Literacy-related Individual Differences in Turkish Suffix Bundles

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Turkish is a highly agglutinative language, with in theory roughly 9 million suffix combinations or templates, but with only a small number of them occurring with a high frequency (Durant 2013; Bilgin 2016; Özel et al. 2016). Bilgin (2016) provided evidence that high frequency suffix templates are processed as chunks (i.e., similar to the English *I want a X*). This is not surprising as speakers experience high frequency combinations more often, leading to further entrenchment and faster processing. Exposure is known to be heavily influenced by reading experience (e.g., Dąbrowska 2018, Street 2017), because written language provides a more varied language input than spoken language in a given time period (Roland et al. 2007). More print exposure leads speakers to arrive at more abstract representations of constructions (Street & Dąbrowska 2010). Such differences in print exposure result from many factors, one of which being attainment in education, with high academic attainment (HAA) participants having higher print exposure levels than low academic attainment speakers (LAA). To test print exposure related differences in Turkish morphological knowledge, we designed a lexical decision task on PsychoPy online and presented it as a game to the participants, however data collection is still ongoing. Print exposure was measured as reading 120 real and 120 nonce words accurately in 1 minute. Each word in the lexical decision task occurred with a high and low frequency suffix bundle. The stimuli were also previously piloted for plausibility with 18 L1 Turkish speakers. The participants were instructed to decide if the word they heard was a Turkish word. The task uses a combination of high frequency words, i.e., within the first 400 words, from the dictionary (Aksan et al. 2017) and 3 and 4-gram high and low frequency suffix bundle templates presented only in auditory format. The bundle templates were extracted from the Turkish National Corpus and there was at least a 40-fold difference in per million frequencies between high and low frequency suffix bundle templates. Our hypotheses are a) participants will be faster on words with high frequency suffix templates compared to low frequency suffix templates and on morphologically simple frequent words than on low frequency words, b) participants with more print exposure will be faster and more accurate, and c) there will be an interaction between print exposure and condition (high versus low frequency bundle templates) such that participants with more print exposure will show smaller frequency effects.

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