Andrew McIntyre

I discuss the semantics and syntax of a phenomenon often called ‘lexical subordination’ and here called ‘conflation’, in which a VP with a single verb expresses both an activity and a result predication, e.g. *work a debt off*. This accounts simply for the argument-structural patterns of resultatives and event path structures. None of the argumentation is open at a lexical-semantic level between conceptual structure and syntax.

## Introduction

This study is partly concerned with a type of VP seen in (1) which, I argue, contains a predication expressing an EVENT PATH, the temporal or spatial ‘path’ of a situation. Discussion of this is overdue because most theories of the syntax-semantics interface are ill-equipped to accommodate cases like (1b-d) which are ATTRANSITIVE in the sense that direct objects normally selected by the verb cannot be linked.

(1) a. I read through the book (*I read and the reading went through the book*)

b. I rang (*the number*) through to her (*I rang the number and the call went through to her*)

c. I saw (*them*) into the window (*I saw them and the seeing extended into the window*)

d. I played (*the guitar*) on (*I played the guitar and the playing went on*)

These structures will be analysed as instances of a parameterised phenomenon, often called ‘lexical subordination’ (Levin & Rapoport 1988) but here called ‘conflation’, roughly following Talmy (1985).

In this phenomenon, a VP with a single verb stem expresses both an activity named by the verb, and a subevent, usually represented by a secondary predicate, expressing a change of state or position. One can also construct an example like *eat oneself sick* as a resultative progression with an eating event with a becoming-sick event. We will be concerned as much with conflation in general as with event paths, since I believe that neither phenomenon can be understood in isolation from the other.

We proceed as follows. Section 2 introduces the constructions studied conventionally to involve conflation and assumptions about their semantics. I assume two types of subevent conjunction, &conj and &temp (for two events perceived as a single event). I illustrate the relevance of the distinction for unaccusative and transitive resultatives (*dance into the house vs. dance oneself to death*).

Section 3 gives a semantic analysis of English and German data involving event paths, arguing for the paraphrases in terms of conflation in (1). I record most of the relevant data I have found, in a bid to demonstrate the pervasiveness of this little-known type of VP and to aid further research on it.

Section 4 gives an account of the argument structure of conflation VPs and of other facets of their syntax-semantics mapping. The attransitivity in (1b-d) can be explained if we assume that these structures involve conflation and that verbs cannot link their arguments in conflation VPs. Section 4.1 supports the latter claim empirically, mainly with little-known data where unaccusative and obligatorily transitive verbs fail to link their arguments in resultative and particle constructions.

Sections 4.2-4.4 propose a theory which explains the absence of verbal argument linking in conflation structures. Section 4.2 introduces two types of light verbs which are part of the explanation, INIT, which has a causative function, and CHANGE, which mediates predication of a path or result predicate over a DP. Section 4.3 proposes that the conflation VPs are licensed by a mechanism called m-conflation, in which a verb root is compounded with a light verb. M-conflation is constrained such that the light verb and verb root must refer to the same event. This is shown to give attractive accounts for problems in syntax-semantics mapping in resultatives, e.g. the presence/absence of reflexives in *dance oneself to death* and *dance into the house*, the appearance of unselected arguments in cases like *the metal edge tore off the blind* and the ambiguity in cases like *Ann walked Jo out*, where either Ann or Jo could walk. Sections 4.4 and 4.5 apply the theory to attransitivity and discuss potential alternative accounts. Section 5 gives some conclusions and addresses problems for the analysis.

## The semantics of conflation

In the constructions in (2), seen by Levin & Rapoport (1988) as instances of lexical subordination (in my terms: conflation), a causing event is represented by the agent and the verb stem, while the result event is represented by other material in the VP, including result predicates and direct objects, notably objects which are UNSELECTED, i.e. not subcategorised by the verb, compare *work a debt off with *work a debt*. (3) gives examples for the semantic representations (SRs) I assume for these constructions.

(2) a. Resultatives: shout someone deaf, wrestle people to the floor, knock a vase flying

b. (Some) particle verbs: work a debt off, vote a party in, edit out a passage

c. Effects of verb objects: dig/dril a hole, shoot/cave/steare holes in the wall

d. The way-construction: line one's way into the building, fight one's way out

(3) a. Dave ate himself sick: DO(DAVE.EAT) &temp, BECOME(SICK(DAVE))

b. Dave scratched a sticker off: DO(DAVE,SCRATCH) &temp, GO(STICKER,TO(NOT(ON(FINGERTIPS))))

c. Dave drilled a hole: DO(DAVE,DRILL) &temp, BECOME(EXIST(HOLE))

d. Dave shot his way to Texas: DO(DAVE,SHOOT) &temp, DO(GO(HOUSE),TO,IN,Texas)

The decompositions in (3) ignore matters irrelevant here like quantification and tense. Causation (noted as &conj here) is not seen as an agent-event relation (e.g. Jackendoff 1990) but as a relation between two events (e.g. Dowty 1979, Wunderlich 1997b). Other notational choices follow Jackendoff (1990). I use his GO function, which relates a moving object to successive parts of a path. Some would reject GO in favour of BECOME. However, BECOME is problematic for PPs like around the city, along the wall, southwards where the theme reaches no goal. We need GO for at least these expressions, and I will treat all spatial transitions uniformly. See also Jackendoff’s (1990:93f) defense of GO. Like Dowty (1979) and unlike Jackendoff, I use the standard BECOME operator with adjectival state change, e.g. (3a).

Some constructions in (3) need comment. Firstly, in particle verbs (also called ‘phrasal verbs’, ‘separable verbs’, ‘verb-particle combinations’) like (2b) and (3b), the particle differs from its related transitive preposition (cf. *scratch the sticker off the wall*) in that the ground is defocussed, remains implicit and must be identified via recourse to the context or encyclopaedic knowledge. The symbol Ø indicates that the entity is defocussed. I leave open whether this purely conceptual notion accounts for the particle’s syntactic non-realisation. It would suffice if particles have silent pronominal complements (Svenonius 1996). If not, we need extra stipulations, not formulated here, about possible argument structures of prepositions.

The way construction in (2d), studied in Goldberg (1995), Israel (1996), Jackendoff (1992), Marantz (1992), Mateu (2000) is provisionally formalised in (3d). I treat the x’s way part of the construction as iconic of a conceptual theme argument, as in the analyses of Goldberg, Marantz and Mateu. I do not discuss the nature of the righthand conjunct here, since I only appeal to the assumption that the subject’s action is seen as causing the motion.

(3d) became the cause of his attention when Dave reached Texas because he shot those who tried to stop him, has a marginal-causal reading in which shooting was a salient concomitant of the motion. The latter reading may be a jocular use of a causal structure in a non-causal context. If not, then &conj should give way to a second type of conjunct, &tempconj, which expresses that the conjoned subevents are contemporaneous and spatially indistinct, and are perceived as the same event. The conjunctions used here are inspired by Kaufmann (1995a,b,c) and Wunderlich (1997a,b), although these writers leave the difference between &tempconj and &conj up to inference.

Single-DP resultatives like (4), which I call ‘unaccusative resultatives’, are often seen as causal (e.g. Levin/Rapoport 1988, van Valin 1990:224). On this view, (4c) means *Ethel got into the studio by dancing*. However, I follow e.g. Rappaport Hovav & Levin (2001), Kaufmann (1995a,c) & Wunderlich & Kautzsch (1998) in rejecting this causal analysis in favour of one in terms of contemporaneous conjunction. The sound emissions in (b) accompany the motion rather than causing it, so an &conj analysis makes far less sense than an &tempconj analysis in which the subevents are indistinguishable because they occur at the same place and time.

(4) a. I strolled into the house, the box broke open, the toast burned to a crisp, the tires wore thin

b. a motorbike roared down the highway, a bee buzzed past

c. Ethel danced into the studio: DO (ETHEL,DANCE) &tempconj, GO (ETHEL, INTO STUDIO)

Let us explicitly compare &conj and &tempconj. The unaccusative structure in (4c) portrays the dancing and the traversal of a path into the studio as the same happening. If this condition is not met, we need transitive structures like (5). Here the entry into the record books or the trance can take place.
after the dancing, so that there can be no contemporaneous conjunction. Rappaport Hovav & Levin (2001) offer similar examples. I explain why the &contemp&uninterrupted distinction correlates with the unaccusative/transitive distinction in resultatives in section 4.3.

Despite what my notational format may imply, I understand my SRs as simplified models of pure conceptual structure, not as belonging to a lexical-semantic level of grammar (sometimes called Semantic Form or Lexical Conceptual Structure) which interfaces between conceptual and syntactic structure and syntax. While the extra level simplifies the resolution of mismatches between conceptual structure and syntax, I will explore a more parsimonious and restrictive theory which dispenses with this level. For instance, conflation is often taken to be the addition of result subevents to verb meanings in a lexical-semantic operation, be it lexical subordination (Levin/Rappaport 1988, Legendre 1997:84, Spencer/Zaretskaya 1998), event composition (Rappaport Hovav & Levin 1998) or lexical adjunction (Wunderlich 1997a,b). Languages (e.g. Romance) lacking conflation phenomena lack the relevant lexical operation in such theories. Rejecting a lexical-semantic level leaves me unable to appeal to this reasoning, in section 4.3, I pursue an alternative in which the ability of a language like English to express in a VP with a single verb stem the (by hypothesis universally available) complex event structures such as those in the SRs in (3-5), and the impossibility of this in Romance, reduces to some properties of the syntax of the languages.

3 Event paths

This section argues that conflation can license structures like (6), event path structures. A VP with a single verb stem can express a situation s in which a subevent s′ represented by a verb and its external argument is conjoined with a subevent s″ specifying the ‘path’ followed by s′. The theme of s″ is an item coindexed with s′. Direct objects are only allowed if they are part of s′, a fact explained in section 4.1. (6) [s′<situation expressed by verb and external argument>, &unint [s″<GO selim]>s′<PATH>]

3.1 Atransitive particle uses

The particle uses in (7) are atransitive, i.e. incompatible with the direct objects normally selected by the simplex verb. My (2001) study gives more data on an analysis as superseded by the present one. (From 7 onwards, all non-English examples are German, unless otherwise marked.)

(7) a. read (*notes) on: fight (*one’s battles/enemies) on
b. sing (*a song) along; read (*the text) along

This is a purely spatial use, not an inchoative marker. For instance, Briefe loschicken means ‘send off a letter’, not ‘start sending letters’, and loschicken is transitive, unlike in the inchoative use in (7d). Also, loschwimmen ‘swim off’ is unaccusative, forming its perfect with sein ‘be’, patterning with other causatives. Schwimmen combines with a directional expression of motion, so that loschwimmen can take the haben ‘have’ perfect when expressing an activity rather than directed motion, cf. (10a). If los lacked a spatial sense and were always an inchoative marker, we would not loschwimmen to disallow the have perfect. (On the ability of path expressions to license perfect with manner of motion verbs, see e.g. Abraham 1993, Kaufmann 1995b, Keller & Sorace 2003, van Valin 1990.) Finally, los has a privilege otherwise unique to directional expressions in allowing the elliptic motion verb construction in (10d), on which see van Riemsdijk (2002).

(10) a. wir haben geschwommen
we have swum
b. wir {sind/*haben} losgeschwommen
we {are/have} off.swum

c. wir {sind/*haben} zum Ufer geschwommen
we {are/have} to the bank swum

d. ich muß {los/runter/weg/zum Arzt}
I must {off/down/away/to the doctor}

e. das Geheule ging los
the sobbing went off

‘the sobbing started’

I conclude that there is a purely spatial use of los. I define it as a PATH WHICH IS THE INITIAL BOUND OF A LARGER PATH. This definition captures the intuition that gives initial plausibility to an analysis of los with motion verbs as an inchoative marker. We now turn to the non-spatial, atransitive inchoative use of los in lostrippen ‘start typing’, loswählen ‘start dialing’ and (7d). My claim is that the atransitive use still expresses a PATH WHICH IS THE INITIAL BOUND OF A LARGER PATH, but the path in atransitive uses is metaphorical, proceeds through time rather than space, and has an event instead of an entity as theme. The ‘inchoative’ effect follows from the fact that the path of the event (in common parlance: its ‘course’) is the initial part of a larger path (to wit, the course of a larger event). Analogous to go on in (9c), losgehen ‘on’/’off’ allows event nominal themes, cf. (9e). These points lead to the claim that a construction like wir arbeiten los ‘we start working’ conjoins with &contemp the situations expressed by wir arbeiten ‘we work’ and die Arbeit geht los ‘the work starts’ (lit. ‘goes off’). A benefit of this localistic approach is that the differences between the spatial and inchoative senses are captured without having to assume homonymy. The punctuality of los verbs (Stiebels 1996:93, fn. 15) is also explained because the agentic subevent otherwise cannot be in an &contemp&unintrelationship with the event’s metaphorical movement along the minimal path expressed by los.
The analysis of walks applies to the off examples in (7e). The relevant spatial meaning is seen in walk off, carry the goods off. The atransitive use of the particle is unproductive, however. The only other examples I found are the golf term tee off ‘start playing golf’ and the discussion started off, where the particle arguably has the same semantics as in hit off but predicates over an event overtaken.

One spatial reading of around expresses a path of entities which is characterised as lacking an ORIENT function as in (16a).

The path analysis of around in (7b) can be analysed localistically. The PP in the window goes to north out ‘the window faces northwards’ (c), using the particle goes to north out, the latter path is that of the ‘bringer’, in this case.

I now propose more explicit SRs for atransitive particle verbs. (12) summarises my approach. The claim is that these structures involve conflation. An activity (represented by a verb stem and its agent) conflates with a predication of a path over an entity conjoined with the activity.

The analysis of the present study involves the particles around, into, along, onto, into, by, from, about. These are the particles I have used so far in this paper. The aim of this chapter is to provide a more detailed account of the particles and their use in different contexts.

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b. [PLACE(SEE (ANNE,MAN)), &OCCURRING [EVENT(ORIENT ([EAST]), TO IN WINDOW)])

c. [PLACE(SEE (ANNE,MAN)), &OCCURRING [EVENT(EXT ([LINE_OFVISION]), TO IN WINDOW)])

d. Anne sah Gesichter in die Wolke

Annie saw faces into the cloud

Sebastian Löbner (p.c.) pointed out (18d), where a directional PP is compatible with a direct object. However, this is a restrictive construction where Anne is said to cause faces to enter the cloud by (deliberately) distorted perception. That speakers can assert resultative predicates they know to be illusory is confirmed by (19).

19. a. He read arcane messages into the text that simply weren't there.

b. In the kitchen, the dope heads smoked their way to some far-flung corner of the cosmos.

c. The system does not hallucinate arbitrary meanings into an expression. (Levin & Rappor 1985:281)

Atransitivity is also found with PPs with 'telephone verbs', cf. (20-21). Direct objects and path PPs co-occur only if the path is a result predicate on the object (as in (20d), where the details go through to the object due to the phone call) but not when the PP gives the direction of the phone call, as in (20c) and (21).

20. (a) Stan rang ([the secretary/the number]).

b. Stan rang through ([the details]).

c. Stan rang ([the secretary/the number]) through.

d. Stan rang the details through ([the secretary]).

21. a. You can't call (*people) out on this phone: it's for internal calls.

b. I phoned/faxed/dialed (*the number) through/in.

I formalise the resultative pattern in (22d), and the atransitive structure in (22a-c). (b) glosses as 'Stan rang and the call went through'. DO marks ring as a punctual agentive verb (the 'semelfactives' of Smith 1991, e.g. cough, knock). To me, he rang for ten minutes is not good, showing that ring is not durative. For speakers who disagree, the correct SR would be (c), glossing as 'Stan rang and the call extended through'.

22. (a) Stan rang ([the secretary]) through.

b. [EVENT( attraverseln ([STAN,RING(SECRETARY)])), &OCCURRING [EVENT(GO ([DISTAL]), THROUGH)]]

c. [EVENT( darüber ([STAN,RING(SECRETARY)])), &OCCURRING [EVENT(EXT ([DISTAL]), THROUGH)]]

d. Stan rang the details through ([the secretary]).

Another verb where objects and directional PPs are in complementary distribution is German greifen 'grasp, try to gain manual control of something', cf. (23). (23d,e) are two suggestions on what the directional PP predicates of. (d) says that the grasping event moves in some direction, and (e) that the theme of the PP is the agent's hand, which is syntactically unexpressed. Again, either analysis will do for my purposes.

23. (a) Er griff einen Akkord.

Er gripped a chord.

b. Er griff einen Akkord (on a piano, guitar)

c. Er griff die Klaviertasten

He gripped into the piano keys.

d. Er griff den piano

He played the piano.

e. *Er griff einen Akkord in die Klaviertasten.

Intended: 'he played a chord on the piano'

greifen + PP, [EVENT( über ([GRASP(PP)])), &OCCURRING [EVENT(GO ([DISTAL]), [PP])]]

d. greifen + PP, [EVENT( über ([GRASP(PP)])), &OCCURRING [EVENT(GO ([HAND_OF_X]), [PP])]]

e. greifen + PP, [EVENT( über ([GRASP(PP)])), &OCCURRING [EVENT(GO ([HAND_OF_X]), [PP])]]

Similar is reach in (24). In (c), the path does not predicate over the object, and unacceptability results.

(d) is a resultative where the object is a theme over which the path predicates.

24. (a) I can't reach up to the top shelf.

b. I can't reach [the bottle on the top shelf]

c. I can't reach ([the bottle]) up to the top shelf.

d. I reached my hand up to the top shelf.

25. (a) greifen + PP, [EVENT( über ([GRASP(PP)])), &OCCURRING [EVENT(GO ([HAND_OF_X]), [PP])]]

(b) greifen + PP, [EVENT( über ([GRASP(PP)])), &OCCURRING [EVENT(GO ([HAND_OF_X]), [PP])]]

8
expressions, cf. (32b). I suggest that the particle verbs and the prepositional verbs both have the type of SR illustrated in (31). However, the holistic effect applies only to the particle verbs, since these have the ground in direct object position. Consequently, we find telicities differences like those in (32c). Additionally, we capture the intuition that reading a book is less than reading a book through. Although the former could exhibit the bounded reading of through in the sense that the reading encompasses the beginning and end of the book, it is compatible with skim-reading or leaving out some sections because there is no holistic effect to ensure that the whole of the book is involved.

(32) a. read/look/glance/work quickly [through the book], think/talk [through the matter]

b. She read (*the important passages) through the book.

c. I thought through the issue (for/in) an hour.

I thought the issue through [in/for] an hour.

4.3 Event paths or paths of entities?

The idea that there are paths expressing predicates over items conjoined with an agentive event will now be compared with an alternative. Concerning (33a)=(14), J. Mateu (p.c.) asked why the path expressed by atransitive particles could not be a predication over an agent, as in (33b). Likewise, (34) contrasts my analysis of read through with an analysis implied by Jackendoff's (1996:332) suggestion that expressions like read a book are conceptualised as paths followed by an agent through an entity.

(33) Fred talked on

a. [read DO[FRED,TALK]] & [someone [read GO[MOVED], [path,EXTENDED]]]

Fred talked and the talking went on

b. [read DO[FRED,TALK]] & [someone [read GO[FRED], [path,EXTENDED]]]

Fred went on talking

(34) Fred read through the book

a. [read DO[FRED,READ]] & [someone [read GO[MOVED], [path,THROUGH BOOK]]]

Fred read, and this reading went through the book

b. [read DO[FRED,READ]] & [someone [read GO[FRED], [path,THROUGH BOOK]]]

Fred read and he went through the book

Mateu's and Jackendoff's suggestions merit consideration, like constructions I got up to the left of the chapter and the gloss in (34b) (and that in (33b), unless go on is a raising verb here) suggest that an agent's progress can be conceptualised as higher position. However, the agent predication analyses in (33b) and (34b), being parallel to spatial transit expressions like (4c), predict unaccusativity, but none of the German structures analysed as event paths in section 3 shows the he auxiliary found with unaccusative structures where a path predicates over a unique DP argument. Also, we find impersonal passivisation peculiar to unergatives with event paths, but not paths of entities:

(35) a. hier wind nur runggespielte here is only around,played 'people are just playing around here'

b. ??hier wind nur rüngelaufen here is only around,run 'people are just running around here'

There are constructions superficially similar to event path structures, but whose grammar suggests that they involve agent-oriented path predication, cf. (36a). Dispensing with event paths in favour of agent paths fails to capture the difference between (36a) and (36b).

(36) a. ich arbeite mich durch das Buch durch I work myself through the book through

b. ich arbeite das Buch durch I work the book through

'I work through the book'

Thus, the Mateu-Jackendoff hypothesis cannot replace the event path metaphor. This said, I do not claim that all unergative directional PP structures involve event paths. The PPs in (37) presumably express paths of the implicit entities given in brackets. (18c) and (23e) also assume paths of implicit entities. However, other cases studied above (e.g. play around, ear on, work through a book, look at someone...), are better analysable in terms of event paths than paths of implicit entities.

(37) a. He shot (*a bird) into the tree. [a bullet]

b. I sawed (*the wood) through the door. [a saw]

c. She spoke/breathed into the microphone. [words/air]

d. I was waving around. [arms]

The explanations given later for the complementary distribution between directional expressions and direct objects will apply irrespective of whether an event or an implicit entity is theme of the path. What is important in the analysis below is that these PPs/particles express paths and that direct objects normally associated with the verb are unlikable because they are not the themes of these paths.

4.3 Summary of the argument-structural effects of event paths

I argued that there are conflation structures where a situation s conflates with a predicition expressing either the path or direction of s (section 3.1-3.3) or the path of an implicit entity (3.4). The data in 3.1 and 3.3 included (but were not confined to) a subset of the particles sometimes pretheoretically called 'aspectual', as in play on and read books through. These are not accidental homonyms of other senses of the particle, but arise from metaphoric extension of a spatial sense of a particle so that events as well as entities are possible themes.

Let us summarise the argument-structural behaviour of the constructions. Particles/PPs expressing event paths (or paths of implicit entities) disallow the linking of direct objects associated with the verb unless such DPs are conceptually the ground of a particle which is promoted to direct object (section 3.3). If a prepositional element has no overt ground, or if the ground is realised as a complement of P, the structure is atransitive. Table 1 clarifies this.

Table 1. Event paths and argument linking

<table>
<thead>
<tr>
<th>Subject</th>
<th>Verb</th>
<th>Direct Object</th>
<th>Particle/PP</th>
<th>Ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ate</td>
<td>*</td>
<td>on</td>
<td>-</td>
</tr>
<tr>
<td>1</td>
<td>saw</td>
<td>* into the house</td>
<td>complement of P</td>
<td>-</td>
</tr>
</tbody>
</table>

4.4 Argument structure and conflation

To explain the argument-structural facts just summarised, I will propose a general theory of conflation, proceeding as follows. Section 4.1 argues that direct arguments in transitive resultative and particle conflation constructions are not arguments of the verb, and more generally that conflation bans the linking of a verb's arguments. This generalisation, which predicts atransitvity, is itself explained in the theory of the syntax of conflation VPs presented in sections 4.2-4.3. The theory is applied to atransitive VPs in section 4.4.

4.1 Against inheritance of verbal arguments in conflation structures

Many writers (Carrier/Randall 1992, Haider 1997, Neelam/Weeram 1993, Winkler 1997) maintain that, in resultative constructions and particle verbs, direct objects conforming to the verb's object selection (e.g. nails in (38)) are arguments of the verb, not just of AP/PP. I term this the hypothesis of INHERITANCE of verbal arguments.

(38) hammer nails flat, hammer nails into the wall, hammer in nails

If inheritance is impossible in conflation VPs, we would have the makings of an explanation for atransitvity. We would expect conflation VPs to be transitive exactly when the secondary predicate has an external DP argument. We would expect objects in (38) because the AP/PP has a theme argument, and in read the book through because the particle's ground is not realised as complement of through, and must leave the AP in search of case. We would predict atransitvity with read (notes) on and see (*people) into the window because the prepositions license either no DP argument or a single DP argument realised PP-internally. To pursue this account for atransitvity, we need an independent demonstration -undertaken now- that the inheritance hypothesis is wrong.

One argument for the inheritance hypothesis is based on the claim that unselected objects (defined in section 2) do not occur in resultative constructions with obligatorily transitive verbs, suggesting that the verbs' object selection properties are preserved in resultative constructions; unselected objects are assumed to occur only with intransitive (variants of) verbs (I ate vs. I ate myself sick). Carrier & Randall (1992:187; henceforth C&R) support this with data like (39). (a) shows that frighten is obligatorily transitive, and (b) and (c) suggest that result predications respect the verb's object selection, which is taken to show that the object is indeed an argument of the verb. The open question is whether the three verbs with which C&R support their claim are representative. If they are, then the inheritance hypothesis would be convincing. If not, it could be dismissed with little further ado.

(39) a. The bears frightened *(the hikers).

b. The bears frightened the hikers speechless.

c. The bears frightened the campground empty.
The resultatives and particle verbs in (40) (and more German examples in Kaufman & Wunderlich 1998:20) show that C&R's data do not generalise. (b) and (c) refute their analysis of frighten. To save space, indications of the verbs' obligatory transitivity and the unselected status of the object are omitted from (b) onwards; they can be constructed analogous to the bracketed material in (a).

(40) a. Adrian lit/rolled up (a cigarette) vs. Adrian lit/rolled *(a cigarette).
   b. They frightened/scared/bored the hell out of me.
   c. He did not draw music out of his players; he frightened it out of them. [from a description of a
      intimidatory conductor, found by web search under www.google.com]
   d. I shut/locked him in the cellar; I beat the crumbs out of the blanket; I wrenched the
      photograph out of his hand; I pouted the bucket out; I ripped the machine out of its packaging
   e. Ich stellte the Garage voll

   'I stood things in the garage, filling it up'

Furthermore, C&R's empirical claim, if extended to particle verbs, cannot make sense of optionally transitive particle verbs based on obligatorily transitive verbs:

(41) a. Adrian lit/rolled up (a cigarette) vs. Adrian lit/rolled *(a cigarette).
   b. Sally locked/tidied up (the house) vs. Sally locked/tidied *(the house).

The theses in (45b,c) have precedents in the literature, including all studies which see direct arguments

(42) a. Cooper frightened his way into the hearts of defiant adolescents
   b. They {bribed/beat/ground/defined} their way out of the situation

There is also a stative parallel of unaccusative resultatives where a position verb conflates with a locational predication in such a way that the position verb's argument structure is violated:

(44) a. die Wand hängt voller Bilder
   b. der Keller steht halbvoll
   c. der Fußboden lag zu mit Papier
   d. der Fußboden lag zu mit Papier
   e. das Fenster wächst zu
   f. die Wanne fließt schlecht ab
   g. die Tasse schwappt über
   h. die Wand hängt voller Bilder
   i. der Keller steht halbvoll
   j. der Fußboden lag zu mit Papier
   k. die Wanne fließt schlecht ab
   l. die Tasse schwappt über
   m. die Wand hängt voller Bilder
   n. der Keller steht halbvoll
   o. der Fußboden lag zu mit Papier

The conclusion from the data in this section is (45a). From it follow the corollaries (b) and (c).

(45) a. Obligatory direct arguments (i.e. direct objects, unaccusative subjects) normally selected by verbs are not obligatory when result predicates and particles are present.
   b. A verb's internal argument selection requirements are inactive when conflation takes place.
   c. Direct arguments in conflation constructions are not arguments of the verb, but are arguments of a predicate in the subevent introduced by conflation.

The theses in (45b,e) have predecessors in the literature, including all studies which see direct arguments

(46) a. They hammered the metal flat.
   b. A little more hammering should get the metal flat.

I anticipate two objections to (45b,c). The first is that it does not predict cases where V DP XP entails

(47) Ich hab den Ball runtergeworfen, also mit dem Stock runtergeworfen

'I got the ball down by throwing a stick at it'

A second challenge to (45b,c) was raised by a reviewer, who claimed that the status of the particles in

(48) Ich hab den Ball runtergeworfen, also mit dem Stock runtergeworfen

The correlation of transitivity and resistance to unselected objects is undermined by way-constructions based on obligatorily transitive verbs, easily attestable by web search, cf. (42). Clearly, the unselected object's way ignores verbs' selection restrictions.

(49) a. Cooper frightened his way into the hearts of defiant adolescents
   [www.worldguitarist.com/rock/nl6.html]
   b. They {bribed/beat/ground/defined} their way out of the situation

Secondly, consider the metaphoric resultatives in (50a,c). The object is an argument of the PP/AP (not the verb: *the door blows"); the copula argument is also undermined in that different copulas make different predictions. (b) and (d) allow

(51) a. Fritz could drink/talk anyone under the table. (i.e. 'outdrink/outtalk')
   b. Don't try to outdrink/outtalk Fritz: you'll be under the table in no time.
   c. We drank the cellar dry; I drained the boiler dry; Rapacious imperialists bleed us dry.
   d. The cellar/boiler is dry; *We are totally dry due to rapacious imperialists.

The senses of dry and under the table in (50a,c) ('empty of liquid', 'no longer able to compete') are

(52) a. Ich hab den Ball runtergeworfen, also mit dem Stock runtergeworfen
   b. *The beer is up; *The article is over

Firstly, most directional PPs and continuous state change comparatives (i.e. inherently evocative PPs/APs) are incompatible with copulas, cf. (49), although they unconventionally predicate over DPs. The copula argument is thus not compelling with respect to (48a) without a demonstration that up and over are not inherently evocative like the PPs/AP in (49a).

(53) a. We drank the cellar dry; I drained the boiler dry; Rapacious imperialists bleed us dry.
   b. The cellar/boiler is dry; *We are totally dry due to rapacious imperialists.

The senses of dry and under the table in (50a,c) ("empty of liquid", 'no longer able to compete') are only found in conflation structures and only with certain verbs. This applies in equal measure to many particles. Stiebels (1996), Zeller (2001b) and McIntyre (2002) note that the appearance of semiproductivity found with many readings of particles is epiphenomenal to the fact that they only appear in verb-particle combinations and that the senses of a particle usually constrain the (classes of) verbs which may appear in the construction. Given that a copula has little in common with other verbs, it is unsurprising that it often fails to appear with verb predicates, including those in (48a). The copula+particle constructions we do find are highly irregular, cf. (51) (see also McIntyre 2002:101f). The copula argument makes the world prediction that away and down are secondary predicates in (51a,c) but not in (b,d). The copula argument is also undermined in that different copulas make different predictions. (b) and (d) allow

(54) a. Anne went away (on holidays) = Anne is away
   b. Anne walked/run away ≠ Anne is away
   c. The problem brings/brings Mary down
   d. I bolted the food down; *The food went down ≠ The food is down
In sum, the copula is untrustworthy as a test for secondary predicates. The copula argument thus fails to support the claim that the objects in (48a) are arguments of verbs rather than of particles. Indeed, the particles in (48a) sometimes openly flaunt their status as secondary predicates. The relevant uses of up (the so-called ‘aspectual’ uses, or, to use a more accurate notion available for free, its uses as an underspecified result predicate, see Speer & Zaretskaya 1998:6, McIntyre 2003) license unselected objects, cf. (52a), and optional intransitivability impossible with the simplex verb, cf. (41). Similarly, repetitive over (Jackendoff 2002/78f) forms obligatorily transitive structures even with intransitive or optionally transitive verbs, cf. (52b). Clearly, the verb is not selecting the objects in (52), in accord with (45c).

(52) a. chat someone up, soak water up [cf. *chat someone, *soak water]
   b. read *(books) over, think *(the matter) over [cf. read (books), *think the matter]

Beside up and over, the so-called ‘inchoative’ use of German an (andeen ‘read partly’, anknabbern ‘nibble partly’) is another apparent threat to (45c), for it co-occurs with direct objects, unlike the at first sight synonymous los in (7d). However, the objects are obligatory, whatever the verb’s subject is (cf. Standen ‘think about partly’ from intransitive aandenken). See Zeller (2001a) and McIntyre (2001) for data and analyses of as as a secondary predicate expressing partial affectedness of direct objects.

Thus, we can maintain the empirical claim that direct objects in conflation VPs, including resultatives and particle verbs, are not arguments of the verb. As noted earlier, this predicts atransitivity when the PP/particle licenses no external DP argument, as in eat *(tasty) on and see *(her) into the window. Thus, atransitivity reduces to an independently motivated fact. This section tries to explain this fact.

4.2 VP shells, INt and CHANGE

My explanation for atransitivity will assume with recent generative studies that the traditional VP can consist of more than one embedded maximal V-projection (shell) where at least one verbal head is a noun. Following Larson’s (1988) original proposal, most writers contrast Latin with English as the head of the upper shell has a (cf. causative, agentive) meaning (e.g. Baker 1997, Bowers 1993, Hale/Keyser 1993, 1997, Harley 1995, Kratzer 1996, Pylkkänen 2002, Stechow 1996). I call this head INIT. Its specifier is an initiator, an entity with which an event originates. The complement of INIT expresses the eventive content expressed by a lexical verb (Hale & Keyser 1993:68-74 offer relevant specifications). I illustrate my approach with the transitive resultative in (56). Ignoring the material under the higher shell (cf. (55b)), giving a structure where each shell is headed by a light verb. I firstly describe the theory, and then support it by showing that it acquires itself well in handling various problems of resultative VPs.

4.3 M-Conflation and resultatives

Theories of resultatives and particles which use shells normally assume that a lexical verb heads the lower VP, e.g. for INIT, covering every verb in (54a) (e.g. Hale & Keyser 1993; 1997; Harley 1995). The approach considered here avoids this.

(54) a. Fred spoke: [Jana [Jana drink+INIT [Jana drink]]]
   b. Martha played the piano: [Martha [Martha play+INIT [piano]]]

I illustrate my approach with the transitive resultative in (56). Ignoring the material under the higher INIT, (56b) means that Ethel is the initiator of an event in which she becomes tired. INIT merges with the root dance in the morphology, yielding a compound verb whose nonhead (the root) does not affect the interpretation of the morphological structures. Note the terminology: I speak of ‘conflation’ when abstracting away from the mechanism which yields it, and of ‘m-conflation’ when speaking of the mechanisms in (57) (as opposed to the lexical operations mentioned in section 2).

(56) a. Ethel danced herself sore:
   b. [do Ethel dance+INIT [Ethel dance]]

I call changed a type of light verb ‘because I intend to be understood as a cover term for distinct light verbs sharing the same basic predicate properties. The subvariants of CHANGE relevant here are V\textsubscript{become} and V\textsubscript{become}, which correspond to become and go in SR and take respectively AP and PP complements. Support for seeing V\textsubscript{become} and V\textsubscript{become} as distinct morphemes comes from elliptical modal-path constructions of the type I want out and German structures like (10d). Van Riemsdijk (2002) argues that their syntax must contain a null go (i.e. V\textsubscript{become}). Dutch, but not German, has AP constructions of the type I\textsubscript{wan} will do ‘I want to die’, (lit. ‘I\textsubscript{wan} wants to die’). This suggests that Dutch allows an empty V\textsubscript{become} in the complement of a modal, while German allows V\textsubscript{become} but not V\textsubscript{become} here. This contrast can be captured only if V\textsubscript{become} and V\textsubscript{become} are distinct morphemes. (A further argument for this view appears in section 4.3.) In the following, references to CHANGE are to be read as shorthand for V\textsubscript{become} and/or V\textsubscript{become}.

INIT and CHANGE are not seen as categories unto themselves, but as two different ways in which the category V can relate a specifier to a complement. Put differently, if V projects a specifier and complement, it can either relate an entity to an event, in which case V is called INIT, or an entity to a property or path, where V is called CHANGE. I leave open whether the grammar stipulates the existence of the INIT/CHANGE distinction, or whether precisely these manifestations of V are predictable given some general theory of verbhood. (Hale & Keyser 1993:68-74 offer relevant specifications).
Another approach to reflexives like that in (56b) assumes that result predication can only reach (underlying) direct objects (the 'Direct Object Restriction', DOR). Unlike unaccusatives, unergatives lack direct objects, so reflexive objects are inserted to mediate the result predication to the subject (Levin & Rappaport Hovav 1995; Li 1999; Simpson 1983; Spencer-Zaretzky 1998; Winkler 1997). A problem concerns unaccusative resultatives from sound verbs (rustle/buzz/burst in). For these, DOR accounts must posit an unaccusative variant of the verb that preexists resultative formation. This approach avoids circularity, for the unaccusative variant is only evident in the verbs' behaviour in resultative constructions. It remains unclear in existing DOR theories why this unaccusative variant (be it generated by lexical rule or lexically listed) should exist at all. My account avoids such problems: rustle does not involve an unaccusative variant of rustle but the use of rustle in an unaccusative structure.

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and parallel unaccusatives (the toast burnt black) are ill-formed in German (Kaufmann & Wunderlich 1998). In my theory, this is expressed by stating that German lacks productive compounding with V\textsubscript{encaps}. (This gives a second theory-internal argument that V\textsubscript{encaps} and V\textsubscript{encaps}' are distinct morphemes, cf. section 4.2.)

(60) a. (Ann walked, pushing Jo in a pram): [Ann [[walk\-INIT] [Jo \textit{v\textsubscript{up}}\text{up}]]]
b. (Ann, stationary, makes Jo, a puppet, walk): [Ann [\textit{init} [Jo [walk\-v\textsubscript{up}]]]]

(61) Bill burnt the toast black [Bill [\textit{init} [the toast [burn\-V\textsubscript{encaps}\text{black}]]]]

Extending the inventory of light verbs yields more possibilities. Constructions like (44) (the wall hangs full of pictures) m-conflate a position verb with a silent copula BE. More radical possibilities include m-conflation with a silent MAKE (drill a hole) and CONTAIN (the room sleeps/sits ten people).

The idea of argument-structurally inert verb roots central to m-conflation reminds one of serial verb-like constructions such as go see, go give the book, where go does not affect the argument structure. These seem to present the going and the event occurring at the destination as a single event, an intuition found with serial verbs in many languages (Duer 1997:291). Perhaps go enters the structure by m-conflation as in resultatives, except that go sanctions overt V-V compounding, unlike other verbs. These structures resist inflection (*the go(es) get(s) it), perhaps because the English Tense head cannot check features with two verb stems. Deciding whether there are any serial verb-like constructions which should be generated by m-conflation is too complex an issue to enter into here, however.

To conclude, it appears that the approach recommended here is capable of a neat explanation for the syntax-semantics mapping in resultative constructions. Assessing the consequences of this non-standard proposal requires more work, but I leave the discussion now, hoping that the theory is worth considering.

### 4.4 The syntax of event path structures
We now see how the theory fares with event path structures. An account for atransitivity must work with SRs that encode illicit direct objects, e.g. because *Fred ate cakes on has an acceptable literal German translation in Fred aß Kuchen weiter (cf. section 5) and because atransitivity can befall verbs like hit (*a golffball off), whose otherwise obligatory transitivity suggests that the action cannot be conceptualised without the object. I use (62) as a sample SR. The choice of scrub as a sample verb and the representation for the verb's meaning in the lefthand conjunct is arbitrary, as the explanation will cover any verb appearing in an atransitive VP.

(62) Fred scrubbed (*floors) on [DO [FRED, scrub\-P(floors)], \&\textsubscript{ency} \text{GO}[\text{floors}], \text{ON}]

(63) is the proposed syntax. As usual in my theory, the GO subevent in the SR maps onto a CHANGE\textsubscript{P}. The specifier of CHANGE\textsubscript{P} in (63) is an empty element (notated as X) which represents the theme of the GO event in SR (i.e. the coindexed Event constituent). X is not essential for my purposes, but economical on it would reduce the clarity of the mapping to the semantics. X occupies the position for the direct object. I will not rely on this in explaining atransitivity, however.

(63) Fred scrubbed (*floors) on [DO [FRED, scrub\-P(floors)], \&\textsubscript{ency} \text{GO}[\text{floors}], \text{ON}]

Various factors predict the unlinkability of the verbal object. Firstly, m-conflation as defined in (57) says that in (63) (as in (56), (58) and (59)) the lexical verb is a nonhead of a compound, and thus unable to license arguments outside the compound, cf. the standard observation that the arguments of the nonhead are not part of the argument structure of the compound (Di Sciullo & Williams 1987:30). Thus, the factors blocking *scrubwomen of floors, *a crybaby of bitter tears and *a bakehouse of cakes are one of our grammatical cases in cases like *scrub floors on, *cry bitter tears on and *bake cakes on.

Even in the unlikely event that the lexical verb in (63) could license an object in the lower specifier position in lieu of X, the semantics of CHANGE\textsuperscript{\textit{v\textsubscript{v}}} would force on to predicate over the object, ruling out the event path reading of the particle and forcing a resultative interpretation, even if this is pragmatically deviant. This is one of the first intuitions one has about atransitivity violations: *scrub floors on and *eat cakes on, if interpretable, sound as if the objects are somehow caused to ‘go on’. #\textit{dash the piano about} is conceptually parallel to push the piano about, although the event path reading ‘bash about on the piano’ is far more likely.

Thus, the nature of m-conflation and the relational semantics of CHANGE forbid the linking of verbal objects in (63). It remains to clarify certain aspects of the proposed syntax. (63) shows a syntax-semantics mismatch similar to (but more complex than) that in (56). That Fred initiates the GO event in (63) is not stated in the SR in (62), but is inferred from it. The initiating event is identified as scrubbing by m-conflation although it is not represented explicitly as the cause of the GO subevent in the SRs, where the GO event is linked by \&\textsubscript{ency} \text{not} (\&\textsubscript{ency} \text{like}, not unlike in (56)). However, since the GO subevent presupposes the scrubbing, the scrubbing can be inferred to be the initiating event.

\&\textsubscript{ency} \text{not} allows verb roots to m-conflate with CHANGE in unaccusatives like (58), so we must ask why \&\textsubscript{ency} \text{not} in SR in (62) does not allow an unaccusative structure (i.e. a bare CHANGE\textsubscript{P}). (64) illustrates the possibilities. (a) is blocked similarly to *scrub floors on: the semantics of CHANGE would wrongly force predication of on over Fred. The theory can arguably generate (b), but this cannot be part of a well-formed sentence due to the requirement that English sentences have overt subjects. This problem is not remedied by inserting an expletive subject in (64c) is either a problem for my theory or is due to properties of expletives. The latter view seems tenable. Bowers (2002:194-199) notes that it is inappropriate with unaccusatives, but many verbs reject there: *there died/disappeared many people, *there descended many into the pit, *there opened a great cavity in the ground. It is thus legitimate to ask whether there is insertable with sufficient freedom for (64c) to be possible in a grammar which can generate (b).

(64) a. \{[\textit{change} \textit{Fred} \textit{X}] \textit{change}\textsuperscript{\textit{v\textsubscript{v}}} \textit{scrub\-change} \textsuperscript{\textit{v\textsubscript{v}}} \textit{on}\textsuperscript{\textit{on}}}\]
b. \{[\textit{change} \textit{X} \textit{change}\textsuperscript{\textit{v\textsubscript{v}}} \textit{scrub\-change} \textsuperscript{\textit{v\textsubscript{v}}} \textit{on}\textsuperscript{\textit{on}}}\]
c. The there scrubbed, *It scrubbed on ‘scrubbing went on (continued)’

The above analysis also applies to PPs like those in section 3.2 (see (*them) into the house), but a full PP rather than a particle is complement of CHANGE\textsuperscript{\textit{v\textsubscript{v}}} The question arises of whether the stative EXT and ORIENT functions used in section 3.2 map onto \textit{v\textsubscript{v}} or whether we need extra light verbs for any verb appearing in an atransitive VP.

### 4.5 Alternative approaches to atransitivity
Previous explanations for atransitivity are less than adequate. The approaches in Stiebels (1996) and van Hout (2001) were criticised in section 3. My (2001) study settled for the observation that particles must be attached to any direct object trying to explain away瑞典人的说法 that Swedish \textit{pa} ‘on’ must combine intransitive (uses of) verbs. This is unexplanatory and empirically questionable given the observation in section 4.4 that atransitivity is attested with transitive verbs. It is more accurate to say that the particle is incompatible with the direct object than that it only combines with intransitive (variants of) verbs.

Zeller's (2001a) study, which partly inspired my theory, requires more discussion. He catalogue the argument-structural effects of German verb particles, concluding that adding particles leads to the loss of the verb's linking information, and that internal arguments of particle verbs are arguments of (and licensed inside the projection of) the particle. This predicts the range of possible argument structures of particle verbs. The theory could be extended to include directional PPs and result predicates. Zeller suggests that argument blockages of the type eat (*cakes) on occur because the Particle\textsubscript{P} object competes for the same position, namely the complement of V in a single-shell structure. To prevent the verbal object from appearing in the specifier of V, as in (65), Zeller needs a mysterious stipulation, akin to designation or underlining of external arguments in older GB theories, which gives 'external arguments' sole rights to the verb's specifier position. By contrast, thematic restrictions on bare positions in VP follow naturally in theories like mine which use syntactic lexical decomposition (cf. Baker 1997). Thus, cakes in (65) is in no wise an initiator, and thus not a possible specifier of INT, and is not predicated over by on, and thus cannot be the specifier of CHANGE\textsuperscript{\textit{v\textsubscript{v}}}.

(65) *Cakes ate on *(someone ate on, eating cakes)
I know no general theory of argument realisation which predicts atransativity. Given that the meaningful light verbs crucial to my account are not part of the architecture of most such theories (e.g. Croft 1998; Dowty 1991; Grimshaw 1990; Larson 1988; Levin & Rappaport Hovav 1995; Pinker 1989; Tenny 1994), linguists subscribing to such theories must either devise an alternative account of atransativity or change their theories.

I know no theory of resultatives which predicts atransativity. As noted in section 4.1, any theory that allows verbs to project objects in transitive realisitves wrongly predicts that the verb can project an object in cases where a path phrase has no external argument. Theories which do not posit linking of verbal objects with the small clause theories of Hoekstra (1988) and others cited in section 4.2. Such theories could try to capture atransivity by assuming that an atransitive PPconstruction forms a small clause with an empty theme, as in my account. However, all such theories assume that the small clause is complement to a lexical verb. As in Zeller (2001a), it is unclear what prevents the verb from projecting its object in its specifier position.

Consider next Construction Grammar (Goldberg 1995; Jackendoff 1997). Booij (2002:31f) applies this theory to atransitive particles as in (66a) (which replaces Booij’s Dutch example with an English one). There is no slot for an object in the construction’s lexical entry, so the theory can describe atransivity. But it cannot predict for, constructions are seen as idiom, and for a non-occurring configuration like (66b) must therefore be a lexical gap. A challenge for this approach is to ensure that the cross-linguistic presence of the ‘lexical gap’ in English, German, Dutch and Swedish does not force Construction Grammarians to regard atransativity as a relic acquired via negative evidence by generation after generation ever since Proto-Germanic times. It may be replied that the archi-construction (Jackendoff 1997:555) which underlies all conflation constructions is endowed with a generalisation that any objects present must be predicated over by PPs (or APRs). If allowed over by PPs, atransitivity does not fit within this account for this generalisation in this theory. A second answer might be that (66b) is bad because it blends the transitive construction (Goldberg 1995) with the durative on construction, and hybrid constructions are not acquired by language learners without positive evidence for their existence. This predicts that hybrid constructions could not come into existence except as mistakes which somehow gain currency. Now English has several hybrid particle constructions, including the double object+particle construction (print her out a copy), the double object+particle+PP construction (send people out leaflets to their homes) and the particle+NP predicate construction (make him out a liar). These constructions (not peculiar to English) are too infrequent for it to be certain that direct evidence alerts children to their existence (let alone to constraints on their syntax noted in den Dikken 1995). The existence of such hybrid constructions makes it hard to believe that (66b) is really unexpected in such a theory, in contrast to a theory where the general makeup of the syntax of VP leads language learners to expect atransativity with event path particles.

(66) a. Particle verbs with durative on [(x)[y] on [on(y)] ‘go on x-ing’
   b. English-Particle verbs with durative on (e.g. eat cakes on)

Another atransivity account was sketched by a reviewer, who wrote that much atransivity data is black-boxed. This is claimed to succumb to a constraint multiple independent state changes (including location changes) in a single event (cf. Goldberg 1995:81-89, and Tenny’s 1994 ban on multiple measures). This does not predict e.g. see *(it) into a window, ring *(her) through, remember *(him) back to one’s youth and the particle data in section 3.1. Anyway, a blanket ban on multiple state changes wrongly rules out (67c) parallel to (b). My theory predicts (c), for verb roots coding state changes can m-conflate into VPs with separate result predicates. Similar examples appear in (d) and Goldberg (1995:171f). (a) and (b) are ruled out trivially in theories like mine which assume single complements.

(67) a. They kicked him black and blue out of the room; *They kicked him out of the room to death
   b. *The plaster fell to pieces to the floor
   c. The plaster crumbled to the floor

5 Conclusions and potential problems
This article presented a theory of ‘conflation’ (also called ‘lexical subordination’), the parameterised phenomenon in which an activity combines with a path or result predication in such a way that only the activity is represented by a verb root. I argued that conflation generates not only well-studied phenomena like resultative constructions, but also event path structures, VPs where a directional expression was argued to express the spatial or metaphorical path of a situation. Section 3 presented many examples of VPs and particles which can be event paths and which can be expressed as event paths included, but were not limited to, a subclass of the so-called ‘aspectual particles’. The event path analysis connects the spatial and ‘aspectual’ use of the particle, unlike non-localistic analyses. Except for systematic exceptions in section 3.3, event paths distribute complementarily with directional objects (e.g. (68a) through, read *(books) on). This atransitivity can be expressed as event path VPs involve conflation (and (b) verbs cannot link their arguments in conflation structures. Section 4.1 independently motivated (b). Thus, direct objects in resultative and particle constructions are NOT arguments of the verb, even if the object fits the verb’s s-selection, as in ‘hammer nails in’ in Sections 4.2- 4.3. The theory treats conflation as an independent aspect (one of ‘conflation’) of a verb root with one of two light verbs, INT (with causal or agentic meaning) and CHANGE (which mediates the prediction of result and path expressions). Section 4.3 showed that conflation yields natural explanations for the syntactic manifestations of event-structural differences between unaccusative and transitive resultatives and for some less familiar conflation patterns. Section 4.4 applied the account to atransitive VPs. The verb cannot introduce arguments because it is nonhead of a compound. Also, we cannot insert a DP in the object position, the specifier of the lower shell, because the lower shell is headed by a light verb whose semantics forces a predication relationship between the particle/PP and object, yielding a resultative semantics rather than the event path semantics.

The chief empirical claims to be evaluated are that (a) the event path analysis is valid, (b) event path VPs can involve conflation, (c) conflation blocks the linking of verbal arguments, and (d) conflation is the compounds of a verb root to a meaningful light verb. If accepted, (d) supports e.g. Baker (1997), Hale & Keyser (1993; 1997) and Pykkänen (2002) in their claim that argument structure is at least in part a projection of syntactically represented lexical decomposition predicates. This position is incompatible with theories which see all arguments in the VP as being projected from the verb itself and which derive alternative argument linking patterns from lexical-semantic operations performed on the verb (Jackendoff 1990; Pinker 1989; Levin & Rappaport Hovav 1995 and many others).

It remains to address potential problems for my theory. Firstly, a reviewer noted cases like (68a,b), rightly observing that the complement of CHANGE cannot contain both an aspectual particle and a VP. But the particles discussed in section 3.1 all have spatial path senses as well as ‘aspectual’ ones. I claim that and los in (68a,b) are being used in the spatial, non-aspectual senses seen in it is further on down the road and Briefle losschicken ‘send off letters’. I see no evidence against this claim, and it receives evidence from cases like (e), involving particles whose spatial senses are easier to tell apart than those of and los. In (68c), along and around cannot have their atransitive senses (‘with others’, ‘aimlessly’, cf. (7b,c)), but receive unambiguously spatial readings (corresponding to their transitive prepositions: ‘along the street’, ‘around the corner’).

(68) a. They danced on out of the barn past the well into the yard
   b. They ran off to the street
   c. I walked along/around to the church
   d. Jos auf die Straße sind sie gerannt. (=(b))

Thus my theory eschews multiple complements of any kind, we must ask why (68a,b) are good even if on los express spatial paths. The answer is that the PPs form a complex PP, iconic of a complex path in SR. Complex PPs are standardly assumed in studies on PP syntax (e.g. Haftka 1997; Koopman 2000; Olsen 1999; van Riemsdijk 1990; Wunderlich & Herweg 1991). Topicalisations like (d) are one (68c), around and around cannot have their atransitive senses

(c. Jo is down in the parlour by the fire; With Jo down in the parlour by the fire...

d. I broke the bread into the bowl, the water emptied out of the tank, I bent the pipe down
The final potential problem is a set of rare cases where directional PPs coexist with direct objects over which they do not predicate. If we assumed that all VP-internal directional expressions are complements of CHANGE, my theory would wrongly predict predication over the object. However, it is mostly possible to show that these PPs are not complements of CHANGE. We start with some cases that turn out to be adjuncts.\(^1\)

Talmy (1985:66) suggests that the non-bracketed parts of (69) involve conflation of a path with a complex consisting of the verb and object. However, the bracketed continuations in (69) coordinate the directional expressions with place adjuncts. Such coordinations are impossible with standard conflation VPs (**throw the ball into the basket and at the park**), because the coordinated PPs form a larger PP that does not have one phrase which can be inserted either into the complement or the adjunct position, but not in both positions. The coordinations in (69) can be explained if both PPs are adjuncts. Specifically, I claim that the directional PPs are being used as adjuncts of location. This is clear in (69b), for all the way (to x) is independently capable of a locational reading (there are trees all the way to the shore). A locational analysis for to the party in (69a) is surprising until we note that the sentence seems to assert motion. If motion were expected not to be derived from lexicosemantic entailment, we would not expect the parallel German structures like (74b) are not covered by these arguments, and must be taken up in future work.

Another problem is German weiter 'further', which, like on, can express either a continuing path (ich schickte es weiter 'I sent it on') or a continuing event path (wir saufen weiter 'we drink on'; die Diskussion ging weiter 'the discussion went on'), but does not resist objects when expressing an event path.\(^2\). Thus, adjunct directional PPs which co-occur with direct objects are sporadic and lexically stipulated, unlike the paths in section 3, which block objects with clockwork regularity.\(^3\)

(70) a. She wore a green dress to the party (and at the meeting the next day).
   b. I read comics ALL THE WAY to NEW YORK (and on the subway as well).

(71) a. she worked/ran *(herself) to exhaustion
   b. She was shot dead [to a pulp/full of holes].

(72) a. He was shot dead [to a pulp/full of holes].
   b. She was shot dead [to a pulp/full of holes].

(73) a. We flew *(out) American Airlines *(out)
   b. We took *(out) the subway *(out)
   c. He was shot dead [with a stick/*with a telescope]
   d. We followed him a great company

(74) a. She touched/kissed/hit/punched him on the nose; She stabbed/kicked him in the leg
   b. She {slammed/cracked/hit/touched} him with a golfstick on the head.

(75) a. She {slammed/cracked/bit/touched} him on the head with a golfstick on the head.
   b. She slammed it with a stick on the table.
   c. He was shot dead in the back of the head. [attested severalfold in the internet]

We have seen some structures where a directional PP can coexist with a direct object over which it apparently does not predicate. Some of these do not threaten my theory because the PPs are adjuncts. The German accusative possessors, **weiter** and the structures noted by RHL are problems needing further work. Only time will tell whether these problems can be solved without abandoning the theory in section 3. But I expect in my work will have distribution to result predicates, whereas none of event paths and brings some new perspectives into the discussion of conflation and argument structure.

\(^{1}\) a. John danced mazurkas across the room
   b. I rode the breeze clear of the rocks
   c. I took the subway to the city *(in* ten minutes)
   d. I followed accompanied them to their home *(in* ten minutes)

\(^{2}\) a. she worked/ran *(herself) to exhaustion
   b. She was shot dead [to a pulp/full of holes].

\(^{3}\) a. The German accusative possessors, **weiter** and the structures noted by RHL are problems needing further work. Only time will tell whether these problems can be solved without abandoning the theory in section 3. But I expect in my work will have distribution to result predicates, whereas none of event paths and brings some new perspectives into the discussion of conflation and argument structure.
1. Parts of this study were presented at the 2001 Sinn und Bedeutung conference at Osnabrück, the 2002 Scandinavian Conference in Linguistics in Tromsø and the 2002 workshop Complex Predicates, Particle and Subevent Konstanz. The audiences at these venues are thanked for useful discussion. I also thank Jaume Mateu, Jochen Zeller and the journal's anonymous reviewers for detailed and useful comments on earlier versions. The foregoing does not acknowledge my way out of responsibility for errors. Author's address: Universität Leipzig, Beethovenstr. 15, D04107 Leipzig, Germany. E-mail: mcintyre@rz.uni-leipzig.de

2. The internal argument of a preposition (the one which receives case from it in a full PP and serves to locate the external argument) answers to the terms 'ground', 'reference object', 'landmark', 'location', and the external argument to 'figure', 'theme', 'trajectory', 'locatum', 'located object'. I use 'ground' and 'theme' or 'figure' here.

3. I cannot say why unergative uses of low-motion activity, e.g. loschwimmen in the sense 'start swimming', are bad. They do not seem to be excluded by general principles, witness den Dikken's (1995:32f) observation that Dutch doorlopen (literally 'walk through') is unergative in the meaning 'keep up a pace' and unaccusative in the meaning 'walk on, continue walking'. The glosses are den Dikken's; I suspect that the particle conveys an extended spatial path in the unaccusative variant and that, in the unergative variant, it has the same (at first sight durative) meaning as the particles in (7.a) or Dutch doorwerken 'work on, continue working'.

4. While there is a connection between the spatial and atransitive senses, I assume that the metaphor is semiproductive, meaning that the lexical entry for the particle must sanction the attransitive use. I base this on the fact that some varieties like mine do not allow the contracted form round in the attransitive sense, although its spatial use is identical to around (they walked (a)round but they played (a)round).

5. (13) only aspires to capture the spatial senses to which the attransitive senses are directly related, not e.g. on in the contact/support use in (i) and, in spatial sense to move via an object's exterior, as in (ii). A reviewer finds it problematic that I ignore what she sees as the basic senses of these particles. But since the spatial sense of on in push the cart on the cart or on the point of exhaustion is not related to the sense in (i), neither sense can be more basic than the other. The sense in (ii) is not the basic sense of the PARTICLE around, for around does not mean 'via the exterior of something' in run around, push the cart around and analogous PPs with many other motion verbs. The question of how the entire sets of on and around (both as particles and with complements) are related is of interest to polysemy theory, but cannot be studied here. It suffices for my purposes to find the spatial sense which is the point of departure for the attransitive sense, whether or not this is the basic sense of the particle.

(i) I put the kettle on (the stove) (ii) I ran around the lake/ the corner

6. The metaphor 'events qua moving entities' of which I propose a substance already exists. For instance, I think of 'happen' derive from motion verbs, that 'arrive' derivative of 'arrive', 'happen, German passieren 'happen' (formerly 'pass', cf. come to pass), vor sich gehen, vorgehen 'occur' (gewen 'go' with directional expressions expressing forward motion), aufen, abgehen, zugehen 'occur (with a certain result/manner)' (lit. go off/to), weitergehen 'continue' (lit. go on/further). Motion verbs also produced event ('Latin venire 'come'), the talk went well, come what may and the talks ran their course.


8. The identity of events in (57) may follow from general conditions on morphological structures, cf. Olsen's (2001) generalisation that copulative compounds cannot refer to disjoint entities (owner-builder must express a single person who owns and builds, unlike the syntactic coordination in the owner and builder were here).

9. Compound nonheads may be said to license arguments only in the inexact sense that a nonhead may consist of a root and an argument: [pasta eating] skills. (i) is an analogue of this in collation VPs. (i) head-kick one's way through life; handwave data out of existence: fundraisan; copy-edit 10. The only argument I know against complex PPs is Goldberg's (1995:87) claim that the bracketed string in (i) is not a constituent given the assumption that only can focus anything in its sister constituent. By that criterion, (ii) shows that complex PPs do exist. The problem with (i), clearly evident in (ii), is the anomaly of focussing a source and not a goal in describing the length of the journey.