The use of case marking to predict an upcoming thematic role
in L1 and L2 processing

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Using the visual-world eye-tracking paradigm, we examined whether non-native comprehenders (L2s) can use case marking to anticipate upcoming information during processing. The results from previous visual-world studies [1, 2] showed that only L1s used case cues predictively, but these studies tested L2s who were not highly proficient and/or whose L1 lacked a proper case system. We tested a group of German L1s (n=28) and highly proficient L2s with Russian as L1 (n=25) on their ability to use case marking for predicting an upcoming argument. All experimental sentences contained ditransitive verbs which allow for two alternative argument linearisation patterns (DAT>ACC vs. ACC>DAT) as illustrated in examples (a) and (b).

(a) Der Gärtner gibt der blühenden {Pflanze eilig} frisches Wasser.

The gardener gives the flowering plant quickly fresh water.

(b) Der Gärtner gibt die blühende {Pflanze eilig} dem Postboten.

The gardener gives the flowering plant quickly the postman.

Dative marking indicates a Recipient argument and accusative marking a Theme, so that the case marking on the first postverbal noun phrase should trigger an expectation for either a Theme (a) or a Recipient (b). Parentheses indicate the critical window for anticipatory eye movements, where we should see more looks to the target water (possible Theme) compared to postman (possible Recipient) in (a), and vice versa in (b).

For L1s, preliminary analyses show an increase in looks to target compared to competitor within the critical window for (a) but not (b), indicating that for the more marked word order in (b), the L1s experience a processing delay. For the L2s, the predicted effect is delayed for (a) and absent for (b), where we see evidence of competition between target and competitor instead (Figure 1). This indicates a reduced ability to use case marking as a predictive cue in L2 compared to L1 processing.


**Figure 1.** Proportion of looks to target vs. competitor after the onset of the critical time window; the dashed vertical line marks the mean onset of the final argument shifted 200ms forwards to account for eye movement latency.