

Variation and the CI interface: implications for event structure

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Introduction: Within a generative approach to language an important question is how to capture language variation. Assuming the mapping to the CI interface is uniform (Chomsky 2004, 2007), and variation can be accounted for by the presence vs. absence of a projection (Thráinsson 1996), or a feature (see Chomsky 2000, 2004 for the EPP/OCC), the question takes on a concrete form: Are variant properties legible at the CI interface? In this paper, I consider two possible answers to this question and discuss the implications for mereological approaches to the event structure (ES) properties of the verbal predicate.

The variation: Since Verkuyl (1972) it has been known that the internal argument affects the aspectual interpretation of the predicate in (at least) Germanic, illustrated by English in (1).

- (1) a. John ate a piece of cheese # for an hr./in an hr.
b. John ate cheese for an hr./#in an hr.

For ease of exposition, I refer to *a piece of cheese* as a [+q]NP and *cheese* as a [-q]NP. There is a [+q]NP in (1a) and the predicate is telic; there is a [-q]NP in (1b) and the predicate is atelic; this is the *object-to-event mapping* (OTEM) property. Nevertheless, it has been noted that Slavic does not show the OTEM (Borer 2005, Krifka 1992, Schoorlemmer 1995, among others), illustrated by Russian in (2). The OTEM is a variant property of inner aspect.

- (2) a. *Ja pil butylku vina/vino *za čas/v tečeniji časa.*
I drank-imp. a-bottle of-wine/wine *in hour/during hour
“I drank a bottle of wine/wine *in an hour/for an hour.”
b. *Ja vypil butylku vina/vino za čas/*v tečeniji časa.*
I drank-perf. a-bottle of-wine/win in hour/*during hour
“I drank a bottle of wine/wine in an hour/*for an hour.”

The question: Is the OTEM legible at the CI interface? Two possibilities arise: 1. It is. Although not present in Slavic, it is still of the form of elements that are legible to the CI interface, and we would expect a semantic effect. (Resultative secondary predication cross-linguistically represents a case like this.) Concretely, we expect that while English has each Vendlerian aspectual predicate class (Vendler 1967, Dowty 1979 etc.) Slavic would not. However, Filip (1999), Borik (2002), Gehrke (2008) among others, note that it does. At the CI interface, the OTEM shows no effect. By parsimony of reasoning, we are led to option 2: the OTEM is not legible at the CI interface (see Borer 2005 for a similar conclusion).

Note that to draw this conclusion, the OTEM and ES must be independent properties. Consider evidence from English that this is so. Observe the well-known fact that transitive activities do not show the OTEM (3a). More concretely, a [+q]NP cannot make the predicate telic, a goal P is required, as in (3b), turning it into an accomplishment.

- (3) a. John carried a log/wood for an hr./#in an hr.
b. John carried a log into the barn #for an hr./in an hr.

We can conclude that the goal P cannot contribute a [q] feature; otherwise, the NP could turn the predicate telic. Moreover, we would not expect that a [-q]NP would “override” the effects of the goal P resulting in an atelic predicate, illustrated in (4)

- (4) John carried wood into the barn for an hr./#in an hr.

The P and the NP must introduce two distinct properties for the asymmetry in (4) to hold. Since the P turns activities in accomplishments, I assume that it introduces a property directly related to ES. Thus, I conclude that ES and the OTEM are independent properties. More evidence comes from the distinct ES properties of achievements and accomplishments. Achievements are punctual and accomplishments are extended in time (Dowty 1979, Vendler 1967). These differences come out in the *stop-control* construction in (5).

- (5) a. John stopped eating a piece of cheese.
b. John stopped catching a mouse.

Since accomplishments are extended in time, the event can start and then stop before reaching its end; thus a single event interpretation of (5a) is available. In contrast, achievements are punctual, that is, no time elapses between the beginning and end of the event. Thus, once the

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event begins, it cannot be stopped before it ends. Only an iterative interpretation is available in (5b). Although they differ in ES properties, they both show the OTEM property, illustrated in (1) for accomplishments and in (6) for achievements.

- (6) a. John caught a mouse #for an hr./in an hr.
b. John caught wildlife for an hr./#in an hr.

If the OTEM were dependent on ES, we would not expect that both accomplishments and achievements show the OTEM property. OTEM and ES are independent properties.

Accounting for the OTEM: If not legible at the CI interface, we are forced to conclude that the OTEM is a purely syntactic phenomenon. Consider evidence: First, note that the NP participating in the OTEM must be local to the verb; it must be an internal argument (Tenny 1987). Note that this local relation is not incorporation, since the participating N can be the antecedent to discourse anaphora (7), which is not typical for incorporated Ns (Dayal 2007).

- (7) John ate cheese for an hr. It was delicious.

Second, as observed by Borer (2005), it cannot be a thematic/selectional relation, evidenced by so-called ECM resultatives (8-9), since the participating NP is introduced by the secondary predicate (9), and bears no thematic/selectional relation with the verb.

- (8) John walked the letter *(to the post office).

- (9) a. John walked the letter to the post office in ten mins./#for ten mins.
b. John walk mail to the post office #in ten mins./for ten mins.

Assuming that the local relation is with an aspectual projection: AspP (following, for example, Borer 2005, MacDonald 2008, Ritter & Rosen 1998, van Hout 2004 etc.), it can be captured via Spec,Head in Spec,AspP (Borer 2005, Ritter & Rosen 1998) or Agree with Asp (MacDonald 2008, Travis in press). Regardless of the correct account, neither of these syntactic relations is legible at the CI interface (although their effects may or may not be). Consequently, we derive the conclusion that the OTEM is not legible at the CI interface.

Implications for ES: Two general strategies to account for the ES properties of a verbal predicate are decompositional (Dowty 1979, Pustejovsky 1991 etc.) and mereological (Borer 2005, Krifka 1992 etc.). Given the conclusion that the OTEM is not visible at the CI interface, the role of the internal argument in the characterization of ES disappears. If the role of the internal argument disappears, then a principle motivation for mereological approaches also disappears. Since Bach (1986) the motivation to approach ES in mereological terms has been based on the mereological parallels between nominal and verbal predicates (see also Ramchand 1997). However, if the nominal is no longer playing a role at the CI interface, we lose this motivation, adding more weight to decompositional approaches.

Note, independently of this argument, that it is not clear how mereological approaches can account for the ambiguity of *almost* with accomplishments (Dowty 1979)—or similar decompositional adverbs (see, for example, Pustejovsky 1991)—between a counterfactual interpretation (Rapp & von Stechow 1996) in which the event almost begins, and an incomplete interpretation in which the event almost ends illustrated in (10).

- (10) John almost drank a pitcher of beer.

On a decompositional approach, simply by assuming a beginning and end to the event (akin to the event time bounds of Demirdache & Uribe-Extebarria 2004, 2007) which *almost* can modify is enough. Moreover, the temporal distance between these event bounds can account for the punctual interpretation of achievements and the extended time interpretation of accomplishments (recall 5), a fact that mereological accounts are hard pressed to explain.

Selected References: Borik, O. 2002. Aspect and reference time. PhD Dissertation, Universiteit Utrecht. MacDonald, J.E. 2008. Domain of aspectual interpretation. *Linguistic Inquiry* 39 (1): 128-147. Schoorlemmer, M. 1995. Participial passives and aspect in Russian. Ph.D. Dissertation, Utrecht University. Thráinsson, H. 1996. On the (non-)universality of functional categories. In *Minimal ideas: Syntactic studies in the Minimalist framework*. W. Abraham, S.D. Epstein, H. Thráinsson, & J-W. Zwart (eds), 253-281. Amsterdam: John Benjamins.