Event structure and the acquisition of passives
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1 Introduction

- common view: passivization as an operation on argument structure
  focus on inverse mapping of argument type and syntactic relation in actives and passives
  internal argument (understood object) appears in (syntactic) subject position
  logical subject is demoted and (optionally) surfaces in a by-phrase

- our proposal: passivization as an operation on event structure
  (Gehrke and Grillo, 2007, to appear; Grillo, 2008)
  a part of the VP (a lower VP shell), which is semantically associated with a consequent (inchoative or resultative) state subevent, moves to a discourse-related position at the edge of VP

structure of the talk:
section 2: acquisition of passives
section 3: our proposal, based on event structure
section 4: empirical support
section 5: passivizing states
section 6: event structure and acquisition
section 7: passivizing activities
section 8 concludes

2 Acquisition of passives

two main issues in the acquisition literature on passivization:

- verbal passives are problematic in children until after 4:0 (Bever, 1970; Horgan, 1978; Maratsos et al., 1985; de Villiers and de Villiers, 1985; Borer and Wexler, 1987; Meints, 1999) (see Guasti 2004 for an overview of the literature, and Hyams and Snyder 2008 for a discussion of different results in O’Brien et al. 2005)

- children do better with comprehension and production of actional passives (1-a) than with passives of non-actional verbs (1-b) (see Maratsos et al., 1985; Borer and Wexler, 1987; Fox and Grodzinsky, 1998, among others)

(1) a. Anca was kicked/pushed (by Christina).
    b. Roberta was feared (by Giorgos).

this talk:
new account of both issues (most attention to the actional/non-actional asymmetry)
2.1 Maturational accounts and their problems

(2) \textit{A-Chain Maturation Hypothesis (Borer and Wexler, 1987)}

At early stages of their development children cannot form A-chains.

young children project the structure of adjectival passives in place of their verbal counterpart
adjectival passives are by assumption generated in the lexicon and do not require A-movement
of the internal argument
⇒ explains the tendency to omit the \textit{by}-phrase (which is incompatible with adjectival passives)
the option to project passives as adjectival is more easily available with actional predicates than
with non-actional ones, since the latter do not easily form adjectivals

\textbf{Problem: Apparently, not all A-chains mature equally}
(for discussion see Guasti, 2004, and reference cited therein)

young children correctly place \textbf{subjects} before finite verbs in active sentences, which is a problem
given the VP internal subject hypothesis (Koopman and Sportiche, 1982)
⇒ Borer and Wexler (1992): only ‘non-trivial’ chains are problematic

\textbf{BUT:} children master \textbf{unaccusative predicates}, in which the subject originates as the internal
argument and is successively A moved to Spec IP: \textit{Mina arrived}.

Borer and Wexler (1987) incorrectly predict that young children produce sentences like (3)

(3) \#Arrive Mina.

(4) \textit{External Argument Requirement Hypothesis (EARH) (Babyonyshev et al., 2001)}
Children disallow clauses in which there is no external theta-role assigned to Spec of $v$

Baker et al. (1989): in verbal passives the external theta-role is assigned to the clitic \textit{-en/ed} (the
passive participle morpheme), an $X^o$ by definition
⇒ children do not allow verbal passives

\textit{problem for the EARH}: children’s good performance with \textbf{raising} (a raising verb like \textit{seem} does
not assign a theta role to Spec, $v$) (Wexler, 2002) (5)

(5) It seems to Silvia that Paolo is playing the piano.

(6) \textit{Universal Phase Requirement (UPR) (Wexler, 2002)}

$\textit{v}$ always defines a strong phase for children under appr. 5 y.o.

Given (6), and under the assumption that movement of the internal argument in passives has no
interpretive effects, the direct object DP is inaccessible to T (see Wexler, 2002, for details)

\textit{problem for the UPR}: children’s good performance with \textbf{reflexive clitics in Romance}
given Marantz’s (1984) analysis of the reflexive-clitic construction the URP incorrectly predicts
children to fail with this structure (see Hyams and Snyder, 2006, for discussion)

Marantz: this construction is similar to passive in that it also requires movement of the internal
argument to the subject position, this movement should be banned by UPR given that, like in
passives, it has no interpretive effects.
2.2 Generalized Minimality

Grillo (2003, 2005, 2008, to appear); Garraffa and Grillo (2008): children’s difficulties with passives are part of a more general issue, in different populations (agrammatic aphasics, children, adult speakers in stressful situations), with the representation of ‘non-local’ chains, i.e. movement that generates inversion of the canonical order of arguments of a predicate (7)  

(7) Generalized Minimality (GM) (Grillo, 2008)
   a. Projection of scope/discourse features is more costly than that of argumental features, and therefore problematic in populations with reduced (syntactic) processing capacity (possibly because of their slowed-down activation of morphosyntactic information).
   b. A minimality effect arises as a consequence of this impoverishment, which explains the comprehension deficit with particular structures (i.e. structures displaying a non-canonical order of NPs).

structural similarity between the traditional minimality effects captured by Relativized Minimality (Rizzi, 1990, 2004; Starke, 2001) in (8), and the intervention effect in movement of the object NP over an intervening subject (9)

(8) *How do you wonder who behaved <how>?
(9) Show me the boy that the girl kissed <the boy>.

movement of how in (8) is blocked by the intervention of another wh-element who
underspecification of the morphosyntactic feature set associated with the moved NP in (9) would also lead to a minimality effect given the structural similarity between this element and the intervening subject NP

GM accounts for comprehension asymmetries in agrammatic aphasia and acquisition:
- comprehension asymmetries between subject and object relatives, clefts, wh-movement
- absence of difficulties with unaccusatives, verb movement

Before applying GM to the acquisition of passives, we will discuss problems for NP movement approaches and then introduce a novel approach to the representation of these structures developed in Gehrke and Grillo (2007, to appear) that seeks to deal with these problems.

2.3 The external argument of passives and the absence of minimality effects

Collins’s (2005) smuggling approach

Problem of GB approaches: Violation of Uniformity of Theta Assignment Hypothesis (UTAH) (Baker, 1988): the external theta-role would be assigned in two different fashions in active and passive constructions
Collins: passive morphology does not absorb external theta role or accusative case:
- the external theta role is assigned in Spec vP in line with UTAH
- ACC is checked by the by-phrase (by itself being the head of VoiceP) merged directly above vP

Grillo’s analysis has also been applied to the acquisition of relative clauses in Italian and Hebrew in Adani (2008); Friedmann et al. (2009).
**Immediate problem:** movement of the internal argument over the external argument should raise a minimality effect

**Collins’ solution:** Smuggling of the VP over the vP makes the internal argument the closest to Spec TP allowing for its promotion to subjechood without violating locality:

(10) Smuggling (Collins, 2005)

a. Suppose a constituent YP contains XP. Furthermore, XP is inaccessible to Z because of the presence of W, some kind of intervener that blocks any syntactic relation between Z and XP. If YP moves to a position c-commanding W, we say that YP smuggles XP past W.

b. \[ Z \ldots XP \ldots W \ldots [YP <XP>] \]

c. \[ Z \ldots [YP <XP>] \ldots W \ldots [YP XP] \]

phrasal movement of the participle to the left of the *by*-phrase:

(11) a. The coach summed up the argument.
    The coach summed the argument up.

b. The argument was summed up by the coach.
    *The argument was summed by the coach up.

(12) Problems of a smuggling approach to passive formation:

a. What is the status of smuggling in the theory?

b. What are the limits of smuggling and more generally of look-ahead computations? Doesn’t smuggling massively over-generate? Can it be used to avoid minimality effects with other potential interveners, for example in A’-movement?

c. How do we explain sentences like (13), where passivization applies independently of movement of the internal argument to the subject position?

(13) There was a man killed.

3 An alternative proposal: From arguments to events

3.1 Some background assumptions about event structure

decomposition of events into subevents (Moens and Steedman, 1988; Parsons, 1990; Pustejovský, 1991; von Stechow, 1995; Higginbotham, 2000; Rothstein, 2004; Kratzer, 2005; Arsenijević, 2006; Ramchand, 2008, among many others)

in particular: ontology contains a transition into a state, a **consequent state** (in the sense of Moens and Steedman, 1988) to capture the semantics of predicates involving change, a (durative or instantaneous) change from \( \neg \phi \) to \( \phi \) (accomplishments and achievements)

A consequent state can be related to (an atemporal version of) Dowty’s (1979) **become**-operator, involved in the representation of accomplishments and achievements (see, for instance

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\(^2\)Collins (2005) argues convincingly against alternative analyses in terms of right specifiers or extraposition of the *by*-phrase to the right (see there for details on this point and on the formation of the participle).
McIntyre, 2006, for an atemporal definition of BECOME in event semantic terms)

lexical (achievements and) accomplishments, e.g. kill (14)

(14) John kills Bill.  \[(Dowty, 1979, 91)\]

[[John does something] CAUSE [BECOME ¬[Bill is alive]]]

syntactically created accomplishments\(^3\) (15), (16)

(15) Secondary (resultative) predicates
  a. Davide took off his hat.
  b. Boban hammered the metal flat.
  c. Kriszta and Balázs danced into the house.

(16) He sweeps the floor clean.  \[(Dowty, 1979, 93)\]

[[He sweeps the floor] CAUSE [BECOME [the floor is clean]]]

Note: we are not necessarily concerned here with telic events but rather with complex event structures that rely on BECOME\(^4\)

Travis’s (2000) VP shell account for the syntactic representation of event structure

V\(_1\) corresponds to the causing sub-event and introduces the external argument (DP\(_{ext}\))

V\(_2\) introduces the theme argument (DP\(_{int}\)) as well as the endpoint of the event

a consequent state is structurally represented as a lower VP shell with DP\(_{int}\) in its specifier

3.2 The proposal

(17) Main hypothesis: The promotion of a consequent state subevent of a complex event to a position above VP is the fundamental ingredient of passive constructions.

- Passivization necessarily involves the zooming in on a consequent state subevent, which is the result of a transition associated with the BECOME component

- A discourse-semantic requirement singles out this consequent state which is endowed with a feature that will determine the movement of the lower VP to a discourse-related projection at the edge of the VP phase, represented as VoiceP

- two properties of the feature that triggers movement to VoiceP:
  - discourse-related: chooses the element of the complex event that needs to be singled out
  - quantificational: makes it readable to the next phase
  \[⇒\] main job of this feature: to single out an element of the atemporal event structure associated with the VP and to enrich its semantics by introducing temporality, thereby making it available to the temporal domain (and ultimately the discourse domain) of the clause (see appendix, section 9, for more details)

\(^3\)There are different approaches (e.g. von Stechow, 1995; Doetjes, 1997; Rothstein, 2004) as to how the two predicates in syntactically created accomplishments are combined semantically to form one complex predicate and refer to a single event, which are irrelevant for the present purposes (see also Gehrke, 2008, for discussion).

\(^4\)With Rothstein (2004); Arsenijević (2006); MacDonald (2006) and others, we separate the theory of event types and the creation of such types at the VP level, from the effect that the quantificational properties of the internal argument DP can have on the interpretation of the VP as bounded or unbounded.
• Voice is responsible for grounding the event time in a particular way; with passives: the event time is anchored within the consequent state subevent

(18)

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TP
  Spec  T'
    T  AspP
      ASST-T  Asp'
            Asp  VoiceP
                VP2
                  DPint  V2'  (XP)
                        V2  VP1
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the relevant feature defines the lower VP as a member of \( \pi \)'s class and drives its movement to \([\text{Spec}, \text{Voice}]\), without generating a minimality effect\(^5\)

(19) \[ \text{VP}_2 \pi \text{VP}_1 < \text{VP}_2 \pi \]

(20) \[ (\text{VP}_2, \pi)_{\text{Class}} \pi (\text{VP}_1)_{\text{ClassV}} (\text{VP}_2, \pi)_{\text{Class}} \pi [\text{VoiceP}[\text{VP}_2 \text{pushed } < \text{the boy}_1] \text{by } [\text{VP}_1 \text{[the girl]}_k \text{[VP}_2 \text{[the boy] pushed}_j]]] \]

**Speculation: What kind of feature is \( \pi \)?**

**aboutness** (see Rizzi, 2006; Rizzi and Shlonsky, 2007, for some preliminary distinction between topichood and aboutness)

e.g. Arsenijević (2006): functional verbal projection that basically picks out that part of the complex event structure that something is asserted about

**our approach:**
- whatever is asserted about the event or that part of the event the focus lies on has to move up
- passives: the consequent state moves up to serve as a basis for the event time (see appendix)

**Contra Collins and other argument structure based approaches:**

the proposed movement of the lower VP shell is completely independent of the promotion of the internal argument to subject position and motivated by interface requirements

\(^5\)We assume this feature at the edge of the VP to be similar in nature to those that project at the edge of the clause or the DP, and that the distinction between these is given by the syntactic environment in which they are projected.
4 Empirical support

4.1 Not all transitive verbs form passives

*our prediction:* unless a secondary predicate is supplied syntactically, only those transitive verbs that are associated with an accomplishment or achievement event structure (involving BECOME) should be able to form passives

(21) *Transitive transition structures allow passives*
   a. The lion killed the antilope.
      The antilope was killed (by the lion).
   b. He put the card on the table.
      The card was put on the table (by him).

(22) *Transitive verbs associated with simple event structures do not allow passives*
   a. This laptop weighed two kilos.
      *Two kilos were weighed (by this laptop).
   b. This chair cost 50 euro.
      *50 euro were costed (by this chair).

4.2 Word order restrictions with secondary resultative predicates

(23) The argument was summed up by the coach.  
    *(= (11), Collins 2005)*
   *The argument was summed by the coach up.*

(24) a. Jutta was spoken to by Eric.
    *Jutta was spoken by Eric to.*
   b. Tom zipped the sleeping bag all the way up to the top.
    ??The sleeping bag was zipped by Tom all the way up to the top.

(25) a. The table was wiped clean by John.  
    *(from Postal 2004)*
   ??The table was wiped by John clean.
   b. The metal was hammered flat by John.
    ??The metal was hammered by John flat.

4.3 Passives of existentials

*problem for NP movement approaches:* why does the internal argument have to appear in preverbal position, whereas the postverbal position is ungrammatical?

(26) a. There was a man killed.
    b. *There was killed a man.*

*our account:* regular passives involve two independent operations
- first, the lower VP shell moves to Spec VoiceP to form a basis for the event time
- second, a DP moves to Spec TP to satisfy the EPP

*standard assumption:* EPP requirements on T can be satisfied in at least two ways
- movement of the closest argument to Spec TP
- expletive insertion

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6See also Postal (2004) for extensive discussion.
our proposal: the same options are available in passives
- movement: the closest argument (DP$_{int}$ given prior movement of VP$_2$) is attracted
- expletive: (26-a)

(27) Collins (2005) makes the wrong prediction
∗There was by the police a man killed.

4.4 Floating quantifiers

floating quantifiers are banned from the post-verbal position in passives (28), whereas both word orders are grammatical in the active counterparts (29) (first observed in Sportiche, 1988)

(28) a. The boys were both given a good talking to.
   b. ∗The boys were given both a good talking to.

(29) a. Ad gave the boys both a good talking to.
   b. Ad gave both the boys a good talking to.

unexpected under NP movement approaches to passives: the quantifier should be strandable in postverbal position where it is originally merged

our account: VP$_2$-movement is independent of DP-movement to satisfy the EPP
⇒ The floating Q moves together with the internal argument in Spec VP$_2$ and remains stranded after the movement of the internal argument to Spec TP.

4.5 Trace reactivation in passives

conflicting empirical findings in the psycholinguistics literature on antecedent reactivation at the trace position in passives, which questioned the psychological reality of NP traces

MacDonald (1989)

Visual Probe Recognition task (VPR) to test reactivation of the passive subject NP at the trace position: a sentence is presented on a screen, after which a word appears on the screen and the subject has to say if the word was present in the sentence
In case of the passive the probe word used is the head noun of a subject DP like mayor in (30).

(30) The terrorist wanted to disrupt the ceremonies.
    [The new mayor at the center podium]$_i$ was shot NP-trace$_i$.

Reaction time in this modality were compared to reaction times with predicate adjectives (31)

(31) The terrorist wanted to disrupt the ceremonies.
    The new mayor at the center podium was furious.

prediction: facilitatory effect should obtain only in verbal passives
borne out: probe recognition was faster after verbal passives than after adjectives
Osterhout and Swinney (1993)

Cross-Modal Priming task (CMP): Sentences are presented auditorily while strings of letters appear on the screen at specific time points and have to be recognized by the subject as being words or non-words. Given that a previous presentation of a semantically related word reduces the reaction time in word recognition it can be tested whether a word present in the sentence is active at specific points during processing.

findings: no reactivation at the trace position in passives until one second after the alleged trace

These findings are in conflict under NP movement analyses but not under our approach:
- predicts facilitatory effect in VPR found by MacDonald (1989): The lower VP, with the internal argument NP in its specifier, is reactivated at its trace position, which explains the facilitatory effects in VPR in verbal passives but not in adjectives.
- predicts the absence of reactivation found by Osterhout and Swinney (1993): In the structure proposed in (18) there is no trace in the position tested (i.e. in postverbal position).

5 Passivizing states

States do not involve BECOME, since they consist of only one sub-event, a state

potential problem for our proposal: many stative predicates passivize:

(32) a. The house is owned by Louise.
    b. The answer / myth is known / believed by the pupils.
    c. Toni is loved (by Stefan).

BUT: the availability of passivization is not a common property of stative predicates in general

For example, many stative verbs can passivize:

Belletti and Rizzi (1988): three kinds of psych-verbs
- fear-type (temere): can derive eventive passives (33-a)
- worry-type (preoccupare): can only derive adjectival passives
- appeal-type (piacere): cannot passivize at all (33-b)

(33) a. Giorgos feared Roberta.
    Roberta was feared (by Giorgos).
    b. The solution escapes me.
    *I am escaped (by the solution).

intuitive difference between appeal-verbs vs. fear-verbs & stative predicates in (32):
only the latter can have an inchoative meaning of the state denoted by the verb (34)

(34) a. Shakuntala got to know the answer.
    b. Louise got to own a house.
    c. Nino got to fear sharks.
    d. ??The solution got to escape Berit.

⇒ allow a reading under which the state denoted by the verb is re-interpreted as a consequent state, a state having come into existence, which is predicated over the internal argument
**our proposal**: this reading involves a **coercion** of the underlying event type (a state), which is shifted into a more complex event type (an achievement), by adding a BECOME predication this secondary predication over the internal argument, represented by a lower VP shell with the internal argument in its specifier, makes passivization possible

**semantic/pragmatic constraint**: the state has to be interpretable as a consequent state

**Similar coercion operations proposed in the literature** (see also Partee, 1987; Pustejovsky, 1995; Asher, 2007, for more general proposals for type shifts and coercion):

(35)  
**de Swart (1998)**

a. French stative predicates are coerced into ‘events’ (accomplishments / achievements) when combined with the passé simple or point adverbials like soudain ‘suddenly’ to meet the input requirements of the latter

b. semantic effect of this type shift: the state is interpreted as an inchoative state

(36)  
**Rothstein (2004)**

a. achievements are coerced into accomplishments when combined with the Progressive (e.g. Jonathan was reaching the summit), by adding an activity (associated with Dowty’s DO predicate), which is interpreted as a preparatory process

b. constraint on this type shift: it has to be possible to construe an appropriate activity

**more restricted availability of passivization in the DP domain**: additional indication that a more complex structure has to be provided syntactically for these kinds of predicates (37)

(37)  
a. the enemy’s destruction of the city

b. the city’s destruction by the enemy

c. Giorgos’ fear of Roberta

d. *Roberta’s fear by Giorgos

the nominal in (37-b) derives from a verb that is lexically specified for a complex event structure the nominal in (37-d) does not, but instead derives from a stative verb

**our proposal**: the only possible way to introduce BECOME with state predicates is the formation of a complex predicate in the syntactic structure via merge of additional verbal structure

**independent evidence**: merging additional verbal structure with nominal heads is not possible - inability of nominals to take SC as complements (see also Haegeman and Guéron, 1999)

(38)  
a. I consider [Rick a good musician].

b. *my consideration [Rick a good musician]

- inability of nominals to assign accusative case to a DP in the Spec of their complement or to incorporate the complement’s head

(39)  
a. I consider [Sharon to be a good writer].

b. *my consideration (of) [Sharon to be a good writer]

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7Following upon de Swart’s analysis of this type shift as involving covert aspectual operators, Travis (in press) proposes to represent these operators in the syntax by means of a VP shell account.
- inability of nominals to combine with particles

(40)  
  a. Andrea gave the book away.
  Andrea gave away the book.
  b. *the gift of the book away
      *the gift away of the book

*our assumption*: the only option for nominals to undergo passivization is to be lexically endowed with a complex event semantics

**no extent reading with verbal passives**

some spatial expressions (verbs and PPs) display an ambiguity between an eventive movement reading (41-a) and a stative spatial extent reading (41-b) (see Gawron, 2005, for discussion)

(41)  
  a. The army surrounded the city.
  b. Trees surrounded the city.

under verbal passivization only the eventive reading survives (42)

(42)  
  a. The city was surrounded by the army.  
     (verbal or adjectival passive)
  b. The city was surrounded by trees.  
     (only adjectival passive)

with the respective nominalizations: a by-phrase is available only with the eventive reading (43)

(43)  
  a. The surrounding of the city by the army
  b. *The surrounding of the city by the trees

6  Event structure and the acquisition of passives

6.1 Problems with verbal passives

*our account*: a scope/discourse-related feature drives movement of the secondary predicate over the intervening VP

⇒ absence of minimality effects in standard passives: a feature encoding ‘aboutness’ \([\pi]\) is associated with the lower VP and drives its movement to [Spec, Voice]

⇒ the moved \(VP_2[\pi]\) in (44) is not blocked by the intervening \(VP_1\), since the latter does not qualify as a member of the \(\pi\) class

(44) \[VP_2\pi \left< VP_1 \right> \pi\]

(45) \[(VP_2,\pi)_{\text{Class}\pi} \left< (VP_1)_{\text{ClassV}} \right> (VP_2,\pi)_{\text{Class}\pi}
   \left< [\text{voiceP}[VP_2 \left< \text{pushed} \right>_{i} \text{by} \left< [\text{VP_1 \left< \text{[the girl]_{k} \left< [VP_2 \left< \text{[the boy pushed]_{j}}\right]}\right]}\right]\right]\right]\]

Given GM (7), however: children have trouble with the projection of scope/discourse features (in the absence of strong contexts as the one provided in O’Brien et al., 2005)

⇒ impoverished representation of \(VP_2\), in which the \(\pi\) feature is missing

⇒ inactivation of \(\pi\) makes \(VP_2\) indistinguishable from \(VP_1\), which ultimately generates a min-
imality effect whenever the former is moved above the latter (46)

(46) VP2 VP1 <...>

6.2 The actional / non-actional distinction

distinction between states and events (activities, accomplishments, achievements)
passivization as an operation on the event structure of a predicate: only those predicates which
involve a BECOME component should allow passivization
state predicates do not involve BECOME and need to be coerced into achievements in order to
be able to passivize (semantically/pragmatically constrained type shift)

Piñango et al. (2006); Brennan and Pylkkänen (2008): type shift operations in other domains
add extra processing complexity

our proposal:
- coercion requires both a revision of the semantic properties of the predicate (which also re-
quires checking if the predicate can have an inchoative meaning) and a revision of the syntactic
structure generally associated with that predicate
- a child’s capacity for processing, which is already limited in dealing with ‘normal’ actional
passives, is exceeded by the necessity to operate these extra-computations

future tasks:
- run experiments to test trace reactivation time in passives
- run experiments to test whether passivization of states involves coercion

7 What about activities?

unlike accomplishments and achievements (and like states), activities are generally assumed not
to involve definite change, and thus not to involve BECOME

Potential objection to our proposal:
some activities passivize, and when they do they rather seem to pattern with accomplishments
and achievements with respect to the acquisition of passives (do not pose a problem) and to the
processing costs (do not involve aspectual coercion Piñango et al., 2006)
under our proposal, this would mean that activities (can) involve a complex event structure
containing a transition into a consequent state, and that they do not involve coercion

7.1 Semelfactives: kick, hit, slap; push8

Smith (1991/97); Rothstein (2004): semelfactives are systematically ambiguous between an
activity and an achievement reading

8Verbs like push have been analyzed as a complex of give pushes to (Verkuyl, 1993), which can be seen as an
iteration of single atomic pushes and thus as analogous to semelfactive verbs (see also Zucchi and White, 2001).
systematic ambiguity of semelfactives (Rothstein, 2004, 184)

a. John jumped for ten minutes.  
   b. John jumped at ten o’clock.

semelfactive vs. activity (Rothstein, 2004, 187)

a. He jumped again and again.  
   ≈ He jumped for several minutes.

b. He ran again and again.  
   He ran for several minutes.

semelfactive vs. activity: nominalizations (Rothstein, 2004, 187)

a. He gave a jump / a kick / a wink.

b. He had a walk / a run / a swim.

this (incorrectly?) predicts that under passivization only the achievement reading should survive

Sören kicked the tree (once / several times).
   The tree was kicked (once / several times) (by Sören).

b. Giusi pushed the cart (once / for a longer period of time).
   The cart was pushed (once / for a longer period of time) (by Giusi).

an alternative approach to semelfactives:

the semelfactive reading is the basic one, and the activity reading is the derived one (by iteration of single jumps, kicks, pushes etc.), in which case the data in (50) goes well with our proposal

7.2 Other activities

- surround and other motion verbs that refer to routes and not to goals (or sources)  
  it is generally not clear whether these are activities or accomplishments (see also Gehrke, 2008, for discussion)

- kiss, wash, brush, pet, comb, touch

we assume that these can be treated on a par with semelfactives as suggested above, even if semelfactives are commonly assumed to comprise less verbs  
the activity reading is derived by iterating single atomic events (achievements)

7.3 Some evidence from nominalizations

indication that activities can behave like complex events:

nominalizations of these verbs often refer to single, countable (‘bounded’) events and behave like complex event nominals (CENs) (in the sense of Grimshaw, 1990): kiss, touch

nominalizations cannot involve coercion since this would add additional verbal structure to nominal structure (recall discussion in section 5)

Meinschaefer (2005)

- some deverbal nouns derived from activity verbs show ‘count noun’ properties only (i.e. behave like CENs):
  allow modification with frequent only in the plural (51-a)
  are compatible with count but not with mass modifiers (51-b)
activity nouns behaving like CENs (Meinschaefer, 2005, 362)

a. *Their frequent fight scared everyone.
   Their frequent fights scared everyone.
b. *Much fight over this issue was going on.
   Many fights over this issue were going on.

- others display properties of both ‘mass’ and ‘count’ nouns, i.e. simple event nominals (SENs) and CENs (52):

allow modification with frequent in both singular and plural (52-a)
are compatible with both count and mass modifiers (52-b)

activity nouns behaving like SENs and CENs (Meinschaefer, 2005, 362)

a. The frequent debate of the issue raised much interest.
b. Much debate of the issue was going on.

our assumption: the two sets of data from passivization and nominalization of activities indicates that their complex event readings do not involve coercion

8 Conclusion

problems with argument structure/DP perspective on passive formation

locality constraints on movement (see Collins, 2005, among others)

insights from theoretical and experimental literature: more than argument structure is involved

shift to an analysis based on event structure

movement of VP₂ (a consequent state subevent) to a discourse-related position at the edge of the VP (Spec, VoiceP); from this position the internal argument can further move to the subject position, though this is not a necessary feature of passivization

different kinds of predicates behave differently with respect to the availability of passives

not necessarily a matter of (in)transitivity

split between different kinds of states

taking into account finer-grained distinctions that pose problems for NP movement approaches to passivization: new possibilities for testing children’s knowledge of these structures

future tasks:

further investigate the precise discourse properties of the stipulated VoiceP

experiments to test for trace position, aspetaclial coercion, likeliness of availability of inchoative state readings with particular state predicates

9 Meinschaefer notes that the Spanish counterpart of (52) (debate) behaves like English, whereas the French counterpart (d´ebat) displays ‘count’ behavior only (i.e. it behaves like a CEN). She also shows that nouns derived from semelfactives (e.g. jump and its French and Spanish counterparts) as well as French glissade ‘slide’ behave like ‘count’ nouns, whereas French glissement ‘sliding’ is like debate in (52).

10 Note that this sentence is only acceptable under the reading that the frequency raised interest, whereas with the plural the debates raised interest.

14
Appendix: Anchoring events in time

ASSUMPTION # 1: the syntax and semantics of tenses and aspects involve reference to points or intervals in time (Partee, 1984; Zagona, 1990; Stowell, 1996; Giorgi and Pianesi, 1997; Demirdache and Uribe-Etxebarria, 2000, among others)

point of departure: Reichenbach’s (1947) event time (E), speech time (S), reference time (R)
Klein (1994): interval-based, event time (EV-T), assertion time (AST-T), utterance time (UTT-T)

The syntax of Tense and Aspect (Demirdache and Uribe-Etxebarria, 2000)

ASSUMPTION # 2: event structure itself is atemporal in nature, i.e. there are no times associated with either the event or any of the subevents

Moens and Steedman (1988): the basic components that make up an event are not connected via temporal relations but rather by contingency (see also Rothstein, 2004; Truswell, 2007)
⇒ no immediate link between the (atemporal) event and the temporal domain of the clause

general idea: Voice is responsible for grounding the event time in a particular way

the position VP₂ in passives moves to is independently needed, also for active sentences, to form a basis for the event time that subsequently serves as the internal argument of Asp
the event time is provided by Voice at the point of transition from the atemporal domain of the event structure to the temporal one

with passives: event time is anchored within the consequent state subevent, because VP₂, which is semantically associated with the transition into a consequent state, moves to Spec VoiceP where it is assigned temporal properties
with actives:
- in the default case: nothing moves to the position above VP₁ and the event time is assigned locally, or alternatively, the entire VP moves
- in other cases, when the event time has to be placed within a certain subevent, the projection associated with this subevent moves up;
  e.g. the Progressive could be thought of as focusing on the process of an event rather than on its initial or final state

References


Asher, Nicholas. 2007. A Web of Words: Lexical Meaning in Context. Ms. Université Paul Sabatier Toulouse & University of Texas at Austin.


McIntyre, Andrew. 2006. The integration of directional PPs: Thoughts on the way to getting towards knowing if I’m (be)coming or going. Paper presented at the conference Syntax and semantics of spatial P in Utrecht, June 2006.


