

## PERCEPTUAL PRIMING AND SYNTACTIC CHOICE IN RUSSIAN LANGUAGE: MULTIMODAL STUDY.

In a fully developed production system, perception provides an input of information about the event, attention foregrounds relevant/important information for the conceptual analysis, and subsequent language production mechanisms collaborate to generate speech (Levelt, 1989). A part of this complex process is the necessity to select between simultaneously available syntactic alternatives. For example, English language provides several options that can describe the same visual event, e.g., an officer chasing a burglar. These minimally include (1) The officer is chasing the burglar and (2) The burglar is (being) chased by the officer. These active- and passive-voice alternatives differ in assigning object and subject roles to agent (officer) and patient (burglar). Existing evidence suggests that the system responsible for assigning the grammatical roles is sensitive to the distribution of the speaker's attention within the described scene (Tomlin & Myachykov, 2015, for a recent review). Specifically, a speaker of English is more likely to choose a passive-voice frame when her attention is directed to the patient of the described event and she is more likely to use an active-voice frame when the agent is in her attentional focus (e.g., Myachykov, et al., 2012). While this and other studies indicate a regular interplay between attention and syntactic choice, they also exclusively used variants of the visual cueing paradigm (Posner, 1980). As a result, the reported link between attention and syntactic choice cannot be generalised beyond the visual modality. A more ecologically valid proposal needs to take into account a multi-modal nature of attention.

Here, we report results of a series of sentence production experiments, in which Russian native speakers described visually presented transitive events (e.g. kick("pinat")), chase ("presledovat'/ubegat"). In half of the trials the agent appeared on the left and in the other half – on the right. Speakers' attention to the referents was manipulated by means of lateral cues. In Experiment 1 by visual cue (a red circle); in Experiment 2 – auditory (beep played monaurally); in Experiment 3 – motor (participants were prompted to press a left or a right key depending on the color of the central fixation cross). Hence, the Cued Referent (Agent/Patient) was crossed with the Cue Type (Visual, Auditory, Motor). The proportion of the sentences where the cued patient referent was put in the sentence before agent was the dependent variable. In Experiment 1 we registered a main effect of visual cue location – patient has been chosen as a starting point in the sentence more often when he had been cued:  $X^2(1) = 4.15, p=.042$ . Also, there was a main effect of event orientation – Russian speakers produced more patient-first sentence when the patient was on the left in the picture:  $X^2(1) = 3.91, p=.048$ . There were however no interaction of those factors. In Experiment 2 there was no effect of auditory cue, but there was a strong effect of event orientation with more patient first structures produced when the action on the picture was right-to-left:  $X^2(1) = 5.23, p=.022$ . Data of Experiment 3 is now collected and will be reported. Overall these results as well as English language experiments suggest an existence of a hierarchy in effects of modality of primes on syntactic choice with an interesting addition that Russian speakers tend to be more affected by event orientation than their English speaking counterparts.

### References:

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