

Corpus evidence for diachronic shifts in persistence asymmetries

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Overview. Persistence is the tendency for a recently-used linguistic form to be used again (Weiner & Labov 1983, Gries 2005, Szmrecsanyi 2006). One form in an alternation often shows a stronger effect of persistence than the alternative. While persistence effects have been identified for a range of phenomena, such effects have not been tracked diachronically. This paper investigates persistence in the use of periphrastic *do* across the course of its emergence in English grammar. We show that asymmetries in the persistence effect on *do* change over time and attribute this to the inverse frequency effect known from the psycholinguistic priming literature.

Background. The use of periphrastic *do*, as in “They **don**’t like bananas,” began around 1500, gradually replacing the earlier Middle English verb-raising in negatives and inverted questions (“They like not bananas”). Periphrastic *do* also began appearing in affirmative declaratives in the 1500s, but reversed course around 1575 (Ellegård 1938, Warner 2005). We investigate persistence in negative and affirmative declarative *do* in the Parsed Corpus of Early English Correspondence (Taylor et al. 2006) and the Penn-Helsinki Parsed Corpus of Early Modern English (Kroch et al. 2004). Since persistence should be strongest in close proximity, we extracted all pairs of adjacent negative declarative clauses and adjacent affirmative declarative clauses from 1500-1710. The second clause in each pair is coded for the presence or absence of periphrastic *do* in itself and the previous clause. We then calculate the log-odds of *do* appearing after a clause with *do* and after a clause without *do* (i.e., with verb raising). Baseline log-odds of *do*-presence for each of several time periods are calculated from text-initial tokens and subtracted from the previous-*do* and no-previous-*do* log-odds for the same time periods to measure the divergence of each condition from the baseline.

Results. The log-odds of periphrastic *do* appearing in a negative declarative clause compared to the time period baseline, depending on *do* in the preceding clause, are given in Figure 1. Early in the change, the incoming variant *do* promotes subsequent use of *do*. The use of the competing verb-raising option (no *do*), however, does not make subsequent verb-raising more likely. Later in the change, the alternants both trigger persistence similarly strongly while occurring in roughly equal proportion (Kroch 1989). Figure 2 shows the results for affirmative declaratives, where the dip in the strength of *do* persistence at the end of the 16th century corresponds with the peak of approximately 10% *do*.

Discussion. These results indicate that infrequently-occurring variants have strong persistence effects relative to frequent ones. We suggest this is the diachronic reflection of the *inverse frequency effect* noted in the experimental structural priming literature (Ferreira 2003, Jaeger & Snider 2007), reinforcing the argument that corpus-based observations of persistence reflect the psycholinguistic phenomenon of priming (Gries 2005). This line of inquiry may thus offer a means of probing the role of psycholinguistic factors in language change over time.

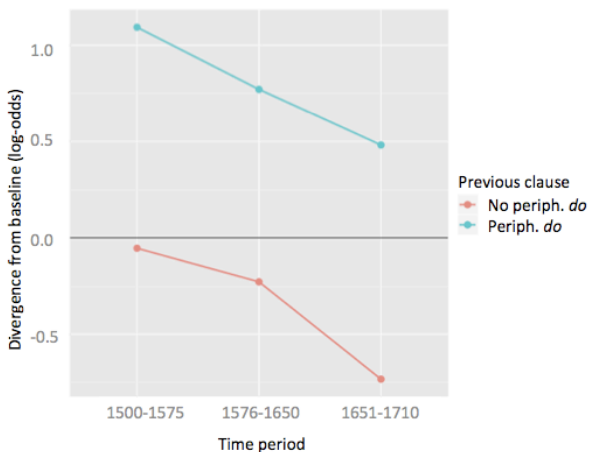


Figure 1. Persistence in negative declarative *do* over over time (N=489)

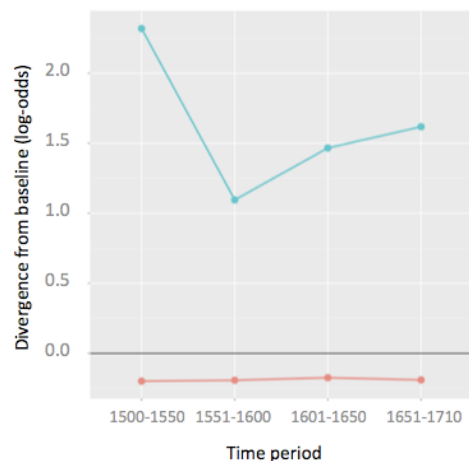


Figure 2. Persistence in affirmative declarative *do* over time (N=32,778)

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