Patient prominence in German: Effects of accessibility and structural priming

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When faced with describing transitive actions, speakers of German have several structural options – active subject-before-object (SO; 1a), passive subject-before-object (1b), and active object-before-subject (OS; 1c) among them:

(1) a. Der Polizist verhaftet den Dieb. *subject/agent before object/patient*
the policeman arrests the thief
b. Der Dieb wird von dem Polizisten verhaftet. *subject/patient before object/agent*
the thief is by the policeman arrested
c. Den Dieb verhaftet der Polizist. *object/patient before subject/agent*
the thief arrests the policeman

Psycholinguistic research on structural choices has shown that speakers are influenced by inherent conceptual accessibility: Animate entities tend to precede inanimate ones, resulting in passive productions when describing pictures including inanimate agents and animate patients (Branigan et al., 2008). Speakers are also influenced by syntactic structures themselves: As shown by structural priming (e.g., Branigan & Pickering, 2017), processing passives leads to enhanced passives rates in subsequent picture descriptions. In German, surprisingly, no significant effect of passive priming has been reported so far (Loebell & Bock, 2003). Turning from isolated sentence production to structural choices in context, a range of experiments has shown that derived accessibility – enhancing patient prominence in context – increases passive descriptions. Given the current literature, inherent and derived accessibility as well as structural priming seem to influence structural choices universally. Depending on the structural options (and task), speakers promote more conceptually accessible patients by using passives and/or active OS sentences. Perceptual accessibility via implicit priming, on the other hand, has shown mixed results (e.g., Esaulova et al., 2019). Whereas English as a rigid word order language shows consistent effects on structural choices (e.g., Gleitman et al., 2007), flexible word order languages (e.g., Finnish, Korean; Myachykov et al., 2010, Hwang & Kaiser, 2015) show no significant influence.

This paper presents a series of experiments investigating factors influencing patient accessibility and subsequent structural choices in German. Experiment 1 (structural priming using the classic paradigm, Fig. 1, + animacy manipulation) shows that speakers are more likely to produce passives for animate patient and inanimate agent events compared to events with two animate referents. The data also show that speakers are structurally primed (Fig 3). To the author's knowledge, this is the first demonstration of passive priming in German. Experiment 2 (structural priming of passive and OS sentences + animacy manipulation) shows again that passive productions are influenced by animacy as well as passive priming. A number of non-negligible active OS structures, however, was produced only when favored by both animacy and prime (Fig 4). In both experiments, the verb was repeated between prime and target, inducing a *lexical boost*. Experiment 3 (Fig. 2: implicit perceptual priming (cueing) + derived accessibility in an eye-tracking production study) shows that speakers of German use passive structures also to promote patients made more accessible via the prior context (i.e. patient questions). However, the data show no significant influence due to the cueing manipulation (Fig 5). Universal vs. language-specific influences of prominence (accessibility/salience/topicality/etc.) will be differentiated, discussing possible integration into models of language production.

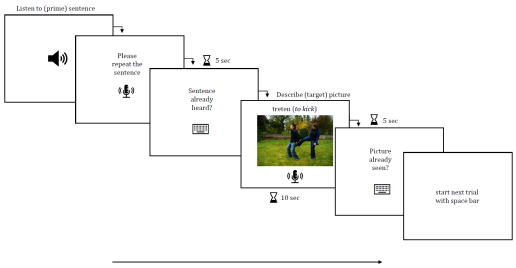

Figure 1: Priming procedure used in Exp 1 and 2.

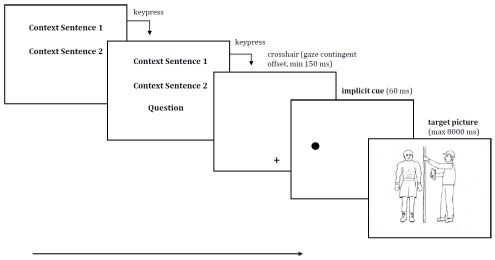

Figure 2: Procedure: Patient cued trial in Exp 3.

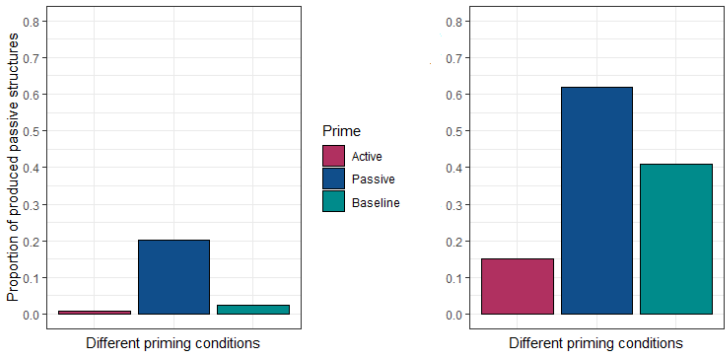

Figure 3: Exp 1: Proportions of passives in the different prime conditions.

Results for transitive events including animate (left) and inanimate agents (right). The patient was always animate. For baseline primes, intransitive structures were used. n = 30 speakers.

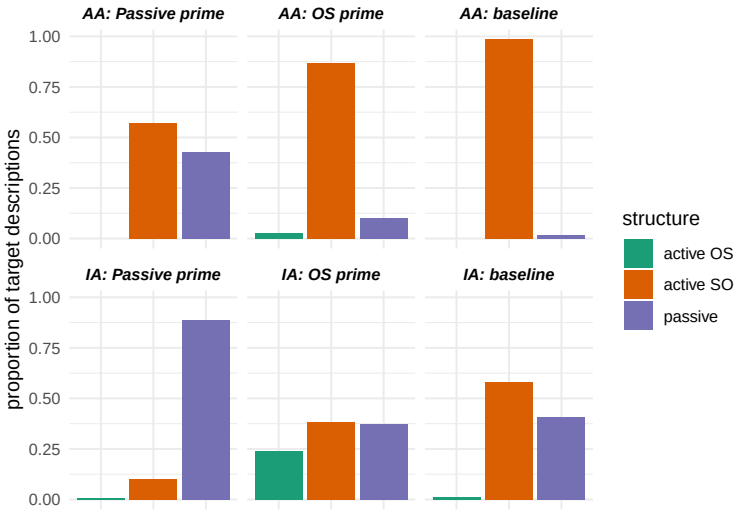

Figure 4: Exp 2: Proportions of target structures in the different prime conditions.

AA: animate agent, animate patient; IA: inanimate agent, animate patient. For baseline primes, intransitive structures were used. n = 38 speakers.

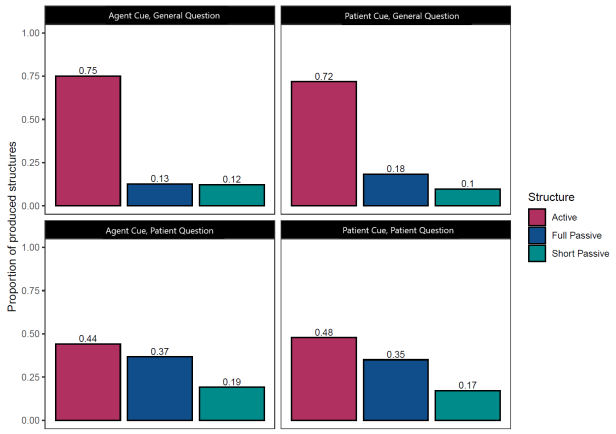

Figure 5: Exp 3: Proportions of produced target descriptions (active, full passive, and short passive structures) in the different conditions.

Left: Agent cueing following general context (top) or patient question (bottom). Right: Patient cueing following general context (top) or patient question (bottom). Contexts preceding questions were always *patient prominent*. n = 44 speakers.

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