Discourse Function Priming and Animacy Effects: New Evidence from Russian

Alina Konradt (University College London)
a.konradt@ucl.ac.uk

Extensive empirical evidence shows that exposure to a specific syntactic construction facilitates production of similar or identical structures; this phenomenon, termed syntactic priming has been observed cross-linguistically in both adults and children [3,4,6]. Although it is widely accepted that syntactic structure is primable independently from primes' lexical, metrical or thematic aspects [1,2], evidence from Slavic languages suggests that priming reaches beyond syntax and may operate on a level of discourse function [5,8]. For example, Vasilyeva and Waterfall [8] (V&W henceforth) showed that after hearing passive primes such as *Žiraf byl oblizan gippopotamom*/*The giraffe was licked by the hippo*, both Russian children and adults produced more "passive alternative" (PA) structures, e.g. OVS or OSV, than after active primes such as *Gippopotam oblizal žirafa*/*Hippo licked the giraffe*. At the same time, no passive priming was detected in this study. V&W argue that PAs and passives carry the same discourse function of emphasizing the patient in a transitive event. They conclude that since the passive is infrequent in Russian, it was not susceptible to priming, but what got primed instead was its discourse function, namely, patient prominence.

However, a closer look at V&W's stimuli reveals that 40% of the target events described by the participants contained inanimate/non-human agents and animate/ human patients. Such unequal distribution of animacy is argued to promote structures where the patient linearly precedes the agent [7]. In English, the patient-first requirement is satisfied by the full passive, while in scrambling languages like Russian, this cognitively taxing and infrequent structure can be avoided by utilizing PAs instead. Thus, at least some PAs observed in V&W's study were already licensed by the patient-first requirement, and the exposure to the passive primes may have only played a small role in triggering PAs, if any. The difference between the passive and active conditions could be due to the reduction of the PAs in the active condition following the increase of the active responses. If correct, this line of reasoning undermines V&W's discourse function priming hypothesis.

The present study thus addressed two questions: (i) Is priming susceptible to the discourse function of patient prominence? (ii) Does the relative animacy distribution in the targets affect the syntactic choices speakers make during a priming procedure? The following critical changes were made to V&W's design: the animacy in the targets was manipulated, and an OVS prime condition and a no-prime baseline were included. As in V&W's study, both Russian adults (n=91) and children (n=85, mean age=5;9) were tested. The participants were assigned to one of the four priming conditions: passive, SVO, OVS or baseline. They viewed 16 depicted transitive events while hearing either passive, SVO or OVS primes, depending on the condition (Table 1); in the baseline, the events were viewed in silence. The primes were paired with 16 transitive target events for participants to describe. The targets' animacy was manipulated within subjects: 8 targets had inanimate agent and patient – equal animacy (EA); and 8 had animate patient and inanimate agent – unequal animacy (UA) (Table 2).

The results for adults[*] revealed no difference in the proportion of PAs produced in the baseline (18%), passive (23%) or OVS conditions (15%), suggesting that neither passives nor OVS sentences primed PAs as expected on V&W's hypothesis (Fig.1). There were 10% less PAs produced in the SVO condition compared to the baseline (p = .041), indicating that SVO primes could indeed reduce the proportion of PAs which would have otherwise been produced in response to the UA targets. Further, there were more PAs produced for the UA targets (24%) compared to the EA targets (8%) (p < .001), the difference which held across all conditions except for the SVO. The above confirms that there is a requirement for animate arguments to precede inanimate even under priming conditions. These PA response patterns were largely replicated in the children's data (Fig.2).

Altogether, the findings do not support the discourse priming hypothesis, but highlight the role of animacy distribution for the structural choices speakers make in priming tasks.

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[*] In contrast to V&W, adults showed passive priming (more passives in the passive condition than in the baseline, p = .033).

Table 1. Examples of prime sentences used in the three experimental conditions: passive, SVO and OVS.

	Prime Sentences		
	Full passive	**SVO-active**	**OVS-active**
inanim. agent/ inanim. patient	*Luža byla vysušena solncem.* PuddleNOM was dried sunINSTR	*Solnce vysušilo lužu.* SunNOM dried puddleACC	*Lužu vysušilo solnce.* PuddleACC dried sunNOM
inanim. agent/ anim. patient	*Ryba byla pocarapana krjučkom.* FishNOM was scratched hookINSTR	*Krjučok pocarapal rybu.* HookNOM scratched fishACC	*Rybu pocarapal krjučok.* FishACC scratched hookNOM

Table 2. Examples of target events participants described after hearing the primes.

Target Events	
inanim. agent/ anim. patient **(UA)**	Hose splashes mouse Fan dries rabbit
inanim. agent/ inanim. patient **(EA)**	Fountain splashes bench Wind dries t-shirt

Figure 1. Average proportion of passive alternative (PA) responses produced across the conditions by Russian-speaking adults.

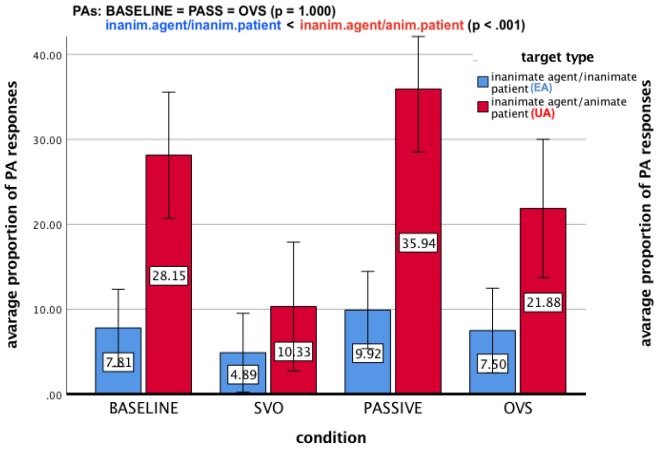
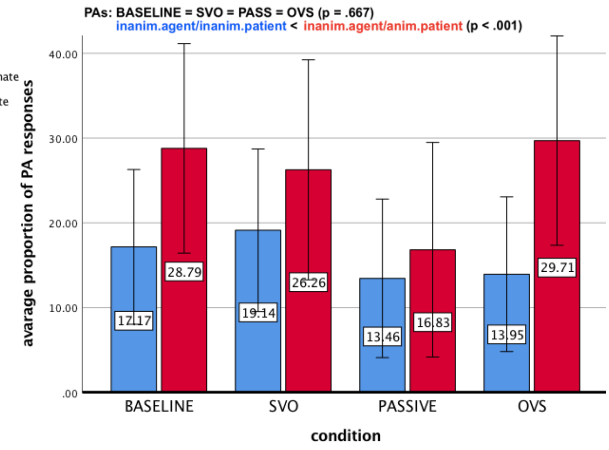


Figure 2. Average proportion of passive alternative (PA) responses produced across the conditions by Russian-speaking children.



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