

‘Complement coercion’ in Polish vs English: processing complex lexical content

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August, 22nd 2016

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Semantic enrichment hypothesis

- (2) a. The boy started the fight.
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- Complement coercion is seen as a **type clash** in need of repair: the verb coerces the semantic type of the entity-denoting complement into the appropriate event-denoting type (**enriched semantic composition**) (Pustejovsky, 1995; Egg, 2003; de Swart, 2011; Asher, 2011)
 - Experimental results support this: (2-b) incurs higher processing cost than (2-a).
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Dimension ambiguity hypothesis

- (3) The girl began the queue. ((29a) in Piñango and Deo (2015))
- Considering examples like (3), Piñango and Deo (2015) argue that this phenomenon is a case of **ambiguity between dimensions, e.g. temporal, spatial, ...**: AspVs select structured individuals that instantiate functions that map the individual to axes or parts thereof (*begin a fight* is not ambiguous)
 - This view has also been supported experimentally (Lai et al., 2014) showing that **only a subset of coercion verbs engender additional processing cost**. Katsika et al. (2012) show that the greater processing cost is observable only with the aspectual verbs (e.g. *begin, start*), but not with psychological verbs (e.g. *enjoy, prefer*).

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Our predictions

- We predict that selectional restrictions will result in a **3-way distinction in the processing cost**:
 - $\text{AspV} + \text{EntityN} > \text{Non-AspV} + \text{EntityN} / \text{EventN} > \text{AspV} + \text{EventN}$
 - *'begin book'* > *'see book/fight'* > *'begin fight'*
- **In contrast**, an approach based on ambiguity/underspecification of AspVs (Piñango and Deo, 2015) predicts a **2-way distinction**:
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Polish aspectual and non-aspectual verbs

- Aspectual verbs **selecting event denoting complements:**
zacząć (begin); *rozpocząć* (begin); *skończyć* (finish); *ukończyć* (finish); *zakończyć* (finish); *przerwać* (pause); *wytrzymać* (endure); *oczekiwać* (await).
- Non-aspectual verbs **taking both entity and event denoting complements:**
zobaczyć (see); *skrytykować* (criticize); *przygotować* (prepare); *pochwalić* (praise); *zignorować* (ignore); *obejrzeć* (watch); *opisać* (describe); *wspomnieć* (mention).

Our predictions

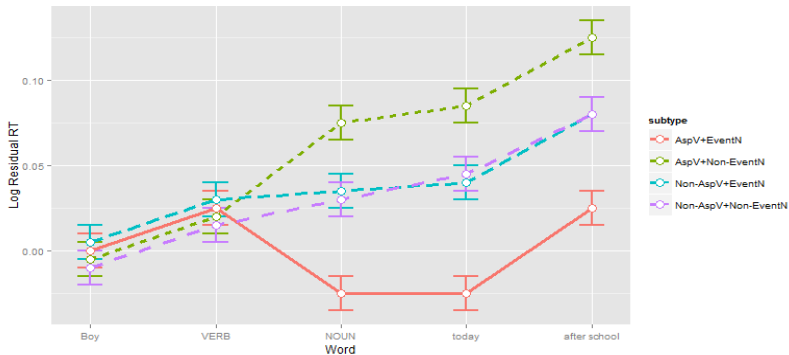


Figure 1: 3-Way Distinction

Sub-Experiment 1

In Sub-Experiment 1 we expected:

- to replicate the coercion cost using translations of the English materials in Traxler et al. (2002)
- to find the 3-way contrast shown above

Sub-Experiment 2

In Sub-Experiment 2 we compared two types of entity-denoting nouns that are available in Polish:

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 - Their dominant reading of *zbiór* is the **entity-reading**, and they have a secondary **event-reading**.

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Predictions for Sub-Experiment 2

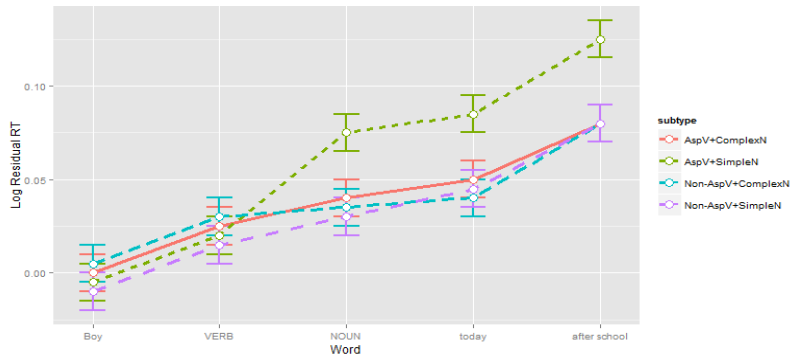


Figure 2: 2-Way Distinction

Results of Sub-Experiment 1

- In Sub-Experiment 1 there are **no major effects of verb-type and noun-type**. Unlike in Traxler et al. (2002), condition AspV+Non-EventN did not receive longer RTs on the object noun and the following word:

Results of Sub-Experiment 1

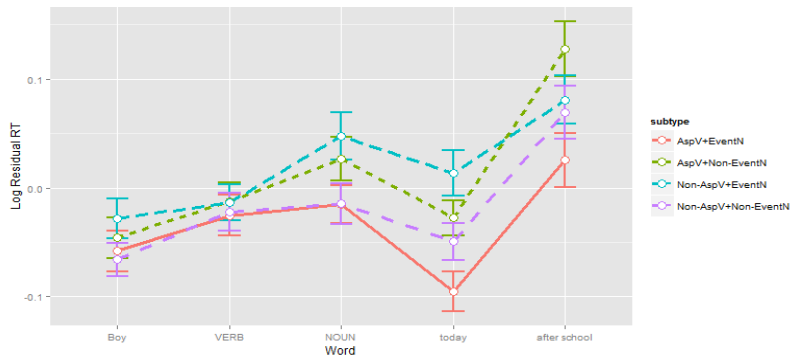


Figure 3: AspV+Non-EventN is no slower than Non-AspV+EventN and Non-AspV+Non-EventN. **AspV+EventN** is the fastest (on 'today').

Results of Sub-Experiment 1

- One-way comparison at Word Position 4 (*'today'*) reveals that **AspV+EventN condition is significantly faster** ($\beta = -.068$, $SE = .024$, $t = -2.809$, main effect of sentence type, $\chi^2 = 20.96$, $p < .001$).
- This result **partly supports the predicted 3-way contrast**, because we see a **facilitation (speed-up) when the selectional restrictions are satisfied**.
- But the 3-way contrast also involves a **slow-down** for the **AspV+Non-EventN condition, which we do not find**.
 - The absence of this effect could be due to the fact that in the same experiment participants saw a large number of event readings with aspectual verbs (AspV+ComplexN in Sub-Experiment 2).

Results of Sub-Experiment 2

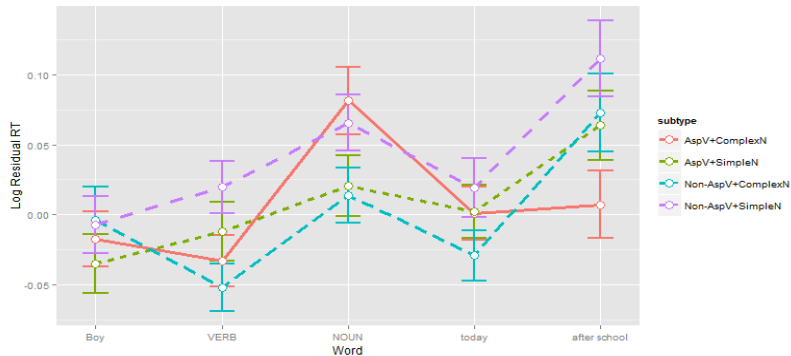


Figure 4: There are **no differences** between the conditions.

Summary of results

- Only Sub-Experiment 1 produced statistically significant results.
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Implications for theory

Behavioral evidence that:

- **AspVs are very restrictive**, because they clearly select for EventNs: **significant facilitation** when the selectional requirements match (Against Piñango and Deo (2015): ‘any analysis of aspectual verbs that assumes that they select for event-denoting complements is not tenable’)

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