## In the Absence of an E(vent)P: Participial Adverbs in English and Polish

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**The Event Phrase** Several researchers, including Borer (2005, 2013) and Travis (1994, 2010), have argued for the presence of an E(vent) projection in the verbal functional spine. EP binds the event argument associated with Neo-Davidsonian event predicates, e.g.  $\lambda e.[work(e)]$ . In addition, Travis argues that EP marks the boundary of 'L-syntax': a decomposed VP domain encoding causativity, inner aspect and argument structure (cf. also Ramchand 2008, 2018). While Borer and Travis provide some initial arguments for the existence of EP, the exact properties of this projection remain unclear: Does EP license event participants? Is the presence of EP associated with any syntactic consequences?

I suggest that we can investigate the properties of EP by looking at constructions where this projection appears to be missing. The logic of this approach is as follows: if the absence of EP entails the absence of some property X, then we can plausibly conclude that EP is necessary for X. The challenge is to find constructions which lack EP, and to determine which properties 'go missing' in the absence of EP. In the present work, I apply this method to adverbs derived from present active participles, such as *disappoint-ing-ly* in English and *roz-czar-ow-uj-qc-o* [pfx- $\sqrt{-v-IMP-PART-ADV}$ ] in Polish.

To preview my conclusions, the evidence from Participial Adverbs strongly supports Borer's conception of EP. Unlike Travis (2010), Borer (2005) argues that EP assigns the Agent/Originator role to the DP merged in its specifier. Furthermore, Borer (2013) suggests that the projection of EP is necessary for the emergence of event structure and event modification. In what follows, I show that these two properties – Originators and event modification – are lost in Participial Adverbs.

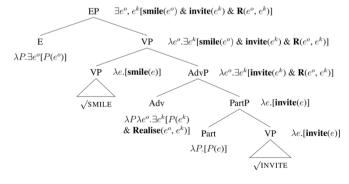
**Participial Adverbs (PAs)** Active participles are derived from verbs by means of the suffix *-ing* in English and *-qc* in Polish. They can be converted into adverbs by suffixing them with *-ly* and *-o*, respectively. In both languages, the derivation of PAs is widespread and productive, as illustrated in (1)-(4). Note that the vast majority of PAs have the meaning and distribution typical of manner adverbs.

- (1) The modern world is confusingly / upsettingly / distressingly / stupefyingly / inspiringly complex.
- (2) She smiled welcomingly / invitingly / patronisingly / pleadingly / approvingly / encouragingly.
- (3) Ten dom jest szok-**uj**-ąc-o / intryg-**uj**-ąc-o / prze-raż-(**i**)-**aj**-ąc-o / roz-czar-**ow-uj**-ąc-o drogi. this house is shock-*v*-PART-ADV / intrigue-*v*-PART-ADV / through-strike-*v*-IMP-PART-ADV / apart-spell-**v**-IMP-PART-ADV expensive 'This house is shockingly / intriguingly / terrifyingly / disappointingly expensive.'
- (4) On spojrzał na mnie pyt-**aj**-ąc-o / gan-**i**-ąc-o / prze-prasz-(**i**)-**aj**-ąc-o / roz-kaz-(**a**)-**uj**-ąc-o. he looked at me ask-*v*-PART-ADV / reproach-*v*-PART-ADV / through-ask-*v*-IMP-PART-ADV / apart-order-*v*-IMP-PART-ADV 'He looked at me guestioningly / representingly / apaleoisingly / apart-order /

'He looked at me questioningly / reproachingly / apologisingly / commandingly.'

I assume that all PAs embed a verbal category, as evidenced by their regular morphology and transparent semantics. At the same time, these constructions arguably lack EP. Consider the simplified derivation of *smile invitingly* sketched out in the figure below. This derivation presupposes a semantic ontology with event kinds  $e^k$  and event objects  $e^o$  (see e.g. Gehrke 2015). I further assume that event predicates are systematically ambiguous between event kinds and event objects, but that EP is necessary to assert the existence of the latter. The PA *invitingly* is analysed as a manner adverb adjoined to the VP headed by *smile*. While the partitive head Part is semantically vacuous, the Adv head 'extracts' the event kind  $e^k$  from  $\lambda e$ .[**invite**(e)], and then relates it to an event object  $e^o$  via the realisation relation **R** 

(Carlson 1977). Informally, this yields a class of 'smiling' events which instantiate the event kind INVITING. In the final step, the open event argument  $e^{\circ}$  gets bound by the EP in the main projection line of *smile*. Crucially, this analysis entails that PAs cannot project their own EP. If they did, we would expect *smile invitingly* to denote two separate events of *smiling* and *inviting* rather than a single complex event. Furthermore, if event closure were to apply inside PAs, the result would be of the wrong type to modify the denotation of the main VP.



While PAs cannot embed EP, the morphological evidence from Polish indicates that PAs include at least v and Asp. The former is responsible for verbalising the root and/or licensing the initiating subevent (Svenonius 2004, Jabłońska 2007). It is realised by 'theme vowels' such as *-a-, -aj-, -i-* and *-uj-/-owa-*, cf. (3) and (4) (Czaykowska-Higgins 1998). As for the exponence of Asp, the imperfective feature [IMP] is phonologically null in bare stems, but it spells out as *-aj* or *-uj/-ywa* in the presence of a prefix. Assuming that there is a close correspondence between morphology and syntax, the internal structure of PAs in Polish is thus minimally: [ Adv [ Part [ Asp [ v [  $\sqrt{root}$  (pfx) ]]]]].

**EP Introduces Originators** Only some verb classes can serve as an input to the formation of PAs. PAs are productively derived from psychological predicates, especially from object experiencer verbs such as *confuse, distress* and *intrigue* in (1) and (3) above. PAs are also derivable from what Levin (1993) terms *judgement verbs*, including *welcome, patronise* and *encourage* in (2) and (4). Finally, PAs in Polish can also occur in an *Adverbial Causative Construction*, illustrated in (10a) in the next section.

Crucially, there are no PAs derived from prototypical activitity verbs like *wipe* and *march*, cf. (6a) and (7a). The minimally different sentences in (b) demonstrate that there is nothing wrong with the intended meanings. In fact, the most common analysis of these constructions decomposes them into a manner component (e.g. *wipe*, *march*) and a result/path component (e.g. *clean*, *into the room*) (see Harley 2005, Acedo-Matellán 2016, and references therein). Since adverbs are well-attested as manner expressions, what characteristic of PAs rules out \**wipingly* while permitting *approvingly*?

(6) a. \*Mary cleaned the table wipingly / rubbingly. b. Mary wiped / rubbed the table clean.

(7) a. \*John went into the room marchingly / limpingly. b. John marched / limped into the room.

I propose that the constraints on PAs follow from the fact that EP assigns the participant role of Agent/Originator to the DP merged in its specifier (Borer 2005, 2013). Originators are event participants who initiate, control and maintain the event over the course of its development. The absence of EP entails the absence of an Originator: since  $\sqrt{wipe}$  and  $\sqrt{march}$  conceptually imply an Originator, they are banned from PAs. Conversely, external arguments interpreted as Stimuli are allowed in PAs (e.g. *this house fascinates me*). As for judgement verbs like *encourage*, I suggest that they are coerced into object experiencer verbs, with the external argument reinterpreted as Stimulus, cf. *Her words* (*\*intentionally) encouraged us to keep trying*. The internal argument of PAs is usually a sentient *pro*.

**EP Licenses Event Modifiers** PAs are categorically incompatible with any form of event modification, including manner adverbs, aspectual adverbials, locative adjuncts and instrumentals. Consider the minimal pair below, with (8a) illustrating the *Adverbial Causative Construction* in Polish, and (8b) showcasing a participial clause derived from the same verb.

- (8) a. Ta kawa podziałała na mnie roz-budz-(i)-aj-ąc-o (\*stopniowo) (\*do pracy) (\*przez 10 minut).
  this coffee affected on me pfx-wake-v-IMP-PART-ADV gradually to work for 10 minutes
  'This coffee had an energising effect on me.' [Lit. 'This coffee affected me energisingly.']
  - b. Ta kawa dała mi niezłego kopa, roz-budz-(i)-aj-ąc mnie (stopniowo) (do pracy) (przez 10min.). this coffee gave me good kick pfx-wake-*v*-IMP-PART me gradually to work for 10mins

This result is potentially surprising, as it suggests that the presence of v and Asp in PAs is not sufficient to license goal PPs or aspectual adverbs. Nonetheless, this finding is fully consistent with the conclusions in Borer (2013), who argues that the projection of EP above AspP is necessary for the emergence of syntactically visible and modifiable event structure.

**Summary** I have sought to deduce the properties of EP by investigating an EP-less construction. The evidence from Participial Adverbs has been shown to support the conception of EP defended in Borer (2005, 2013). Apart from licensing event closure, the EP projection has at least two additional functions. Firstly, EP assigns the thematic role of Originator to the external argument. This is why PAs cannot be derived from predicates whose conceptual meaning entails an Originator, e.g. *\*wipingly*. Secondly, EP enables syntactic event modification, including by PP adjuncts and aspectual adverbials.

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