

## Antisocial Syntax Disentangling the Icelandic VO/OV parameter and its lexical remains

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A number of studies on syntactic change have demonstrated that when one syntactic variant (or parameter setting) replaces another in a population, it does so in all possible syntactic contexts at the same rate (the “Constant Rate Effect” (CRE), Kroch 1989). One such case is the change in the structure of the English *vP* from OV to VO (Pintzuk and Taylor 2004). We present a new, quantitative study of the OV-to-VO change in Icelandic, and show that it presents a serious challenge to the CRE: clauses with different types of object do not show the same rate of change over time, and neither do different genres.

However, we show that this finding is only an apparent counterexample to the CRE. Once semi-fixed uses of OV are removed, the exception disappears. Any apparent style shift in word order also disappears once only clear cases of productive use are considered. The corrected data reveals not only a *constant rate* of change across genres but a *constant weight*; the decline of OV actually follows the same curve in different genres. This super-CRE suggests that syntax is strongly antisocial: syntactic parameter-settings are not socially evaluated and cannot show style shifting unless they are tied to some specific lexical item.

**Background:** Previous work on the evolution of the OV/VO parameter has been carried out most thoroughly for English (Pintzuk and Taylor 2004). In line with other work on diachronic syntax, the change manifests a CRE where a single underlying change is independently offset by grammatical contexts. Hróarsdóttir (2000) studied the change in Icelandic and revealed the general pattern of change, but she did not separate different grammatical contexts in a way that could be compared to the English study.

**OV-to-VO in IcePaHC:** The Icelandic Parsed Historical Corpus (Wallenberg et al. 2011) contains samples from two distinct genres, spanning the period from the 12th to the 21st century. We extracted 6378 tokens from IcePaHC each of which contains either the order *auxiliary-object-verb* or *auxiliary-verb-object*. We coded each token for object type (pronoun/quantified/other), clause type (matrix/subordinate), year (exact or philological estimate), object heaviness in number of words (cf. Shih and Grafmiller 2011), and genre (narrative/religious). All the coded variables are significant predictors at the  $p < .05$  level in a mixed effects regression with text as a random effect (see Johnson 2009). The OV order is favored by quantifiers, subordinate clauses, and religious texts, but disfavored with pronoun objects and heavy objects which are prone to extraposition. Importantly, we find an interaction between genre and object type: full DP objects favor OV when combined with religious style.

**The Antisocial Hypothesis:** Fixed phrases with the archaic OV order in Modern Icelandic always include a lexical DP object. A fixed verb phrase can be stored as a unit in the mental lexicon along with the archaic order, whereas pronoun objects indicate productive use. The logistic regression in Figure 1 shows that the genres evolve identically for pronouns, whereas the superficially conservative nature of the religious texts is tied to lexical DP objects. We hypothesize that all cases of style-related probabilities in parametric variation are tied to specific lexical contexts. The Antisocial Hypothesis predicts that syntax is simply not available for style shifting in truly productive contexts (like *verb-pronoun vPs*). Exceptional probabilities can only be stored as part of lexical units. The paper also considers some apparent counterexamples to the Antisocial Hypothesis, such as some possible cases of syntactic style-shifting during the loss of V2 in Late Middle English and *do*-support (Warner 2005). We conclude that, as in the case of *do*, syntactic style-shifting only exists when tied to some specific word(s).

**Conclusion:** Our main empirical contribution is a large scale study of phrase structure change in Icelandic, in greater detail than Hróarsdóttir (2000) and on a larger, balanced corpus. Additionally, our data make an important theoretical contribution: the strong hypothesis that external (social) factors in variation and change do not affect word order in the absence of lexical exceptions. This proposal suggests that idiomatic units are

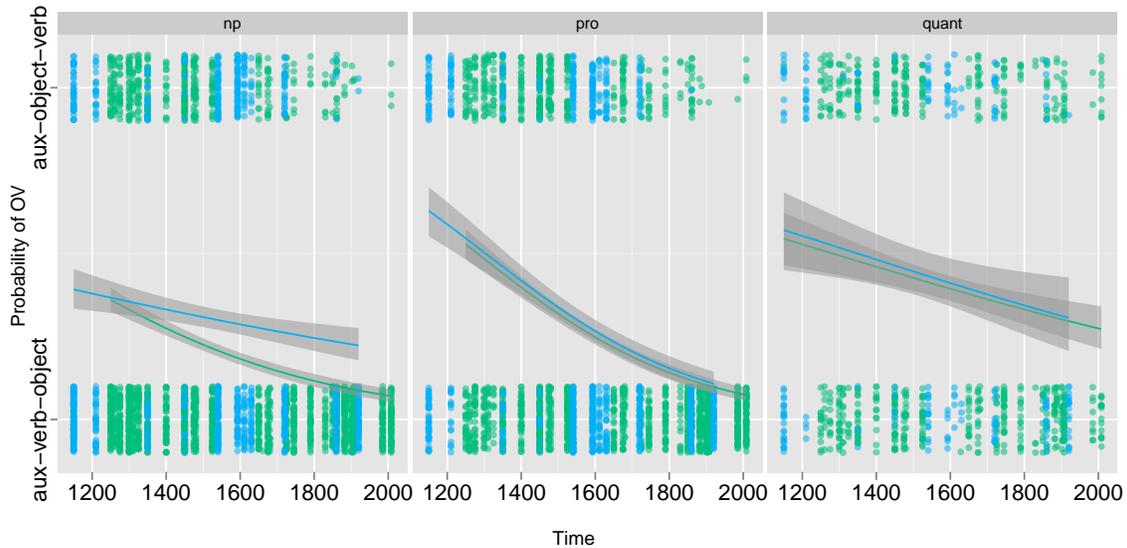


FIGURE 1. OV-to-VO in IcePaHC. Religious texts (blue) appear more conservative than narratives (green) for full DP objects but not for pronouns.

stored in such a way that they can be connected to social information, like phonological variables, but that syntactic heads (the locus of parameter variation) are not accessible in the same way. We believe this finding has consequences for the architecture of the grammar and how it interfaces with sociolinguistic knowledge.

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