Variation in Subject-Verb Agreement in the History of Scots

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1 Introduction

This paper investigates the interaction between the *Northern Subject Rule* and *do*-support in the period when *do*-support emerged in Scots, i.e. from the 16th to 18th century. We investigate whether there is an influence of subject type on the presence of negative declarative *do*-support, in line with what is found in a present-day Scots variety; Buckie Scots (Smith 2000). This pilot study serves as a first step to investigate whether there is a correlation between the presence of the *Northern Subject Rule* and *do*-support, implied by analyses of the phenomena by Bobaljik (2002) and de Haas (2011). We also present a first look at syntactically parsed data from the *Helsinki Corpus of Scottish Correspondence* (CSC; Meurman-Solin and VARIENG 2017); on completion, the parsed CSC will be the first parsed corpus of Older Scots.

We do not find the expected correlation in the historical data for negative declarative *do*-support. This may be due to the status of the negative element in the syntax, and further study will investigate other *do*-support environments, as well as the productivity of the NSR in the investigated time period.

2 Background

Scots is a West Germanic variety, closely related to English, traditionally spoken in the Scottish lowlands and northern islands. The history and development of Scots in relation to English can be described through its processes of divergence from a shared ancestor, starting in the 11th century, and later, in the 16th-18th century, convergence with English again during the period of *anglicisation* of Scots; in this period, social and political shifts between Scotland and England caused Scots to fall under more influence from (Southern) English, causing distinctively Scots features to decline in favour of English ones. Comparative syntactic studies on Scots and English can thus provide insight into the syntactic outcomes of long-term contact between closely related varieties, and the impact of shifts in sociopolitical prestige on contact-induced syntactic change.

2.1 Do-support in Scots

Do-support is the mandatory insertion of the auxiliary *do* in negative declaratives, negative imperatives, and questions (negative and affirmative), if no other auxiliary is present. It can be described as a means of establishing subject-verb agreement after the loss of verb-raising, as the auxiliary *do* hosts tense and agreement features in I when the transfer of features to the main verb is interrupted by an intervening element, e.g. a negator.

English is the only Germanic language that has fully grammaticalised the auxiliary *do* in these contexts; while the feature is mostly grammaticalised in Scots, some dialectal variation is reported, e.g. interrogatives with verb-raising in Shetland Scots (Jamieson 2015) and negative declaratives with omitted *do* in Buckie Scots (Smith 2000). Further, *do*-support appears about 200 years later in Scots than in English, during the period of anglicisation, and there are indications that the rise of *do*-support in Scots is slower than in English (Meurman-Solin 1993, Jonas 2002, Gotthard 2019). There is so far no study which maps the rise of *do*-support in Scots comparably to Ellegård (1953).

2.2 The Northern Subject Rule

Scots historically has a system of subject-verb (s-v) agreement which is distinct from southern standard English (but present in e.g. Irish and North-Eastern English) called the *Northern Subject Rule*

(NSR). Versions of the NSR remain operational in these varieties today.

The NSR is an s-v agreement pattern in the present tense, in which the present tense verb is inflected with *-(i)s* unless the verb is immediately adjacent to a 1sg or (any person) plural pronoun subject (1).

(1) a. The girl/the girls   sing-is
     b. He/she/it/you(sg.)   sing-is
     c. I/We/they/you(pl.)   sing-Ø
     d. I/We/they/you(pl.)   sing-Ø and dance-s
     e. We who are here   sing-is

Analysing 1sg pronouns as taking part in the NSR pattern has been up for debate: King (1997:175–6) believes the Ø-inflection in the 1sg is actually a result of the loss of weak 1sg endings in the Northumbrian present tense paradigm, and de Haas (2011) excludes 1sg pronouns from her analysis of the NSR (which is detailed in section 2.3). However, Rodríguez Ledesma (2013) finds strong evidence for the 1sg pronouns participating in the rule, as it nearly categorically shows sensitivity to the *adjacency constraint* (sometimes "Proximity-To-Subject-Constraint" in the literature, and in Rodríguez Ledesma (2013)) on the rule. With this in mind, this study has included 1sg pronouns in the analysis.

2.3 Do-support and the NSR

Smith (2000) finds that there is a variable use of negative declarative *do*-support in Buckie Scots, a present-day dialect spoken in the North-East of Scotland (see (2), from Smith 2000:232).

(2) a. They Ø na   seem to bide in the Beacons lang
        They Ø NEG seem to stay in the Beacons a-long-time

     b. They dinna   ken   they're gan   to wear a kilt.
        They DO+NEG know they're going to wear a kilt

The variation is only present with subject types which historically have occurred with Ø-inflection in the NSR paradigm, i.e. plural and 1sg pronouns (henceforth: NSR subjects).

While Smith (2000:251) analyses these structures as containing an empty *do* position, de Haas' (2011) analysis of the NSR provides a more in-depth account of this phenomenon, namely that the NSR is a system in which s-v agreement can only take place if the conditions for structural adjacency and subject type are met, and true s-v agreement thus shows up as Ø-inflection on the verb. The *-(i)s* inflection is a default inflection when s-v agreement fails, a last-resort operation similar to *do*-support. The NSR would then exhibit a similar kind of PF adjacency effect to Swedish object shift or standard English *do*-support, as analysed in Bobaljik (2002). The difference between NSR subjects and other subjects is that they merge in different positions, and it is only if the NSR subject position (comparable to the high subject position of Old English subject pronouns, de Haas 2011:117) is projected that s-v agreement can take place. Thus, both *do*-support and the NSR are solutions to the same problem, as illustrated in (3). The conditions for s-v agreement are not met, e.g. due to interruption of adjacency or that the necessary subject position is not projected, and the solution is a last-resort operation: *do*-support or a default inflection.

(3) *Do-support*
     Derivation: They [$_{TP}$ Ø-PRES [$_{NegP}$ not [$_{VP}$ read [$_{DP}$ the book]]]]
     PF merger: Interrupted by *not*.
     Solution: Replace Ø with DO
     Output: They do not read the book.

     NSR
     Derivation: They [$_{TP}$ PRES [$_{VP}$ buy and read [$_{DP}$ the book]]]
     PF merger: Merger allowed for *buy*, interrupted for *read*. Subject is of correct type.

Solution: Merge with first verb, apply default inflection for second verb
Output: They buy-∅ and read-is the book

The Buckie variable poses a potential problem for our analysis, in that the negative element appears to intervene between the subject and verb – just as it does in an English negative declarative clause, where it triggers *do*-support. So why is Buckie different (witness (2a))? One solution is that the status of the clitic negator *na* is a structurally weak element, loosely connected to the clause in terms of Bobaljik (2002:219–220), who argues that loosely connected elements, like adverbs, are not intervening elements in English (therefore, PF merger works fine in *The cat quietly sneaks outside*).

3 Hypothesis

In light of the analyses outlined in Section 2, and particularly the last resort status of *do* and *-(i)s* in processes conditioned by PF adjacency, we ask whether introducing *do*-support to a grammar which productively applies NSR would cause the rise of *do*-support to be conditioned by NSR subject constraints. If such a condition is present, we predict that *do*-support will appear first and more frequently with non-NSR subjects, i.e. in clauses that would normally resort to a default *-(i)s* inflection. We test this hypothesis on the parsed CSC.

4 Method

The CSC consists of ca. 420,000 words of correspondence data, produced between 1540 and 1750, the period of intense anglicisation of Scots. As part of an ongoing project, the CSC is being parsed according to the *Penn Parsed Corpora of Historical English* format (Kroch and Taylor 2000, Kroch et al. 2004). For the current study, automatically parsed data has been used, meaning that we have been able to use CorpusSearch (Randall 2000/2013) queries to find instances of IPs containing the relevant tokens, i.e. (i) IPs dominating a subject NP (NP-SBJ) followed, in this order, by a present tense *do* (DOP), a negative element (NEG) and an infinitival main verb (VB), and (ii) IPs dominating a subject NP followed by a present tense verb (VBP) occurring before a negative element:[1]

(i) NP-SBJ DOP NEG VB
(ii) NP-SBJ VBP NEG

Pronoun subjects were separated from full NP subjects, and were further sorted according to number and person. We then manually excluded main verbs from the KNOW-class (as formulated by El-legård 1953:199) from the final results, as these verbs are known to behave conservatively and retain verb raising longer than other verbs in English (and they were also found to do so in the CSC). With the loss of the 2nd singular forms (*thou/thine/thee*), distinguishing a singular or plural referent in this corpus turned out to be challenging, particularly given the level of formality in these letters. There is also no clear consensus in the literature on whether there is a distinction between singular *ye/you* and plural *ye/you* with respect to the NSR. This is why we did not separate 2nd person pronouns by number but analysed them as a single subject type.

5 Results

Recall that, for our prediction to hold, we expect to see higher frequencies of *do*-support with 3sg and full NP subjects (i.e. non-NSR subjects). The results were aggregated into two groups of NSR and non-NSR subjects. Figure 1 shows *do*-support entering competition with verb raising in the 1600s, and becoming the dominant construction regardless of subject type group after 1700. There

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[1]We also looked for instances of NP-SBJ NEG VBP, i.e. the Buckie pattern, but only one single example occured *I not fayll be(='to be') at zour l(='lordship')*

is only one example of negative declarative *do*-support which occurs before 1600 in this data, with a 1sg subject:

(4)   [*Send me the earl of C's writings*] for I dow not get yam(='them') to hym
      (male writer, 1548)

The by far most frequently used subject type turned out to be 1sg, and it makes up app. 66% of the NSR subject group. Most individual subject types show a steady increase of *do*-support over time, but two types are outliers, full NP and plural pronoun subjects: *do*-support with full NP subjects is more frequent in the first half of the 17th century than with any other subject type (80%), but drops to a similar level as the other types (i.e. to app. 30%) in the second half of the century (which might explain the apparent drop in the non-NSR subject group data). *Do*-support with plural pronoun subjects drops down to 9% in the 1650s, but it becomes the only subject type which categorically occurs with *do*-support after 1700.
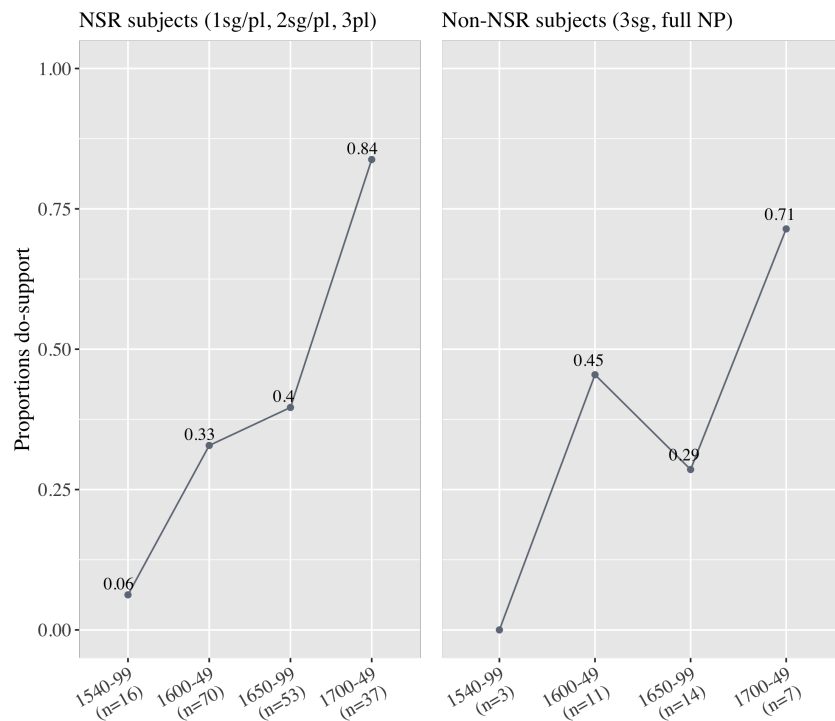

Figure 1: The rise of do-support with NSR vs. non-NSR subject types in the CSC.

Thus, the results indicate no NSR subject type effect; the data does not show a "Buckie constraint", i.e. less *do*-support than verb-raising with plural and 1sg pronouns. The fact that the first example of *do*-support occurs with a 1sg pronoun subject also contradicts our prediction.

6 Discussion and next steps

There are several factors that may have impacted these results, which we will consider in an upcoming full-scale study. Firstly, due to the very specific contexts we investigate in such a small corpus, we do not have a lot of data to support any firm conclusions.

Another factor is the uncertain status of the negation as an intervening element blocking agreement, which could mean that negative declaratives are not a good diagnostic structure to determine the interaction between *do*-support and the NSR. In English, the negative element *not* underwent a historical reanalysis in which it shifted from an enclitic to a head of its own projection (see e.g.

Kroch 1989:236), thus becoming an intervening element. So, more research is needed on the adjacency constraint on the NSR (Rodríguez Ledesma 2013:150–1); there have been shifts in the strength of the adjacency constraint on the NSR, from being as strong as the subject type constraint in 14th-15th century Scots, to appearing weaker in modern Scots varieties. Perhaps the Buckie pattern provides more evidence of a weakening of the adjacency constraint, rather than a change in the status of *na*. Finally, our treatment of the 2nd person pronoun was not ideal, as it is possible that a singular referent exhibits sensitivity to the NSR in the Buckie data; *do*-support was used categorically with 2nd person subjects with a singular referent in Smith's (2000) study, but as there were no cases of 2nd person plural referents in her data (Smith 2000:241) we cannot know whether there is a number distinction there.

With these considerations in mind, future study will investigate the interaction between *do*-support and the NSR in other do-support environments, such as affirmative declaratives and interrogatives, and also investigate the overall productivity of the NSR in the CSC data.

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