessment in one case: Japanese is reported to have the positive setting of the (R) parameter in Snyder (2001). However, there is considerable variation across speakers concerning in how far

[13] The informed reader will notice that the distinction made by the (R)-parameter cuts across another parameter suggested in connection with verbs of motion: Talmy's (1985, 1991) typological distinction between satellite-framed v. verb-framed languages. In contrast to Talmy, I am not concerned with lexicalization patterns for motion verbs, so the empirical domain is quite different, and the (R)-parameter can indeed be expected to cut across Talmy's distinction.

resultatives are grammatical (cf. Washio 1997). Levin and Rappaport Hovav (1995) mention similar uncertainty with respect to goal-PPCs in Japanese. The bracketed + indicates this reservation. The languages in (51) give us a clear correspondence between the setting of the (R)-parameter and modifyability of a goal-PPC with a temporal delimiter. This shows that (49) is not an isolated fact about Spanish, but rather evidence of a much more general phenomenon. There must be a subtle semantic difference in the interpretation of goal-PPCs in (+R) languages versus (−R) languages. Beck & Snyder (2001a) drew the following conclusion:

(52) Beck & Snyder (2001a):
Goal PP constructions are complex predicates in (+R) languages. They denote accomplishments in (+R) languages, but not in (−R) languages.

We should note here that Beck & Snyder's (2001a) hypothesis is not based exclusively on cross-linguistic evidence. In addition to the data that we have presented, there is evidence from child language acquisition pointing in the same direction. Beck & Snyder observe that the claim that goal-PPCs are a complex predicate construction in English implies that, like the other complex predicate constructions, goal-PPCs should be acquired shortly after compounding is, and, importantly, children should not master goal-PPCs before they have mastered compounding. Beck & Snyder compare the ages of first clear use of compounding and goal-PPCs in ten children from Childes (MacWhinney & Snow 1985, 1990; MacWhinney 2000). Their predictions are born out. The ages of acquisition for the two constructions were significantly correlated ($p = 0.0115$), thus further supporting (52).

I have found two more languages that confirm this hypothesis, but also one language which clearly has the negative setting of the (R)-parameter and nonetheless allows modification with a temporal delimiter—Kannada, a Dravidian language spoken in Southern India:

(53)

language	(R)-parameter	goal PP + temporal in PP
Hungarian	+	ok
Khmer	+	ok
Kannada	−	ok

I cannot offer an explanation for this fact. In view of the overall good correlation between the setting of the complex predicate parameter and

the interpretation of goal-PPCs I will maintain the hypothesis in (52) and leave Kannada as a puzzle.[14]

Dowty (1979: 56–58) proposes several other tests besides modification with a temporal delimiter like 'in an hour' that distinguish accomplishments from activities. It would be interesting to see how the goal PP predicates in (−R) languages fare with regard to these other criteria. Unfortunately, applicability of Dowty's tests varies considerably from language to language, making this a task beyond the scope of this paper. As a first step, I have started to investigate the availability of a result state modifying reading with a phrase indicating temporal duration (Dowty's test VIII). Only accomplishments permit such a reading. An English example and the relevant reading are in (54).

(54) a. The dwarves opened the door for 10 minutes.
b. The dwarves opened the door, and the door stayed open for 10 minutes.

English and German goal-PPCs permit this reading (data in (55), reading paraphrased in (55′)), but Spanish and Hebrew goal-PPCs do not (cf. (56)); my informants actually judged the examples deviant. In all languages, I use as a translation of 'for ten minutes' a phrase that gives rise to the reading in (54b) when combined with a lexical accomplishment predicate. The data support Beck & Snyder's (2001a)

[14] An obvious solution would be that the phrase used as a temporal delimiter in Kannada, *eradu ganteyalli*, is not semantically identical to English 'in two hours'. It is notoriously difficult to determine such semantic equivalence across languages; I do not at present have sufficient evidence about Kannada to draw a conclusion.

Grolla (2003) analyses the (−R) language Brazilian Portuguese, another apparent problem case. She observes that data using the preposition *até* look like a counter-example to (52), cf. (ib). However, *até* is the only preposition that shows this behaviour. Other prepositions lead to the expected pattern, cf. (ii). She suggests that the lexical semantics of *até* is to be blamed for its exceptional behaviour. Brazilian Portuguese shows us the importance of investigating the systematicity of the phenomenon rather than isolated examples. Grolla comes to the conclusion that, once *até* is excluded from goal-PPCs, Brazilian Portuguese fits the pattern of a (−R) language described here (in particular impossibility of a temporal delimiter and unavailability of a restitutive reading with goal-PPCs), and thus confirms my claims.

(i) a. A Creuza martelou o metal (*plano).
the Creuza hammered the metal (flat)
'Creuza hammered the metal flat.'
b. A Virgulina andou até a vila em uma hora.
the Virgulina walked to the village in an hour
'Virgulina walked to the village in an hour.'

(ii) a. O Joao nadou debaixo da ponte (*em meia hora).
the Joao swam under the bridge (in half hour)
'John swam under the bridge in half an hour.'
b. O bebe engatinhou atrás da cerca (*em meia hora).
the baby crawled behind the fence (in half hour)
'The baby crawled behind the fence in half an hour.'

conclusion that goal-PPCs are not accomplishments in (−R) languages. Further investigation must be left for future research.

(55) a. Suresh walked to the village for 10 minutes.
b. Suresh ist für 10 Minuten zum Dorf gelaufen.
Suresh is for 10 minutes to-the village walked

(55′) Suresh walked to the village, and he stayed there for 10 minutes.

(56) a. ?? Suresh anduvo hasta la aldea durante diez minutos.
Suresh walked to the village for 10 minutes
b. ?? Dan halax el ha-kfar lemeSex eser dakot.
Dan walked to the-village for 10 minutes

The questions that the data in this section raise are: in what way exactly does the semantics of goal-PPCs differ in (+R) versus (−R) languages, how does this difference arise, and how is it related to the availability of resultatives. These questions are taken up in section 5. At this point, we conclude that goal-PPCs are a type of predicate that can plausibly distinguish between the predictions of the lexical analysis of *again* and the structural analysis. It is clear from our truth conditional requirements that in all languages the predicate implies a change of state and should be reversible. However, the connection with principle (R) suggests that their internal composition as well as the resulting semantics are different in (+R) languages versus (−R) languages. This makes them a promising candidate for research on the cross-linguistic behaviour of *again*.

4 RESTITUTIVE *AGAIN* CROSSLINGUISTICALLY

I will now, in subsection 4.1, present the cross-linguistic data on restitutive *again*, which lead to the generalization in (**G′**). We can rephrase (**G′**) as (**G″**), given the discussion in the last section. In section 4.2. we interpret our results and detail their implications for linguistic theory.[15]

(**G′**) A goal PP construction in combination with *again* has a restitutive reading only in languages that permit resultatives.

(**G″**) A goal PP construction in combination with *again* has a restitutive reading only in languages that have the positive setting of the Complex Predicate Parameter.

[15] I should note that some of the material presented here is a further development of ideas that were first introduced in Beck & Snyder (2001b). A proper subset of the data in section 4.1. has been reported in Beck & Snyder (2001b). Also, the analysis of goal PP constructions in (+R) languages and the restitutive reading, in sections 5.1. and 5.2. respectively, is in the spirit of that paper, although the details of the analysis differ.

4.1 *Data and method*

The availability of a restitutive reading was tested for (minor variations of) the two sentences in (57) in 18 languages: American Sign Language (ASL), Bahasa Indonesia, English, French, German, Hebrew, Hindi/Urdu, Hungarian, Inuttut (an Inuktitut language spoken in Labrador), Japanese, Kannada, Khmer, Korean, Lingala (a Bantu language spoken in the Democratic Republic of Congo), Mandarin Chinese, Serbian/Croatian, Spanish and Tagalog.[16]

(57) a. Sally opened the door again.
b. Suresh walked to the village again.

Judgments were elicited by presenting the crucial sentence in the context of (minor variations of) the two stories in (58). Note that the story makes it clear that no event of the kind described in the sentence happened before. Thus the sentence would be a presupposition violation on the repetitive reading and should be judged inappropriate. Only the restitutive reading fits the story. If an informant accepted the crucial sentence in the story, it was concluded that a restitutive reading was available. Was the story rejected on the basis of the sentence, it was concluded that a restitutive reading was unavailable.

(58) a. *open the door again*
Sally built a wardrobe. The last thing she made was the door. She set it on its hinges and it looked fine. But when she closed the door, it didn't quite fit. So *she opened it again* and took it off to sand the edges.

[16] In a previous report of this research (Beck & Snyder (2001b)), Russian was included in the survey. The Russian goal PP data tested rendered unclear results—an issue we had been unable to resolve. A more careful look at the language has since revealed that the crucial data are systematically not testable (similar to the case of Basque). Previously, we had regarded (ia) as a goal PP construction. However, as (ib) reveals, the verb we used is not an activity predicate. The verb in (iia) is an activity predicate, but combination with a goal PP is unacceptable. Other verbs behave in a parallel way (e.g. 'swim' *plavat'*, 'fly' *letat'*). Russian thus does not seem to permit us to construct what we call a goal PP construction, and I have taken it out of the survey.

(i) a. Suresh prishel v derevnju.
Suresh Perf-walked to village
b. * Suresh prishel 10 minutes
Suresh Perf-walked for 10 minutes
(ii) a. Suresh shel 10 minutes
Suresh walked for 10 minutes
b. * Suresh shel v derevnju.
Suresh walked to village

b. *walk to the village again*
Suresh was born in a tiny village on a mountain top in Nepal. It is accessible only by a footpath through the mountains. He left the village for the first time when he was ten, and went to a school in the city for twelve years without going home. *He walked to the village again* when he was 22.

The actual data used for the survey are provided in Appendix B. The same comments on the choice of translation for the predicate apply as before (and in those languages which occur in both surveys, the predicates are identical to those in Appendix A). Moreover, the strategy was, uniformly, to try to create the best possible circumstances for acceptability of a restitutive reading. This implied in particular choosing that translation of the word *again* that was most likely acceptable with a restitutive reading (remember from section 2 that not all adverbs with the basic meaning of *again* can be restitutive), and choosing a sentential context that supports the restitutive reading (remember, also from section 2, that word order can have an effect on availability of restitutive readings). Focus has also been observed to play a role (see, for example, Klein 2001 for discussion). All of these factors are interfering factors that, for our purposes, have to be excluded. We are interested in the question whether our predicates support restitutive readings at all.

The results of the cross-linguistic study are summarized in the table below. The first column specifies the language, the second the number of consultants for that language (the data for English and German come from the literature and agree with our intuitions; I did not formally elicit judgments for either).[17] Next, I give the setting of the (R)

[17] It is fairly easy to find free range examples of the relevant type for both languages. (ia–d) provide some illustration of restitutive readings with English goal PP constructions (the construction type in (ie) is perhaps less clear). (ii) are examples with lexical accomplishments. In all cases, the context which the sentence occurs in makes it clear that the intended reading is the restitutive one (i.e. Dumbledore had never climbed out of the trunk before, Julia had never run to the bedroom before, and so on). Examples (ic,d,e) and (iia–e) are all from the e-texts on the Project Gutenberg official homesite http://promo.net/pg/

(i) a. Dumbledore covered Moody in the cloak, tucked it around him, and clambered out of the trunk again.
(Harry Potter and the Goblet of Fire, by J.K. Rowling, 2000, Scholastic Press, 1st American Edition, hardcover, p. 681)
b. Julia ran to the bedroom again.
(*Time and Again*, by Jack Finney (1970), Recorded Books Unabridged, 1995, tape 10)
c. [. . .], with which I plunge downward to the surgery again, [. . .]
(*Hospital Sketches*, by Louisa May Alcott)
d. They all looked exceedingly foolish; and Edward seemed to have as great an inclination to walk out of the room again, as to advance further into it.
(*Sense and Sensibility*, by Jane Austen)
e. The forms filed into the cabinet again, [. . .]

parameter for the language. The last two columns report the judgements obtained for our 'open the door again' example and our 'walk to the village again' example, respectively. The entry 'ok' means that the restitutive reading was accepted, '*' means it was rejected; one solitary dissenting opinion is recorded by bracketing the judgment and noting that. If genuinely mixed judgments were obtained, this is reported as '%', with numbers provided in parentheses.

(59)

Language	Number of consultants	(R)	Restitutive reading w/lexical accomplishment	Restitutive reading w/goal PP construction
ASL	(3)	+	ok	ok
English		+	ok	ok
German		+	ok	ok
Hungarian	(5)	+	(*) (1 acc.)	% (3acc,1?, 1rej)
Japanese	(7)	(+)	% (4 acc., 3 rej.)	% (4 acc., 3 rej.)
Khmer	(1)	+	ok	ok
Korean	(5)	+	(ok) (1 ?)	ok
Mandarin	(3)	+	% (1 acc., 2 ??)	ok
Bahasa Indonesia	(1)	–	ok	*
French	(3)	–	(ok) (1 rej.)	*
Hebrew	(5)	–	ok	*
Hindi/Urdu	(5)	–	% (3 acc., 2 rej.)	*
Inuttut	(3)	–	*	*
Kannada	(2)	–	ok	*
Lingala	(1)	–	*	*
Serbian/Croatian	(5)	–	% (2 acc., 3 rej.)	*
Spanish	(7)	–	ok	*
Tagalog	(3)	–	ok	*

(*How Spirits Materialize*, author anonymous, in: David Phelps Abbot, *Fraudulent Spiritualism Unveiled*)

(ii) a. The splendour of the argument took Jill's breath away, and before she got it again, in came Frank and Ralph with two clothes-baskets of treasures to be hung upon the tree.
(*Jack and Jill*, by Louisa May Alcott)

b. Jack opened his lips to speak, but shut them again, [...]
(*Jack and Jill*, by Louisa May Alcott)

c. As she said this, she sunk into a reverie for a few moments;–but rousing herself again, [...]
(*Sense and Sensibility*, by Jane Austen)

d. I might have sold it again, the next day, for more than I gave: [...]
(*Sense and Sensibility*, by Jane Austen)

e. And away she went; but returning again in a moment, [...]
(*Sense and Sensibility*, by Jane Austen)

4.2 *Discussion*

Let's first consider the judgments we obtained for the goal-PPCs. There is a very good correlation between availability of a restitutive reading for goal-PPCs and the setting of the (R) Parameter. Exceptions are Japanese and Hungarian, where the judgements in the last column are mixed. For Japanese, we already noted that there is genuine variation between speakers as to the acceptability of resultatives. It is not surprising that this resurfaces with the restitutive reading and gives us mixed judgments. Hence Japanese actually fits the correlation quite well. Hungarian, on the other hand, clearly has the positive setting of the (R) Parameter. Regarding the goal-PPCs, it seems that there is a dialect (let's call it Hungarian1) that accepts restitutive readings, but there is also a dialect, Hungarian2, in which restitutive readings with goal-PPCs are unacceptable. Judgments with a verb-particle construction (example given in (60)) were similarly mixed (3acc., 1?, 1*) ((60) contains a PP 'to the tower', similar to our goal PP example; note, however, that the verb has already combined with a particle—thus (60) is not a goal-PPC but a different kind of complex predicate construction). The fact that judgements for (60) are quite parallel to the judgements for Hungarian 'walk to the village' supports our claim that goal-PPCs are a complex predicate construction in Hungarian. Our view of Hungarian is, then, that speakers do not uniformly allow restitutive readings with complex predicate constructions, including goal-PPCs—speakers of Hungarian1 do, but speakers of Hungarian2 do not.

(60) A kira'lyne' u"jra fel-ment a torony-ba.
the queen again up-went the tower-(in)to
The queen climbed the tower again.

In short, we see that restitutive readings with goal-PPCs are only acceptable in a language if that language has the positive setting of the (R) Parameter.[18] The first conclusion that we draw from these data is that we have found further confirmation for the (R) Parameter. We have found another test that distinguishes the same two groups of languages as availability of resultatives and Snyder's other criteria. It follows that linguistic theory has to make a connection between availability of resultatives and availability of restitutive *again* with goal-PPCs.

[18] The probability of obtaining this result by accident was caluclated by Fisher Exact Test (leaving out Japanese, and using Hungarian2). The outcome is $p < 0.001$. This result is significant, indicating that the correlation between the setting of the (R) parameter and the availability of a restitutive reading with goal PP constructions is not accidental.

Next, let's consider our findings for lexical accomplishment predicates. We observe first that there is no correlation of availability of a restitutive reading with lexical accomplishments, and the setting of the (R) parameter. In (+R) languages, note that when there is a difference in acceptability between lexical accomplishments and goal PPs, restitutive *again* is always less acceptable with lexical accomplishments (Mandarin, Hungarian). In (−R) languages on the other hand, restitutive readings with lexical accomplishment predicates tend to be better than with goal-PPCs, in that they are frequently acceptable. They seem completely acceptable in Bahasa Indonesia, Hebrew, Kannada, Spanish and Tagalog. French, Hindi/Urdu and Serbian/Croatian show mixed results, and they were rejected only in Lingala and in Inuttut.

It is striking that there can be considerable variation between speakers within a given language (e.g. Japanese, Hindi/Urdu, Serbian/Croatian). What's more, a particular speaker may accept a restitutive reading with one lexical accomplishment predicate, but reject it with another (several speakers accepted a restitutive reading with the lexical accomplishment *return*, while rejecting the 'open the door again' example—in Japanese (where the verb *return* is *kaetta*), Mandarin (*xui*), Lingala (*jonga*) and Serbian/Croatian (*vrati*)).

To summarize, linguistic theory has to predict that:

(A) a (−R) language never permits restitutive readings with goal PP constructions.
(B) a (−R) language may or may not permit a restitutive reading with lexical accomplisments.
(C) a (+R) language very often (but not necessarily) does permit restitutive readings with goal PP constructions.
(D) In a (+R) language, a restitutive reading with a lexical accomplishment is as acceptable or less acceptable as with a goal PP construction (but not more acceptable).
(E) there is room for variation in the judgments for lexical accomplishments.

The behaviour of restitutive *again* confirms the claim from section 3 that the interpretation of goal-PPCs in (+R) languages differs from their interpretation in (−R) languages. That semantic difference has to be the key to the pattern of restitutive *again*. The next section develops an analysis.

5 ANALYSIS

The task that our cross-linguistic data present to the semanticist is to assign different interpretations to goal-PPCs in (+R) v. (−R) languages,

in a way that is suitable to capture the different behaviour of *again* in the two groups and that sheds some light on the other differences between them observed in section 3. In this section, I make a proposal to that effect. Section 5.1.1. suggests a semantics for goal-PPCs in (+R) languages. In section 5.1.2. we take some steps towards assigning a semantics to goal-PPCs in (−R) languages. Section 5.2. uses those suggestions to derive the cross-linguistic data with restitutive *again*, based on the structural theory of *again*. Finally, in section 5.3. we compare the predictions of our analysis to the predictions that a lexical ambiguity analysis of *again* could make. I should note that my suggestions in section 5.1. are geared specifically towards finding an explanation for the behaviour of restitutive *again*. I do not presume to do justice to all the semantic considerations that should enter into developing an analysis of goal-PPCs, much less to verbs of motion and path phrases in general. See, for example, Cresswell (1974, 1978), Jackendoff (1996), Krifka (1998) and Tenny (1995). However, our data from section 4 will ultimately have to be explained by any successful analysis of goal-PPCs, and crucial properties of my analysis can be expected to carry over.

5.1 *Semantics of goal PP constructions*

5.1.*1* *The Semantics of Goal PP constructions in (+R) Languages.* I suggest, with Beck & Snyder (2001b), that in (+R) languages, the compositional analysis of resultatives by Stechow (1995) can apply to goal-PPCs. Recall that we introduced Principle (R), repeated below, to combine a verb with a result state.

(8) Principle (R) (Stechow (1995)):
If $\alpha = [_V \gamma\ _{SC} \beta]$ and β' is of type $\langle i, t\rangle$ and γ' is of type $\langle e, \ldots \langle e,\langle i, t\rangle\rangle\rangle$ (an n-place predicate), then
$\alpha' = \lambda x1 \ldots \lambda xn \lambda e.\gamma'_e(x1) \ldots (xn)$ & $\exists e'[\text{BECOME}_{e'}(\beta')$ & $\text{CAUSE}(e')(e)]$

I propose that goal PPs in English and other (+R) languages can be interpreted as result phrases, using principle (R). This suggestion per se is not new: the connection between resultatives and what we call goal PPs has been made before and has been much debated in the literature; compare for example Goldberg (1995), Jackendoff (1990), Levin & Rappaport Hovav (1995) and references therein, also once more Aske (1989). We will here work out a proposal on the basis of (8). Thus we assign to (61a) the structure in (61b), where the PP is a small clause with a PRO subject.

(61) a. Sally walked to the summit.
b. [Sally [1[t1 [walked [$_{PP}$ PRO1 to the summit]]]]]

Let's assume for the moment that *to* means *at* (this will be reconsidered in the next subsection). Then the PP denotes the predicate of events in (62), and hence would not be combinable with the verb *walk* by standard principles of interpretation, just like the result phrase of a resultative. Principle (R) applies as shown in (63). Thus 'walk to the summit' is a predicate that is true of an individual and an event iff the event is a walking by the individual, and causes a second event which is a coming to be at the summit of the subject of the small clause PP. Once more, interpretation of the whole structure results in binding of the small clause subject and filling of the individual argument slot.

(62) [PRO1 to the summit] $\rightarrow$ $\lambda e.at_e(the\_summit)(x1)$

(63) a. [walked [$_{PP}$ PRO1 to the summit]] $\rightarrow$
$\lambda x \lambda e.walk_e(x)$ & $\exists e'$ [$BECOME_{e'}(\lambda e^{\star}.at_{e^{\star}}(the\_summit)(x1))$ & $CAUSE(e')(e)$]

b. Sally walked to the summit $\rightarrow$
$\lambda e.walk_e(S)$ & $\exists e'$ [$BECOME_{e'}(\lambda e^{\star}.at_{e^{\star}}(the\_summit)(S))$ & $CAUSE(e')(e)$]
Sally's walking caused her to come to be at the summit.

Thus the sentence in (61a) will be true of an event iff it is a walking by Sally, and causes another event which is Sally's coming to be at the summit. This is an appropriate description of the meaning of (61). (64) goes through the same steps for a second example (the reading described is the directional interpretation of (64a)).

(64) a. John swam under the bridge.
b. [John [1[t1 [swam [$_{PP}$ PRO1 under the bridge]]]]]
c. $\lambda e.swim_e(J)$ & $\exists e'$ [$BECOME_{e'}(\lambda e^{\star}.under_{e^{\star}}(the\_brigde)(J))$ & $CAUSE(e')(e)$]
John's swimming caused him to come to be under the bridge.

Note that (just like in the case of resultatives) application of principle (R) turns the predicate 'walk to the summit' or 'swim under the bridge' into an accomplishment, by virtue of introducing CAUSE BECOME. So if goal-PPCs are interpreted via principle (R) in languages that have resultatives (and therefore have to have principle (R)), we expect them to behave like accomplishments even if the verb lexically is not an accomplishment (as in the case of *walk*). On this proposal, goal-PPCs are a type of complex predicate construction in

(+R) languages, as anticipated in section 3.2. In contrast to some of the other complex predicate constructions like resultatives and verb-particle constructions, they are grammatical strings in (−R) languages. The difference is not in grammaticality but in interpretation.

Before proceeding to discuss the interpretation of goal-PPCs in (−R) languages, I should note that goal-PPCs in (+R) languages come out essentially as subject oriented resultatives. The existence of such resultatives seems to be a matter still under debate, cf. the discussion in Rothstein (to appear). It is beyond the scope of this paper to address the issue. We merely note that there have been some recent suggestions to regard data like (61) as subject oriented resultatives (e.g. Wechsler (1997); Rothstein (to appear) cites Rappaport Hovav & Levin (1999)); on the other hand, this is incompatible with Rothstein's analysis of resultatives.

5.1.2 *The semantics of goal PP constructions in (−R) languages.* We now turn to the interpretation of goal-PPCs in (−R) languages. Obviously, the interpretation strategy developed for (+R) languages above cannot apply, since (−R) languages by assumption lack the relevant interpretation principle; nor do we want it to apply, since goal-PPCs do not behave like accomplishments in (−R) languages. Hence we need an alternative way of combining the goal PP with the verb.

I must acknowledge that the non-accomplishment-like behaviour of goal-PPCs in (−R) languages needs to be investigated in more detail than I can in this paper. I regard the analysis below as tentative. I will make a suggestion for an interpretation mechanism alternative to principle (R) to be involved that represents an independently motivated way of combining a verb with a PP modifier. The analysis meets two desiderata: Firstly, it doesn't predict the combination of verb and PP to be an accomplishment, or telic, predicate. This is a requirement given the data discussed in section 3.2. Secondly, we want to locate the variation in the semantics of goal-PPCs between (+R) and (−R) languages in the way in which the PP is integrated compositionally, not with the semantics of the PP itself. It is not plausible that availability of priniciple (R) correlates with a systematic difference in the meaning of prepositions across languages. Therefore, we want to choose an analysis of goal PPs in which the semantics of the preposition can be the same for (+R) and (−R) languages. In particular, the semantics must be usable for the interpretation strategy with prinicple (R), and suitable for the description of the restitutive reading. These desiderata put limitations on the options we can consider. Note in particular that the goal of any analysis developed for, say, English goal PP predicates, will

be to account for their accomplishment-like behaviour, which automatically makes it unsuitable for my purposes.

An interpretation strategy that I found adaptible to present purposes emerges from Cresswell's (1974, 1978) discussion. This is an analysis as a Davidsonian event modifier. Such an analysis amounts to the suggestion that the analysis of PP modifiers like 'in the park' in (65a) can be extended to (65b).

(65) a. Sally slept in the park.
b. Sally walked in the park (from the station, along the beach, ...).

In our framework (65a,b) would be interpreted as in (66a,b). (66b) is true of an event iff that event is a walking by Sally and Sally is in the park in (during) that event. The PP itself, then, has to denote a relation between individuals and events, as indicated in (66c).[19] When the PP combines with the verb, we are thus trying to combine two expressions of type $\langle e, \langle i, t\rangle\rangle$. The mode of combination is basically conjunctive. I propose to use a generalized principle of predicate modification for this, given in (67).

(66) a. $\lambda e.sleep_e(S)$ & $in_e(the\_park)(S)$
b. $\lambda e.walk_e(S)$ & $in_e(the\_park)(S)$
c. [in the park] $\rightarrow$ $\lambda x \lambda e.in_e(the\_park)(x)$

(67) Generalized PM:
If $\alpha = [\beta\ \gamma]$ and β' is of type $\langle e,\langle i, t\rangle\rangle$ and γ' is of type $\langle e,\langle i, t\rangle\rangle$, then $\alpha' = \lambda x \lambda e.\beta'(x)(e)$ & $\gamma'(x)(e)$

I suggest that this independently attested mechanism is available for the interpretation of goal-PPCs in (-R) languages; example (68a) is from Spanish. The resulting semantic representation is given in (68b). The

[19] The informed reader will have noticed that our analysis departs from a strictly Davidsonian analysis in giving the preposition a subject argument (an individual); so *in* is not just a relation between an event and a location (and similarly for *to* etc.). This step is made necessary by our restitutive *again* data: the restitutive reading of (ia) is (ib), not (ic), hence the result state must include information on the holder of the result state; cf. our desideratum above. Thus if we want a uniform semantics for prepositions, it has to be one in which they take an individual argument. The same desideratum also precludes an analysis strictly following Krifka (1998). Note that, beyond the requirements of restitutive *again*, our semantics for prepositions allows interpretations for (ii) that are more straightforward.

(i) a. Sally walked to the village again.
b. Sally walked to the village, and she had been at the village before.
c. Sally walked to the village, and there had been a previous event at the village.

(ii) a. Sally is in the park.
b. Sally pushed/kicked the box into the room.

only difference between (68b) and (66b) is that we now have the preposition *to*.

(68) a. Pablo camino hasta la cima.
Pablo walked up-to the summit
b. λe.walk$_e$(Pablo) & to$_e$(the_summit)(Pablo)

To make this a meaningful proposal, it is crucial to consider the semantic contribution of the preposition. We follow Cresswell (1978) in assuming that the semantics of prepositions like *to* makes use of the concept of a path, and in deriving the notion of a path from progress through time. Such a semantics for the preposition is given in (69a). (69a) says that *to* holds between an event e and individuals x and y iff at the end of e, y is at the final point of some path that ends at x. The function *end* is defined in (69b). The central notion of a path is defined in (69c). (68b) is paraphrased in (70).

(69) a. [[to]] (e)(x)(y) = 1 iff at end(e), y is at the final point of a journey p(e) that ends at x
b. [[end]] is that f: D⟨i⟩ → D⟨i⟩ such that for any e: f(e) = the temporal end point of e
c. p(e) (a path or a journey) is a function that maps times that are part of the running time of e to a spatial region (the space occupied by the path at that time).

(70) Pablo walked, and by the end of the walk he was at the final point of a journey that ends at the summit.

A lot more can be said about paths. Compare for example, Cresswell (1978), Krifka (1998). For our purposes, we should note, with Cresswell, that (i) paths, or journeys, can be hypothetical, i.e. do not actually have to be made; and (ii) that contextual salience plays a role in choosing the relevant path associated with the event we are looking at. Point (i) is illustrated by data like (71). The ambiguity of (72) is plausibly a result of the context dependent underdeterminacy of paths.

(71) a. The band was playing across the river.
b. The band was playing at the end of a hypothetical journey across the river.

(72) Alice walked across the meadow.

(72′) a. Alice walked along a path that crossed the meadow.
b. Alice walked in a place that is across the meadow from here.

Cresswell makes these issues much more explicit in his paper than I do here. I will simply assume that the paths in our interpretations can be

hypothetical, and that in the case of motion verbs like *walk*, the verb plausibly brings a most salient path with it. This accounts for the fact that (72′a) is the more salient interpretation of (72), and also for the fact that it is not the only interpretation.

Under this analysis, (68) is true of an event iff that event is a walking by Pablo and Pablo is at the summit by the end of it—more precisely: at the end of the event, Pablo is at the end point of some path to the summit. Assuming that we normally associate the path in the semantics of *to* with the motion expressed by the verb, this seems an adequate description of the meaning of (68) in (−R) languages. The denotation in (68b) thus seems suitably similar to goal PPs in (+R) languages. (73) provides another example from Spanish with a locative preposition; in contrast to (70′) the example only has a locative interpretation. The effect of presence v. absence of Principle (R) is in a way clearer with such 'non-directional' prepositions.

(73) a. Juan nado debajo del puente (*en una hora).
Juan swam under the bridge (in an hour)
b. λe.swim$_e$(Juan) & under$_e$(the_bridge)(Juan)
Juan swam, and he was under the bridge during the swimming.

The assumption in (69) about the meaning of *to* is compatible with our analysis of (+R) goal PPs above. (63) for example becomes (74). Thus this analysis does not rely on a semantic difference in the prepositions in goal PPs — they may be exactly the same in a given pair of a (−R) and a (+R) language. The difference I rely on is in how the PP is integrated compositionally. It should be admitted, though, that nothing forces the preposition to be *to* rather than *at* in English; i.e. I predict that 'Sally walked at the summit' should have the same directional interpretation as 'John swam under the bridge'. This problem exists for English *to*, *into* and *onto*, which offer directional alternatives to *at*, *in* and *on*. I do not predict that there is this restriction. The way it shows up is specific to English (Korean, for example, requires a directional marker with *all* prepositions). My hunch is that our understanding of the role of the BECOME component may not be quite right (see also Beck & Johnson (2004) on this issue). I will leave it as an open problem here.

(74) a. Sally walked to the summit→
λe.walk$_e$(S) & $\exists$e′[BECOME$_{e'}$(λe*.to$_{e*}$(the_summit)(S)) & CAUSE(e′)(e)]
b. Sally walked, and her walking caused her to come to be at the end of a path to the summit.

Note, finally, that our analysis gives us no reason to believe that the predicate modifier way of combining the goal PP with the verb is unavailable in English and other (+R) languages. What's crucial is that (+R) languages do have the combination via prinicple (R). We can follow Grolla (2003) in speculating that the ambiguity of (75a,b) below, observed by Higginbotham (2000), has its source in the two choices that we have in English for how to compositionally integrate the PP.

(75) a. I walked around the fountain (for 10 minutes/in 10 minutes).
b. I ran upstairs (for 10 minutes/in 10 minutes).

Before we turn to restitutive *again*, let us briefly consider modifiability with expressions like 'in an hour' on the basis of the proposed analyses of goal-PPCs. Dowty (1979) suggests that the semantics of the predicate must guarantee that there is a unique shortest time interval at which the predicate is true, for 'in an hour' to be acceptable. This distinguishes accomplishments from activities. Krifka's (1998) analysis is similar in spirit: if a telic predicate is true of an event e, it is not true of any subevent that is temporally shorter. Krifka then defines the semantics of 'in an hour' in such a way that its implicatures can only be satisfied by predicates of events with a unique shortest running time.

I hypothesize that the semantics of goal-PPCs in (−R) languages does not guarantee uniqueness. That is, if 'walk to the summit' is true of an event e, it is not guaranteed by the semantics that the predicate isn't also true of a shorter subevent. The semantics suggested above is weak enough to incorporate this idea. Goal-PPCs in (−R) languages come out as non-telic, in Krifka's sense. We then expect that modification with 'in an hour' is no better than it is with predicates like 'walk along the beach', cf. (76). On the other hand, the presence of BECOME in (+R) languages will suffice to satisfy the uniqueness requirement.

(76) *Sally walked along the beach in an hour.

To summarize the analysis: in (+R) languages, goal-PPCs are interpreted by the same principle that interprets resultatives. They are grammatical strings in languages that don't have complex predicate constructions. However, they are not semantically identical. The goal PP expresses the result state of a complex predicate in (+R) languages, but a predicate modifier of some kind in (−R) languages. Goal-PPCs are therefore accomplishments, and telic predicates, in (+R) languages, but not in (−R) languages. This is the source of the cross-linguistic variation in the data in tables (51) and (59).

5.2 *The structural analysis of again*

We are now in a position to provide an analysis of the data reported in table (59). We assume the structural theory of restitutive *again* from section 2.1, in which, recall, a restitutive reading requires an independent result state predicate that *again* can modify. And we will work with the semantics for goal-PPCs developed in the previous subsection.

Let's first look at what happens in (+R) languages. Given the semantics developed in section 5.1, the ambiguity of the example in (77) can be derived in the same way as the ambiguity of the resultative example in section 2.1. Once more, there are two possibilities as to what *again* modifies: either the result PP or the entire VP. The two LFs receive the translations in (79) and (80) respectively and yield the intuitive meanings of the repetitive and the restitutive reading of (77).

(77) Sally walked to the summit again.

(77′) a. Sally walked to the summit, and she had done that before.
b. Sally walked to the summit, and she had been there before.

(78) a. [Sally 1 **[VP** [VP t1 walked [PP PRO1 to the summit]] again**]]**
b. [Sally 1 [VP t1 walked **[PP** [PP PRO1 to the summit] again**]]]**

(79) $\lambda e''.\text{again}_{e''}(\lambda e.\text{walk}_e(S)\ \&\ \exists e'[\text{BECOME}_{e'}(\lambda e^{\star}.\text{to}_{e^{\star}}(\text{t\_s})(S))\ \&\ \text{CAUSE}(e')(e)])$

(79′) Once more, Sally's walking caused her to come to be at the end of a journey to the summit.

(80) $\lambda e.\text{walk}_e(S)\ \&\ \exists e'[\text{BECOME}_{e'}(\lambda e''.\text{again}_{e''}(\lambda e^{\star}.\text{to}_{e^{\star}}(\text{t\_s})(S))\ \&\ \text{CAUSE}(e')(e)])$

(80′) Sally's walking caused her to come to be once more at the end of a journey to the summit.

Let us take a step back and consider the general cross-linguistic predictions made by this theory. Remember that we expect a restitutive reading to be possible if there is a result state denoting constituent that the adverb corresponding to *again* can adjoin to, and if that particular adverb can find that constituent (in the sense of the visibility parameter for adverbs from section 2.1.).

In (+R) languages, the PP in a goal-PPC is always an appropriate adjunction site for the adverb. In terms of visibility, what the adverb can do here should parallel other complex predicate constructions. Thus we expect a (+R) language to permit a restitutive reading with goal-PPCs as long as that language has an adverb to which complex predicate result states are visible (i.e. which has at least setting (ii) of the visibility parameter). This, as the table in (59) shows us, is overwhelmingly the

case. Moving on to the predictions that the structural theory makes for restitutive readings with lexical accomplishment predicates, we expect that they are less freely available than with goal-PPCs. The reason is that visibility of the result state denoting constituent decreases; thus it would contradict our predictions to find a (+R) language in which restitutive readings with lexical accomplishment predicates are more acceptable than with complex predicate constructions. We find in table (59) the general tendency that we expect, and no counterexample of the sort just mentioned. We conclude that the structural theory of restitutive *again* makes predictions (C) and (D) formulated in section 4.2:

(C) a (+R) language very often (but not necessarily) does permit restitutive readings with goal PP constructions.

(D) In a (+R) language, a restitutive reading with a lexical accomplishment is as acceptable or less acceptable as with a goal PP construction (but not more acceptable).

Before we consider (−R) languages, a comment on Hungarian. I suggest that Hungarian does not have a genuine decomposition adverb *again*. The result states within a decomposition structure are almost universally invisible, in the sense of section 2.1. The result states of complex predicates seem to be visible to *u'jra* for most speakers, but not all. This is the difference between the two dialects of Hungarian. In a broad sense, then, Hungarian meets our expectations. Under the structural analysis of restitutive *again* combined with the visibility parameter, we expect that there are languages (like English) that allow restitutive readings with both lexical and complex predicate accomplishments. There may be languages (like Hungarian1, and Mandarin for the majority of speakers consulted) that allow restitutive readings with complex predicates, but not with lexical accomplishments. And there may be languages (like Hungarian2) that don't allow a restitutive reading with either.[20]

Turning to (−R) languages, what can the structural theory of *again* say about why a restitutive reading for goal-PPCs in those languages is unavailable? I suggest that the behaviour of goal PPs in (−R) languages can be understood in view of the behaviour of PP modifiers in combination with *again*. Note that the data in (81)–(82) do not permit the (c)-reading.

[20] Despite the fact that restitutive readings with lexical accomplisments are not very good in Japanese either, Japanese does not lend itself to such an analysis: there are speakers who accept a restitutive reading with lexcial accomplishements, but not with goal PP constructions. Besides it is clear that there is variation in the setting of the (R) parameter, so this is definitely the most plausible cause of the judgments I got for goal PPs.

(81) a. Sally slept/walked in the park again.
b. Sally slept/walked in the park, and she had done that before.
c. # Sally slept/walked in the park, and she had been there before.

(82) a. Sally walked along the beach again.
b. Sally walked along the beach, and she had done that before.
c. # Sally walked along the beach, and she had moved along the beach before.

These data show us that *again* cannot apply to just the PP modifier.[21] A goal PP would have to be interpreted in the same way as the PPs in (81)–(82) under our assumptions (an interpretation as a result phrase is impossible due to lack of principle (R)). Hence whatever prevents *again* from modifying 'in the park' in (81) and 'along the beach' in (82) will prevent it from modifying 'to the village' in (−R) languages. On a more technical level, the modifiers are of the wrong semantic type to be combined with *again* (they are ⟨e, ⟨i, t⟩⟩, not ⟨i, t⟩), so they are not a possible adjunction site for *again*. Thus our framework formally captures the lack of a restitutive reading.[22]

I conclude that the structural theory can make prediction (A), given plausible assumptions about the modifier role of the goal PP in (−R) languages and given the general pattern of *again* with modifiers. We still have to address prediction (B). *Prima facie*, the structural theory does not make a prediction about whether a given (−R) language has a decomposition adverb corresponding to *again* or not. Our result that there are languages that do and others that do not have such an adverb is quite compatible with the structural theory.

(A) a (−R) language never permits restitutive readings with goal PP constructions.
(B) a (−R) language may or may not permit a restitutive reading with lexical accomplisments.

Finally, there is prediction (E). As for between-speaker variation with lexical accomplishments, I propose that not everybody actually arrives at setting (iii) of the visibility parameter of the adverb. Within-speaker

[21] This fact is interesting of itself and not necessarily expected under all analyses of PP modifiers —e.g. a strictly Davidsonian analysis, in which the PPs would be of the right semantic type to be modified by *again* (cf. fn 19).

[22] Rapp & Stechow (1999) propose that the preposition *to* is decomposed into BECOME and *at*. If this were possible, then a restitutive reading could arise by applying *again* to the *at*-predicate. Their suggestion is thus incompatible with our cross-linguistic data.

variation across different lexical accomplishments might suggest that a speaker has to learn that a decomposition analysis is available for a given verb.

(E) there is room for variation in the judgments for lexical accomplishments.

In conclusion, the structural theory of *again*, in combination with an appropriate analysis of how the semantics of goal-PPCs varies along with the setting of the (R) parameter, can explain the cross-linguistic pattern in the acceptability of restitutive *again* and generalization (**G**″).

(**G**″) A goal PP construction in combination with *again* has a restitutive reading only in languages that have the positive setting of the complex predicate parameter.

A comment on further empirical predictions: The cross-linguistic variation in the availability of a result state modifying reading of a *for*-PP is amenable to the same analysis—recall the contrast from section 3 between English and Spanish in (83). Only in (+R) languages can the goal PP express a result state. The *for*-PP can modify a result state (English), but not a simple modifier (Spanish). Compare Stechow (1995) for a suitable analysis of *for*-PPs. We make the further prediction that the behaviour of other decomposition adverbs (specifically *almost*) should be similar to that of *again* and 'for an hour'—in particular, it should not be able to modify a (−R) goal PP. Testing the prediction is left for another occasion.

(83) a. Suresh walked to the village for 10 minutes.
b. ?? Suresh anduvo hasta la aldea durante diez minutos.
Suresh walked to he village for 10 minutes
c. Suresh walked to the village, and he stayed there for 10 minutes.

5.3 *The lexical analysis of again*

In this subsection, I examine the predictions that the lexical ambiguity theory makes regarding our cross-linguistic data. We begin by considering how a restitutive reading for our goal PP example in (84a) would be obtained under this analysis. (84b) is true of an event e iff e is a walking to the village by Suresh, and there is a previous event e′ of which the counterdirectional predicate P_c is true, and whose result state was the starting point of Suresh's walk to the village. Let's make the assumptions in (85) about the concepts involved; the

counterdirectional predicate to a walking to the village by Suresh is Suresh leaving the village (or possibly Suresh walking away from the village). (84b) then means that Suresh walked to the village, and that there is a preceding event in which Suresh leaves the village, and the result of the leaving is the prestate of the walk to the village. This seems to be an equally appropriate description of the restitutive reading as the one we derived before, using the structural analysis.

(84) a. Suresh walked to the village again.
b. $\lambda e.\text{walk\_to\_the\_village}_e(S)$ & $\exists e'[e' < e$ & $P_c(e')$ & $\text{res}_{P_c}(e') = \text{pre}_P(e)]$

(85)

predicate P:	$\lambda e.\text{walk\_to\_the\_village}_e(S)$
counterdirectional predicate P_c:	$\lambda e.\text{leave}_e(\text{the\_village})(S)$
possible prestates of P, pre_P:	$\lambda s. \sim \text{at}_s(\text{the\_village})(S)$
possible result states of P, res_P:	$\lambda s.\text{at}_s(\text{the\_village})(S)$

Observe that in the representations above, I leave 'walk to the village' as an internally unanalyzed predicate of events. Its internal composition is irrelevant for the purposes of the counterdirectional *again* analysis; hence its proponents need not be committed to any particular analysis of the goal-PPC, as long as the resulting semantics is that of a reversible predicate of events. Remember that what is required for a restitutive reading on this analysis is an adverb corresponding to counterdirectional *again* on the one hand, and a predicate of events that makes available a counterdirectional predicate (plus suitable prestates and result states) on the other.

With that in mind, let's now consider the cross-linguistic predictions of the lexical ambiguity theory. Note that the counterdirectional predicates for 'walk to the village' and 'open the door' are in fact given explicitly in the contexts in which our sentences are presented (leaving the village and closing the door, respectively). The result states of those counterdirectional predicates are indeed the prestates of our (attempted) counterdirectional readings in both stories. In all our languages, the goal-PPC is a change of state predicate (moving from a state of not being at the village to being at the village). Therefore, I conclude that the predicate of events expressed by the goal-PPC should be reversible in all the languages I considered. There are no conceptual reasons that would prevent a restitutive/counterdirectional reading from being available. What could still go wrong is that a language lacks counterdirectional *again*. Given that, how much of a correlation between the (R) parameter and availability of restitutive readings with goal-PPCs can we expect the lexical analysis to capture?

The crucial problem are (−R) languages. There is no reason to expect any connection between the setting of the (R) parameter and existence of counterdirectional *again* in a given language. That is, there is no theoretical connection between absence of resultatives and unavailability of a restitutive/counterdirectional reading with goal-PPCs. This is because the internal structure of the goal PP predicate is irrelevant under this analysis. The clear correlation that we observe is thus on general grounds quite unexpected. In the (−R) languages, the data for goal-PPCs should pattern with the results for lexical accomplishments in table (59) (since everything hinges on whether or not the language has counterdirectional *again*), but they do not. Restitutive readings with lexical accomplishments are much more widely accepted among (−R) languages. Concretely, the judgments we collected for lexical accomplishments in Indonesian, Hebrew, Kannada, Spanish and Tagalog clearly show that these languages would have to have counterdirectional *again* . Hence, any theory that derives those judgments from the existence of a counterdirectional/restitutive meaning of *again* wrongly predicts these (−R) languages to permit a restitutive reading with goal-PPCs.

I conclude that the lexical theory cannot systematically make prediction (A), and concretely, it cannot make prediction (A) while making prediction (B). It is worth pointing out that this conclusion does not depend on the exact nature of the lexical ambiguity. I chose Fabricius-Hansen's analysis as a representative, but no matter what particular meaning for 'restitutive' *again* a lexical analysis assumes, the systematic connection of restitutive readings with goal-PPCs with the (R) parameter, and the absence of such a connection with lexical accomplishments, is not expected under this type of analysis.

(A) A (−R) language never permits restitutive readings with goal PP constructions.
(B) A (−R) language may or may not permit a restitutive reading with lexical accomplishments.

Thus we see that it is to the advantage of the structural theory that it makes reference to the syntactic make-up and internal composition of the predicate of events that *again* combines with. This allows us to capture the connection to the setting of the (R) parameter. Conversely, the fact that the internal structure and composition of a predicate are irrelevant under the lexical theory prevent it from making that connection. Goal-PPCs lead us to the conclusion that restitutive *again* requires a structure-based analysis.

6 CONCLUSIONS

The main results of this paper are summarized below. Needless to say, there are other arguments to consider in the comparison of the structural and the lexical analysis of restitutive *again*. And there are more considerations that figure into a proper semantics for goal-PPCs than the ones discussed here. A new type of evidence has been brought forth that has to be taken into account by any analysis of goal-PPCs, and by any theory of restitutive *again*.

(i) The internal composition of goal PP constructions, and the resulting semantics, are subject to systematic cross-linguistic variation. They are complex predicates and denote accomplishments in (+R) languages, but not in (−R) languages.

(ii) The cross-linguistic pattern of availability of restitutive readings shows that the analysis of restitutive *again* must make reference to structural factors. An analysis that depends on conceptual and lexical factors only cannot derive the correlation with the setting of the (R) parameter.

Besides the obvious consequences which I have argued for throughout the paper, the analysis has some further repercussions. It supports Snyder's Complex Predicate Parameter. It also supports the idea that resultatives are to be interpreted by some non-standard mode of composition, by showing that (non-) availability of that mode of composition has widespread and systematic consequences. Hence our position that principle (R) is a crucial part of the Complex Predicate Parameter. This makes it a semantic parameter: (non-)availability of a principle of semantic composition. Strengthening the structural theory of *again* is itself not without consequences. A strictly structural theory implies that restitutive *again* shows us which properties of events syntax makes available. This has repercussions for how much of a Parsonian event semantics can be mapped into the syntax (see Stechow (1996) for some discussion) and for the semantics of PP modifiers (cf. the discussion in section 5). These issues will have to be left for another occasion.

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APPENDIX A: GOAL PPS AND TEMPORAL IN-PHRASES ACROSS LANGUAGES

French:	(1)*	Jean a	marché	au sommet		en une heure.	
		Jean has	walked	to-the summit		in one hour	
German:	(2)	Ottilie ist	in einer	Stunde	zum	Gipfel	gelaufen.
		Ottilie is	in one	hour	to-the	summit	walked
Hebrew:	(3)*	Dan	halax el	ha-kfar	tox Sa'a.		
		Dan	walked to	the-village	in an hour		
Hindi/ Urdu:	(4)*	Veneeta	do ghante	mein	summit ki	taraf	chal-ii
		Veneeta	two hours	in	summit	towards	walk-Perf.
					Gen-F.Sg		F.Sg

Hungarian: (5) Suresh 2 o'ra alatt else'ta'lt a faluig.
Suresh 2 hour in Perf.walked the village-to.

Japanese: (6) Suresh-ga 2 jikan-de mura-made arui-ta.
Suresh-Nom 2 hours-in village-to walk-Past

Kannada: (7) Suresh eradu ganteyalli hallige nadedanu.
Suresh two hours-in village-to walked

Khmer:[23] (8) Joe dae(r) tiu kompul knong mu:ey maong.
Joe walk go/to summit within one hour

Korean:[24] (9) Suresh-nun 10 pun-mane maul-lo tallie ka-(a)ss-ta.
Suresh-Top 10 minute-in village-Dir run go-Past-Decl

Mandarin:

(10) Wo shi fen zhong nei (qu) zou dao le nei-ge cunzi.
I ten minutes in (go) walk to Past that village

Spanish:

(11)* Juan anduvo hasta la cima de la montana en una hora
Juan walked to the summit of the mountain in one hour

APPENDIX B: RESTITUTIVE *AGAIN* ACROSS LANGUAGES

ASL:[25] (12) TURN-TABLE-UPSIDE-DOWN AGAIN
'I turned the table over again.'

[23] Khmer does not seem to distinguish between verb and preposition, hence the ambiguous gloss for *tiu*.

[24] The Korean example contains two verbs, *tallie* 'run' and *ka* 'go'. This is obligatory in Korean—the simple verb 'run' cannot combine with a goal PP. One might be concerned that the combination 'run-go' is no longer an activity predicate, but rather by itself already an accomplishment. In that case Korean would not have a goal PP construction in our sense, and the Korean data would be irrelevant to the point I am making. However, the second verb in these constructions ('come' or 'go'), while obligatory in Korean, is optional in Japanese. Interestingly, presence or absence of this verb made no difference to the judgments I got for Japanese. In particular, the speakers who rejected a restitutive reading with a goal PP construction did so both with and without the second verb. At the same time, some of those speakers accepted restitutive readings with lexical accomplishments. This suggests that the second verb ('go' in our examples) does not turn the predicate into an accomplishment. I therefore leave the examples in our paradigm as goal PP constructions. One could consider an analysis as a perspective marker for the verbs 'come' and 'go' in these constructions. This seems to be Slobin & Hoiting's (1994) idea, who call these verbs deictic.

[25] Signs are represented by English glosses morpheme for morpheme in these examples. The ASL data reported here differ from the other examples in the survey because the signed versions of our standard examples suffered from interfering factors specific to ASL. TURN-TABLE-UPSIDE-DOWN is one verb signed with classifiers, which we counted as a lexical accomplishment predicate. We should note that Slobin and Hoiting (1994) would classify our example of a goal PP construction SWIM ARRIVE ISLAND as a serial verb construction, presumably implying a structure [[SWIM ARRIVE] ISLAND] rather than the, for our purposes relevant, [SWIM [ARRIVE ISLAND]]. They do not, however, specify a reason for this that would be compelling under our theoretical assumptions. We leave the ASL data in the survey with the proviso that the issue needs to be clarified.

(13) SWIM ARRIVE ISLAND AGAIN
'He swam to the island again.'

Bahasa Indonesia:

(14) Sally membuka pintu lagi.
Sally opened door again

(15) Suresh jalan lagi ke desa.
Suresh walked again to village

French:

(16) Sally a ouvert de nouveau la porte.
Sally has opened again the door

(17) Jean a marché de nouveau au sommet.
Jean has walked again to-the summit

German:

(18) Sally hat die Tür wieder geöffnet.
Sally has the door again opened

(19) Suresh ist wieder zum Dorf gelaufen.
Suresh is again to-the village walked

Hebrew:

(20) Dan patax et ha-xalon me-xadaS.
Dan opened Object-marker the-window again

(21) Dan halax el ha-kfar me-xadaS.
Dan walked to the-village again

Hindi/Urdu:

(22) Sally ne phir se daarwaazaa khol-aa
Sally Erg again Inst door.M.Sg.Nom open-perf.M.Sg

(23) Veneeta phir gaun k-i taraf chal-ii.
Veneeta again village.M.Sg Gen-F.Sg towards walk-Perf.F.Sg

Hungarian:[26]

(24) Sally u'jra kinyitotta az ajto't.
Sally again opened the door

(25) Suresh u'jra else'talt a faluig.
Suresh again Perf-walked the village-to

Inuttut:

(26) Suresh KakKaup kaangaanut pisu-gialla-juk.
Suresh mountain's top walk-again-3sAgr

(27) Holda ukuamik ukuisi-gialla-juk.
Holda door open-again-3sAgr

Japanese:

(28) Sally-ga futatabi doa-o ake-ta.
Sally-Nom again door-Acc open-Past

(29) Suresh-ga futatabi mura-made arui-ta.
Suresh-Nom again village-to walk-Past

[26] I chose a prefective form of the verb 'walk' in the Hungarian example (25). The reader might be concerned that the perfective aspect suffices to turn the verb into an accomplishment predicate, even without the goal PP. Note, however, that this is not the case in Serbian/Croatian, where we also chose a perfective form of 'walk'. A restitutive reading is impossible in Serbian/Croatian despite that.

Kannada: (30) Suresh tirga/punaha hallige nadedanu.
Suresh again village-to walked
(31) Sally thirga/punaha bagalu thegedalu.
Sally again door opened

Khmer: (32) Suresh dae(r) tiu phu:m(i) ven.
Suresh walk go/to village again
(33) Sally baek tvi:e(r) ven.
Sally open door again

Korean:[27] (34) Sally-nun mun-ul tasi yel-ess-ta.
Sally-Top door-Acc again open-Past-Decl
(35) a. Suresh-ka tasi maul-lo tallie ka-(a)ss-ta.
Suresh-Nom again village-Dir run go-Past-Decl
b. Sae-tul-i tasi tungchi-lo nal-a ka-(a)ss-ta.
bird-Pl-Nom again nest-Dir fly go-Past-Decl

Lingala: (36) Sally akangoli ekuke lisusu.
Sally open.3rd.Sg.F.Past door again
(37) Suresh atamboli na mboka lisusu
Suresh walk.3rd.Sg.M.Past (to) home again

Mandarin: (38) Sally you kai le men.
Sally again open Past door
(39) a. Suresh you zou dao nei-ge cunzi qu le.
Suresh again walk to that village go Past
b. Xiao niao you fei jin le niao chao.
little bird again fly into Past bird nest

Serbian/Croatian: (40) Sally je ponovo otvrila vrata.
Sally Aux again opened door
(41) Ponovo je odpesacio u selo.
again Aux Perf.walked.3rd.Sg to village

Spanish: (42) Sally la abriò otra vez.
Sally it opened again
(43) Suresh anduvo hasta la aldea otra vez.
Suresh walked to the village again

Tagalog: (44) Binuksan ulit ni Sally ang pinto.
Opened again Det Sally Det door
(45) Lumakat ulit si Suresh sa bayan.
walk again Det Suresh Det village

[27] For Korean and Mandarin I report two goal PP constructions because the first data I tested contained a confounding factor that confused the judgments somewhat. This turned out to be irrelevant to our concerns; the judgments I got for the second sentence were clear and unanimous.

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