Overview. In this paper, we examine failed attempt interpretation of accomplishment verbs cross-linguistically. We observe that accomplishment verbs differ systematically as to whether they can produce this reading. Relying on Rothstein’s (2004) theory of accomplishments, we account for this diversity by assuming that the availability of the failed attempt interpretation is determined by properties of the relation between two subevents in the accomplishment event structure.

1. Failed attempts
Failed attempt interpretation is observed in a variety of genetically unrelated languages (e.g. Turkic, Uralic, North-Caucasian). (1)–(4) give illustrations from Bagwalal, Mari, Tatar, and Russian:

(1) Bagwalal (North Caucasian, Nakh-Daghestanian)
a. waša-šu-r č'era minut-i-li hungar ṭūḥā.  
boy-obl.m-erg two minute-obl-inter window open.pst  
‘The boy opened the window in two minutes.’
b. waša-šu-r č'era saʿat-i-ri hungar ṭūḥā.  
boy-obl.m-erg two hour-obl-erg window open.pst  
{Context: the lock upon the window is broken; the boy tries to open it.}, ‘The boy tried to open the window for two hours (and gave up).’

(2) Mari (Uralic, Finno-Ugric)
a. maša jivan-em lu minut-əste kəčkər-ən.  
M. I.-ACC ten minute-INESS wake.up-PST  
‘Masha woke up Ivan in ten minutes.’
b. maša jivan-em lu minut kəčkər-ən.  
M. I.-ACC ten minute wake.up-PST  
‘Masha tried to wake up Ivan for ten minutes.’

(3) Tatar (Altaic, Turkic)
a. zehrä ike minut əcənde jep-ne jørt-tv.  
Z. two minut in thread-ACC tear-PST  
‘Zuhra tore a thread in two minutes.’
b. zehrä ike minut bujyna jep-ne jørt-tv.  
Z. two minute for thread-ACC tear-PST  
‘Zuhra tried to tear a thread for two minutes.’

(4) Russian
a. vasja otkry-l dver’ za minut-u.  
V. open.pfv-pst:m door:acc in minute:acc:sg  
‘Vasja opened the door in a minute.’
b. vasja po-otkr-yva-l dver’ pjat’ minut i brosi-l.  
V. delim-open-pfv-pst:m door:acc five minute:gen:pl and give.up-pst:m  
‘Vasja tried to open the door for five minutes and gave up.’

Meaning:
◊ (a) examples: telic. Change of state is attained; the event culminates.
◊ (b) examples: failed attempt. Activity performed by the Agent aims at changing a state of the Patient. However, this activity terminates before the change of state is attained, and the Patient remains in its initial state.

* В настоящем докладе излагается материал нашей совместной работы с М.Ю.Ивановым, которая является частью проекта “Структура события и семантика глагола”, выполняемого при поддержке РФФИ (№05-06-80258а)
Morphology:
◊ Bagwalal, Mari, Tatar: the simple past verbal form is associated with both interpretations;
◊ Russian: the telic interpretation is associated with prefixed perfective verbs; the failed attempt interpretation is associated with the so-called delimitative verbs derived with the prefix po- from the imperfective stem, which is based on the accomplishment lexical stem.

Accomplishments differ as to whether they allow for the failed attempt interpretation. (5)–(8) are parallel to (1)–(4), but the failed attempt reading is inappropriate:

(5) Bagwalal (North Caucasian, Nakh-Daghestanian)
a. pat'imati-r č'era zeb-u-li gur q'ini.
P.-OBL-ERG two day-OBL-INTER dress sew.PST
‘Fatima sewed a dress in two days.’
b. pat'imati-r č'era zeb-u-r gur q'ini.
P.-OBL-ERG two day-OBL-ERG dress sew.PST
1. ‘Fatima spent two days sewing a dress’
2. *‘Fatima tried to sew a dress for two days (but have not even started making a pattern).’

(6) Mari (Uralic, Finno-Ugric)
a. jivan lu minut-əšte tide šereš-əm voz-en.
Ivan ten minute-INESS this letter-ACC write-PST
‘Ivan wrote this letter in ten minutes.’
b. jivan lu minut tide šereš-əm voz-en.
Ivan ten minute this letter-ACC write-PST
‘Ivan was engaged in writing this letter for ten minutes.’

(7) Tatar (Altaic, Turkic)
a. marat İkE sAgAt ECAndE ker-ne sukala-dy.
M. two hour in field-ACC plough-PST
‘Marat ploughed the field in two hours.’
b. *marat rašit-ne İkE sAgAt bujena ker-ne sukala-dy.
M. R.-ACC two hour for field-ACC plough-PST
1. ‘Marat spent two hours ploughing the field.’
2. *‘Marat tried to plough the field for two hours, (but did not make a single furrow).’

(8) Russian (Mehlig 2006)
a. Vasja zapoli-nl anket-u za pjat’ minut.
V. fill:PFV-PST:M form-ACC in five minutes
‘Vasja filled in the form in five minutes.’
b. Vasja po-zapoln-ja-l anket-u pjat’ minut.
V. PO-place-IPFV-PST:M book-ACC five minutes
1. ‘Vasja spent five minutes filling in the form.’
2. *‘Vasja tried to fill in the form for five minutes (but has not filled in a single entry).’

Meaning:
◊ (a) examples: telic. Change of state is attained; the event culminates.
◊ (b) examples: the event does not culminate, but no failed attempt interpretation obtains; the participant undergoes at least some change.

QUESTIONS
◊ How failed attempt predicates are derived from accomplishment predicates?
◊ What is the difference between accomplishments like ‘open the door/window’, ‘wake up’, ‘tear a thread’ in (1)–(4) and ‘sew’, ‘write’, ‘plow’, ‘fill in’ in (5)–(8)?
2. Previous analyses of non-culminating accomplishments

2.1. Non-culminating accomplishments

A partial answer to $\mathcal{O}$: failed attempt interpretation is a special case of *non-culminating accomplishments*. Whatever mechanism creates non-culminating accomplishments, it must be involved in the derivation of failed attempts.

In the literature, a variety of languages are mentioned in which accomplishments do not entail culmination (see Ikegami 1985, Koenig and Muansuwan 2001, Tatevosov 2002, Matthewson et al., to appear, Bar-el 2006):

(9) Thai (Koenig and Muansuwan 2001).

Surii teej klôon.

S. compose poem

‘Surii was composing/composed a/the poem.’

(10) St’át’imcets (Matthewson et al., to appear)

a. ts’ágw-an’-lhkan ti n-kïks-a lhkûnsa ku sq’it,

eat-TR-1SG.SU DET 1SG.POSS-cake-DET now DET day
t’u7 qelh-câl-lhkan ku k’wik’wená7 t’u7 nactw.

but save-ACT-1SG.SU DET few until tomorrow

‘I ate my cake today, but I saved a little for tomorrow.’

b. máys-en-lhkan ti q’låxan-a, t’u7 cw7aoy t’u7 kw-s tsúkw-s-an.

fix-TRANS-1SG.SUBJ DET fence-DET but NEG just DET-NOM finish-CAUS-1ERG

‘I fixed a fence, but I didn’t finish.’

(11) Skwxwú7mesh (Matthewson et al., to appear)

chen p’ats’-an ta hem’-ten kwi chél’aklh

1SG.SU sew-TR DET cover-INSTR DET yesterday
welh haw k-an 7i huy-nexw

CONJ NEG IRR-1SG.CNJ PART finish-LC

‘I sewed a/the blanket yesterday but did not finish.’ $VG()$

In most dialects of English, non-culminating readings are readily available for degree achievements (in terms of Dowty 1979), as in (12a), but much more restricted for other types of accomplishments, as in (12b) (see Tenny 1994, Rothstein 2004, Smollett 2005, among others, for relevant data and discussion).

(12) English

a. Kim lengthened the rope in five minutes || for five minutes (Hay et al 1999)

b. John opened the door in a minute || *for a minute.

2.2. ‘Imperfective’-based analysis

◊ Krifka 1998: extensional analysis;
◊ Koenig and Muansuwan 2001; Matthewson et al., to appear, Bar-el (2006): modal analysis based on Dowty’s (1977, 1979) inertia worlds

Krifka 1998:215: a quantized predicate can be ‘coerced’ into an imperfective interpretation in order to accept measure adverbials like *for an hour*. Krifka defines the imperfective version of an event predicate $P$ as a predicate that applies to events $e'$ iff there is an event $e$ such that $P(e)$, and $e' < e$.

Koenig and Muansuwan 2001: accomplishment stems in Thai are fundamentally imperfective in that they do not refer to complete eventualities, but to (non-necessarily proper) subparts of inherently bound eventualities. This amounts to the claim that the event description is lexically embedded within the $\text{Impfv}$ operator.

(13) The meaning of (9):

There is an eventuality $ev$ which is a subpart of an eventuality $e'$ such that in inertia worlds, $e'$ is an event of Surii writing a poem.
(14) Semantics for the imperfective operator (Koenig and Muansuwan 2001:163).

a. \( \alpha = \text{Impfv}(ev, \phi) \)

b. An eventuality \( ev \) and an event description \( \phi \) satisfy condition \( \alpha \) iff there is an \( e' \) which (non-necessarily properly) includes \( ev \) and satisfies \( \phi \) in all inertia worlds, i.e. in all worlds compatible with what it would mean to complete \( ev \) without being interrupted.

Matthewson et al., to appear: the transitivizer \( -n \) in St’át’ímctw, which forms transitive accomplishment from unaccusative verbal roots, moves culmination from the actual world to inertia worlds.

(15) The transitivizer

\[
\| -n \| = \lambda e, i \{ \lambda e \| e \| = \lambda w, e \text{ is controlled by its agent in } w \land \forall w'[w' \text{ is an inertia world w.r.t. } w \text{ at the beginning of } e \rightarrow \exists e'[f(e'(w')) \land e \text{ causes } e' \text{ in } w']] \}
\]

(16) The denotation of \( \psi \) in (11b):

\[
\| \text{máyësnlhkan ti q'láxana} \| = \lambda e[I \text{ am the agent of } e \land e \text{ is controlled by me in } w \land \forall w'[w' \text{ is an inertia world w.r.t. } w \text{ at the beginning of } e \rightarrow \exists e'[\text{the fence gets fixed in } w'(e') \land e \text{ causes } e' \text{ in } w']] \]

The term ‘imperfective’ does not refer to a member of perfective/imperfective aspectual opposition; rather it refers to what Matthewson et al. (to appear) call *inertia modality*. The event predicate in (16) can serve as input to the *perfective aspectual operator*, see Matthewson et al., to appear. Similarly, (1)-4 are perfective, as, e.g., (i) demonstrates:

(i) 'When Ali came, Fatima spent two days sewing a dress.'

(ii) 'When Ali came, Fatima was sewing a dress.'

This analysis receives additional support from languages like Russian, in which non-culminating accomplishment predicates involve two steps of morphological derivation:

(16) \[ \text{PFV Inertia Modal fill.in form} \]

\( P \)-verbs, which denote non-culminating accomplishments, possess an overt ‘secondary imperfective’ morpheme, not found in non-derived accomplishment verbs. Given that other languages cited above show the same range of possibilities as Russian, it seems uncontroversial to suggest that under the non-culminating readings, accomplishment stems attach a similar operator covertly.

Advantages of the ‘imperfective’-based analysis

The analysis captures the intuition that non-culminating accomplishments involve ‘parts’ or ‘stages’ of complete eventualities from the extension of an original verbal predicate, which are not ‘developed’ enough to yield culmination. However, it does not distinguish between failed attempts in (1)-(4) and other non-culminating readings in (5)-(9). Therefore, the analysis should be further extended to account for the differences between predicates like ‘open a/the window’ in (1) and predicates like ‘sew a dress’ in (5).

2.3. Alternative analyses

Difference value analysis (Hay et al. 1999, see also Kennedy, McNally 2005):

Change of state verbs like *lengthen* and *cool*, movement verbs like *walk*, and verbs taking the Incremental Theme (in Dowty’s 1991 sense) are claimed to possess a degree argument. The degree argument takes its value from a scale determined by the lexical meaning of a verb, indicating to what extent events that fall under a particular event description possess a relevant gradable property. The measure for the amount of change of a gradable property is called a difference value. If, for whatever reasons, the difference value is unbound, the predicate refers to events that do not culminate, as in *Kim lengthened the rope for five minutes*.

Problems for the analysis: The degree argument is found in the argument structure of verbs derived from gradable adjectives (see Kearns 2005 for a recent discussion). For incremental theme verbs and incremental path verbs it does not seem to be independently motivated. Besides, Hay et al. 1999 only cover various types of incremental predicates and has little to say about accomplishment predicates that do not involve any gradable property that change in the course of the event, e.g. ‘break a vase’, ‘open the door’, ‘take a pile’ or ‘wake up a boy’.

Accomplishment—activity shift (Rothstein 2004):

Accomplishment predicates can be shifted into activity predicates by removing information about the BECOME subevent (see below for basics of Rothstein’s theory).

Problems for the theory. If we admit monotonicity of meaning (Rappaport Hovav and Levin 1998, a.m.o.), which is independently motivated, operations that destroy structure should be avoided in the theory. The shifting mechanism is general enough to apply to all accomplishment predicates, so we still need an account for the differences between failed attempts and other types of non-culminating accomplishments.
2.4. Interim summary

1. Failed attempt predicates are instances of non-culminating accomplishments.

2. Existing analyses of non-culminating accomplishments does not distinguish between failed attempt interpretation and other non-culminating interpretations. However, the ‘imperfective’-based theory is superior to the alternatives, since it has empirical support from languages like Russian and is free from a few drawbacks from other theories.

3. Given that verbs in (1)–(4) and (5)–(8) do not show any morphosyntactic difference and bear the same inflectional and derivational morphology, the observed contrast can only be attributed to their lexical representations.

The idea. This contrast can be accounted for by looking at subevental structure of accomplishments, more specifically, at the relation between ACTIVITY and BECOME subevents.

3. Accomplishment event structure

3.1. Decomposition

Since Dowty 1979 accomplishments, e. g., ‘open’, ‘break’ or ‘place’ are typically analyzed as involving at least two components: an activity/process performed by the Agent/Causer and change of state of the Patient induced by this activity/process. A few illustrations:

(17) Dowty 1979
\[
[[DO (\alpha_1, [\pi_m (\alpha_1, ..., \alpha_m)])] \text{CAUSE} [\text{BECOME} [\rho_n (\beta_1, ..., \beta_n)]]]
\]

(18) Levin, Rappoport Hovav 1998
\[
[[x \text{ACT}] \text{CAUSE} [\text{BECOME} [y <\text{STATE}>]]]
\]

(19) Kratzer 2000, von Stechow, Paslawska 2004
\[
|| \text{John close the door} || = \lambda e [\text{Agent(John)(e)} \land \text{close(e)} \land \text{CAUSE(s)(e)} \land \text{closed(the door)(s)}]
\]

(20) Pylkkänen 2002
\[
|| \text{John close the door} || = \lambda e [\text{Agent(John)(e)} \land \exists e' [\text{closing(e')} \land \text{Theme(the door)(e)} \land \text{CAUSE(e')(e)}]]
\]

(21) Ramchand 2003, 2005
\[
|| \text{John close the door} || = \lambda e [\text{Agent(John)(e)} \land \exists e_2 \exists e_3 \exists e_4 \exists e_5 \land \text{close-a(e_2)} \land \text{Causing(e_2)} \land e = e_2 \rightarrow e_3 \land \text{Subject(John)(e_2)} \land \text{close-p(e_4)} \land \text{Process(e_4)} \land e_3 = (e_4 \rightarrow e_5) \land \text{Subject(the door)(e_4)} \land \text{close-s(e_5)} \land \text{State(e_5)} \land \text{Subject(the door)(e_5)}]
\]

3.2. Rothstein’s (2004) theory of accomplishment event structure

(22) Basic definitions

a. **Accomplishment event template**
\[
\lambda y \lambda e \exists e_1 \exists e_2 [e = \delta (e_1 \cup e_2) \land \text{ACTIVITY(e_1)} \land \text{Agent(e_1)=x} \land \text{Theme(e_1)=y} \land \text{BECOME(e_2)} \land \text{Arg(e_2)=Theme(e_1)} \land \text{INCR(e_1, e_2, C(e_2))}]
\]
where \(\delta (e_1 \cup e_2)\) is a singular entity created out of \(e_1\) and \(e_2\)

b. **Incremental relation between (sub)events**
\[
\text{INCR}(e_1, e_2, C(e_2)) \iff (e_1 \text{ is incrementally related to } e_2 \text{ with respect to the incremental chain } C(e_2)) \iff \text{there is a contextually available one-one function } \mu \text{ from } C(e_2) \text{ onto } \text{PART}(e_1) \text{ such that } \forall e \in C(e_2) \tau(e) = \tau(\mu(e))
\]

c. **Incremental chain**
\[
\text{C}(e) \text{ is a set of parts of } e \text{ such that}
\begin{align*}
(i) & \text{ the smallest event in } C(e) \text{ is the initial bound of } e, \\
(ii) & \text{ for every } e_1, e_2 \text{ in } C(e) \text{ if } e_1 \leq e_2 \text{ or } e_2 \leq e_1, \text{ and } \\
(iii) & \text{e is in } C(e)
\end{align*}
\]
Summary of Rothstein’s account:

i. Accomplishments are sums of two subevents, where the summing operation $S(e_1 \cup e_2)$ creates a singular entity.

ii. Subevents are ACTIVITY ($e_1$ in (22a)) and BECOME ($e_2$ in (22a)) subevents.

iii. Neo-Davidsonian association of arguments with events via thematic roles. The ACTIVITY subevent is related to the Agent and Patient, the single argument of BECOME subevent is equal to the Patient of ACTIVITY subevent.

iv. No state argument specifying the resultant state.

v. Subevents are incrementally related. Incremental relation replaces a causal relation more commonly assumed in the decompositional literature.

vi. Incremental relation between subevents is relative to the incremental chain defined on the BECOME subevent.

vii. The incremental chain is a set parts of an event such that every two parts stand in part-of relation.

viii. Incremental relation involves a function that establishes a one-to-one correspondence between parts of the incremental chain and parts of the activity subevent. Related subevents must temporarily coincide.

3.3. Extending Rothstein’s analysis: incremental relation vs. mapping to a minimal final part

For Rothstein, INCR relation is a defining property of accomplishments. She does not discuss in any detail predicates that denote events consisting of two subevents not (obligatorily) incrementally related.

In particular, when the failed attempt interpretation obtains, as, e.g., in (1), this relation cannot be incremental. Intuitively, in (1) we are dealing with the activity that does not contribute to the development of the BECOME subevent at all: whatever activity is performed, the window retains its initial state.

(24) (=(1b))  Bagwalal (North Caucasian, Nakh-Daghestanian)

\[\text{waśa-šu-\text{r} \ č'era sañat-i-\text{r} \ hungar \ rūhā.}\]

\{Context: the lock upon the window is broken; the boy tries to open it.\}.”The boy tried to open the window for two hours (and gave up).”

We suggest that predicates like ‘open the window’ in (4), ‘wake up a boy’ in (2) and ‘tear a thread’ in (3) are associated with the same subevents as specified in the accomplishment event template in (22a), but the relation between these subevents need not (and for some verbs cannot) be incremental.

Verbs like ‘open’ are underspecified with respect to the relation between activity and become subevent, as represented in (25). (25) contains a free variable $R$ over relations between two events and the incremental chain defined on one of them. The value for this variable is fixed contextually.

(25) \[\| \text{open} \| = \lambda y \lambda x \lambda e e_1 \exists e_2 \left[ e = S(e_1 \cup e_2) \wedge \text{Activity}(e_1) \wedge \text{Agent}(e_1) = x \wedge \text{Theme}(e_1) = y \wedge \text{Become}_{\text{open}}(e_2) \wedge \text{Arg}(e_2) = \text{Theme}(e_1) \wedge R(e_1, e_2, C(e_2)) \right] \]

---

1 See Rothstein 2004:105—107 against causal analysis of accomplishments. Recent arguments for this analysis are provided in Kratzer 2004.
One of the possible values of R is Rothstein’s INCR: assume a scenario whereby as the Agent pulls the window, it becomes open wider and wider, until the degree of being open reaches the maximum.

Another possible value — one we are interested in — is a **Mapping to the minimal final part** (MMFP) relation defined in (26).

(26) \(\text{MMFP}(e_1, e_2, C(e_2))\)

a. \(e_1\) stand in the Mapping to the minimal final part relation to \(e_2\) with respect to the incremental chain \(C(e_2)\) iff there is a contextually available function \(\mu\) from \(C(e_2)\) onto \(\text{PART}(e_1)\) such that every (sub)event in \(C(e_2)\) is mapped onto the minimal final part of \(e_1\).

b. an event \(e'\) is a final part of \(e\) iff \(e' \leq e \land \neg \exists e'' [e'' \leq e \land e' \subsetneq e'']\)

where \(\subsetneq\) is a precedence relation on events (Kriřka 1998: 207)

c. an event \(e'\) is a minimal final part of \(e\) iff \(e'\) is a final part of \(e \land e'' < e'\)

Due to MMFP, nothing in the BECOME subevent is mapped onto non-final parts of the activity subevent, and this is exactly what we need to capture the intuition that non-final parts of the activity do not contribute to the change of state.

### 3.4. Deriving failed attempts

Assuming that (25) is the denotation of the accomplishment stem *otkry* in (29) (cf. (4b)), we get the denotation of uninflected \(\nu P\) in (30) after assigning MMFP as a value for R:

(27) \[
\begin{array}{c}
e_1 \\
\text{activity subevent}
\end{array}
\quad \text{become subevent}
\]

Due to MMFP, nothing in the become subevent is mapped onto non-final parts of the activity subevent, and this is exactly what we need to capture the intuition that non-final parts of the activity do not contribute to the change of state.

(28) \[\text{vasja} \quad \text{po-otkry-va-l} \\
\text{V. DELIM-open-IPFV-PST:M door:ACC} \\
\text{Vasja tried to open the door.}\]

(29) \[\text{[TP -1} \quad \text{[AspP po-} \\
\text{PST \quad \text{[imp-va-}} \\
\text{PFV \quad \text{IM V open door]}} \quad \text{V. otkry- dver’]]}\]

(30) \[
\begin{array}{c}
\lambda e \exists e_1 \exists e_2 [e = S e_1 \cup e_2 \land \text{Activity}(e_1) \land \text{Agent}(e_1) = \text{Vasja} \land \\
\text{Theme}(e_1) = \text{the door} \land \text{Become}_{\text{open}}(e_2) \land \text{Arg}(e_2) = \text{Theme}(e_1) \land \text{MMFP}(e_1, e_2, C(e_2))]
\end{array}
\]

Recall from Section 1 that delimitative verbs in Russian contain overt ‘imperfective’ morphology. Here, the imperfective/inertia modal analysis comes into play. We suggest, much in the spirit of the analyses in Section 2.2, that the ‘imperfective’/inertia modal operator applies to the denotation of \(\nu P\) (see (31)). Assuming Landman’s (1992) IPFV version of this operator, which maps events onto their stages, we get (31).

(31) \[
\begin{array}{c}
\lambda e'. \lambda e \exists e_1 \exists e_2 [e = S e_1 \cup e_2 \land \text{Activity}(e_1) \land \\
\text{Agent}(e_1) = \text{Vasja} \land (e_1) = \text{the door} \land \text{Become}_{\text{open}}(e_2) \land \text{Arg}(e_2) = \text{Theme}(e_1) \land \text{MMFP}(e_1, e_2, C(e_2))]
\end{array}
\]

Since stages do not contain final parts of events from the original extension of \(\nu P\), the predicate in (31) denotes events in which the Agent’s activity does not yield any change of state. In this way, the ‘failed attempt’ reading obtains.
For (1)-(3) from Bagwalal, Mari, Tatar, which are strictly parallel to (28) from Russian, but lack overt imperfective morphology, we can derive failed attempt interpretation in exactly the same way, assuming that IPFV operator is covert.

Finally, we suggest that the perfective operator a la Klein (1994) represented in (32a) applies to the event predicate created at the previous stages of derivation to yield a property of times that include the running time of the event. Morphological exponents of this operator are the delimitative prefix \textit{po-} in Russian and tense morphology in other languages.

\begin{equation}
\lambda P \lambda t \exists e \left[ P(e) \wedge \tau(e') < t \right]
\end{equation}

(32a) \quad \lambda P \lambda t \exists e \left[ P(e) \wedge \tau(e') < t \right]

(32b) \quad \llbracket [\text{AspP po-} [\text{ImP -va-} [\text{V. otkry-dvi-}]]] || = \\
\quad \lambda t \exists e' [\tau(e') < t \wedge \text{IPFV}(e') \wedge \lambda e \exists e_1 \exists e_2 [e = S e_1 \cup e_2 \wedge \text{Activity}(e_1) \wedge \text{Theme}(e_1) = \text{the door} \wedge \\
\quad \text{Become}_{-\text{open}}(e_2) \wedge \text{Arg}(e_2) = \text{Theme}(e_1) \wedge \text{MMFP}(e_1, e_2, C(e_2))]]

3.5. Typology of accomplishments

While the relation between activity and become subevents is left underspecified for verbs like ‘open’, for other predicates it can be more lexically constrained. Possible options are listed in (33).

(33)a. \text{R is lexically underspecified (R-accomplishments)}

b. \text{R is lexically specified as MMFP (MMFP-accomplishments)}

c. \text{R is lexically specified as INCR (INCR-accomplishments)}

R-accomplishments: predicates like ‘open’, for which the relation between the \textit{ACTIVITY} and \textit{BECOME} subevents is determined contextually.

MMFP-accomplishments: predicates like ‘tear (a thread)’, ‘wake up’, ‘break a vase’ which do not allow for the incremental relation between activity and become subevents.

INCR-accomplishments: incremental theme predicates, predicates of change of location (‘place, put on,...’), predicates derived from gradual adjectives, etc. (actually, the majority of accomplishments).

If the above analysis is correct, we predict that while MMFP-accomplishments can produce the failed attempt interpretation, while INCR-accomplishments must not.

For MMFP-accomplishments failed attempt interpretation is available for the same reason as for R-accomplishments.

For INCR-accomplishments it is unavailable, since, due to incrementality, any stage of events in their extension will contain some part of the \textit{BECOME}-subevent, and MMFP relation is unavailable for them to begin with.

This prediction is borne out precisely.

(1)–(3) exemplify MMFP-accomplishments in Bagwalal, Mari and Tatar; cf. also (34) from Russian as well:

(34) \text{vasja po-razb-iva-l vaz-u iz ne-bj-ushch-ego-sja stekl-a pjat' minut.} \\
\text{glass-GEN five minute:GEN:PL}

‘Vasja tried to break a vase [made] of unbreakable glass for five minutes.’

(5)–(8) are instances of INCR-accomplishments. Since for verbs like ‘sew’, ‘write’, ‘plow’, ‘fill in’ MMFP is unavailable, given that INCR is specified lexically, as exemplified in (35), inappropriateness in (5)–(8) under the failed attempt interpretation is accounted for.

(35) \quad \llbracket \text{zapoi ‘fill in’} || = \lambda y \lambda x \lambda e \exists e_1 \exists e_2 [e = S e_1 \cup e_2 \wedge \text{Activity}(e_1) \wedge \text{Agent}(e_1) = x \wedge \text{Theme}(e_1) = y \wedge \\
\quad \text{Become}_{-\text{filled}}(e_2) \wedge \text{Arg}(e_2) = \text{Theme}(e_1) \wedge \text{INCR}(e_1, e_2, C(e_2))]]

3.6. A further prediction

By hypothesis, lexical R-accomplishments (e.g., ‘open’) are not lexically constrained as to the type of the relation between \textit{ACTIVITY} and \textit{BECOME} subevents. If this hypothesis is correct, we can expect that
whenever the ACTIVITY subevent is derived syntactically, hence cannot be lexically constrained in principle, the resulting event structure must allow for the same range of interpretations as lexical E-accomplishments.

In other words, if a language possess lexical R-accomplishments, which allow for the failed attempt interpretation, then accomplishment structures derived by introducing activity subevent in the syntax, must allow for the failed interpretation attempt, too.


(36) Karachay-Balkar (Altaic, Turkic), lexical R-accomplishment (Lyutikova, Tatevosov 2006)
   a. kerim ešik-ni eki sawät-ča ac-ti.  
       K. door-ACC two hour-DAT open-PST  
       ‘Kerim opened the door in two hours.’
   b. kerim ešik-ni eki sawät ac-ti.  
       K. door-ACC two hour open-PST  
       ‘Kerim tried to open the door for two hours.’

(37) Karachay-Balkar, causative from transitive verb
   a. marat kerim-ge ešik-ni ac-tir-di.  
       marat kerim-DAT door-ACC open-CAUS-PST  
       ‘Marat made Kerim open the door.’
   b. [vP marat -tir [vP kerim-ge ešik-ni ac-]]

In Karachay-Balkar, adverbials can modify either the accomplishment event referred to by the embedded vP, as in ((38a.1) and (38b.1)), or the causing activity, as in ((38a.2) and (38b.2)):

(38) Karachay-Balkar (Altaic, Turkic)
   a. marat kerim-ge ešik-ni eki sawät-ča ac-tir-di.  
       marat kerim-DAT door-ACC two hour-DAT open-CAUS-PST  
       1. ‘What Marat did was make Kerim open the door in two hours’.
       2. ‘What Marat did in two hours was make Kerim open the door’.
   b. marat kerim-ge ešik-ni eki sawät ac-tir-di.  
       marat kerim-DAT door-ACC two hour open-CAUS-PST  
       1. ‘What Marat did was make Kerim try to open the door for two hours’.
       2. ‘What Marat tried to do for two hours was make Kerim open the door’.

(38b.1): failed attempt interpretation with respect to the initial accomplishment structure in (36): (38b.2): failed attempt interpretation with respect to the external activity of the causer.

Therefore, the (causing) activity subevent introduced syntactically by the causative morpheme exhibits the same range of possibilities as the activity subevent in the lexical entry of R-accomplishments, as expected.

**Summary**

We distinguished between two subclasses of accomplishment verbs that differ as to whether they allow for the failed attempt reading. Accomplishments that possess this interpretation are regarded as a special case of non-culminating accomplishments. Having assumed Rothstein’s (2004) theory of accomplishments, we extended this theory by suggesting that one of the possible relations between ACTIVITY and BECOME subevents is the mapping into minimal final part (MMFP). We argued that for the failed attempt interpretation to obtain MMFP must be specified in the accomplishment event structure either lexically or contextually. For accomplishments that for whatever reasons cannot establish the MMFP relation between subevents, the failed attempt interpretation is not available. In accordance with claims independently made in the literature, we suggested that the essential part of the semantic structure of failed attempt predicates is the imperfective/inertia modal operator. Finally, we developed a typology of lexical accomplishments and tested our prediction against properties of event structures derived syntactically.
References


