Interactive Analysis of Syntactic Disambiguation During Reading in Russian

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Eye movement parameters were studied during reading locally (with early, E and late, L closure), globally (G) ambiguous sentences with ambiguity of feminine relative clause in Russian (globally ambiguous paradigmatic case Someone shot the feminine servant of the actress who was on the balcony translated from Russian), and unambiguous sentences (U) with one interpretation of feminine relative clause. The total reading times while reading L and E but not G were significantly longer than in reading U. Shorter total reading time some phrases of G in comparison with reading similar phrases of E and L is determined by lower regression frequencies and consequently fewer fixations for rereading these phrases. Therefore structural analysis when reading G occurs faster than reading E and L that indicates the absence of additional difficulties in G disambiguating. We found longer total reading times the second noun (N2) of noun phrase and the relative pronoun (RP) when reading L in comparison with E. Apparently this fact can be explained by additional verification of the result of L disambiguating (in favor of late closure) since in Russian the early closure dominates. We assume that in disambiguating E readers rarely reread the N2 and subsequent RP as a less likely choice after structural analysis. Supported by Russian Foundation of Basic Research (project No. 15-04-05745).

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