Morphosyntactic change in Late Modern Swedish

Edited by

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Preface

The editors of this volume wish to thank the Institute for Language and Folklore (Isof) in Gothenburg, Østfold University College, the University of Oslo, and the Research Council of Norway (through the project *Variation and Change in the Scandinavian Verb Phrase*, grant no. 250755) for financing our work. In addition, we are grateful to all the anonymous reviewers who kindly agreed to scrutinize the contributions to this volume. Many thanks also to series editors Michael T. Putnam, B. Richard Page, and Laura Catharine Smith for including the volume in the series *Open Germanic Linguistics*, to Mary Chambers for proof-reading the chapters, and to Sebastian Nordhoff and Felix Kopecky at Language Science Press for helping us turn the manuscript into a book. In the spring of 2021, one of the contributors to this volume, Cecilia Falk (Cia), was diagnosed with cancer, and she passed away on July 21. We miss her greatly: her warm and sincere friendship, as well as her lively and sharp intellect. Cia's importance for Scandinavian historical linguistics is hard to overrate, and her influence is visible throughout this volume. It is hardly surprising that her dissertation (Falk 1993), which still today sets the standard for methodological excellence, is the most prominently occurring reference in the volume. When Cia left us, she had been working on a massive reference grammar of Old Swedish for almost two decades, together with her oldest colleague Lars-Olof Delsing. As always in her work, she combined careful investigation of the historical sources with theoretically guided analysis, as well as an open-minded and deliberate consideration of previous work. Up until now, we knew who to turn to when we needed a guide in our inquiries into older Swedish, be it a quirky example in need of interpretation or a syntactic construction in need of exemplification. In some sense of the word, we are all Cia's students. Apart from some last formal adjustments, Cia completed all revisions and submitted a final version of her paper in this volume before she died. We dedicate the volume to her memory.

Chapter 1

Introduction: Morphosyntactic change in Late Modern Swedish

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The chapters in this volume are concerned with morphosyntactic change in Late Modern Swedish, i.e. the period from the beginning of the 18th century onwards. Although the period is interesting (considering, for instance, standardization processes), it has previously received fairly little attention in the syntactic literature. The contributions in this volume cover several grammatical domains, including case and verbal syntax, word order and agreement, and grammaticalization in the nominal domain. In this introduction to the volume, we give a background to Late Modern Swedish. We briefly discuss the external factors that are particularly relevant for morphosyntactic change during this period and give an overview of the morphosyntax of Late Modern Swedish. Finally, we provide a summary of the chapters that follow.

Keywords: Late Modern Swedish, morphosyntactic change, standardization, historical corpora, word order

1 Introduction

This volume deals with morphosyntactic change in Late Modern Swedish (LMS). In the traditional periodization of the history of Swedish, LMS is the last of four periods. The other three are Early and Late Old Swedish (EOS, LOS), and Early Modern Swedish (EMS); see (1) below.[1]

[1]Traditionally, two older periods are also included: Ancient Nordic –800 (in Swedish: *urnordiska*) and Runic Swedish 800–1225 (in Swedish: *runsvenska*) (Wessén 1958: 7–43; Bergman 1968: 13–

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(1) a. Early Old Swedish (EOS) 1225–1375
b. Late Old Swedish (LOS) 1375–1526
c. Early Modern Swedish (EMS) 1526–1732
d. Late Modern Swedish (LMS) 1732–

The two earliest dates (1225, 1375) are approximations. 1225 represents the introduction of the Latin alphabet for writing Swedish, a process which started at the beginning of the 13th century. 1375 represents a period of demographic and political change in Scandinavia due mainly to the devastating effects of the Black Death, and the growing influence of the Hanseatic League in northern Europe. The two modern periods (EMS, LMS), on the other hand, both have starting dates that coincide with the year of appearance of an important publication: *Thet Nyia Testamentit på Swensko*, 'The New Testament in Swedish' (printed in 1526), and the ground-breaking weekly journal *Then Swänska Argus*, 'The Swedish Argus' (first issued in 1732), respectively.

Linguistic change can, in other words, be studied in texts going back to the early 13th century (and even further if we include the runic inscriptions). The oldest preserved Swedish text in the Latin alphabet is a medieval law, the *Elder Westrogothic law* (EWL, in Swedish: *Äldre Västgötalagen*). The EWL is the oldest of the laws of the provinces (Sw. *landskap*) that later became the Swedish kingdom.[2] It begins with a section on the role of religion in society, the beginning of which is given in (2).

(2) Her byriarz laghbok væsgöta
here begin.PRS.REFL law.book.M.SG.NOM westrogoth.M.PL.GEN
Krister ær fyrst i laghum warum þa
Christ.M.SG.NOM be.PRS.SG first in law.M.PL.DAT our.M.PL.DAT then
ær cristna var oc allir
be.PRS.SG Christendom.F.SG.NOM our.F.SG.NOM and all.M.PL.NOM

29). More recently, it has been suggested that LMS should be followed by a third period starting around 1880: *modern nysvenska* (lit. 'Modern New Swedish'); cf. the Swedish labels for EMS and LMS: *äldre* ('Elder') and *yngre* ('Younger') *nysvenska* ('New Swedish') (Thelander 1988; Malmgren 2007). However, *modern nysvenska* has hardly become a standard period label, but is part of an ongoing theoretical discussion of periodization in Swedish historical linguistics (see Ralph 2000; Johansson 2007, 2010). Here, we use LMS in its traditional sense, viz. as a period starting in 1732 and leading up to the present. Throughout this volume, the language of today – i.e. the language that present-day native speakers have intuitions about – is referred to as present-day Swedish (PDS).

[2]There are medieval laws (as well as other texts) from regions that did not become part of Sweden until the middle of the 17th century (viz. Gotland and Skåne). Traditionally, early texts from these areas have been excluded from the history of Swedish.

cristnir konongær. böndær oc allir
Christian.M.PL.NOM king.M.SG.NOM farmer.M.PL.NOM and all.M.PL.NOM
bocarlær biscupær oc allir
resident.man.M.PL.NOM bishop.M.SG.NOM and all.M.PL.NOM
boclærðir mæn. Varþær barn til
book.learn.PTCP.M.PL.NOM man.M.PL.NOM become.PRS.SG child.N.SG to
kirkiu boret oc beþiz
church.F.SG.GEN carry.PTCP.N.SG and ask.PRS.SG.PASS
cristnu. þa scal faþir ok
christening.F.SG.ACC. then shall.PRS.SG father.M.SG.NOM and
moðer fa guðfæþur oc guðmoþor
mother.F.SG.NOM get.INF godfather.M.SG.ACC and godmother.F.SG.ACC
oc salt oc uatn. þæt scal bæræ til
and salt.N.SG.ACC and water.N.SG.ACC it.N.SG.ACC shall.PRS.SG carry.INF to
kirkiu þa scal a prést kallæ
church.F.SG.GEN then shall.PRS.SG on priest.M.SG.ACC call.INF
han skal a kirkiu bole boæ.
he.M.SG.NOM shall.PRS.SG on church.F.SG.GEN farm.N.SG.DAT live.INF
'Here begins the law book of the West Goths. Christ is first in our law. Thereafter comes our Christian faith and all Christians, king, farmers and all resident men, bishop, and all learned men. If a child is carried to church, and christening is asked for, then father and mother should get godfather, and godmother, and salt, and water. One should carry that to church. Then one should call for a priest. He should live at the parsonage.' (EWL, 1220s; from FTB)[3]

The language of the Swedish medieval laws differs from present-day Swedish (PDS) in many ways. Among other things, EOS had a rich case system (e.g. *a kirki-u bol-e* 'at church-GEN farm-DAT'), post-nominal possessives (*laghbok væs-göta* 'law book of West Goths', *laghum warum* 'laws our'), and lacked indefinite articles (*barn til kirkiu boret* 'child to church carried', *a prest kalla* 'on priest call'). Moreover, overt pronominal subjects were quite rare: although referential pronouns were only occasionally omitted (see for instance the overt *han* referring

[3]Many older Swedish texts are available through *Fornsvenska textbanken*, 'the text bank of Old Swedish': https://project2.sol.lu.se/fornsvenska/, which we will refer to as FTB. The same texts can be accessed through the corpus infrastructure Korp (Borin et al. 2012): https://spraakbanken.gu.se/korp/?mode=all_hist. In the following, we do not provide a page number for examples taken from electronic sources.

to *prést*, 'priest', in the last sentence), there were neither expletive nor generic pronouns (e.g. *þa scal a prést kallæ* lit. 'then [one] shall on priest call). As for the position of verbs, EOS still had OV order (*han skal a kirkiu bole boæ* lit. 'he shall on land of church live'), and sentence adverbials followed the finite verb in both main and embedded clauses (although there are no such examples in (2); see §3.1.1 below).

Five centuries after the EWL, the grammatical system had undergone dramatic change on all levels. Consider the introduction to *Argus* in (3) below, which, as noted, represents the beginning of the Late Modern Swedish period.[4]

(3) THEN SWÄNSKA ARGUS N:o I. Ingen lärer kunna
the.C.SG Swedish.DEF Argus no 1 no.one.C.SG shall.PRS.SG be.able.to.INF
neka, at ju sådane Skriffter hafwa stor nytta med
deny.INF that PART such.PL writing.PL have.PRS.PL large.C.SG benefit with
sig, som, på ett angenämt och lustigt sätt,
REFL that on a.N.SG pleasant.N.SG and amusing.N.SG manner
föreställa Lärdomar och Wettenskaper; Derföre hafwa och
present.PRS.PL learning.PL and science.PL therefore have.PRS.PL also
de gamla, under roliga Dikter, liufliga
the.PL ancient.PL during entertaining.PL poem.PL delightful.PL
Samtahl eller nöysamma Historier, underwisat
conversation.PL or diverting.PL tale.PL instruct.PTCP
Folket om Dygden, och likasom skiämtewijs
people.DEF.N.SG about virtue.DEF.C.SG and almost jokingly
förehållit dem alfwarsamma Sede-Läror. I nyare tider,
impart.PTCP 3PL.OBJ grave.PL moral-lesson.PL in new.COMP time.PL
och än i dag, se wi äfwen, hos kloka Nationer, sådane
and even to day see.PRS.PL we also at wise.PL nation.PL such.PL
Skriffter med mycken nytta utgifwas och älskas
writing.PL with much.C.SG benefit publish.PRS.PASS and cherish.PRS.PASS
'The Swedish Argus No 1. No one can deny that such writings are indeed beneficial, that, in a pleasant and amusing manner, administer learning and science. So the ancients have instructed the people on virtue

[4] In the glosses, C refers to common gender; see more in §3.3 on the change from a three-gender system to a system with two genders. Present-day Swedish has a morphological distinction between the participial verb form used in perfects, the so-called supine form (SUP), and perfect participles (PTCP) used e.g. in passives, but since this distinction is not yet established in the 18th century, the participles in examples like (3) are glossed as PTCP; see more in §3.1.2 below.

> through entertaining poems, delightful conversations and diverting tales, and imparted grave lessons of morality in an almost jocular manner. In more recent times, and even today, we still find writings of this kind, useful and cherished, published in wise nations.' (*Argus*, 1730s; from FTB)

Here, very little is left of the old case system (some forms linger in the pronominal system, e.g. *dem* 'them', which is an old dative, but in (3), and still today, it functions as a general object form), the modern article system is fully in place (e.g. *ett angenämt och lustigt sätt* 'a pleasant and amusing manner'), and possessives are prenominal. Moreover, referential *pro*-drop was no longer possible, and expletives were increasingly becoming the rule in the 18th century. Late Modern Swedish was a VO language (e.g. *underwisat Folket om Dygden* 'instructed the people about virtue'), and in embedded clauses, the finite verb generally remained in the verb phrase, and it therefore followed sentence adverbials. However, some things have remained stable over time. For instance, both EOS and LMS are V2 languages, which means that in main clauses, the finite verb is always inverted with the subject, unless the subject itself is topicalized. This results in either SV- or (X)VS-initial word order, i.e. a surface order where V never comes later than second position. Thus, we find SV (e.g. *han skal* 'he shall' in (2), and *Ingen lärer* 'No one should' in (3)) and (X)VS (e.g. *Varþær barn* 'becomes child' in (2), and *Derföre hafwa och de gamla* lit. 'therefore have also the old' in (3)) in both the EOS and the LMS texts.[5]

Many of the substantial grammatical changes that took place in the period between the texts in (2) and (3) have been investigated in the historical records. There are for instance studies of the shift from OV to VO word order (e.g. Delsing 1999; Petzell 2011; Sangfelt 2019), the loss of *pro*-drop (Håkansson 2008) and the emergence of expletives (Falk 1993), changes in embedded word order (Platzack 1988; Falk 1993; Håkansson 2011), the grammaticalization of auxiliaries (Andersson 2007; Bylin 2013) and complementizers (Rosenkvist 2004), the loss of case morphology (Delsing 1991, 2014, 1991; Norde 1997; Falk 1997; Skrzypek 2005) and the grammaticalization of (in)definite articles (Skrzypek 2009; Brandtler & Delsing 2010; Stroh-Wollin 2016). These studies typically consider the development of Swedish from the Old Swedish period until the early Late Modern Swedish period (i.e. the middle of the 18th century). They also concern changes that to a large extent can be observed in all of the Mainland North Germanic languages (see e.g. Holmberg & Platzack 1995).

As is specified in (1), LMS continues into the present. Thus, in a way, it indicates the end of the history of Swedish. It is, of course, an absurd idea that history

[5]Many instances of the XVS structure are obscured in (2) due to the lack of overt subjects.

should have an endpoint. Nevertheless, the impression that LMS is too close to the present to be of interest or importance for historical linguistics has indeed shaped the output of this discipline in Sweden. Its main focus has always been on the earliest stages of the language (Wollin 1988; Haapamäki 2010). Naturally, such an inclination towards the archaic is understandable when the main objective is the reconstruction of a proto-language. However, even diachronic research set in a generative framework, where the age of the linguistic source is irrelevant, has shown a strong tendency towards addressing the grammatical structure of old rather than recent Swedish, despite the fact that the latter is much more robustly documented in texts of various types. An important reason for this is simply that, as we have already seen, many interesting (and quite dramatic) things happened in the grammar of Swedish towards the end of the Middle Ages.

History clearly did not end in 1732, but to date we know considerably less about morphosyntactic change from the middle of the 18th century onwards than we do about earlier periods. The present volume aims to remedy this. As we will see in the following, there were changes in word order, in the abstract case system, in the distribution of adverbials, and so on, that took place in the Late Modern Swedish period, and there are grammaticalization processes that continue into the present day. Moreover, the Late Modern Swedish period is interesting for a number of reasons. This was when Swedish was established as a national standard language. New genres emerged, and the written language became more generally available to all speakers. We also sometimes find diverging developments in the different Mainland North Germanic languages, and some of the much-discussed differences between Danish, Norwegian and Swedish (e.g. in argument placement, passives, particles, and participle morphology) were established during this period. In addition, during the 19th and 20th centuries, the traditional dialects underwent more dramatic changes than ever.

This anthology contains a collection of papers that all discuss morphosyntactic change in Late Modern Swedish. Some of the articles aim to complete our knowledge of previously studied phenomena, addressing the last remnants of a medieval system (e.g. lexical case or verbal agreement in archaic dialects). Others instead focus on changes that began in Early Modern Swedish or even later (e.g. the development of quantifiers). However, the authors of both of these sets of articles engage in the task of analysing linguistic developments that are still ongoing, reflected in unstable and varying present-day usage. The papers shed new light on both internal and external factors in language change; we will see effects of morphological change and of standardization processes, as well as of syntactic economy principles.

In this introduction, we provide some background to the Late Modern Swedish period. The main aim is to set the stage for the papers in the volume, but since there is currently no accessible overview of Late Modern Swedish, we also briefly provide some details about Late Modern Swedish grammar. §2 gives an overview of some of the external factors that are relevant for morphosyntactic change during the period. In §3, we present some central aspects of the morphosyntax of Late Modern Swedish. §4 gives an overview of the papers in the volume.

2 External factors in Late Modern Swedish

As noted above, the outer prerequisites for Swedish changed in the Late Modern Swedish period. In this section we give an overview of the external factors that have affected the development of Swedish morphosyntax during the period. §2.1 is concerned with the standardization of Swedish. In §2.2, we briefly discuss the inter- and intra-individual variation that can be observed in the 18th and 19th centuries. §2.3 gives a short overview of the sources on Late Modern Swedish, with particular focus on the available electronic corpora that are used by the authors in this volume.

2.1 Standardization and education

As shown in §1, there are Swedish texts written with the Latin alphabet from the 13th century onwards. However, the development of a standard language came much later (for a thorough description of this process, see Teleman 2002). It was not until the publication of the New Testament in Swedish in 1526 and its natural continuation with the entire Bible in 1541, that one uniform way of writing Swedish reached all the parishes of the realm. Spreading the Bible in Swedish by employing the Gutenbergian printing technique was an important item on the agenda of the centralized Swedish state, which began to be implemented at the beginning of the 16th century. In order to consolidate the emerging nation state, clearly distinguishing it from other similar states (in particular from Denmark, with which Sweden had been in a union since the late 14th century), the governing elite (with King Gustav Vasa in the lead) resorted to both practical and spiritual means. In a way, the new Bible embodied both strategies. By adopting the reformed religion, the state gained full control of the church, which had to cut its ties to Rome, including all its institutions and, not least, its long-established presence in all local communities: men of the church now answered to the king in Stockholm, not to the pope in Rome. Of course, the primary objectives of the state when distributing a printed Bible were not linguistic – the point was

rather to execute and demonstrate the power of a new and centralized Sweden (see Kouri 1994 for discussion). Nevertheless, the linguistic consequences for the written language were immense (Ståhle 1970).

As late as the early 18th century, the Bible of 1541 was still the most relevant prototype for written Swedish. There had been new editions of the Bible issued both in 1618 and in 1703, but the form of the original was kept more or less intact, with only minimal revisions (see Platzack 2005). By contrast, the state took quite radical measures in the domain of civil law towards the end of the EMS period, resulting in a new, albeit linguistically quite archaic (Wessén 1965) code of law for the nation – *Sveriges Rikes lag*, 'the law of the kingdom of Sweden' – from 1734, which is still in effect in parts. However, neither law nor Bible came to play any significant role in the shaping of the written standard during the 18th century. Instead, new genres that emerged through the Age of Enlightenment arose as preferred models for Standard Swedish. Although this new and secular standard was eventually codified in dictionaries (e.g. Sahlstedt's *Swensk Ordbok*, 'Swedish Dictionary', from 1773) and normative pamphlets (e.g. Leopold's *Afhandling om svenska stafsättet*, 'Treatment of the Swedish orthography', from 1801), it was through the distribution of new texts that the modern way of writing Swedish reached a wider audience. Consequently, the productive publishers of the time had a massive impact on the spread of linguistic norms; one of the most prominent was Lars Salvius, whose efforts are described at length by Santesson (1986).

Exactly how many people had direct access to written texts during the Late Modern period is hard to say. Although text consumption certainly increased during the 18th century, most people lived in the countryside and were probably relatively unaffected by the development of intellectual life in the city. But, based on the detailed census conducted by the church (by means of the so-called *husförhör*, lit. 'house interrogations'), most people were already listed as "being able to read" by the end of the 17th century. However, this was probably a very rudimentary form of literacy, comprising reading from the Bible (or perhaps reciting it by heart) but not writing (Johansson 1981; Berg 1994). In the early years of the 19th century, general education programmes were launched, resulting in free schooling for all children from 1842, but school did not become obligatory until 1882.

Still, the mastering of the written code by the many was very much a matter of the 19th and especially the 20th century. Even with mandatory primary education, many left school only partially literate (as in the 1600s). For example, in a recording from the 1950s, part of which is transcribed in (4) below, an old Viska-

dalian[6] woman (A) tells the interviewer (S) of her time in school at the end of the 19th century. She recalls that they would read various religious texts, but she never did learn how to write – it was simply not on the curriculum.

(4) a. A: Vi fingem läsa i testamentet å i kattjesen å
we get.PST.1PL read.INF in testament.DEF and in catechism.DEF and
i bibelska … men att Dyber … han lärde inte å skriva …
in Biblical but that Dyberg he teach.PST not to write.INF
'We got to read from the Testament, and the Catechism and the Biblical … but Dyberg, he didn't teach us to write'

b. S: Vem lärde det då?
who teach.PST that then
'Who taught you that, then?'
A: Nä ja kan inte skriva nöe
No I can.PRS.SG not write.INF anything
'No, I can't write anything' (Öxn)

As we will see in the chapters that follow, standardization had consequences for morphosyntactic change in the Late Modern Swedish period. The papers by Valdeson and Kalm suggest that schooling may have played a role in the development of double object constructions and adverbial infinitives, respectively. Using the non-standardized variety of Övdalian as a point of comparison, Kalm argues that the elaboration of the written language led to the development of new grammatical possibilities. Standardization processes also clearly affected the direction of change, as well as the spread and establishment of new patterns (e.g. the new word order in particle constructions discussed in the paper by Larsson & Lundquist). The spread of the standard language also had consequences for the dialects. For instance, in his chapter on morphosyntactic variation in Viskadalian Swedish, Petzell argues that verbal person agreement was reanalysed as part of tense, and that one of the driving forces behind this reanalysis was the introduction of the new standard word order in embedded clauses, which was incompatible with richly agreeing verbs. Finally, standardization naturally came with normative grammarians promoting or advising against certain constructions (see Teleman 2002, 2003, and references therein, for a discussion of language planning and policy in LMS). In her chapter on passive ditransitives, Falk relates the actual usage of these constructions to contemporary recommendations in normative dictionaries.

[6]Viskadalen is a dialect area in the southwest of Sweden, along the southern reaches of the River Viskan (see Petzell 2017, 2018 and 2022 [this volume] for more details).

2.2 Variation

Grammatical change in the development from Old to Late Modern Swedish led to considerable linguistic variation both within and across speakers, on all linguistic levels. Since there was no fully established standard yet, there was still considerable variation even in the written language at the beginning of the Late Modern Swedish period. As for the spoken language, the late 1700s and early 1800s stand out as a pinnacle of dialectal diversity. However, already towards the end of the 19th century, dialect levelling and the spread of a spoken standard had more or less wiped out the varying linguistic landscape of old in just a few generations (Nilsson & Petzell 2015).

In the development of the standard language, the spoken language of the upper classes in the area around Stockholm (Central Sweden) played an important role. The 17th century author Georg Stiernhielm states explicitly that he prefers this variety to other dialects, and in his treaty on Swedish, Sven Hof (1753) makes similar comments (see Widmark 2000: 26). Language change in Early and Late Modern Swedish can also often first be observed in informal texts by authors of Central Swedish origin. Many innovations have early attestations in the memoirs of Agneta Horn (born 1629), an upper-class woman without formal education. For instance, she is the first to show evidence of a change in the word order in particle constructions, discussed by Larsson & Lundquist (2022 [this volume]). Moreover, she has a stronger preference for the auxiliary *ha* 'have' (rather than *vara* 'be') in participle constructions with unaccusative verbs than many of her contemporaries (see Larsson 2009 and below); in the written standard, *ha* became established as the norm in the second half of the 18th century (see Johannisson 1945; Larsson 2009: 247, Table 7.4). With respect to clause structure, Horn is also fairly modern. In her memoirs, there are only sporadic occurrences of the old OV order (Petzell 2011), and subordinate clauses generally have the modern order of finite verb and sentence adverbial (Falk 1993; see also §3.1.2 below). In addition, one of the earliest examples of an inverted expletive (as in PDS), indicating true subjecthood, comes from her (Falk 1993: 268).[7]

Texts like Horn's memoirs give us good insights into the contemporary spoken language. The variation also shows up in theatre plays from the time (see

[7]The example, quoted from Falk (1993: 268), is given in (i) with the inverted expletive in italics.

(i) Och när thet snöga, så lågh *thet* stora snödrifwan i kamaren
and when it snow.PST so lie.PST EXPL big snowdrift.DEF in chamber.DEF
'And when it was snowing, there was a big snowdrift inside the room.'

e.g. Widmark 1970 and below). In the play *Några mil från Stockholm* 'A few miles from Stockholm' by Adolf Fredrik Ristell (1787), we can, for instance, observe that the subject form of the third person plural pronoun is *de* in the stage directions, in line with the PDS written standard, but in the dialogue, the form *di* is used. The object forms of the first and second person singular pronouns are *mäj* 'me' and *däj* 'you' in the dialogue – as in the present-day spoken standard – and not *mig* and *dig*, which is the written standard. Moreover, forms like *trägåln* 'garden' for PDS *trädgården* and *Drånningholm* for the name 'Drottningholm' ('the queen's islet'), as well as *vanlia* 'usual' for PDS *vanliga*, reflect the pronunciation of the upper classes in Central Sweden at the time. Assimilated forms like *drånning* rather than *drottning* 'queen' and *trägål* rather than *trädgård* 'garden', used by Ristell (as well as Horn a century before), are considered highly dialectal in the present-day language. During the 20th century the unmarked pronunciation has changed to one that is closer to the written language. Today, the *ttn*-sequence is pronounced as two segments ([t]+[n]) rather than one ([n:]), and the *-rd*-sequence is pronounced as a retroflex *d* ([ɖ]) rather than a retroflex *l* ([ɭ]).

According to the guide to Swedish pronunciation by Lyttkens & Wulff from 1889, many of the forms used by Horn and Ristell that are perceived today as highly dialectal (or rural) were still considered unmarked in the late 1800s.[8] However, during the 20th century, a new spoken standard emerged. Lacking access to the prestigious spoken language of high society in Stockholm, primary school teachers had started to promote a way of speaking that was very close to the written letter, and was thus easy to acquire. Previously, such written-like speech, as it were, had been reserved for public announcements (Widmark 1970), and was considered unfit for everyday conversations by contemporary intellectuals (Cederschiöld 1897; Noreen 1903). Nevertheless, the strategy of the schoolteachers was successful (Widmark 2000). At the same time, they discouraged the use of traditional dialects, aiming at a common spoken code for all in the modern and equal social-democratic Sweden. As a consequence, spoken Swedish of the late 20th century was probably less varied than it had ever been before; see Nilsson & Petzell (2015) for more details (including comparison with Norwegian and Danish). However, dialectal diversity was by no means eliminated altogether, as can be seen in the papers by Kalm and Petzell, where archaic dialects of today (or at least of a quite recent yesterday) that deviate considerably from the standard language play an important role.

[8] Thus, assimilating various dental clusters into geminate *nn* (as *drottning* → *drånning* 'queen', *vändning* → *vänning* 'turn') was considered perfectly natural. However, the *l*-pronunciation of the sequence *rd* (indicated by the spelling *trägå**l***) appears to have been outdated in the spoken language of educated people already by the 18th century (Hof 1753).

2.3 New genres and more data

The Late Modern Swedish period offers substantially more data for the historical linguist than earlier periods: old genres remain, new emerge, and more texts are preserved. In letters and diaries from the 18th century, we can observe the linguistic variation of the time. In addition, there are, as noted, a growing number of plays containing dialogue that attempts to mimic the spoken language (see e.g. Widmark 1970, 2000, Thelander 2007). The project *Swedish drama dialogue over three centuries* (Melander Marttala & Strömquist 2001) has collected a corpus of 45 plays from the period 1725–2000, divided into intervals of 25 years, with a total of more than 800,000 words. For the study of morphosyntactic change, it is clearly useful to have access to sources which reflect the spoken language as closely as possible (see Magnusson 2007: 69–74 for discussion), and the corpus of Swedish drama dialogue provides us with perhaps the best possible sample. Several of the papers in this volume use this corpus.

The production of non-fiction flourished during the 18th century, with texts about science, gardening, cooking, and so on. In the 19th century, the production of fiction underwent a veritable explosion. Some of these texts can be accessed in the corpus of Swedish prose fiction 1800–1900 (the SPF corpus). This corpus includes all Swedish original novels and short stories published in separate editions in the years 1800, 1820, 1840, 1860, 1880 and 1900, and includes altogether more than 16 million tokens.[9] The SPF corpus can be accessed through the language infrastructure Korp (Borin et al. 2012), which also contains letters, newspaper prose, and older laws, as well as other older and modern corpora (of varying quality) with older fiction and non-fiction.[10] Here there is, for instance, a corpus of 56 novels from the period 1840–1930 (Äldre svenska romaner, ÄSv, 'older Swedish novels'). The corpora make new methods available, the possibilities of which are explored in Valdeson (2022 [this volume]). Valdeson uses the Korp infrastructure to investigate the frequencies of double object constructions at different times. Among other things, he uses a measure of productivity, referred to as *lexical variation*, which considers how many different verbs occur in the double object constructions and how many different objects can occur with a specific verb.

Another important source for Early and Late Modern Swedish is the Swedish Academy Dictionary (SAOB),[11] which provides a thorough description of the Swedish vocabulary from 1526 to the present. In this volume, data from SAOB

[9] Texts from a few additional years are also included in the corpus, specifically 1841–1844, 1898–1899, and 1901.

[10] https://spraakbanken.gu.se/korp

[11] SAOB can be accessed here: www.saob.se

are used in Falk's discussion of passivization of ditransitive verbs, as well as in Delsing's account of the grammaticalization of the quantifier *mycket* 'much'. We also give examples taken from SAOB in §3 below.

In addition to the written sources of Late Modern Swedish, there are various types of sources to the spoken language. There is a large number of recordings of traditional dialects from the middle of the 20th century: the Institute for Language and Folklore has approximately 25,000 hours of dialect audio from all over Sweden, the Americas (mostly from the North), Finland, and Estonia. In the Americas, Swedish is a heritage language (see e.g. Larsson 2015). In Estonia it was a minority language until the 1940s (see Rosenkvist 2018), and in Finland it still is a minority language. Most of these early recordings are digitized, but they are only sporadically transcribed and therefore searchable to a very limited extent (Berg et al. 2019). In this volume, Petzell investigates word order in recordings of Viskadalian Swedish from the 1940s, 1950s, 1960s simply by listening to the audio files. The Institute also harbours a vast collection of phonetically precise, handwritten dialect texts from the late 1890s and early 1900s (Sellberg 1993: 431–432; SOU 1924/1927: 30–33). In this introduction, we give some examples from such a dialect text to illustrate (among other things) morphosyntactic archaisms (see §3.4). Recently, promising attempts have been made to transfer the handwritten texts to a digital (and therefore searchable) format by employing so-called HTR (handwritten text recognition) techniques (see Petzell 2019, 2020).

3 Late Modern Swedish Morphosyntax

In this section, we give a very brief overview of the morphosyntax of Late Modern Swedish, as a backdrop to the studies in the following chapters. We focus on central aspects of the grammar, particularly on phenomena that are relevant in the chapters that follow, and on phenomena that have previously been shown to change during the Late Modern Swedish period. Among other things, we will not discuss V2 order or binding of reflexives, which seem to have been stable throughout the Modern Swedish period.[12] For clarity, we employ a fairly standard model of phrase structure, where the clause is divided into three domains: the verbal domain (VP), the inflectional domain (IP), and the C-domain (CP), where features relating to finiteness, clause type, and illocutionary force are found (see Platzack 2010; Faarlund 2019).

[12] Tingsell (2010) shows that there is some inter- and intra-individual variation in the distribution of reflexives in 18th century Swedish, and that the variation is very similar to what is found in multilingual urban settings in present-day Swedish.

3.1 Verbal morphology and verb placement

§3.1.1 is concerned with verb placement in embedded clauses and subject-verb agreement. In §3.1.2, we give a summary of some changes in the Swedish tense system that took place partly in the Late Modern Swedish period. §3.1.3 gives a brief overview of the history of Swedish infinitival structures headed by *att*.

3.1.1 Embedded word order and agreement

As stated above, the V2 word order of Swedish main clauses has been stable for many centuries (see also Alving 1916). By contrast, in subordinate contexts, the position of the finite verb has changed since the Middle Ages. In EOS, the verb preceded sentence adverbials as in (5a) below, indicating verb movement out of the VP to somewhere in the I-domain. In present-day Swedish, the finite verb of subordinate clauses instead remains in the VP, where it is preceded by sentence adverbials as in (5b). Today, V can move out of the VP in a subordinate clause only in a limited set of *that*-clauses where the complementizer can take an entire CP as its complement. Such embedded V-to-C movement is possible only when the content of the subordinate clause can be interpreted as being asserted by the speaker, as in (5c); see Julien (2015), Petzell (2022 [this volume]) and Sangfelt (2022 [this volume]) for more details.

(5) a. ther the *mågho äy* aff gånga V-to-I (EOS)
where they may.3PL not off go.INF
'from where they must not deviate' (K-styr, 14th c.)

b. huset där vi *inte ville* bo V in situ (PDS)
house.DEF where we not want.PST live.INF
'the house where we didn't want to live'

c. hon sa att han *ville inte* äta den emb. V-to-C (PDS)
she say.PST that he want.PST not eat.INF it
'she said that he did not want to eat it'

According to Falk (1993: 176), the modern subordinate clause word order of (5b) becomes the dominant order in Swedish texts towards the end of EMS, reaching over 80% with the generation of authors who were born during the last decades of the 16th century. Then, in LMS, the proportion stabilizes above 90%.

Starting with Kosmeijer (1986), many scholars have argued that the order in (5a) (which is still the normal order in Icelandic) is dependent on the presence of agreement morphology on finite verbs (which Icelandic has); this is usually

labelled the Rich Agreement Hypothesis (RAH). As for Old Swedish, the RAH makes the correct prediction (V-to-I should occur), since finite verbs agreed in both person and number with their subjects: for instance, a weak verb like *läsa* 'read', had four forms in the present tense in OS: *läser* (SG), *läsum* (1PL), *läsin* (2PL), and *läsa* (3PL).

In the dominant Swedish dialects (i.e. those surrounding Stockholm), the person distinction seems to have been lost towards the end of the 15th century (Neuman 1925), and the number distinction during the 17th century (Larsson 1988). In other words, the rapid spread of the modern word order reported by Falk (1993) coincides with the final loss of (number) agreement in the spoken language of most Swedish writers. Consequently, Falk takes number agreement to be a necessary prerequisite for V-to-I movement. In addition, and drawing on earlier work by Platzack (1985) and Platzack & Holmberg (1989), she ties the loss of (number) agreement to two other syntactic changes that took place towards the end of EMS, namely the loss of stylistic fronting and the loss of verbal licensing of null expletives.[13]

Others, most notably Rohrbacher (1999) and Koeneman & Zeijlstra (2014), have maintained that the number agreement of EMS would not have been enough to trigger V-to-I. Based on what we know of other varieties that employ V-to-I, the crucial threshold is expected to be the loss of person agreement. If V-to-I was lost with person agreement, the old word order that still lived on until the 17th century must have been derived by some other mechanism. Koeneman & Zeijlstra (2014) suggest that an increased use of embedded V-to-C (as in 5c) could have been one way of holding on to the old word order when it was no longer possible to generate it by moving V to I (cf. Heycock et al. 2010 for a similar approach to archaic word order in Faroese).

However, as stressed by Gärtner (2019), in order for the V-to-C analysis to be more than just an ad hoc solution to save the RAH, it must be shown that embedded V-to-C was a much more widespread phenomenon in EMS than it is today. After all, in PDS, embedded V-to-C is possible only in a subset of all subordinate clauses, whereas V-to-I came with no such restrictions. In fact, embedded V-to-C was indeed possible in EMS in contexts where it is completely ungrammatical today (see §3.2.1 below for examples). This lends support to Koeneman & Zeijlstra's (2014) proposal that the old word order lived on for quite some time in a new guise.

[13] Alexiadou & Fanselow (2002) instead argue that stylistic fronting of adverbials was reanalysed as an instance of the new word order. Such a reanalysis was originally proposed by Pettersson (1988), whose paper (which is in Swedish) Alexiadou and Fanselow were clearly unaware of.

In this volume, Petzell argues that the 19th century development of the southern Viskadalian dialect is a mirror image of the development of Standard Swedish. In this dialect, the original person agreement is still intact. Nevertheless, the standard word order has been the dominant order since the 19th century. At first, this appears to falsify the RAH. However, what has happened (according to Petzell) is that the agreement morphology has been reanalysed as part of tense. Thus, elements of the old grammar are preserved, but within a new category.

3.1.2 The Swedish perfect

Present-day Swedish has the rather exotic possibility of omitting finite forms of the temporal auxiliary *ha* 'have' in all types of non-V2 clauses (see e.g. Julien 2002; Andréasson et al. 2004; Bäckström 2019, and references therein); an 18th century example is given in (6), where the position of the missing auxiliary is marked by ∅. As far as is known, this option of auxiliary omission is impossible in all of the other North Germanic languages.

(6) Det ser nu så rasande förnämt ut i Swerige … sedan det
it look.PRS.SG now so terribly pretentious out in Sweden since it
∅ blifwit ont efter penningar
become.PTCP pain after money
'It now looks so terribly pretentious in Sweden, since there has been a shortage of money' (*Argus*; from Johannisson 1945: 172)

There are a few scarce examples of *ha*-omission from the 15th century, but it did not become common until the 17th century. It is frequent in texts from the beginning of the Late Modern Swedish period, and in some texts (e.g. *Argus*) a large majority of the relevant examples lack an overt finite auxiliary (see Johannisson 1945: 184; Bäckström 2019: 87). In a recent study by Bäckström (2019), *ha*-omission is viewed as a syntactic loan from German (cf. Johannisson 1945, and see Breitbarth 2005 on older German). Larsson (2009) and Sangfelt (2019) tie the possibility of *ha*-omission to the loss of V-to-I movement (cf. the change in embedded word order above).

There were a couple of other changes in the temporal-aspectual system during the Late Modern Swedish period which also resulted in differences between Swedish and the other North Germanic languages. Firstly, Swedish developed a particular participial form only used with the auxiliary *ha* 'have' to form the perfect tense; this form is often referred to as the *supine* (Sw. *supinum*). In present-day Swedish, strong verbs have supine forms that are morphologically distinct

from the neuter singular of past participles; compare the passive in (7a) with the perfect in (7b). The supine form was gradually established in the 18th century, but it was not fully in place in the written language until the 19th century (see Platzack 1981; Larsson 2009: 422–423; Bäckström 2019). Not all present-day dialects make the distinction between supine and past participle morphology.

(7) a. det var *skrivet*
it was write.PTCP.N.SG
'it was written' (ÄSv, 20th century)

b. fastt du inte har *skrivit* på så länge
although you not have write.SUP for so long
'although you haven't written for so long' (SPF, 19th century).

In the 17th century, the possibility of having *vara* 'be' + a participle of an unaccusative verb became more restricted (see Johannisson 1945; Larsson 2009, 2015; cf. McFadden & Alexiadou 2005 for a similar development in English). This possibility still remains in Norwegian and Icelandic, and in Danish the construction has grammaticalized into a *be*-perfect (see Larsson 2021). *Vara* 'be', was still (marginally) grammatical with some groups of unaccusatives at the beginning of the 18th century; examples from the 16th and 17th centuries are given in (8). In present-day Swedish, *ha* 'have' is the only option with active participles of all types of verbs (although subject to some dialectal variation, see e.g. Larsson 2014, and §3.4 below). Both *ha* and *vara* were possible with unaccusatives in older Swedish; the examples in (9) have *ha*.

(8) a. Så seer man här *tilgått* *wara*
so sees one here about.go.PTCP be
'one sees that things have happened in this way here' (16th century; from Larsson 2009: 156)

b. Jost Cursel … och andra lifländare mera, som *vore* aff
Jost Cursel and other Livonians more who were of
godh villia medh *redne*
good will with ride.PTCP
'Jost Cursel … and several other Livonians who had ridden along out of free will' (17th century; from Larsson 2009: 262)

(9) a. Kan man wel merkia huru thå *haffuer tilgått*
can one well notice how then has about.go.PTCP
'One can well notice how things then have happened' (16th century; from Larsson 2009: 156)

b. *haffver* herr Nils Bielke … *ridit* till herttigen
has sir Nils Bielke ride.PTCP to duke.DEF
'has Sir Nils Bielke ridden to the duke' (17th century; from Larsson 2009: 263)

3.1.3 Infinitivals

In PDS, the infinitive marker *att* is more or less restricted to control infinitives; it does not occur in ECM contexts and only with a limited set of raising verbs (Teleman et al. 1999/3: 572, 597).[14] This restriction appears to hold for earlier stages as well, although there are sporadic examples from OS and EMS where *att* occurs in the complement of a modal verb (Lagervall 2014: 149–157; Kalm 2016: 133–134), as well as in ECM constructions (Kalm 2016: 136–137). However, compared to the other North Germanic languages, the implicature *att* + infinitive → control infinitive seems fairly robust in Swedish. By contrast, in Icelandic, some modals are obligatorily constructed with *að* (the Icelandic equivalent to *att*), and in Norwegian, both raising constructions and ECM constructions involve *å* (the Norwegian equivalent); see Kalm (2016: 45) and Faarlund (2019: 248–251) for more comparative details.

In OS, *att* (often spelled *at*) formed a tight unit with the infinitive, presumably cliticizing to the left of the verb (Falk 2010a). This unit could be preceded as well as followed by other elements, as shown in (10). Here, the object (*gest* 'guest') precedes the infinitival complex (*at=husla*), and the comparative adverbial (*sum bondæ* 'like a farmer') follows it.

[14] For instance, with *verka* 'seem', *förefalla* 'appear', as well as with passives like *ses* 'see.PASS' and *förmodas* 'presume.PASS', there is never an *att* involved; see (i). However, with *börja* 'start' (see ii), *att* is optional, and with *se ut* 'look like', *att* is even mandatory (iii).

(i) Hon verkade/föreföll/sågs/förmodades (*att) springa i den
she seemed/appeared/see.PST.PASS/presume.PST.PASS to run in that
riktningen
direction.DEF

(ii) Det har börjat (att) sitta fåglar på staketet där
it has begun to sit birds on fence.DEF there

(iii) Det ser ut *(att) regna vid horisonten
it sees out to rain by horizon.DEF

(10) præster ær skyldugher gest *at husla* sum bondæ
priest is required guest to give.communion as farmer
'it is the duty of the priest to give the communion to a guest as he does to a local farmer' (EWL; from Falk 2010b: 33)

In early EMS, it became increasingly common for elements to intervene between *att* and the verb, as in the example in (11) below, where there is a PP between *att* and the infinitive. Such interventions can be seen as an indication that *att* had been reanalysed as heading a non-finite clause rather than an infinitival phrase. This development from infinitive marker to non-finite complementizer appears to affect the realization of *att*: in OS, *att* was optional in many contexts where it is mandatory today. The stricter demand for an overt *att* started manifesting itself in texts at around the same time as the reanalysis from proclitic to complementizer would have taken place (Falk 2010a: 35).

(11) lustigt *att* om sommersz tydh *spaszera*.
amusing to in summer.POSS time stroll
'amusing to stroll in the summer time' (17th century; from Kalm 2016: 144)

However, the categorical status of *att* is hardly the only factor determining whether it can be omitted or not. Neither in Danish, where *att* is still a proclitic, nor in Norwegian, where *att* can be either a proclitic or a complementizer, is *att* optional. Compared to these two languages, PDS is very liberal when it comes to *att*-omission (see Faarlund 2019: 248–251 for details). For the better part of the EMS period, proclitic and complementizer *att* co-existed (just as they still do in Norwegian). According to Kalm, the proclitic *att* (as in 10) became obsolete towards the end of EMS (Kalm 2016: 145).

A recent development in the history of Swedish control infinitives regards the possibility of embedding the infinitival structure under a preposition. Such embedding did occur already in OS under the directional preposition *till*, at least partly in order to reinforce a purposive reading (Kalm 2016: 204–208); eventually, *till* developed into an alternative infinitive marker (Kalm 2016: 210). However, it was not until LMS that control infinitives started combining with different kinds of prepositions, thus conveying a wide variety of adverbial meanings. The emergence of these adverbial infinitives in LMS is the topic of Kalm's paper in this volume.[15]

[15]There were also other changes in infinitival constructions in the Modern Swedish period. In particular, ECM constructions appear to have had a wider distribution in older Swedish than they do in the present day. However, this remains to be investigated further.

3.2 Argument placement

In this section, we look in turn at the placement of subjects (§3.2.1) and objects (§3.2.2) in Early and Late Modern Swedish.

3.2.1 Subject placement

As argued by Håkansson (2008), spec-IP has been a dedicated subject position since Late Old Swedish, although it is not until the end of Early Modern Swedish that spec-IP is obligatorily filled (Falk 1993, 2022 [this volume]). However, EMS subjects could still surface in a position where we do not find them anymore, viz. after the finite verb, resulting in surface VS order in certain embedded contexts; see (12) below. In (12a), the VS string appears in the second conjunct of a *that*-clause, and in (12b), it follows a relative pronoun. Both these uses of VS are ungrammatical today. The difference is presumably linked to a more liberal use of embedded V-to-C in EMS (see §3.1.1 above). The present-day system was established during the beginning of the Late Modern period (Petzell 2013).

(12) a. [han] sade at hon nu har någ råt om migh och
he said that she now has enough care.PTCP about me and
skule hon nu inte längre inbila sig något herewäle
should she now not longer imagine.INF REFL any dominance
öfwer mig.
over me
'he said that she has now cared for me enough and she shouldn't imagine that she could dominate me any longer.' (Horn, b. 1629)

b. Hwilket *skall Mahomet 2:[secun]dus* hafwa giort
which shall M second have done
'which Mahomet the second is supposed to have done' (Rålamb, b. 1622, p. 125)

We move on now to the ordering of subjects and sentence adverbials. Here, the order in earlier Late Modern Swedish varied, much as it does in the present-day language: non-initial subjects could either precede or follow a sentence adverbial; the order subject–adverbial is often referred to as involving *subject shift* (see e.g. Holmberg 1993; Svenonius 2002; Andréasson 2007). Weak pronominal subjects almost always shifted across the adverbial:

(13) Herr Baron, kiänner *I* *intet* Lars Lustig?
Sir Baron know you not Lars Lustig
'Baron, don't you know Lars Lustig?' (Gyllenborg, b. 1679)

However, on occasion, weak pronouns could follow negation; (14a) has a non-referential *det* after negation, and (14b) has a non-shifted generic pronominal subject. Examples like these are admittedly rare in the historical texts, and they hardly occur in present-day Swedish (but see Bentzen 2014 on dialect variation in present-day North Germanic).

(14) a. så börjar Frökne-namnet låta så flatt så flatt, at I gifwa
so starts maiden-name.DEF sound so flat so flat that you give
Er ingen ro, för än I fått byta bårt det samma, är
REFL no peace before than you get.SUP change PART it same is
icke det så
not it so
'so the maiden-name starts to sound so flat, so flat, that you give yourself no peace until you have exchanged it, isn't it so' (Gyllenborg, b. 1679)

b. FREDRIC: En sjö utan fiskar å en skog utan foglar,
Fredric a lake without fish and a forest without birds
maschär mär ja vill inte gå på Opran.
ma.chère mère I want not go to Opera.DEF
CLAS: jo, ja vill si dä där regne som *inte man* blir våt åf.
Clas yes I want see that there rain that not one is wet by
'Fredric: A lake without fish and a forest without birds, ma chère mère, I don't want to go to the Opera. Clas: But I want to see the rain that you don't get wet from.' (Ristell, b. 1744)

Non-pronominal subjects, on the other hand, could either precede or follow the adverbial:

(15) a. Men min Gu-Far, har *intet Fru Lotta* orsak at wara swartsiuk
but my god-father has not Madam Lotta reason to be jealous
'But my godfather, doesn't Madam Lotta have reason to be jealous?' (Gyllenborg, b. 1679)

b. så är *Juncker Torbiörn intet* mas
so is nobleman Torbjörn not miser
'Noble Torbjörn is not a miser' (Gyllenborg, b. 1679)

The frequency of subject shift with non-pronominal subjects varies somewhat between texts, and it fluctuates over time (Larsson & Lundquist 2021). However,

in the present-day language, there is still variation between speakers and texts (see e.g. the data in the Nordic word order database; Lundquist et al. 2019; cf. Andréasson 2007).[16]

3.2.2 Object placement

As shown by Delsing (1999), the change from OV to VO word order had already started during EOS. However, we still find quite a lot of OV examples well into the 18th century (Petzell 2011; Sangfelt 2019). In fact, even the very symbol of modernity, *Argus*, sometimes displays OV order. The text in (3) above continues like this:

(16) Men fast än hwarken de gamla *sådane Läro-sätt skulle*
but although than neither the ancient such lessons would
älskat eller nyare frägdade Folckeslag *dem älska*
love.PTCP or newer esteemed people.PL them love
'But although neither the ancient nor newer esteemed peoples would have loved such lessons' (*Argus*)

These rather late examples of OV order do not indicate an underlying OV structure in the VP (as has been suggested for EOS; see Delsing 1999: 189, 211–214). Instead, the position of the object to the left of the entire verbal complex in a subordinate clause suggests that it has moved out of the V-domain into the I-domain (Petzell 2011).

Whereas the possibility of creating OV by moving O over a finite verb in situ (in V) disappeared during the 18th century, weak pronominal objects and reflexives can still shift across a sentence adverbial today when the main verb is in C; this is commonly referred to as *object shift*.[17] The EMS word orders in (17) below are, in other words, acceptable even in present-day Swedish (see e.g. Holmberg 1986; Andréasson 2008; Bentzen 2014; Erteschik-Shir & Josefsson 2017).

[16]The Nordic word order database is available here: https://tekstlab.uio.no/nwd

[17]Non-pronominal object shift across negation is not possible in present-day Swedish, and it does not seem to have occurred in older Swedish either, with a small number of exceptions in Old Swedish (Falk p.c.). One rare example is given in (i).

(i) For thy at the *thz första bodhordh* *ekke* hioldo
for that that they the first commandment not kept
'because they didn't keep the first commandment' (15th c.; from Falk p.c.)

(17) a. Ammiral, Jag kiände *Er intet*.
Admiral I knew you not
'Admiral, I didn't recognize you.' (Gyllenborg, b. 1679)

b. jag tror *dig intet*, för än jag får smakat
I believe you not before than I get taste.it
'I don't believe you until I get to taste it' (Modée, b. 1698)

Contrasted pronominal objects and objects with a non-nominal (or type) antecedent do not shift (see Andréasson 2008):

(18) a. Utan vidare ceremonier, herr öfverste, gif mig åter min
without further ceremonies sir colonel give me back my
fostersyster. Hon tillhör *inte er*.
foster.sister she belongs.to not you
'Without further ceremonies, Colonel, give me back my foster sister. She does not belong to you.' (Jolin, b. 1818)

b. Nej, maschär mär, ja vill *inte dä*
no ma.chère mère I want not it
'No, ma chère mère, I don't want that' (Ristell, b. 1744)

As in present-day Swedish, object shift in LMS is not completely obligatory even with weak pronouns (see e.g. Erteschik-Shir & Josefsson 2017):

(19) MAGISTERN: dä sant att Baron Fredric ha slaje gåssen.
teacher.DEF it true that Baron Fredric has beaten boy.DEF
FREDRIC: Ja, men hvar före lydde han *inte mäj*, när ja befalte.
Fredric yes but where fore obeyed he not me when I commanded
'The teacher: is it true that Baron Fredric has beaten the boy? Fredric: Yes, but why didn't he obey me when I commanded?' (Ristell, b. 1744)

In this volume, object shift is discussed in the paper by Larsson & Lundquist. They show that although there is perhaps some variation both within and across texts, there is no change in the distribution of object shift across negation, with the exception of object shift in particle constructions: objects could shift across verb particles in older Swedish (as they do in the other North Germanic languages), but this is no longer a possibility.

Unlike the other North Germanic languages, present-day Swedish has the possibility of shifting a weak object pronoun or reflexive across a non-pronominal subject to a position immediately after the finite verb; this is often referred to as

long object shift (see e.g. Holmberg 1986; Heinat 2010). Long object shift mostly occurs with reflexives (20a), but at least some speakers allow long object shift with pronouns if they have a distinct object form. For instance, the first person singular pronoun *mig* 'me' can shift across the subject (20b), but the third person *dom* 'they, them' cannot, since it does not have a distinct object form; consequently, in (20c), *dom* can only be interpreted as the subject. Long object shift is impossible across a pronominal subject; cf. (20d).

(20) a. I morse rakade *sig* *Kalle*. (PDS)
in morning shaved REFL Kalle
'This morning, Kalle shaved.'

b. Idag erbjöd *mig Lisa* en glass.
today offered me Lisa an ice.cream
'Today, Lisa offered me an ice cream.'

c. Idag erbjöd *dom* *Lisa* en glass.
today offered they/them Lisa an ice.cream
'Today, they offered Lisa an ice cream.'
NOT: 'Today Lisa offered them an ice cream.'

d. * I morse rakade mig jag.
in morning shaved me I

Long object shift is attested with both reflexives and pronouns throughout the Modern Swedish period (and it occurs also in Old Swedish; Falk p.c.). Examples from *Argus* are given in (21).

(21) a. på rätt grundar *sig* *ett folks* *Sällhet*
on right founds REFL a people.POSS bliss
'A people's bliss is founded on righteousness' (*Argus*)

b. Anledningen gaf *mig Herr Ehrenmenvet*
possibility.DEF gave me Mr Ehrenmenvet
'Mr Ehrenmenvet gave me the possibility' (*Argus*)

3.3 Double objects and passives

In this section, we first look briefly at double object and benefactive constructions (in §3.3.1), and then, in §3.3.2, we turn to passives.

3.3.1 Double objects

Swedish has the well-known alternation between a construction with two objects on the one hand, and a double complement construction (with object + PP-adverbial) on the other. In the present-day language, few verbs require double objects, and many alternate, depending e.g. on whether the recipient/benefactive argument is pronominal or not. The same type of alternation can be observed throughout the history of Swedish; examples of the verb *giva* 'give' from the 18th and 19th centuries (taken from Valdeson 2016) are given in (22) below.

(22) a. Hon har gifvit *mig den aftalta vinken*
she has given me the agreed.upon wave.DEF
'She has waved at me as we agreed.' (19th century; from Valdeson 2016: 280)

b. Och hwilken Fader som gifwer *sin Dotter til en Man som*
and what father who gives POSS.REFL daughter to a man that
hon icke kan tåla
she not can stand
'And what a father, who gives his daughter to a man that she can't stand' (18th century; from Valdeson 2016: 284)

c. om vi skulle ge *rum åt vår vän*
if we would give room for our friend
'if we would give room to our friend' (18th century; from Valdeson 2016: 280)

In (22a), *giva* takes a pronominal indirect object and a non-pronominal direct object. In (22b), there is a non-pronominal object and a PP introduced by the preposition *til* 'to'. In (22c), there is also a non-pronominal object and a PP, but here the preposition is (the less common) *åt* 'to, toward'.

Since EOS, the alternative with a PP has gradually gained ground. In EMS and LMS, the choice between the different constructions depends on lexical and information structural factors, as in the present-day language. However, as is clear from Valdeson (2022 [this volume]), the use of the construction with two objects changed in the Late Modern Swedish period, with the double object construction becoming both less frequent and lexically more restricted. In present-day Swedish, the construction with a direct object + PP is often preferred.

Swedish still has the possibility of so-called free benefactives, as in (23). In the present-day language, free benefactives are rather restricted, and they are not

always possible even with verbs of production, bringing, or ballistic motion (see Lundquist 2014 and references therein).

(23) Jag stickade henne en tröja.
I knitted her a sweater
'I knitted her a sweater.'

The group of verbs that could take two nominal objects has gradually grown smaller in the Late Modern Swedish period (see Valdeson 2017). For instance, fewer verbs of communication (e.g. *berätta* 'tell'; see Silén 2005) can now occur with double objects, and verbs of hindrance (e.g. *hindra* 'hinder') no longer do; compare the LMS examples in (24) with the present-day Swedish ones in (25).

(24) a. berätta henne det samma
tell her the same
'tell her the same' (Gyllenborg, b. 1679)

b. Republiquen ville hindra honom det
republic.DEF wanted hinder him that
'The Republic wanted to hinder him from that.' (18th century; from SAOB)

(25) a. * berätta henne något – berätta något för henne (PDS)
tell her something tell something for her

b. * hindra honom det – hindra honom från det
hinder him that hinder him from that

Moreover, there have also been changes in the word order possibilities in double object constructions. In present-day Swedish, the order of the indirect and the direct object is invariable, with few exceptions: the indirect object always precedes the direct object in the verb phrase. In OS and EMS, the opposite order was also possible, as in the example in (26). This possibility largely disappeared around the end of EMS; Valdeson (2016) finds no examples in texts from the 18th century onwards. However, with a small number of verbs, there is still some variability, as with *tillägna* 'dedicate' in (27).

(26) ok gaf gul ok self fatøco folke.
and gave gold.N.SG.ACC and silver.N.SG.ACC poor.DAT people.N.SG.DAT
'and gave gold and silver to poor people' (EOS; from Valdeson 2016: 280)

(27) a. Stevie Wonder tillägnade konserten sin hustru. (PDS)
Stevie Wonder dedicated concert.DEF POSS.REFL wife

b. Stevie Wonder tillägnade sin hustru konserten.
Stevie Wonder dedicated POSS.REFL wife concert.DEF
'Stevie Wonder dedicated the concert to his wife.' (Lundquist 2014: 137)

In present-day Swedish, either of the objects can be promoted to subject in passives, but the indirect object is most often chosen (see Lundquist 2004). Examples are given in (28). In (28a), the indirect object has been promoted to subject in the passive, whereas in (28b) the direct object has been promoted to subject.

(28) a. Hon erbjöds ett jobb. (PDS)
she offer.PST.PASS a job
'She was offered a job.'
b. Jobbet erbjöds henne.
job.DEF offer.PST.PASS her
'The job was offered to her.'

In older Swedish, only the direct object could be promoted to subject. The possibility of passivizing the indirect object (as in 28a) arose in the Late Modern Swedish period. This development is the topic of the paper by Falk in this volume.

3.3.2 Passives

Swedish has two ways of forming passives, both of which already existed in Old Swedish. Firstly, there is a periphrastic passive with *vara* 'be' (this gives a stative passive) or *varda/bli* 'become' (yielding an eventive passive) + a passive participle. The eventive passive auxiliary was *varda* until around the Early Modern Swedish period, when *bli* (a loan from Low German) gradually took over. From the second half of the 18th century, *bli* was the rule in the standard language, but some dialects still use *varda* in the past tense (i.e. *vart*). In addition, Swedish has a morphological passive formed with the verbal suffix *-s*. The example in (29) includes both a periphrastic passive and a morphological passive.

(29) Men ehwad flit och möda här wid *fordras*, och ehwad
but what diligence and hardship here by require.PRS.PASS and what
öde Wårt Arbete nu *blir underkastat*
destiny our work now is subjugate.PTCP
'but what diligence and hardship is hereby required, and what destiny our work is now subject to' (*Argus*)

Norwegian and Danish have both periphrastic and morphological passives too, but the distribution varies between the languages (see e.g. Engdahl 2006; Laanemets 2012; Faarlund 2019). In short, the *s*-passive has a wider range of uses in present-day Swedish than in the other languages. To some extent, this also holds for older stages. In Norwegian and Danish, the *s*-passive is for instance generally not possible in the past tense. In Swedish, preterite forms with passive morphology can be found early on, as shown in (30).

(30) j samu stund *førþes* døþ vt af staþenom
in same moment bring.PST.PASS dead out of town.DEF.M.SG.DAT
'in the same moment [a woman] was brought dead out of the town' (Leg, EOS, p. 151)

In present-day Swedish, the morphological passive can be used in all tenses, including in the perfect. This possibility first emerged in Early Modern Swedish (see e.g. Holm 1952; Platzack 1989; Larsson 2009: 412); one example is given in (31). In the 18th and 19th centuries, normative grammarians still disapproved of this use of the *s*-passive (see Platzack 1989).

(31) när waran har *fördts* in, så ha namne kom[m]it in
when product.DEF has bring.PTCP.PASS in so has name.DEF come.PTCP in
mä.
too
'when the product has been brought in, the name has come too' (17th century; from Larsson 2009: 412)

With respect to the periphrastic passive, it appears to have been less restricted in older Swedish than in the present-day language. The examples in (32) below (from Falk p.c.) show that the 17th century edition of *Nils Mattsson Kiöpings resa*, 'The journey of N. M. K.', has periphrastic passives (see 32a), whereas the 18th century edition of the text, revised by the influential publisher Lars Salvius (see §2.1 above), instead has the *s*-passive (see 32b). In the present-day language, an *s*-passive would indeed be used in this context; the *s*-passive tends to be the unmarked choice (see e.g. Engdahl 2006).

(32) a. Then yterste Barcken är grå, *blifwer aff-skurin* och
the outermost bark.DEF is grey becomes off-cut.PTCP and
bort-kastat: Then innerste är askefärgader, *blifwer* uthi
away-throw.PTCP the innermost is ash.coloured becomes in

fyrkantige stycken *skuren*, och sädan *sammanrullader*
square pieces cut.PTCP and then together.roll.PTCP
'The outermost bark is grey, is cut off and thrown away: the innermost is ash-, is cut in square pieces and then rolled together' (Kiöping, b. 1621)

b. [barken] *rensas* först bort och *kastas* sin kos.
bark.DEF clear.PRS.PASS first away and throw.PRS.PASS POSS.REFL way
Den inre … *skäres* i fyrkantige stycken, hvilka sedan
the inner cut.PRS.PASS in square pieces which then
rullas tilhopa
roll.PRS.PASS together
'The bark is first cleared and thrown away. The inner … is cut in square pieces, which are then rolled together' (Salvius, b. 1706).

The distribution of the different passives in older Swedish has not been thoroughly investigated (but see Kirri 1975). For an extensive study of the *s*-passive in Old Swedish and the Swedish dialects, see Holm (1952).

3.4 Nominal morphology and the noun phrase

Present-day Swedish has both definite and indefinite articles, and generally requires so-called double definiteness marking in modified noun phrases (see Julien 2005). This system is fully in place in Late Modern Swedish; see the examples from *Argus* given in (33). Determiners are prenominal, and this also includes possessives, except occasionally with some kinship terms; compare (34a) and (34b).

(33) a. den högmodiga efter-tankan
the haughty after-thought.DEF
'the haughty after-thought' (*Argus*)

b. en så oskyldig afsikt
a such innocent intention
'such an innocent intention' (*Argus*)

(34) a. min Läsare
my reader
'my reader' (*Argus*)

b. Har Swåger min ingen Pinne-Skog til sitt Bruk
has brother_in_law my no stick-forest to POSS.REFL cultivation
'Has my brother-in-law no stick-forest ['poor forest'] for his cultivation' (*Argus*)

In Late Modern Swedish, adjectives are no longer inflected for case, but attributive adjectives agree with the noun in gender, number, and definiteness; see (35) below.[18] Predicative adjectives also show agreement in number and gender, as shown in (36).[19] No gender distinctions are made in the plural, or in definite attributive adjectives (setting aside the marginal use of *-e* described in footnote 18).

(35) a. ett godt ord
a.N.SG good.N.SG word[N]
'a good word'

b. en stor Bok
a.C.SG great.C.SG book[C]
'a great book'

c. många kloka ord
many.PL wise.PL word[N.PL]
'many wise words'

d. utländske Böcker
foreign.PL book.PL
'foreign books'

[18] In PDS, the adjectival ending in definite or plural noun phrases is generally *-a*; *-e* is sometimes used with reference to male human beings (see Bylin 2016). In older Swedish, *-e* had a wider use (depending on author and text); see Larsson (2004) and references therein.

[19] PDS has non-agreeing predicatives in so-called pancake sentences (e.g. Josefsson 2009), as in (i).

(i) Pannkakor är gott.
Pancake.PL is good.N.SG
'Pancakes are good.'

Simplifying somewhat, the subject here looks semantically like a small clause, and it refers to the eating of pancakes (rather than to a plurality of pancakes). According to Faarlund (1977) and Josefsson (2014), the possibility of pancake sentences arose around 1900, but Haugen & Enger (2019) find Swedish examples from the 1850s; an early example is given in (ii).

(ii) mjölgröt är södt
flour.porridge.C.SG is sweet.N.SG
'Flour porridge is sweet' (Sw. 1850s; from Haugen & Enger 2019: 252)

Pancake sentences are not attested before the 19th century, and it seems clear that the possibility arose in the LMS period.

e. den stora hopen
the.C.SG large.DEF group.DEF.C.SG
'the large group'

f. det magra hufwudet
the.N.SG meagre.DEF head.DEF.N.SG
'the meagre head' (examples from *Argus*)

(36) a. Menniskian är högmodig.
man.DEF.C.SG is conceited.C.SG
'Man is conceited.'

b. om en Satz är falsk eller sann
if a.C.SG sentence[C] is false.C.SG or true.C.SG
'if a sentence is false or true'

c. detta omdömet är ädelt
this.N.SG opinion.DEF.N.SG is noble.N.SG
'this opinion is noble'

d. fast de sielwa icke äro ostraffbare
although they self.PL not be.PRS.PL unpunishable.PL
'although they are not unpunishable themselves' (examples from *Argus*)

The three-gender system of Old Swedish was gradually lost in the period 1500–1900 (see Davidson 1990: 48–50). In the 18th century, a system with two genders (neuter and common gender) dominated in all genres, and this is also what we find in Dalin's *Argus*. However, remnants of the old system are preserved in many dialects, and this can most often be seen in the pronominal system (rather than in the inflection of determiners and adjectives); see §3.4 below for examples. Whereas *Argus* has a pronoun *den* 'it' referring back to inanimate entities with common gender (see 37), other LMS texts use *han* to refer to masculine inanimates and *hon* to refer to nouns with grammatical feminine gender. Examples are given in (38).

(37) a. *annan lärdom*, än *den* som kunde wärkställas
other.C.SG learning[C] than C.3SG which could execute.INF.PASS
'other learnings than that which could be executed' (*Argus*)

b. *En ting* wände hon bort med annat tal, när *den*
one.C.SG thing[C] turned she away with other speech when C.3SG

bracktes på bahnen
bring.PST.PASS on course.DEF
'One thing she always diverted by talking of something else, when it was brought up' (*Argus*)

(38) a. Tag repet och drag *kälken*, så tror far, att
take rope.DEF.N.SG and pull sledge.DEF.C/M.SG so believes father that
han är din.
M.3SG is yours.C/M.SG
'Take the rope and pull the sledge, so Father will believe that it is yours.' (19th century; from SAOB)

b. tenckia alt wel om *sin öfwerhet*, tala wel om
think all well about POSS.REFL.C/F.SG authority[C/F] speak well of
henne
F.3SG
'think only well of their authority, speak well of it' (18th century; from SAOB)

There is considerable dialect variation in nominal morphosyntax in North Germanic; see e.g. Delsing (2003) and Dahl (2015).

3.5 A concluding remark on dialect variation

As of today, most of the LMS morphosyntax described in §3 has spread to the entire Swedish speaking area, which (setting aside the heritage varieties in the Americas) includes parts of Finland as well as Sweden. However, there is still variation, and this was the main objective of ScanDiaSyn (Scandinavian Dialect Syntax), a collaborative project that was initiated in the early 2000s, involving participants from all the Nordic countries, and which resulted in a number of digital resources (Johannessen et al. 2009; Lindstad et al. 2009).

Going back a century or so, the dialectal variation within Sweden was substantial (see §2.2 above). Dialects on the peripheries – from a Stockholm perspective – often deviated substantially from Standard Swedish, both because they had held on to archaic traits long gone in Central Sweden, and because they had undergone separate developments, either unique or shared with neighbouring dialects or languages.

Let us consider, for instance, the traditional dialect of Orust in the southwestern province of Bohuslän. In a collection of Orust narratives, phonetically transcribed by dialectologists around 1900 (see §2.3 above), much of the morphosyntax is reminiscent of what we find in texts from the early 18th century. As can

be seen in (39) below,[20] this goes for the tense and gender systems, the realization of non-referential subjects, and the syntax of verbal particles. In (39a), the auxiliary is *vara* 'be' rather than *ha* 'have', as in PDS (see §3.1.2 above). The indefinite article *e* (in *e gran* 'a pine tree') indicates feminine gender (distinct from masculine *en* and neuter *ett*; see §3.3). As shown in (39b), anaphoric pronouns also agree in gender with their antecedents: the feminine clitic *ner* refers to *kuärna* 'mill.DEF.FEM'. As for the syntax of verbal particles, both the position of arguments and the lack of particle incorporation place the Orust dialect closer to EMS than to PDS (see the paper by Larsson & Lundquist in this volume for EMS data). Thus, in (39c) the pronominal object comes before the particle (*henne ud*) rather than after, whereas in PDS it comes after, and in (39d), the particle (*fram*) follows the participle (*sätt*) rather than being attached to its left as in PDS (*fram-satt*).

(39) a. å sö lå där e grân, sum vâ blåst ikôll
and so lay there a.F pine.tree[F] that was blow.PTCP down
'also, there was a pine tree lying on the ground, which the wind had blown down' (Orust 22:2)

b. kuärna, um i vell sälje=ner
mill.DEF.F.SG if you.PL want.PRS sell.INF=her.CL
'the mill, if you want to sell it' (Orust 27:9)

c. velle nara henne ud
want.PST lure.INF her out
'wanted to lure her out' (Orust 27:3)

d. se bLe där sätt fram ett feskefâd
so become.PST there put.PTCP forth a.N.SG fish.plate[N]
'then, a fish plate was put on the table' (Orust 27:2)

Many of the morphosyntactic peculiarities of the Orust dialect could also be taken to reflect the fact that Orust is situated in the peripheral west, closer to both Denmark and Norway than to Stockholm. Up until 1658, Bohuslän was a Norwegian province, dominated by Denmark from the late Middle Ages (as was the rest of Norway). As noted, the Orust particle syntax, the tense system, and the three-gender system is reminiscent of EMS, but much of it is also very similar to what we find in present-day Norwegian. Furthermore, the expletive subject is *där* in (39a) and (39d), just like Danish *der*, and the periphrastic formation of the passive with *bli* in (39d) would be infelicitous in PDS, where the *s*-passive

[20]The phonetic font is simplified here (see Petzell 2019, 2020 for details).

is preferred, but fine in both Danish and Norwegian. In fact, the preference for the *bli* passive in the Orust sample lacks any correlate in the history of Standard Swedish (see §3.3.2). By contrast, expletive *där* varied with *det* for quite some time in EMS (Falk 1993).

Naturally, many of the traditional dialects exhibit developments of their own, innovations that are not attested in any other variety (standard or non-standard). One example of this comes from the Swedish dialect of the Estonian island of Nuckö, described by Vesterdahl (2018). In this variety, the case system of Old Swedish is all gone, much like in Standard Swedish and in most dialects. Nevertheless, the old nominative-accusative distinction on adjectives lives on, but with a new function. According to Vesterdahl, the Nuckö speakers have reanalysed the distinction as a predicative-attributive distinction, operating within a still intact three-gender system (as in Orust). Consequently, we get pairs like *storan båt* 'big boat', and *båten är storor* 'the boat is big'; the adjective has the old masculine accusative ending (*storan*) when it modifies the noun inside the DP, but the old masculine nominative (*storor*; cf. OS *storer*) when the adjective is used predicatively.

Late Modern Swedish is obviously not the end of history, either. New cases of variation of course arise continually, in the standard language as well as in the dialects. Some of this new variation can be observed as a difference between older and younger speakers in the ScanDiaSyn investigations. For instance, with respect to measureless quantificational exclamatives, Vangsnes (2014) observes that younger speakers in Sweden more often accept a split structure with the *wh*-word in initial position but the rest of the phrase in the base position (*vad det var bilar här!*, lit. 'what it was cars here!'), whereas older people often only accept fronting of the whole phrase (*vad bilar det var här!*, lit. 'what cars it was here'). Some recent changes are a consequence of language planning and policy (such as the introduction of a new gender-neutral pronoun with human reference, *hen*; see Ledin & Lyngfelt 2013). Other examples involve familiar types of grammatical change, like the grammaticalization of discourse markers (like *bara/ba* lit. 'only', discussed by Eriksson 1995 among others). In fact, several of the changes discussed in the following chapters are possibly still on-going. For instance, the changes in the use of double object constructions discussed by Valdeson will most likely continue in the future, and the relatively new use of adverbial infinitives with a concessive meaning observed by Kalm will possibly gain ground in the coming decades. As pointed out by Falk, the preferences for choice of subject in ditransitives have also shifted recently, and it might be that this change has not yet reached its conclusion. Furthermore, Larsson and Lundquist suggest that there are recent shifts in the preferences for particle constructions (e.g. with

modified particles), which need to be investigated further in the present-day language.

4 The papers in this volume

This volume includes six full-length articles and one squib. The contributions cover different grammatical domains, including case and verbal syntax, word order and agreement, and grammaticalization in the nominal domain.

Firstly, the paper by Cecilia Falk discusses the possibility of promoting an indirect object to subject in a passive; this is referred to as the passivization of an indirect object. Falk shows that only direct objects could be passivized in Swedish before the 17th century, and that a major change in the grammar took place in the second part of the 19th century. She proposes that the indirect object is merged in an inherent case position both in older and present-day Swedish, but that the featural make-up, and, crucially, the case assigning properties of ditransitive verbs have changed. She assumes that before the change, there was no phi-agreement between the indirect object and the verb, whereas after the change, a ditransitive verb carried two sets of phi-features. This difference accounts for the different possibilities in passives. Falk furthermore suggests that the change in passivization possibilities is related to the emergence of a dedicated and obligatory subject position in the I-domain (cf. §3.2.1 above).

Fredrik Valdeson's paper, too, is concerned with double object constructions, albeit from a different theoretical point of view. Valdeson investigates the use of verbs with double objects from a constructional perspective and argues that changes in the double object construction provide evidence for a constructional network where higher and lower levels (more or less abstract constructions) can change in similar ways, but also partly independently. He observes that the double object construction becomes less frequent in the period from the beginning of the 19th century to the present. It also occurs with fewer verbs; in Valdeson's terms there is less *lexical variation*. He looks more closely at the most frequent verbs and shows that some of them also show less lexical variation – they occur with fewer different types of objects. However, some verbs become less frequent in the double object constructions, but still show high lexical variability with respect to object types. Valdeson therefore concludes that productivity is not necessarily dependent on text frequency.

Ida Larsson and Björn Lundquist study the development of a strict order between verbal particles and objects. Up until the middle of the 17th century, Swedish had the same word order possibilities in particle constructions as, for instance, modern English and Norwegian: pronominal objects typically preceded

verbal particles, whereas non-pronominal objects could either precede or follow the particle. Present-day Swedish, on the other hand, differs from all the other Germanic languages by requiring all objects to follow a particle. Larsson and Lundquist show that the change started in the 17th century and that the modern word order was largely established around the end of the 18th century. However, not all particle constructions were affected at the same time, and there is ongoing development into the present day. The authors suggest that the variability in older Swedish had to do with the status of the particle as a phrasal modifier, in combination with the principles of the linearization of phrases. The change, they argue, was due to a reanalysis of the particle from phrase to head; this is not an unexpected development given economy principles such as the Head Preference Principle (van Gelderen 2004).

Mikael Kalm discusses the emergence of different kinds of adverbial infinitival clauses. In Old Swedish, the only type of adverbial infinitival clause that is attested expresses purpose, and other types do not seem to become possible until the 17th century; temporal and instrumental adverbial infinitivals are rare in Kalm's sources, and they are not attested before the 19th century. Kalm ties this development partly to the grammaticalization of the infinitival marker *att*. As in many other Germanic languages, this marker started out as a preposition, but it was not until the 18th century, Kalm argues, that it lost all prepositional content, in effect preparing the ground for the wide assortment of adverbial infinitives that we have today. The development, Kalm suggests, is a consequence of contact-induced grammaticalization, as well as so-called *Verschriftlichung* and language *Ausbau* (Höder 2009, 2010). In other words, the use of adverbial infinitival clauses depends on the development and elaboration of the written code, and the Swedish written code is influenced by other languages. To test this hypothesis, Kalm compares present-day Standard Swedish with translations into Övdalian, which, unlike Standard Swedish, was not codified until recently. The use of adverbial infinitival clauses is therefore expected to be restricted or even non-existent in Övdalian. Kalm shows that although some of the adverbial infinitivals in the Swedish original text are translated with infinitival clauses, Övdalian prefers other constructions (coordination, embedded finite clauses, etc.). Temporal and instrumental infinitival clauses seem to be avoided in the Övdalian translations.

Adrian Sangfelt studies word order in complex VPs, and investigates the possibility of having adverbials (and other constituents) between the separate verbal heads. In general, OV languages (e.g. German) do not allow intervening material in such contexts, whereas VO languages (e.g. English) do (see Haider 2010, 2013).

Sangfelt investigates verbal clusters in Swedish during the period 1725–1850. During this time, the final remains of the old OV system disappeared, and given the cross-linguistic patterns, it is therefore expected that it will be increasingly possible to have material intervening between the verbal heads. Interestingly, Sangfelt's results suggest that Swedish contradicts the generalization: intervening elements become increasingly uncommon. In the end, the link between OV and mandatory clustering turns out to be indirect. More specifically, the only verbal sequence that appears never to be broken is main verb + auxiliary (VAux). Although VAux is restricted to OV languages, OV word order does not need to involve VAux.

Erik Petzell tests the Rich Agreement Hypothesis (RAH), recently revitalized by Koeneman & Zeijlstra (2014; see also Tvica 2017), on data from Viskadalian Swedish. In this dialect, there is no V-to-I movement, although finite verbs are inflected for all persons in the plural (i.e. rich agreement by any standard). However, the RAH still stands, Petzell maintains, as long as the person endings are analysed as part of [tense], an account that is independently supported by the emergence of the 2SG clitic *(s)tä*. Petzell further argues that both the reanalysis of agreement as part of tense (i.e. [tense]-[agr]→ [$\text{tense}_{\text{agr}}$]), and the clitic development, where the former 2SG suffix *-(s)t* becomes part of the pronominal clitic *ä*, represent instances of syntactic grammaticalization in the sense of Roberts & Roussou (1999, 2003). In both cases, the agreement morpheme climbs upwards in the syntactic tree, as it were, as it becomes associated with T (the locus of tense as well as of subjects), rather than with a lower functional head.

Grammaticalization is discussed in the final contribution as well, where Lars-Olof Delsing studies how the gradable adjectives *mycket* 'much' and *lite* 'little' developed into quantifiers, and the concomitant loss of agreement morphology. Delsing shows that non-agreeing *lite* spread from the 17$^{\text{th}}$ century onwards, and that the development of the quantifier *mycket* took place mainly during the 18$^{\text{th}}$ and 19$^{\text{th}}$ centuries. He further argues that weak forms of *lite* and *mycket* have been reanalysed further, and that they are polarity items in present-day Swedish. There are to date few detailed studies of grammaticalization within the nominal domain in Swedish, and one important contribution of Delsing's squib is to point to questions for future work.

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Abbreviations

ECM	Exceptional case-marking	OS	Old Swedish
EOS	Early Old Swedish	PDS	present-day Swedish
EMS	Early Modern Swedish	RAH	Rich Agreement Hypothesis
HTR	Handwritten Text Recognition	SUP	supine
LMS	Late Modern Swedish	V2	Verb second order
LOS	Late Old Swedish	VO	Verb–Object order
OV	Object–Verb order	VS	Verb–Subject order

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Electronic corpora

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Korp: https://spraakbanken.gu.se/korp/?mode=all_hist

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Chapter 2

The introduction of object symmetry in passives

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This paper investigates the introduction of the possibility to promote the indirect object to subject in passives during the second half of the 19th century. An analysis is proposed where the indirect object occupies a position with inherent case throughout the history of Swedish. Before the change, a passive ditransitive verb had no structural case to assign. Thus, the direct object had to move to the subject position, whereas the indirect object remained in its case position. After the change, passive ditransitives have the capacity to assign one structural case. If the direct object receives this case, the indirect object can escape its case position and be promoted to subject. It is also shown that the change was preceded by shifting preferences in the ordering of arguments in the passive voice.

Keywords: ditransitive, double objects, object symmetry, passive, inherent case, lexical case, structural case

1 Introduction

In present-day Swedish, either of the two objects in a ditransitive construction may be promoted to subject in the passive voice:[1]

(1) a. Han erbjöds en lägenhet
He.SBJ offer.PST.PASS an apartment
'He was offered an apartment'

[1]In what follows, I shall refer to the two verb complements as "indirect object" and "direct object", regardless of their superficial function as subject or object in the passive voice. By "passivized indirect object" I mean an indirect object in the nominative case or, if case is not visible, in the subject position in a clause with the verb in the passive voice.

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b. En lägenhet erbjöds honom
an apartment offer.PST.PASS him.OBJ
'He was offered an apartment'

This possibility of variation is often referred to as object symmetry in the passive voice (e.g. Anagnostopoulou 2003). Earlier stages of Swedish did not show object symmetry. Instead, only the direct object could be passivized, i.e. promoted to subject in a passive. In the older Swedish passives given in (2), either case morphology or placement shows that the indirect object is not the subject. In (2a–b), the indirect objects have object case morphology, and in (2c–d), the indirect objects lack overt case morphology but show up in the object position, after the finite verb in an embedded clause (2c), or after the infinite verb in a main clause (2d; indirect objects in italics):[2]

(2) a. rettferdighet hwilken *mig* skenckes
justice which me.OBJ give.PRS.PASS
'justice that is given to me' (SAOB *skänka*, 1709)

b. *honom* måtte tillåtas een lägenhet uthi Götha rijkes
him.OBJ shall.PST allow.INF.PASS a prospect in Göta land.POSS
hofrett.
court
'he should be guaranteed prospects at the court of appeal in Götaland' (SAOB *tillåta*, 1646)

c. … at frachten först biwdes *borgare*
that cargo.DEF first offer.PRS.SG.PASS burghers
'… that the cargo is first offered to burgers' (SAOB *bjuda*, 1529)

d. Ett afskräckande exempel måste gifvas *verlden*
a warning example must give.INF.PASS world.DEF
'The world must be given a warning example' (SPF, 1841)

In this paper, I investigate the emergence of object symmetry, as shown in (1).

In a small investigation of the change discussed here, I show that passivized indirect objects were very uncommon before 1850 (Falk 1997: 167). The main focus in this article is therefore the 19th century, but comparisons will be made

[2]A third possible way of identifying a passivized object is through verbal agreement: a passivized object always triggered agreement in number on the finite verb. Verb agreement in number was morphologically marked in written Swedish until the mid-20th century in some verb classes. Below, I gloss verb agreement on the finite verb only if it is overt. I found no examples where verb agreement was the only indication of subjecthood.

with earlier periods. The data in my investigation include only the morphological passive, formed with the suffix *-s*.[3] Some background is given in §2, where I show that the case of the indirect object has some atypical properties, both before and after the change, including what appears to be a curious mix of lexical and structural case. In §3, I present data from the 19th century and earlier periods, and show that the introduction of object symmetry was preceded by changes in the order of the arguments. In §4, I provide an analysis of the case of the indirect object before and after the change. I suggest that the base position of the indirect object is an inherent case position, and hence that the indirect object is licensed in situ both before and after the change. However, the change affected the case assigning properties of ditransitive verbs, making it possible for the indirect object to escape its base position and move to the subject position. The proposal gives a formal account of the mixed properties presented in §2, some of which have not been accounted for in previous analyses. In §5, I discuss the different developments up until 1900 and some remaining questions. §6 is a summary.

2 Background

2.1 Research on present-day Swedish

Investigations of the passivization of ditransitive verbs in present-day Swedish often observe that not all types of ditransitive verbs passivize equally easily. Selectional as well as morphological properties of the verb have been invoked to explain this phenomenon. Anward (1989) notes that verbs for which double objects are the only possibility passivize easily, whereas the passive of verbs with the PP-alternative is less accepted (if not totally prohibited; see Teleman et al. 1999/4: 368, 2c). Holmberg & Platzack (1995) instead take the verb-internal structure as being decisive: bimorphemic ditransitive verbs like *till-dela* 'award', *er-bjuda* 'offer' passivize easily, whereas passive monomorphemic ditransitive verbs are "marginal" (1995: 219–220). These generalizations are largely based on their intuitions. Haddican & Holmberg (2019) report on a larger grammaticality

[3]Swedish also has a periphrastic passive, like present-day English. I have chosen to investigate only *s*-passives, since former investigations of passivized ditransitive verbs have concerned *s*-passives. Another reason is that further investigations of participles are needed before we can draw safe conclusions on the status of the objects; the issue concerns both verbal vs. adjectival participles and word order possibilities. Finally, *s*-passives gained ground during the 19th century at the expense of the periphrastic passive, as shown by Kirri (1975). However, as shown by Holm (1952), a substantial number of *s*-passives are already found in Early Old Swedish, making comparisons with earlier stages possible.

judgement test, and the results do indeed show that the informants preferred passivized bimorphemic verbs over monomorphemic. I know of no investigation of the actual use of bimorphemic versus monomorphemic ditransitive *s*-passives.

These observations concern the degree to which passivization is acceptable. Haddican & Holmberg (2019) also investigated judgements on choice of subject, and the results showed that the informants preferred passivized indirect objects over passivized direct objects. Similarly, Lundquist (2004) found that passivized indirect objects seem to be the unmarked alternative in actual use, in the sense that direct objects passivize only if they are relativized or questioned, or if they are highly topical and the indirect object supplies new information.

The main focus in this article is the introduction of object symmetry in the passive voice, i.e. the possibility of passivizing the indirect object, during the 19th century. As will become clear as we proceed, both mono- and bimorphemic ditransitive verbs could passivize both before and after the change. I will also discuss the choice of subject and argument order as I compare 19th century Swedish with older stages of the language.

The object symmetry illustrated in (1) has been analysed e.g. by Holmberg & Platzack (1995), Platzack (2005, 2006), and Haddican & Holmberg (2019). I will return to these proposals in §3.5, and briefly compare them to my own analysis. To the extent that older stages in Swedish are mentioned by these authors, the situation is compared with Modern Icelandic and Modern German, where the lexical case of the indirect object is preserved under passivization. In a similar vein, Falk (1995, 1997) proposes that the change reflects the final loss of lexical case in Swedish. However, the case of the indirect object before the change had some properties not normally associated with lexical case, and after the change the indirect object showed some atypical properties for structural case. This is the topic of the next section.

2.2 The case of the indirect object before and after the change: Some superficial properties

Preserved morphological case in the passive voice is often seen as a property of lexical case: it is a lexical property of the verb to assign a certain case, and this is preserved under passivization. (3) shows that dative case in Old Swedish occurred in active (3a) and passive (3b) examples alike. Verb complements without a lexical case, on the other hand, turned up in the nominative structural case in the passive voice, as shown with *jak*, 'I.NOM' in (4b); cf. the active example in (4a), where the corresponding argument (*hona*) has an accusative ending.

(3) a. þu böte siukom
you.SG.NOM cure.PST.SG ill.PL.DAT
'You cured ill people' (Leg Bu, EOS, p. 78)

b. bötes mangom
cure.PST.SG.PASS many.DAT
'Many people were cured' (Leg Bu, EOS, p. 417)

(4) a. huru guz ængla lyptu hona gen himnum
how God.POSS angels lift.PST.PL her.ACC towards heaven.DAT
'how God's angels lifted her towards heaven' (Leg Bil, EOS, p. 272)

b. swa lyptis jak vij sinnum hwar dagh a. xxx arum aff
so lift.PST.SG.PASS I.NOM seven times each day in 30 years by
guz ænglum
God.POSS angel.PL.DAT
'I was lifted seven times each day for 30 years by God's angels' (Leg Bil, EOS, p. 273)

In this respect, the case of the indirect object looks like a lexical case before the change.

The indirect object did not block movement of the direct object to the subject position, and this could also be seen as an effect of the lexical case, a lexical property that does not interfere in relationships established in the syntax. However, in other respects the case of the indirect object had some atypical properties. Firstly, after the loss of the Old Swedish case system, the indirect object had no morphologically distinct form. In other languages with lexical case, like Icelandic, German, or Old Swedish, lexical cases typically have a distinctive form, like dative or genitive. The form *mig* in (2a) is the only object form, regardless of lexical or structural case, however.

Secondly, lexical case is often thought of as a verb-idiosyncratic property (see e.g. Thráinsson 2007: 182). A small number of verbs had this property in Early Modern Swedish: the experiencer of verbs like *lika* 'like', *angra* 'regret' received an oblique case, and this did not follow from any other property. These verbs lost lexical case during the 16th and 17th centuries, leading to the change illustrated in (5) (Lindqvist 1912, Falk 1997):[4]

[4]Since lexical case with one argument verbs like *hialpa* 'help' had already been lost in Late Old Swedish (Falk 1995), only ditransitive verbs are included in the present study.

(5) a. hanum angrar thz (OS)
him.DAT regret.PRS.SG it
'He regrets this'
b. Han ångrar det (PDS)
he.SBJ regret.PRS it

After this loss, ditransitive verbs were the only verbs with a case resembling lexical case. But this actually follows from another property of ditransitives, namely the very fact that they are ditransitive: in other words, the case of indirect objects was a verb-type idiosyncratic property. In this respect, it resembled a structural case, in the sense of a "case associated with a certain syntactic function" – with the fundamental difference that the indirect object was in a way "trapped" in this function, since it could not be promoted to subject in passives.

Turning to the supposed structural case of the indirect object in present-day Swedish, it also has some unexpected properties.

Firstly, the possibility of passivizing the direct object has not been lost; see (1). Obviously, this contrasts with a minimality constraint on DP movement, but somehow the indirect object does not intervene in the chain between the subject position and the direct object position. Compare this with the situation in English, an object-asymmetrical language, where only the underlying indirect object may be passivized:

(6) a. He was given the book
b. * The book was given him

Secondly, definiteness effects in existential constructions are commonly analysed as a consequence of interpreting the VP-internal DP as a VP-internal subject (associate subject). Definiteness effects are found only on the underlying direct object in the passive voice. Hence, (7a), with a definite indirect object and an indefinite direct object as the associate subject, is grammatical, whereas a definite direct object leads to ungrammaticality even if the indirect object is indefinite, as in (7b).

(7) a. Det erbjöds Karolina en lägenhet
it offer.PST.PASS Karolina an apartment
'Karolina was offered an apartment'
b. * Det erbjöds en släkting lägenheten
it offer.PST.PASS a relative apartment.DEF

Again, this suggests that the indirect object is somehow invisible when establishing a relationship between the subject position and the direct object position.

3 Data

In this section, I first give an overview of how data are collected and analysed (§§3.1–3.2). Patterns from earlier stages, including the earliest examples of passivized indirect objects, are then presented (§§3.3–3.4), but the focus is the 19th century (§§3.5–3.7). A final section (§3.8) is concerned with changes in argument order before and after 1800.

3.1 Data sources

The main focus of my investigation is the 19th century, the period during which object symmetry first emerged. Data from the 19th century are taken from two different sources. The SPF corpus of Swedish prose fiction 1800–1900 (available in Korp, Borin et al. 2012) is a corpus of novels from 1800 to 1901.[5] The other source is recommendations from normative grammarians, represented by the first editions of the Swedish Academy word list (SAOL).[6]

In addition, data from Early Old Swedish have been collected from the rich sample of examples in Holm's (1952) investigation of the *s*-passive. I have also manually excerpted an Early Old Swedish collection of legends (Leg Bu and Leg Bil). Late Old Swedish is represented by passivized ditransitive verbs in Söderwall's dictionary of Old Swedish (Sdw); this includes a total of 24 verbs. For later periods, I have manually excerpted 19 texts (see Sources below or Falk 1993: 335–338, authors born 1571–1735, for details). To complete the picture, I have collected examples of ditransitive verbs from before 1800 in the Swedish Academy dictionary (SAOB).[7] SAOB is a historical dictionary, covering the vocabulary of Swedish from 1526.[8]

3.2 Identifying passivized indirect objects

As illustrated in (2), I have used both morphological and word order criteria to identify which object is passivized. The four-case system of Old Swedish was lost in Late Old Swedish, and the only nominal category that preserved a distinction between subject and object case was that of personal pronouns. In the majority

[5] https://spraakbanken.gu.se/korp/

[6] SAOL is a word-list with contemporary vocabulary, information about morphology, and sometimes information/recommendations on style, usage, etc. SAOL has been regularly updated with new editions since 1874. Earlier editions are available at http://spraakdata.gu.se/saolhist/

[7] Available at https://www.saob.se/

[8] The focus in SAOB is on semantics, and less attention is paid to syntax. Of course, this makes SAOB a less suitable source for my purpose.

of examples, the indirect object is pronominal, and its case reveals which object is passivized. For other nominal categories, word order can sometimes identify which object is passivized, but there are also ambiguous examples.

Due to the V2 property of Swedish, it is not possible to tell which object is passivized if the word order is DP + finite verb + DP in main clauses and embedded clauses that allow V2 order. Compare (8a–b).

(8) a. Honom räckes en riktig kardinalsup
him.OBJ hand.PRS.PASS a real cardinal.glass.of.spirit
'A very big glass of spirit is handed to him.' (SPF, 1900)

b. denna [armén] till-fogades ett nederlag
this [the army] to-add.PST.PASS a defeat
'the army was defeated' (SPF, 1900)[9]

c. en och annan beröfvades sitt gevär
one and another deprive.PST.PASS POSS.REFL gun
'some men were deprived of their guns' (SPF, 1900)

(8a) shows a fronted indirect object with object case, and this is a possible analysis of (8b) as well, where case is ambiguous. Since it is not possible to know which of the objects have been passivized in (8b), examples such as this have not been included among the examples of passivized indirect objects. In (8c), the word order is the same as in (8a–b), but here the use of the reflexive pronoun *sin* reveals that the indirect object is passivized.[10]

If the direct object occurs after a non-finite verb, the indirect object is analysed as having been passivized in examples like the following:

(9) de i trångmål stadda grupperna måste lämnas allt möjligt
the in trouble being group.PL.DEF must render.INF.PASS all possible
bistånd
help
'the groups in trouble must be given all possible help' (SPF, 1900)

[9] On compound verbs like *till-foga* 'to-add; inflict on', see footnote 15 below.

[10] The reflexive possessive must be bound within a binding domain. In the active voice, the indirect object can – according to some speakers only marginally – bind a reflexive direct object:

(i) Jag gav honom sin docka
I give.PST him POSS.REFL doll
'I gave him his doll'

This possibility is probably not available in the passive voice, i.e. it is less probable that the indirect object could retain its status as an indirect object in the passive as the antecedent of a reflexive pronoun. The direct object would then be analysed as an associate VP-internal subject, but definite.

When both objects occur post-verbally, the word order direct object + indirect object shows a passivized direct object:

(10) [Genom Hansestädernas tullfrihet]
[Since the Hansa-towns were exempted from duty]
från-drogos … betydande inkomster svenska kronan
from-draw.PST.PL.PASS important income.PL Swedish crown.DEF
'Since the Hansa-towns were exempted from duty, the Swedish crown was deprived of important income' (SAOB *frånd*ra*ga*, 1911)

The opposite order does not, however, unambiguously involve a passivized indirect object. An indefinite DP could be left in situ as an associate subject. In present-day Swedish, only the direct object may be construed as an associate subject in a passive ditransitive (cf. (7) above). In (11a) the presence of the expletive subject *det* 'there' shows that the direct object is an associate subject and that the object status of the preposed indirect object is preserved. An expletive subject *det* is normally obligatory. Earlier – and to some extent still– *det* could be absent if a locative was topicalized or if a locative adverb (*där* 'there', *här* 'here') occupied the subject position immediately following the finite verb. Thus, clauses like (11b) are not taken to be instances of a passivized indirect object:

(11) a. Mången af oss fattige syndare förunnas det icke en så lång
many of us poor sinners grant.PRS.PASS it not a such long
betänketid som han fått
time.for.consideration that he got.SUP[11]
'For many of us, poor sinners, there is not such a long time for consideration granted as he had got' (SPF, 1880) .

b. I en not tilldelas der Sara Widebeck en örfil
in a note to-share.PRS.PASS there Sara Widebeck a box.on.the.ear
'In a note, Sara Widebeck is given a box on the ear' (SPF, 1840)

In embedded clauses that do not allow main clause word order, I have analysed the DP in front of the finite verb as the subject; see (12a–b). In the relative clauses in (12c–d), the post-verbal DP shows its status as an object – the direct object in (12c), and the indirect object in (12d):

[11] In embedded clauses the temporal auxiliary *ha* 'have' may be deleted. The supine is the active past particle in Swedish, used to form anterior tenses. The supine may be passivized; see example (12c)

(12) a. i samma stund mamsell Hagman der lemnades inträde
in same moment miss Hagman there leave.PST.PASS entry
'just as Miss Hagman was given permission to enter there' (SPF, 1841)

b. det mått af bildning och kunskaper, våra barn kunde
the amount of education and knowledge our children can.PST
bibringas
impart.INF.PASS
'the amount of education and knowledge that could be imparted to our children' (SPF, 1886)

c. Dessa orolige varelser som gifwits talande tungor
these anxious creatures that give.SUP.PASS speaking tongues
'These anxious creatures that have been given speaking tongues' (SPF, 1900)

d. Glad öfver det bifall som skänktes detta hennes försök
delighted over the applause that give.PST.PASS this her try
'Delighted at the applause that was given to this try of hers …' (SPF, 1840)

A final criterion for identifying passivized indirect objects is when they are left out of coordinations (see 13a) or remain implicit in control infinitivals (as in 13b):

(13) a. Hon var ganska lydig och snäll, men nekades just
she be.PST quite obedient and kind but deny.PST.PASS really
heller ingenting
neither nothing
'She was quite obedient and kind, on the other hand, she was never denied anything' (SPF, 1898)

b. jag [var] utsedd att på en gång beröfvas allt hvad för mit
I was destined to at one time deprive.INF.PASS all what for my
hjerta utgjort sällhet och fröjd
heart constitute.SUP happiness and joy
'I was destined to be deprived at the same time of everything that had been happiness and joy for me' (SPF, 1840)

In the following subsections, I will present data from Old Swedish (§3.3), from the period 1526–1899 (§3.4), and from the 19th century as represented in the SPF corpus (§3.5), in addition to the recommendations in SAOL (§3.6). §3.7 discusses

the first occurrences of a passivized indirect object, and §3.8 contains comparisons between the data from the SPF corpus and the earlier periods.

3.3 Old Swedish

In Old Swedish, the most common case pattern with ditransitive verbs was to have the indirect object in the dative and the direct object in the accusative. In the passive voice, the dative was preserved, while the underlying direct object turned up in the nominative. The dative often preceded the nominative in the linear order. (14) shows this pattern in main clauses:[12]

(14) a. Mik laghdos tue andra costa
me.DAT lay.PST.PL.PASS two other choice.PL.NOM
'Two different choices were proposed to me' (Leg Bu, EOS, p. 143)

b. Vitiz manni skoghæ brennæ
accuse.PRS.SG.PASS man.DAT forest.PL.GEN fire.SG.NOM
'Someone is accused of causing a forest fire' (legal text, early 13th century; from Holm 1952: 200)

In (14a), the dative is topicalized. In (14b), both nominals are post-verbal, with the dative preceding the nominative. However, the nominative could also be topicalized, as in (15a). It was also possible to have nominative + dative, but this was less common (cf. 15b):

(15) a. Þiuf scal a þingi frændum byuþæs
thief.NOM shall.PRS.SG at thing.DAT relative.PL.DAT offer.INF.PASS
'The thief shall be offered to the relatives at court (to free him by paying his fine)' (legal text, early 14th century; from Holm 1952: 252)

b. Tha giwis gotz hans fore siäl hans,
then give.PRS.SG.PASS property.NOM his for soul his
kirkium ok klostrum
church.PL.DAT and monastery.PL.DAT
'Then his property is given to churches and monasteries for his soul' (legal text, early 14th century; from Holm 1952: 249)

(16) shows the two possibilities in embedded clauses:

[12] In the glosses, I distinguish between NOM, ACC, and DAT also when the case is not unambiguous morphologically (like *mik* in example 14a), but shares a pattern with unambiguous cases.

(16) a. at them skulle witas thiwffnadher
that them.DAT shall.PST.SG accuse.INF.PASS theft.SG.NOM
'in order to accuse them of the theft' (Bible paraphrase, 1330s; from Holm 1952: 345)

b. før æn altara giordus sancto sebastiano j papia lombardiestadh
before than altar.PL.NOM make.PST.PL.PASS saint.DAT Sebastian.DAT in Pavia Lombardic town
'before altars were made in honour of Saint Sebastian in Pavia, a Lombardic town' (Leg Bil, EOS, p. 481)

The relative weight of the two arguments may have been of importance; pronouns (often the dative) tended to precede nouns and full noun phrases (often nominative).

In the sample of 112 ditransitive *s*-passives in Old Swedish, the dative precedes the nominative in 65 clauses (58%).[13] Thus, we see a small preference for dative + nominative.

3.4 Early Modern Swedish (1526–1799)

In Early Modern Swedish, a preserved morphological dative is found only occasionally. Instead of talking about dative and nominative, I therefore use the labels indirect and direct object to refer to the functions of the constituents in the active voice. In the data collected from the period 1526–1799, no clear preference is found: indirect objects precede the direct object in 82 of a total of 162 clauses in the *s*-passive (= 51%).

Ten of the 162 clauses show passivized indirect objects (6%). Four of them are identified through word order, with the indirect object preceding the finite verb in an embedded clause (see 17a), the others by other means: a personal pronoun (as in 17b), a reflexive possessive pronoun *sin* in the direct object (17a), or deletion in coordination (17d):

[13] A relativized object is counted as preceding the object in situ, even when it does not correspond to an overt nominal:

(i) Hin sum sakin gifs
he that cause.NOM.DEF give.PRS.PASS
'The person who is prosecuted' (legal text, 1280s; from Holm 1952: 211)

(ii) all þön mall presti kunnu witas
all the causes priest.DAT can.PRS.PL accuse.INF.PASS
'all the causes that a priest can be accused of' (legal text, 1327; from Holm 1952: 241)

(17) a. där Ryssen presenteras en sådan tractat … Och där
if Russian.DEF propose.PRS.PASS a such agreement and if
Swerige anmodes en tractat
Sweden propose.PRS.SG.PASS an agreement
'if such an agreement is proposed to the Russians … and if an agreement is proposed to Sweden' (SAOB *anmoda*, 1633)

b. Jag ville icke nu resa samma [resa till Lappland] om jag
I want.PST not now travel.INF same trip to Laponia if I.SBJ
bödes 1000 plåtar
offer.PST.SBJV.PASS 1000 crowns
'I would not want to travel on the same trip, even if I were offered 1000 crowns.' (SAOB *bjuda*, 1732)

c. När et träd skall af-klädas sin bark
when a tree shall.PRS off-dress.INF.PASS POSS.REFL bark
'When a tree shall be debarked' (SAOB *afkläda*, 1779)

d. Hwadh orätt och swårigheeter som och omkostningar iag af
what wrong and troubles as also costs I.SBJ by
denna Människian lider och på-kastas
this person.DEF suffer.PRS.SG and on-throw.PRS.PASS
'Such troubles as well as costs that I suffer and that are thrown on me' (SAOB *påkasta*, 1704)

I have taken the word order in (17a) as an indication that the indirect object is passivized (cf. 12a–b). Certainly, in present-day Swedish this order indicates that the indirect object is passivized. It is less clear here, though. Compare the following contemporary example with a pre-verbal dative indirect object in a periphrastic passive:

(18) När människiom är något aff-stulit
when human.beings.DAT be.PRS.SG something from-steal.PTCP
'When something is stolen from human beings' (SAOB *avstjäla*, 1629)

A word order like that in (18) is probably a remnant of a more frequent pattern in Old Swedish, stylistic fronting, and the same could be the case in clauses like (17a).[14]

[14]Stylistic fronting is a construction in which any type of constituent can occupy the position in front of the finite verb in embedded clauses without an overt subject. Stylistic fronting also appears when a subject/nominative (indefinite) is left in situ in the verb phrase, as is the case in (17a). See Falk (1993: 326) for statistics on the diachronic development of this construction type.

3.5 Passivized indirect objects 1800–1900

I have investigated passivized ditransitive verbs in 19th century texts using the SPF corpus. I have divided the corpus into three parts, and investigated 30 ditransitive verbs in total,[15] all attested in the corpus in the *s*-passive (see Appendix A). However, not all 30 verbs are attested in all three parts of the corpus, as shown in Table 1.

Table 1: Size in tokens and attested ditransitive passive *s*-verbs in three parts of the SPF corpus

years	size in tokens	attested verbs
1800–1843	2,203,451	26
1860–1880	4,231,554	25
1898–1901	9,837,169	30

As is evident, the corpus includes considerably more texts from later periods, which makes direct comparisons difficult: an unusual construction type like a passivized ditransitive verb is more likely to turn up in a larger corpus. However, even with this in mind, a tendency of growing possibilities to passivize the indirect object can be detected.

I used two different means to measure the change. First, I counted all instances of passivized indirect objects per million words; second, I counted how many of the attested verbs have a passivized indirect object.

Table 2: Passivized io/million words and number of verbs with a passivized io (pass. io = passivized indirect object)

years	pass. io			
	total	per mil. words	verb with pass.io/ attested passive verbs	
1800–1843	13	5.9	7/26	ca. 1 in 4
1860–1880	20	4.7	12/25	ca. 5 in 10
1898–1901	69	7.0	19/30	ca. 6 in 10

[15] A productive way to form ditransitive verbs was compounding with a prepositional prefix. I have chosen six different prepositional affixes and counted them as only one verb each; see Appendix A for the selected verbs.

The number of verbs that occur with a passivized indirect object grows over time. However, the number of passivized indirect objects per million words is lower in the mid-period, probably because the corpus is too small to reveal the full picture. It is clear, though, that a more general possibility of passivizing the indirect object is found towards the end of the 19th century.

3.6 Passivized indirect objects and normative grammar

The use of passivized indirect objects may have been influenced by statements or recommendations from normative grammarians. In the first edition of the influential *Riktig svenska* ('Proper/Appropriate Swedish'), Wellander (1939) advises against passivized indirect objects. However, he recognizes that it could sometimes be a flexible ("*smidig*") construction, for instance in coordinations (1939: 291; see example (13a) above). In the 4th and last edition, he accepts the construction: "Den ökade friheten i konstruktionen gör otvivelaktigt språket smidigare, lätthanterligare" ('Without doubt, the greater freedom in the construction makes the language more flexible, easier to handle'; 1973: 148–149).

At the same time, recommendations like this show that a certain amount of variation is found in language use; otherwise, a recommendation would not be necessary. And even in the first edition, Wellander gave more than three pages of examples with passivized indirect objects with a variety of different verbs (1939: 297–301).

The recommendations provided in SAOL are also illustrative. In the first edition (1874), passivized indirect objects are sometimes called incorrect ("*origtigt*", "*orätt*", "*felaktigt*"). This judgement is given in connection with 13 of the 30 verbs investigated here (see Appendix A).[16] Statements of this kind show that passivized direct objects were found at this time – no statements on "incorrectness" are necessary for non-existent alternatives. "Incorrect" was replaced with a recommendation to passivize the direct object rather than ("*hellre än*") the indirect object in SAOL 7 (1900). In still later editions, *även* 'also' indicates the passivized indirect object as a marked alternative. The two alternatives are not given as equals for *tilldela* 'award', indicated by *eller* 'or', until SAOL 11 (1986); for *erbjuda* 'offer', no comments on choice of subject are given in SAOL 11.[17]

[16] I find it less likely that the editors accepted passivized indirect objects for all of the other 17 verbs, such as *gifva* 'give', *skänka* 'give', but perhaps they fully accepted it with the verb *beröva* 'deprive of'.

[17] A complete investigation of comments on use in the editions of SAOL remains to be done. *Tilldela* (with the two alternatives given as equally possible) and *erbjuda* (without comment) from SAOL 11 are presumably representative.

The resistance from normative grammarians may have influenced the use of passivized indirect objects in the written language. However, the situation in the written language shows that passivized indirect objects were not completely avoided: of the 12 verbs for which SAOL 1 (1874) judged a passivized indirect object as "incorrect", seven are attested in the SPF corpus with a passivized indirect object. As for the five verbs not attested, the judgements in SAOL reveal that they were used to some extent, even though not found in the SPF corpus.

In the spoken language, passive ditransitive verbs have probably always been quite uncommon. Whether they belong only to the written language or not, language users today have intuitions about them (cf. the investigation in Haddican & Holmberg 2019 described in §2.1 above). It is simply impossible to detect the intuitions of earlier generations – we are left with the fact that a more general possibility of passivizing indirect objects can be detected by the 19th century, possibly the later part.

3.7 The first instances of passivized indirect objects

In this section, the focus is on the first instances of a passivized indirect object with the individual verbs. The question is whether the verb types that are attested early with a passivized indirect object can tell us something about the change. To complete the picture of the 19th century, I have used SAOB to search for older examples than those found in the SPF corpus. I have also used a corpus of Swedish novels written 1830–1942 (*Äldre svenska romaner*), but without finding any relevant examples (i.e. older examples of passivized indirect objects).[18]

It is possible to distinguish different groups of verbs based on formal properties. As was shown in §2.1, native speaker intuitions about passivized ditransitive verbs reveal that the formal properties of the verb are relevant in present-day Swedish: verbs with a PP as an alternative to the indirect object are less acceptable in the passive voice (e.g. Anward 1989); monomorphemic verbs are also less acceptable than bimorphemic verbs in the passive voice (Holmberg & Platzack 1995, Haddican & Holmberg 2019).

A division can also be made based on semantic properties. We can distinguish between ditransitive verbs denoting some kind of transfer *to* or transfer *from* the referent denoted by the indirect object ("to" verbs, e.g. *giva* 'give', and "from" verbs, e.g. *beröva* 'deprive of').[19] As a third type, I distinguish a hindered transfer

[18] *Äldre svenska romaner* is available at https://spraakbanken.gu.se/korp/. The corpus is smaller than the SPF corpus (4.2 million words vs. 16.3 million words) and provides hardly any examples of passivized indirect objects.

[19] "Transfer" should be understood in a wide sense: transfer of a gift, an offer, an experience, a right, etc. Cf. Teleman et al. 1999/3: 315–318, Valdeson (2021) for a more fine-grained semantic analysis.

("hindered" verbs, e.g. *bespara* 'spare'; Valdeson 2021). "To" verbs are the typical class of ditransitive verbs, while the two others are less typical, with only a few members in present-day Swedish.[20]

The first instances of passivized indirect objects are given in Appendix B, together with the source and an analysis of formal and semantic properties. Four verbs are not attested with a passivized indirect object at all in the material investigated (*förlåta* 'forgive', *förmena* 'deny', *servera* 'serve with', *visa* 'show'). Complementary searches in *Äldre svenska romaner* yielded no examples; however, other corpora with fiction from the 20th century show that it is indeed possible to passivize the indirect object with these verbs (at least later on).[21]

Looking first at the semantics, only a few of the investigated verbs, four in total, are "from" verbs, denoting that something is taken from somebody (or something). Five verbs denote hindered transfer, i.e. the subject referent hinders a transfer to somebody. The rest are "to" verbs, i.e. denoting a successful or offered transfer to somebody.

Three of the four "from" verbs are attested with a passivized indirect object as early as 1850 or before, including three different *av-* verbs ('off') that are found before 1800. But "to" verbs are also found among the early examples, showing that typical ditransitive semantics was compatible with a passivized indirect object early on; see examples (12a) and (13b) above. Only one of the semantically atypical verbs of "hindered transfer", *bespara* 'spare', is represented among the earliest examples:

(19) Lycklig derföre den … som besparades den svåra kampen
happy therefore any that spare.PST.PASS the difficult struggle.DEF
'Therefore, anyone who was spared the difficult struggle ought to be happy' (SPF, 1840)

As for the formal properties of the verbs in question, six verbs represent the word formation pattern with a prepositional prefix. Of the rest, 13 are bimorphemic with another kind of prefix and 11 are monomorphemic. Of the six verb types formed by a prepositional prefix, three are attested early with a passivized indirect object, two of them (*av-* 'off' and *på-* 'on') even before 1800. Both mono- and bimorphemic verbs have early examples of passivized indirect objects. It can

[20] All verbs investigated by Haddican & Holmberg are "to" verbs. Teleman et al. (1999) exemplify "from" verbs and hindered transfer verbs together ("*berövas eller förvägras*" – 'be deprived of', 'be refused'; Teleman et al. 1999/3: 316).

[21] *Bonniersromaner I*, novels edited at the publishing house Bonniers 1977–1978, available at https://spraakbanken.gu.se/korp/

be noted, though, that almost all of the verbs for which SAOL 1 (1874) explicitly rejects passivized indirect objects are bimorphemic; the notion "first attested 1874" is somewhat misleading here, since these remarks in SAOL reflect an earlier use.

To sum up, my material on first occurrences does not show any clear patterns so far. I will return to the different verb types in §4 below.

3.8 Choice of subject and argument order before and after 1800

We have seen that object symmetry, in the sense that both objects may be passivized, became a possibility during the 19th century. Nevertheless, passivized direct objects were more common than passivized indirect objects in the period investigated. In this section, I present data on the choice of subject, before and after 1800.

Table 3 shows the tokens of passivized ditransitive verbs for each period in the SPF corpus.

Table 3: Tokens of ditransitive passive verbs in the SPF corpus

	pass. io		pass. do		amb		
years	*n*	%	*n*	%	*n*	%	Σ
1800–1843	13	13	82	79	9	9	104
1860–1880	20	13	129	83	6	4	155
1899–1901	69	21	239	74	13	4	321
Σ	102	18	450	78	28	5	580

The table shows a growing tendency to choose the indirect object as the subject towards the end of the century, but the passivized direct object is still the preferred alternative in the most recent period. Statistical data for the individual verbs are given in Appendix C (but not divided into different periods since the numbers are low). With two verbs, passivized indirect objects are preferred over passivized direct objects, *beröva* 'deprive of' and *bibringa* 'impart to', but the latter is not very common. Even or close to even preferences are found with the less common verbs *anförtro* 'entrust to', *lova* 'promise', *unna* 'grant', and compound verbs with *å-* 'on-'. However, with the majority of verbs, passivized direct objects are clearly preferred.

The figures in Table 3 differ sharply from the situation in present-day Swedish, where we find a clear preference for passivized indirect objects (see §2.1). For this reason, it is of interest to investigate word-order patterns in clauses with passivized direct objects during the 19th century further. I will return to present-day

Swedish in §5.3 below. Here, I will focus on the development from Old Swedish to the end of the 19th century.

Recall that the dative tended to precede the nominative in Old Swedish (§3.3), while no clear preferences were found in 1526–1799 (§3.4). The choice of subject as given in Table 3 does not fully correspond to the linear order of the arguments, though, as will be discussed further below. To allow a full comparison between the different stages of Swedish, I have analysed data from the SPF corpus according to the same principles as in earlier stages, that is considering the ordering of the arguments. In Table 4 the arguments are labelled according to their syntactic function in the active voice, that is as indirect object (io) and direct object (do). To give a more detailed picture, I have subdivided the periods further. Old Swedish is divided into three groups, two covering Early Old Swedish (EOS), the provincial laws representing the most archaic language, and one covering Late Old Swedish (LOS). Turning to Early and Late Modern Swedish, the period 1526–1799 is divided into two, with 1526–1699 as the first period, since this is the period during which Swedish lost lexical case and non-referential subjects were introduced (Falk 1993).

Table 4: Argument order 1225–1901, *s*-passives

	io + do	do + io	Σ	% io + do
Provincial laws	18	7	25	72
Other EOS sources	27	16	43	63
LOS	20	24	44	45
1526–1699	45	40	85	53
1700–1799	37	40	77	48
1800–1844	39	65	104	38
1860–1880	36	119	155	23
1898–1901	95	226	321	30

As seen in Table 4, a decrease in the order io + do is already apparent in Old Swedish, although the absolute figures are small. In Late Old Swedish this ordering is actually less common than during the periods 1526–1799. For some reason, topicalized direct objects are more common during this period than in any other of the periods investigated, giving the low percentage for the order io + do. The percentage for io + do drops further during the 19th century, to increase again towards the end of the century; this increase is an effect of the more common pattern of passivizing the indirect object, often leading to the order io + do.

The decreasing preference for io + do is not an effect of the form of the indirect object. Over time, pronominal indirect objects became more common, from about one-third in the laws, via about half in other Old Swedish, to about two-thirds during 1526–1799. In the oldest SPF sample, pronominal indirect objects are somewhat less common (ca. 60%), while the rest of the century shows a high proportion (ca. 75%). Thus, despite the pronominal form, indirect objects show an increasing tendency to occur after direct objects.

The decreasing preference for io + do could, on the other hand, be an effect of the clause type, for which two factors are of relevance: how common a certain clause type is, and what the preference is within the different clause types.[22] A full account of these two factors would lead us too far, but I will point out some general tendencies.

Clauses with topicalized or relativized direct objects will always have the order do + io. See examples (15a) and footnote 13 above. As already mentioned, Late Old Swedish has a comparatively high proportion of topicalized direct objects (12 out of 44 clauses). Setting Late Old Swedish aside, topicalized direct objects are quite rare up until 1699 (6–7%, $N = 153$), after that becoming somewhat more common (13–15%, $N = 657$), leading to a decrease in the order io + do. As for clauses with relativized direct objects, they tend generally to become more common over time, from ca. 11% in Old Swedish ($N = 112$) to 33% on average during the 19th century ($N = 580$). This leads to a further decrease for io + do.

Clauses with topicalized or relativized indirect objects will naturally count as cases of io + do order. See example (14a) and footnote 13 above. Topicalized indirect objects are not found in the medieval laws, probably because fronted objects are generally rare. In the rest of the Old Swedish sample, approx. 18% ($N = 87$) of the *s*-passives in the sample have topicalized indirect objects, with no big difference between Early and Late Old Swedish. In later periods, the percentage drops to 5–10% ($N = 742$) with some variation, but without any clear trends between 1526 and 1901. Clauses with relativized indirect objects are generally very rare, and do not have any great impact on the general picture.

In clause types in which neither of the objects is topicalized or relativized, the ordering is "free", in the sense that both orders are possible. In main clauses, both arguments follow the finite verb. Here, the order io + do is strongly preferred. See examples (14b, 15b) above. Such examples are very common in the laws (14 out of 25 clauses), leading to a high overall proportion of io + do. Over time, the preferences remain the same, but the type becomes less common, down to 13% at the

[22] As for clause types, it remains to be investigated whether the tendencies found in my sample of ditransitive passive verbs are true more generally, e.g. if relative clauses generally became more common over time.

turn of the 19th century ($N = 321$). To some extent then, the order io + do became less common as a consequence of clauses with no topicalization of objects, in which the io + do order was preferred, becoming less common.

In embedded clauses without a relativized object either object may occur preverbally; see example (16) above. The proportion of the clause type varies over time without any clear tendency, but we find changes in the argument order. Up until 1699, io + do dominates (63%, $N = 57$). After that, we find variation, but generally with a preference for do + io (ca. 20–40%; $N = 161$).

To summarize, the decreased percentage of io + do is partly an effect of changes in the relative frequency of different clause types: clauses with a relativized direct object (always do + io) become more common, while clauses with a topicalized indirect object (always io + do) and clauses in which both arguments follow the finite verb (strongly preferring io + do) become less common. However, there is also a growing preference for do + io in other types of embedded clauses and in object-initial main clauses.

Recall that the argument orders shown in Table 4 do not correspond to the syntactic function (passivized io or do), only to their underlying status as indirect or direct objects. Comparing with Table 3 above, we see that passivized indirect objects during the 19th century (18%) are less common than the order io + do (29%), which is the proportion of io + do ($N = 170$) with respect to the total ($N = 580$). This is due to the argument order io + do sometimes occurring in clauses with passivized direct objects. This is the case in clauses in which both arguments follow the finite verb and in clauses with topicalized indirect objects. In what follows, the choice of subject in the SPF corpus in these two clause types will be discussed further.

The patterns found when both arguments follow the finite verb are illustrated in (20):

(20) a. I en not tilldelas der Sara Widebeck en örfil
in a note to.share.PRS.PASS there Sara Widebeck a box.on.the.ear
'In a note, Sara Widebeck is given a box on the ear' (SPF, 1840)

b. Efter danske konungen Kristian IV:s nederlag
after Danish king.DEF Kristian IV.POSS defeat
frändömdes hans son Fredrik biskopsdömet i
from-sentence.PST.PASS his son Fredrik bishopric.DEF in
Halberstadt
Halberstadt
'After the Danish king Kristian IV's defeat, his son Fredrik was sentenced to forfeit the bishopric in Halberstadt' (SPF, 1900)

c. Det erböds dem mat ur kungliga köket
it offer.PST.SG.PASS them.OBJ food from royal kitchen.DEF
'They were offered food from the royal kitchen' (SPF, 1841)

d. snart räcktes honom wärdens hand till ett redligt
soon hand.PST.PASS him.OBJ host.DEF.POSS hand to an honest
handslag
handshake
'Soon the host's hand was held out to him for an honest handshake' (SPF, 1816)

e. Skulle der borta någon förmånlig anställning erbjudas
shall.PST there over some advantageous position offer.INF.PASS
dig så är du naturligtvis fri
you.OBJ so be.PRS you of.course free
'If you should be offered some advantageous position over there, you are of course free' (SPF, 1900)

f. Först bjuds vi i prästgår'n kaffe och dopp
first offer.PRS.SG.PASS we.SBJ in parsonage.DEF coffee and buns
'First, we are offered coffee and buns in the parsonage.' (SPF, 1900)[23]

(20a) and (20b) differ minimally in the definiteness of the direct object. An indefinite direct object could be construed as an associate subject, a possible analysis of (20a) (cf. the discussion around (11b) above). In (20b), on the other hand, the definite direct object points out the indirect object as the promoted subject. (20c) shows the direct object construed as an associate subject in situ. (20d) shows a pronominal indirect object in front of a passivized direct object, that is, an instance of so-called long object shift. (Long) object shift is possible only in clauses with a finite main verb; a passivized direct object in clauses with an infinite main verb will involve an unambiguous post-verbal indirect object, as exemplified in (20e).[24] The patterns in (20c–d) reflect a discrepancy between argument order

[23]The singular form of the verb with a plural subject, as well as the form *går'n* (cf. standard written *gården*) – perhaps also the passivized indirect object – indicates vernacular language.

[24]Io + do seems to be almost obligatory, when possible, i.e. after a finite main verb. Only one example has do + io after a finite main verb:

(i) Då han sedan blef frisk och begärde äfven den tredje dagen
when he then get.PST well and demand.PST also the third day.DEF
vägrades *detta honom*
refuse.PST.PASS this him.OBJ
'When he later on got well and asked for the third day also, he was refused this.' (1900; SPF)

(io + do) and subject choice (direct object). In the latest period, though, another pattern is also found, in which the subject form of the pronoun reveals that the indirect object is passivized (20f). In summary, the preferred order remains the same, but in the most recent period investigated, 1898–1901, the indirect object is more often promoted to subject.

In clauses with a topicalized indirect object, it is often impossible to tell which object is passivized (see 8b above). In (21a), the case of the indirect object reveals that the direct object is passivized. Again, we find a discrepancy between linear order (io + do) and choice of subject. However, this pattern is not very common; there are 11 examples in total. Somewhat more common is the alternative in (21b), with a passivized indirect object (19 examples).

(21) a. Broder, dig gifves bilderna som en hälsning
brother you.OBJ give.SG.PRS.PASS pictures.DEF as a greeting
'Brother, you are given the pictures as a greeting' (SPF, 1900)

b. jag ålägges böter för underlåten bevakning
I.NOM on-lay.SG.PRS.PASS pentalty for withheld guard
'Penalty is laid upon me because of withheld guard' (SPF, 1880)

A final clause type to discuss is clauses with a relativized underlying direct object. There is a strong tendency for the direct object also to be promoted to subject – thus, the underlying order do + io will correspond to a passivized direct object. As opposed to clauses in which both arguments follow the finite verb, passivized indirect objects did not become more common in this clause type, but remained very low even in the most recent part of the SPF corpus. In one respect, there is a difference, though: whereas (pronominal) indirect objects tended to precede the finite verb in earlier periods (as in 22a–b below), such an order is more or less obsolete in the SPF corpus, although a few examples can be found (9 of 190); see (22c–d).

(22) a. alt thz … som hanum giordhis for gudz sculd
all that that him.DAT do.PST.SG.PASS for God.GEN sake
'everything … that was done to him in the name of God' (Leg Bil, EOS, p. 119)

b. rettferdighet … hwilken mig skenkes
justice which me.OBJ give.PRS.SG.PASS
'justice that I am given' (SAOB *skänka*, 1709)

c. den arm, som erbjudes er
the arm that offer.PRS.SG.PASS you.OBJ
'the arm that you are offered' (SPF, 1849)

d. att ersätta den fattige bonden all den skada honom
to compensate.INF the poor peasant.DEF all the damage him.OBJ
till-fogats
to-add.SUP.PASS
'to compensate the poor peasant for all the damage that had been inflicted upon him' (SPF, 1880)

In the Old Swedish example in (22a), the preposed dative is most likely an example of stylistic fronting, or alternatively it is an oblique subject. Stylistic fronting became very unusual during the first half of the 18th century (see statistics in Falk 1993: 326). Therefore, word orders like that in (22b) more probably involve a verb-final embedded clause, which was quite a common word order during the 17th century for some authors, and occurred now and then with authors born after 1700 (Platzack 1983); this word order is not unusual among the relative clauses in 1526–1799. In present-day Swedish, word orders like (22d) are no longer possible, whereas a post-verbal indirect object as in (22c) is a grammatical alternative to a pre-verbal passivized indirect object (see 24 below).[25]

The changes presented in this section will be discussed further in §4 below. First, I will present my analysis of the difference between the asymmetry in older stages of Swedish and the symmetry that emerged during the 19th century.

[25] An anonymous reviewer gives an example from 1920, probably collected from *Äldre svenska romaner*. One other example is found in *Äldre svenska romaner*, from the same novel (Bergman, *Herr von Hancken*):

(i) det lilla, som honom anförtrotts ...
the small.DEF that him.OBJ entrust.to.SUP.PASS
'the small things that had been entrusted to him'

(ii) alla de värdigheter som mig rätteligen tillkommer men som mig
all the honours that me.OBJ rightly belong.to.PRS but that me.OBJ
förmenats
deny.SUP.PASS
'all the honours that belong to me by right but I have been denied'

The construction is obviously used for stylistic reasons. Both the (1st person) storyteller and Herr von Hancken are quite precious and ridiculous people.

4 Analysis

In the analysis that follows, the core idea is that the middle argument position is an inherent case position, both in an object-asymmetrical language like Old Swedish and in an object-symmetrical language like present-day Swedish. What has changed is the case-assigning properties of ditransitive verbs. Before this analysis is presented, I will go through some basic assumptions (§4.1).

4.1 Basic assumptions

In a ditransitive verb phrase, three argument positions are found: positions for a (verb phrase internal) subject, an indirect object, and a direct object. I will take the structure to be a projection of the verb, creating a complement position of V (direct object), a spec-VP position (indirect object), and a spec-vP position (subject).[26] Following standard assumptions, I assume that the external argument is suppressed in the passive voice.

Furthermore, I will assume that "structural case" is a licensing structural relation between a head and the closest available DP with matching features in its c-command domain. Mono-transitive verbs probe a DP in its complement position, and T probes the closest DP. I will take the relevant features to be φ-features and case features. The head probes a DP with φ-features and the unspecified case feature of the DP gets a value (subject or object case) from the head.[27] I will further assume that EPP features require that the licensing relation is established in an overt spec-head configuration. The φ-features of T have an EPP feature in present-day Swedish, thus triggering movement of an DP to spec-TP. Alternatively, an inserted expletive subject may satisfy the EPP feature, if entering an agreement relation with a DP in situ (the "associate subject").[28]

[26] Alternative analyses of ditransitive constructions are that v governs a small clause of some kind, projected by an abstract head. Different approaches take this abstract head to be P_{HAVE}, giving a reading 'cause somebody to have something' (e.g. Harley & Jung 2015) or an applicative head Appl (e.g. Pylkkänen 2008).

[27] The labels of the features are of minor importance in this connection. Rather, the mutual dependency between the relevant head (T or V) and the DP is important: T/V "needs" something from a DP, formalized as unspecified φ-features in T/V probing for specified φ-features in the DP, and the DP "needs" something from T/V, formalized as an unspecified case feature getting a specified value from T/V once the agreement relationship of φ-features is established. I assume that the φ-features and the case features always occur in combination.

[28] I have no account of the definiteness effect, but take it as an indication of the status of an associate subject. Cf. (7) above.

Lexical case, as found in Old Swedish, is a verb-idiosyncratic property.[29]

The core idea in the analysis that follows is that a DP in spec-VP does not depend on a case-licensing head. Instead, I will develop the idea that spec-VP is a position with inherent case. Being a VP-internal case, it is compatible with the case feature of V (an object case), rather than the case features of T (subject/nominative case). The exact nature of this inherent case will be explored further below. I will argue that this property of spec-VP has not changed in the history of Swedish. What did change, however, was the feature setup of ditransitive verbs: before the change, ditransitive verbs had one set of unspecified φ-features; after the change, they had two sets of unspecified φ-features. Passive verbs have one set of unspecified φ-features less, both before and after the change.[30]

4.2 The case of indirect objects before the change: Analysis

Recall that, after the loss of morphological case, the indirect object had some properties that are atypical for an argument with lexical case: it had no distinctive morphological form and was a verb-type case rather than a case of individual verbs (cf. the dative in examples (3) and (5) above). These properties follow straightforwardly if spec-VP is a position with an inherent object case, as follows.

Before the change, the only option was that the direct object passivized, in the sense of changing case from accusative to nominative. In this section, I will show that this fact follows from an analysis in which spec-VP was a position with inherent case, and a ditransitive verb had one set of unspecified φ-features, probing a DP with φ-features. An active verb probes the direct object, and the indirect object is licensed by virtue of the inherent case property of spec-VP.

A passive ditransitive verb had no unspecified φ-features before the change. The only unspecified φ-features in such a structure are found in T. When T probes a DP in its c-commanding domain for φ-features, the closest DP is in spec-VP. This DP is case-licensed but, crucially, only by virtue of its position. As will be outlined in more detail below, it would in principle be possible to escape this position if the indirect object DP is probed by an EPP feature. However, such a structure is ruled out, since the direct object is not case-licensed. The effect will be that the indirect object is trapped, so to speak, in spec-VP.

[29] Different labels and characterizations of non-structural case have been proposed; see e.g. Thráinsson (2001: 181–182). "Lexical case" should be understood here as a verb-idiosyncratic case. It could probably be realized both in a spec-head and head-sister configuration, but I make no more specific assumptions here about lexical case. "Inherent case" is used here only as the specific property of an object case in spec-VP; see further below.

[30] This corresponds to the idea that passive morphology "absorbs" structural case.

Its status as a position with inherent case will make spec-VP invisible when T probes in its c-command domain. Thus, T may probe the direct object further down. An EPP feature in T will trigger movement of the direct object to spec-TP, the subject position.

The proposal accounts for the properties of the indirect object before the change, as presented in §2.2 above, properties that are not normally found with lexical case. The "lexical" property of the indirect object is not its morphological case (dative or genitive), but instead the argument structure of the verb, i.e. the very property of being a ditransitive verb, which is a verb-type property rather than a verb-idiosyncratic property. The verb type will project a spec-VP position, which by assumption is a position with an inherent object case. With respect to minimality conditions on forming a relationship between T and a DP further down, the inherent case will have the same effect as a lexical case: it does not block such a relationship.

4.3 The case of indirect objects after the change: Analysis

Recall that the case of the indirect object in an object-symmetrical language like present-day Swedish also has some atypical properties: the indirect object may passivize, showing that it does not have a lexical case. However, at the same time, it may not be construed as an associate subject in situ in the verb phrase, and it does not block the direct object from moving to the subject position, nor from being construed as an associate subject in situ. In these respects, its case resembles a lexical case. These facts will be accounted for as follows.

I propose that ditransitive verbs in present-day Swedish have two sets of unspecified φ-features in the active voice, and one in the passive voice. I also further explore the properties of spec-VP, showing that the facts will follow if spec-VP is still an inherent case position. Thus, the DP generated in this position will be case-licensed by its position rather than through agreement with a case-licensing head.

In the active voice, the verb in V probes the direct object in the complement position, and from V, it probes the indirect object in spec-VP. The verb finds matching φ-features, and its case feature will be compatible with the inherent case of spec-VP, both being object cases.

From the proposed analysis, the two possibilities in the passive voice will follow. A passive ditransitive verb has one set of unspecified φ-features. First, consider the possibility that the verb probes the closest DP downwards from its base position in V, i.e. the direct object. Both VP-internal objects are now case-licensed – the direct object by its relationship to the verb in V, the indirect

object by its position. But since both objects are case-licensed, T will find no DP with matching features: the case feature of T carries subject case (nominative), whereas the inherent case of spec-VP is an object case. In other words, the indirect object cannot be construed as an associate subject, due to the feature mismatch. At the same time, the indirect object may be attracted by the EPP feature on the φ-features of T. In other words, it may escape its case position, ending up as a passivized indirect object.

Next, consider the alternative in which the direct object is passivized. In this case, the verb probes the closest DP from v. As in the active voice, a relationship can be established between the verb and the indirect object. Next, T probes a DP with matching features. Just as before the change, due to its inherent case property, spec-VP will not intervene, and T may establish the licensing relationship with the direct object. The EPP feature in T will trigger movement of the direct object to spec-TP, or the direct object may stay in situ as an associate subject.

As outlined above, the case of indirect objects in the passive voice has what at first glance seems to be a curious mix of structural and lexical case properties. It is "structural" in the sense that it can passivize; it is "lexical" in the sense that it does not block movement of the direct object. This mix follows from the proposal that spec-VP is an inherent case position.

4.4 More on the notion of "inherent case position"

The proposed analysis relies on three crucial properties of spec-VP of ditransitive verbs: it has inherent case, a DP in this position may remain in spec-VP if probed by a head with compatible case features, and it can escape case if probed by an EPP feature. Together, these properties will account for the passivization possibilities.

It is difficult to find any independent evidence for a notion like "inherent case position". There is, however, a possible parallel: an inherent semantic role of spec-VP. As we have seen, the indirect object of a ditransitive verb can have different semantics. Many monotransitive verbs may be construed with an optional indirect object, and this optional object will always be interpreted as a (potential) receiver/beneficient. This is well known with production verbs like *bygga* 'build', *baka* 'bake', etc., but an optional indirect object may also show up with verbs like *köpa* 'buy', *skaffa* 'procure'. To the extent that we can add an indirect object to a verb like *stjäla* 'steal', it will be interpreted as the receiver: to *stjäla någon en cykel* 'steal someone a bike' means that the person *receives* a bike, not that the bike is stolen *from* the person.

Also crucial in the analysis is the assumption that the indirect object can escape spec-VP if attracted by an EPP feature. Since case is associated with the

position, not the DP, the DP is free to move. Its "lost" case will be compensated for in spec-TP by the case features of T. Again, a comparison with optional indirect objects is illustrative. In principle, such an optional indirect object could also move to spec-TP, trigged by the EPP feature. But then it would lose its interpretation, and this could not be compensated for in spec-TP. Hence, optional indirect objects cannot be passivized; compare (23a) and (23b):

(23) a. Pappa stickade/köpte/stal mig en tröja
Daddy knit.PST/buy.PST/steal.PST me.OBJ a sweater
'Daddy knitted/bought/stole a sweater for me.'

b. * Jag stickades/köptes/stals en tröja
I.SUBJ knit.PST.PASS/buy.PST.PASS/steal.PST.PASS a sweater

Thus, somewhat indirectly, we find support for the idea that at least spec-VP could be connected with position-inherent properties.

4.5 Accounting for object symmetry

In this section, I will compare the proposed analysis with other accounts of passive ditransitive verbs in present-day Swedish. The analyses differ in several respects, including basic assumptions about the structure of double object construction, as well as the mechanisms and restrictions on licensing. A full account of these differences would lead us too far afield – here, I will just point out some similarities and the main differences between the different accounts. The primary focus is on how the analyses account for the object symmetry in the passive voice, i.e. why both objects may passivize.

In the analysis by Haddican & Holmberg (2019), a double object construction includes a verb-governed phrase, PP_{HAVE}, with the indirect object as the specifier and the direct object as the complement. The point of departure for the analysis of present-day Swedish is the observation that bimorphemic ditransitive verbs passivize more easily than monomorphemic ditransitive verbs (see §2.1 above). In the passive voice, the verb is not a case assigner – but the prefix of a bimorphemic verb is. The prefix may assign case to the closest DP, the indirect object. In this way, the indirect object is "deactivated" (in the terminology of Haddican & Holmberg), making the direct object accessible from T. A passivized direct object will follow. The prefix can also transmit its case-assigning capacity downwards to P_{HAVE}. P_{HAVE} will then case-license the direct object, and T will probe the indirect object, leading to a passivized indirect object.

In Norwegian, verb class is not significant, and Haddican & Holmberg (2019) propose another analysis to account for this. Since passive monomorphemic ditransitive verbs are not totally prohibited in Swedish, this alternative will be available (marginally) in Swedish as well. In this proposal, the relevant case-assigning head is not a verbal prefix, but instead the abstract head P_{HAVE}. P_{HAVE} can assign case either to its spec position, the indirect object, or to its complement position, the direct object. The object left without a case will be probed by T, i.e. turn up as the subject.[31]

Thus, in both structures, there is a vP-internal case assigner in the passive voice: either the prefix or the abstract head P_{HAVE}. Object symmetry is obtained through different possibilities for this case assigner.

In my proposal, different possibilities for the case assigner are also crucial: a case assigner (a head with unspecified φ-features) can assign case (successfully probe a DP with matching features) from different positions. The verb can either probe the direct object in its base position, or the indirect object from the v-position. But there is an advantage that only one assignment mechanism is available: assignment (agreement) under c-command, without alternative case-assignment mechanisms. Furthermore, given that passivization of monomorphemic verbs like *giva* 'give' is marginally possible also in Swedish, it is not clear in Haddican & Holmberg's analysis why optional passivized indirect objects as in (23b) are decidedly ungrammatical.

Another advantage of my proposal concerns the definiteness effect: it follows from my analysis that the indirect object cannot be construed as an associate subject in situ, since there will be a case clash. As far as I can see, nothing prevents this in Haddican & Holmberg's analysis: the prefix can transmit its case-assignment capacity to P_{HAVE}, and it would be possible for T to form a chain with either object as long as it adheres to the definiteness restriction.

Platzack (2005, 2006) proposes a different source for the object symmetry in the passive voice, namely the properties of the indirect object DP. In his analysis, DPs in the indirect object position can either have or lack φ-features. In the former case, unspecified φ-features of T get a value from the indirect object, which ends up as the subject. If the indirect object lacks φ-features, T probes further down, finding the necessary φ-features on the direct object instead, the result being a passivized direct object. Note that DPs can lack φ-features in Platzack's account only in the indirect object position. The similarities with my proposal are obvious – DPs in the indirect object position do not enter into a relationship with T. But instead of locating relevant properties in the DP, I have located

[31] In Holmberg et al. (2019), the abstract head is labelled Appl. The options – case assignment to the specifier position or the complement position – are the same.

them in the position, the inherent case status of spec-VP. No optional features are needed, and licensing is throughout a mutual dependency relationship between a head and a DP. Furthermore, as in Haddican & Holmberg's analysis, I cannot see how indirect objects as associate subjects are ruled out in Platzack's account.

5 The changes: Discussion and residual questions

The main focus for my investigation has been to trace the change in Swedish from an asymmetrical language, in which only direct objects could passivize, i.e. change case from object to subject case, to a symmetrical language, in which both objects can passivize. I have presented this as a change in the grammar in the 19th century: from a grammar in which passive ditransitive verbs did not have any unspecified φ-features with accompanying case features, to a grammar in which passivized ditransitive verbs have one set of unspecified φ-features, and therefore have the capacity to case-license an object. A first question to discuss is the impelling force behind this change.

My investigations of argument order in earlier stages of Swedish have shown developments prior to the grammatical change: over time the (underlying) indirect object more and more often follows rather than precedes the (underlying) direct object. A second question is why the word order preference changed.

The preferred subject of passive ditransitives in the late 19th century is still the direct object. Therefore, a final question concerns the situation in present-day Swedish: why is the passivized indirect object the default choice today?

I discuss these questions in chronological order, starting with the second one.

5.1 Changes before 1800

Old Swedish showed a weak preference for indirect objects (io) to precede direct objects (do) in the passive. To a certain extent, genre plays a role: in the medieval laws, clauses in which both arguments follow the finite verb were very common, and in this clause type the order io + do has always been preferred, perhaps reflecting the unmarked underlying order. It is less clear why topicalized direct objects are so common in my Late Old Swedish sample. It remains to be investigated if this was really the case more generally during this period, or if my collection of data is not fully representative; recall that examples were taken only from a dictionary, not directly from the historical sources. With this in mind, we still see a clear change in preferences over time (in Table 4 above). As shown in §3.8, this is partly due to the frequency of different clause types:

clauses with a relativized direct object tend to become more common, resulting in do + io order, and clauses with both arguments following the finite verb tend to become less common. Clauses with topicalized indirect objects also tend to become less common. But we can also note that do + io became more common in other types of embedded clauses, and that topicalized direct objects became more common (ignoring the somewhat exceptional figures from Late Old Swedish). In both these cases there is a clear difference between the periods before and after 1700: the period 1526–1699 resembles Early Old Swedish, whereas the 18th century resembles the 19th century (§3.8). This coincides with two other changes in Swedish: the loss of lexical case and the introduction of non-referential subjects. The loss of lexical case for verbs like *lika* 'like', *ångra* 'regret', meant that the object/dative case was replaced with the subject/nominative case. The introduction of non-referential subjects was an effect of stricter conditions on the licensing of the subject position (Falk 1993). Both these changes are possibly part of the answer as to why the order do + io gained ground; it would be odd if an infrequent construction like a ditransitive passive changed all by itself. Both the loss of lexical case and the introduction of non-referential subjects led to a requirement for a nominative noun phrase outside the verb phrase. In clauses with passivized ditransitive verbs, this in turn led to a greater preference for do + io.

5.2 Changes detected in the SPF corpus (1800–1901)

The question of the introduction of object symmetry during the latter part of the 19th century can be divided into two: a "how" question and a "why" question.

The "how" question concerns the factors that promoted the change. We can imagine that the reanalysis was closer at hand for some verbs, and that these verbs paved the way for a general reanalysis of the feature setup of ditransitive verbs. Obvious candidates for this "leading role" in the change are verbs with a prepositional prefix: prepositions select DPs. In the analysis assumed here, they have unspecified φ-features together with a case feature. This feature setup could also be reinterpreted as a feature setup when the preposition is part of the verb. From here, a next step could be that other prefixes were also reinterpreted as probes with unspecified φ-features. A more general possibility of passivizing the indirect object would then come later. However, as was shown in §3.7, this assumed pattern is only partly detectable in the number of first instances of each individual verb collected.

In a preliminary investigation of passivized indirect objects, Falk (1995, 1997) concluded that indirect objects with an atypical semantic role were attested earlier as subjects in the passive voice. However, just as with respect to the for-

mal properties of the verb, the influence of semantic properties is only visible in the collected material to a minor extent (see §3.7). It remains to be investigated whether a more fine-grained semantic analysis would reveal a clearer pattern; that would require a larger collection of data than the 30 verbs investigated in the SPF corpus.

Another factor in the "how" question concerns clause type. As shown in §3.8, clauses with a relativized underlying direct object show a continued preference for also passivizing the direct object. In this clause type, passivized indirect objects occur comparatively late:

(24) Den plats, ni härmed erbjudes på vårt kontor
the employment you.SBJ hereby offer.PRS.SG.PASS at our office
'The employment at our office that you are offered hereby' (SPF, 1880)

In clauses where both arguments follow the finite verb, the preference for the order io + do instead remained, in some cases leading to passivized indirect objects:

(25) Om fadren bevisligen vore rubbad till sina sinnen så
if father.DEF obviously be.PST.SBJV deranged at POSS.REFL senses so
skulle folket sedermera lätt kunna bibringas farhågan,
would people.DEF later easily can.INF impart.INF.PASS fear.DEF
att galenskap blefve sonens arfvedel
that madness become.PST.SUBJV son.DEF.POSS heritage
'If it were proved that the father was mentally deranged, fear that madness would become the son's heritage would possibly be imparted to the people' (SPF, 1844)

Passivized direct objects still dominate in this clause type at the end of the century, but passivized indirect objects are more common than they are overall (1898–1901: 13 out of 42 examples (almost one-third), compared to 21% (see Table 3).

Another clause type in which passivized indirect objects are more common than they are overall is clauses with topicalized indirect objects. Examples in the oldest subpart of the SPF corpus are rare (2 out of 8 examples). In the subsequent periods, almost half of the topicalized indirect objects are passivized (17 out of 36 examples).

This leads to the question of *why* the change took place. To a certain extent, clauses with topicalized indirect objects probably played a role: to construe the

fronted object also as the subject is in line with the general pattern in Swedish, where subjects are often fronted. Thus, a topicalized indirect object may be seen not only as a favourable context for reinterpretation, but also a cause of the change.

Another part of the answer is probably to be found in the changed argument preferences we have observed during the 18th century. Often, the growing number of topicalized direct objects and do + io in embedded clauses resulted in word orders that were not optimal for information structure, as in the following examples:

(26) a. Små pillor och bekymmer gifwas mig
small peddling.things and trouble give.PRS.PL.PASS me.OBJ
wäl ibland
certainly sometimes
'Certainly, I sometimes get troubles and small things to peddle at' (Argus, 1732)

b. tå then hedern igenom Felt-marskalken Gr. Dücher
when this honour.DEF through field-marshal.DEF count Dücher
böds mig
offer.PST.SG.PASS me.OBJ
'when I was offered this mark of honour thanks to Field Marshal Count Dücher' (Reuterholm, 1730–1740)

To choose the indirect object as the subject instead will often give a more natural information structure.

Finally, even if coordination is quite uncommon in the collected material (with a total of 13 examples), such examples are still worth mentioning. Recall that a normative grammarian like Wellander found passivized indirect objects "smooth" in coordination (see example (17d) above).

5.3 Changes after 1901

In present-day Swedish the default is to passivize the indirect object, and bimorphemic verbs passivize more easily than monomorphemic ditransitive verbs (Holmberg & Platzack 1995, Lundquist 2004, Haddican & Holmberg 2019). As shown by Lundquist (2004), a direct object is passivized if it is relativized or questioned, or if it is highly topical and the indirect object supplies new infor-

mation (i.e. is rhematic).[32] In addition, a passivized direct object is grammatical when both arguments follow a finite main verb in contexts like (20c–d) above.

Lundquist has also argued that it is impossible to topicalize or relativize an indirect object across a passivized direct object (judgements from Lundquist 2004):

(27) a. *? Den mannen har jobbet erbjudits
that man.DEF have.PRS job.DEF offer.SUP.PASS

b. *? Mannen som jobbet har erbjudits
man.DEF that job.DEF have.PRS offer.SUP.PASS

Holmberg et al. (2019) and Platzack (2006) give formal/structural explanations for this restriction; see also Lundquist (2015).

In other words: the language has changed since 1901, when the default was passivized direct objects, indirect objects could be topicalized across a passivized direct object, and monomorphemic passive verbs were found alongside bimorphemic ones.

I have not investigated how common the corresponding active ditransitive verbs are in the SPF corpus, and can say nothing about different passivization possibilities (cf. Haddican & Holmberg 2019). But as early as in the SPF corpus, the usage patterns of present-day Swedish are actually detectable. Firstly, if we look at the choice of subject in individual tokens of the investigated verbs (see Appendix B–C), we see that monomorphemic verbs are about as common as bimorphemic verbs (283 vs. 297), but also that indirect objects passivize more easily with bimorphemic verbs (23%) than with monomorphemic verbs (12%). At least the latter fact points out the direction of the development. Secondly, as already noticed, the indirect object is hardly ever passivized in clauses with relativized direct objects in the SPF corpus. This corresponds to one of the conditions for passivizing the direct object in Lundquist's investigation (Lundquist 2004). As for the other condition, a highly topical direct object in combination with a rhematic indirect object, we can take this to be a further development of what I have seen as one of the reasons for the change in the grammar in the first place: the preference for topical elements to precede new information. This is possibly also the reason why clauses like (27) are highly marked or even ungrammatical: elements are placed in the first position of the clause, either because they are topical or because they have contrastive focus. Since direct objects are passivized if the indirect object provides new information, it makes sense that indirect objects

[32] This generalization is built on 40 clauses with passivized indirect objects and 40 clauses with passivized direct objects in newspapers from 1965–1998. Four verbs, *erbjuda* 'offer', *tilldela* 'award', *frånta* 'deprive of', and *tillägna* 'dedicate to' were investigated.

are not topicalized across the subject. This would make the restriction pragmatic rather than grammatical. So what about a fronted indirect object with contrastive focus? Fronting is hardly better in a context like the following:

(28) Vad hände egentligen med jobbet du sökte?
what happened actually to job.DEF you.SG seeked
Äsch, den där slöfocken PELLE kommer det erbjudas
ugh the that dullard.DEF Pelle will it offer.INF.PASS
'What about the job you applied for? Ugh, it was offered to that dullard Pelle'

I conclude that the changes from around 1900 until today still await a full account.[33]

6 Summary

The main results from this investigation are that a major grammatical change took place in Swedish in the second part of the 19th century: it became possible to passivize indirect objects. I have proposed an analysis of the grammar before and after this change, based on new case-licensing possibilities of the verb in combination with a preserved property of spec-VP as a position with inherent object case. I have also argued that this change was at least partly due to a previous change in the preferred argument order, a change which in turn was caused by the introduction of an overtly realized nominative in the subject position. Moreover, I have suggested that further developments since 1900 were caused primarily by pragmatic factors, but this requires further investigation.

Acknowledgements

Cecilia Falk was diagnosed with cancer in the spring of 2021 and passed away on July 21, 2021. She will be sorely missed. When she fell ill, she asked us, the editors of this volume, to help her make the final corrections to this chapter, and we have done so. She also wished to thank three anonymous reviewers for their helpful comments. — Ida Larsson and Erik M. Petzell.

[33]The restriction on fronting the indirect object across a passivized direct object possibly follows from a general "immobility effect" – the indirect object must not leave spec-VP, unless attracted from spec-TP.

Abbreviations

EOS	Early Old Swedish
do	direct object
io	indirect object
LOS	Late Old Swedish
OS	Old Swedish
PDS	present-day Swedish
SUP	Supine

Excerpted EMS authors born 1571–1600

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SAOL: Svenska Akademiens ordlista [The Swedish Academy word list], 1st ed. (1874), 7th ed. (1900), 11th ed. (1986). Available here: http://spraakdata.gu.se/saolhist/

Sdw: Söderwall, K.F. 1884—1918. *Ordbok öfver svenska medeltids-språket* [Dictionary of the Swedish medieval language]. Vol. I–III. Lund. Available here: https://spraakbanken.gu.se/resurser/soederwall

SPF: Swedish prose fiction 1800–1900. Available through Korp.

Äldre svenska romaner [Older Swedish novels]. Available through Korp.

Electronic corpora

FTB: Fornsvenska textbanken [The text bank of Old Swedish]: https://project2.sol.lu.se/fornsvenska

Korp: https://spraakbanken.gu.se/korp/?mode=all_hist

LB: The Swedish literature bank: http://www.litteraturbanken.se

Appendix A Investigated ditransitive s-verbs in the SPF-corpus

*: not attested with passivized indirect object in the SPF-corpus

SAOL: passivized indirect object judged as incorrect in SAOL 1 (1874)

(29) *anförtro* ‘entrust to’ SAOL

(30) *av-* ‘off-’ SAOL (*avfordra*)

a. *avfordra* ‘off-demand; demand from’

b. * *avkräva* ‘off-demand; demand from’

c. * *avtaga* ‘off-take; take from’

(31) *beröva* ‘deprive of’

(32) *bespara* ‘spare’

(33) *bevilja* ‘grant’ SAOL

(34) *bibringa* ‘impart to’

(35) *bjuda* ‘offer’

(36) * *delgiva* ‘inform of’ SAOL

(37) *erbjuda* ‘offer’ SAOL

(38) *från-* ‘from-’ SAOL (*fråndöma*, *fråntaga*)

a. *fråndöma* ‘from-judge; deprive of by sentence’

b. *fråntaga* ‘from-take; deprive of’

(39) * *före-* ‘before-’ SAOL (*förelägga*)

a. *förelägga* ‘before-put’; set (a task) to’

b. *föreslå* ‘propose’

c. *förevisa* ‘before-show; show’

(40) * *förlåta* ‘forgive for’

(41) * *förmena* ‘deny’

(42) *förunna* ‘grant’

(43) * *förvägra* ‘refuse’ SAOL

(44) * *förära* ‘present with’ SAOL

(45) *giva* ‘give’

(46) *lova* ‘promise’

(47) *lämna* ‘leave to’

(48) * *meddela* ‘inform of’ SAOL

(49) *neka* ‘deny’

(50) *på-* ‘on-’

a. *påtruga* ‘on-press; press upon’

b. * *påtvinga* ‘on-force; force on’

c. * *pålura* ‘on-dupe; trick into’

(51) * *räcka* ‘hand to’

(52) * *servera* ‘serve with’

(53) *skänka* ‘give’

(54) *till-* (*to-*) SAOL (*tilldela*, *tillfoga*)

a. *tilldela* 'to-share; award'

b. *tillfoga* 'to-add; inflict on'

c. * *tillskicka* 'to-send; send to'

(55) *unna* 'grant'

(56) * *visa* 'show'

(57) * *vägra* 'refuse' SAOL

(58) *å-* 'on-' SAOL (*ådöma*, *ålägga*)

a. *ådöma* 'on-judge; sentence to'

b. *ålägga* 'on-put; impose on'

Appendix B First occurrences with passivized indirect object

Formal properties:

prep: prepositional affix (see footnote 15)

mono: monomorphemic

bi: other bimorphemic

Semantic properties:

from: transfer from somebody

to: transfer to somebody

hindered to: hindered transfer to somebody

		source	formal	semantics
1606	*betala* 'pay, compensate for'	SAOB	bi	to
1633	*anmoda* 'request'	SAOB	bi	to
1647	*av-* ('off-') *avskära* 'separate from' 1669 *avbörda* 'relieve of' 1779 *avkläda* 'strip of'	SAOB	prep	from
1704	*på-* ('on-')		prep	to

		source	formal	semantics
	påkasta ‘throw on’	SAOB		
1732	*bjuda* ‘offer’	SAOB	mono	to
1819	*beröva* ‘deprive of’	SAOB	bi	from
1840	*bespara* ‘spare’	SPF	bi	hindered to
1840	*lova* ‘promise’	SPF	mono	to
1841	*lämna* ‘leave’	SPF	mono	to
1844	*bibringa* ‘impart to’	SPF	bi	to
1850	*från-* ‘from-’		prep	from
	fråntaga ‘deprive of’	SAOB		
1860	*erbjuda* ‘offer’	SPF	bi	to
1860	*giva* ‘give’	SPF	mono	to
1874	*anförtro* ‘entrust to’	SAOL	bi	to
1874	*bevilja* ‘grant’	SAOL	bi	to
1874	*delgiva* ‘inform of’	SAOL	bi	to
1874	*före-* ‘before’		prep	to
	förelägga ‘set (a task) to’	SAOL		
1874	*förvägra* ‘refuse’	SAOL	bi	hindered to
1874	*förära* ‘present with’	SAOL	bi	to
1874	*meddela* ‘inform of’	SAOL	bi	to
1874	*till-* ‘to-’		prep	to
	tilldela ‘award’	SAOL		
1874	*vägra* ‘refuse’	SAOL	mono	hindered to
1874	*å-* ‘on-’	SAOL	prep	to
	ålägga ‘impose on’			
1880	*förunna* ‘grant’	SPF	bi	to
1880	*neka* ‘deny’	SPF	mono	hindered to
1899	*unna* ‘grant’	SPF	mono	to
1900	*räcka* ‘hand to’	SPF	mono	to
1900	*skänka* ‘give’	SPF	mono	to
1978–1979	*förlåta* ‘forgive’	Bonniers	bi	from
1978–1979	*förmena* ‘deny’	Bonniers	bi	hindered to
1978–1979	*servera* ‘serve with’	Bonniers	mono	to
1978–1979	*visa* ‘show’	Bonniers	mono	to

Appendix C Tokens of the 30 investigated verbs in the spf-corpus

	pass.io	pass.do	ambiguous
anförtro 'entrust to'	2	3	1
av- 'off-'	2	6	0
beröva 'deprive of'	23	9	1
bespara 'spare'	4	14	1
bevilja 'grant'	1	13	1
bibringa 'impart to'	7	3	0
bjuda 'offer'	3	37	2
delgiva 'inform of'	0	3	1
erbjuda 'offer'	12	41	0
från- 'from-'	2	10	1
före- 'before-'	0	10	0
förlåta 'forgive for'	0	6	0
förmena 'deny'	0	1	0
förunna 'grant'	3	25	0
förvägra 'refuse'	0	2	2
förära 'present with'	0	3	0
giva 'give'	7	49	2
lova 'promise'	3	4	0
lämna 'leave to'	10	39	3
meddela 'inform of'	0	17	1
neka 'deny'	6	11	0
på- 'on-'	1	3	0
räcka 'hand to'	1	25	0
servera 'serve with'	1	15	1
skänka 'give'	1	26	1
till- 'to-'	7	38	5
unna 'grant'	1	3	1
visa 'show'	0	24	1
vägra 'refuse'	0	5	1
å- 'on-'	5	5	2
Total	102	450	28

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Chapter 3

Lexical variation in the double object construction in 19th and 20th century Swedish

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This article studies changes in the Swedish double object construction (DOC), focusing on fourteen verb-specific constructions (see Croft 2001). The study uses two frequency measures – *lexical variation* and *text frequency*. The former measures the type frequency of nouns in the direct object slot of these verb-specific constructions and can be taken as a rough measure of productivity, while the latter deals with the token frequency of the verb-specific constructions as well as of the verbs in general. Most of the verb-specific constructions undergo a decrease in text frequency, mirroring the general decrease in text frequency of the DOC. Four of them show a decrease in lexical variation, indicating a connection between a decrease in lexical variation and a decrease in text frequency.

Keywords: double object construction, ditransitives, Late Modern Swedish, present-day Swedish, language change, construction grammar, productivity, corpus-based

1 Introduction

There are several ways in which a syntactic construction can undergo change. By simply looking at the frequency of a certain construction in a diachronic corpus, we can determine, for example, whether the construction has become more frequent or more infrequent over a certain period of time. Such changes in so-called *text frequency* may or may not be accompanied by changes in the type frequency of the construction, i.e. changes in the range of lexical items that occur in the construction. Changes in type frequency often correlate with changes

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in the semantic range of a construction, thus affecting the contexts in which the construction is used. These frequency-related changes are often referred to as *constructional changes* within the framework of construction grammar (see Hilpert 2013).

The stage in Swedish known as Late Modern Swedish (1732–) is often referred to as a period in which no significant syntactic changes have occurred. Seen in the light of the quite dramatic changes that occurred during the centuries preceding the Late Modern Swedish period, such as the collapse of the case system and the loss of personal endings on verbs (see Delsing 2014; Mørck 2005: 1130–1132; Larsson 2005: 1276), this might seem a valid judgement. However, even if no revolutionary paradigmatic changes occurred in this latest stage of Swedish, the constructional changes that happened during this period constitute a rather understudied subject.

Another tendency often observed in diachronic studies on Late Modern Swedish concerns stylistic changes within different written genres. These changes can perhaps be seen most clearly in prose fiction, where the language since the early 19th century has become more paratactic, with shorter sentences, and generally becoming more similar to the spoken language in terms of both syntax and lexicon (see Johannisson 1971; Thelander 2011: 129–130).

In the present study, I address a grammatical phenomenon in Late Modern Swedish that may be seen as an instance of constructional change as well as of stylistic change. I focus on the use of the most common verbs occurring in the Swedish double object construction during the years 1800–1999. Developments in corresponding double object constructions have been investigated with regards to later stages of languages similar to Swedish, most notably English (Colleman & De Clerck 2008, 2011, 2008) and Dutch (Colleman 2011), but so far, we do not know much about the developments in the use of the Swedish double object construction. As shown in this paper, the Swedish double object construction has decreased in text frequency and lexical variation, suggesting a decrease in the productivity of the construction. This decreasing productivity makes the double object construction a particularly interesting case in point when it comes to unravelling changes occurring at different levels of the constructional network (see §3.1 below), as the process of reduced productivity of an argument structure construction is an understudied phenomenon in comparison with studies on argument structure constructions increasing in productivity.

The examples in (1–7) illustrate how the double object construction is used in present-day Swedish.[1]

[1]In all examples presented in this paper, the relevant part of the example is given in italics, and the ditransitive verb is in boldface.

(1) Hon ***gav*** *mig brevet.*
she gave me letter:DEF
'She gave me the letter.' (1976–1999)

(2) Hon ***räckte*** *honom brödfatet.*
she handed him bread_plate:DEF
'She handed him the bread plate.' (1976–1999)

(3) så jag tyckte jag skulle ***skicka*** *er brevet.*
so I thought I should send you letter:DEF
'so I thought I should send you the letter.' (1976–1999)

(4) Resterna av en ofruktbar och meningslös religion,
remains.DEF of a fruitless and pointless religion
som redan hade ***vållat*** *honom idel elände*
which already had caused him nothing_but misery
'The remains of a fruitless and pointless religion, which had already caused him nothing but misery' (1976–1999)

(5) Vore det kanske en triumf, tänkte hon bittert,
Were it perhaps a triumph pondered she bitterly
om jag i stället kunde ***beröva*** *honom hans glädje*?
if I in stead could deprive him his happiness
'Would it perhaps be a triumph, she pondered bitterly, if instead I could deprive him of his happiness?' (1976–1999)

(6) Mats planerar att ***bygga*** *dem en ny villa*
Mats plans to build them a new house
'Mats is planning to build them a new house' (1976–1999)

(7) en familj härborta ska ***visa*** *oss sin nya lägenhet*
a family over_here will show us their new apartment
'a family over here is going to show us their new apartment' (1976–1999)

Throughout this paper, I will refer to the construction under investigation as the *double object construction*, often shortened to *DOC*. The verbs which allow this construction are referred to as *ditransitive verbs*. As explained more elaborately in §3.1, I refer to the use of a specific verb in the DOC as a *verb-specific construction* or a *verb-specific DOC*. The study employs three main ways of quantitatively measuring various aspects of the DOC. These are more thoroughly dealt with in the theory and method subsections in §3, but I will briefly mention them here as well for the sake of clarity. The main method in the study is what I refer

to simply as *lexical variation*. This is a measure reminiscent of the type-to-token ratio, but which is calculated from random samples of a certain number of tokens. I then use the term *text frequency* for the number of times a given construction occurs in a corpus, normalized to the number of occurrences found in 1,000,000 corpus tokens. Finally, *verb frequency relative to the construction as a whole* is used to signify the relative frequency of a ditransitive verb in the DOC out of all occurrences of the construction. This measure does not take corpus size into account, but is only measured relative to the construction.

The article is structured as follows. §2 reports on previous research on the Swedish double object construction, as well as on corresponding constructions in related languages. In §3, I introduce the methodology employed in the study, as well as the theoretical framework of the study (construction grammar). §4 introduces the corpus data, as well as the method of data retrieval. §5, which contains the main bulk of the article, presents the results of the study, and the article concludes with a summary and conclusions in §6.

2 Background

Over the last few decades, a quite substantial amount of research has been devoted to the use of double object constructions in the modern Germanic languages. The most extensively studied double object construction is the one in English, with Green (1974), Wierzbicka (1988), and Pinker (1989) constituting some of the seminal works on the semantics of the construction, and Goldberg (1995) bringing the construction into the heart of the theoretical enterprise of construction grammar. In more recent times, more attention has been paid to diachronic changes in the use of double object constructions in Germanic languages. Barðdal (2007) focuses on the semantic range of the double object construction in Icelandic but also extends her scope to the earliest stages of the Germanic languages as a whole, while Barðdal et al. (2011) are also concerned with the situation in archaic Swedish and Norwegian dialects. In addition to Icelandic, the most thoroughly studied languages, when it comes to the diachronic developments of the double object construction, are English (Colleman & De Clerck 2008, 2011, 2008; Zehentner 2018) and Dutch (Colleman 2011).

The most basic or prototypical meaning usually attributed to the double object construction is successful transfer from the subject referent to the referent of the indirect object (see for example Goldberg 1995: 33, 141). Further semantic specifications state that the referent of the indirect object should typically be animate and also constitute a "willing recipient" (see Goldberg 1995: 141). In present-day

English, as well as in present-day Dutch, the DOC can also be used with verbs expressing future transfer (e.g. *promise*), absence of transfer (e.g. *deny*), reverse transfer (albeit only with a couple of verbs, e.g. *cost*), communication (e.g. *tell*), and creation (e.g. *bake*). All these semantic categories can be seen as derived from the central sense of successful transfer to the referent of the indirect object (see Goldberg 1995: 38 for English; Geeraerts 1998 for Dutch).

The changes reported in the semantic range of the double object construction in English and Dutch, as reported in Colleman & De Clerck (2011) and Colleman (2011), are remarkably similar. In both languages, the use of so-called pure benefactives, of the kind *open someone the door*, i.e. where no actual transfer is involved, has decreased dramatically (in the case of Dutch) or disappeared completely (in the case of English). English has also seen the loss of verbs of manner of communication (e.g. *whisper*) as well as verbs of banishment (e.g. *banish someone the house*). As for communication verbs, a similar tendency can be discerned in Dutch, where the entire semantic category of communication has become less frequent compared to other semantic categories.

Recent research on the DOC in Late Modern and present-day Swedish indicates that the Swedish DOC has undergone changes reminiscent of those affecting the DOC in English and Dutch. Valdeson (submitted) shows that verbs of pure benefaction (e.g. *reda ngn ngt* 'unravel something for someone') and malefaction (e.g. *spärra ngn vägen* 'block the way for someone') occur marginally in 19th century Swedish, while the category is totally obsolete in present-day Swedish. Over the period 1800–2000, there were also several changes affecting the frequency of different semantic categories relative to each other. We find, for example, that the use of verbs of communication decreased significantly within the scope of the construction as a whole, with certain verbs of communication, like *beskriva* 'describe' and *skildra* 'depict', becoming completely obsolete in the DOC in present-day Swedish (Valdeson submitted). These changes are of the same nature as the tendencies identified for Dutch by Colleman (2011).

Another rather conspicuous change in the use of the DOC in 19th and 20th century Swedish observed by Valdeson (submitted) is the dramatic drop in text frequency, from 840 occurrences per one million tokens in the first half of the 19th century to 445 occurrences per one million tokens in present-day Swedish (see Table 1).

The next section introduces the methodology employed in the present study and also gives a brief introduction to construction grammar, focusing on the concept of argument structure constructions and on how the notion of productivity is viewed within the framework.

Table 1: Occurrences of the DOC per million tokens (Valdeson submitted)

Period	Frequency
P1 (1800–1844)	840
P2 (1898–1901)	691
P3 (1976–1999)	445

3 Method and theoretical assumptions

The aim of the present study is to explore and increase our knowledge of the DOC in 19th and 20th century Swedish, focusing on the construction as a whole as well as on fourteen verb-specific constructions (see below). This includes gaining a deeper understanding of the productivity of fourteen verbs within the DOC (referred to as *verb-specific constructions*; see §3.2).

Methodologically, the study offers a novel approach to the Swedish DOC, as well as to the study of double object constructions in general. I use various frequency measures and apply them to the DOC as a whole, as well as to fourteen verb-specific constructions. The fourteen verbs investigated are those that appear in the top ten list of ditransitive verbs in at least one of the three time periods studied (see Table 6, §5.1). The main focus is on the text frequency and lexical variation of the constructions, and the study seeks to find out whether there is any correlation between changes in the two measures, e.g., if a decrease in text frequency also entails a decrease in lexical variation, and vice versa.

3.1 Argument structure constructions in construction grammar

In terms of a theoretical framework, the present study is rooted within diachronic construction grammar (Barðdal & Gildea 2015). One of the main principles in construction grammar is that syntactic constructions are considered mappings of form and meaning. In accordance with this principle, there is no difference in kind between syntactic constructions and lexical items; they are simply positioned at different ends of the so-called syntax–lexicon continuum (see Croft & Cruse 2004: 264). This assumption has implications for the choice of methodology in the present study, since it allows for constructions and constructional change to be studied in the same way and on the same terms as individual words.

In recent years, constructional change has become increasingly well studied (see, in particular, Traugott & Trousdale 2013). It covers various changes in the

use of a construction, such as the widening or narrowing of its scope or changes in frequency. In the present study, I am mainly concerned with changes in frequency. The most central notions in the study are text frequency and type frequency. Text frequency simply refers to how many times a certain construction occurs in a corpus (see Hilpert 2013), while type frequency is a measure of the number of individual types that are found in a certain slot in the construction. In the study of argument structure constructions, type frequency is most often stated as the number of individual verbs that occur in the construction. §3.3 provides a more detailed account of the method employed in the study.

Another important feature of construction grammar is the way in which constructions are ordered in networks. The so-called constructicon is seen as a system of taxonomic networks, with more schematic (i.e., lexically open) constructions at the top and more lexically filled constructions towards the bottom. In the minds of speakers, information about a construction is thought to be stored at several levels of the taxonomic network, which means that information is often stored redundantly. Figure 1 (taken from Croft & Cruse 2004: 264) illustrates this hierarchy of constructions.

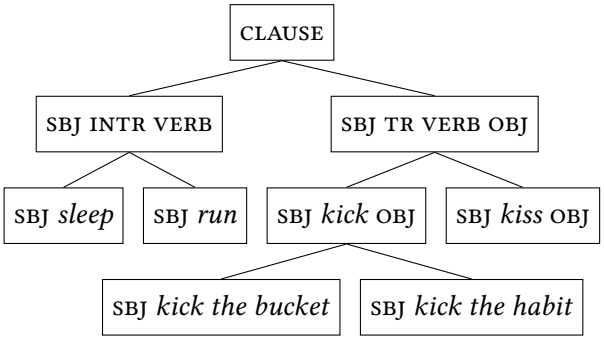

Figure 1: Taxonomic network of constructions (based on Croft & Cruse 2004: 264)

Figure 1 illustrates the intransitive and transitive constructions in English, with the schematic argument structure constructions on the second-highest level, below the clause level. The level below the argument structure construction constitutes the same construction but with the verb slot filled. Knowledge about the use of a certain verb in a certain construction may be stored both at the schematic level and at the verb-specific level. Croft (2001: 25) refers to the constructions in which the verb slot is filled as *verb-specific constructions*. This notion of verb-specific constructions is highly relevant for the present study, as my object of study is the fourteen most common such verb-specific constructions that

instantiate the more schematic double object construction. Taking the network illustrated in Figure 1 as a starting point, the idea is that when the verb *kick* is used in the transitive construction, it inherits properties from the general, superordinate transitive construction. However, the verb-specific transitive construction with *kick* may at the same time contain idiosyncratic properties not inherited from the general transitive construction. This becomes even clearer when we look at an expression like *kick the bucket*, which is linked to the verb-specific transitive construction with *kick*, but at the same time carries the idiosyncratic non-compositional meaning 'die'. While sharing properties with the superordinate level in the taxonomic hierarchy, any idiosyncratic information stored at a lower level in the network overrides the more general information stored at a higher level (see Kemmer & Barlow 2000: ix–x).

3.2 Productivity

As will become clear, the results of the present study can readily be discussed in terms of constructional productivity. The notion of productivity refers to the ability of a construction to attract new types and is usually considered to be correlated with type frequency in one way or another. At its most basic level, productivity can be seen as directly correlated with the type frequency of the construction (see e.g. Bybee 2010). Applying this definition to an argument structure like the double object construction implies that the productivity of the construction can be estimated from the number of individual verbs occurring in the construction within a corpus.

In this study, I take the measure of lexical variation (i.e. a type frequency measure relative to the number of tokens) as an indication of productivity. Since I focus mainly on the lexical variation of direct objects in verb-specific constructions, the present study makes it possible to compare the productivity of these verb-specific constructions over time, as well as between the constructions themselves.

In the model of productivity presented by Barðdal (2008) and Barðdal & Gildea (2015), productivity is regarded as a combination of the type frequency and the semantic coherence of the construction. According to this model, a productive construction is usually characterized by either a large type frequency and a low degree of semantic coherence, or by a smaller type frequency and a larger degree of semantic coherence. The present study does not offer a fully-fledged analysis of the semantics of the verb-specific constructions involved. Nonetheless, the topic is repeatedly made relevant in the presentation of the results, as several of

the verb-specific constructions show a pattern in which a change in the direction of reduced lexical variation is cotemporal with a shift towards the semantic specialization of the direct object slot, with this slot becoming increasingly associated solely with abstract direct objects.

The next section gives an account of the quantitative method employed in the study.

3.3 Method

As already mentioned, one of the aims of the present study is to gain a better understanding of the productivity of some of the verb-specific constructions within the DOC. As stated in §3.2 above, the productivity of argument structure constructions is usually considered to be indicated, in one way or another, by the type frequency of the verb slot. If we move one step down in the taxonomic construction hierarchy, the productivity of verb-specific constructions can then, accordingly, be calculated by measuring the type frequency of the direct object slot.

While measuring the type frequency of a construction simply in absolute terms will render an accurate account of the actual type frequency of a specific corpus, it does not allow for comparison across corpora and is thus not a fully appropriate measure if we want to investigate diachronic change. A more reasonable way of measuring type frequency is to do it by means of the type-to-token ratio. Traditionally, this method works at the text level by measuring the quotient of individual types divided by the total number of tokens in the text. This method of measurement has often been employed in language acquisition studies, where a high type-to-token ratio is seen as indicative of a more highly developed language (see e.g. the overview in Richards 1987). It can be applied, however, to all tokens of a particular construction, rather than to all tokens in an entire text. The type-to-token ratio of a construction is then measured as the quotient of the number of individual types divided by the total number of instances of the construction (see e.g. Olofsson 2019).

While superior to measures of absolute frequency, the type-to-token ratio is still marred by a certain inaccuracy when applied to texts or corpora of greatly varying size. Since the number of new individual types decreases the longer the text or corpus is, the type-to-token ratio will normally be lower for a longer text than for a shorter one. This flaw can be counterbalanced by extracting samples of similar size from the texts measured (see e.g. Baayen 2008: 223–226; Covington & McFall 2010).

The method employed in the present study is an adaptation of the type-to-token ratio that works on samples of equal size from all corpora. This procedure is often referred to as standardized type-to-token ratio (see McEnery & Hardie 2012: 50), but in the present paper I will refer to this measure simply as *lexical variation*. For the DOC as a whole, the lexical variation (i.e. the variation in the verb slot) was measured by extracting ten random samples of 1,000 tokens from each of the three time periods that the diachronic study encompasses. The samples were created using the RAND function in Excel. For each of these samples, I counted the number of individual verb lemmas. The actual lexical variation is then taken to be the mean value of these ten samples. A similar procedure was undertaken for each of the fourteen verb-specific constructions studied, where the lexical variation of the direct object slot is in focus. For the verb-specific constructions, the samples varied in size between 20 and 100, depending on the lowest number of occurrences of the verb in question found in one of the corpora. Thus, for example, if a verb occurs 25 times in the first period, 40 times in the second and 150 times in the third period, ten random samples of 20 occurrences are drawn from each period. In each sample, the individual number of noun lemmas in the direct object slot was counted. Pronominal direct objects were not included in the study.

In order to obtain a comparable measure of lexical variation across the verb-specific constructions, it is given as a percentage, with 100% entailing the maximum level of lexical variation with each token consisting of an individual type. The sample size varies according to the number of occurrences of the verb in question in the subcorpora but is always set to a round number (20, 30, 40, 50, etc.). For each verb, the largest sample possible was used. A problem with this procedure is that the sample size differs between verbs, making it difficult to conduct a fully-fledged comparison between the different verb-specific constructions. More importantly, however, the method applied in the present study makes it possible to study the diachronic changes in lexical variation for each verb-specific construction individually across the three time periods. Subsequently, it is possible to compare the tendencies found with each verb-specific construction, i.e. whether the lexical variation increases, decreases, or remains relatively stable.

The other two frequency measures in the study are, perhaps, somewhat more straightforward. As mentioned in the introduction (§1), I apply the term *text frequency* to the normalized measure of occurrences per one million tokens. A similar frequency measure is employed by Colleman (2015) in a study of the Dutch *krijgen* passive construction. Finally, I also look at the frequency of the most

common verbs in the DOC relative to the total number of instances of the construction. For lack of a better term, I refer to this as *verb frequency relative to construction*.

4 Data

The present study is based on corpus data from various corpora from 1800 to 1999. All corpora consist mainly of prose fiction, making them comparable over time. The 19th century data are taken from the SPF corpus of Swedish prose fiction 1800–1900 (available in Korp, Borin et al. 2012), from which I extracted data from two timespans: 1800–1844 and 1898–1901.[2] The SPF corpus contains Swedish prose fiction data from the years 1800, 1820 etc. with continuing twenty-year intervals (including data from a few novels published in the years before or after the year in question). As the amount of data from the years 1800 and 1820 is highly limited, the data from the early 19th century cover a larger timespan than the data from the turn of the 20th century. The present-day Swedish data were gathered from three different corpora: *Bonniersromaner I* (1976–1977), *Bonniersromaner II* (1980–1981) and *Norstedtsromaner* (1999). All the corpora were searched using the corpus infrastructure Korp (Borin et al. 2012). Information about the corpora is summarized in Table 2.

Table 2: The corpora

Corpus	Timespan	No. tokens
Svensk prosafiktion ('Swedish prose fiction')	1800–1844	2 203 451
Svensk prosafiktion ('Swedish prose fiction')	1898–1901	9 837 169
Bonniersromaner I ('Bonnier novels I')	1976–1977	6 578 450
Bonniersromaner II ('Bonnier novels II')	1980–1981	4 304 271
Norstedtsromaner ('Norstedts novels')	1999	2 533 209
Total	1800–1999	25 456 350

In order to obtain a representative and sufficiently large amount of data, I searched the corpora using a search string designed to capture as many relevant results of the DOC as possible. For this, I employed the automatic part-of-speech tagger in Korp. This tagger is trained on present-day Swedish data, but studies

[2] https://spraakbanken.gu.se/korp

within computer linguistics have shown that it works with an accuracy of almost 90% even as far back as 18th century Swedish (see Adesam et al. 2016: 76). Considering this, there is no reason to doubt that the part-of-speech tagger is an efficient tool also for the 19th century corpora. The search string (which is illustrated in Table 3) was designed to capture all occurrences in the corpora of a verb followed by any personal pronoun in the object case, followed by three random words that are neither verbs nor prepositions, and with a noun as its final element.

The search method restricts the data to instances of the DOC with a pronominal indirect object and a full NP direct object. Limiting the search string to pronominal indirect objects leads to higher precision, i.e. the search does not generate too much noise. While at the same time this comes at the expense of lower recall, i.e. the search method limits the amount of data I can acquire, the method acknowledges the often reported fact from studies on the English double object construction that the prototypical indirect object is likely to be pronominal and to have an animate referent (see Bresnan et al. 2007; see also Colleman & De Clerck 2011 for the use of a similar method in a diachronic study of the English double object construction). This generalization most likely holds for Swedish as well (see Teleman et al. 1999/3: 315, who confirm that the indirect object in the Swedish DOC most often has an animate referent). Collecting instances of the DOC with direct objects consisting of full noun phrases only is also a prerequisite for the method employed in the study, since the verb-specific constructions are studied with regard to the lexical variation in the direct object slot. I excluded all instances of reflexive indirect objects, e.g. *köpa sig ngt* 'buy something for oneself'. Reflexive indirect objects are extremely common in the Swedish DOC, especially with verbs of creation (see Teleman et al. 1999/3: 317), and might be considered a construction in their own right, being subject to their own semantic and pragmatic constraints (cf. the treatment by Barðdal et al. 2011 of a similar construction in Norwegian). The three random words between the pronoun in the object case and the full noun allows space for attributes and articles preceding the head of the noun phrase that constitutes the direct object. Finally, the data set was manually checked, and all irrelevant hits were excluded.

I divided the data into three periods – early 19th century Swedish (P1), turn-of-the-century Swedish (P2) and present-day Swedish (P3). The periodization is illustrated in Table 4, which also gives information on the number of instances of the DOC retrieved for each period.

Table 3: Search string

Part of speech	Word	Word	Part of speech
Verb	*mig* 'me' *dig* 'you' (OBJ.SG) *henne* 'her' *honom* 'him' *oss* 'us' *er* 'you' (OBJ.PL) *eder* 'you' (OBJ.PL) *dem* 'them'	<any word except prepositions and verbs> <repeated 0–3 times>	Noun

Table 4: The data

Period	Corpus size	DOC instances
P1 (1800–1844)	2 203 451	1 850
P2 (1898–1901)	9 837 169	6 798
P3 (1976–1999)	13 415 930	5 871
Total	25 456 350	14 519

5 Results

In this section I present the results of the study. §5.1 gives an overview of the DOC as a whole, while §5.2 zooms in on the verb-specific tendencies. The verb-specific constructions are then treated in detail in §5.3, where the individual verbs are discussed one by one.

5.1 General overview of the double object construction

As Table 5 illustrates, the lexical variation in the verb slot in the Swedish DOC has been gradually decreasing over the last 200 years, with the lexical variation dropping around three percentage points between each measuring point, from 13.2% in P1 to 7.7% in P3. In plain language, this means that out of 1,000 random occurrences of the DOC in early 19th century prose fiction Swedish, 132 individual verb types can be found. A similar sample of 1,000 tokens in present-day Swedish prose fiction renders only 77 individual verb types. This indicates that

the DOC has become more specified in present-day Swedish, as the construction seems to be compatible with a more limited number of verbs. This narrowing of the lexical variation is paralleled by both a decrease in the text frequency of the DOC and a semantic specialization over time, as shown in Valdeson (submitted).

Table 5: Lexical variation of verbs in the DOC

Period	Types per 1,000 tokens	Lexical variation
1800–1844	132	13.2%
1898–1901	108	10.8%
1976–1999	77	7.7%

One aspect that clearly correlates with the decreased lexical variation of the DOC is the rise in relative frequency of the verb *ge* 'give' within the construction. This verb constitutes around 20% of all occurrences of the DOC in P1. In P3, the share has increased to almost 60%. This means that more than half of the occurrences of the DOC in present-day Swedish are instances of the verb *ge*. With one single verb being so dominant, it is of course more difficult to achieve a high lexical variation. Table 6 gives an overview of the ten most common verbs in the DOC in each of the three periods. The verbs appearing on the list in all three periods are printed in boldface in the table. These fourteen verbs were selected as the object of study for the investigation of lexical variation in the direct object slot of verb-specific constructions. Since the measure of lexical variation introduced in this paper concerns the lexical variation in the direct object slot, it is of importance that the verb-specific constructions studied are frequent enough across all three subcorpora for any quantitative changes to be discerned.

The verbs in the table pertain to a number of different semantic categories, including transfer (*ge* 'give', *räcka* 'hand'), communication (*säga* 'say, tell', *visa* 'show'), and dispossession (*beröva* 'deprive', *kosta* 'cost'). I make no principled distinction between verbs for which the presence of an indirect object might be argued to be due to the valency of the verb, like *ge* 'give' and *kosta* 'cost', and verbs construed with what is often referred to as a free dative (or free indirect object), like *göra* 'make, do' (e.g. *göra ngn ett par stövlar* 'make sb. a pair of boots') and *skaffa* 'obtain' (e.g. *skaffa ngn ett hus* 'obtain a house for sb.'). This is in line with studies on argument structure constructions from a construction grammar perspective, where the focus tends to be on the syntactic and semantic nature of the construction rather than the valency of the verb (see Goldberg 1995). Furthermore, the fact that a verb occurs frequently in the DOC indicates

Table 6: Top ten verbs in each period

(a) P1 (1800–1844)

Verb	Abs.	Rel.
ge ‘give’	369	19.9%
göra ‘make, do’	188	10.2%
visa ‘show’	109	5.9%
lämna ‘hand’	106	5.7%
räcka ‘hand’	75	4.1%
skänka ‘give’	73	3.9%
säga ‘say, tell’	65	3.5%
skaffa ‘obtain’	46	2.5%
kosta ‘cost’	33	1.8%
skicka ‘send’	29	1.6%
(…)	(…)	(…)
Total	1,850	100.0%

(b) P2 (1898–1901)

Verb	Abs.	Rel.
ge ‘give’	1 852	27.2%
göra ‘make, do’	505	7.4%
räcka ‘hand’	343	5.0%
visa ‘show’	336	4.9%
lämna ‘hand’	290	4.3%
säga ‘say, tell’	255	3.8%
skänka ‘give’	247	3.6%
skaffa ‘obtain’	195	2.9%
bereda ‘cause’	194	2.9%
beröva ‘deprive’	118	1.7%
(…)	(…)	(…)
Total	6 798	100.0%

(c) P3 (1976–1999)

Verb	Abs.	Rel.
ge ‘give’	3 390	57.7%
visa ‘show’	346	5.9%
räcka ‘hand’	252	4.3%
göra ‘make, do’	181	3.1%
erbjuda ‘offer’	115	2.0%
skänka ‘give’	103	1.8%
inge ‘infuse’	86	1.5%
skaffa ‘obtain’	86	1.5%
säga ‘say, tell’	79	1.3%
skicka ‘send’	69	1.2%
(…)	(…)	(…)
Total	5 871	100.0%

that the presence of an indirect object is more likely to be a part of the lexical behaviour of the verb. For example, Nielsen (2019: 150–151) discusses the fact that the Danish verb *skaffe* 'obtain', which is usually not claimed to occur with a valency-governed indirect object, has properties that make it similar to verbs that are lexically ditransitive.

5.2 Overview of verb-specific tendencies

The use of the fourteen verb-specific constructions was investigated in three different ways: relative frequency (out of all instances of the DOC), text frequency, and lexical variation. The relative frequency is shown in Table 6 in the preceding section. Table 7 below presents the diachronic developments in text frequency for each of the fourteen verb-specific constructions. The table shows how many times the verb-specific DOC in question occurs per one million corpus tokens. The figures are thus not relative to the total number of instances of the DOC. It is worth noting, however, that, as shown in Table 1 (in §2), the text frequency of the construction as a whole is reduced by almost half, from 840 occurrences per one million tokens in P1 to 445 occurrences per one million tokens in P3. Considering this general tendency, the expected outcome for each verb-specific construction would be a similar decrease in text frequency. Any development in any other direction, or of another magnitude, thus indicates that the use of the verb-specific construction is changing in its own direction.

Table 7 shows the number of occurrences per one million corpus tokens of the fourteen verb-specific constructions (i.e. the number of occurrences of the verb used in the DOC). The figures in Table 7 clearly indicate that most verb-specific constructions are on the decrease. Some, like *kosta* 'cost' and *visa* 'show', are decreasing in use at roughly the same pace as the DOC in general, while others, like *göra* 'make, do' and *lämna* 'hand', manifest more dramatic drops. The only verb-specific construction that increases in use is the DOC with *ge* 'give', which has a text frequency going up from 168 to 253 occurrences per one million words. A conclusion that can be drawn from this is that the increase in relative frequency of *ge* that was revealed in the previous section is not just due to the other verbs becoming less common, but also to the fact that the use of *ge* has increased immensely, in stark contrast to the DOC as a whole.

Finally, Table 8 shows the lexical variation in the direct object slot for the fourteen verb-specific constructions, i.e., a standardized type-token ratio rendered as a percentage figure, where 100% means that all occurrences of the verb-specific construction in question have different nouns as their direct object. What counts as the direct object here is the lemma form of the noun constituting the head of

Table 7: Occurrences of the verb-specific DOCs per million corpus tokens

Verb	P1 (1800–1844)	P2 (1898–1901)	P3 (1976–1999)
bereda 'cause'	12.7	19.7	2.8
beröva 'deprive'	12.3	12.0	2.0
erbjuda 'offer'	9.5	6.1	8.6
ge 'give'	167.5	188.3	252.7
göra 'make, do'	85.3	51.3	13.5
inge 'infuse'	10.9	8.5	6.4
kosta 'cost'	15.0	11.7	5.1
lämna 'hand'	48.1	29.5	3.1
räcka 'hand'	34.0	34.9	18.8
skaffa 'obtain'	20.9	19.9	6.4
skicka 'send'	13.2	6.0	5.1
skänka 'give'	33.1	25.1	7.7
säga 'say, tell'	29.5	25.9	5.9
visa 'show'	49.5	34.2	25.8

the noun phrase that forms the direct object. To explain how the figures in Table 8 were arrived at, we can use the verb *bereda* as an example. Ten random samples of 20 occurrences each were created for the verb in each of the three periods. The mean value of the individual number of noun lemmas in the direct object slot was then divided by 20 (i.e., the sample size), which provided the percentage figures presented in Table 8. §5.3 below presents a more detailed account of each verb-specific construction.

The figures presented in Table 8 indicate that there is a general tendency towards a lower rather than higher lexical variation in the direct object slot of the verb-specific constructions, with the most dramatic drops seen with the verbs *bereda* 'cause', *beröva* 'deprive', *göra* 'make, do' and *lämna* 'hand'. However, most verbs show a relatively stable lexical variation, with two verbs even undergoing an increase in lexical variation (somewhat surprisingly) – *räcka* 'hand' and *visa* 'show'.

In the next section, I will go through the fourteen verbs one by one and give a more detailed account of the tendencies already observed in the current section.

Table 8: Lexical variation of direct objects in the verb-specific DOCs

Verb	P1 (1800–1844)	P2 (1898–1901)	P3 (1976–1999)
bereda 'cause'	84.5%	68.0%	54.5%
beröva 'deprive'	89.0%	83.5%	94.5%
erbjuda 'offer'	95.5%	85.5%	94.5%
ge 'give'	77.4%	77.0%	83.0%
göra 'make, do'	41.7%	33.0%	16.2%
inge 'infuse'	71.0%	61.5%	76.5%
kosta 'cost'	67.0%	58.7%	72.3%
lämna 'hand'	88.0%	67.5%	69.5%
räcka 'hand'	22.4%	38.2%	70.6%
skaffa 'obtain'	94.0%	89.8%	85.0%
skicka 'send'	94.0%	94.0%	89.5%
skänka 'give'	81.0%	77.2%	89.2%
säga 'say, tell'	53.6%	35.8%	14.6%
visa 'show'	64.8%	62.7%	79.5%

5.3 Lexical variation of direct objects in fourteen verb-specific constructions

The fourteen verbs investigated in the study can conveniently be divided into three groups based on whether they show a type-token ratio for direct objects that is decreasing (these verbs are dealt with in §5.3.1), increasing (§5.3.2), or relatively stable (§5.3.3). For the sake of convenience, a decrease or increase in type-token ratio has been arbitrarily defined as a change of at least ten percentage points between P1 and P3.[3] The highly frequent verb *ge* 'give' undergoes a development that evidently deviates from all other verbs in the DOC. For this reason, *ge* 'give' is dealt with separately in §5.3.4.

[3] A reviewer remarks that it is somewhat problematic that the three periods P1–P3 are of unequal length. The data were collected with the intention of retrieving data from the early 19th century, the turn of the 20th century, and the late 20th century. As mentioned in §4 above, the first period covers a larger time span than the other periods due to the fact that there is not much available data from the 19th century prior to 1840. Similarly, due to the fact that the DOC is relatively infrequent in present-day Swedish, I considered it preferable to collect as much data as possible from the end of the 20th century, in order to conduct the kind of quantitative analyses presented in this paper.

5.3.1 Verb-specific constructions undergoing a decrease in lexical variation in the direct object slot

Four verb-specific constructions in my study display a decrease of ten percentage points or more in their lexical variation. These verbs are *bereda* 'cause', *göra* 'make, do', *lämna* 'hand', and *säga* 'say, tell'. For all four, this decrease is accompanied by a reduced use of the verb in the DOC overall.

5.3.1.1 *bereda* 'cause'

The verb *bereda* (which is translated here as 'cause', but which can also be used for meanings such as 'prepare' and, simply, 'give') constitutes one of the least frequent verb-specific constructions in the study. As Table 9 shows, the verb is not just infrequent when used in the DOC, but is a rather infrequent verb overall. It displays a rather dramatic drop in lexical variation, decreasing from 85% in P1 to 55% in P3. This indicates that it was used with a much wider range of direct objects in the early 19th century than is the case in present-day Swedish. As expected, the decreased variation in direct objects with *bereda* is accompanied by a general decrease in text frequency of the verb-specific construction from P1 to P3. However, while the decrease in lexical variation appears to constitute a gradual change from the early 19th century onwards, the drop in text frequency does not occur until the 20th century. In fact, the verb-specific construction sees a rather sharp increase in text frequency between P1 and P2. These apparently conflicting tendencies indicate that there does not necessarily have to be a one-to-one correspondence between decreased lexical variation and a decrease in text frequency.

Table 9: Frequency measures of the verb-specific DOC with *bereda* 'cause'

Period	Freq. rel. to DOC		Occ./mil. tokens		Lexical variation	
			In general	In DOC		
P1 (1800–1844)	28/1 850	1.5%	96.2	12.7	16.9/20	84.5%
P2 (1898–1901)	194/6 798	2.9%	111.3	19.7	13.6/20	68.0%
P3 (1976–1999)	37/5 871	0.6%	18.6	2.8	10.9/20	54.5%

Interestingly, the changes in text frequency of the verb-specific DOC with *bereda* are paralleled by the changes in text frequency of the verb in general. This

might at first glance seem unsurprising, but as the survey of verbs below reveals, there is not necessarily any apparent correlation between the observed changes in text frequency for the verb in the DOC and the verb in general. The fact that such a correlation is found with the verb *bereda* indicates that the decreased use of the verb-specific DOC is the result of the verb generally losing popularity. Furthermore, the decrease in lexical variation reveals a more stereotypical use of the verb in present-day Swedish compared to the early 19th century. In practice, this more restricted use of the verb in the DOC is manifested by a predominance in present-day Swedish for the use of *bereda* mainly with direct objects with abstract referents (usually denoting feelings and the like). In the 19th century data, the verb also frequently occurs with concrete direct objects, something that is rarely seen in present-day Swedish. (Note that this change could be analysed as a process of semantic narrowing of the verb as such, in which the verb loses the ability to denote events of physical preparation while still retaining the notion of abstract causation.) The example in (8) below shows a 19th century occurrence of *bereda* with a concrete direct object, while (9) illustrates the modern usage, limited to mainly abstract direct objects, the most prominent ones being *nöje* and *glädje*, both carrying the meaning 'joy'.[4]

(8) Hindiah lät framsatta silfwerpannan och tända eld, för att ***bereda*** *oss*
Hindiah let put_forth silver_kettle:DEF and light fire for to prepare us
den aromatiska kaffedryck, som endast rätt kan tillagas och
that aromatic coffee_drink which only rightly can be_made and
njutas i sitt hemland, Indien.
be_relished in its homeland India
'Hindiah had the silver kettle put forth and a fire lit, in order to prepare us that aromatic coffee drink, which can only be rightly made and relished in its homeland, India' (1800–1844)

(9) Och det skulle ***bereda*** *mig det största nöje*!
and that would cause me the greatest pleasure
'And that would bring me the greatest pleasure!' (1976–1999)

[4]The noun phrases constituting the direct objects were not consistently tagged as concrete or abstract, i.e. these notions were not operationalized in any specific way. Consequently, the report on the use of the verb *bereda* with concrete or abstract direct objects is based on the author's impressionistic observations.

5.3.1.2 *göra* 'make, do'

The verb *göra* underwent some rather dramatic changes during the period investigated. It constituted the second most frequent verb-specific DOC in P1 and P2, but experienced a continuing decrease in frequency relative to the DOC as a whole, as well as a rather drastic drop in text frequency when used in the DOC. (The overall text frequency of the verb, on the other hand, seems to be stable between P1 and P3, although a deviant peak in the usage is found in P2.) The verb-specific construction with *göra* has a relatively low lexical variation in P1 (42%), indicating that the verb was already used in the early 19th century in a lot of fixed expressions with ditransitive syntax. This tendency becomes more and more pronounced over the course of time, and in P3 the lexical variation is down to a mere 16%.

Table 10: Frequency measures of the verb-specific DOC with *göra* 'make, do'

Period	Freq. rel. to DOC		Occ./mil. tokens		Lexical variation	
			In general	In DOC		
P1 (1800–1844)	188/1 850	10.2%	2 404.4	85.3	41.7/100	41.7%
P2 (1898–1901)	505/6 798	7.4%	4 170.6	51.3	33.0/100	33.0%
P3 (1976–1999)	181/5 871	3.1%	2 945.1	13.5	16.2/100	16.2%

The tendencies identified for *göra* correspond relatively closely to those found with the verb *bereda* (see above). The verbs have similar semantics, both showing polysemy in that they can refer to concrete events of creation (in the case of *göra*) or preparation (in the case of *bereda*) as well as abstract events of causation, where the direct object typically refers to some kind of feeling or sensation. With both *bereda* and *göra*, the concrete use of the verbs in the DOC is infrequent (basically non-existent) in present-day Swedish, whereas such examples can readily be found in the 19th century data. This 19th century concrete use of *göra* in the DOC is illustrated in (10). When the verb is used in the DOC in present-day Swedish, this is mainly with direct objects with an abstract reference. Most occurrences of the verb *göra* in the DOC in present-day Swedish are found in the fixed expressions *göra ngn sällskap* 'keep someone company' and *göra ngn en tjänst* 'do someone a favour'. However, other direct objects can still be found, as exemplified in (11).

(10) I har en gång ***gjort*** *mig ett par stöflar, som klämt värre* än om
you have one time made me a pair boots that pinched worse than if
de varit spanska.
they been Spanish
'You once made me a pair of boots that pinched worse than if they had been Spanish.' (1898–1901)

(11) björnen kommer inte mer att ***göra*** *er någon skada.*
bear:DEF will not anymore to do you any harm
'the bear will not do you any harm anymore.' (1976–1999)

The range of abstract nouns that occur as the direct object of *göra* seems to be more limited in present-day Swedish compared to 19th century Swedish. It seems reasonable to conclude that the verb *göra* has lost two functions in the DOC – the ability to co-occur with concrete direct objects, and the function as a dummy/light verb together with a more substantial abstract direct object. The first of these functions, the ability to occur with concrete objects, is still maintained in the prepositional alternative *göra ngt åt ngn* 'make something for someone', whereas regarding the second function, the verb *ge* 'give' has knocked out all other verbs as the main dummy verb in light verb constructions with verb + indirect object + abstract direct object (cf. Sundquist 2020 regarding a similar increase in the use of *give* as a light verb in English during the same period).

5.3.1.3 *lämna* 'hand'

The verb *lämna* 'hand' is quite often used more or less synonymously with *ge* 'give', and occurs with direct objects denoting both concrete and abstract referents. As in the case of *bereda* and *göra*, the use of the verb with concrete objects seems to be diminishing, and this is most likely the main reason why the lexical variation went down from 88% in P1 to just under 70% in P3. This tendency, however, is not as strong for *lämna* as for *bereda* and *göra*, indicating that *lämna* is not just used in a limited number of fixed expressions. It is also interesting to note that the lexical variation only decreased between P1 and P2, while it remained relatively stable throughout the 20th century. What happened between P2 and P3, on the other hand, was a distinct decrease in text frequency, accompanied by a sharp drop in the relative frequency of the verb-specific DOC in relation to the DOC as a whole. Taking both these tendencies into account, we find that the use of the verb-specific DOC with *lämna* is decreasing while the productivity of the construction is still relatively intact.

Table 11: Frequency measures of the verb-specific DOC with *lämna* 'hand'

Period	Freq. rel. to DOC		Occ./mil. tokens		Lexical variation	
			In general	In DOC		
P1 (1800–1844)	106/1 850	5.7%	565.0	48.1	35.2/40	88.0%
P2 (1898–1901)	290/6 798	4.3%	960.4	29.5	27.0/40	67.5%
P3 (1976–1999)	41/5 871	0.7%	409.2	3.1	27.8/40	69.5%

The example in (12) illustrates how *lämna* is used with concrete objects in the 19th century data. In (13), we see the typical use of *lämna* in present-day Swedish, i.e. with abstract direct objects. In present-day Swedish, *lämna* can often be replaced with *ge* 'give', and this might have led to the verb *ge* gaining ground at the expense of *lämna*.

(12) men kammarpigan berättade hans svar för sin fröken, hvilken
but maid.DEF told his answer to her lady who
leende ***lemnade*** *henne en flaska malörtsdroppar*
smiling handed her a bottle wormwood_tincture
'but the maid told his answer to her lady, who smiling handed her a bottle of wormwood tincture' (1800–1844)

(13) en iskall närgången vind som inte ***lämnade*** *henne någon ro*
an icy intrusive wind that not gave her any peace
'an icy creeping wind that didn't give her any peace' (1976–1999)

5.3.1.4 *säga* 'say, tell'

One of the general changes in the semantic range of the DOC identified in Valdeson (submitted) is the diminishing use of verbs of communication in the DOC. This tendency is mainly reflected by the fact that several verbs of communication have lost the ability to occur in the DOC in present-day Swedish, among them the verb *berätta* 'tell', which occurs relatively frequently in the construction in 19th century Swedish. A handful of communication verbs are still found in the DOC in present-day Swedish, but the use of the verb *säga*, which is the most frequent verb denoting verbal communication, shows a decline in lexical variation in the direct object slot. The change in the behavior of the verb is roughly

similar to that of *göra* 'make, do'. A shared feature of these verbs is that they are both common verbs in present-day Swedish (unlike, for example, *bereda*, which has a more old-fashioned tone). The fact that *säga* is a common everyday verb in present-day Swedish is not least indicated by the fact that the overall text frequency of the verb has gone up markedly, from about 2,000 occurrences per one million tokens in the early 19th century to 6,000 occurrences per one million tokens in present-day Swedish.

Table 12: Frequency measures of the verb-specific DOC with *säga* 'say, tell'

Period	Freq. rel. to DOC		Occ./mil. tokens		Lexical variation	
			In general	In DOC		
P1 (1800–1844)	65/1 850	3.5%	2 222.9	29.5	26.8/50	53.6%
P2 (1898–1901)	255/6 798	3.8%	5 166.2	25.9	17.9/50	35.8%
P3 (1976–1999)	79/5 871	1.3%	6 060.6	5.9	7.3/50	14.6%

The lexical variation of *säga* goes down from just above 50% in P1 to 15% in P3. This decreasing lexical variation manifests itself in the verb being used in the DOC in present-day Swedish mainly in a limited number of lexicalized expressions with a fixed direct object slot, e.g. *säga ngn en sak* 'tell someone something', *säga ngn sanningen* 'tell someone the truth'. In 19th century Swedish, the direct object slot is open to a much wider range of direct objects, as illustrated in (14). Examples of the present-day Swedish use are shown in (15). (15a) illustrates an example with a fixed expression, while (15b) illustrates a subconstruction in which the direct object slot is still productive, viz. in the pragmatically specific *säg mig* construction ('tell me' construction), where the verb is in the imperative and the direct object denotes a concept that the speaker deems to be unlikely or improbable.

(14) a. jag besvor henne att ***säga*** *mig orsaken till sin förändring*
I urged her to tell me reason:DEF for her change
'I urged her to tell me the reason for her change' (1800–1844)

b. på knä besvor jag honom, att ***säga*** *mig sin sorg.*
on knee urged I him to say me his sorrow
'on my knees I urged him to tell me his sorrow.' (1800–1844)

(15) a. Jag tänker hitta honom och minsann ***säga*** *honom ett sanningens*
I intend find him and indeed tell him a truth:DEF.POSS
ord.
word
'I intend to find him and tell him a word of truth indeed.' (1976–1999)

b. Harry tyckte inte om kritik – ***säg*** *mig den poet som gör det*
Harry thought not about criticism say me the poet who does that
'Harry didn't like to be criticized – but what poet does?' (1976–1999)

5.3.2 Verb-specific constructions undergoing an increase in lexical variation in the direct object slot

As was already established in §§5.1–5.2, the general tendency is a decrease in lexical variation in the DOC, both in the verb slot and in the direct object slot of the verb-specific constructions. However, two of the most frequent verbs undergo changes in the opposite direction, with an increased lexical variation in the direct object slot: the verbs *räcka* 'hand' and *show* 'visa'. These verbs are given an exhaustive treatment in §5.3.2.1 and §5.3.2.2 below.

5.3.2.1 *räcka* 'hand'

The changes affecting four verb-specific constructions treated in the previous section suggest that a decrease in text frequency and a decrease in lexical variation are correlated phenomena. In the light of this, the changes affecting the verb-specific DOC with *räcka* 'hand' might seem quite surprising at first. The lexical variation increases from around 20% in P1 to just above 70% in P3, as can be seen in Table 13 below. This suggests quite a radical increase in the productivity of the direct object slot on the verb-specific level of the construction. Unlike most of the other top ten verbs, the relative frequency of the verb within the DOC is also relatively stable over time, while in terms of text frequency, the use of the verb-specific DOC decreases. The low lexical variation can to a large extent be explained by the presence of the very frequent expression *räcka ngn handen* 'extend one's hand to someone', which occurs often in the first two periods, but is quite rare in P3. If one single direct object constitutes a large proportion of all instances of a verb-specific construction, this will automatically lead to a lower lexical variation value.

The example in (16) illustrates the frequent 19th century use of the expression *räcka ngn handen* 'extend one's hand to someone', while (17) shows an example of how the verb is used in present-day Swedish. It should be noted that, unlike

Table 13: Frequency measures of the verb-specific DOC with *räcka* 'hand'

Period	Freq. rel. to DOC		Occ./mil. tokens		Lexical variation	
			In general	In DOC		
P1 (1800–1844)	75/1 850	4.1%	152.5	34.0	11.2/50	22.4%
P2 (1898–1901)	343/6 798	5.0%	182.5	34.9	19.1/50	38.2%
P3 (1976–1999)	252/5 871	4.3%	163.8	18.8	35.3/50	70.6%

the verbs *bereda*, *ge, göra*, and *lämna*, the direct object of *räcka* virtually never has an abstract referent.

(16) Hon hemtade sig likwäl snart och ***räckte*** *honom handen*
she recovered REFL nevertheless soon and handed him hand:DEF
med en obeskrifligt mild wänlighet
with an indescribably gentle kindness
'Nevertheless, she soon recovered and extended her hand to him with an indescribably gentle kindness' (1800–1844)

(17) Han stannade och hon ***räckte*** *honom ficklampan.*
he stopped and she handed him torch:DEF
'He stopped and she handed him the torch.' (1976–1999)

5.3.2.2 *visa* 'show'

The verb *visa* 'show' underwent changes similar to those affecting *räcka*. With *visa*, however, the changes are not as dramatic and cannot be as easily explained (i.e., there is no lexicalized expression like *räcka ngn handen* 'extend one's hand to someone' dominating the verb-specific construction with *visa*). The lexical variation increases by around 15 percentage points, while the relative token frequency remains basically intact over time. The text frequency of the verb-specific DOC goes down somewhat, in line with the changes affecting the DOC as a whole.

As mentioned, there are no obvious changes in the behaviour of *visa* that can explain the figures in Table 14. Even though the lexical variation has increased over time, it was already relatively high in P1. There are a few relatively high-frequent direct objects in P1 and P2 that contribute to the slightly lower lexical variation for these periods. These are, above all, *uppmärksamhet* 'attention', *väg* 'way', and *vänskap* 'friendship', illustrated in (18). While *visa ngn vägen* 'show

Table 14: Frequency measures of the verb-specific DOC with *visa* 'show'

Period	Freq. rel. to DOC		Occ./mil. tokens		Lexical variation	
			In general	In DOC		
P1 (1800–1844)	109/1 850	5.9%	423.9	49.5	64.8/100	64.8%
P2 (1898–1901)	336/6 798	4.9%	472.8	34.2	62.7/100	62.7%
P3 (1976–1999)	346/5 871	5.9%	451.1	25.8	79.5/100	79.5%

someone the way' can definitely be seen as a fixed expression, it is doubtful whether the same analysis holds for *visa ngn vänskap* 'show someone friendship'. An example from the present-day Swedish data is shown in (19), illustrating how the verb is used with concrete direct objects.

(18) Grefvinnan Piper omfattade med nöje tillfället att vara en
countess:DEF Piper embraced with pleasure opportunity:DEF to be a
person nyttig, som under hennes olycka ***visat*** *henne*
person useful who during her misfortune shown her
uppmärksamhet.
attention
'Lady Piper embraced with pleasure the opportunity to be of use to a person, who had paid attention to her during her misfortune.' (1800–1844)

(19) Han tog upp sin plånbok ur fickan och ***visade*** *oss en*
he took up his wallet out_of pocket:DEF and showed us a
papperslapp.
piece_of_paper
'He took his wallet out of his pocket and showed us a piece of paper.' (1976–1999)

5.3.3 Verb-specific constructions retaining a relatively stable lexical variation in the direct object slot

Despite the general tendency of decreasing lexical variation and token frequency for the DOC in general, seven out of the fourteen verb-specific constructions investigated did not undergo any obvious changes in terms of lexical variation in the direct object slot. The verbs in question are *beröva* 'deprive', *erbjuda* 'offer', *inge* 'infuse', *kosta* 'cost', *skaffa* 'obtain', *skicka* 'send', and *skänka* 'give'.

These verb-specific constructions can be claimed to have been equally productive throughout the period investigated. Most of the verbs also have a high lexical variation, in most cases around 90%.

5.3.3.1 *beröva* 'deprive'

As is shown in Table 15, the lexical variation of *beröva* 'deprive' is stable at around 90% for the entire period investigated, which means that this verb-specific construction could be used with a wide array of different direct objects in all three periods. If we turn our gaze to token frequency, however, we see that the verb experienced a dramatic drop between P2 and P3, going from 12 to 2 occurrences in the DOC per million tokens. This decline was paralleled by the overall tendencies of the verb, which has become much more uncommon in present-day Swedish compared to 19th century Swedish.

Table 15: Frequency measures of the verb-specific DOC with *beröva* 'deprive'

Period	Freq. rel. to DOC		Occ./mil. tokens		Lexical variation	
			In general	In DOC		
P1 (1800–1844)	27/1 850	1.5%	43.6	12.3	17.8/20	89.0%
P2 (1898–1901)	118/6 798	1.7%	26.7	12.0	16.7/20	83.5%
P3 (1976–1999)	27/5 871	0.5%	18.4	2.0	18.9/20	94.5%

The examples in (20) and (21) illustrate how *beröva* 'deprive' is used in the data from P1 and P3, respectively.

(20) Min längtan ***beröfvar*** *mig all upmärksamhet på de föremål som*
my longing deprives me all attention to those items that
verkeligen omgifva mig.
really surround me
'My longing deprives me of all attention to those items that really surround me.' (1800–1844)

(21) Vore det kanske en triumf, tänkte hon bittert, om jag i stället
Were it perhaps a triumph pondered she bitterly if I in stead
kunde ***beröva*** *honom hans glädje?*
could deprive him his happiness
'Would it perhaps be a triumph, she pondered bitterly, if instead I could deprive him of his happiness?' (1976–1999)

5.3.3.2 *erbjuda* 'offer'

The use of the verb *erbjuda* 'offer' has developed along fairly unexpected lines, if compared to the other verbs in the study. Seen over the entire period investigated, the lexical variation is quite constant. There is a drop of ten percentage points between P1 and P2, from 95% to 85%, but in P3 the lexical variation is back at 95%. Unlike most verbs in the study, *erbjuda* 'offer' also shows an increasing token frequency relative to the DOC as a whole, constituting two percent of all instances of the DOC in the present-day Swedish data. While there may be many explanations for this, one possible reason is that the verb has to some extent gained ground at the expense of the more or less synonymous verb *tillbjuda* (which is relatively widespread in the 19th century data but more or less obsolete in present-day Swedish) as well as the simplex verb *bjuda*. Another possible explanation for the tenacity of *erbjuda* is that the verb was often used with abstract direct objects already from the beginning. Since the general tendency seems to be for verbs to stop occurring with concrete objects in the DOC, this change in the use of the DOC does not really affect how *erbjuda* can be used in the construction.

Table 16: Frequency measures of the verb-specific DOC with *erbjuda* 'offer'

Period	Freq. rel. to DOC		Occ./mil. tokens		Lexical variation	
			In general	In DOC		
P1 (1800–1844)	22/1 850	1.2%	70.3	9.5	19.1/20	95.5%
P2 (1898–1901)	60/6 798	0.9%	48.3	6.1	17.1/20	85.5%
P3 (1976–1999)	115/5 871	2.0%	64.3	8.6	18.9/29	94.5%

In (22) and (23), examples are given of how *erbjuda* 'offer' is used in the DOC in P1 and P3 respectively.

(22) Det berusade folket uppreste sig för att ***erbjuda*** *honom*
the exalted people:DEF rose REFL for to offer him
kejsar-kronan
imperial-crown:DEF
'The exalted people rose to offer him the imperial crown' (1800–1844)

(23) Han ***erbjöd*** *mig en valp*, men det var en katt jag önskade.
he offered me a puppy but it was a cat I wanted
'He offered me a puppy, but I actually wanted a cat.' (1976–1999)

5.3.3.3 *inge* 'infuse'

As for the verb *inge* 'infuse', we may discern tendencies similar to those observed for *erbjuda* 'offer'. The lexical variation is stable (albeit at a somewhat lower level, around 70%), and the same goes for the token frequency relative to the DOC as a whole. At the same time, the overall text frequency of the verb decreases from 43 to 18 occurrences per one million tokens, which is similar to the dramatic drop observed for *beröva* 'deprive'. What keeps the use of *inge* in the DOC relatively intact (at least as far as the relative token frequency is concerned), is most likely its semantics of abstract causation, which seems to be the most stubborn semantic category within the DOC.

Table 17: Frequency measures of the verb-specific DOC with *inge* 'infuse'

Period	Freq. rel. to DOC		Occ./mil. tokens		Lexical variation	
			In general	In DOC		
P1 (1800–1844)	24/1 850	1.3%	43.1	10.9	14.2/20	71.0%
P2 (1898–1901)	84/6 798	1.2%	19.6	8.5	12.3/20	61.5%
P3 (1976–1999)	86/5 871	1.5%	17.6	6.4	15.3/20	76.5%

The use of *inge* 'infuse' in the 19th and 20th centuries is illustrated in (24) and (25), respectively.

(24) Det är förgäfves du söker ***ingifva*** *mig en styrka som jag icke äger.*
it is in.vain you seek infuse me a strength that I not possess
'You seek to infuse me with a strength I don't possess, all in vain.' (1800–1844)

(25) Det var djävulen som hade ***ingivit*** *honom de där synerna*
it was devil:DEF who had infused him those vision:DEF.PL
'It was the devil who had infused him with those visions' (1976–1999)

5.3.3.4 *kosta* 'cost'

The verb-specific construction with *kosta* 'cost' shows a stable lexical variation, although the text frequency has decreased gradually over time. Since the text frequency of the verb in general has remained relatively stable over time, the decreasing text frequency of the verb-specific DOC can neither be due to a decrease

in the use of *kosta* overall, nor to a decreasing productivity in the direct object slot. The sharp decrease in text frequency thus remains a bit of a mystery. The mystery is heightened by the fact that there is not really any other verb that can replace *kosta*, since no other ditransitive verb shares its semantics. There is also no other constructional alternative possible for *kosta*, as is the case for many of the verbs expressing transfer towards the referent of the indirect object, which can alternatively be construed with prepositional objects.

Table 18: Frequency measures of the verb-specific DOC with *kosta* 'cost'

Period	Freq. rel. to DOC		Occ./mil. tokens		Lexical variation	
			In general	In DOC		
P1 (1800–1844)	33/1 850	1.8%	70.8	15.0	20.1/30	67.0%
P2 (1898–1901)	115/6 798	1.7%	274.4	11.7	17.6/30	58.7%
P3 (1976–1999)	68/5 871	1.2%	58.4	5.1	21.7/30	72.3%

Since the lexical variation is evidently lower than for most verbs showing a stable lexical variation over time, there are a certain number of direct objects that the verb tends to occur with, constituting semi-lexicalized expressions. These include *möda* 'toil, difficulty' in P1, *ansträngning* 'effort' in P2, and *liv* 'life' in P3. Apart from abstract direct objects like these, the verb is also typically used with direct objects denoting money throughout all three periods. Examples of how the verb is used in the DOC are given in (26) and (27).

(26) Hennes hundar lågo drottningen ständigt ömt på hjertat och
her dogs lay queen:DEF always tenderly on heart:DEF and
kostade *henne ej obetydliga summor.*
cost her not insignificant amounts
'Her dogs were always close to the queen's heart and they cost her no insignificant amounts of money.' (1800–1844)

(27) Men det var en dyrköpt seger, den hade varit nära att ***kosta*** *honom*
but it was a hard_won victory it had been close to cost him
livet.
life:DEF
'But it was a hard-won victory, it had almost cost him his life.' (1976–1999)

5.3.3.5 *skaffa* 'obtain'

The verb-specific construction with *skaffa* 'obtain' shows a sharp drop between P2 and P3, in terms of both text frequency and the frequency of the verb relative to the DOC as a whole. The text frequency of the verb in general develops along somewhat irregular lines, but it is nonetheless clearly the case that the decreasing text frequency of the verb-specific DOC with *skaffa* cannot be entirely correlated with any tendencies affecting the verb in general. It is possible that the decreasing text frequency of the verb-specific DOC is due to the verb losing ground to *ge* 'give', with which it is often mutually replaceable. Another possible explanation might be an increase in the use of prepositional objects with *skaffa* (this will have to be determined by future research).

Table 19: Frequency measures of the verb-specific DOC with *skaffa* 'obtain'

Period	Freq. rel. to DOC		Occ./mil. tokens		Lexical variation	
			In general	In DOC		
P1 (1800–1844)	46/1 850	2.5%	85.8	20.9	37.6/40	94.0%
P2 (1898–1901)	195/6 798	2.9%	149.5	19.9	35.9/40	89.8%
P3 (1976–1999)	86/5 871	1.5%	115.8	6.4	34.0/40	85.0%

The use of *skaffa* in the 19th and 20th centuries is illustrated in (28) and (29).

(28) Och nu har du till råga på allt ***skaffat*** *mig det här extra eländet*
and now have you on top of all obtained me that here extra misery:DEF
'And now, on top of it all, you have brought me this misery' (1898–1901)

(29) ville han ändå inte att de skulle ***skaffa*** *honom ett anständigt hus*?
wanted he after_all not that they would obtain him a decent house
'didn't he after all want them to get him a decent house?' (1976–1999)

5.3.3.6 *skicka* 'send'

The verb-specific construction with *skicka* 'send' shows a high and stable lexical variation across all three periods, at around 90% throughout, indicating that the direct object slot is lexically unspecified for the verb. There was, however, quite

a distinct drop in the text frequency of the verb-specific DOC even between P1 and P2. While this drop seems to be paralleled by a decreasing text frequency for the verb in general in the late 19th century, this overall text frequency of the verb had recovered by P3 without any noticeable effect on the text frequency of the verb in the DOC. We can thus conclude that the verb *skicka* 'send' in itself has not become more frequent over time, but that its use as a verb-specific DOC has become more limited. A possible explanation for this could be that *skicka* in present-day Swedish is more often used in a prepositional construction than in the DOC, but this is not something that can be determined from the present study.

Table 20: Frequency measures of the verb-specific DOC with *skicka* 'send'

Period	Freq. rel. to DOC		Occ./mil. tokens		Lexical variation	
			In general	In DOC		
P1 (1800–1844)	29/1 850	1.6%	134.8	13.2	18.8/20	94.0%
P2 (1898–1901)	59/6 798	0.9%	94.2	6.0	18.8/20	94.0%
P3 (1976–1999)	69/5 871	1.2%	163.4	5.1	17.9/20	89.5%

The examples in (30) and (31) illustrate how *skicka* is used in P1 and P3, respectively.

(30) Var god och ***skicka*** *mig biljetterna* vid tillfälle
be kind and send me ticket:DEF.PL at opportunity
'Please send me the tickets when you have the opportunity' (1800–1844)

(31) Han ***skickade*** *honom sina dikter* med ett ödmjukt och bönfallande
he sent him REFL poems with a humble and pleading
brev.
letter
'He sent him his poems with a humble and pleading letter.' (1976–1999)

5.3.3.7 *skänka* 'give'

The verb-specific construction with *skänka* (which has the meaning 'give', or often, more specifically, 'give as a gift') shares the pattern familiar from most of the verbs discussed in this section, having a largely stable lexical variation while at the same time undergoing a process of reduced text frequency. With *skänka*, the latter tendency is accompanied by a decrease in text frequency for the verb

in general, which might in itself be seen as a reason as to why the verb is used less in the DOC in present-day Swedish compared to the early 19th century.

Table 21: Frequency measures of the verb-specific DOC with *skänka* 'give'

Period	Freq. rel. to DOC		Occ./mil. tokens		Lexical variation	
			In general	In DOC		
P1 (1800–1844)	73/1 850	3.9%	132.5	33.1	40.5/50	81.0%
P2 (1898–1901)	247/6 798	3.6%	89.7	25.1	38.6/50	77.2%
P3 (1976–1999)	103/5 871	1.8%	32.6	7.7	44.6/50	89.2%

Like the verb *lämna* 'hand', for example, *skänka* is used freely with both concrete and abstract direct objects in the 19th century data. Unlike with *lämna*, however, this openness in the direct object slot has remained intact for *skänka*, and the verb has not become associated with any specific direct objects in present-day Swedish. This lexical variation of *skänka* across all time periods is illustrated in (32) and (33).

(32) Charlotte vann sådan nåd för konungens ögon, att han ***skänkte***
Charlotte won such mercy for king:DEF.POSS eyes that he gave
henne sitt eget etui af guld, som han alltid bar i fickan.
her his own case of gold which he always carried in pocket:DEF
'Charlotte gained such mercy in the king's eyes, that he gave her his own case of gold, which he always carried in his pocket.' (1800–1844)

(33) a. En av bönderna tyckte synd om honom och ***skänkte*** *honom en*
one of farmer:DEF.PL felt sorry for him and gave him a
avlagd fårskinnspäls
disused sheepskin_coat
'One of the farmers felt sorry for him and gave him a hand-me-down sheepskin coat.' (1976–1999)

b. Minnet ***skänker*** *honom glädje* och han ler igen och
Memory:DEF gives him joy and he smiles again and
vinkar.
waves
'The memory gives him joy and he smiles again and waves.' (1976–1999)

5.3.4 The exceptional verb *ge* 'give'

In the three subsections above (§5.3.1–§5.3.3), I have shown how the use of the most common ditransitive verbs in Swedish over the last two centuries has changed in three principal ways, with the lexical variation either decreasing, increasing, or remaining more or less stable. All thirteen verbs presented so far have something in common, namely that the text frequency of the verb-specific DOCs does not increase, but rather decreases (for twelve of them) or remains relatively stable (for one of them, viz. *erbjuda* 'offer'). The one verb-specific construction that does not follow this pattern is *ge* 'give', which has undergone a rather sharp increase in text frequency in the DOC over time, especially between P2 and P3. As a consequence of this, the relative token frequency of the verb within the DOC has increased dramatically from 20% in P1 to almost 60% in P3.

Table 22: ; Frequency measures of the verb-specific DOC with *ge* 'give'

Period	Freq. rel. to DOC	Occ./mil. tokens		Lexical variation	
		In general	In DOC		
P1 (1800–1844)	369/1 850 19.9%	1 064.2	167.5	77.4/100	77.4%
P2 (1898–1901)	1,852/6 798 27.2%	1 055.7	188.3	77.0/100	77.0%
P3 (1976–1999)	3,390/5 871 57.7%	1 160.0	252.7	83.0/100	83.0%

The increase in token frequency for *ge* relative to the DOC as a whole is of course directly connected to the decreasing relative token frequency of most of the other verbs in this study. There might also be a correlation between the increase in text frequency of *ge* in the DOC and the drop in text frequency that affects most other verbs. The verb *ge* is in many ways less semantically specified than, for example, *lämna* 'hand', *räcka* 'hand', and *skänka* 'give', but can often be used as a substitute for these semantically more specified verbs. To some extent, this also goes for the use of *bereda* 'cause' and *göra* 'make, do' in some contexts, as *ge* can be used instead of these verbs in cases in which the direct object has an abstract referent. There seems to be a general tendency towards using the less specific verb *ge* in DOC at the expense of the semantically more specified alternatives. The use of *ge* with both concrete and abstract direct objects is illustrated in (34) and (35).

(34) a. Man ***gaf*** *henne en kortlek, den hon genast började*
INDEF gave her a deck_of_cards which she instantly started
rangera
arrange
'They gave her a deck of cards, which she instantly started to put in order' (1800–1844)

b. Hans upprörda ansigte ***gaf*** *mig anledning att tro honom hafva*
his upset face gave me reason to believe him have
inlåtit sig i någon envigssak
engaged REFL in some duel_case
'His upset-looking face gave me reason to believe that he had gotten himself involved in some case related to a duel' (1800–1844)

(35) a. Då ska jag ***ge*** *er en smörgås*
then will I give you a sandwich
'Then I will give you a sandwich' (1976–1999)

b. Han ***gav*** *mig en misstänksam blick.*
He gave me a suspicious look
'He gave me a suspicious look.' (1976–1999)

5.3.5 Summary of results

The subsections in §5.3 were structured according to how the verb-specific constructions score in terms of lexical variation. But as the verb-specific tables illustrate, measuring the text frequency is of great importance as well, if we want to get a full grasp of these changes. Table 23 gives an overview of three relevant measures for the fourteen verbs studied, viz. the lexical variation and text frequency of the verb-specific constructions, as well as the text frequency of the verbs overall. "↘" indicates a decrease in the measure in question, "↗" indicates an increase, and "—" indicates a relatively stable usage. The figure thus illustrates the interrelations between the different frequency measures. A change in lexical variation is defined as a change larger than ten percentage points. When it comes to the two measures of text frequency, a change is defined as a change of at least 30% in either direction.

The most striking conclusion that can be drawn from the study is that almost all of the verb-specific constructions undergo a decrease in text frequency. This might be seen as the expected outcome, since it parallels the sharp decrease in text frequency affecting the DOC in its entirety. The only verb-specific constructions showing a reverse direction of change are *ge* 'give' and *erbjuda* 'offer', with the former actually increasing in text frequency, while the latter simply remains

Table 23: Summary of verb-specific tendencies. ("↘" indicates a decrease, "↗" indicates an increase, "—" indicates stability over time.)

Verb	Lexical var.	Text frequency	
		verb-spec. constr.	verb overall
bereda 'cause'	↘	↘	↘
beröva 'deprive'	—	↘	↘
erbjuda 'offer'	—	—	—
ge 'give'	—	↗	—
göra 'make, do'	↘	↘	—
inge 'infuse'	—	↘	↘
kosta 'cost'	—	↘	—
lämna 'hand'	↘	↘	—
räcka 'hand'	↗	↘	—
skaffa 'obtain'	—	↘	↗
skicka 'send'	—	↘	—
skänka 'give'	—	↘	↘
säga 'say, tell'	↘	↘	↗
visa 'show'	↗	↘	—

relatively stable over time. This indicates that the DOC is clearly thriving in some areas, with verbs denoting transfer, and especially with verbs that to a large degree occur together with abstract direct objects. The unique position occupied by the verbs *ge* and *erbjuda* should also be seen in the light of the fact that, out of all verbs that alternate between the DOC and prepositional alternatives with *till* 'to' or *åt* 'to, towards', these two verbs are the only ones for which the DOC is the most common alternative (Valdeson 2017).

Changes in the text frequency of the verbs overall are an important variable to take into account when evaluating the decrease in text frequency for the verb-specific constructions. Four of the verbs that have undergone a decrease in the text frequency of their verb-specific constructions also reveal a reduced frequency in their overall use (*bereda* 'cause', *beröva* 'deprive', *inge* 'infuse' and *skänka* 'give'). The decreasing use of these verb-specific constructions can thus be seen at least partly as the outcome of a purely lexical change (cf. Colleman & De Clerck 2011: 192) affecting the individual verbs. Since these verbs are becoming less frequent, it is not surprising that their frequency in verb-specific DOCs is decreasing as well.

Another possible cause for (or correlate with) the decrease in text frequency of some of the verb-specific constructions could be an increase in the use of prepositions with these verbs. Whether this really is the case needs to be investigated more thoroughly, but since several of the verbs that have undergone a decrease in text frequency (when it comes to their verb-specific DOC construction, while at the same time remaining relative stable in their overall use) can alternatively be constructed with prepositional objects (*göra* 'make, do' *lämna* 'hand', *räcka* 'hand', *skaffa* 'obtain', *skicka* 'send', *säga* 'say, tell', *visa* 'show'), it does not seem unlikely that alternative prepositional constructions are to blame, at least in some cases. The only verb-specific construction whose reduced use cannot possibly be explained by lexical factors, or the use of prepositions, is *kosta* 'cost'. This is a highly polysemous verb, and the use of the verb in the DOC might have become less common in line with the decreasing use of the DOC as a whole, while the verb still thrives in the sense of 'having a certain price', as in *kaffet kostar 15 kronor* 'the coffee is 15 kronor'.

The four verb-specific constructions that reveal a decrease in lexical variation all show a decrease in text frequency, as well. The same is true for the general DOC, which has undergone a decrease in lexical variation as well as in text frequency. It is not surprising that a decrease in lexical variation would entail a decrease in text frequency, since a decrease in lexical variation implies that the construction has developed a narrower lexical range, allowing a lower number of verbs (in the case of the general DOC) or direct objects (in the case of the verb-specific DOCs) to occur in the construction. However, as Table 23 shows, a decrease in text frequency does not necessarily lead to a decrease in lexical variation. Many of the verb-specific constructions have retained their lexical variation value over time, while at the same time experiencing a drop in text frequency. There is, however, a development that is common only to the four verb-specific constructions undergoing a decrease in lexical variation. This is a tendency towards use mainly in lexicalized expressions and, in the case of *bereda* 'cause', *göra* 'make, do', and *lämna* 'hand', this development seems to have been part of a semantic narrowing as well, where the direct object slot has become restricted to nouns with abstract referents.

6 Summary and conclusion

In this article, I have tried to capture one kind of change that occurs in the syntax of Late Modern Swedish. I have also introduced new methods in the study of the history of Swedish. In particular, the existence of corpora like the SPF corpus has now made it possible to conduct quantitative corpus-based studies of changes in e.g. text frequency and lexical variation. The study has shown that several constructional changes have taken place in the double object construction (DOC) in 19th and 20th century Swedish, affecting the construction both at its more schematic level and on a verb-specific level.

If we start by looking at the DOC as a whole, we note that the construction has undergone a rapid decrease in text frequency combined with a reduced lexical variation in the verb slot. This entails that the construction is used less in present-day Swedish compared to the early 19th century, and that it occurs with a more limited set of verbs. The decrease in lexical variation, which is really a measure of type frequency, suggests that the DOC is becoming a less productive construction in present-day Swedish. This deduction is further strengthened by the fact that the verb *ge* 'give' is responsible for more than half of the instances of the DOC in the present-day Swedish data, compared to only 20% in the first half of the 19th century. This points towards a semantic narrowing of the construction, similar to the developments in Dutch (see Colleman 2011) and English (Colleman & De Clerck 2011; Zehentner 2018).

The changes happening at the most schematic level of the DOC seem to be paralleled, in many cases, by diachronic developments at the verb-specific level. This shows that changes affecting lower nodes in the DOC network are interrelated with what happens at the topmost level in the hierarchy, thus indicating that the verb-specific constructions of the DOC are indeed linked to the overarching general DOC. While most of the verb-specific constructions studied show a decrease in text frequency, in accordance with the reduced text frequency of the DOC as a whole, it is interesting to note that the verb-specific construction with *ge* 'give' goes in the opposite direction, undergoing quite a sharp increase in text frequency. This suggests that the verb-specific construction with *ge* is following its own path and is not really dependent on the changes affecting the double object construction as a whole. The stable lexical variation in the direct object slot of the verb-specific construction with *ge* also suggests that this is a rather productive construction.

The most striking verb-specific changes are the decrease in lexical variation identified for *bereda* 'cause', *göra* 'make, do', *lämna* 'hand', and *säga* 'say, tell'. These four verb-specific constructions allow a lower number of direct objects in

present-day Swedish compared to the early 19th century, indicating a loss in productivity for these particular verbs. In all four cases, the development has been accompanied by a decrease in text frequency. For all four verbs, but especially for *bereda*, *göra*, and *säga*, the reduced lexical variation is clearly mirrored by the fact that these verbs mainly occur in more or less fixed expressions in present-day Swedish, whereas the direct object slot was open to all kinds of objects in the 19th century. With *bereda*, *göra*, and *lämna*, another change can be discerned, viz. a tendency to occur much less frequently with concrete direct objects in present-day Swedish compared to earlier periods. This suggests a semantic specialization for the verb-specific constructions towards more abstract uses. This is probably true for the DOC as a whole as well; the two verb-specific constructions that have not undergone a decrease in text frequency, viz. *ge* 'give' and *erbjuda* 'offer', often occur with abstract direct objects.

Figure 2 offers a proposal for a taxonomic network of the double object construction in Swedish, covering different levels of schematicity. It is assumed that constructional knowledge is stored at both the topmost level and the verb-specific level. That the behaviour of the verb-specific constructions is not necessarily dependent on the topmost level is indicated by the divergent path of development found with the verb *ge* 'give'. The third level in the taxonomic hierarchy shows the constructions that can be assumed to be stored as lexicalized expressions, i.e. constructions that are stored as fixed combinations of verb + direct object. In this specific case, the network also illustrates the diachronic changes, since the lexicalized expressions with *bereda* 'cause', *göra* 'make, do', *lämna* 'hand', and *säga* 'say, tell' seem to have crystallized from the more schematic verb-specific mother constructions during the investigated period of 1800–1999. On the other hand, the lexicalized expression *räcka ngn handen* 'extend one's hand to someone' seems to be less entrenched in present-day Swedish than in 19th century Swedish.

All the changes in the use of the DOC at various levels in the 19th and 20th centuries constitute different kinds of constructional changes. It should, however, be pointed out that the rather swift rate at which the changes have taken place might be partly due to the genre of the studied texts. The language of written prose has changed quite substantially in Swedish during the course of the 20th century, in the direction of becoming more similar to the spoken language. It is quite possible that some of the changes identified in the current study are part of a larger change in the style of written prose in Swedish, and that we are witnessing a combination of constructional and stylistic changes happening at the same time.

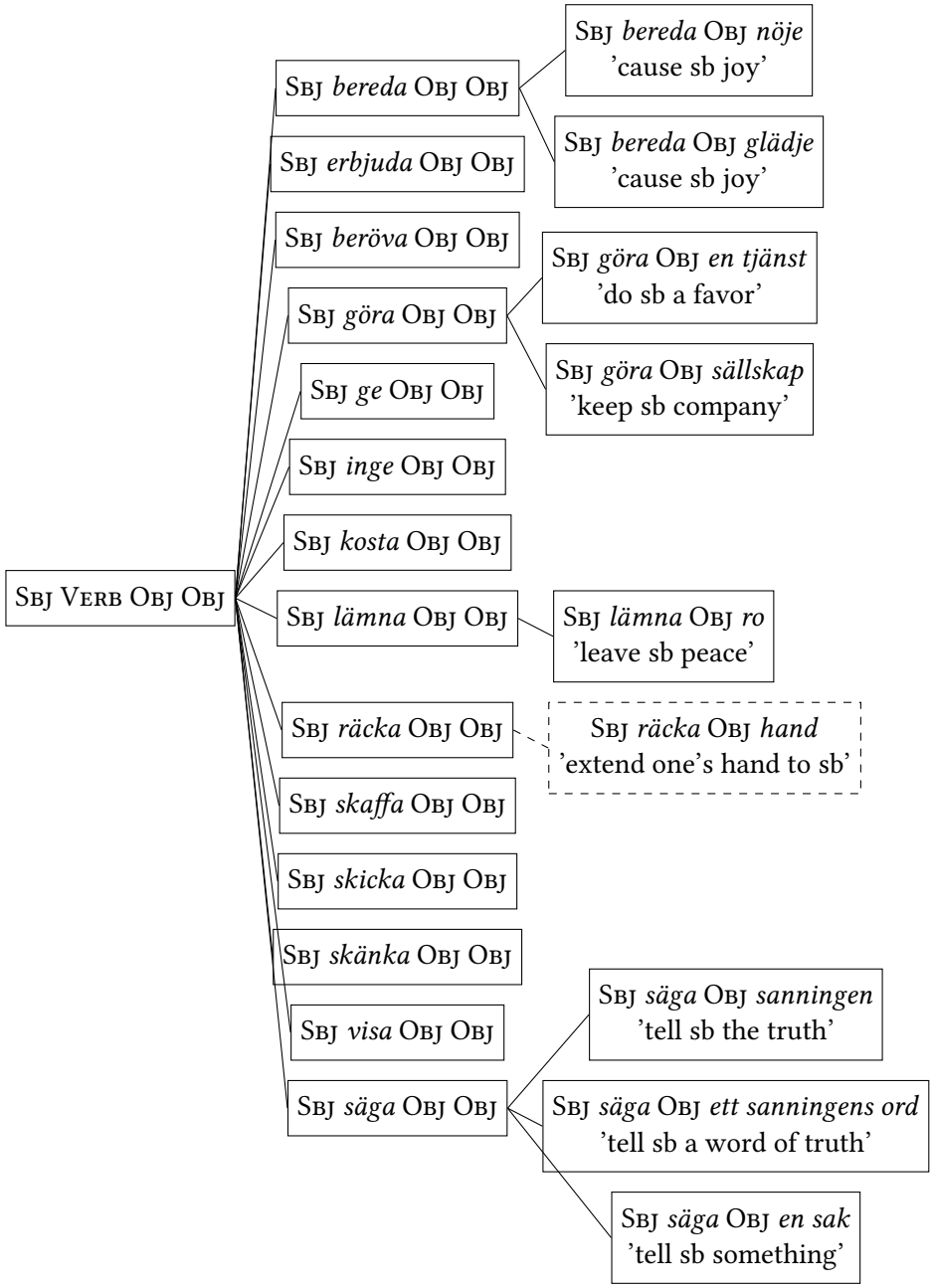

Figure 2: Taxonomic network of the DOC in present-day Swedish, including the most common verb-specific constructions as well as lexicalized expressions

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Abbreviations

DOC Double object construction

Sources

Svensk prosafiktion ('Swedish prose fiction') 1800–1844. Available through Korp.

Svensk prosafiktion ('Swedish prose fiction') 1898–1901. Available through Korp.

Bonniersromaner I ('Bonnier novels I') 1976–1977. Available through Korp.

Bonniersromaner I ('Bonnier novels I') 1980–1981. Available through Korp.

Norstedsromaner ('Norstedts novels') 1999. Available through Korp.

Electronic corpora

Korp: https://spraakbanken.gu.se/korp

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Chapter 4

The development of Swedish particle placement

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This paper is concerned with the word order of particle constructions in the history of Swedish. Unlike the other Germanic languages, present-day Swedish only allows the order particle–object. In older Swedish, both of the orders particle–object and object–particle were possible, as in e.g. present-day Norwegian. We trace the development of the present-day Swedish word order in texts from the 15th to the 19th century. Furthermore, we show that the development is not tied to changes in pronominal object shift, and suggest that the present-day word order is a consequence of a reanalysis of the particle from phrasal modifier to head (cf. the Head Preference Principle proposed by van Gelderen 2004).

Keywords: verb particle, argument placement, Late Modern Swedish, Head Preference Principle, pronominal object shift

1 Introduction

As is well known, standard present-day Swedish differs from all of the other (North) Germanic languages in only allowing the order verb particle–object, cf. (1a) and (1b) (see e.g. Svenonius 1996, 2003; Toivonen 2003; Lundquist 2014a).[1]

(1) a. Han kastade bort boken/den.
he threw away book.DEF/it

b. * Han kastade boken/den bort.
he threw book.DEF/it away
'He threw the book/it away.'

[1]Unless otherwise indicated, all examples are from present-day Swedish.

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This restricted word order is a rather recent development in the history of Swedish. Up until the 18th century, Swedish showed variation in word order in a way that greatly resembles modern Norwegian dialects and Icelandic (as well as English): pronouns tended to precede particles (2a), whereas full DP objects often (but not always) followed the particle (2b–c).

(2) a. slogo resan mik i häll
beat giant.DEF me PART
'the giant killed me' (*Didrik*, ca. 1450, p. 58)

b. han … slog sunder dørrernæ
he broke PART door.DEF.PL
'he broke the doors' (*Didrik*, ca. 1450, p. 58)

c. oc slog swerdit sunder
and broke sword.DEF PART
'and broke the sword' (*Didrik*, ca. 1450, p. 48)

This paper is concerned with the development of the strict order particle–object in the history of Swedish. The article has two objectives. First, we aim to give an accurate description of the change in word order with respect to verb particles and direct objects. The focus is on the 17th–19th centuries, which is the period where we see the most rapid change. Secondly, we discuss different ways of modelling the change in a generative framework. We show that the change in particle constructions cannot be a direct consequence of the shift from OV order to VO order in the history of Swedish. We argue that it should not be analyzed in terms of a change in headedness or in available argument positions in the verb phrase, nor can we link it to a general change in pronominal object shift. Instead, we propose that the change is best described as a reanalysis of the particle. We propose that in older Swedish, the particle is a phrasal modifier of a result-encoding phrase, whereas in present-day Swedish it is the head of said phrase. The change can thus be captured by the so-called Head Preference Principle (van Gelderen 2004). We will see that not all particle-like elements behave in the same way in older Swedish, and that not all elements or contexts change at the same time. Most evidently, in the context of a PP, directional adverbs do not behave like particles in older Swedish, but in present-day Swedish they do. Overall, the category of particles appears to be syntactically more homogeneous in present-day Swedish than in Swedish before the middle of the 17th century.

The structure of the article is as follows. In §2, we give a brief description of the category of verb particle, in the sense it is used in the literature on the Ger-

manic languages. We also go through the characteristics of particles in present-day Swedish and give an overview of what is included in our study of older Swedish. §3 introduces the historical corpus, and in §4 and §5 we present the results from the corpus study. In §6, we discuss possible analyses of the change. We discuss the connection between the change in word order in particle constructions and the shift from OV order to VO order, and possible changes in object shift and VP-internal argument positions, but propose that the change is best understood as a change in the properties of the particle. §7 briefly discusses some recent developments and concludes the paper.

2 Verb particles in Germanic and Swedish

Verb particles in the Germanic languages in general, and the Nordic languages in particular, have been extensively discussed (see e.g. Åfarli 1985; den Dikken 1995; Svenonius 1996; Wurmbrand 2000; Dehé 2002; Ramchand & Svenonius 2002; Toivonen 2003; Aa 2015). Verb particles may at first appear to be a fairly heterogeneous category, but they share some characteristics throughout the Germanic languages, which we discuss below.

In §2.1, we give a very brief overview of the most characteristic properties of particles. §2.2 introduces some standard diagnostics for identifying particles in present-day Swedish. In §2.3, we discuss how particles can be identified in the historical records and look at some problematic cases.

2.1 Particles

Particles have been described as "intransitive prepositions" (e.g. Emonds 1976; Svenonius 1996; Faarlund 2019: 137), where the internal argument has been dropped. The core function of regular prepositions is to locate an external "figure" argument, either spatially or temporally, in relation to an internal "ground" argument; see the locative preposition *i* 'in' (3a). In the most straightforward instances, particles fulfil a similar function to that of prepositions: they locate a figure argument with respect to an implicit ground; see the adverbial particle *in* 'in' in (3b). The implicit ground argument of a particle can be realized as a prepositional phrase; see (3c) where both a particle and a ground-introducing preposition are present.

(3) a. Hon ställde mjölken i kylskåpet.
she put milk.DEF in refridgerator.DEF
'She put the milk in the refrigerator.'

b. Hon ställde in mjölken.
she put in milk.DEF
'She put the milk in (the refridgerator).'

c. Hon ställde in mjölken i kylskåpet.
she put in milk.DEF in refrigerator.DEF
'She put the milk in the refrigerator.'

In the examples above, *mjölken* 'the milk' is the figure argument, which is located with respect to the ground argument *kylskåpet* 'the refrigerator'. In (3b), the ground is only implicit: the milk is located inside something, and from world knowledge (and context) we can speculate that the ground is most likely a refrigerator.

It is, however, clear that not all verb particles establish a simple figure–ground relation. In example (4) below, the same verb and particle as in (3) are used, but the semantic relation is not a simple figure–(implicit) ground relation:

(4) Hon ställde in konserten.
she put in concert.DEF
'She cancelled the concert.'

Another characteristic of particles is that they add an endpoint to otherwise atelic event descriptions, as shown in the pair below:

(5) a. Han dansade i rummet. (atelic, locative PP)
he danced in room.DEF
'He danced in the room.'

b. Han dansade in i rummet. (telic, particle + PP)
he danced in in room.DEF
'He danced into the room.'

Due to this property, it has been suggested that the verb particle is associated with a result-encoding phrase inside the verb phrase, which it either heads or modifies (e.g. Ramchand & Svenonius 2002). Support for this idea comes from pairs such as (6a–b) below, where it looks like the particle *sönder* not only adds an endpoint to a complex event, but also introduces its own argument, similar to a verb:

(6) a. Han dansade sönder sina skor på fem minuter.
he danced broken POSS.REFL shoes in five minutes
'He danced his shoes broken in five minutes.'

b. * Han dansade sina skor i/på fem minuter.
he danced POSS.REFL shoes for/in five minutes.'
'He danced his shoes for/in five minutes.'

Despite the facts illustrated in (5–6), many particles change neither the Aktionsart/telicity nor the valency of the predicate, as already illustrated in (3) above. That is, particles often modify or specify a result of an event already named by the verb (see 7), sometimes in combination with a PP (cf. 3c).

(7) Han stängde (igen) fönstret.
he closed PART window.DEF
'He closed the window.'

From a morphosyntactic perspective, it is important to point out that even in clearly non-transparent verb-particle combinations, the verb and the particle do not form a syntactic word. This is most evident from the Germanic V2 languages, where the syntactic subject and sentence adverbs may intervene between verb and particle when the main verb moves to the V2 position (see Åfarli 1985):

(8) Därför ställde hon inte in konserten.
therefore put she not in concert.DEF
'Therefore, she didn't cancel the concert.'

We will return to the formal analysis of particles in §6 below. For now, the reader should keep in mind the following properties of verb particles: they behave like intransitive prepositions, they tend to induce or modify endpoints in event descriptions, and they behave like independent words. In the next section we will look at diagnostics for particles in present-day Swedish.

2.2 Identifying particles in present-day Swedish

It is often not evident how verb particles should be identified in corpora (see e.g. Larsson & Roxendal 2020 for discussion). Words from different classes (e.g. prepositions, adverbs, and adjectives) can be used as particles. Only in a few exceptional cases can particles be lexically identified; in present-day Swedish, this is the case for instance with *ihjäl* 'to death' which is only used as a verb particle, or *an* 'to' which is always either a particle or a prefix.

There are, however, some prosodic and syntactic diagnostics to distinguish particle constructions from constructions with verb + PP, or verb + adjectival small clause. In present-day Swedish, word order is often used as a diagnostic:

since a particle always precedes the object, examples like those in (9) must involve AdvPs or APs.

(9) a. Hon körde honom hem.
she drove him home
'She drove him home.'

b. Hon torkade den ren.
she wiped it clean
'She wiped it clean.'

In traditional grammars, prosody is an important way of identifying particles in present-day Swedish (see e.g. Teleman et al. 1999/3: 417). In (10a), verb + particle form a maximal prosodic word (in the sense of Myrberg & Riad 2015), and the accent is on the particle (as indicated with the capital letters). In (10b), the locative preposition forms a (prosodic) constituent with the noun phrase, and the verb is accented.

(10) a. skriva PÅ kontraktet
write PART contract.DEF
'sign the contract'

b. SKRIVA på en bit papper
write on a piece paper
'write on a piece of paper'

Moreover, the object and particle do not form a syntactic constituent that can be topicalized. Compare again the particle construction in (11a) with the locative prepositional phrase in (11b).

(11) a. * På kontraktet skrev jag.
PART contract.DEF wrote I
Intended: 'The contract, I signed.'

b. På en bit papper skrev jag.
on a piece paper wrote I
'On a piece of paper, I wrote.'

On the other hand, it is sometimes possible to topicalize the particle by itself, at least in a limited set of contexts, and with directional particles (see Teleman et al. 1999/3: 427). Typically, contrast is required, as in (12). In the same contexts, verbs can be topicalized, stranding the object; see (13). Prepositions cannot be topicalized in the same manner.

(12) Hon gav honom rejält med stryk, men ihjäl slog hon honom inte.
she gave him properly with beating but PART beat she him not
'She gave him a proper beating, but she didn't beat him to death.'

(13) Kysst har jag henne inte, bara hållit henne i handen.
kissed have I her not only held her in hand.DEF
'I haven't kissed her, only held her hand.' (Holmberg 1997)

Another way of identifying particles in present-day Swedish is that they obligatorily incorporate into participles (even in verbal passives; see Lundquist 2014b and references therein). Consider the contrast between the canonical periphrastic passive in (14a) and the pseudopassive in (14b).

(14) a. Kontraktet blev på-skrivet.
contract.DEF was PART-write.PTCP
'The contract was signed.'

b. Kontraktet har blivit skrivet på.
contract.DEF has been write.PTCP on
'The contract has been written on.' (pseudopassive)

In (14a), *på* is incorporated into the passive participle, and the only interpretation is that the passive involves the particle verb *skriva på* 'sign'. In (14b), on the other hand, *på* has not been incorporated and must therefore be analyzed as a locative preposition. The complement of the preposition has been promoted to subject, stranding the preposition.

Word order, prosody, constituency, and incorporation can thus be used to identify particles in present-day Swedish, at least in many cases. We return to some more problematic cases in the next section, where we discuss how we can identify particles in older Swedish texts.

2.3 The particles in this study

None of the diagnostics discussed above can be directly applied to historical corpus data. Rather, to identify particles in older, written texts, we have to rely partly on our intuitions about the properties of the present-day Swedish translational equivalents of the relevant particle-like elements we find in the corpus. In this study, we have included constructions that would have the word order and prosody of present-day Swedish particles. Moreover, we have used the possibility of an object *preceding* a prepositional element to identify particles in older Swedish (as in present-day Icelandic and Norwegian): in older Swedish, the

order object–particle is possible, whereas the order complement–preposition is not.[2] Examples with the order object–preposition/particle are therefore included among the particle constructions in the historical study.[3]

However, even in present-day Swedish, there are cases where the diagnostics mentioned do not disambiguate particles from prepositions or adverbs. We will look at some core cases below and specify how we treat them in the diachronic corpus.

2.3.1 Directional prepositions

As pointed out by Svenonius (2003), directional prepositions are accented in Swedish, and therefore prosodically indistinguishable from particles. In traditional grammars, examples like (15a), with stress on the preposition *i* 'in', are treated as particle constructions, due to their prosody, whereas the locative example in (15b), with stress on the verb, is not.

(15) a. Hon hoppade i vattnet.
she jumped in water.DEF
'She jumped into the water.'

b. Hon HOPPADE i vattnet.
she jumped in water.DEF
'She jumped in the water.'

It is generally difficult to test whether the preposition/particle in examples like (15a) incorporates into a participle, since there are other interfering restrictions

[2]There is one systematic exception, involving *r*-pronouns (e.g. *der* 'there'), which precede prepositions in Old Swedish (Delsing 2014). It is also possible that complex prepositions like *emot* 'toward' could follow their complements in older Swedish (Falk p.c.) – this would make it particularly difficult to distinguish prepositional from particle uses.

[3]In 15th–18th century Swedish, the preposition *till* 'to' can follow a benefactive object. Examples like (i) are included among the particle constructions.

(i) skrev och Påwen till
wrote also pope.DEF to
'wrote also to the pope' (Swart, 1560, p. 52)

In present-day Swedish, the only possible order is *till*-DP, and *till* heads a PP with the benefactive/goal as a complement. That is, the modern correspondent to (i) is not included among the particle constructions. In the historical study, only examples with the order DP–*till* have been included, and, given that there is word order variation in particle constructions, this might skew the quantitative data somewhat in favour of the older word order.

on periphrastic passives in Swedish (see e.g. Engdahl 2006). Some constituency tests fail with directional prepositions; (16a) can for instance only have a locative reading. However, examples like (16b), which are directional as well, and have stress on *över*, suggest that the preposition and DP might form a constituent (see Tungseth 2006). In other words, (16a) shows that directional prepositions can behave like particles (see 11a above), but (16b) shows that they do not necessarily do so.

(16) a. I vattnet hoppade hon.
in water.DEF jumped she
'She jumped in the water'
Not: 'She jumped into the water.'

b. Det var över gatan hon gick.
it was over street.DEF she went
'It was across the street she went.' (Svenonius 2003: 12b)

As discussed in §2 above, many prepositional particles can be said to take an object that has the thematic role of figure, whereas the ground argument of PPs remains implicit. In directional constructions like (16a), the subject is, however, the figure, and the DP *vattnet* 'the water' is the ground.

In the present study, we have followed traditional grammars and also included cases with prepositional elements that take ground arguments among the particles, if other diagnostics (e.g. prosody) point toward a particle analysis. In this way, we can investigate whether these constructions pattern with other particles in the history of Swedish. We will, however, code them as "ground" particles and take their special semantics into consideration in the analysis.

2.3.2 Directional adverbs preceding directional prepositions

Another difficulty involves directional particles/adverbs in the context of a PP, as in (17a). Here, it is possible to treat the adverb as part of the PP, and that is what is also suggested by the possibility of the word order in the authentic example in (17b) and the topicalization in (17c).

(17) a. Hon kastade upp honom i luften.
she threw up him in air.DEF
'She threw him up in the air.'

b. Hon kastade honom upp i luften.
she threw him up in air.DEF
'She threw him up in the air.' (Lindgren, *Känner du Pippi Långstrump*, 1947)

c. Upp i luften kastade hon honom.
up in air.DEF threw she him
'She threw him up in the air.' (from Larsson & Lundquist 2014)

The examples in (17) do not necessarily all have the same structure. In present-day Swedish, (17a) requires an analysis of *upp* as a particle, whereas in (17b) the word order (object–adverb) rules out that analysis. In older Swedish, on the other hand, (17b) could also be analyzed as involving a particle. We have therefore included both cases corresponding to (17a) and (17b) in the study, but we have annotated them so that they can easily be treated separately. As we will see in the following, the word order in (17b), with the object preceding the particle in the context of a PP, is the rule in older Swedish, but gradually becomes less frequent.

2.3.3 Modified particles

We have excluded a few cases with modified particles, like (18). Here, the particle necessarily follows the object, in (older) Swedish as in the other Germanic languages (but see §7 below). Examples like these are rare in the historical texts, and they are uncommon even in the present-day corpora; we return to them briefly in §7. Modified particles are not included in the corpus study.

(18) Vi kastade {stenen} långt ut {*stenen}.
we threw rock.DEF far out rock.DEF
'We threw the rock far out.'

2.3.4 Particles and reflexive objects

Simple reflexive objects show a somewhat variable behaviour with respect to particle placement in present-day Swedish. We find at least three patterns, as exemplified in (19) below (see Lundquist 2014c and references therein).

(19) a. Hon tog sig in i rummet.
she took REFL in in room.DEF
'She got herself into the room.'

b. Hon la sig ner i sängen.
she lay REFL down in bed.DEF
'She lay down in the bed.'

c. Hon klädde upp sig igår.
she dressed up REFL yesterday
'She dressed up yesterday.'

In (19a), the reflexive object precedes the particle, and the particle carries typical particle stress. In (19b), the reflexive also precedes the particle, but the particle does not carry particle stress – the stress is on the verb. Finally, (19c) has the typical word order of a present-day Swedish particle construction, with the particle preceding the reflexive. We will exclude reflexives from our statistical analysis of the change, but we will briefly comment on the first attestations of the order in (19c). It should be noted that this word order is absent in the other North Germanic languages.

2.3.5 Particles that describe co-movement of subject and object

In the present study, we have also disregarded cases where the particle gives the direction of both the subject and the object argument (see Toivonen 2003). An example is given in (20); here both *I* and *she* go out.

(20) Jag följde henne ut.
I followed her out
'I followed her out.'

In these cases, objects have to precede particles in present-day Swedish. The particle does not carry particle stress, and it cannot be incorporated into passives.

Finally, we have excluded particle verbs with clausal complements, as clausal complements always followed particles in older Swedish, as they do in the other North Germanic languages and English (e.g., *I found out that John won the race*/**I found that John had won the race out*.)

To summarize, we have largely followed traditional Swedish grammars when identifying particles in older Swedish texts. We have intentionally been rather liberal and included everything that would lend itself to a particle analysis in present-day Swedish, since this makes it possible for us to investigate how the particle category should be delimited, rather than assuming an a priori stable category. However, we do not include constructions with reflexive or clausal objects, nor examples where the particle follows the object in present-day Swedish. In addition to present-day Swedish particles, we have included cases that

behave like particle constructions in older Swedish (e.g., by allowing word order variation). This includes cases where present-day Swedish has a prefixed verb, e.g., older Swedish *billa någon in* for present-day *inbilla någon* 'make somebody believe', or older *gå någon an* for present-day *angå någon* 'concern somebody'.

3 The corpus

The study uses a corpus of 18 texts from the period ca. 1450–1849. Together with data from previous studies, one text (*Didrik av Bern*, ca. 1450) represents Late Old Swedish. The choice of this particular text is based on the results from Ljunggren (1932), who shows that it has a considerable number of particles that follow the non-finite verb; this allows us to investigate the order between particle and object (independently of OV order). In addition, the corpus includes several texts that are generally assumed to reflect the language of Central Sweden (Stockholm, Uppsala, and surroundings) better than other texts from the same period, for instance *Peder Swarts krönika* (1560), and the autobiography of Agneta Horn (1657). Kiöping's travel description (published in 1674) and the edition by Salvius (1743) are versions of the same text, and therefore allow for good comparison. Finally, the corpus contains 13 plays from the period 1734 to 1849, taken from the corpus of Swedish drama dialogue (Melander Marttala & Strömquist 2001). As historical sources, these plays are particularly interesting and useful, since the authors often attempt to reflect the spoken language of their time. As we will see in §5, the plays can, however, be more or less liberal.

In the following, we will refer to the texts with reference to the author's year of birth (when known), rather than the dating of the text; since our interest is in the grammatical competence of the individual, we assume that year of birth is more important than the time of writing or publication. The first text in our corpus that belongs to the traditional Late Modern Swedish period is the play *Svenska sprätthöken* by Carl Gyllenborg (born 1679).

In all, the data consist of 1525 sentences with particles that have been manually excerpted and annotated. In the presentation below, we restrict the discussion to sentences with pronominal or full DP objects, and further exclude reflexive objects and double object constructions; double objects will, however, be discussed briefly in §6 below. The quantified data include 1144 sentences with verb particles. These have been annotated for word order (object–particle or particle–object) and type of object (pronoun–full DP). In addition, we have distinguished between different types of particles: prepositions (e.g., *i* 'in'), adverbs (*ut* 'out'), complex particles (*uti* 'in', *emot* 'toward'), and elements like *ihjäl* 'to death', which always

have a particle function. We also note the presence of a prepositional phrase related to the particle (as in *throw up in the air*). We have further annotated what meaning the particle carries (directional, metaphorical, etc.), but since it is often hard to come up with strict criteria for different types of meaning, we will only briefly make reference to this level of annotation.

In §4, we describe the word order in particle constructions in Old and Early Modern Swedish up until the beginning of the 17th century. In §5, we look more closely at the period from the middle of the 17th century onwards, which is when the modern word order was established.

4 Particle placement in Old and Early Modern Swedish

Old Swedish had the same word order possibilities in particle constructions as the other North Germanic languages did (see e.g. Ljunggren 1932; Diderichsen 1941; Hróarsdóttir 2008). There was considerable variation in word order, not least since the languages alternated between OV and VO structures. In §4.1, we briefly describe the word order possibilities in Early Old Swedish (with data from previous work). §4.2 is concerned with the patterns we find in texts from the Late Old Swedish period to the beginning of the 17th century, where VO order was increasingly becoming the norm.

4.1 Particle placement in Early Old Swedish

The Old North Germanic languages all showed variation between VO and OV order.[4] Particles and objects could therefore either follow or precede a non-finite verb, and the order between particle and object could also vary. In the Old Swedish medieval laws, it is common for both object and particle to precede a non-finite verb, as in (21a) (examples from Ljunggren 1932 and Falk p.c.).[5] We also find the VO patterns of present-day Norwegian and Icelandic; see (21b) where the object precedes the particle, and (21c) where the particle precedes the object. As far as we are aware, the order particle–object–verb is not attested (cf. Hróarsdóttir 2008 on Icelandic).

[4] According to Delsing (1999), there was a drop in the frequency of OV in the 14th century. OV was, however, to some extent revived again towards the end of the 15th century, and it survived (to some degree) until the 18th century (see also Petzell 2011). See §6 for further discussion.

[5] All Early Old Swedish examples have been checked with the electronic text versions available through *Fornsvenska textbanken*, which is available here: https://project2.sol.lu.se/fornsvenska/

(21) a. O–part–V:
vil maþer træþi up taka
want man plowing up take.INF
'someone wants to start plowing' (EWL, 13th c.)

b. V–O–part:
þa skal han bindæ han wiþ
then should he tie.INF him PART
'then should he tie him to the crime' (UL, 13th c.)

c. V-part–O:
Vil by takæ in mark sinæ
want farm fence.INF in land POSS.REFL
'a farm wants to fence in its land' (EWL, 13th c.)

The general rule is that object and particle appear on the same side of the verb, but there are also examples where the object and the particle appear on opposite sides of the verb; see (22). These cases appear to be less common (see Ljunggren 1932), and it is hardly a coincidence that (22b) involves a heavy object.

(22) a. O–V–part:
þa skal lanz asyn næmnæ til
then shall land.GEN inspection appoint.INF PART
'then shall an inspection of the land be appointed' (EWL, 13th c.; from Falk p.c.)

b. part–V–O:
þa skal af takæ. hemfylgh sinæ alt þét
then shall away take.INF dowry POSS.REFL all that
ær vnöt ær
which unnecessary is
'shall then take away all the dowry that is necessary' (EWL, 13th c.; from Ljunggren 1932)

In the oldest texts, particles precede the non-finite verb in a majority of the cases: 75% in the Elder Westrogothic Law (EWL, ca. 1220) and 87% in the Law of Uppland (UL, 1296) according to Ljunggren (1932: 95). This is not unexpected, given that OV order dominates in these laws. In later texts, with more VO order, particles more often follow the verb. In Early Old Swedish, particles do not precede finite verbs in V2 position (with a small number of exceptions), but this becomes a possibility from the 14th century onwards.

However, particle placement does not fully pattern with other OV and VO structures (as they seem to in the shift from OV to VO in Icelandic; see Hróarsdóttir 2008). Instead, the order exemplified in (22b), with the particle preceding the non-finite verb and the object after the verb, becomes more common when OV order is lost, presumably due to the emerging possibility of incorporating the particle into the verb. As shown by Ljunggren (1932, 1937), the incorporation of particles into verbs started to be frequent in the 15th century (particularly in formal genres, influenced by Latin).

In the next section, we look more closely at particle placement in three texts from the period 1450–1674.

4.2 A closer look at the ordering of post-verbal objects and particles

In this section, we investigate the three oldest texts in the corpus, namely *Didrik av Bern* (*Didrik*, ca. 1450), *Peder Swarts krönika* (Swart, 1560), and *Nils Matson Kiöpings resa* (Kiöping, 1674). Although they were written in different centuries, they largely show the same patterns with respect to the ordering of objects and particles, at least once we disregard OV patterns and particle incorporation.

Firstly, there is a clear difference between pronominal and non-pronominal objects in all three texts; see Table 1. Overall, around half of the non-pronominal objects follow particles in the texts, whereas only 8% of the pronouns do.

Table 1: The placement of post-verbal particles and objects in three older Swedish texts

Text	Part–pronoun	Part–DP	Total
Didrik (ca. 1450)	2/18 (11%)	41/97 (42%)	43/115 (37%)
Swart (1560)	3/26 (12%)	35/74 (47%)	38/100 (38%)
Kiöping (1674)	1/27 (4%)	30/49 (61%)	31/76 (41%)
Total	6/71 (8%)	106/220 (48%)	112/291 (38%)

Both indefinite and definite full DPs can precede particles in all three texts. Examples from *Didrik av Bern* are given in (23):

(23) a. oc brøt mang slot nid
and tore many castles down
'and tore down many castles' (*Didrik*, ca. 1450, p. 32)

b. slog swerdit sunder
broke sword.DEF PART
'broke the sword' (*Didrik*, ca. 1450, p. 48)

Heavy DPs are, on the other hand, placed after the particle, as in (24):

(24) Sände så in till Stocholm en gammall Biscop, benempd…
sent so in to Stockholm an old Bishop called
'then sent into Stockholm an old Bishop, called…' (Swart 1560: 4)

As we saw in §2 above, it is not always clear whether an adverb should be treated as a particle in the context of a directional PP. The order adverb–object–PP forces a particle analysis (given standard assumptions), but in the three older Swedish texts, there are no such examples. Rather, in the context of a PP, the object always precedes the adverb, if it is not extraposed as in (24). Examples are given in (25); there are in all about 40 such examples in the three texts.

(25) a. skött han eelden in på Staden
shot he fire.DEF in on town.DEF
'he shot in fire on the town' (Swart 1560: 30)
b. burit Wedh och Eeld up i Huuset
carried wood and fire up to house.DEF
'carried wood and fire up to the house' (Kiöping, b. 1621, p. 66)

Moreover, different prepositions can show different patterns, and they should probably not all be given the same analysis. For instance, with the particle verb *slå till* 'strike', the particle *till* always precedes the object (26).[6] Compare this with *slå aff* 'beat off' in (27), where *aff* follows the object. There are 8 examples with *slå till* 'strike' or *ramma till* 'strike' in the text by Swart, and 3 of these have pronominal objects, as in (26b); these are the only examples with the order particle–pronoun in this text.

(26) a. att the skulle slå till fiendener then dagen
that they would hit PART enemy.PL.DEF that day.DEF
'that they would strike the enemies that day' (Swart, 1560, p. 25)

[6]This pattern is also found in modern Norwegian with *slå til*. Tungseth (2006) suggests that *til* is not a particle, but heads a PP.

b. att slå till them medh Dalekaraner på then andra sidone
to hit PART them with Dalecarlian.PL.DEF on the other side.DEF
'to strike them with the Dalecarlians on the other side' (Swart, 1560, p. 18)

(27) när Her Götstaff förste gongen slogh fiendenar aff wid Westerårs
when Sir G. first time.DEF beat enemy.PL.DEF off by Västerås
'when Sir Gustaf for the first time beat the enemies off by Västerås' (Swart, 1560, p. 54)

If the object clearly has the thematic role of ground, it also always follows the particle – even when it is pronominal; see (28). In *Didrik av Bern*, there are 16 examples that clearly involve a (spatial) ground; all have the object after the particle.

(28) myn brynia kom icke aff mik stundom i et halfft aar
my hauberk came not off me sometimes for a half year
'my hauberk sometimes did not come off me for half a year' (*Didrik*, ca. 1450, p. 8)

Given these word order patterns, there is, in fact, little evidence that examples like (26) and (28) should be treated as particle constructions in Old and Early Modern Swedish. Instead, we suggest that they are best analyzed as involving (directional) PPs. By excluding this small group of cases, we can maintain an otherwise solid generalization with respect to word order in the older texts: pronouns precede particles. At the same time, we are left with a more homogeneous category of particles which includes constructions with objects that have the semantic role of figure, and which looks much like the particle category in, for instance, present-day Norwegian. Recall from §2.3 above that the cases with ground objects do not seem to behave like particle constructions in Norwegian either. We will therefore conclude that older Swedish particles should be given the same analysis as present-day Norwegian particles; this will be of some importance in the discussion in §6.1 below.

All the examples where pronouns follow a particle in the three texts either clearly have a ground object or involve *slå till* 'strike'. There is, however, one exception in the most recent text; see (29). In this example, the pronoun *them* 'them' is not the ground, but the figure, and it would precede the particle in the normal case.

(29) bryta aff them som een Tobacks-pijpa
break off them like a tobacco-pipe
'break them off like a tobacco pipe' (Kiöping, b. 1621, p. 143)

If we do not include examples like (26) and (28) among particle constructions, we can conclude that pronouns obligatorily preceded the particle in the 15th and 16th centuries, but that we might see the small beginnings of change in the 17th century text. The later text also has a somewhat higher incidence of non-pronominal objects after particles.

As noted, the order between full DPs and particles varies in Old and Early Modern Swedish. There are, however, specific cases where non-pronominal objects more generally precede the particle. Most clearly, this is the case in examples like (30), where the implicit ground argument is the possessor of the object ('the head').

(30) lot han hwgga hoffudit aff
let he cut head.DEF off
'he had his head cut off' (*Didrik*, ca. 1450, p. 10)

Since complements of prepositions are sometimes implicit in Old Swedish PPs, one could analyse examples like (30) in much the same way as cases with explicit possessors, like (31). In other words, it is possible that examples like (31) also should not be treated on a par with other particle constructions.

(31) hugga hoffudit aff thin son
cut head.DEF off your son
'cut your son's head off' (*Didrik*, ca. 1450, p. 42)

To sum up this brief description of the ordering of particles and objects in Swedish up until the 17th century, pronouns are placed before a particle, whereas the placement of non-pronominal objects varies. There are, however, a couple of cases where what have here been included in the study of particle constructions, on the basis of present-day diagnostics, should rather be analyzed as PPs.

5 The development of the modern word order

As we have seen, the placement patterns of post-verbal objects in relation to particles appear to be largely stable up until the 17th century: full DP objects either precede or follow the particle, whereas pronouns always appear in front

of the particle. However, in late 17th century texts that more closely reflect the spoken language of the time, we can note a change towards the modern word order. In this section, we investigate the establishment of the modern system, which takes place in the period from the 17th to the 19th century.

5.1 Overview of the change

Table 2 below gives the frequency of the order particle–object in all of the texts investigated (including the three oldest ones).

Table 2: Particle placement in older Swedish texts

Text	Particle–pronoun	Particle–DP	Total
Didrik (ca. 1450)	2/18 (11%)	41/97 (42%)	43/115 (37%)
Swart (1560)	3/26 (12%)	35/74 (47%)	38/100 (38%)
Kiöping (b. 1621)	1/27 (4%)	30/49 (61%)	31/76 (41%)
Horn (b. 1629)	34/70 (49%)	35/58 (60%)	69/128 (54%)
Gyllenborg (b. 1679)	17/36 (47%)	39/44 (89%)	56/80 (70%)
Lagerström (b. 1691)	7/13 (54%)	13/23 (57%)	20/36 (56%)
Modée (b. 1698)	9/34 (26%)	30/48 (63%)	39/82 (48%)
Salvius (b. 1706)	6/28 (21%)	66/83 (80%)	72/111 (65%)
Dalin (b. 1708)	7/13 (54%)	23/24 (96%)	30/37 (81%)
Stagnell (b. 1711)	13/29 (45%)	43/60 (73%)	56/89 (63%)
Kexél (b. 1748)	9/10 (90%)	17/18 (94%)	26/28 (93%)
Ristell (b. ca. 1750)	8/8 (100%)	14/15 (93%)	22/23 (96%)
Envallson (b. 1756)	3/4	21/21 (100%)	24/25 (96%)
Enbom (b. 1759)	7/14 (50%)	29/33 (88%)	36/47 (78%)
Stridsberg (b. 1755)	9/10 (90%)	21/23 (91%)	30/33 (91%)
Wetterbergh (b. 1804)	6/6	21/21 (100%)	27/27 (100%)
Blanche (b. 1811)	9/11 (82%)	26/26 (100%)	35/37 (95%)
Jolin (b. 1818)	21/23 (91%)	46/51 (90%)	67/74 (91%)

As we saw in the previous section, pronouns preceded particles in earlier texts, with very few exceptions. From Horn (born 1629) and onwards, this is no longer the case. Rather, the order between particle and object pronoun appears to be fairly free in the 17th and 18th centuries, before a more or less stable particle–object order developed in the 19th century. Sentences with full DP objects follow a similar development, but with a higher baseline of particle–object order. In

Figure 1, we show the particle placement over three stages: pre-change (1450–1621), change (1629–1711), and post-change (1748–1818).

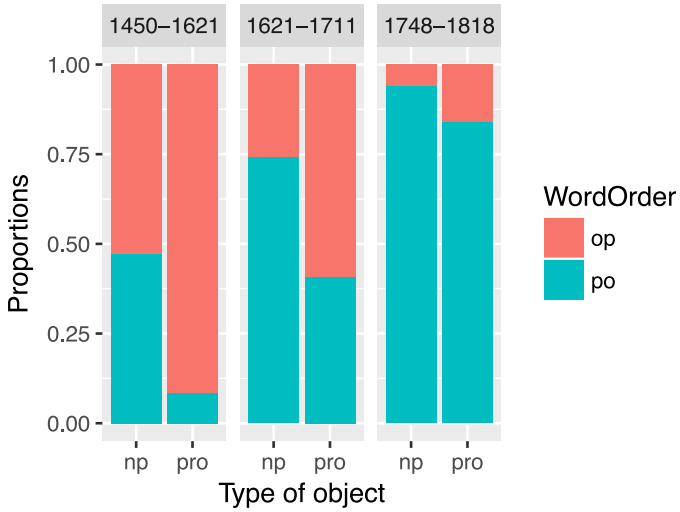


Figure 1: Particle placement with pronominal and non-pronominal objects in three periods (op = object–particle order; po = particle–object order)

Focusing on individual texts, we note a clear increase in the incidence of the modern word order in the play *Swenska spratthöken* (1737) by Gyllenborg (born 1679). This text is generally assumed to be a good representative of the spoken language of the upper classes in Central Sweden at the time (see e.g. Widmark 2000). From the 18th century onwards, we see effects of style and register in the texts: more conservative texts have more object–particle order, while the development of the particle–object pattern progresses rapidly in the more modern texts. At the end of the century, the modern pattern is almost fully established, for instance in the play by Ristell (born ca. 1750) from 1787. This play can also be considered one of the best sources on the spoken language in Central Sweden at the time. The change is illustrated in Figure 2, where we distinguish more modern and more conservative texts. Considering only the texts that we assume best represent the spoken language in Central Sweden at their time, we can observe a cleaner S-shaped curve.

To summarize, the change can first be observed in the texts by Agneta Horn (b. 1629) and Carl Gyllenborg (b. 1679). This is not unexpected – these are a couple of the historical texts that best represent the spoken language in Central Sweden

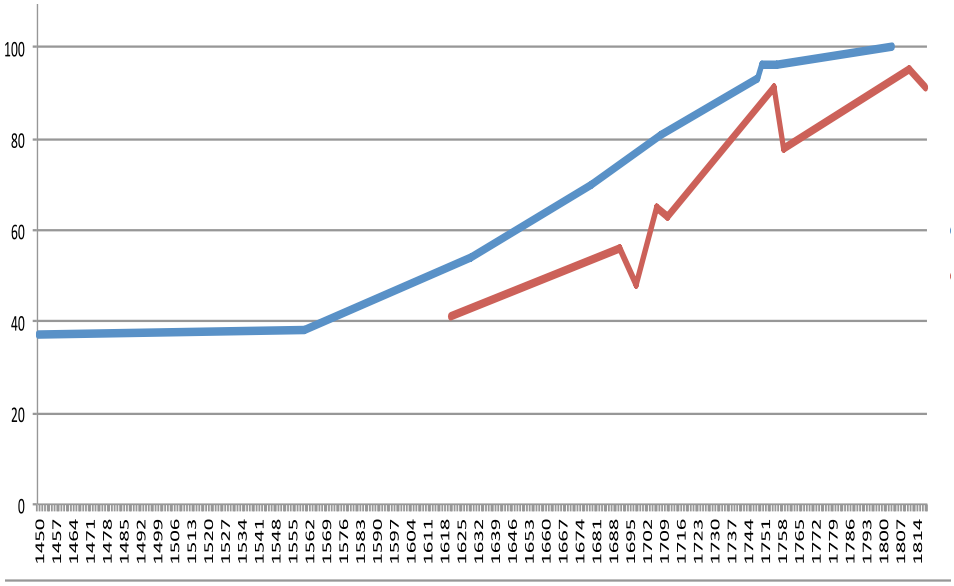


Figure 2: The development of the order particle–object in more and less conservative texts. The blue line shows texts that are assumed to represent the spoken language of their time. The red line includes more conservative texts.

at their time (as is evident from spelling, morphology, and syntax). The spoken language of Central Sweden is an important source for the modern Swedish standard language (see Larsson & Petzell 2022 [this volume]).

5.2 Different objects, particles, and contexts

In the development of the modern word order, we can first note a change in the placement of pronominal objects. In the earliest period, there are, as we saw in §4 above, only a few examples of pronouns following particles. With a single exception, all of these cases involve either the preposition *till* or ground objects, and they should arguably be treated as involving PPs. In the text by Horn (b. 1629), we find the first clear examples of modern particle order with pronominal objects: clearly non-prepositional particles precede pronominal objects that do not carry the semantic role of ground. In the text by Horn, the order particle–pronoun occurs with all types of particles, unlike in the texts discussed in §4.2 above. As in the older texts, objects with the thematic role of ground follow the particle; see (32a). In addition, particle verbs like *tycka om* 'like' (lit. 'think about') and *hålla av* 'like' (lit. 'hold off') always have the particle before the object. However, we

find pronouns following particles in other cases as well; see (32b) and especially (32c), where the internal argument carries the role of figure. However, note that most pronouns (51%) still precede particles in Horn's text; one example is given in (33). 40% of the full DP objects have the old word order.

(32) a. när hon skule kläda på mig
when she would dress PART me
'when she would dress me' (Horn, b. 1629, p. 38)

b. så torde di inte häler så gå åt oss
so dared they not either so go PART us
'so didn't they dare to get at us so, either' (Horn, b. 1629, p. 11)

c. at iag icke länge sedan har gråtit vt dem
that I not long ago have cried out them
'that I hadn't long ago cried them [my eyes] out' (Horn, b. 1629, p. 38)

(33) Och toge de mig vp
and took they me up
'and they took me up' (Horn, b. 1629, p. 29)

In the 18th century, we find examples of pronouns following non-prepositional particles even in the more conservative texts (by Modée and Salvius); see the examples in (34) with particle–pronoun order and the examples in (35) with pronouns preceding particles.

(34) a. tvungit ut dem
forced out them
'forced them out' (Modée, b. 1698)

b. åto up dem så råa som de voro
ate up them as raw as they were
'ate them up as raw as they were' (Salvius, b. 1706, chapter 79)

(35) a. skulle betala det ut
would pay it out
'would pay it out' (Modée, b. 1698)

b. kände mig igen
recognize me PART
'recognized me' (Salvius, b. 1706, chapter 76)

We have not systematically investigated the ordering of particles and reflexives; recall from §2 that there is still variation in the placement of reflexives in

present-day Swedish. However, we can note that from Horn onwards, it is possible to find examples of reflexives following the particle:

(36) a. Iag kune kläda på mig
I could dress PART REFL
'I could dress myself' (Horn, b. 1629, p. 65)

b. sedan vi hade väl friskat up oss
as we had well freshened up REFL
'as we had freshened up well' (Salvius, b. 1706, chapter 21)

The difference between pronominal and non-pronominal objects was retained well into the Late Modern Swedish period. By the beginning of the period, the modern word order was the general rule with non-pronominal objects for some writers. Gyllenborg (b. 1679) has only a few examples of the old order with non-pronominal objects, whereas around half of the pronominal objects are placed before a particle. Examples are given in (37) and (38).

(37) a. Binda dem up bakom öronen
bind them up behind ears.DEF
'bind them up behind the ears'

b. om mina maner ej stå alla an
if my manners not befit all PART
'if my manners do not befit everyone' (Gyllenborg, b. 1679)[7]

(38) a. Tar upp ett hoprullat papper
picks up a up-rolled paper
'picks up a rolled-up paper'

b. så godt som kiöra ut mig
as good as drive out me
'as good as expel me' (Gyllenborg, b. 1679)

We can also note that Olof von Dalin, who is often taken to mark the introduction of the new period (see Larsson & Petzell 2022 [this volume]), only has one example with a non-pronominal object in the old word order; it is given in (39).

(39) om wåra förfäder skulle nu sätta sina hufwuden upp
if our forefathers would now put their heads up
'if our forefathers would now put their heads up' (Dalin, b. 1708)

[7]When referring to texts in the electronic corpus of Swedish drama dialogue, we give only the author and year of birth, not the page number.

Note that the particle in (39) is an adverb. This does not appear to be a coincidence. Rather, it seems that word order variability remained somewhat longer with adverbs than with prepositions. In fact, all examples of the old word order with non-pronominal objects in the text by Horn have either an adverb or involve the preposition *till* with a benefactive object; see (40a) and (40b). Examples like (41), from the older text by Kiöping, with other prepositional constructions combined with non-pronominal objects, are completely missing from Horn's text.

(40) a. Skulle han lösa sin fas hus in
would he redeem POSS.REFL father's house PART
'would he redeem his father's house' (Horn, b. 1629, p. 52)

b. skrifwit min h[är] f[ar] til
written my sir father to
'written to my father' (Horn, b. 1629, p. 49)

(41) a. Sedan taga the Blyringarna aff
then take they lead.ring.PL.DEF off
'then they take off the lead rings' (Kiöping, b. 1621, p. 98)

b. Måste sluta alla wåra lukor till
must close all our hatches PART
'must close all our hatches' (Kiöping, b. 1621, p. 44)

In §4.2 above, we saw that objects always precede directional adverbs followed by PPs in the three oldest texts in the corpus. This is still the case in the text by Horn; see (42).

(42) kasta mig in til fru eba
threw me in to Madam Ebba
'threw me in to Madam Ebba' (Horn, b. 1629, p. 13)

The first clear examples in the corpus of particles preceding object + directional PP are found in the text by Salvius from 1743; see (43). Here, we see a clear difference between the Late Modern Swedish text and the earlier version of the same text by Kiöping; cf. (25b) above.

(43) De fiska hvar dag up pärle skal af botnen til största myckenhet
they fish every day up pearl shells of bottom.DEF of largest quantity
'Every day they fish up the largest quantity of pearl shells from the bottom' (Salvius, b. 1706, chapter 72)

In the 18th and 19th centuries, there is still variation in these contexts. Even in the youngest text in the corpus, there are examples of the order object–particle + PP, where present-day Swedish would require a different word order. One such example is given in (44).

(44) lägger några vedträn som legat framför kaminen in i densamma
puts some logs that lain in.front.of stove.DEF in to the.same
'puts some logs that have lain in front of the stove into it' (Jolin, b. 1818)

In addition to the directional particles followed by PPs, there is one other type of context where the old word order is retained, namely where present-day Swedish no longer has a construction with a free particle. For instance, the example in (37b) involves the particle *an*; in present-day Swedish, *an* would have been prefixed (*anstå* 'befit'). Similar examples are given in (45). It seems that these elements often lack the typical semantic characteristics of verb particles: they do not introduce an endpoint or a figure argument; see e.g. the stative VP in (45c).

(45) a. Och gaf mig inte öfwer för något litet
and gave me not PART for something small
'and didn't abandon me for a small thing' (Horn, b. 1629: 24)
Present-day Swedish: *övergav*

b. så godt som för ingen ting falla en ährlig Karl til
so good as for no thing fall an honest man PART
'is passed on to an honest man for almost nothing' (Modeé, b. 1678)
Present-day Swedish: *tillfalla*

c. hör mig ej mera till
belong me not more PART
'no longer belongs to me' (Enbom, b. 1759)
Present-day Swedish: *tillhör*

To sum up, we can identify three stages in the development of the Swedish word order in particle constructions:

Pre-change (–1629): Light pronouns obligatorily precede particles, while full DP objects either follow or precede particles. Examples with ground objects or with a PP should not be included among the particle constructions.

Change (authors born 1629–1711): In the text by Horn (b. 1629) we find the first clear instances of particles preceding pronominal (and sometimes reflexive) objects. The frequency of the order particle–object increases rapidly, but object–particle order is still common, especially with pronouns.

Post-change (authors born 1748–1818): In the texts by authors born after 1748 (i.e., texts from the late 18th century onwards) we find a system that looks like the present-day Swedish system, with particles more or less obligatorily preceding objects. We still find at least two more or less systematic types of counterexamples: 1) particles appearing together with directional PPs; and 2) particles with atypical semantics, i.e. that neither provide an endpoint nor take a figure external argument (see 45).

In §7, we discuss changes that may have taken place more recently.

6 Discussion

As stated in §2.2 above, the empirical investigation of particles in the historical texts started with a rather liberal definition of *particle*. Among other things, we included particle-like elements combined with a PP, although they sometimes seem to form a constituent with the PP in present-day Swedish. Moreover, we included examples with objects that have the semantic role of ground, as opposed to the prototypical figure role of arguments of particles. As noted, these particles do not seem to behave like particles with respect to word order in, for instance, present-day Norwegian.

By including the less typical cases, we can investigate what should be included in the particle category in older Swedish. In fact, we find that the category is not historically completely stable. Firstly, the cases with a prepositional element + a ground object do not behave like particle constructions in the older texts, but rather seem to pattern with PPs. This also includes the examples with *slå till* 'strike', although, in this case, it is less clear that the object is a ground than in the examples with a locative meaning. Secondly, examples with an adverb followed by a PP do not behave like particle constructions either, at least not until the middle of the 18th century; here, the order object–particle is obligatory in the older texts, and it has continued to be a possibility even into the present day. We propose that the particle here is best analyzed as part of the PP in older Swedish, but that it has been reanalyzed as a regular verb particle; we return to this below. Finally, there are cases where what seems to be a particle in older Swedish no longer is. In present-day Swedish, these cases are either verbal prefixes (e.g. *stå an – anstå* 'befit') or have completely disappeared from the language. In many cases, the particle-like element does not have the resultative semantics typical of verb particles.

In addition to the changes in what is included in the particle category, we can identify three separate (but related) word order changes: 1) the emergence of

particles preceding light pronominal objects; 2) the establishment of a categorical particle–object order in constructions without a directional PP, and 3) a change in the word order in constructions with particle + PP. Related to the last point, we also believe that there has been a more recent development, where the frequency of modified particles (e.g. *throw the stone far out*) has decreased. We return to this in §7.

In this section, we discuss possible analyses of these changes. We will in turn look at what we see as the two main alternatives. Firstly, one could analyze the change in particle constructions as being on a par with the change from OV to VO order, i.e. either as a consequence of the headedness of the particle or in terms of argument shifts across the particle head (as suggested for the development of VO order, e.g. by Petzell 2011). In an account along such lines, the word order change in particle constructions would be another step toward a consistent head-initial language. An alternative is to assume that Swedish particles have become different, and that the word order change is a consequence of a reanalysis of the particle.

In the following, we discuss these two possibilities in turn. In §6.1, we briefly compare the word order change in particle constructions with the change from OV order to VO order. Although this alternative might seem initially appealing, we will see that it is problematic to assume object movement across a verb phrase-internal head in 17th and 18th century Swedish. Moreover, the analysis fails to account for the parallels between older Swedish and present-day Norwegian. In §6.2, we look more closely at pronominal argument shifts in older Swedish, and we observe that the word order change in Early and Late Modern Swedish is limited to constructions with a particle: object shift across negation is not affected. Finally, in §6.3, we will propose that the observed changes in particle constructions are best understood as resulting from one single underlying change: a reanalysis of particles from phrasal modifiers to heads in the verb phrase. By assuming that the particle was a phrase in older Swedish, we can more straightforwardly explain the word order variation. At the same time, this allows us to account for other changes in the properties of particles that took place during the same period, e.g. the loss of the possibility to combine adverbial particles with a double object structure. Finally, the more recent change in constructions with particle + PP follows from the same underlying change: in older Swedish, the particle modified the PP, whereas in present-day Swedish, there is a strong preference for treating the particle as a head. We will tentatively suggest that this also accounts for a drop in the use of modified particles.

6.1 OV to VO and OP to PO

The shift to strict particle–object order partly overlaps with the shift from OV order to VO order. The change from OV to VO had mainly taken place during the 13th century (see e.g. Delsing 1999), but OV structures increased in the late 15th century, and residual OV word order is not hard to find in the 16th and 17th century texts. It is perhaps tempting to view the two changes as one and the same, i.e., as a shift to a consistent head-initial word order.

In fact, the two changes share some characteristics, most notably that pronouns seem to stick to the old patterns longer than fully fledged DPs. Delsing (1999: 174) notices that after 1375, the attested OV patterns usually have pronominal objects (but not just personal pronouns), or bare NP objects, that seem to form a complex event with a light main verb (presumably not very different from a particle structure). However, even in the medieval laws, OV is not completely obligatory with pronominal objects, but occurs in around 70–80% of the cases (see Delsing 1999 and Table 2). Object–particle order with pronominal objects, in contrast, seems to have been fully obligatory until the late 16th century. In the time period when the word order in particle constructions began to change, several types of OV structures can be found. The object could either appear to the left of a verb complex consisting of a finite verb and one or several non-finite verbs, or directly to the left of the main verb (see Petzell 2011, 2012). During the 16th century, there was an increase in structures with non-finite verbs preceding the finite verb, presumably arising from German influence.

The OV-to-VO change has been analyzed in at least two different ways that in principle could be generalized to the shift from object–particle (OP) to particle–object (PO) order:

- There was a change in a headedness parameter: whereas both verb phrases and particle phrases were originally head-final, at a later stage, both vP/VP and ParticleP became head-initial.
- The possibility of vP-internal argument shift became more restricted over time, i.e., landing sites for arguments inside the vP disappeared, leading to both VO and PO orders.

With regard to particles, both of these options turn out to be problematic from a comparative perspective: all the North Germanic languages and English lost the OV order centuries ago, but only Swedish developed a strict ordering of objects and particles. The stable variation found in Icelandic, Norwegian, and English (which looks much like the variation in older Swedish) can hardly be accounted

for in terms of headedness. We will therefore not pursue that possibility further, but still briefly discuss the correlation between OV-to-VO and OP-to-PO expected from the second option.

OV structures in older Swedish have been analyzed as DP movement from a low VP position (the complement of V) to a higher specifier inside the extended verb phrase (Delsing 1999; Petzell 2011, 2012). In principle, the same account could be given for the old object–particle order: object–particle orders can be treated as a residue of OV, where the object lands in a low specifier position (possibly of the particle). In (46) below, we give three possible landing sites for the objects, corresponding to the specifier of the particle, the main verb, and the finite auxiliary (or possibly an even higher specifier), respectively.[8]

(46) Eftersom han <$_3$ hunden> ska <$_2$ hunden> kasta <$_1$ hunden> ut
since he dog.DEF will dog.DEF throw dog.DEF out
hunden.
dog.DEF

In Table 3, we compare the proportion of particle–object order (PO) to the proportion of VO in four texts (where we have access to the VO data, from Petzell 2012). Although the proportions of both VO and PO increase over time, as seen in Table 3, the shift to VO order is, as expected, earlier than the establishment of the strict PO order. Specifically, we see clearly different proportions for PO and VO for pronouns in the last text in the sample (Salvius, b. 1706), which suggests that the OP order was freely available, and maybe even preferred, at a stage where other VP-internal shifts were rarely available.

We could in principle assume that Swedish lost its landing positions within the verb phrase gradually, and that the lowest ones were available the longest. This would mean that the other North Germanic languages (and English) kept a low landing position in the verb phrase, a position either headed by or modified by the particle. There is one crucial problem with such a proposal, and that concerns regular object shift.[9] A well-known difference between particles in Swedish and the other North Germanic languages is that particles block object shift in Swedish, but not in the other languages (see e.g. Holmberg 1986; Sells 1998). In

[8] Petzell (2012) analyzes the German-like order Object–Main Verb–Finite Aux as a result of pied-piping of the main verb by the object.

(i) Eftersom han [[hunden] sälja [~~hunden~~]] ska ~~[[hunden] sälja [hunden]]~~.
since he dog.DEF sell dog.DEF will dog.DEF sell dog.DEF

[9] Erik Petzell (p.c.) points out that there is another problem with such a proposal, namely that in the loss of OV order, short movement of the object (giving the order V_{aux}–object–V_{main}) seems to disappear before long movement (giving the order object–V_{aux}–V_{main}); see Petzell (2012).

Table 3: The frequency of particle–object and verb–object order in four Modern Swedish texts. (The number of examples is given in parentheses.) The data on VO order is taken from Petzell (2012).

	PO, pro	VO, pro	PO, DP	VO, DP
Swart (1560)	11.5% (26)	40% (10)	47% (74)	72.7% (11)
Kiöping (b. 1621)	3.7% (27)	40% (45)	58% (43)	62.0% (37)
Horn (b. 1629)	49.2% (69)	53% (88)	60% (58)	88.6% (35)
Salvius (b. 1706)	18.7% (32)	73% (23)	80% (82)	96.8% (31)

Swedish, a particle behaves just like a verb inside the verb phrase; compare (47a) with (47b) and (47c).

(47) a. Jag kastade den inte.
I threw it not
'I didn't throw it.'

b. Jag har {*den} inte {*den} kastat {den}.
I have it not it thrown it
'I haven't thrown it.'

c. Jag kastade {*den} inte {*den} ut {den}.
I threw it not it out it
'I didn't throw it out.'

(47a) illustrates object shift: when the verb has moved out of the verb phrase, a light pronominal object can shift across the sentence adverbial. If the verb remains in the VP, object shift is impossible, as seen in (47b); this is often referred to as Holmberg's generalization (after Holmberg 1986). In (47c), the verb has moved out of the VP, but object shift is still impossible: it is blocked by the particle.

The restrictions on pronominal object shift are the same in Swedish as in the other North Germanic languages, with the exception of shift across particles. In the other North Germanic languages (exemplified with Norwegian in (48)), a light object pronoun must shift across both the particle and the sentence adverb (in the context of verb movement). Swedish seems to have been like present-day Norwegian up until the 18th century (although the relevant examples are few); see the examples in (49).

(48) Jeg kastet {den} ikke {*den} ut {*den} (Norwegian)
I threw it not it out it
'I didn't throw him out yesterday'

(49) a. Män thet går henne inte an
but it concerns her not PART
'but it doesn't concern her' (Horn, b. 1629, p. 55)

b. känner du mig inte igen
recognize you me not PART
'don't you recognize me' (Modeé, b. 1698)

It is unclear why a VP-internal landing site, e.g. in the specifier of a particle phrase, would be required for the pronominal object to shift into the TP. Compare this with object shift in the context of a verb without a particle, where we standardly assume that the object moves directly from an internal argument position to TP, independent of the presence of landing sites within the VP. Rather, the literature on contemporary North Germanic object shift (e.g. Thráinsson 2001) shows that it is impossible to shift over overt heads, as exemplified with a verbal head in (47b) above and a prepositional head below:

(50) a. Jag ska {*den} inte köpa {den} imorgon.
I will it not buy it tomorrow
'I will not buy it tomorrow'

b. Jag litar {*honom} inte på {honom}.
I trust him not on him
'I don't trust (on) him'

This suggests that object shift in the present-day North Germanic languages is qualitatively different from the movement of objects around verbs in earlier OV stages. On the other hand, the obligatory shift of light pronominal objects around particles in older Swedish (and in present-day Norwegian and Icelandic) looks more like typical object shift.

In the next section, we take a closer look at pronominal object shift in our historical corpus and compare it to the placement of objects relative to particles. We will suggest that the well-established generalization that pronouns do not move across heads should also be maintained for particle constructions in the present-day North Germanic languages. This means that the particle is not a head, for instance, in present-day Norwegian. Rather, it is a phrasal modifier of a resultative phrase low in the verbal domain. We propose that this was the case in Swedish as well, up until the middle of the 17th century, and that the particle was then reanalyzed as a head.

6.2 Pronominal object shift and word order variation in particle constructions

Present-day Swedish differs from present-day Danish and (varieties of) Norwegian in the optionality of pronominal object shift: whereas light pronominal objects obligatorily shift around negation and other sentence adverbs in the contexts of V-to-C movement in Danish and Norwegian, this shift appears to be optional in Swedish (see Bentzen 2014 and references therein); compare the present-day Swedish example in (51a) with the Norwegian example in (51b). In the Swedish data in the Nordic word order database (Lundquist et al. 2019), 30% (144/478) of the pronominal objects are *not* shifted but follow negation. In corpus data, around 90% of pronouns with nominal antecedents shift in Swedish (see e.g. Andréasson 2008); pronouns with non-nominal antecedents or type reference shift less frequently.

(51) a. Jag köpte {den} inte {den} igår. (present-day Swedish)
I bought it not it yesterday
'I didn't buy it yesterday'

b. Jeg kjøpte {den} ikke {*den} igår. (Norwegian)
I bought it not it yesterday
'I didn't buy it yesterday'

We have investigated the placement of object pronouns and reflexives in relation to negation in the 18 texts in our historical corpus; the results are given in Table 4. Reflexives have been included here, since they shift in the same way as weak pronouns, but we have excluded 41 pronouns with non-nominal antecedents entirely, since they show a different pattern (with only 37% object shift in this corpus). On the other hand, we have included possibly contrasting pronouns with nominal reference, and they account for almost all of the examples with non-shifted pronouns.

It seems clear from the results in Table 4 that pronominal object shift is (almost) obligatory in older Swedish; as many as 90% of the pronouns shift across negation. Although the number of examples is small in the individual texts, we can conclude that the placement of pronouns in relation to negation is stable during the period.

There are, as we saw in §4 above, only a few examples of pronouns following particles in the oldest texts in the corpus. With a single exception, all these cases involve either the preposition *till* or ground objects, and they should arguably be treated as involving PPs. In these texts, object shift also appears to be obligatory (although the examples are few). However, unlike what we saw with the order

Table 4: Placement of personal object pronouns and reflexives relative to negation in older Swedish

Text	Pronoun–negation	Reflexive–negation
Didrik (ca. 1450)	10/10	1/1
Swart (1560)	10/10	5/6
Kiöping (b. 1621)	5/5	6/6
Horn (b. 1629)	28/29	7/7
Gyllenborg (b. 1679)	11/12	5/5
Lagerström (b. 1691)	10/12	17/19
Modée (b. 1698)	16/17	21/21
Salvius (b. 1706)	2/2	2/2
Dalin (b. 1708)	8/10	4/4
Stagnell (b. 1711)	4/4	1/2
Kexél (b. 1748)	3/4	2/2
Ristell (b. ca. 1750)	3/4	4/6
Stridsberg (b. 1755)	7/7	6/6
Envallsson (b. 1756)	8/12	4/4
Enbom (b. 1759)	11/13	3/5
Wetterbergh (b. 1804)	6/6	4/4
Blanche (b. 1811)	2/2	2/2
Jolin (b. 1818)	17/19	1/3
Total	161/178 (90%)	96/105 (91%)

of particles and pronouns, there was no general increase in the frequency of the order negation–pronoun in the 17th century. Recall that we find the first clear examples of modern particle order with pronominal objects in the text by Horn. In principle, this order could be seen as just an absence of object shift around the particle. However, there is otherwise nothing particularly unusual about Horn's placement of pronominal objects. Notably, she consistently shifts pronominal objects around negation, with a single exception, and there, the pronoun is contrasted; see (52).

(52) När han gaf hene något, sade iag: Hwar före gefwa i inte mig
when he gave her something said I why give you not me
och
too
'When he gave her something, I said: Why don't you give me, too' (Horn, b. 1629, p. 78)

Before the middle of the 17th century, the placement of pronouns in relation to particles patterned with object shift, and we could in principle treat particles as regular adverbs. However, from Horn onwards, such an analysis is no longer possible. The data in Table 4 strongly suggest that the change in particle–pronoun placement is not related to changes in general object shift.

We propose that the order pronoun–particle in older Swedish (up until the middle of the 17th century) and present-day Norwegian should be treated together with object shift, and that the placement of pronouns and DPs was regulated by different mechanisms in earlier stages of Swedish. We suggest the following analysis: the figure argument is the specifier of the result phrase.[10] At earlier stages, the particle was merged as a light phrasal modifier of ResP, and could either surface to the left or the right of the specifier, which for simplicity we will state in terms of the branching directionality of the modifier. The pronominal object always shifts past the phrasal modifier, a movement/shifting operation that is identical to regular object shift (which can be stated either as a syntactic movement, or as PF cliticization of a light pronoun to a non-adverb element).

We illustrate the options in Figure 3, which provides possible derivations of (the correspondences of) *Kalle threw out the dog* and *Kalle threw it out* in older Swedish. Firstly, in Figure 3a, the adjunct of ResP branches to the left, and will therefore linearly precede the object DP. If the object is a pronoun, it shifts to a higher specifier in the VP (here, spec-VP) and will precede the particle. In Figure 3b, the adjunct branches to the right, and both DP and pronominal objects will precede the particle.

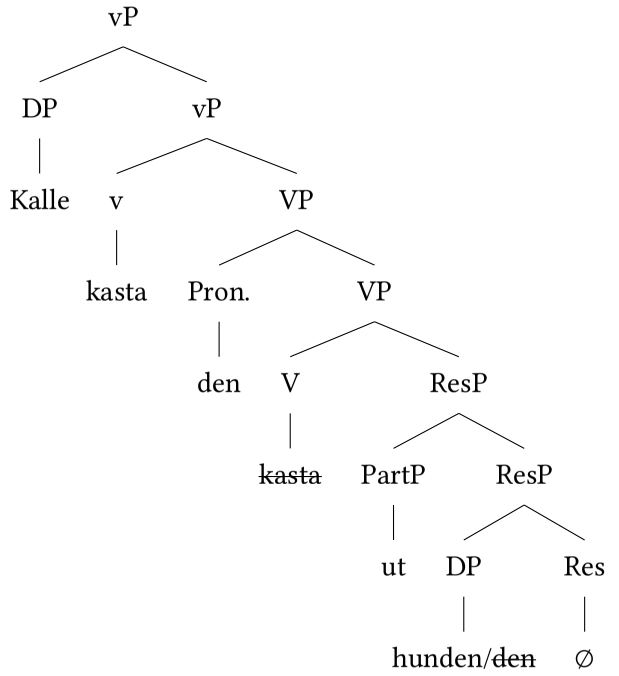
The branching alternation we see above, we suggest, is similar to that of light temporal and spatial adverbs that may left- or right-adjoin to the vP, either preceding the whole vP-internal cluster of verbs (53a), or following the whole vP (53b), but never appearing inside the verb cluster:

(53) a. Kalle borde idag ha kastat ut hunden.
Kalle should today have thrown out dog.DEF
'Kalle should have thrown out the dog today.'

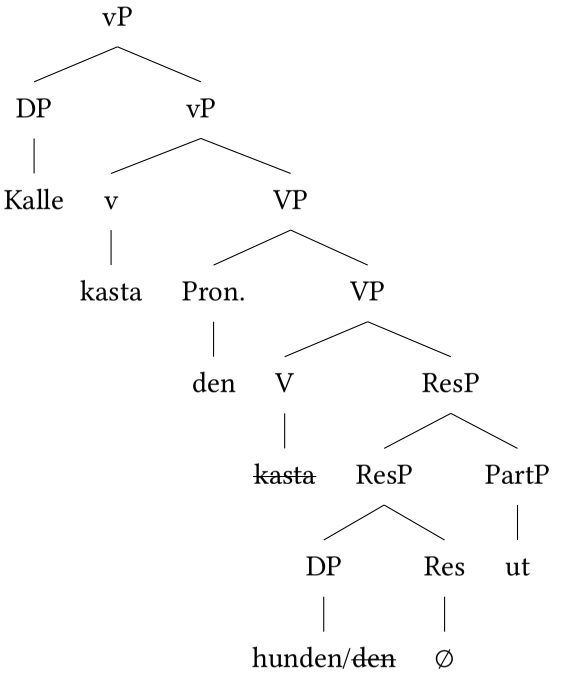
b. Kalle borde ha kastat ut hunden idag.
Kalle should have thrown out dog.DEF today

c. Kalle borde ha (*idag) kastat (*idag) ut (*idag) hunden.
Kalle should have today thrown today out today dog.DEF

[10]Note that the figure argument will be promoted to subject if the verb is intransitive, as in e.g. *Maria dansade in i rummet* ('Maria danced into the room'), where Maria is the figure.



(a) Word order with left-branching particle for DP and pronominal objects

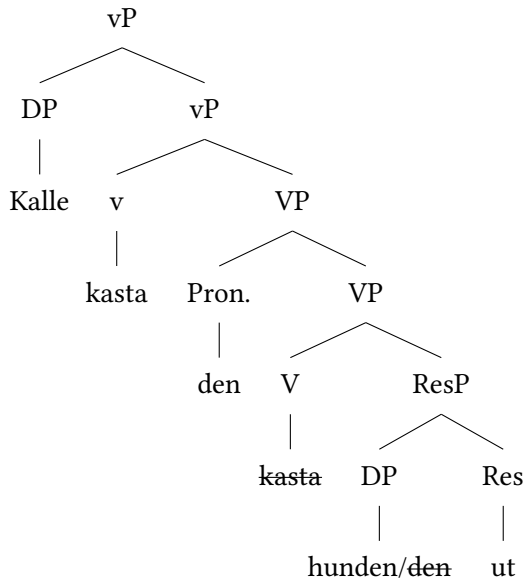


(b) Word order with right-branching particle for DP and pronominal objects

Figure 3: Structure of verb particles in older Swedish

Now, present-day Swedish is different, and we have argued that the change should not be understood as a change in branching or argument shifts. Instead, we propose that the particle has been reanalyzed as the head of the result phrase; the structure is given in (54).

(54)



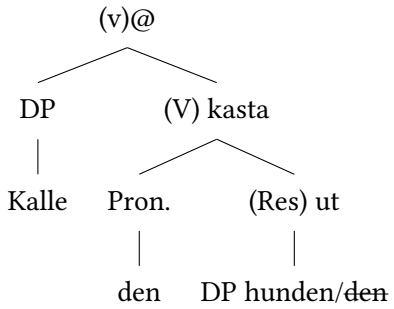
However, a standard minimalist/generative framework with an LCA-based (Kayne 1994) spell-out procedure will not directly be able to capture why the reanalysis led to a categorical change in word order. In (54), it might appear as if the particle should end up at the end of the sentence, i.e. after both DPs and pronouns. However, we will build on Mirror Theory, as originally formulated by Brody (2000), and developed e.g. in Adger et al. (2009), Ramchand (2014), and Svenonius (2016), and assume that specifiers and heads are linearized independently of each other. The heads in the clausal spine form a span, which is spelled out at a given point in the tree. In Swedish, we assume this point to be v, as indicated by the @ sign in (55) below. In the tree in (55), the span of heads will spell out directly after the syntactic subject.[11] The presence of only one spell-out point

[11]The subject will generally move to a higher position, but when it does not (as in existential constructions), it surfaces after the particle, as in (i).

(i) Det har aldrig stått ut någon med det.
it has never stood out anyone with that
'No one has ever endured that.'

in the span of heads ensures that all heads are spelled out in the same position with respect to specifiers.

(55)



In Swedish, we can state that the heads in the vP cluster up in a left-right order at the left edge of the vP. Verbs in Swedish today form a cluster, in which nothing generally intervenes (of course, here we exclude V in C):

(56) Eftersom Kalle förmodligen snart redan borde ha kunnat kasta
since Kalle probably soon already should have been.able.to throw
ut hunden…
out dog.DEF

We will leave a full technical account aside here. In the next section, we will briefly look at a couple of other consequences of the reanalysis of the particle.

6.3 Phrase to head

In the previous sections, we have pointed out some problems with directly linking the change in particle placement to a change in the available argument positions in the verb phrase and object shift. Instead, we have proposed that the word order change in particle constructions in Swedish should be understood as a consequence of a reanalysis of particles from phrases to heads: Swedish particles have been reanalyzed from phrasal modifiers of ResP to Res heads. Since the heads in the verb phrase are linearized together before arguments and adjuncts in Late Modern Swedish, the reanalysis leads to the fixed modern word order.

This means that the change is another example of the Head Preference Principle (van Gelderen 2004) at work. This principle states that when there is no evidence to the contrary, a word will be analyzed as a head rather than a phrase. van Gelderen (2004) introduces this principle as one of several economy principles which are part of universal grammar and guide children's acquisition of a

language. The principle has previously been invoked to account for the reanalysis of negation (see e.g. van Gelderen 2008) and the loss of V2 order with certain question words in varieties of Norwegian (Westergaard et al. 2017).[12]

We can identify two stages in the change. Firstly, there is a stage at which particles start to behave like heads. This stage can be identified by the possibility of unambiguous particles that precede light pronominal objects, as first observed in the text by Horn from the middle of the 17th century. As discussed above, the assumption is that weak pronouns obligatorily shift across adverbial phrases, including both negation and the older phrasal particles, but that they cannot shift across a head. In the second stage, the particle has to fill the Res head, and the modern word order becomes obligatory.

In this analysis, the word order change is tied to a reanalysis of the particle. In fact, we can note a couple of other changes that occurred around the same time, which arguably are also a consequence of the change in the syntax of particles. Firstly, in older Swedish, adverbial particles could occur in double object constructions, as in (57). This is no longer possible in present-day Swedish, regardless of word order; compare (58) and (59).

(57) a. så ge mig hit en skål
so give me here a bowl
'so give me a bowl here' (Gyllenborg, b. 1679)

b. torde jag … kunna betala den Narrn sin fulla lön ut
ought I be.able.to pay the fool.DEF his full salary out
'I ought to be able to pay the fool his full salary' (Modée, b. 1698)

(58) a. Ge mig (* hit) en skål. (present-day Swedish)
give me here a bowl

b. Jag betalar honom (*ut) hans fulla lön.
I pay him out his full salary

(59) a. * Jag betalar ut honom hans fulla lön.
I pay out him his full salary

b. * Jag betalar honom hans fulla lön ut.
I pay him his full salary out

This restriction can be explained by the assumption that the head responsible for the introduction of indirect objects competes for the same position (i.e., Res) as the present-day Swedish particle (see e.g. Ramchand 2008).

[12] Other similar principles have also been proposed, e.g. *Minimize structure* (Cardinaletti & Starke 1999; Breitbarth et al. 2020). In the present context, nothing hinges on the precise formulation of the economy principles.

Moreover, in the 18th century, particle incorporation became obligatory in constructions with past participles. Although examples are admittedly rare, cases like those in (60) can be found in the 16th and 17th centuries. From the 18th century onwards, particles always incorporate into participles (see Lundquist 2014b); see (61).

(60) a. bleff … förd vth till galgan
was taken out to gallows.DEF
'was taken out to the gallows' (Swart, 1560, p. 40)

b. blef sat in i kiörkan den sama hösten
was put in to church.DEF the same fall.DEF
'was put in the church the same fall' (Horn, b. 1629, p. 14)

(61) a. blev in-satt i kyrkan (present-day Swedish)
was in-put in church.DEF

b. * blev satt in i kyrkan
was put in to church.DEF

Leaving the analysis of particle incorporation aside, we conclude that there are several reasons to assume that the word order change is a consequence of a change in the syntax of particles, rather than, for instance, in the general principles of linearization in Swedish or the possibility of argument shifts.

While we find the first evidence for particles as heads in the middle of the 17th century, it took considerable time before the Res head was obligatorily filled. We saw in §5 above that the preference for particles in Res depends partly on the type of element and the context. Prepositions were generally affected before adverbs, and in the context of a PP, the adverb was often a phrasal modifier well into the 19th century. A few elements never occur as independent particle heads in Res – for instance, the particle *an* becomes a prefix instead.

Now, there are some elements that are sometimes included among the present-day particles, which still allow for word order variation; see (62). In traditional grammars, the phrase *till fånga* lit. 'to captivity' is for instance treated as a particle only when it precedes the object: as noted in §2.2 above, word order is typically taken as a diagnostic for particle constructions in present-day Swedish. As in older Swedish and modern Norwegian, pronominal objects are preferred in the position before the particle, whereas full DP objects tend to follow it.

(62) a. Ta {dem} till fånga {? dem}
take them to captivity them
'capture them'

b. Ta {tyskarna} till fånga {tyskarna}
take German.PL.DEF to captivity Germans.PL.DEF
'capture the Germans' (Teleman et al. 1999/3: 420)

These cases with word order variation tend to involve clearly phrasal 'particles', like *till fånga* in (61), *i ordning* 'in order', or *färdigt* 'ready'. We propose that they in fact still involve phrasal modifiers in present-day Swedish, regardless of word order. In other words, the word order variability that we see in examples like (62) is a remnant of the older Swedish pattern, which we also still find more generally in the other Germanic languages.

In the next section, we briefly discuss later developments in the distribution of particles in Swedish and conclude the paper.

7 Further developments and conclusion

In this paper, we have traced the development of the present-day Swedish word order in particle constructions, mainly in texts from the (Late) Modern Swedish period. Unlike other significant changes in the history of Swedish (most notably the shift from OV to VO), the old word order seems to have been stable until the middle of the 17th century, and the change is not shared with any of the other North Germanic languages. We have suggested that the word order variation found in Old Swedish (and modern Icelandic and Norwegian) is due to the branching of the Result modifier (the particle) and a general shifting of pronouns (that we also see in object shift across sentence adverbs). The present-day Swedish word order, on the other hand, we propose is a consequence of a reanalysis of the particle as the head of ResP; it is spelled out together with the other verbal heads and will always precede all verbal complements.

The reanalysis can first be detected in our data in Agneta Horn's text (b. 1629), and the change was approaching its conclusion by the beginning of the 19th century, at least if conservative texts are disregarded (see Figure 2) – the change thus largely took place during the Late Modern Swedish period. We have further seen that not all particles and contexts behave alike. Adverbs, particularly in the context of a directional PP, are more reluctant to change. Salvius (b. 1706) is the first in our corpus who has the order particle–object–PP. We have suggested that in older Swedish, there was a preference for treating the particle/adverb as a modifier of the PP. This possibility still exists in present-day Swedish, as evidenced from the example in (17b) above, repeated here as (63).

(63) Hon kastade honom upp i luften.
she threw him up in air.DEF
'She threw him up in the air.' (Lindgren, *Känner du Pippi Långstrump,* 1947)

However, in present-day Swedish, there is a clear preference for analysing the adverb as a head of Res, when possible. Examples like (63) are marginal, and they hardly occur in the production of (younger) speakers. In fact, data from elicited production provide no examples (see the data in the Nordic word order database, Lundquist et al. 2019, which includes precisely contexts like this).[13] A quick search in the corpus of Swedish prose-fiction 1800–1900 (part of Korp; Borin et al. 2012) shows that there are examples of the order in (63), where our modern intuitions would prefer the order particle/adverb–object; an example is given in (64).[14]

(64) för att hon sände henne ut till faror, lidanden och kanske döden!
for that she sent her out to dangers suffering and maybe death.DEF
'because she sent her out to danger, suffering and maybe death!' (SPF, 1880)

It seems that in these cases, the change in the syntax of the particle has not yet reached its conclusion, even in the 20th century. In the end, the change leads to a larger but syntactically more homogeneous category of particles.

There are a couple of other cases of further developments that also require closer study. Firstly, we noted in §6.3 above that there are cases with particles that still behave like phrasal modifiers and which allow word order variation, e.g., with *i ordning* 'in order' or *färdigt* 'ready'. Whether the preferences have changed during the last century or so, we do not know, but we can suspect that also in some of these cases, a structure with the particle as head of Res might have become an option, or even a preference. Consider also modified particles, as in the example in (18), repeated as (65).

(65) Vi kastade {stenen} långt ut {*stenen}.
we threw rock.DEF far out rock.DEF

[13]The database is available here: https://tekstlab.uio.no/nwd

[14]We have searched for the object pronouns *henne* 'her' and *honom* 'him' followed by the particle *ut*. The corpus is available here: https://spraakbanken.gu.se/korp/

Here it is clear that a head analysis of the particle is not available. However, our impression is that modified particles, where the object precedes the particle, are often marginal in present-day Swedish, and less common than in, for instance, Norwegian. With our intuitions, (66), where the modifier is stranded at the end of the sentence, is preferred to (65). Here, there appears to be individual variation and possibly ongoing change, but this also needs to be investigated further.

(66) Vi kastade ut stenen långt.
we threw out rock.DEF far
'We threw the rock far out'

The difference between Swedish and Norwegian is even more clear with the modifier *helt* 'completely'. Here, splitting the particle and the modifier is the default strategy in Swedish, while they must stay together in Norwegian, surfacing after the object:

(67) a. Jag slet ut mig helt (present-day Swedish)
I wore out me completely

b. ?? Jag slet mig helt ut
I wore me completely out
'I wore myself out completely'

(68) a. * Jeg slet ut meg helt (present-day Norwegian)
I wore out me completely

b. Jeg slet meg helt ut
I wore me completely out
'I wore myself out completely'

It seems then that the possibility of treating the particle as a head in the verb phrase emerged in the 17th century and has continually gained ground since then. Today, a head analysis seems to be strongly preferred, whenever possible. However, the variation with regard, for example, to modified particles needs to be investigated further. Since examples are not very frequent in the corpora, it is hard to study whether this construction has changed over time in Swedish. Another case where we find a strong preference for having an overt Res head is in cases of what we may call particle doubling. Here, a ground-introducing preposition is doubled as a particle, preceding the direct object. As far as we know, these were not available at earlier stages of Swedish, and they are strictly ungrammatical in the other Mainland North Germanic languages. We give examples in Swedish (69) and Norwegian (70) below.

(69) Present-day Swedish

a. Skär vitkålen och lägg på den på pizzan.
cut cabbage.DEF and put on it on pizza.DEF
'Cut the cabbage and put it on the pizza'

b. Släng i honom i poolen!
throw in him in pool.DEF
'Throw him in the pool!'

(70) Present-day Norwegian

a. Skjær hodekålen og legg (*på) den på pizzan.
cut cabbage.DEF and put on it on pizza.DEF
'Cut the cabbage and put it on the pizza.'

b. Kast (*i) ham i bassenget!
throw in him in pool.DEF
'Throw him in the pool!'

There are additional unresolved questions. Among other things, we have left a full discussion of the Old Swedish placement of particles aside, and not provided an analysis of particle incorporation. It is not unlikely that both of these are key to a final answer to the question of why the syntax of particles has changed in this way in Swedish, but not in the other North Germanic languages; a reanalysis from phrase to head is otherwise a natural development. Part of the answer might be that particle incorporation was much more common in older Swedish than in the other North Germanic languages (see e.g. Ljunggren 1932) and that this opened up the possibility of reanalysis, perhaps aided by the shift from OV to VO order. However, it is probably also important that this change took place rather recently, in a period when the North Germanic languages were being standardized as distinct national languages (partly in opposition to each other), and when schooling became more generally available and obligatory. It seems clear that sociolinguistic factors like these need to be invoked to explain why the modern word order was established so quickly and spread to all of Sweden; variation is now only found in the most peripheral or archaic dialects (see Lundquist 2014a; cf. the examples from Orust in Larsson & Petzell 2022 [this volume]).

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Abbreviations

EWL Elder Westrogothic law
LCA Linear Correspondence Axiom
OP Object–Particle order
OV Object–Verb order
PO Particle–Object order
UL Law of Uppland
VO Verb–Object order

Texts investigated

Blanche, August (b. 1811). *Hittebarnet* [The foundling]. Stockholm, 1848. See Melander Marttala & Strömquist (2001). Available through LB.

von Dalin, Olof (b. 1708). *Den afwundsiuke* [The jealous one]. Stockholm, 1739. See Melander Marttala & Strömquist (2001). Available through LB.

Didrik = Sagan om Didrik af Bern [The story of Didrik of Bern]. ca. 1450. Edited by Gunnar Olof Hyltén-Cavallius. (Svenska fornskriftsällskapets samlingar 10.) Stockholm: Norstedts, 1850–1854. Pp. 1–79 have been investigated. Available through FTB/Korp.

Enbom, Per (b. 1759). *Fabriks-flickan* [The factory girl]. Stockholm, 1796. See Melander Marttala & Strömquist (2001). Available through LB.

Envallson, Carl (b. 1756). *Kusinerna eller Fruntimmers-sqvallret* [The cousins or the gossip of the women]. Stockholm, 1807. See Melander Marttala & Strömquist (2001). Available through LB.

Gyllenborg, Carl (b. 1679). *Swenska spratthöken* [The Swedish dandy]. Edited by Lennart Breitholtz & Einar Törnqvist. Stockholm: Gebers, 1959. Available through FTB/Korp. See Melander Marttala & Strömquist (2001). Original (from 1740) available through LB.

Horn, Agneta (b. 1629). *Beskrivning över min vandringstid* [Description of my life]. Edited by Gösta Holm. Stockholm: Almqvist & Wiksell, 1959. Available through FTB/Korp.

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Salvius, Lars (b. 1706). *Beskrifning om en resa genom Asia, Africa och många andra hedna länder, som är Giord af Nils Matson Kiöping för detta Kongl. Maj:ts skeps lieutenant* [A description of a journey through Asia, Africa, and many other pagan countries, which is made by Nils Matson Kiöping, former lieutenant of the Royal Navy]. Printed in Stockholm, 1743. Available through Korp.

Stagnell, Johan (b. 1711). *Den lyckelige banqueroutieren* [The happy bankrupter]. Stockholm, 1753. See Melander Marttala & Strömquist (2001). Available through LB.

Stridsberg, Carl (b. 1755). *Friman eller Den enslige och de resande fruntimren* [Friman or the loner and the travelling women]. Stockholm, 1798. See Melander Marttala & Strömquist (2001). Available through LB.

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Wetterbergh, Carl Anton (b. 1804). *Pröfningen* [The test]. Stockholm, 1842. See Melander Marttala & Strömquist (2001). Available through LB.

Electronic corpora

FTB: Fornsvenska textbanken [The text bank of Old Swedish]: https://project2.sol.lu.se/fornsvenska

Korp: https://spraakbanken.gu.se/korp/?mode=all_hist

LB: The Swedish literature bank: http://www.litteraturbanken.se

SPF: Swedish prose fiction 1800–1900. Available through Korp.

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Chapter 5

The emergence of adverbial infinitives in Swedish

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Prepositional infinitives are commonly used in present-day Swedish to express a range of adverbial notions, including purposive, abessive, substitutive, temporal, and instrumental meanings. However, only purposive infinitives are attested in Old Swedish. The aim of this article is to give an account of the emergence of adverbial infinitives in the history of Swedish. Other adverbial infinitives emerged from the late 17th century onwards, possibly as a result of contact-induced (replica) grammaticalization. It is furthermore argued that the emergence of adverbial infinitives should be seen as a result of the increasing importance and consequent demands for precision of the written language, and as part of the establishing of a written norm, separate from the spoken language. This assumption is supported by data from the traditional dialect of Övdalian, where adverbial infinitives are not used.

Keywords: adverbial infinitives, prepositional infinitives, Swedish, Övdalian, language Ausbau, grammatical replication, contact-induced change, Verschriftlichung

1 Introduction

The development of Swedish into a literary language is to a large extent characterized by intensive contact with other languages: Latin and Low German in the Middle Ages and High German and French in the Early Modern era. The first steps towards a literary and somewhat standardized written language were already being taken during the late Middle Ages in the monasteries and convents, most importantly at the abbey of Vadstena. The Latin influence on these texts is considerable, not least at a syntactic level, causing a split between written Old

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Swedish and the spoken varieties. This has been described as a process of language Ausbau (see Höder 2009, 2010). A more homogeneous written language took shape after the Reformation, with the translation of the Bible into Swedish during the first half of the 16th century as an important landmark. It was not until the end of the 18th century, however, that the standardization process was completed (more or less). As mentioned above, this post-Reformation period is characterized by contact between Swedish and High German and French (as well as Latin, but to a much lesser extent than before). Traces of this influence are clearly visible in the vocabulary even today (see Teleman 2003a,b), but we know considerably less about the syntactic influence from these languages.

This paper investigates a syntactic innovation from the dynamic post-Reformation period in the history of written Swedish, namely the emergence of adverbial infinitives, i.e. prepositional infinitive clauses functioning as adverbial adjuncts. While present-day Swedish has a range of such prepositional clauses, they are not attested in Old Swedish. A few examples of the adverbial infinitives discussed in this article are given in (1) below, all from present-day Swedish.

(1) a. Purposive
Han gick ut för att få sig lite luft.
he went out for IM get.INF REFL some air
'He went out to get some air.'

b. Abessive
Hon sålde företaget utan att fråga de anställda.
she sold company.DEF without IM ask.INF the employees
'She sold the company without asking the employees.'

c. Standardization
Jag satt hemma istället för att gå ut.
I sat home instead for IM go.INF out
'I stayed home instead of going out.'

d. Temporal
Hon läste medicin efter att ha kommit tillbaka från Berlin.
she read medicine after IM have.INF come back from Berlin
'She studied medicine after having returned from Berlin.'

e. Instrumental
Han gjorde sig oumbärlig genom att alltid vara steget före.
he made REFL indispensable through IM always be.INF step.DEF before
'He made himself indispensable by always being one step ahead.'

Adverbial infinitives (as well as adverbial constructions more generally) have not attracted much attention from Scandinavian scholars. One exception is Holm (1967), who makes several claims about adverbial infinitives in his influential survey of prose styles in the history of Swedish. Firstly, focusing on present-day North Germanic, Holm suggests that adverbial infinitives belong to a written register and are not used in "uneducated" (Sw. *obokligt*) speech, nor in the traditional dialects. He also claims that adverbial infinitives emerged with inspiration from other languages, such as High German and French, and that they are not attested in Old Swedish (Holm 1967: 27). Holm does not present any evidence to support his claims.

The aim of this article is to give a more detailed account of adverbial infinitives in the history of Swedish, and to compare standard Swedish with the non-standardized variety of Övdalian (see §4.3) with regard to the use of prepositional infinitives to express adverbial notions. I will also discuss whether the emergence of adverbial infinitives in Swedish could be an example of contact-induced grammaticalization (see Heine & Kuteva 2003, 2005) and if this, in turn, can be understood as part of an ongoing language Ausbau process (in the sense of Kloss 1967). If so, adverbial infinitives should originally have been part of a written register rather than a spoken register. Important questions are therefore: (1) when adverbial infinitives emerged in Swedish, and (2) whether there is support for the claim that they first appeared as part of a written register. In order to answer the first question, I have investigated Early Modern and Late Modern Swedish texts (ca. 1500–2000) from the digital corpora the Old Swedish Text Bank (Sw. *Fornsvenska textbanken*) and the Swedish Literature Bank (Sw. *Litteraturbanken*), both available through the corpus infrastructure Korp (Borin et al. 2012).[1] In addition to this, the corpus of Swedish drama dialogue (Sw. *Svensk dramadialog*; Melander Marttala & Strömquist 2001), covering the period 1725–2000, has also been investigated in its entirety. To shed light on the second question (i.e. whether adverbial infinitives first appeared as part of a written register), I have conducted a contrastive study of Swedish and the traditional dialect of Övdalian, using translations from Swedish into Övdalian.

The article is organized as follows. In §2, I give a brief introduction to the concept of language Ausbau in relation to the emergence of standardized written Swedish. §3 provides a background to the empirical study, with a survey of the history of the Germanic infinitive and a typological perspective on adverbial infinitives in European languages. In §4, I present my empirical findings, and §5 provides a theoretical discussion. Finally, §6 contains some concluding remarks.

[1] https://spraakbanken.gu.se/korp/

2 Functional expansion and formal elaboration of written Swedish

In the process of codifying a traditionally spoken language or dialect, i.e. transforming it into a written language, the written language will soon differ in certain regards from the spoken varieties. Over time, the use of the written language is normally expanded into new domains. This expansion itself leads to an elaboration of the written language, as it is shaped in more or less deliberate ways to meet certain (communicative or aesthetic) needs. This should be understood as an ongoing process, and is identified by Kloss (1967) as a diachronic process of language Ausbau. It can also be understood as a process of Verschriftlichung (see Fischer 2007: 37–38), i.e. the elaboration of the written language will lead to register-specific developments, such as more complex syntactic constructions. The functional expansion and subsequent formal elaboration of the written language lead to a split between the spoken and written varieties of a language (see Höder 2009). In societies in which a large part of the population has access to the written language (as in most modern Western societies), phenomena originally considered only as part of the written register can spread to the spoken language (Fischer 2007: 37, Weiß 2004).

In Swedish, the language Ausbau process was characterized by influence from other languages. The earliest longer texts in Old Swedish written with the Latin alphabet are the provincial laws (from the 13th century onwards), but it was mainly in the context of Vadstena Abbey that the shaping of Old Swedish into a literary language took place. Since Latin was the predominant language in this environment, the Swedish texts produced there were often heavily influenced by Latin, for instance regarding relativization and other syntactic patterns (see further Höder 2009, 2010, Wollin 1981, 1983). The bulk of the texts were also translations or paraphrases of Latin originals (i.e. not original works in Swedish). Many of these Latin-inspired constructions survived into Early Modern Swedish through the Reformation Bible translations, which were influenced by the Vadstena tradition (see Ståhle 1970, Teleman 2002, 2003a). Outside of the religious context, another language was in more direct contact with Swedish, namely Low German. During the Middle Ages, the Hanseatic League had a strong impact on the Scandinavian countries, in particular in urban settings, where a large part of the population were Low German merchants. Unlike Latin, the Low German influence was not limited to the written language, but also affected the spoken language of the cities (see Braunmüller 1997, 2005). The influence can be observed on all linguistic levels, including numerous grammatical loans, for example conjunctions such as *men* 'but', *samt* 'and', auxiliaries such as *måste* 'must', *bliva*

'become', and derivational morphology such as *be-*, *för-*. (See for example Braunmüller 2005 for an overview of Low German (and Latin) influence on Swedish.)

During the Early Modern era (i.e. post-Reformation), written Swedish was used in more contexts (for instance in private letters, diaries, science reports, novels, etc.) and no longer mainly in religious or administrational contexts. The Reformation in the first half of the 16th century marked the end of the text production within the monasteries, since they were closed down. Instead, original production in Swedish increased, and the Latin influence decreased. Simultaneously, the importance of the Hanseatic League diminished, thus leading to less contact between Swedish and Low German. Instead, High German became an important language in Sweden, affecting the emerging written standard, not least with regard to the Bible translation in 1541. The High German influence was not only orthographic and lexical, but also syntactic. For example, it has been suggested that the increasing OV frequency of the time (Petzell 2011) and so-called finite *ha*-drop in subordinate clauses (see Johannisson 1945, who first made the claim, and Bäckström 2019, who puts it to the test) are both due to contact with High German (see also Braunmüller 2005 for an overview). High German continued to be an important language in Sweden throughout the Early and Late Modern Swedish period, but from the 17th century onwards, Swedish was also affected by French. The French influence, however, was not as far reaching as the High German one, affecting mainly the lexicon (see Gellerstam 2005). By the end of the 18th century, a more or less standardized written Swedish was in place (Teleman 2002, see also Larsson & Petzell 2022 [this volume]).

3 Background

In this section, I give a short introduction to the historical origins of the infinitive and the infinitive marker with special focus on North Germanic. Thereafter, I discuss adverbial infinitives from a typological perspective, comparing present-day Swedish with some other European languages, primarily Romance languages and German. I also summarize the historical development of adverbial infinitives in Romance languages.

3.1 The Germanic infinitive: A short introduction

In Swedish, as in many other European languages, the infinitive is considered the basic form of the verb, used for example as the dictionary entry. Unlike in English, where the infinitive is identical to the verb stem, the Swedish infinitive

is an inflected form, at least when the verb stem is consonantal.[2] The Swedish infinitive is always vocalic; if the stem ends with a consonant, an *a*-suffix is added. However, if the verb stem is vocalic, there is no formal difference between the stem and the infinitive, as illustrated in (2) below.

(2)		stem	infinitive	
	a.	*läs*	*läs-a*	'read'
		köp	*köp-a*	'buy'
	b.	*sy*	*sy-∅*	'sew'
		hoppa	*hoppa-∅*	'jump'

From a historical perspective, the verbal status of the infinitive is less obvious. The characteristic *a*-ending of the Swedish infinitive is the remnant of an Old Germanic derivational suffix *-an(a)* used in the formation of verbal nouns (Falk & Torp 1900: 193). Originally, the infinitive was thus nominal rather than verbal, and as such it took case endings like any other nominal element. Examples of this can be found in West Germanic, but not in Ancient Nordic (Prokosch 1939: 205). Over time, the deverbal noun was reanalysed as a verb, as the derivational affix was grammaticalized into an inflectional ending. The *-n* was lost at an early stage in North Germanic languages but is preserved in, for example, German and Dutch (see Noreen 1898: 636). The infinitive is thus common to all the Germanic languages. There are infinitives in other Indo-European languages as well, for example in Romance, but these are etymologically distinct from their Germanic counterparts (see Prokosch 1939: 205, Falk & Torp 1900: 193).

In Germanic (and also in Romance), the infinitive came to be associated with prepositions that were later grammaticalized into infinitive markers. While there is a common Germanic infinitive, the infinitival preposition is different in the North Germanic languages than in the Continental Germanic languages (including English). The Nordic preposition is *at* ('at', 'by'), identical to the present-day Swedish preposition *åt*, and with the same semantics (see Hellquist 1948), and the Proto-Germanic is **tō* ('at', 'by'), thus corresponding to Dutch *te*, Eng. *to*, Ger. *zu*, etc. Note that the infinitive markers in Romance languages have similar semantics, for example French *de* and *à* (see Beckman 1934: 15).[3] With the deverbal noun as a complement, the prepositional phrase was used to express allative or locative meanings. As the nominal status of the infinitive was gradually lost,

[2]There are North Germanic dialects in which the verb stem is identical to the infinitive, as in English (see Delsing 2014).

[3]In Romance, the infinitive markers seem to retain more of their prepositional status than in Germanic. See §3.2 below.

and it was reanalysed as a verb, the prepositional infinitives came to express purposive meanings instead. This can be understood as a semantic change in which the prepositional phrase first expressed a concrete, spatial goal and later a more abstract goal (see Los 2005). In Gothic, for example, there is a regular system in which the infinitival preposition *du* (optionally) can be used in purposive infinitives, while non-purposive infinitives are always bare, i.e. appear without the infinitival preposition. A few examples are given in (3) below. The distribution of the Old High German *ze* seems to be similar to that of Gothic *du* (Haspelmath 1989).

(3) a. Purposive
sat du aíthron (Gothic)
sit.PST.3SG to pray.INF
'he sat down to pray' (from Wright 1954: 193–194)

b. Object
othedun faríhnan ina (Gothic)
fear.PST.3PL ask.INF him.ACC
'they feared to ask him' (from Wright 1954: 193–194)

c. Subject
ni godh ist niman hláif barne (Gothic)
not good be.PRS.3SG take.INF bread.ACC child.PL.GEN
'it is not good to take the bread of the children' (from Wright 1954: 193–194)

Over time, the infinitival preposition spread from purposive to non-purposive contexts in all of the Germanic languages. The results of this process are similar across Germanic languages, but there is also variation between the languages, even within the North Germanic branch (see Haspelmath 1989, Los 2005, Kalm 2016a,b, 2019). The final stages of the spread of infinitival prepositions to non-purposive contexts can partly be traced in Early Old Swedish (EOS, ca. 1225–1375). In many of the earliest Swedish texts (i.e. the provincial laws from the 13th century), *at* is regularly used in purposive infinitives, while its use outside of these contexts is highly irregular (Kalm 2016b: 186; see also Kalm 2019 for a comparison with Old Danish and Old Gutnish). A few examples are given in (4). Note that present-day Swedish requires the infinitive marker in all of the contexts exemplified.

(4) a. Purposive
Combær han til at köpæ iorþ
comes he there IM buy.INF soil
'He comes there to buy land' (EWL, EOS)

b. Complement to adjective
siþæn ær han skyldughær kunungær wæræ
then is he obliged king be.INF
'then he is obliged to be king' (UL, EOS)

c. Subject
Nu ær þæt klokkarans skuld. bæra bok ok stol i
now is it clerc.DEF.GEN obligation carry.INF book and stole in
sokn
parish.DEF
'Now it is the liability of the clerk to bring the Bible and the stole to the parish' (ÖgL, EOS)

The use of the infinitival preposition/infinitive marker stabilized during the Old Swedish period, and by the beginning of the Early Modern period (the 16th century onwards), its distribution was generally the same as in present-day Swedish (see however Hellquist 1902: 194–195 for some exceptions to this). The prepositional status of the infinitive marker was gradually lost during the Old Swedish period (see further Kalm 2016b: 195–199).

3.2 Typological and diachronic perspectives on adverbial infinitives

As mentioned earlier, the historical development of adverbial constructions has not been a major focus in Scandinavian linguistics. In part, this is probably due to the difficulties associated with defining the adverbial category as such; adverbial notions can be expressed in various ways (see van der Auwera 1998: 3). From a typological point of view, it can be noted that adverbial clauses (finite and non-finite) are common in the languages of Europe, although there is substantial variation with regard to the exact syntactic expression (see Hengenveld 1998 for a comprehensive overview). Focusing on adverbial infinitives, we can note that many of the adverbial notions that are expressed using prepositional infinitives in Swedish correspond to prepositional participles in English (see the examples in (1) above and their respective translations into English). Prepositional infinitives can be used in, for instance, German and French to express some of these notions. See (5) for examples.

(5) Examples of prepositional infinitives in French and German.

a. Purposive

i. German
Sie isst viel, um Gewicht zu gewinnen.
She eats a.lot for weight IM win.INF
'She eats a lot in order to gain weight'

ii. French
Elle mange beaucoup pour prendre du poids.
she eats a.lot for gain.INF PREP.ART weight
'She eats a lot in order to gain weight.'

b. Abessive

i. German
Er ging, ohne etwas zu sagen.
he left without something IM say.INF
'He left without saying anything.'

ii. French
Il est sorti sans rien dire.
he is left without nothing say.INF
'He left without saying anything.'

c. Standardization

i. German
Er blieb vor dem Fernseher, anstatt mit seinen
he stayed in.front.of ART TV instead.of with his
Freunden aus-zu-gehen.
friends out-IM-go.INF
'He stayed in front of the TV instead of going out with his friends.'

ii. French
Il est resté devant la télé au lieu de sortir avec
he is stayed in.front.of ART TV in stead of going.out.INF with
ses amis.
his friends
'He stayed in front of the TV instead of going out with his friends.'

d. Temporal (anteriority)

i. German
–

ii. French
Après avoir réfléchi, elle lui répondit.
after have.INF reflected she him answered
'After having reflected, she answered him.'

Note that the prepositional infinitives in French normally do not contain the equivalent of an infinitive marker (e.g. *att* in Swedish). In German, however, *zu* is used in a similar way to its Swedish counterpart. This is probably due to the fact that the infinitive markers of Romance have retained their prepositional status to a greater extent than in the Germanic languages. As is evident from the examples above, there is no perfect overlap between the languages, i.e. there are differences in the range of prepositional infinitives available (see Hengenveld 1998). Unlike in Swedish, temporal posteriority may be expressed using a prepositional infinitive in French (see 6a below). In Swedish, this would correspond to a finite clause. In some Romance languages, such as Spanish and Portuguese, there is also a concessive infinitive. This would also normally correspond to a finite clause in Swedish. Examples of Romance prepositional infinitives expressing temporal posteriority and concessive meaning are given in (6a) and (6b) respectively.

(6) a. French
Il faut réfléchir avant de parler.
INDF must reflect.INF before PREP speak.INF
'One must reflect before speaking.' (from Grevisse 1993: 1298)

b. Spanish
Ambos procesos requieren de las mismas técnicas a
both processes require PREP ART same techniques PREP
pesar de ser totalmente diferentes.
despite PREP be.INF totally different
'Both processes require the same techniques even though they are totally different.' (from Schulte 2007b: 533)

Conversely, the Swedish instrumental infinitive corresponds to other constructions in both Romance languages and German. In French, a contrastive study shows that *genom* 'through, by' + *att* + infinitive (i.e. what I have called instrumental infinitive; see (1e) above) generally corresponds to the use of the *gérondif* (Hellqvist 2015: 128). It is thus quite evident that the system of using a prepositional infinitive to express certain adverbial notions is common in many languages, but the exact range of prepositional infinitives available varies quite a

lot between different languages. If Holm (1967) is correct in assuming that adverbial infinitives in Swedish developed on the basis of French and/or High German models, it would be the construction as such (i.e., the use of prepositional infinitives as adverbial adjuncts) that was replicated, rather than the individual components.

Adverbial infinitives are not attested in Latin, but are innovations in the vernaculars. In his investigation of adverbial infinitives in the history of Spanish, Portuguese, and Romanian, Schulte (2007a,b) shows that prepositional infinitives emerged independently in each of the three languages. In spite of this, the developments show striking similarities, as the relative chronological order in which the different prepositional infinitives appeared is identical. The order is shown in (7) below.

(7) purposive > abessive > temporal > substitutive > concessive

The development of adverbial infinitives in Romance can be understood as a gradual process in which one prepositional construction is attested after the other. It should be noted that Romanian has not yet developed a concessive infinitive, in contrast with Portuguese and Spanish. Schulte (2007a) argues that his results show that the emergence of adverbial infinitives is in line with general tendencies in how adverbial categories evolve in languages (cf. Cristofaro 2005; see also §5.1). With regard to Swedish, it can be noted that all of the adverbial infinitives in (7) are attested, with the exception of concessive infinitives. At least, this is the impression given by the Swedish Academy grammar (Teleman et al. 1999/3: 589–591), in which no mention of concessive infinitives is made. Nevertheless, it is possible to find examples of what appear to be concessive infinitives, mainly in informal Swedish. The following examples are excerpted using the present-day Swedish corpora in the corpus infrastructure Korp (Borin et al. 2012).

(8) a. jag blir (sur) på nära och kära som trots att ha verkat
I become sulky at close and dear that despite IM have.INF seemed
vara okej med instruktionen … kräver att jag ska vara
be.INF okay with instruction.DEF demand that I shall be
anträffbar
available
'I get (sulky) at my loved ones who even though they seem to be okay with the instruction … demand that I be available' (Blogg 2007)

b. Men, det känns ändå kul att belönas med drygt 65% trots
but it feels still fun to reward.INF.PASS with fully 65% despite
att ha ridit en ritt jag inte var nöjd med.
IM have.INF ridden a ride I not was pleased with
'But, it is still fun to be rewarded with slightly more than 65% even though I had ridden a ride I was not satisfied with.' (Blogg 2016)

To sum up, adverbial infinitives of different sorts exist in many European languages, including French and German. It has been suggested that the emergence of adverbial infinitives in Romance follows a general pattern of how adverbial categories evolve in languages. An interesting question is therefore whether this analysis can also be extended to Swedish. In the next section, the empirical investigation of adverbial infinitives in Swedish and Övdalian will be presented.

4 Adverbial infinitives in Swedish

In this section, I present the results of the empirical investigation of adverbial infinitives in the history of Swedish and in the traditional dialect Övdalian. Since purposive infinitives have a somewhat separate history from the other adverbial infinitives, as they are attested even in Old Swedish, they are discussed separately, in §4.1.

4.1 Purposive infinitives

Purposive infinitives are common throughout the history of Swedish, but their form has varied substantially over time. In present-day Swedish, purposive infinitives are normally introduced with the preposition *för* 'for'. In specific contexts, where the purposive reading of the infinitive is implied, it is possible to omit the preposition. An example of such a context is given in (9a) below, where the matrix verb is *skicka* 'send'. In (9b), the preposition is obligatory since it is not a "purposive" context (see Kalm 2016b: 137–138). Note that both constructions are purposive, the difference being that the preposition *för* is obligatory only in (9b).

(9) Present-day Swedish
a. Vi skickade honom (för) att köpa mjölk.
we sent him PREP IM buy.INF milk
'We sent him to buy milk.'

b. Jag satte mig på andra sidan gången för att inte vara i
I sat REFL at other side.DEF aisle.DEF PREP IM not be.INF in
vägen.
way.DEF
'I sat down on the other side of the aisle in order not to be in the way.'

In earlier stages of Swedish, the form of the purposive infinitive varied both diachronically and synchronically (depending on the semantic context of the infinitive clause). In the earliest Old Swedish texts (i.e. the provincial laws from the 13th century), purposive infinitives were normally not prepositional (see Kalm 2016b: 120). As mentioned in §3.1 above, the infinitive marker *at* spread from purposive to non-purposive contexts in the 13th century. A possible explanation as to why purposive infinitives were not prepositional in the earliest or most archaic time might be that *at* itself was considered a marker of the purposive reading and therefore a preposition was not needed. Given the etymological status of *at* as a preposition, it is also possible that it maintained its prepositional status at the time, and that it could not be introduced by yet another preposition.

Leaving the categorical status of the infinitive marker aside, the use of *at* in purposive infinitives was very common in the earliest stages of Old Swedish. It was not completely obligatory, however, and it is possible to find examples of bare infinitives with a purposive reading.[4] Interestingly, this use of the bare infinitive seems to be restricted to contexts in which the purposive reading of the infinitive clause is implied, typically in combination with verbs of motion, i.e. similar to the contexts in which the preposition *för* 'for' can be omitted in present-day Swedish.[5] Below, (10a) is a typical example of a purposive *at*-infinitive from the 13th century, and (10b) shows a bare infinitive with a purposive reading. Note that the verb *sænda* 'send' in (10b) is semantically identical to the present-day Swedish verb in (9a) above.

(10) a. han ær i. sokn farin siukum. at hiælpæ.
he is in parish gone sick IM help.INF
'he went to the city to help the sick' (EWL, EOS)

b. han sænde sina dicipulos viþa vm væruldena pradica.
he sent his disciples wide around world.DEF preach.INF
'he sent his disciples around the world to preach' (Leg, EOS)

[4]It can be noted that in earlier stages of Germanic languages, the infinitival ending was a case suffix, representing the accusative. Since the accusative itself could denote a goal, neither the infinitival preposition (the infinitive marker) nor a preposition was necessary (see Haspelmath 1989, Jeffers 1975).

[5]The bare purposive infinitive in combination with verbs of motion is also attested in Estonian Swedish (Lagman 1958: 88–89; see also Jörgensen 1970: 38).

In the Late Old Swedish period (LOS, ca. 1375–1526), it became increasingly common to explicitly mark the purposive semantics of the infinitive using the preposition *til* 'to', possibly with inspiration from Low German (see also §5.1). The increasing use of prepositional purposive infinitives seems to correlate with the distributional expansion of *at* through which the connection between *at* and the purposive meaning is weakened. Two examples of *til*-governed purposive *at*-infinitives from the Late Old Swedish period are given in (11) below.

(11) a. Til mykla oglädhi war thu här komin aff franz til at
for much unhappiness were you here come of France to IM
göra nakan wanhedher konungx döttrom
make.INF some dishonor king.GEN daughters
'to our great displeasure, you came here from France to dishonor the daughters of the king' (KM, LOS)

b. jak nidherfoor til Colne til ath thär faa reliquias
I down.traveled to Cologne to IM there get.INF relics
'I travelled to Cologne to get relics there' (Måns, LOS, p. 332)

During the Early Modern period (ca. 1526 onward), there is considerable variation in the form of the purposive infinitive.[6] In addition to the Old Swedish patterns, some purposive infinitives are also introduced by *til* 'to' alone, as in (12a) below, or by *til* 'to' in combination with the preposition *för* 'for', as in (12b). This is a consequence of the grammaticalization of *til* (*at*) as an infinitive marker during the 16th and 17th centuries (see Kalm 2014, 2016a, 2016b: 203–221). In (12c) there is an example of *til at* as a complex infinitive marker in a purposive infinitive introduced by the preposition *för* 'for'. Not until the late 18th century was the present-day system with a *för*-introduced *at*-infinitive established. An early example is given in (12d).

(12) a. Men nu ha vi komme hit te gratulera
but now have we come here PREP/IM congratulate.INF
'But now we have come to congratulate' (2cKUSINE, 1791)

b. Ä de inte Ni, som kom te mej för te berätta hur Ni har hört
is it not you that came to me for IM tell.INF how you have heard
'Is it not you, who came to me, to tell me how you had heard' (2cKUSINE, 1791)

[6]There is also substantial variation in the form of purposive infinitives in German, both synchronically and diachronically (see Demske 2011).

c. Häldre ger jag ut min plåt för sådant, än jag går på Operan
rather give I out my ticket for such than I go to Opera.DEF
och knuffas, för til at få se et par illa uphängda Gudar
and jostle for IM IM get.INF see.INF a pair poorly hanged gods
träta ur Dis dure med hwarandra.
argue from Dis dure with each.other
'I would rather give away my ticket than go to the Opera and hustle in order to see a pair of poorly hanging gods arguing in D-sharp major with each other.' (2aSTERBH, 1776)

d. Sedan Danske skeep flotten had liggat söder i Callmars
since Danish ship fleet.DEF had layed south in Kalmar.GEN
sundh och blockuerat i 2 veckor så gick han åth Gottland för att
channel and blocked in 2 weeks so went he to Gotland for IM
forsorga sigh medh wedh och proviant.
support.INF REFL with firewood and provisions
'Since the Danish fleet had been in the south, blocking the channel of Kalmar for two weeks, he went to Gotland to get supplies of firewood and provisions.' (Bol, ca. 1697, p. 78)

The form of the purposive infinitive has evidently varied substantially throughout the history of Swedish: it has been bare, and introduced by different infinitive markers (*at*, *til at*, *til*) and prepositions (*til* 'to', *för* 'for'). In Table 1, I give an overview of the proportions of the purposive constructions in the history of Swedish.

The data in Table 1 show that the purposive infinitive most commonly takes the form of a non-prepositional *at*-infinitive in Early Old Swedish (i.e. 1225–1300 and 1301–1375). There are also examples of bare infinitives and, from the 14th century onwards, *til*-introduced *at*-infinitives. The latter became more common over time, and in the 16th century, this was the dominant pattern.[7] The variation in form increased during the 17th and early 18th centuries, but decreased during the second half of the 18th century, with the rather sudden shift from *til* 'to' to *för* 'for' as the general purposive preposition. In the early 18th century, *för* 'for' was quite rare in purposive contexts, while it dominated the purposive infinitives in the latter part of the century. It is not quite clear what motivation

[7]This is partly due to the fact that *til at* was grammaticalized into a complex infinitive marker during the 16th century. The use of *til at* was not restricted to purposive contexts, but used more generally by certain writers in the 16th–18th centuries. See Kalm (2016a, 2016b: 203–221) for further details.

Table 1: Distribution of purposive infinitives in the history of Swedish, based on data from Kalm (2016b) and the corpus of Swedish drama dialogue ($N = 1230$).

	bare inf.	*at*	*til at*	*til*	*för til at*	*för at*
1225–1300	22%	78%	–	–	–	–
1301–1375	8%	85%	8%	–	–	–
1376–1450	2%	84%	14%	–	–	–
1451–1526	5%	70%	23%	2%	–	–
1527–1600	–	25%	74%	1%	–	–
1601–1675	3%	66%	30%	1%	–	1%
1725–1750	–	43%	55%	–	–	2%
1775–1800	–	15%	1%	8%	2%	74%
1825–1850	–	6%	–	–	–	94%
1875–1900	–	2%	–	–	–	98%
1925–1950	–	1%	–	–	–	99%
1975–2000	–	2%	–	–	–	98%

there was for this shift in purposive preposition.[8] Other constructions (such as *för te* + infinitive or *för til at* + infinitive) must be considered quite marginal in comparison with these more frequent patterns. From the 19th century onwards, only *för*-introduced *at*-infinitives and bare *at*-infinitives are attested with purposive meaning.

4.2 Other adverbial infinitives

Adverbial infinitives are prepositional in present-day Swedish, with the above-mentioned exceptions of certain purposive infinitives (see example (9) above), and the infinitive marker *att* is obligatory. Prepositional infinitives were already common in Old Swedish, but the prepositions were then part of the lexical construction of a governing verb, noun, or adjective, i.e. they did not introduce adverbial adjuncts. The earliest examples of adverbial (adjunct) infinitives appear in texts from the second half of the 17th century. First attested are abessive infinitives in a text from 1657, and substitutive infinitives in a text from 1675; see (13) below.

[8] As pointed out by an anonymous reviewer, one possibility could be influence from the purposive *pour* 'for' + infinitive construction in French.

(13) a. Abessive
[Då] kom wijd Minans springande en fransos flygandess
then came at mine.DEF.GEN exploding a Frenchman flying
och ståendes på föttren mitt ibland Officerarne utan at
and standing at foot.PL.DEF midst among officer.PL.DEF without IM
wara på något sätt skadder.
be.INF at any way hurt
'[Then] came when the mine exploded a Frenchman flying and standing on his feet in the midst of the officers, without being in any way hurt.' (Rålamb, 1657)

b. Standardization
i stället för at fruckta dem, utbrast han i desse ord: Ju flere
in place for to fear.INF them exclaimed he in these words the more
Fijender ju meer ähra.
enemies the more honor
'instead of fearing them, he exclaimed these words: The more enemies, the more glory.' (Mål-roo, 1675)

Both abessive and substitutive infinitives seem to have been used only sporadically during the late 17th century, but they rapidly become common in texts from the 18th century, especially the abessive infinitives (see Kalm 2016b: 129–130). The first examples of temporal and instrumental infinitives date from much later. The earliest instance of a temporal infinitive is from 1779, and the first instrumental infinitive appears in 1829; see (14) below.

(14) a. Temporal
Då jag efter att ha likafullt gått ut … åter tillbaka
as I after IM have.INF nevertheless gone.SUP out again back
kom holt jag före att man borde i så critiqva omständigheter
came held I for that one should in such critical circumstances
ej våga dröja längre utan strax gjöra Revolten.
not dare wait longer but soon make revolt.DEF
'As I, after nevertheless having gone out, came back, I meant that one should, in such critical conditions, not dare to wait any longer but immediately begin the revolt.' (Ehrensvärd, 1779, p. 6)

b. Instrumental
konsten segrar icke genom att trotsa, utan genom att
art.DEF prevails not through IM defy.INF but through IM

följa naturen
follow.INF nature.DEF
'Art will not prevail by defying, but by following nature' (von Unge, 1829)

In a similar way to the situation in Romance (Schulte 2007a,b), the development of adverbial infinitives in Swedish thus seems to have been a gradual process. Over time, more adverbial notions came to be expressed with prepositional infinitives. In (15) below, I have summarized the order of first appearance for the adverbial infinitives investigated in this article. A comparison with the corresponding process in Romance (see (7) above) shows that the processes are similar, but not identical. As is the case in Romance, purposive infinitives are the first to be attested, followed by abessive infinitives. While substitutive infinitives are attested earlier than temporal infinitives in Swedish, it is the opposite order in Romance. The instrumental infinitive has no equivalent in Romance, and there are no examples of concessive infinitives in the Swedish corpora investigated for this study.[9]

(15) purposive > abessive > substitutive > temporal > instrumental
(1225) (1657) (1675) (1779) (1829)

In conclusion, we have seen that it became possible to express certain adverbial notions with prepositional infinitives from the second half of the 17th century onwards. The emergence of such adverbial infinitives seems to have been a gradual process in the sense that abessive and substitutive infinitives are attested about a hundred years before the first example of temporal infinitives. Instrumental infinitives are attested during the first half of the 19th century. The process shows similarities with the grammaticalization of adverbial infinitives in Romance (see Schulte 2007a,b).

4.3 The case of Övdalian

As mentioned above, Holm (1967: 27) claims that adverbial (prepositional) infinitives are not attested in traditional dialects. If this is correct, it means that other linguistic resources need to be used to express these adverbial notions. As already mentioned, Holm does not present any data to support his claim, and it can also be difficult to find the relevant data. When comparing standardized languages with each other, it can be fruitful to work contrastively with translations

[9]See, however, the examples from present-day Swedish in (8) above.

between the two languages. This method allows us to find specific constructions in a language and see how they are translated into another language. Dialects and other non-standard varieties are normally spoken, and rarely written down, and the comparison between the variety and the standard language is therefore more difficult to conduct, at least when you are interested in the usage of a specific construction. From a Swedish point of view, there is one important exception to this, namely Övdalian.

Övdalian (Sw. *älvdalska*) is traditionally considered a Swedish dialect, but in recent times there have been attempts to get it acknowledged as a minority language in Sweden because of its distance, linguistically speaking, from standard Swedish. Övdalian is spoken in the northern parts of the province of Dalarna by around 2,500 people (Garbacz 2009: 27). The variety is characterized both by many archaic traits (such as the persistence of a partial case system and subject-verb inflection) and by innovations (for example, secondary diphthongs). It has received considerable attention from linguists in the last decades, with the result that it is fairly well described (see for instance Garbacz 2009, Bentzen et al. 2015). There is also an interest among the speakers of Övdalian in preserving the variety.[10] As a consequence, Övdalian has been codified in dictionaries and grammars in recent years, unlike most other North Germanic dialects or non-standard varieties. An orthographic norm is in the process of being established, and there are at the moment a fair number of texts available in Övdalian, both original works and translations.

It is possible that Övdalian is going through a process of both standardization and Verschriftlichung at the moment, but given its relative isolation historically, it has not been influenced by other languages, and not even by standard Swedish to any great extent, it seems. At present, however, it is likely that Övdalian is being affected by Swedish, not least since all of its speakers are bilingual.

For this investigation, I have chosen to use two Övdalian translations from Swedish: the novel *Hunden/Rattsjin* 'The dog' and the Gospel of John (in Sw. Johannesevangeliet, Joh.; in Övd. Juanneswaundsjilą, Jua.). I have excerpted all of the adverbial infinitives in the Swedish texts and then compared them with their respective translations. The aim is to establish whether Övdalian uses prepositional infinitives or other linguistic resources to express the notions that are expressed with prepositional infinitives in Swedish. My hope is that this contrastive study will give us clues as to how adverbial notions might be expressed in varieties that have not gone through a process of Verschriftlichung or language

[10]There is, for example, an association for the preservation of Övdalian, Ulum Dalska, founded in 1985.

Ausbau, including earlier stages of Swedish. That being said, it is important to remember that the Övdalian texts might be affected by the Swedish originals.

There are in total 79 adverbial infinitives in the two Swedish texts, evenly distributed between them. An overview of the Swedish data is given in Table 2.

Table 2: Adverbial infinitives in the Swedish texts.

	Hunden	*Johannesevangeliet*	Total
Purposive	28	35	63
Abessive	10	1	11
Instrumental	1	3	4
Temporal	0	1	1
Total	39	40	79

The purposive infinitives are by far the most common. There are only 16 examples of other adverbial infinitives in the two texts; substitutive infinitives are not attested. All of the purposive infinitives are introduced by the preposition *för* 'for' in the Swedish texts. These are translated using several different constructions in Övdalian, including prepositional infinitives. An overview is given in Table 3.

Table 3: Övdalian translations of purposive infinitives.

	Rattsjin	*Juanneswaundsjilą*	Total
fer te-inf. ('for to')	7	19	26
og coordination ('and')	11	12	23
so clause ('so')	5	2	7
fer clause ('for')	5	0	5
bare inf.	0	1	1
other[a]	0	1	1

[a]In this one instance, the translation is far from the Swedish original for some reason, and it is difficult to say what part of the translation would correspond to the purposive infinitive.

In the reference grammar of Övdalian (Åkerberg & Nyström 2012), the authors note that the purposive *för att*-infinitive ('for to') is somewhat difficult to translate to Övdalian. Apparently, Övdalian would prefer to use a construction with the conjunction *og* 'and' + infinitive instead (Åkerberg & Nyström 2012: 539).

However, in the translations I have investigated, prepositional (purposive) infinitives are common (26 instances; see Table 3), and they are used much like in the Swedish original. Note that the Övdalian infinitive marker is *te* (see §4.1 above). In the purposive infinitives in (16) and (17) below, both Swedish and Övdalian have infinitives introduced with the preposition *för/fer* 'for' and the infinitive marker (*att/te*).

(16) a. Present-day Swedish
Nu fick han lyfta benen högt för att komma fram i
now got he lift.INF leg.PL.DEF high for IM come.INF forward in
snösörjan.
slush.DEF
'He now had to raise his leg up high in order to make his way through the slush.' (Hunden, p. 26)

b. Övdalian
Nu wart an lypt fuätum og fer te tågå sig framm i
now was he lift feet and for IM come.INF REFL forward in
wåtsnjuäm.
slush.DEF
'He now had to raise his leg up high in order to make his way through the slush.' (Rattsjin, p. 26)

(17) a. Present-day Swedish
Detta sade de för att sätta honom på prov och få något att
this said they for IM put.INF him at test and get something IM
anklaga honom för.
accuse.INF him for
'They were using this question as a trap, in order to have a basis for accusing him.' (Joh. 8:6)

b. Övdalian
Edar sagd dier bar fer tä frest an og fer tä fǫ
this said they just for IM tempt.INF him and for IM get.INF
nod tä klågå ǫ an fer.
something IM complain.INF at him for
'They were using this question as a trap, in order to have a basis for accusing him.' (Jua. 8:6)

Og-introduced structures are also common, but they are far from always being non-finite. Rather, *og* commonly introduces a finite clause from which the subject has been omitted, as in example (18) below: *slätsjer* 'lick' is the singular form

of the present tense of the verb. Instead of a purposive reading, the construction emphasizes the simultaneity of the two verb actions. In (19), however, the prepositional infinitive in Swedish is translated using *og* + the infinitive: *dsjärå* 'do, make, create' is an unambiguous infinitive. Because of the Övdalian tendency to drop vocalic endings (see Åkerberg & Nyström 2012: 532), it is sometimes difficult to establish whether the verb is finite or non-finite. An example of this can be found in (20). There is no way of knowing whether it is the infinitival *a*-ending or the past tense third person plural *e*-ending that is omitted from the form *myöt* 'meet'.

(18) a. Present-day Swedish
Ibland stannar han för att slicka på skaren.
sometimes stops he for IM lick.INF at snow.crust.DEF
'Sometimes he stops to lick the snow crust.' (Hunden, p. 13)

b. Övdalian
Millumað stanner an og slätsjer skåråŋ liteð.
Sometimes stops he and licks snow.crust.DEF little
'Sometimes he stops to lick the snow crust a little bit.' (Rattsjin, p. 13)

(19) a. Present-day Swedish
Skulle jag annars säga att jag går bort för att bereda
would I otherwise say.INF that I go away for IM prepare.INF
plats för er?
place for you
'If that were not so, would I have told you that I am going there to prepare a place for you?' (Joh. 14:2)

b. Övdalian
Edd ig sagt ellest, ig far dait og dsjärå ruom ad id?
had I said otherwise I go there and make.INF room at you
'If that were not so, would I have told you that I am going there to prepare a place for you?' (Jua. 14:2)

(20) a. Present-day Swedish
När folk hörde att han hade gjort detta tecken drog de ut
when people heard that he had made this sign went they out
för att möta honom.
for IM meet.INF him
'Many people, because they had heard that he had performed this sign, went out to meet him.' (Joh. 12:18)

b. Övdalian
So mes fuotsjed fingg är, an add gart ed teckned, fuor dier aut
so when people got hear he had done that sign went they out
og myöt onum.
and meet.INF/PRES him
'Many people, because they had heard that he had performed this sign, went out to meet him.' (Jua. 12:18)

There are also twelve instances in which Övdalian has a subordinate clause instead of a prepositional infinitive; ten of these examples are found in Rattsjin. According to Åkerberg & Nyström (2012: 491), both *fer* and *so* are purposive subjunctions (but *so* can also be used to introduce resultative clauses). Two examples are given in (21) and (22).

(21) a. Present-day Swedish
En gång hade han plumsat i för att försöka nå dem.
one time had he splashed in for IM try.INF reach them
'Once, he had splashed in in an attempt to reach them.' (Hunden, p. 51)

b. Övdalian
Iesn add an pulsað åv auti fer an willd biuäð til kum að diem.
once had he splashed off into for he wanted try to come at them
'Once, he had splashed in in an attempt to reach them.' (Rattsjin, p. 51)

(22) a. Present-day Swedish
Själva stannade de utanför, för att inte bli orena
self stayed they outside for IM not become.INF unclean
'To avoid ceremonial uncleanness they did not enter the palace' (Joh. 18:28)

b. Övdalian
og siuover dsjingg dier it in i hlotted, so dier uld it
and self went they not in in palace.DEF so they would not
werd ųoriener.
become.INF unclean
'and to avoid ceremonial uncleanness they did not enter the palace, because they wanted to be able to eat the Passover.' (Jua. 18:28)

Finally, there is one example of a bare infinitive with a purposive meaning, reproduced as (23) below. Interestingly, the bare infinitive appears in what I referred to above as a purposive context, i.e. in combination with a verb phrase expressing motion. In these contexts, we also find bare infinitives in Old Swedish.[11]

[11]This also seems to be the case in Estonian Swedish (Lagman 1958: 88–89).

(23) a. Present-day Swedish
När Maria hörde det, steg hon strax upp och gick för att möta
when Mary heard that went she soon up and went for IM meet.INF
honom.
him
'When Mary heard this, she got up quickly and went to meet him.'
(Joh. 11:29)

b. Övdalian
Snjäst Mari fick är ed, raitt ǫ upp sig og fuor stad
when Mary got hear that raised she up REFL and went along
myöt onum.
meet.INF him
'When Mary heard this, she got up quickly and went to meet him.'
(Jua. 11:29)

Abessive infinitives are relatively common in the Swedish texts, especially in the novel *Hunden*. They are generally not translated with a prepositional construction in Övdalian. Instead of using embedding, as in Swedish, the Övdalian translators have normally chosen to use a coordinate negated structure instead, as in (24–25) below. On one occasion, the translator used a finite subordinate structure instead; see (26) below.

(24) a. Present-day Swedish
Han följde dem alltid med blicken men låg kvar utan att
he followed them always with eye.DEF but stayed put without IM
känna upphetsning.
feel.INF excitement
'He followed them always with his eye, but stayed put without feeling excitement.' (Hunden, p. 52)

b. Övdalian
An fygd ǫ ðiem min ogum olltiett og låg kwer og wart
he followed at them with eyes always and stayed put and became
it ekster.
not excited
'He followed them always with his eye, but stayed put without feeling excitement.' (Rattsjin, p. 52)

(25) a. Present-day Swedish
Han som låg under vindfället lyssnade utan att
he who laid under windfall.DEF listened without IM
förstå.
understand.INF
'He who was under the windfall listened without understanding.'
(Hunden, p. 82)

b. Övdalian
An so låg under windfellę lydd men bigript it
he who laid under windfall.DEF listened but understood not
noð.
anything
'He who was under the windfall listened without understanding.'
(Rattsjin, p. 82)

(26) a. Present-day Swedish
Hunden gick i skogskanten, långa sträckor utan att
dog.DEF went in forest.edge.DEF long distances without IM
synas alls.
see.INF.PASS at.all
'The dog wandered by the edge of the forest, long distances without revealing himself at all' (Hunden, p. 109)

b. Övdalian
Rattsjin dsjikk laungg strettsjur i skuägkantem, so int an
dog.DEF went long distances in forest.edge.DEF so not he
syndes noð.
see.PST.PASS at.all
'The dog wandered by the edge of the forest, long distances without revealing himself at all.' (Rattsjin, p. 109)

There are two examples (one from each text) in which the translators use a prepositional infinitive just like in the Swedish original. This may be the result of a slavish translation from Swedish. The example from the Gospel of John is given in (27) below.

(27) a. Present-day Swedish
Ty den som Gud har sänt talar Guds ord; Gud ger Anden
for it who God has sent speaks God.GEN word God gives spirit.DEF
utan att mäta.
without IM measure.INF
'For the one whom God has sent speaks the words of God, for God gives the Spirit without limit.' (Joh. 3:34)

b. Övdalian
Fer an so Gud ar stsjickad, an glemer Gudes uord, fer Gud
for he who God has sent he speaks God.GEN word for God
dsjäv Andan autǫ tä mela.
gives spirit.DEF without IM measure.INF
'For the one whom God has sent speaks the words of God, for God gives the Spirit without limit.' (Jua. 3:34)

We can therefore conclude that abessive meanings are normally not expressed through prepositional infinitives in Övdalian, but by other means. The most frequent pattern used in the texts investigated is a coordinated finite structure containing a negation, instead of a non-finite embedded structure as in the Swedish original. Even though this is clearly an attempt to convey the same meaning in the translation, it must be noted that the translation has a slightly different meaning than the Swedish original.

Let us turn next to the four instrumental infinitives found in the Swedish texts. Three of them have been translated using a finite subordinate structure, as in (28–29). In (28), the Swedish instrumental infinitive has been translated with a temporal subordinate clause introduced by the subordinator *dar*, and in (29) the infinitive is translated with a *bar*-introduced ('only', 'just') subordinate clause. In (30), the infinitive has been translated with a relative clause instead. These examples suggest that instrumental infinitives are not used in Övdalian and that there might not be any specialized means to express instrumental meaning.

(28) a. Present-day Swedish
Mycket folk följde efter, därför att de såg de tecken han
much people followed after because that they saw the signs he
gjorde genom att bota de sjuka.
did through IM cure.INF the sick
'And a large crowd was following him, because they saw the signs he performed on the sick.' (Joh. 6:2)

b. Övdalian
Ed war mitsjid fuok so fygde, fer dier såg tecknę an garde,
it was much people who followed for they say signs.DEF he did
dar an buoted diem so war kliener.
when he cured those who were sick
'And a large crowd was following him, because they saw the signs that he was doing by curing the sick.' (Jua. 6:2)

(29) a. Present-day Swedish
Det hade hänt mellan några valpar och en grovröstad karl
it had happened between some puppies and a gruff.voiced man
som kunde bli hälften så stor genom att ställa sig på
who could become half so big through IM stand.INF REFL on
knä.
knee
'It had happened between a couple of puppies and a man with a gruff voice who could halve his size by kneeling.' (Hunden, p. 86)

b. Övdalian
Eð add ennt millǫ nogum wepum og ienum gruävröstaðum
it had happened between some puppies and a gruff.voiced
kalle so wart elptn so stur bar an stelld sig ǫ kninę.
man who became half so big only he stood REFL on knees
'It had happened between a couple of puppies and a man with a gruff voice who could halve his size by kneeling.' (Rattsjin, p. 86)

(30) a. Present-day Swedish
Men dessa har upptecknats för att ni skall tro att Jesus
but these have record.SUP.PASS for that you shall believe that Jesus
är Messias, Guds son, och för att ni genom att tro
is Messiah God.GEN son and for that you through IM believe.INF
skall ha liv i hans namn.
shall have life in his name
'But these are written so that you may believe that Jesus is the Christ, the Son of God, and that by believing you may have life in his name.' (Joh. 20:31)

b. Övdalian
Men ittad ar uort skrievt, so ulid truo att Iesus ir Messias,
but this has become written so you believe that Jesus is Messiah

Gudes Sun, og so ulid åvå laived i namnę onumes, dar
God.GEN son and so you have life.DEF in name his who
truoid.
believes
'But these are written so that you may believe that Jesus is the Christ, the Son of God, and that by believing you may have life in his name.' (Jua. 20:31)

Finally, the only example of a temporal infinitive has been translated with a temporal subordinate clause:

(31) a. Present-day Swedish
Efter att ha sagt detta fortsatte han: …
after IM have.INF said this continued he
'After having said this, he continued: …' (Joh. 11:11)

b. Övdalian
Mes an add sagt edar, fuortsett an: …
as he had said this continued he
'As he had said this, he continued: …' (Jua. 11:11)

To sum up, the contrastive study shows that Swedish adverbial infinitives are normally translated using other constructions in Övdalian. Purposive infinitives, by far the most common construction in the Swedish originals, are translated in several different ways. Often, a prepositional infinitive is used, much like in Swedish, but another common strategy is to use constructions with the coordinator *og* instead. To a lesser degree, finite subordinate clauses are used, and in one instance a bare infinitive (in combination with a verb phrase expressing motion). Abessive infinitives are most often translated with a finite coordinate clause containing a negation. This means that the translators are trying to convey the abessive meaning using another linguistic construction (coordination instead of embedding). In the case of instrumental infinitives, the translation uses temporal or other subordinate clauses, which leads to a slightly different (and less specific) meaning. The only example of a temporal infinitive has been translated using a temporal finite clause in Övdalian.

The results partly support Holm's (1967: 27) claim that prepositional infinitives are not found in traditional dialects. In any case, they are not as frequent as in Swedish, and not all types seem to occur. Since adverbial infinitives are not attested in Old Swedish, it is possible that similar (or the same) constructions to those that we find in Övdalian might have been used in earlier stages of Swedish to express the various adverbial notions.

4.4 Summary of empirical findings

This investigation of adverbial infinitives in the history of Swedish takes purposive infinitives as its point of departure since they are the only type attested as early as Old Swedish. In the earliest stages of Swedish, purposive infinitives are not introduced by a preposition, like their present-day counterparts. Over time there is an increasing tendency for purposive infinitives to be prepositional, and by the second half of the 18th century, almost all of them are. The connection between a specific form and a specific meaning is thus strengthened over time. Furthermore, there is a rather sudden change of the purposive preposition from *til* 'to' to *för* 'for' during the second half of the 18th century. The reasons for this shift remain unclear.

Other adverbial infinitives are attested from the second half of the 17th century onwards in a gradual process whereby more adverbial notions are expressed with prepositional infinitives over time. Abessive infinitives are attested first in a text from 1657, and slightly later (in a text from 1675) we find the first example of a substitutive infinitive. Temporal infinitives are not attested until the late 18th century (first example from 1779), and the first instance of an instrumental infinitive is found in a text from 1829. This order of appearance is similar (although not identical) to the corresponding emergence of adverbial infinitives in Romance.

In addition to the historical survey of adverbial infinitives, I have presented a contrastive investigation of Övdalian translations of Swedish texts containing adverbial infinitives. It has been claimed that traditional dialects, such as Övdalian, do not use prepositional infinitives as adverbial adjuncts (see Holm 1967: 27). This investigation gives some support to these claims, since the adverbial infinitives in the Swedish originals are often translated with other constructions in the Övdalian versions. This is especially evident in the case of abessive infinitives, as the translators use a coordinated negated clause (with a few exceptions). It is possible that Övdalian can give us clues as to how these adverbial notions were expressed in earlier stages of Swedish, i.e. before the emergence of adverbial infinitives.

5 Discussion

In this section, the empirical results from the investigation are discussed. I first discuss the role of language contact with regard to adverbial infinitives in Swedish. Thereafter, I turn to the question of whether adverbial infinitives should be seen as part of a process of specialization and elaboration of the written language (i.e. language Ausbau).

5.1 The role of language contact

Whereas purposive infinitives are already attested in Early Old Swedish, other adverbial infinitives did not appear until the Early and Late Modern Swedish period. Purposive infinitives were normally introduced by the infinitive marker *at* in Early Old Swedish, and since *at* etymologically is a preposition (see §3.1 above), it could be argued that the (purposive) *at*-infinitive should be regarded as a prepositional phrase at this time (see Kalm 2016b). Non-purposive infinitives were often bare (i.e. not introduced by *at*) in Early Old Swedish, but later on, the use of the *at*-infinitive spread at the expense of the bare infinitive. By the Late Old Swedish period, *at* thus seems to have lost its purposive semantics and its prepositional status, and the *at*-infinitive was used in purposive as well as non-purposive contexts. As a consequence of the lost relationship between the *at*-infinitive and the purposive meaning, it became increasingly common for purposive *at*-infinitives to be introduced by the preposition *til*, possibly as a way of explicitly marking the purposive reading of the infinitive. There is, however, also a general tendency (especially during the Early Modern Swedish period) for infinitive clauses to be introduced by *til*, and it has been argued that *til at* was grammaticalized as a complex infinitive marker during this time (see Kalm 2014, 2016b). It is not unlikely that the promotion of *til* during this time was facilitated by Low German influence in much the same way as Nesse (2002) suggests that the infinitive marker *te* of the Norwegian Bergen dialect emerged as a result of language contact with Low German. The Low German *te* had a double function as both infinitive marker and preposition (just like in present-day German and English).

The first signs of the modern system of prepositional adverbial infinitives appeared by the end of the Early Modern Swedish period. By this time, the Low German influence on Swedish had already come to an end and it is thus not likely that the appearance of the first adverbial infinitives was due to contact with Low German. Instead, Holm (1967) suggests that the constructions emerged as a result of language contact with High German and/or French. Of the two languages, at least High German seems like a possible candidate for such an influence on Swedish, since we know of other syntactic constructions that arose due to influence from High German (see §2 above). (As noted, the French influence on Swedish that we know of today is lexical rather than syntactic.) If the emergence of adverbial infinitives in Swedish was due to language contact, this could be understood as a case of contact-induced (or replica) grammaticalization (see Heine & Kuteva 2003, 2005) in much the same way as Nesse (2002) accounts for the appearance of the infinitive marker *te* in the Norwegian Bergen dialect.

This would mean that the (foreign) system of using prepositional infinitives to express adverbial notions was replicated in Swedish. The fact that the instrumental infinitive is specifically Swedish (i.e. not attested in High German) is not an argument against this analysis, since it is the initiation of the grammaticalization process that is contact-dependent, not the entire process. It is thus expected that you would find language-specific development even in cases of contact-induced grammaticalization.

Even though it cannot be ruled out that the emergence of adverbial infinitives in Swedish should be understood as a contact phenomenon, it is equally possible that they emerged independently in Swedish in much the same way as has been argued for the Romance languages (Schulte 2007a,b). Schulte (2007a,b) shows that new adverbial infinitives appeared in the same relative order in Spanish, Portuguese, and Romanian. The relative order is very similar (albeit not identical) to the corresponding development in Swedish. Compare the Romance cline in (7) and the Swedish in (15), repeated as (32) and (33) below.

(32) purposive > abessive > temporal > substitutive > concessive

(33) purposive > abessive > substitutive > temporal > instrumental

In Romance, as in Swedish, purposive infinitives are attested first, followed by abessive infinitives. Thereafter, the order differs with regard to temporal and substitutive infinitives, and while Swedish developed an instrumental infinitive, Romance has a concessive infinitive. Interestingly, there are examples of concessive infinitives in (informal) present-day Swedish as well (see the examples in (8) above). Since it is not likely that the appearance of concessive infinitives in present-day Swedish is due to contact with Romance languages, it rather seems like the development follows some general pattern of how adverbial constructions evolve in a language. This is also what Schulte (2007a,b) suggests with regard to Romance, and he relates the order to Cristofaro's (2005) typological hierarchy of "deranked" (roughly: non-finite) adverbial clauses. According to Cristoforo, there is a general tendency for deranked constructions to be associated first with purposive meaning (see also Haspelmath 1989) and then later with other semantics. The overall result of the study is that there are cross-linguistic patterns as to how adverbial (non-finite) clauses evolve in languages, and Schulte (2007a,b) shows that Romance languages fit into this description. This paper suggests that the development of adverbial infinitives in Swedish has followed the same general pattern, starting with purposive infinitives and ending with concessive infinitives in a similar way to the Romance languages.

To sum up, it is possible that language contact has affected the emergence of adverbial infinitives in Swedish, but it cannot be ruled out that we are dealing with a "natural" evolution of adverbial categories. It is likely that the use of *til* in combination with purposive (and other) infinitival clauses is due to contact with Low German, but when it comes to other adverbial infinitives, it is less clear that they should be understood as contact phenomena. Since the two explanations are not mutually exclusive, it is possible that the grammaticalization was initiated by language contact, but that the continuation of the process was independent, following general patterns of how adverbial non-finite constructions evolve. In the next section, I will discuss the adverbial infinitives in relation to the ongoing specialization of the written language during the Late Old and Early Modern Swedish period.

5.2 Adverbial infinitives as an Ausbau phenomenon

Simultaneously with the expansion into new domains, a written language normally undergoes formal elaborations of different kinds, visible for instance in syntactic complexity (see Fischer 2007: 38–39, Kloss 1967). During the Middle Ages, when the bulk of the text production in Swedish consisted of translations from other languages, the elaboration of Old Swedish into a literary language was conducted under more or less direct influence from the source language, predominantly Latin (see Wollin 1981, 1983, Höder 2009, 2010). This caused a split between the spoken and written varieties of Old Swedish, since the spoken language was not affected by Latin. In the emerging cities, it was instead influences from Low German that shaped (the spoken and written) Swedish (see §2 and §5.1). The increasing use of participle constructions in Late Old Swedish, for example, is considered to be the result of such a Latin influence (Ahlberg 1942, Höder 2010). Some of these participle constructions seem to be used to express adverbial notions that today could be expressed using prepositional infinitives. In (34) below, the negated participle has an abessive meaning and would correspond to *utan* 'without' + *att* + infinitive in present-day Swedish. (Note that English uses a construction similar to the one found in Old Swedish.)

(34) far iak … til iherusalem eyg vitande hwat mik skal ouir koma
travel I to Jerusalem not knowing what me shall over come.INF
'I travel … to Jerusalem not knowing what shall come over me' (ApG, ca. 1385, p. 164; from Ahlberg 1942: 163)

Although these Latin-inspired constructions were exclusively part of a written register, i.e. they were not used in the spoken language of the time, many of the

participle constructions survived in the 16th century Reformation Bible translations and remained part of a religious register for centuries (Ståhle 1970: 17–19). For the most part, they have not survived into present-day Swedish (neither spoken nor written).

After the Reformation, text production in Swedish increased rapidly, but not predominantly in religious contexts, as opposed to the situation in the Middle Ages. Texts were also original works in Swedish to a much greater extent than before, i.e. not translations or paraphrases. This means that the elaboration of Swedish during this period was somewhat less directly influenced by other languages than was the case during the late Middle Ages, when the first steps towards a more homogeneous, standardized Swedish were taken. As we have seen, a new abessive construction appeared during the late 17th century. Instead of participles like the one in (34), prepositional infinitives were used to express the same adverbial notion, as in (35) below. The fact that specifically abessive constructions appeared during periods (and in contexts) in which the written language was being elaborated might suggest that they are part of an ongoing process of Verschriftlichung. While the first of these processes (during the late Middle Ages) was interrupted by the Reformation, the second process has continued.

(35) Skulle det wäl wara möjeligit, at jag fått en stiufmor, utan
should it well be.INF possible that I get.SUP a stepmother without
at weta deraf.
IM know.INF thereof
'Would it be possible that I had got a stepmother without knowing anything of it?' (1dSMUL, 1738)

The emergence of constructions such as the one in (34) above is an example of how the demands of new genres and text types lead to a specialization of the language. In this case, it is quite obvious that the construction in question has emerged with inspiration from Latin, but as we have seen in §5.1, this is not necessarily the case with adverbial infinitives. In spite of this, both the Latin-inspired constructions and the adverbial infinitives can be understood as part of the same process of formal elaboration and specialization that a language undergoes when it is being used in new functional contexts. An important piece of evidence supporting the assumption that the development of adverbial infinitives is part of a written-language specific development is the fact that prepositional adverbial infinitives (with the exception of purposive infinitives) do not seem to be used in the traditional, spoken dialect of Övdalian. Since the linguistic distance between Swedish and Övdalian is substantial, and has been for a long time, Övdalian has

not been influenced by written Swedish in the same way as other regional and local varieties of spoken Swedish have been. Its isolated location also means that contact with other languages has been minimal. Until recently, the dialect has not been used in writing to any large extent, which means that it has not been through processes of Verschriftlichung or language Ausbau. The empirical investigation showed that the Övdalian translators very often used other constructions to convey the meaning expressed by adverbial infinitives in the Swedish originals. Many of the purposive infinitives were expressed with finite clauses, both coordinated and subordinated. The abessive infinitives, on the other hand, were almost consistently translated with a negated coordinated structure, like the one in (25) above, here repeated as (36).

(36) a. Present-day Swedish
Han som låg under vindfället lyssnade utan att
he who laid under windfall.DEF listened without IM
förstå.
understand.INF
'He who was under the windfall listened without understanding.'
(Hunden, p. 82)

b. Övdalian
An so låg under windfellę lydd men bigript it
he who laid under windfall.DEF listened but understood not
noð.
anything
'He who was under the windfall listened without understanding.'
(Rattsjin, p. 82)

Even though both constructions convey roughly the same meaning, the Swedish prepositional infinitive can be understood as a grammaticalized construction expressing abessive meaning, while the coordinated structure in Övdalian is not exclusively used with this meaning. Prepositional infinitives thus offer a more precise way of expressing adverbial notions, which in earlier stages of the language might have been expressed as in Övdalian. This can be understood as a kind of grammaticalization where a specific meaning (in this case abessive) is connected to a specific construction (in this case a prepositional infinitive). When it comes to the abessive meaning, there thus exists a more or less one-to-one relationship between form and function in Swedish (in the sense that the construction *utan* 'without' + *att*-infinitive always has abessive meaning), but this

is not the case in Övdalian. This becomes even clearer when we compare instrumental infinitives in Swedish with their Övdalian translations. In these instances, it rather seems like Övdalian lacks the ability to express this precise meaning. Instead, a construction with a temporal meaning is used, as in example (28b) above.

There are thus reasons to assume that adverbial constructions (for example expressing abessive meaning) are part of a process of elaboration and specialization of the written language when it is being used in new domains. Abessive constructions emerged in the late Middle Ages, then clearly under the influence of Latin, as well as in the Early Modern period. Both periods are characterized by an increasing use of the written language. The comparison with Övdalian shows that specialized adverbial constructions are not used in the same way as in present-day Swedish. Since the variety has remained mostly spoken (at least until recently), this supports the assumption that adverbial infinitives emerged as part of a written register.

6 Summary and conclusions

This article traces the development of prepositional infinitives functioning as adverbial adjuncts throughout the history of Swedish, and investigates how present-day Swedish adverbial infinitives are translated into the traditional dialect of Övdalian. The results show that the emergence of adverbial infinitives is a gradual process in many ways similar to the corresponding development in Romance languages. While purposive infinitives were already attested in Old Swedish, other adverbial infinitives emerged during the post-Reformation era, starting with abessive and substitutive infinitives in the 17th century, followed by temporal and instrumental infinitives in the late 18th and early 19th centuries, respectively. This was a dynamic period in the history of Swedish, characterized by a substantial functional expansion of the written language and the subsequent formal elaborations of the written form (i.e. language Ausbau). The contrastive investigation of Övdalian translations of Swedish texts suggests that adverbial infinitives are not used in the dialect, with the exception of purposive infinitives. Instead, other strategies are used in order to express the same adverbial notions. As opposed to Standard Swedish, Övdalian has not existed as a literary (written) language until recently. I have taken the absence of adverbial infinitives in Övdalian as an indication that they originally were part of a written rather than spoken register. I take the emergence of adverbial infinitives in Swedish to be part of a process of Verschriftlichung and language Ausbau.

The article also explores the possibility that adverbial infinitives are the result of language contact with High German and French, as suggested by Holm (1967).

Since we know of other instances of syntactic influence from High German on Swedish, but of mainly lexical influence from French, High German stands out as the more probable candidate in this regard. Moreover, it is quite clear that some of the Old Swedish participle constructions which are used in much the same way as present-day Swedish adverbial infinitives emerged under the influence of Latin. It is, however, not evident that the same is true for the later emergence of infinitival constructions. Adverbial infinitives are common in European languages, and even though it cannot be ruled out that the Swedish constructions are (partly) due to language contact, there is also the possibility that they emerged independently as a result of the elaboration and specialization of the written language during the Early Modern period. The empirical findings of this investigation show that the relative order in which the adverbial infinitives appeared appears to convey a more general pattern of how adverbial constructions tend to evolve cross-linguistically (especially with regard to the initial and final stages of the process). Even if the emergence of the first adverbial infinitives is the result of language contact (in that case an example of replica grammaticalization), the subsequent grammaticalization of other adverbial infinitives could still be independent. In other words, the possibility of language contact does not exclude that the subsequent grammaticalization process was independent and in line with cross-linguistic patterns.

Abbreviations

EOS Early Old Swedish
IM infinitive marker
LOS Late Old Swedish

Quoted texts

1dSMUL: Modée, Reinhold Gustaf (b. 1698). *Håkan Smulgråt* [Håkan Cheapskate]. Stockholm, 1739. See Melander Marttala & Strömquist (2001). Available through LB.

2aSTERBH: Kexél, Olof (b. 1748). *Sterbhus-kammereraren Mulpus eller Caffehuset i Stora Kyrkobrinken* [The chief accountant of the estate Mulpus or the coffee house in the main church hill]. Stockholm, 1776. See Melander Marttala & Strömquist (2001). Available through LB.

2cKUSINE: Envallsson, Carl (b. 1756). *Kusinerna, eller: Fruntimmers-sqvallret* [The cousins or the gossip of the women]. Stockholm, 1807. See Melander Marttala & Strömquist (2001). Available through LB.

ApG: Apostla Gerningar [Acts of the Apostles]. 1385. In *Klosterläsning*. Edited by G. E. Klemming. (Samlingar utgivna av Svenska fornskriftssällskapet 22.) Stockholm, 1877–1878. Available through FTB/Korp.

Blogg: Bloggmix [A selection of Swedish blogs]. 1998–2017. Available through Korp.

Bol: Bolinus, Andreas (b. 1642). *En dagbok från 1600-talet* [A diary from the 17th century]. Edited by E. Brunnström. Stockholm, 1913.

Leg: Stephens, George (ed.). 1847. *Svenska medeltidens kloster- och helgonabok* […] *Ett forn-svenskt legendarium* […] [The Swedish medieval book of monasteries and saints … An Old Swedish collection of legends]. Stockholm: Norstedts. Originally written some time between 1276 and 1307. Earliest manuscript (Codex Bureanus) from ca. 1350. Available through FTB/Korp.

Ehrensvärd: *C. A. Ehrensvärds brev* [The letters of C. A. Ehrensvärd]. Auth. b. 1745. Edited by Gunhild Bergh. Stockholm, 1916.

Hunden: Ekman, Kerstin. 1986. *Hunden* [The dog]. Stockholm: Bonnier.

Joh.: *Johannesevangeliet* [The gospel of John]. In *Bibel 2000*. Gothenburg: Bokförlaget Cordia AB, 1999.

Jua.: *Juanneswaundsjilą: Johannesevangeliet på älvdalska* [The gospel of John in Övdalian]. Knivsta: Lars Steensland, 1989.

KM: Karl Magnus saga [The story of Karl Magnus]. End of 14th century. In *Prosadikter från Sveriges medeltid*. Edited by G. E. Klemming. (Samlingar utgivna av Svenska fornskriftsällskapet 28.) Stockholm, 1887–1889. Available through FTB/Korp.

Mål-roo: Columbus, Samuel (b. 1642). *Mål-Roo eller roo-mål* [Language amusement or amusing language]. Ca. 1675. Edited by Bengt Hesselman. (Nordiska texter och undersökningar 6.) Stockholm: Hugo Geebers förlag, 1935. Available through FTB/Korp.

Måns: *Peder Månssons brev på svenska från Rom till Vadstena kloster 1508–1519* [Peder Månsson's letters in Swedish from Rome to Vadstena monastery 1508–1519]. Auth. b. ca. 1460. Edited by Robert Geete. (Småstycken på fornsvenska. Andra serien.) Stockholm, 1915.

Rattsjin: Ekman, Kerstin. 2000. *Rattsjin* [The dog]. Älvdalen: Juts böcker.

Rålamb: Callmer, Christian (ed.). 1963. *Diarium under resa till Konstantinopel 1657–1658* ['Diary during a journey to Constantinople 1657–1658', undertaken by Claes Rålamb (b. 1622)]. (Historiska handlingar 37:3.) Stockholm: Norstedts.

UL: Schlyter, Carl Johan (ed.). 1834. *Samling af Sweriges gamla lagar. Tredje bandet. Uplands-Lagen* [Collection of the old laws of Sweden. Volume three. The law of Uppland]. Stockholm: Norstedts. Originally written in 1296. Available through FTB/Korp.

von Unge: von Unge, Otto Sebastian (b. 1797). *Vandring genom Dalarne, jemte Författarens Resa söderut* [Walk through Dalecarlia, as well as the author's journey to the south]. Stockholm: Z. Hæggström, 1829. Available through LB.

EWL: Collin, Hans Samuel & Carl Johan Schlyter (eds.). 1827. *Samling af Sweriges gamla lagar. Första bandet. Westgötalagen* [Collection of the old laws of Sweden. Volume one. The Westrogothic law]. Stockholm: Z. Haeggström. Originally written in the 1220s. Available through FTB/Korp.

ÖgL: Collin, Hans Samuel & Carl Johan Schlyter (eds.). 1830. *Samling af Sweriges gamla lagar. Andra bandet. Östgöta-Lagen* [Collection of the old laws of Sweden. Volume two. The Ostrogothic law]. Stockholm: Norstedts. Originally written in the 1280s. Available through FTB/Korp.

Electronic corpora

FTB: Fornsvenska textbanken [The text bank of Old Swedish]: https://project2.sol.lu.se/fornsvenska

Korp: https://spraakbanken.gu.se/korp/?mode=all_hist

LB: The Swedish literature bank: http://www.litteraturbanken.se

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Chapter 6

VP word order variation and verbal clusters in Late Modern Swedish

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Some Germanic languages (e.g. German) have a VP structure where multiple verbs behave as an inseparable unit, i.e. a verbal cluster, and some (e.g. English) do not. This seems to be at least partially connected to OV versus VO word order. In this article, I use the Basic Branching Constraint (e.g. Haider 2013) and Late Modern Swedish data to argue that clustering is universal if a main verb (V) precedes an auxiliary (Aux), but a language-specific property at most if Aux precedes V. VP word order in the history of Swedish indicates that there is no immediate connection between OV and clustering; on the contrary, as OV disappeared, evidence for cluster breaking clearly dropped in frequency.

Keywords: verbal clusters, OV word order, word order variation, Late Modern Swedish, the Basic Branching Constraint

1 Introduction

Varieties within the Germanic language family differ with regard to the possibility of having intervening syntactic material between two verbs. As shown in (1a), English rather freely accepts adverbials surfacing between two verbs, while in German (see 1b), intervening constituents are ruled out.[1] The difference seems to be connected to the linear order of verbs and objects. According to Haider (2010: 17–19, 33–35, 287–293), verbs in an OV language (e.g. German) form unbreakable verbal clusters that do not allow intervening material, while clustering is not an option in VO languages (e.g. English).

[1]Throughout the article, relevant verbs in the language examples are put in italics.

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(1) a. English
The new law certainly *may* possibly *have* indeed *been* badly *formulated*

b. German
dass das neue Gesetz wohl wirklich schlecht *formuliert*(*) *worden*(*) *sein*(*) *mag*
that the new law possibly indeed badly *formulated* been be may
'that presumably the new law indeed may have been badly formulated' (from Haider 2010: 17)

Present-day Swedish is a VO language, so we expect its grammar to allow intervening constituents. Older Swedish, however, did not show a strict linear order for verbs and objects. It is then reasonable to expect the possibility of intervening constituents to be more constrained in older Swedish than in its present-day counterpart.

The literature on cluster-related word order in Swedish is sparse, but we do find some rather surprising claims. Both Falk (1993: 171–172) and Petzell (2011: 157) state that older Swedish allowed constituents to surface between VP-internal verbs, but that this is no longer possible in present-day Swedish. It is also striking that we simultaneously find evidence for OV and for non-clustering in older Swedish. See the examples in (2a–b), where the object intervenes between two verbs; (2a) is from the 14th century, and (2b) from the 17th century.[2]

(2) a. at enghin skal *gita* tik *lækt*
that nobody shall be.able you healed
'that nobody will be able to heal you' (MB1B, OS, p. 331)

b. som iag af honom *ha'r* många wackre meddelningar *ehrhållit*
as I from him have many beautiful messages obtained
'as I've received many beautiful messages from him' (Columbus, EMS, p. 26)

Examples like these indicate that the correlation between OV–VO word order and verbal clusters is not as straightforward as Haider (2010) suggests. In this article, I investigate the evidence for non-clustering in the history of Swedish by

[2]Throughout the article, I use abbreviations (listed in the Appendix) to refer to older Swedish texts. When referring to texts from the corpus of Swedish drama dialogue (see §4.1), a combination of numbers and letters is used. First symbol = period; second symbol = drama; third symbol = act; fourth and fifth symbol = scene.

looking at cases where an arbitrary constituent intervenes between an auxiliary and a main verb. My main focus is on the period when OV word order finally disappeared, Late Modern Swedish. Given Haider's (2010) assumptions, we expect to find growing evidence for non-clustering as OV becomes less frequent, but as we will see, this is not really the case.

Behind Haider's (2010) proposal of a connection between verbal clusters and OV word order lies an even bigger idea: that all human grammars only contain right-branching structures. This is called the *Basic Branching Constraint* (Haider 2010, 2013), or the BBC for short. The implications of the BBC and the meaning of right-branching will be explained and illustrated below. This article seeks to demonstrate, in light of the BBC, how VP word order variation in Late Modern Swedish – compared to other periods in Swedish language history and Germanic languages in general – may be of interest for a general theory of phrase structure in human languages.

This article is organized as follows: In §2, I introduce the Basic Branching Constraint and compare it to another proposed restriction on phrase structure in human languages, the *Final-over-Final Condition* (Biberauer et al. 2014, Sheehan et al. 2017). §3 provides some background to clause structure and VP word order in Swedish and other Germanic languages. In §4, I present an empirical investigation of VP word order in Late Modern Swedish, and briefly compare the findings to data from earlier periods. In §5, the Swedish data is put in a comparative perspective and interpreted in the light of the Basic Branching Constraint. §6 summarizes the findings.

2 Verbal clusters and the Basic Branching Constraint

Clustering verbs is a particular way of structuring a VP. If verbs form a cluster, they are considered a syntactic constituent that includes multiple verbal heads, which roughly corresponds to the structure $[_{V^\circ}\ V^\circ\ V^\circ]$. This is in contrast to an auxiliary taking a VP as its complement, which creates embedded VPs. It is important to note that while verbal clusters exclude intervening material, the converse does not hold: the fact that two verbs are adjacent does not necessarily mean that they form a cluster (see e.g. Sheehan 2017: 101).[3]

Verbal clusters are an important concept for understanding how the Basic Branching Constraint can explain limits on word order variation in languages

[3]Thus, a cluster analysis is in some sense unverifiable, due to the lack of positive evidence. It is certainly falsifiable, however, since the analysis straightforwardly predicts that no non-verbal material should intervene between verbs that form a cluster.

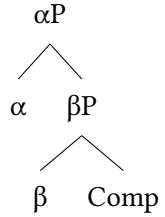
of the world, as we are about to see. I begin this section by introducing the BBC and some of its implications (§2.1). In §2.2, I discuss whether or not verbal clusters (or what appear to be verbal clusters) can be seen as a side effect of the Final-over-Final Condition.

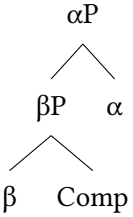
2.1 The Basic Branching Constraint

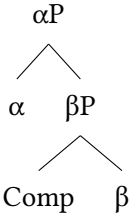
A version of the Basic Branching Constraint first saw the light of day in Haider (1992). More recently, Haider (2013: 3) defines the BBC as in (3) below (emphasis in the original):

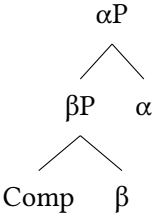
(3) The Basic Branching Constraint (BBC)
The structural build-up (*merger*) of phrases (and their functional extensions) is universally *right branching*

The key to understanding the BBC, as stated above, is the concept of *right-branching*. A structure is right-branching if merger of phrases occurs to the left, i.e. if a phrase that enters the structure precedes the already existing structure (see Haider 2013: 3–4). The order of a lexical head (e.g. V°, N°) and a complement is not subject to this restriction, but both head-complement and complement-head order are possible. To illustrate this, let us assume that α is a (non-lexical) head in the phrase αP, taking βP as its complement. βP consists of a (lexical) head β and a complement. In (4a), α is merged to the left of a head-initial βP, which leads to a right-branching structure. In (4b), α is merged to the right of a head-initial βP, which leads to a left-branching structure. (4c–d) show that the same applies if βP is head-final, with Comp-β word order instead of β-Comp.

(4) a. 

b. 

c. 

d. 

Given the BBC and the structures in (4a–d), we are not far from seeing why verbs in an OV language like German must form verbal clusters. Let us first state that an auxiliary Aux corresponds to α in (4), and a main verb V corresponds to β, provided that auxiliaries are functional extensions of a lexical VP (see Haider 2013: 68–73). This means that the German word order V-Aux cannot instantiate

an auxiliary that takes a VP as its complement, according to the BBC; this would correspond to a left-branching structure (see 4b, 4d). Instead, V and Aux adjoin to each other and form a verbal cluster.

An immediate consequence of a cluster structure is that no syntactic material should be able to intervene between two verbs if both remain in a non-derived position. This is true for German. Usually, verbal complements and adjuncts precede all verbs. If a constituent is extraposed, as PPs can be, for example, they must follow both the main verb and auxiliaries. This is shown in (5a–b). As seen in (5b), the PP cannot be placed between V and Aux.

(5) German

a. dass er nicht *gesprochen haben kann* mit ihr
that he not spoken have can with her
'that he cannot have spoken with her'

b. * dass er nicht *gesprochen* mit ihr *haben kann*
that he not spoken with her have can (Haider 2010: 18)

This leads Haider (2003, 2010: 17–18, 335–343, 2013: 90–93, 132–135) to assume that a VP in an OV language is usually structured as in (6a), where X can be a complement or an adjunct to the verb. The word order X-V-Aux is not an example of an auxiliary taking a VP complement to its left, but of X being in a left-hand sister position to the cluster. The analysis is also extended to OV languages where Aux can precede V, with X-Aux-V as the VP-internal word order, like Dutch (see Haider 2010: 341–343, 2013: 133). The only difference between (6a) and (6b) is the cluster-internal ordering of V and Aux.

(6) a. $[_{VP}$ X $[_{V^\circ}$ V+Aux$]]$ X-V-Aux – V and Aux form a verbal cluster
b. $[_{VP}$ X $[_{V^\circ}$ Aux+V$]]$ X-Aux-V – Aux and V form a verbal cluster

Haider's position raises at least two types of questions. First, we must ask to what extent there is empirical evidence for a one-to-one correlation between OV word order and verbal clusters in the languages of the world. This question will be discussed throughout the article, mostly with reference to older Swedish and the other Germanic languages, but also including some typological observations in §5.

Secondly, we should clarify what the BBC requires when it comes to verbal clusters, and what might be unexpected given Haider's (2010, 2013) analysis, but not necessarily impossible. In this case, it is obvious that the word orders V-X-Aux and Aux-X-V have different status. V-X-Aux is an inherently left-branching

structure if V and X are inside a complement to Aux. The word order Aux-X-V would typically correspond to a right-branching, BBC-compatible structure, since the extended verbal projection has its complement to the right. This important difference is shown in (7a–b).

(7) a. $[[_{VP1} [_{VP2}$ V X]] Aux] Left-branching
b. $[_{VP1}$ Aux $[_{VP2}$ X V] Right-branching

To sum up, the BBC excludes the right-branching structure [[V X] Aux] and forces a cluster analysis if a main verb precedes an auxiliary. V-Aux is certainly associated with OV word order, since both are examples of head finality, but in the light of the BBC, it is the V-Aux word order itself that necessitates the verbal cluster. Aux-V, on the other hand, is associated with VO word order, but regardless of the order of verb and object, a cluster analysis is not a structural necessity.

2.2 A note on the BBC and the FOFC

The BBC is a hypothesis which makes clear and falsifiable predictions about syntactic structure in human languages (see Haider 2013). If correct, it is part of universal grammar. Despite its merits, the BBC does not seem to have been extensively investigated by anyone but Haider himself. A possible reason for this is that there is another, arguably more well-known, proposal about phrase structure configurations in human languages, which makes several predictions overlapping those of the BBC, namely the *Final-over-Final Condition* (FOFC), first introduced by Holmberg (2000).

Biberauer et al. (2014: 171) informally state the FOFC as in (8):

(8) The Final-over-Final Condition (FOFC)
A head-final phrase αP cannot immediately dominate a head-initial phrase βP, where α and β are heads in the same extended projection.

To illustrate the implications of the FOFC, let us repeat the phrase structure configurations in (4a–d) above; see (9a–d). In (9a), the head-initial phrase αP dominates the head-initial phrase βP, a configuration accepted by the FOFC. In (9b), the head-initial βP is dominated by a head-final αP; this is the Final-over-Initial structure that the FOFC is formulated to exclude from human grammars. The structures in (9c–d) are not excluded, since a head-initial phrase can dominate a head-final phrase (9c), and a head-final phrase can dominate another head-final phrase (9d).

(9) a. $[_{\alpha P}\ \alpha\ [_{\beta P}\ \beta\ \text{Comp}]]$ Initial-over-Initial
b. * $[_{\alpha P}\ [_{\beta P}\ \beta\ \text{Comp}]\ \alpha]$ *Final-over-Initial
c. $[_{\alpha P}\ \alpha\ [_{\beta P}\ \text{Comp}\ \beta]]$ Initial-over-Final
d. $[_{\alpha P}\ [_{\beta P}\ \text{Comp}\ \beta]\ \alpha]$ Final-over-Final

Like the BBC, the FOFC excludes V-X-Aux, given that V is β, X is Comp, and α is Aux. The difference primarily concerns what could be a possible structure for the word order X-V-Aux. The FOFC does not exclude the left-branching/Final-over-Final structure in (9d), but the BBC does. Consequently, the FOFC does not force a cluster analysis of V-Aux (i.e. [X [V+Aux]]), and the adjacency requirement of V and Aux becomes more of an epiphenomenon. Haider (2013: 132–133) claims that the BBC is empirically superior to the FOFC, when it comes to predicting possible word orders with verbs and complements/adjuncts in Germanic languages. According to Haider (2013: 133), the FOFC predicts the existence of the structure in (10), where an adjunct but not a complement may intervene between V and Aux.

(10) $[_{\text{VP1}}\ [_{\text{VP2}}\ \text{Comp V Adjunct}]\ \text{Aux}]$

That the FOFC would tolerate the structure in (10) could be true, but only if the constraint is formulated exclusively with regard to complementation and not adjunction. It is certainly true that proponents of the FOFC have focused on the former rather than the latter (Sheehan 2017: 97), but Sheehan (2017) explicitly suggests that the FOFC is a constraint that involves both types of merger. Thus, if the FOFC is formulated with respect to both complementation and adjunction, the FOFC and the BBC make identical empirical predictions regarding possible orders of V, Aux, and X.

Despite overlapping empirical predictions, I consider the BBC to be a more straightforward constraint than the FOFC for deriving the limitations of VP word order in Germanic languages.[4] My reasoning goes as follows: The ban on V-X-Aux follows directly from the properties of the BBC as a universal constraint on phrase structure configurations. The same cannot be said of the FOFC. Rather, the FOFC is an independently formulated constraint that needs to be interpreted within a more general model of phrase structure (see Haider 2013: 132–135, Biberauer et al. 2014: 205–215). In Biberauer et al. (2014), the FOFC is implemented

[4]This is not to say that the BBC and the FOFC generally make identical predictions, despite a significant overlap. For an overview of the various cross-linguistic implications of the BBC and the FOFC, see Haider (2013: 10–17, 65–94) and Biberauer et al. (2014: 173–205), respectively.

within Kayne's (1994) *Linear Correspondence Axiom*.[5] Since the LCA postulates that all phrases in all languages have an underlying Spec-Head-Comp structure, the FOFC becomes a restriction on movement within a model that could easily derive the V-X-Aux word order. What the BBC handles in one step, the FOFC handles in two. For the FOFC to be justified as an independent constraint, it needs to be shown why it is more empirically adequate than the BBC, and not just equally adequate.

3 Clause structure and VP word order variation in Germanic languages

In this section, I provide some background to clause structure and VP word order variation in the Germanic languages. This description serves two purposes. First, it gives a basic empirical introduction to the subject of the article. Secondly, it clarifies in what syntactic environments we should look when trying to discriminate between possible verbal clusters and multiple embedded VPs. §3.1 deals with the basic clause structure in the Germanic language family, §3.2 with VP word order in Swedish, and §3.3 with VP word order in the West Germanic OV languages. In §3.4, I give an intermediate summary before the empirical investigation of VP word order in Late Modern Swedish.

3.1 Clause structure in Germanic languages

A basic property of Germanic clause structure, shared by all varieties except English, is the requirement for V2 word order. In a declarative main clause, the finite verb must be spelled out as the second constituent. Since den Besten (1983), the standard generative analysis of V2 has been that a finite verb moves from its base position in V° to the head of the highest functional projection of the clause: C°. The first constituent of the clause is found in spec-CP, and this position can be occupied by several phrasal types (e.g. NP, PP, AP, AdvP, or VP) with different syntactic functions. In (11a–b), the V2 property is exemplified with parallel present-day Swedish and German sentences.

(11) a. Present-day Swedish
Igår brann huset.
Yesterday burned house.DEF

b. German
Gestern brannte das Haus.
Yesterday burned the house
'Yesterday, the house was on fire.'

[5]For other implementations of the FOFC, see the overview in Holmberg (2017).

Verb movement to C° is confined to finite verbs in main clauses and a restricted set of (finite) embedded clauses, while other verbs seem to stay in V°. For Swedish, this can be shown by negating a clause, assuming that negation must be (externally) merged above the base position of all verbs (see e.g. Zeijlstra 2013). As seen in (12a–b), a negation precedes the non-finite verb in a main clause, and the finite verb in an embedded clause.

(12) Present-day Swedish

a. Du får inte läsa boken.
You may not read book.DEF
'You may not read the book.'
[$_{CP}$ Du får$_{v}$ inte [$_{VP}$ t$_{v}$ läsa boken]]

b. om du inte läser boken
if you not read book.DEF
'if you don't read the book'
[$_{CP}$ om du inte [$_{VP}$ läser boken]]

The placement of negation and similar sentence adverbials can always be used to determine the position of a verb in present-day Swedish, since they must precede V°. Other adjuncts (e.g. adverbials of time, manner and place) optionally precede a verb, while complements are strictly post-verbal (disregarding well-established instances of leftward movement, like topicalization). In the OV language German, other categories than sentence adverbials can be used as a diagnostic tool to decide whether a verb is in C° or in V°, including objects. As seen in (13a–b), objects precede non-finite verbs in main clauses and finite verbs in embedded clauses.[6]

(13) German

a. Du kannst das Buch lesen.
You may the book read
'You may read the book.'
[$_{CP}$ Du kannst$_{v}$ [$_{VP}$ das Buch lesen t$_{v}$]]

b. wenn du das Buch liest
if you the book read
[$_{CP}$ wenn du [$_{VP}$ das Buch liest]]
'if you read the book'

[6]The properties of Swedish are representative of present-day North Germanic languages, and the properties of German are representative of continental West Germanic languages, but two notable exceptions should be mentioned. Icelandic requires a finite verb to move in embedded clauses as well, to a functional projection between VP and CP (IP/AgrP/TP). Yiddish also displays movement in embedded clauses, and is a West Germanic language with both OV and VO word order. For further information and discussion, see e.g. Vikner (2001: 3–18).

An immediate consequence of Germanic V-to-C movement is that we cannot use main clauses with only a finite auxiliary to study the existence of verbal clusters. In the Swedish example in (14a), we cannot know whether the auxiliary has moved from a position to the left or the right of the adverb, if both possibilities can be shown to exist. The ambiguity is illustrated in (14b).

(14) Present-day Swedish
  a. Huvudvärk kan snabbt försvinna.
     Headache can quickly disappear
     'A headache can quickly disappear.'
  b. [$_{CP}$ Huvudvärk kan$_{v}$ [$_{VP}$ snabbt t$_{v}$ försvinna]]
     [$_{CP}$ Huvudvärk kan$_{v}$ [$_{VP}$ t$_{v}$ snabbt försvinna]]

To study VP-internal word order variation in the Germanic V2 languages, we must turn to environments where an auxiliary is realized VP-internally. Roughly, this means clauses with at least one non-finite auxiliary, or embedded clauses with a finite auxiliary (if we regard auxiliaries as part of (the extended) VP, as I do throughout the article; see §2.1).[7] In the remaining parts of §3, I turn to these syntactic environments.

3.2 VP word order in Swedish

As mentioned in the introduction, not much has been said about the grammaticality of adverbials intervening between an auxiliary and a main verb in present-day Swedish. Petzell (2011: 157) has claimed, however, that the sentence in (15a), where an adverbial PP intervenes between VP-internal verbs, is ungrammatical. (15b) is fine, on the other hand, with the adverbial preceding both verbs.[8]

[7] I will not discuss the possibility that embedded clauses in West Germanic are instances of I°-final structures. For conceptual criticism and empirical evidence against such a view, see Haider (2010: 54–68).

[8] It is actually noteworthy that, as shown in example (15b), pre-verbal adjunct PPs are acceptable in present-day Swedish, and not only pre-verbal adverbs/adverbial phrases. There are claims in the literature that a head of an adjunct modifying a head-initial phrase must be (linearly) phrase-final, if the adjunct precedes the head of the phrase it modifies (see e.g. Haider (forthcoming) for recent discussion). This would exclude the word order PP-V if the VP is head-initial, as are present-day Swedish VPs. The restriction does seem to hold, however, for attributive adjectives modifying a noun; see (i).

(i) * En snabbare än dig person (Present-day Swedish)
  a faster than you person
  Intended reading: 'a faster person than you'

(15) Present-day Swedish[9]

a. * att han inte *hade* under eftermiddagen *cyklat* två mil
that he not had during afternoon.DEF bicycled two miles
'that he hadn't bicycled two (Swedish) miles during the afternoon'

b. att han under eftermiddagen *hade cyklat* två mil
that he during afternoon.DEF had bicycled two miles

The ungrammaticality of the word order in (15a) is not, however, as straightforward as Petzell (2011) would have it. Teleman et al. (1999/3: 488) note that an adverbial of manner can separate two VP-internal verbs; the examples in (16a–b) illustrate this possibility.

(16) Present-day Swedish

a. [d]e som inte *har* medvetet *upplevat* 1930- och
those that not have consciously experienced 1930- and
1940-talen
1940-number.PL.DEF
'those who haven't consciously experienced the 1930s and the 1940s'

b. genom att *låta* kritiskt *granska* förslagen
by to let critically examine proposal.PL.DEF
'by letting the proposals be critically examined' (Teleman et al. 1999/3: 488)

Thus, Aux-X-V, where X is an adverbial, seems to be an option in present-day Swedish, at least marginally and for some speakers. This conforms with my intuition as a native speaker of (Central) Swedish: Aux-X-V is a possible but sometimes not entirely natural word order. At the same time, it is clear that not much is known about possible restrictions on the word order. A detailed study of Aux-X-V is beyond the scope of this article, but in §4.3, I make some more observations regarding the word order in present-day Swedish.

It is not difficult to confirm that Aux-X-V exists in older Swedish. The examples in (17a–d), all from texts written around 1500, indicate that Aux-X-V is possible for adjuncts (17a–b) – adverbs as well as PPs – for NP objects (17c) and for PP complements (17d). Their existence has been noted by Falk (1993: 171–172), for

[9]The judgement of the sentence in (15a) reflects Petzell's (2011) view and not my own. Personally, I find this sentence acceptable, albeit a bit awkward. In contrast to Petzell (2011: 157), I have added a negation between the subject and the finite verb to disambiguate from embedded V-to-C (see further §4.1).

example, but I know of no investigation that focuses on the distribution of Aux-X-V in older Swedish.

(17) Old Swedish

a. Thiänaren sagdhe sik thz *haffwa* offta *giort*
Servant.DEF said REFL it have often done
'The servant said that he had often done it' (LinLeg, p. 306)

b. at han skulde *haffwa* i thino farahws *giort* skada
that he should have in your sheep.house done harm
'that he should have done harm in your sheep house' (SpecV, p. 486)

c. at wij skuldom *haffua* priis *fongit*
that we should have price got
'that we should have got a price' (Di, p. 200)

d. at wi skullom *haffwa* om jomfrunnar *taladh*
that we should have about virgin.PL.DEF spoken
'that we should have spoken about the virgins' (SpecV, p. 334)

In other words, the possibility for non-verbal material to intervene between verbs seems to have been quite unrestricted in older Swedish. One might suspect that this would mean that we might also find examples of the V-X-Aux word order, contrary to what the BBC predicts. To the best of my knowledge, though, no one has ever made such a claim. Petzell (2011: 155, 158–160), who studies different types of OV word order in older Swedish, notes that out of four possible combinations of an auxiliary, a main verb, and an argument (including NP objects and predicatives), with the argument preceding at least one of the verbs, only three can be found: Arg-Aux-V, Aux-Arg-V and Arg-V-Aux, but not V-Arg-Aux. He does not specify whether or not this restriction holds for adjuncts as well as for arguments, but as we will see in §4, this is likely to be the case.

3.3 VP word order in West Germanic languages

As already shown in §§1 and 2, German does not accept constituents between a main verb and an auxiliary if the verbs remain in VP. The same restriction seems to apply to Dutch (Haider 2010: 290–291, see also Wurmbrand 2004). As shown in (18a–b), a constituent cannot intervene between an auxiliary and a main verb (18a), or between two VP-internal auxiliaries (18b). Importantly, this is true regardless of the number and order of verbal elements. Both examples have Aux-V word order, and in (18b) the selecting auxiliary precedes the selected one.

(18) Dutch

a. * dat hij graag *wilde* kraanvogels *fotograferen*
that he gladly wanted cranes photograph
Intended reading: 'that he gladly wanted to photograph cranes'

b. * dat hij *zal* naar huis *willen gaan*
that he will to home want go
Intended reading: 'that he'll want to go home' (from Haider 2010: 291)

There are nevertheless combinations of three verbs in standard German that show that this restriction is not as clear-cut as the Dutch data might suggest. In what are known as IPP constructions,[10] the unmarked order is not V-Aux2-Aux1, as is usually the case, but Aux1-V-Aux2.[11] Here, constituents can be placed between the finite auxiliary and the two non-finite verbs, as seen in (19). In (19a), an object and a PP are found between the auxiliaries, and (19b) has an adverb in the corresponding position. Thus, if a VP-internal auxiliary takes a VP complement on its right-hand side, the adjacency requirement of VP-internal verbs disappears (see Sheehan 2017: 97–102, see also Haider 2003, 2013: 132–135).

(19) German

a. dass er für ihn nicht *hatte* die Firma am Leben *halten*
that he for him not have.PST the company at.DEF life keep.INF
wollen
want.INF
'that he had not wanted to keep the company alive for him' (from Haider 2013, 128)

b. dass er das Buch *hätte* genau *durchsehen* *sollen*
that he the book have.PST carefully through.seen.INF shall.INF
'that he should have looked through the book carefully' (from Sheehan 2017: 101)

Furthermore, dialects of both German and Dutch show that verbal complexes with two VP-internal verbs can indeed have intervening constituents, if the auxiliary precedes the main verb (see e.g. Sapp 2011: 124–129). This is illustrated in

[10] IPP = *Infinitivus Pro Participio* (infinitival instead of participle) – an auxiliary *haben* taking another auxiliary in infinitival form instead of a participle (see e.g. Wurmbrand 2004: 46–48).

[11] As is common practice, Aux1 denotes the highest auxiliary, which has all other verbs inside its complement; Aux2 denotes the second highest, and so on. For further discussion and information on the relative order of verbs in different West Germanic varieties, see e.g. Wurmbrand (2004), Sapp (2011), Culicover (2014).

(20a–c), with objects intervening between the verbs. (20a) is representative of the German spoken, for example, in Vienna (Haider 2013: 128), (20b) is Swiss German, and (20c) West Flemish.

(20) a. Dialectal German
Man hätte *müssen* die Polizei *verständigen*
One have.PST must.INF the police call.INF
'People were forced to call the police' (from Haider 2013: 128)

b. Swiss German
das si am Grendel *wöt* sine verlore chlause *zruggeh*
that she to.DEF Grendel wanted his lost claw return
'that she wanted to return his lost claw to Grendel' (from Haider 2013: 128)

c. West Flemish
da Jan vuor Marie *wil* da boek *kuopen*
that Jan for Marie wants that book buy
'that Jan wants to buy the book for Marie' (from Haegeman 1992: 181)

To conclude, West Germanic OV languages conform to what has already been indicated for older Swedish. Verbs must be adjacent if a verb that is selected by another verb precedes the selecting verb. Typically, though not exclusively, this applies to a main verb selected by an auxiliary. Even though standard Dutch is also in line with this generalization, it is something of an exception; intervening material with either V-Aux or Aux-V word order is not accepted.

3.4 Intermediate summary

It has now been established that Aux-X-V is a possible word order in several Germanic varieties, with both OV and VO clause structure. If we disregard word orders where X is preceded by both Aux and V, then Aux-X-V seems to be in competition with X-Aux-V and X-V-Aux. The word order V-X-Aux does not exist in West Germanic varieties and possibly not in older Swedish either. However, not much is known about the diachronic development of Aux-X-V in older Swedish. This is the focus of the upcoming section. As mentioned, I focus on Late Modern Swedish, i.e. the time when OV word order finally disappeared from older Swedish texts (see Platzack 1983, Petzell 2011, Sangfelt 2019). The development leading up to Late Modern Swedish is nevertheless of interest, and I therefore make some observations about Early Modern Swedish, using data from Sangfelt (2019).

4 The development of Aux-X-V word order in the history of Swedish

In this section, I analyse the development of Aux-X-V word order in the history of Swedish. I begin by presenting the data sources and discussing how Aux-X-V should be more narrowly defined (§4.1). I then present the development of Aux-X-V in Late Modern Swedish (§4.2) and go on to look at Early Modern and present-day Swedish (§4.3). In §4.4, I summarize and discuss the findings.

4.1 Defining the Aux-X-V word order in Late Modern Swedish data sources

To study the diachronic development of Aux-X-V word order, I use the corpus of Swedish drama dialogue (see Melander Marttala & Strömquist 2001 for a description of the corpus). The drama corpus is a suitable source of data with regard to the aim of this article for at least two reasons. First, the corpus contains language use from a genre that should reflect relatively closely the spoken language in Central Sweden during the 18th and 19th centuries. As the name indicates, the texts mostly consist of dialogue. Extensive use of archaic and/or formulaic patterns, not representative of the grammar of the time, is therefore not expected (see e.g. Fischer 2007: 12–14).

Secondly, the corpus is well suited to diachronic research, because it is divided into six periods of 25 years each. The first three periods each contain five dramas, derived from texts written during the years 1725–1750, 1775–1800, and 1825–1850. The corpus is digitized but not syntactically annotated, and the extraction has therefore been carried out manually.

The investigation aims to study the frequency and development of Aux-X-V, i.e. cases where an arbitrary constituent intervenes between a VP-internal auxiliary and a main verb. We therefore need to know what verbs count as auxiliaries, how we can determine that an auxiliary has not left its VP-internal position, and how we can estimate the frequency of the word order. With respect to what verbs are included among the auxiliaries, I follow Delsing (1999: 162–163). This implies that the category "auxiliary" is lexically specified, and includes the verbs in (21).[12]

[12]The decision to follow Delsing (1999) could be questioned, since his reasoning is empirically grounded on Old Swedish and Early Modern Swedish data. However, relevant examples with other potential auxiliaries, like *behöva* 'need' and *börja* 'start', are very scarce in the corpus. Hence, the decision only has minor effects on the quantitative results. It should also be noted that Delsing (1999) includes the verbs *gita* 'be able to', *ägha* 'be obliged to', *mona* 'intend to, be going to', and *plägha* 'tend to', but these verbs are not used as auxiliaries in Late Modern Swedish.

(21) *hava* 'have', *kunna* 'can, be able to', *vilja* 'want', *skola* 'shall, be going to', *få* 'may, get', *magha* 'may, be able to', *måste* 'must, have to'

The question of when an auxiliary has not left its VP-internal position has already been given a partial answer in §3.1. As stated there, main clauses with only a finite auxiliary are of no interest, since the auxiliary has moved to C°. If, however, a main clause also contains a non-finite auxiliary, we will be able to determine whether or not a non-verbal constituent is situated above or below the base position of the said auxiliary. Thus, in (22a), it is clear that the position of the PP adverbial *på skämt* ('as a joke') between the auxiliary and the main verb is not due to verb movement. Similarly, in (22b), the adverb *omöjeligen* ('impossibly') is unambiguously in a position above the base position of the non-finite auxiliary.

(22) a. Herr Magistern måtte *vilja* på skämt *försöka* mig
Mr. teacher.DEF must want on joke examine me
'Mr. teacher must want to examine me as a joke' (2D108)

b. Jag skulle omöjeligen *kunna inbilla* mig det
I would impossibly be.able imagine REFL it
'I couldn't possibly imagine that' (1A503)

The assumption that non-finite auxiliaries remain in situ in main clauses can be extended to all types of clauses, finite as well as non-finite. It should be noted that the movement of non-finite verbs to a functional head is not universally prohibited. In Icelandic, for example, the highest non-finite verb precedes a clausal negation in control infinitives with the infinitive marker *að* (Thráinsson 2007: 417–421) (see 23a), indicating verb movement to a functional position. A few examples of this type of word order can in fact be found in Old Swedish texts from the 13th and 14th centuries, but it seems to have disappeared long before the Late Modern Swedish period (see Delsing 1999: 161, Falk 2010, Kalm 2016: 141). Consequently, I assume that the position of the adverbial *så lätt* ('so easily') in (23b) is not due to movement of the auxiliary. The same assumption applies to control infinitives without an infinitive marker and to ECM infinitives.

(23) a. Icelandic
María lofaði að lesa ekki bókina
Mary promised to read not book.DEF
'Mary promised not to read the book' (from Thráinsson 2007: 421)

b. Rosorna på hennes kinder äro för friska, för att *kunna* så lätt
Rose.PL.DEF on her cheeks are too healthy for to be.able so easily
förblekna
pale
'The roses on her cheeks are too sweet to be able to pale so easily'
(3C707)

A rather delicate question that remains is how to handle embedded clauses with a finite auxiliary and a non-finite main verb. As stated in §3, a finite verb typically stays in V° in embedded environments in present-day Swedish. This means that today, an embedded clause with a constituent between a finite auxiliary and a non-finite main verb is a candidate for a proper instance of Aux-X-V word order.

The situation in older Swedish is different, however. Old Swedish embedded clauses are usually assumed to display obligatory movement of a finite verb to a functional projection above VP but below CP, here called IP. This is indicated by the fact that a finite verb tends to precede a negation in all types of embedded clauses (see Platzack 1988, Falk 1993, Håkansson 2013). This sort of verb movement was, however, lost during the history of Swedish. According to Platzack (1988), the last instances of V-to-I movement are found in the first half of the 17th century (see also Falk 1993: 174–177). If this is correct, V-to-I should not affect the relative position of an auxiliary and a non-verbal constituent in my data sources.

Determining when V-to-I takes place is sometimes difficult, since finite verbs preceding negation could be the result of so-called embedded V-to-C (or embedded V2). In present-day Swedish, such main clause word order is grammatical in embedded but assertion-friendly environments, and typically appears in an embedded clause introduced by the complementizer *att* ('that') (see e.g. Petersson 2014).[13] The question of what types of clauses allowed embedded V-to-C in older Swedish has not been fully investigated (but see Falk 1993: 168–177).[14] It is thus impossible to distinguish between V-to-I, embedded V-to-C, and Aux-X-V in a large number of embedded clauses with a finite auxiliary and a non-finite main verb in the history of Swedish. This includes Late Modern Swedish, at least to some extent.

[13]Gärtner (2016: 4) characterizes an environment as assertion-friendly when the content "counts as something the speaker commits to and as meant to enrich the common ground".

[14]We should not assume a priori that embedded V-to-C has the same characteristics in present-day and older Swedish; there are North Germanic languages, for example Icelandic and Faroese, that seem to show less restrictive V-to-C, as pointed out by e.g. Gärtner (2016).

To bypass this problem, I have excluded embedded clauses with a finite auxiliary and a non-finite main verb if the finite auxiliary is the first constituent after the subject of the embedded clause. The embedded clause in (24a) is therefore seen as ambiguous between embedded V-to-C (or, less likely, V-to-I) and Aux-X-V proper. By contrast, the embedded clause in (24b) is not ambiguous, since a constituent in addition to the subject precedes the finite auxiliary, indicating that verb movement has not taken place.

(24) a. Tänck om gamla Gref Hurtig … *skulle* nu *komma* ur sin graf
Think if old count Hurtig would now come out his grave
'What if old count Hurtig were now to step out of his grave' (1B103)

b. at I intet *skolen* et ögnablick *wara* ifrån henne
that you not shall a moment be from her
'that you won't be away from her for a single moment' (1A307)

To sum up, Aux-X-V word order includes (i) clauses where a constituent is placed between a non-finite auxiliary and a non-finite main verb, and (ii) embedded clauses where a constituent is placed between a finite auxiliary and a non-finite main verb if the auxiliary is preceded by a constituent that indicates that verb movement has not taken place.

The last thing to be settled is how to estimate the frequency of Aux-X-V. There are of course several possible options regarding how to do this. The one I have chosen, and arguably the most adequate, is to compare Aux-X-V with the word orders where X precedes both the auxiliary and the main verb: X-Aux-V and X-V-Aux. This largely means comparing Aux-X-V with X-Aux-V, as V-Aux was already rather infrequent at the beginning of the Late Modern Swedish period and disappeared along with OV word order (see Platzack 1983, Petzell 2011, Sangfelt 2019).

To be counted as X-Aux-V (or X-V-Aux), X has to be spelled out in a position below C°. This excludes main clauses like (25a), where X has been fronted to spec-CP. I also exclude embedded clauses where only one constituent, excluding the subject, precedes a finite auxiliary and a non-finite main verb; see (25b). If the constituent had followed the finite auxiliary, it would not have been considered an unambiguous example of Aux-X-V, due to the possibility of embedded V-to-C.

(25) a. den människan har jag aldrig *kunnat* *fördra*
this human.DEF have I never been.able tolerate
'I've never been able to tolerate this person' (2D305)

b. När Gubben detta *fick höra*
when old.man.DEF this got hear
'when the old man got to hear this' (1D301)

The category X roughly includes three types of constituents: objects, predicatives, and different types of adverbials, including adverbial-like complements. The category "adverbial" is the most heterogeneous and necessitates a comment. Sentence adverbial, including negation, are usually thought to be base-generated in a position above the finite verb, as explained in §3. If correct, this means that sentence adverbials are not expected to occur in Aux-X-V proper.

Despite this, I have included all kinds of adverbials in the category X for two reasons. Firstly, this is a way of testing the adequacy of the definition of Aux-X-V word order and the basic assumptions about clause structure in this article, since we expect sentence adverbials not to occur in this position. Secondly, we can avoid the problem of consistently identifying sentence adverbials vs. other adverbials, which is not always easy in historical texts.

In the presentation of the data, I distinguish the numbers for negation, a frequent and easy-to-identify sentence adverbial. Other adverbials have been coded for size, making a distinction between single adverbs and multiple-word adverbials (MW adverbials). MW adverbials mostly consist of PPs, but some instances of adverbial phrases and NP adverbials are also placed in this subcategory.

4.2 Aux-X-V in Late Modern Swedish

Table 1 shows the development of Aux-X-V word order in Late Modern Swedish, both in absolute numbers and in percentages. The percentages are calculated by dividing the absolute number of instances of Aux-X-V by all instances of Aux-X-V, X-Aux-V and X-V-Aux word order combined. Consequently, Table 1 shows how often we get Aux-X-V word order, when X precedes the non-finite main verb, as explained in §4.1.

Table 1: The development of Aux-X-V word order in Late Modern Swedish

Period	Aux-X-V	Total	Aux-X-V %
1725–1750	33	450	7
1775–1800	5	134	4
1825–1850	2	128	2

As is clear from Table 1, most examples of Aux-X-V word order are found during the first period. Of a total of 40 instances of Aux-X-V, 33 come from texts written during the time span 1725–1750. However, this is partly due to sample size, it seems – period 1 contains more than three times as many instances of pre-verbal constituents in general, compared to periods 2 and 3. When this is controlled for, the percentages suggest that there is a rather minor decrease in frequency of Aux-X-V during the period of Late Modern Swedish. The numbers drop from 7% to 4% and then to 2% between periods 1 and 3.

It should also be said that the differences in sample size might lead to questions about how representative the data for periods 2 and 3 are. Consequently, I will interpret the minor decrease in frequency with caution. As a matter of fact, one could argue that the sparse occurrence of Aux-X-V in all periods seems to be a more substantial finding – the word order was obviously rather infrequent already by the beginning of Late Modern Swedish.

As described in §4.1, the category X can be divided into five types of constituents: negation, object, predicative, adverb, and multiple-word (MW) adverbial. The numbers for each subcategory are shown in Table 2, again divided into three periods.

Table 2: The development of Aux-X-V word order for five types of constituents. (Percentages based on less than 25 instances are given in parentheses.)

Constituent type		1725–1750	1775–1800	1825–1850
Neg	Total	0/108	0/46	0/36
	%	0	0	0
Obj	Total	5/11	0	0
	%	(45)	–	–
Pred	Total	0/5	1/6	0/3
	%	(0)	(17)	(0)
Adverb	Total	15/197	1/49	1/61
	%	8	2	2
MWadv	Total	13/129	3/33	1/27
	%	10	9	4

Negation clearly stands out from the other categories; it is the only one not represented in Aux-X-V word order. As pointed out in §4.1, this is to be expected, given the assumption that sentential negation is base-generated above the highest verb of a clause. In other words, the absence of negation in Aux-X-V word

order is in line with the basic assumptions of clause structure and the criteria used to identify Aux-X-V proper.

Objects are the only type of constituent not represented in all three periods, counting both Aux-X-V and word orders where X precedes Aux and V. In period 1, a rather high proportion of objects show Aux-X-V word order (5/11), although the absolute number is small. In periods 2 and 3, none of the sentences included contains a pre-verbal object. However, the disappearance of pre-verbal objects has nothing to do with the differences between Aux-X-V, X-Aux-V, and X-V-Aux, but presumably instead has to do with the general loss of OV word order. In periods 2 and 3, I find no examples at all in the corpus of objects that precede their main verb, even outside the more narrowly defined word orders Aux-X-V, X-Aux-V, and X-V-Aux.[15] The possibility of having pre-verbal objects thus seems to have disappeared between 1750 and 1775 in the history of Swedish, at least in the rather informal genre of drama dialogue.

The numbers for the predicative subcategory do not lend themselves to a thorough diachronic analysis. Of a total of only 14 examples in all periods, one is found with Aux-X-V word order. While it seems reasonable to include predicatives among the syntactic categories that are allowed in Aux-X-V, the data are too limited to draw further conclusions.[16]

Finally, we turn to the development of adverbials. Both adverbs and MW adverbials are well represented in the corpus in comparison with objects and predicatives. The two adverbial categories also show a similar decrease in frequency over time, falling from around 10% to under 5% over the course of the three periods.

As pointed out in §4.1, the two adverbial categories are internally heterogeneous, since they include different types of adjuncts, sentence adverbials, and complement-like adverbials. Notably, there are no potential examples of a sentence adverbial within the Aux-X-V word order in my data. Sentence adverbial in general thus pattern with negation, which is to be expected if they too are externally merged above the highest verb of the clause. Otherwise, it is difficult to establish any restrictions on what types of adverbials can occur in the Aux-X-V word order. Instances of Aux-X-V include, for example, adverbials of manner

[15] I exclude word orders that are still possible in present-day Swedish, like fronted objects in spec-CP.

[16] Just like objects, resultative predicatives and predicatives that occur with a copula are not allowed to precede a verb in present-day Swedish. It might thus seem surprising that there are predicatives preceding a verb in all three periods. However, all the examples in question are instances of adjunct predicatives (see the example in (i)), which are allowed to precede a verb in present-day Swedish.

(i) at okänd *få sluta* mina dagar här i denna skogspark
to unknown get end my days here in this forest.park
'to have to die unknown here in this forest park' (2E101)

(see (23b) above, repeated in (26a)), place (26b), time (see (24b) above, repeated in (26c)) and complement-like adverbials (26d). Among the MW adverbials, we find adverbial phrases (26a), prepositional phrases (26b), and NP adverbials (26c).

(26) a. Rosorna på hennes kinder äro för friska, för att *kunna* så
Rose.DEF.PL on her cheeks are too healthy for to be.able so
lätt *förblekna*
easily pale
'The roses on her cheeks are too sweet to be able to pale so easily' (3C707)

b. när winet likwäl *skulle* wid tullen eller
when wine.DEF nevertheless would at customs.DEF or
uplastningen *proberas*
unloading.DEF be.investigated
'when the wine would nevertheless be investigated at the customs or at the unloading' (1E101)

c. at I intet *skolen* et ögnablick *wara* ifrån henne
that you not shall a moment be from her
'that you won't be away from her for a single moment' (1A307)

d. at I ej länge *få* derutinnan *framhärda*
that you not long may in.this.thing persevere
'that you don't need to persevere for a long time in this matter' (1B502)

To sum up, setting aside sentence adverbials, most types of adverbials appear to have been permitted as X in Aux-X-V configurations in Late Modern Swedish, despite the rarity of this word order compared to X-Aux-V.

4.3 Earlier periods and present-day Swedish

Since Aux-X-V existed before the beginning of Late Modern Swedish, and to some extent still exists today, some notes about its development beyond the 18th and 19th centuries are in order. As concluded in §3.2, there are no previous studies explicitly focusing on Aux-X-V word order in the history of Swedish, and this applies to all historical stages of the language. Some relevant data are nevertheless found in Sangfelt (2019), who presents numbers for Aux-X-V in Early Modern Swedish, where X is either an object or a prepositional phrase.[17]

[17] As in the present study, Sangfelt (2019) compares Aux-X-V to X-Aux-V and X-V-Aux. In contrast to the present study, the relevant data are exclusively taken from clauses that contain a non-finite auxiliary.

A comparison of the data in Sangfelt (2019) with the results from the present study indicates that the Aux-X-V word order is somewhat more frequent before the beginning of Late Modern Swedish, at least with regard to prepositional phrases. PPs show percentages between 15 and 20% of Aux-X-V in Early Modern Swedish (Sangfelt 2019: 119). The percentage is also slightly higher at the beginning of the era than later on. As we saw in the previous section, the percentages for multiple-word adverbials, roughly equivalent to PPs, fall from 10% to 2% during the Late Modern Swedish period. In other words, the data suggest that there was a slow but steady decline of Aux-X-V throughout the Modern Swedish period.

Regarding objects, the percentages fluctuate between 24 and 42 in Early Modern Swedish (see Sangfelt 2019: 116), which is somewhat more frequent than the corresponding numbers for PPs. It is possible that the discrepancy in frequency between objects and PPs/MW adverbials is preserved as long as pre-verbal objects are grammatically acceptable, with 5 out of 11 pre-verbal objects in Late Modern Swedish showing the Aux-X-V word order.

In the last of the three Late Modern Swedish periods in the present study, Aux-X-V apparently became a rather infrequent word order, only possible with certain types of adverbials. This may be quite like the situation in present-day Swedish. In §3.2, I concluded that Aux-X-V appears to be a marginal but existing word order possibility in present-day Swedish, if X is an adverbial. To confirm my own intuitions and the observations in Teleman et al. (1999/3: 488–489), I conducted minor searches for Aux-X-V by using the Swedish corpus infrastructure Korp (Borin et al. 2012).[18] The results clearly indicate that Aux-X-V is quite easily found in present-day language use, at least in these large corpora. If nothing else, this is true where X is an adverbial of time or manner.[19] Two examples are given in (27a–b), one with an adverb of manner (27a) and one with an adverb of time (27b).

[18]Korp is available here: https://spraakbanken.gu.se/korp/

[19]In passing, we should also note that we find focusing adverbs, typically *bara* 'only', between an auxiliary and a main verb. Out of the first 50 instances of Aux-X-V word order found in Korp (subcorpus *sociala medier* 'social media'), 13 examples contain *bara* as the adverb. This arguably constitutes evidence that verbs do not form a cluster in present-day Swedish, but I am not sure to what extent this type of sentence should be compared with other instances of Aux-X-V. As discussed in Brandtler & Håkansson (2017), such adverbs can also be placed in front of a finite main verb (giving rise to a focused interpretation of the finite verb), which at least superficially breaks the V2 requirement of present-day Swedish.

(i) Han bara grät av glädje när han fick se dem.
He only cried of joy when he got see them
'He just *wept* for joy when he got to see them.' (from Brandtler & Håkansson 2017: 12)

(27) Present-day Swedish

a. För mig som alltid bloggar via ipad och iPhone så är det rätt
For me that always blog through ipad and iPhone so is it quite
jobbigt att inte *kunna* enkelt *slänga* in ett inlägg
annoying to not be.able easily throw in a post
'For me who always blogs using an iPad or iPhone, it's quite annoying not to be able to post easily' (Bloggmix 2015)

b. 99 % av morgonnyheterna är DÅLIGA – skulle man inte *kunna*
99 % of morning.news.DEF.PL are bad would one not be.able
alltid *börja* med en bra nyhet
always start with a good piece.of.news
'99% of the morning news is BAD – if only you were able to always start with a good piece of news' (Bloggmix 2011)

It goes without saying that these data are not sufficient to fully understand the mechanisms governing Aux-X-V in present-day Swedish. We could nevertheless hypothesize that not much has happened since the middle of the 19th century; Aux-X-V is an existing but uncommon word order pattern, and appears to have been so since the end of the Late Modern Swedish period.

4.4 Intermediate conclusions and discussion

Since the beginning of Early Modern Swedish, the Aux-X-V word order seems to have decreased in frequency. Over time, we find word order restrictions that are diachronically stable, and other things that have changed. It appears to be invariant that sentence adverbials are excluded in Aux-X-V, which is not surprising if X needs to be merged below the edge of VP for the word order to be generated. One thing that has changed concerns the ability of objects, and presumably complements in general, to occur in Aux-X-V. If X is a pre-verbal object, Aux-X-V is rather frequently used in Early Modern Swedish and at the beginning of Late Modern Swedish, but from the end of the 18th century and onwards, objects are nonexistent in Aux-X-V. However, this is not ultimately related to the properties of Aux-X-V per se, but to a general loss of OV word order. Given the data in this article, it actually seems difficult to detect any kind of abrupt grammatical change exclusively related to Aux-X-V word order in the history of Swedish. The decline of Aux-X-V can be described as very slow, and the word order is still present to a certain extent in present-day Swedish.

Regarding the connection between inseparable verbal clusters and OV word order (see Haider 2010: 17–19, 33–35), the data from older Swedish do not really

support such a conclusion. Whether or not an object precedes its main verb does not seem to be a crucial factor when it comes to allowing non-verbal material to intervene between VP-internal verbs.

Furthermore, the diachronic development of older Swedish would be rather curious if there were such a straightforward correlation. Aux-X-V became somewhat less frequent when OV decreased in frequency during Early Modern Swedish, and even more infrequent when OV disappeared completely during Late Modern Swedish. There are certainly ways of getting around this if we want to maintain the idea that OV forces verbs to cluster (see Haider 2010: 290–292, 2013: 132–135), but, as will be argued in §5, data from the history of Swedish indicate that such an account is conceptually undesirable.

One possible restriction on intervening syntactic material between verbs remains to be commented on. As emphasized in §3.2, Petzell (2011: 155, 159) claims that the word order V-Obj-Aux is not found in the history of Swedish. This is the case despite the fact that both V-Aux and VO are readily attested word orders, but is in line with restrictions put forward by the BBC (and, for that matter, by the FOFC; see §2). Petzell (2011) does not, however, specify whether this generalization can be extended to V-X-Aux as a whole, with X including not only objects, but all types of non-verbal constituents. The Late Modern Swedish data are admittedly far from ideal for answering this question. In fact, only two sentences in the data sample show V-Aux word order. These are given in (28a–b).

(28) a. at jag det så *hafwa wil*
that I it so have want
'that I want it that way' (1A201)

b. hwarmed I för en bort-faren Wänn skul, eder emot
whereby you for an away-traveled friend sake REFL against
Konungen *förbrutit* *hafwen*
king.DEF committed.crime have
'whereby you have committed a crime against the king, for the sake of a friend that has traveled away' (1A507)

As seen in (28a–b), all non-verbal constituents occur to the left of the verbs, so V and Aux remain adjacent. The reason why V-X-Aux is not found could of course be the highly limited number of sentences, but the additional data in Sangfelt (2019) suggest that the absence of intervening constituents is not due to the small number of sentences. The data collected in Sangfelt (2019: 133) contain 487 instances of a main verb preceding an auxiliary in older Swedish texts written between the 13th and 18th centuries. Despite the large number of clauses and the

broad time span, V-X-Aux is unattested. In other words, in clauses with V-Aux word order, V and Aux are always adjacent. One should acknowledge that the evidence invoked here is negative by its nature, and that the ungrammaticality of V-X-Aux does not follow as a logical consequence from these data. Nevertheless, this now appears to be a well-supported hypothesis. In the remainder of the article, I will assume that Petzell's (2011) conclusion with regard to objects can be generalized to all non-verbal constituents, in full agreement with the BBC.

5 VP structure and verbal clusters in Late Modern Swedish and beyond

A prohibition on V-X-Aux might seem like a rather idiosyncratic word order restriction in older Swedish and the other Germanic languages. However, the restriction is far from language-specific, as I will show in this section. In §5.1, I comment on comparative data that indicate that there is indeed something that bans V-X-Aux in the languages of the world. In §5.2, I discuss the existence or non-existence of Aux-X-V in some of the world's languages, and whether or not X-Aux-V can contain instances of verbal clusters. In §5.3, I present my conclusion on verbal clusters in the history of Swedish, and discuss its relevance for our understanding of verbal clusters in languages worldwide.

5.1 *V-X-Aux in the languages of the world

In §2, I stated that the absence of V-X-Aux in the Germanic languages was to be expected, given the limits on syntactic representations that follow from the Basic Branching Constraint. In the discussion so far, the empirical evidence exclusively comes from the Germanic language family. In the following, it will however be clear that this is not an idiosyncratic property of the Germanic languages, but a possible language universal in need of explanation.

Biberauer et al. (2014) observe that it is extremely difficult to find languages where an object intervenes between a main verb and an auxiliary, if the word order is V-Aux and not Aux-V. Languages that are perfectly designed to test this generalization would be languages where VO varies with OV, and Aux-V with V-Aux. Two non-Indo-European languages that meet this criterion are Basque and Finnish; in certain syntactic environments, both varieties exhibit what looks like free variation in the position of Aux, V, and objects. Despite this, V-Obj-Aux is not a grammatical possibility, as shown by the examples in (29a–b).

(29) a. Basque
* Jon-ek *esan* Miren-i egia *dio*.
Jon-ERG said Miren-DAT truth AUX
Intended reading: 'John has told Miren the truth'

b. Finnish
* Milloin Jussi *kirjoittanut* romaanin *olisi*?
when Jussi written novel would.have
Intended reading: 'When would Jussi have written a novel?' (from Biberauer et al. 2014: 177)

The discussion in Biberauer et al. (2014) focuses on complementation, which leaves open the question of whether or not we could find instances of adjuncts that interrupt a V-Aux sequence (see §2.2). For verbal clusters to be obligatory with V-Aux word order (and for the BBC to be correct), it must equally be the case that adjuncts cannot intervene between V and Aux. This question is discussed by Sheehan (2017). At a first glance, the ban on V-Adv-Aux does not seem quite as straightforward as that on V-Obj-Aux. As a minor pattern, the linear string V-Adv-Aux can be found, for example, in Hindi and Turkish with a small class of adverbs. Looking more closely, however, Sheehan (2017) concludes that these are only apparent counterexamples to a general prohibition on elements intervening in a proper V-Aux sequence. Rather than being instances of [[$_{\text{VP}}$ V X] Aux], they are instances where the adverb is a projecting head, and where AdvP contains the main verb as an embedded subpart (see Sheehan 2017: 102–120).

The structure [[$_{\text{AdvP}}$ V Adv] Aux] is not an example of a right-branching structure, if the AdvP is an adjunct of the higher VP/AuxP (see Haider 2013). Therefore, I will assume that universal grammar forces a cluster analysis upon V-Aux, in accordance with the BBC.

5.2 The structure of Aux-X-V and X-Aux-V in the languages of the world

In §§3 and 4, we saw that there are cases where Aux-X-V is combined with OV word order. This is an interesting conclusion, since it could be expected from Haider (2010) that verbal clusters are a direct consequence of OV word order. Let us first note, however, that Haider is well aware of the fact that there are German VPs where an element can intervene between two verbs (see e.g. Haider 2013: 128, 134), as I also noted in §3. Despite this, Haider argues that all verbs start out as clusters, but that an auxiliary can leave its base position and target a verbal head above the lowest VP (Haider 2010: 290–291, 2013: 134). The basic idea

is schematically illustrated in (30a). The alternative would be to assume that the structure involves no movement, but only an auxiliary taking the lower VP as its right-hand complement, as in (30b). Note that both (30a) and (30b) are compatible with the BBC; the complex VP is clearly right-branching.

(30) a. $[_{VP1}\ Aux_i\ [_{VP2}\ X\ [V+t_i]]]$ Movement of Aux from the verbal cluster
b. $[_{VP1}\ Aux\ [_{VP2}\ X\ V]]$ A VP inside another VP

From Haider's discussion, it does not seem at all clear to me why one would assume the structure in (30a) rather than the one in (30b). I also note that sentence adverbials, which are the category usually employed to discriminate between verb movement and V-in-situ, never intervene between Aux and V, as we saw in §4. If we accept the premise that the movement analysis bears the onus of proof rather than the base-generation analysis, then (30b) is actually preferable, as far as I can tell. Be that as it may, both analyses capture the general conclusion that Aux-X-V can never be (just) a verbal cluster, and there is no doubt that it can be found with both OV and VO clause structure (see Haider 2010: 291).

As is the case with Aux-X-V, X-Aux-V is clearly a word order that occurs in both OV and VO languages. In varieties (or grammars) where X-Aux-V varies with Aux-X-V, it is hard to see any reasons why X-Aux-V should be analysed as a cluster variant. In (31a–b), I show two authentic dialectal German examples (West Central, according to Sapp 2011: 125) where a constituent intervenes between a finite auxiliary and a main verb. As seen in the examples, there are also constituents that intervene between the subject and the auxiliary: in (31a) an NP adverbial and in (31b) an adverb (see also examples (20b–c) in §3.3). Hence, we see that X-Aux-V order does not rely on the adjacency of the verbs or, by extension, on a cluster analysis.

(31) dialectal German
a. dass er jeden Augenblick *musste* hinter eine Hecke *laufen*
that he any moment must behind a hedge run
'that he had to run behind a hedge at any moment'
b. dass sie da *müssen* einen ordentlichen Korb *kochen*
that they there must a decent basket cook
'that they have to cook a decent basketful of food' (from Sapp 2011: 126)

The situation in a language like Dutch could be analysed differently, however (see §3.3). If we look at Dutch data in isolation, there is no doubt that a cluster

analysis would explain why Aux and V must be adjacent regardless of order. Among the West Germanic varieties, Dutch seems to be the odd one out, though (see e.g. Haegeman 1992, Sapp 2011: 124–129). I will refrain from commenting on how common or uncommon this property is in a typological perspective, but I note that Persian seems to be an OV language that behaves very much like Dutch. As reported by Sheehan (2017: 100), most Persian auxiliaries occur with V-Aux word order. The future auxiliary *xâhad* 'will' is an exception, however, since it always precedes a main verb. Despite this, an adverb can interrupt neither a V-Aux (32a) nor an Aux-V sequence (32b). This is expected if Persian verbs cluster obligatorily, regardless of linear order.

(32) Persian

a. * ali gitâr *zade* hamishe *ast*
Ali guitar played always is
Intended reading: 'Ali has always played the guitar'

b. * ali gitâr *xâhad* hamishe *zad*
Ali guitar will always play
Intended reading: 'Ali will always play the guitar' (from Sheehan 2017: 100)

As I see it, the Persian and Dutch data give us two different options when it comes to analysing instances of X-Aux-V word order. The first possibility is a cluster analysis. This would immediately explain the adjacency requirement and capture the fact that the requirement holds regardless of VP-internal word order. In addition, this analysis would be in line with considerations of economy in some sense; we still have to assume that Dutch and Persian employ verbal clusters with V-Aux word order, in accordance with the BBC.

At the same time, it would also be possible to perceive the need for adjacency as some kind of language-specific principle, independent of verbal clusters. For one thing, we know that the cluster analysis is not forced by the principles of UG, since [$_{VP1}$ Aux [$_{VP2}$ V]] is a perfectly acceptable structure of a complex VP. A cluster analysis of Aux-V also runs the risk of leading to inconvenient questions about clustering in VO languages. Haider (2010: 343) is of the view that strict VO languages can never cluster, since the structure with embedded VPs is already a perfect right-branching structure if the object follows the main verb (see §2). But this is not to say that it must be possible for constituents to intervene between two VP-internal verbs in a VO language. If we were indeed to find VO languages with a general adjacency requirement for Aux and V (which is certainly conceivable within the BBC), a problem arises: what reason would there

be to assume a cluster structure for Aux-V sequences in Dutch, for example, if we find both OV and VO languages where Aux and V must always be adjacent (see Sheehan 2017: 99–101)?

A way forward in the discussion of X-Aux-V would be to carefully examine whether we can find VO languages that exhibit a complete ban on Aux-X-V, like the OV languages Dutch and Persian. However, such an investigation is beyond the scope of this article. The general conclusion drawn is that the BBC forces a cluster analysis on a V-Aux sequence to avoid left-branching structures within a complex VP. The question of the possibility for an Aux-V sequence to instantiate a verbal cluster is left partially open. This could be a way of accounting for VP properties in a language like Dutch, but so far, we lack decisive evidence in favour of such an analysis. Importantly though, this question has no effect on how we should understand the development of verbal clusters in the history of Swedish, as I will show in the following section.

5.3 Verbal clusters in the history of Swedish

In the history of Swedish, we find a great deal of word order flexibility within the VP up until the middle of the 18th century. When it comes to the categories Aux, V and X, it almost seems that they are allowed to occur in any order. Throughout the article, I have discussed instances of X-V-Aux, X-Aux-V, and Aux-X-V. I have not focused on the characteristic VO word order Aux-V-X, although, statistically speaking, this has been the main option since at least the middle of the 14th century (see Delsing 1999, Petzell 2011, Sangfelt 2019). The pattern V-Aux-X, where X is placed to the right of a verbal cluster, is a minor one, but it can be found with objects and adverbials basically as long as OV word order is possible (see Sangfelt 2019: 225–227).

One imaginable word order is missing, however, as predicted by the BBC: V-X-Aux is not found in the history of Swedish. This should be taken as rather strong evidence that the BBC is at work. Older Swedish (like Basque and Finnish) allows several types of constituents to intervene between an auxiliary and a main verb, and V-X is, furthermore, a very common linearization pattern, since older Swedish exhibits a mix between VO and OV word order. Despite having all the properties that should facilitate V-X-Aux, this order is, as noted, not found in older Swedish.

The lack of V-X-Aux in older Swedish and other languages has been analysed as an effect of V-Aux enforcing a cluster structure, where two (or more) verbal heads form a complex constituent. Thus, older Swedish employed verbal clusters

as long as V-Aux and OV word order were possible. Despite this, the main empirical conclusion in the present study is that evidence for non-clustering dropped in frequency over the history of Swedish. By the middle of the 19th century, Aux-X-V was without doubt a rarely attested word order. This is important, since it clearly shows that the idea of a bi-directional correlation between OV word order and clustering is misleading.

In the final parts of the paper, I have entertained the idea that we should differentiate between two types of languages or grammars with regard to clustering. On the one hand, we clearly find languages where clustering is exclusively related to V-Aux word order, and where embedded VPs are employed when Aux precedes V (or when a selecting auxiliary Aux1 precedes a selected auxiliary Aux2). All the evidence points to the conclusion that older Swedish belongs to this type, together with most other Germanic languages. On the other hand, we have languages like Dutch, where clustering could be seen as a property of the VP itself, since the adjacency requirement of Aux and V applies regardless of the order of the verbal elements. It remains to be shown, however, whether this property is best explained by a cluster analysis or is rather a consequence of some other, cluster-independent principle.

6 Conclusion

In this article, I have studied VP-internal word order variation and discussed the presence of verbal clusters in the history of Swedish. The main conclusion is that clustering is exclusively related to the order of the verbs; V-X-Aux has never been a possible word order in the history of Swedish. However, in the case of the reversed order of verbs (Aux-X-V), there is plentiful evidence for non-clustering; such examples are attested throughout the history of Swedish, where X can be an object, a predicative, or a non-sentential adverbial. The diachronic development furthermore suggests that there is no bi-directional correlation between verbal clusters and OV word order; Aux-X-V dropped in frequency despite the fact that VO became more common over the history of Swedish, and finally became the only available option in Late Modern Swedish.

The history of verbal clusters in Swedish is hardly guided by some idiosyncratic, language-specific principle. Rather, I have argued, it follows from a universal principle, which states that syntactic material is never allowed to intervene between verbs in a V-Aux sequence, while the same restriction does not hold within an Aux-V sequence. In as much as V-Aux word order is employed in head-final and not head-initial languages, the existence of verbal clusters is

of course not completely independent of OV and VO word order. Given the data from the history of Swedish and other languages, it is nevertheless clear that the picture is too complex to allow us to assert that OV structures have verbal clusters and VO structures do not.

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Abbreviations

BBC	Basic Branching Constraint	MW	Multiple-Word adverbials
EMS	Early Modern Swedish	OS	Old Swedish
FOFC	Final-Over-Final Condition	OV	Object-Verb word order
IPP	Infinitivus Pro Participio	V	Main verb
LCA	Linear Correspondence Axiom	VO	Verb-Object word order

Sources

Investigated texts from the corpus of Swedish drama dialogue

Period 1 (1725–1750)

1A: Lagerström, Magnus (b. 1691). *Le Tartuffe eller den skenhelige* [Le Tartuffe or the hypocrite]. Stockholm, 1731.

1B: Gyllenborg, Carl (b. 1679). *Swenska sprätthöken* [The Swedish dandy]. Stockholm, 1740. Available through LB.

1C: Dalin, Olof von (b. 1708). *Den afwundsiuke* [The jealous one]. Stockholm, 1739. Available through LB.

1D: Modée, Reinhold Gustaf (b. 1698). *Håkan Smulgråt* [Håkan Cheapskate]. Stockholm, 1739. Available through LB.

1E: Stagnell, Johan (b. 1711). *Den lyckelige banqueroutieren* [The happy bankrupter]. Stockholm, 1753. Available through LB.

Period 2 (1775–1800)

2A: Kexél, Olof (b. 1748). *Sterbhus-kammerereren Mulpus eller Caffe-huset i Stora Kyrkobrinken* [The chief accountant of the estate Mulpus or the coffee house in the main church hill]. Stockholm, 1776. Available through LB.

2B: Ristell, Adolf Fredrik. (b. 1744). *Några mil från Stockholm* [A few miles from Stockholm]. Manuscript from 1787. Edited by Gösta Langenfeldt & Bo Thörnqvist. Stockholm: Department of Scandinavian languages, 1974.

2C: Envallson, Carl (b. 1756). *Kusinerna eller Fruntimmers-sqvallret* [The cousins or the gossip of the women]. Stockholm, 1807. Available through LB.

2D: Enbom, Per (b. 1759). *Fabriks-flickan* [The factory girl]. Stockholm, 1796. Available through LB.

2E: Stridsberg, Carl (b. 1755). *Friman eller Den enslige och de resande fruntimren* [Friman or the loner and the travelling women]. Stockholm, 1798. Available through LB.

Period 3 (1825–1850)

3A: Wetterbergh, Carl Anton (b. 1804). *Pröfningen* [The test]. Stockholm, 1842. Available through LB.

3B: Blanche, August (b. 1811). *Hittebarnet* [The foundling]. Stockholm, 1848. Available through LB.

3C: Jolin, Johan (b. 1818). *Barnhusbarnen eller Verldens dom* [The children of the orphanage or the judgement of the world]. Stockholm, 1849. Available through LB.

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3E: Blink, Carl and Malméen, Georges. 1850. *Tidens Strid eller Det Bästa Kapitalet* [The battle of time or the best capital]. Stockholm. Available through LB.

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Electronic corpora

FTB: Fornsvenska textbanken [The text bank of Old Swedish]: https://project2.sol.lu.se/fornsvenska

Korp: https://spraakbanken.gu.se/korp/?mode=all_hist

LB: The Swedish literature bank: http://www.litteraturbanken.se

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Chapter 7

Agreement inflection and word order in Viskadalian Swedish

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In this article, I investigate the varying morphosyntax of 20th century Viskadalian Swedish. Viskadalian verbs are inflected for both person and number. The Rich Agreement Hypothesis (RAH) posits an interdependence between such rich agreement and movement of the finite verb from V to I. However, only in the central parts of the Viskadalian dialect area (CV) is V-to-I an option; in Southern Viskadalian (SV), V must remain in situ (in VP). This lack of V-to-I in SV certainly appears to falsify the RAH. I argue, however, that it follows from SV and CV agreement being categorically different. Although both are semantically rich, only CV agreement is morphologically distinct, crucially triggering V-to-I. By contrast, in SV, agreement is embedded under tense.

Keywords: Viskadalian Swedish, Rich Agreement Hypothesis, morphosyntactic change, Person-Number Universal, morphosyntactic variation, V-to-I movement, inflectional categories, morphological reanalysis, syntactic grammaticalization

1 Introduction

In this paper, I address the morphosyntax of the Swedish dialect of Viskadalen (lit. 'the valley of the River Viskan'). This dialect, which I call Viskadalian (following Petzell 2017), was once spoken all around the lower reaches of the River Viskan and down south to the parishes surrounding the town of Varberg; see Figure 1 (where this part of the river is blue). Today, it is only in the south, more specifically in the fishing village of Träslövsläge, that the traditional dialect is largely intact.

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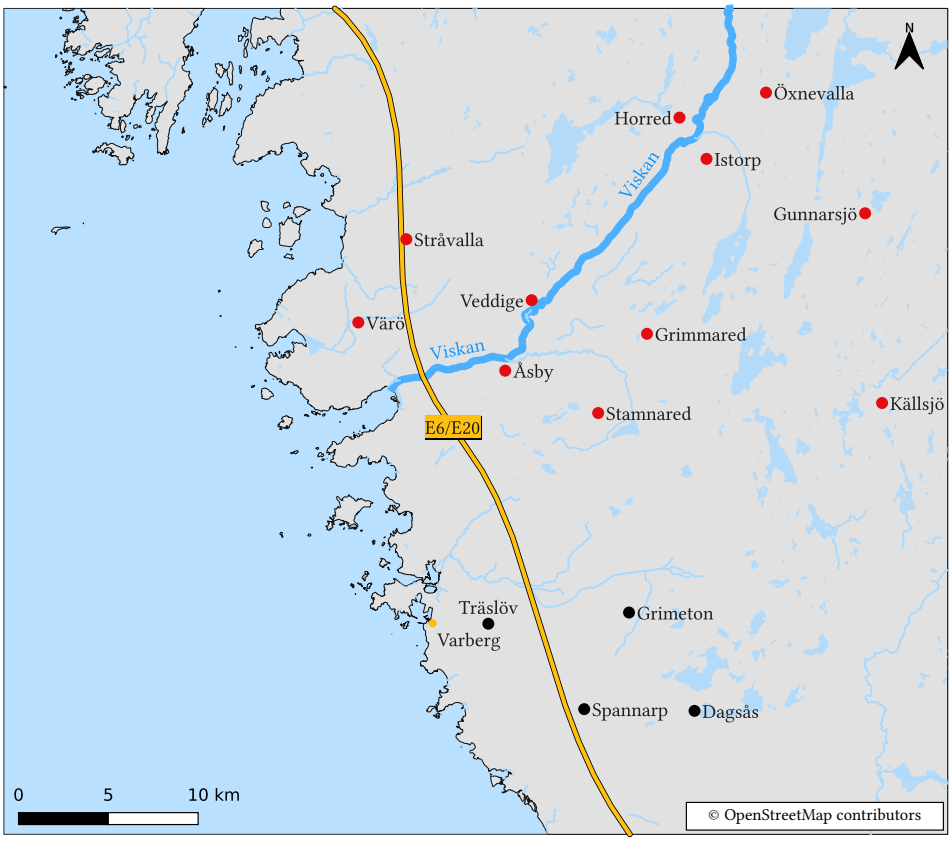

Figure 1: Parishes in central (red) and southern (black) Viskadalen and lower reaches of the River Viskan. Varberg is marked in yellow.

Unlike present-day Standard Swedish, but like Old Swedish, Viskadalian exhibits verbal inflection for both person and number. For instance, the weak verb 'read' has four forms in the present tense: *läser* (SG), *läsom* (1PL), *läsen* (2PL), *läsa* (3PL), strikingly reminiscent of the corresponding Old Swedish forms *läsir*, *läsum*, *läsin*, *läsa*. Present-day Standard Swedish has but one form across the board: *läser*. Now, the so-called Rich Agreement Hypothesis (RAH) predicts that richly inflected verbs move to the I-domain. This means that they should precede sentence adverbials in subordinate clauses. On the other hand, uninflected verbs are predicted to remain in situ (in VP), following sentence adverbials. Both present-day Standard Swedish (PDS) and Old Swedish (OS) behave as expected, given the RAH: they display the order Adverbial-Finite verb (AF) and Finite verb-Adverbial (FA) respectively, as shown in (1a–b).

(1) a. huset där vi *gärna ville* bo AF (PDS)
house.DEF where we gladly want.PST live.INF
'the house where we would gladly live'

b. ther the *mågho äy* aff gånga FA (OS)
where they may.3PL not off go.INF
'from where they must not deviate' (K-styr)

By contrast, present-day Viskadalian appears to falsify the RAH: all speakers accept the AF order, whereas the FA order is judged completely ungrammatical; see (2a–b).[1]

(2) a. De e båga som vi *inte håmm* lässt
it be.PRS.SG/3PL book.DEF that we not have.PRS.1PL read.PTCP
för. AF
before

b. * De e båga som vi *håmm inte* lässt
it be.PRS.SG/3PL book.DEF that we have.PRS.1PL not read.PTCP
för. *FA
before
'it is the book that we have not read before'

Going back some generations, however, the FA order was indeed a common subordinate clause word order in the more central parts of Viskadalen, closer to the river and further from the coast; see (3a). However, the AF order was the dominant type (see 3b).

(3) a. mänsker som *vella gärna* pruta FA
people.PL that want.PRS.3PL gladly bargain.INF
'people that would like to bargain' (Horr)[2]

b. de da *inte kunna* använna AF
that they not can.PRS.3PL use.INF
'what they cannot use' (Värö2)

[1] I have one main informant from Träslövsläge (a man, born in 1955), whom I have consulted on several occasions between 2016 and 2017. In order to verify his own grammaticality judgements, he checked many examples (including the two word orders in (2)) with other fluent dialect speakers (in his view).

[2] The label within parentheses that accompanies dialect examples is an abbreviation of the name of the parish (or in some cases the hundred) where the example was collected. A full description of all sources is given in the Appendix.

We know that historically, the AF order of today (see 1a) is an innovation that started spreading over the Scandinavian mainland from the late Middle Ages onwards. By the end of the 17th century, AF had become the dominant order in written Danish (Sundquist 2003) and Swedish (Falk 1993; Håkansson 2011); Norwegian also seems to follow this pattern (Christoffersen 1997; Vittersø 2004).[3] Clearly, the AF order has now spread to present-day southern Viskadalian, completely marginalizing the original FA variant (see 2). But very recently, the old FA order was still in use in central Viskadalian (see 3a), representing a lingering remnant of a slowly dying medieval speech pattern.

In order to better understand this puzzling variation between FA and AF in Viskadalen, I have conducted a detailed scrutiny of verbal agreement in the different Viskadalian varieties. There are three important differences between the central and the southern varieties, henceforth labelled CV and SV respectively. Two of them concern the expression of second person: the 2SG morpheme *-(s)t* still exists as an affix in CV but has evolved into a pronoun in SV; 2PL always ends in *-n* in SV, but in CV, the *n* is often missing. Third, the past tense stem of the highly frequent verbs *få* 'get' and *gå* 'go' is the same in the entire paradigm in the south (*fick-*, *gick-*), but varies with number in the central variety (SG: *fick-*, *gick-*; PL: *fing-*, *ging-*).

I will argue that this morphological variation in Viskadalian can be neatly accounted for and linked to the word order difference, once we adopt a more fine-grained definition of agreement richness than hitherto proposed in the literature. My idea is that we need to keep semantic richness and morphological distinctiveness separate. Given these two parameters, we can distinguish between 4 types of agreement: type 1 (both semantically rich and morphologically distinct), type 2 (semantically rich but not morphologically distinct), type 3 (morphologically distinct but not semantically rich), and type 4 (neither semantically rich nor morphologically distinct). I propose that only type 1 agreement triggers V-to-I.

Although central and southern Viskadalian verbs express more or less the same semantic distinctions, it is only in the central variety that agreement is morphologically distinct (i.e. type 1); in the south, agreement instead appears to have been reanalysed as part of tense (i.e. developed into type 2). In syntax, this makes all the difference, if one assumes (with Bobaljik & Thráinsson 1998) that distinctiveness is a necessary condition for syntactically active agreement, triggering movement of finite verbs into the I-domain. The analysis also predicts

[3]The diachronic development of Early Modern Norwegian is harder to follow than the corresponding development of Swedish and Danish. Due to Danish rule and linguistic domination, texts in Norwegian occur only sporadically up until the 19th century (see Indrebø 2001: 177–192).

the southern development of *(s)t* from affix to pronoun, as well as the loss of number-based stem alternations.

Moreover, it leaves the ground open for parallel grammars in CV, resulting in AF/FA variation (see 3). Although agreement is always morphologically distinct in CV (i.e. type 1 or 3), it is not necessarily semantically rich. With both an *n*-less 2PL and a more sporadic use of *-s(t)*-inflection, agreement turns to type 3 and ceases to be syntactically relevant (excluding V-to-I).

The paper is organized as follows. §2 and §3 constitute the empirical bulk of the paper: in §2, I present my investigation of FA/AF in Viskadalian; in §3, I describe the variation in its verbal morphology, briefly also glancing at the poorer agreement found in other varieties in the region. Sections 4–5 are more theoretical: in §4, I discuss the RAH in general and the notion of richness in particular; then, in §5, I address the interface between morphology and syntax, and more specifically the syntactic role of tense and agreement inflection. The paper ends with some concluding remarks and remaining questions in §6.

2 Subordinate clause word order in Viskadalian

In this section, I investigate the distribution of FA and AF word order in Viskadalian subordinate clauses. The section starts with some preliminaries (in §2.1) followed by some notational and methodological points (in §§2.2–2.3), before I present the actual results in §2.4. The findings are summarized and related to the word order in present day Träslövsläge in §2.5.

2.1 Viskadalen: Area and dialect

For my investigation of subordinate clause word order in Viskadalian, I have compiled a corpus of audio recordings from the 1940s, 1950s, and 1960s. The recordings were made by regional dialect archives in Lund and Uppsala. Today, they are part of the collections of the Institute for Language and Folklore. To be included in the sample, the informants on tape are required to inflect their finite verbs for both person and number consistently throughout the session. I have come across 19 such informants, and this verbal usage is the primary linguistic basis for identifying Viskadalen as a dialect area in its own right. In no other variety on the Scandinavian mainland except in north-western Dalecarlian (see Levander 1928; Garbacz 2010, and §6 below) do we find archaic morphology of this sort.

Viskadalen stretches over two provinces (Sw. *landskap*), namely Halland and Westrogothia (Sw. *Västergötland*), which is probably why there are surprisingly

few attempts to address the variety within traditional dialectology; here, the dialect of each province has instead typically been the main objective. Still, from the historical evidence, it is quite clear that Viskadalen has formed an economic unit at least since the Middle Ages, based on the hinterland of the town of Varberg: this is where Viskadalian peasants have always traded their agricultural produce (Grill 1954: 679; Linge 1969: 75–76).

I move on now to the division of Viskadalian into two sub-varieties, one central and one southern. In (4) below, I have specified the names of the parishes within each variety, as well as the number of informants and the total length of the recordings. In Figure 1, I have marked the location of all parishes. As is evident, the two parts of the corpus are neither equally large nor distributed over an equal number of places (or informants). The reason for this is trivial: there are simply no more relevant recordings from the area to include. Nevertheless, the corpora representing the two sub-varieties are sufficiently similar for my present purposes, that is, to investigate the use of AF and FA word order.

(4) a. Central Viskadalian – just over 11 hours of recorded speech, 12 informants from 11 parishes (Värö, Stråvalla, Veddige, Åsby, Stamnared, Grimmared, Istorp, Öxnevalla, Gunnarsjö, Källsjö, Horred).

b. Southern Viskadalian – almost 10 hours of recorded speech, 7 informants from 4 parishes (Träslöv, Grimeton, Dagsås, Spannarp).

There are both syntactic and morphological reasons for the division of Viskadalian into a central and a southern variety. In §2.4, we direct our attention towards the syntactic differences; the morphological differences are the topic of §3.

2.2 The basic structure of AF and FA order

Since the late 1980s, the standard analysis of the difference between AF and FA in Scandinavian subordinate clauses is that FA reflects movement of the finite verb (F) out of VP to a position to the left of sentence adverbials (A), whereas AF indicates the absence of such movement. What specific position the verb ends up in need not concern us yet; for now, I will simply refer to it as I, indicating that it is somewhere in the I-domain, at least higher in the syntactic tree than sentence adverbials, which are assumed to reside directly to the left of VP.[4] The difference between AF and FA is shown in (5a–b).

[4]Similarily, I take "V in situ" to mean that V is somewhere in the V-domain.

(5) a. $[_{IP}\ F_v\ [_{AdvP}\ A\ [_{VP}\ t_v]]]$ V-to-I (FA order)
b. $[_{AdvP}\ A\ [_{VP}\ F]]$ V in situ (AF order)

As is well known, all Scandinavian languages are V2 languages. This means that the finite verb always moves to C in main clauses, where it is preceded only by whatever phrase ends up in spec-CP. If the subject is clause initial, we get FA order, as I show with the Standard Swedish example in (6a). When something else is topicalized, the subject instead remains in the I-domain, thus intervening between F and A (see 6b).

(6) a. $[_{CP}$ Han *ville*$_v$ $[_{IP}$ *gärna* t_v äta den]] V-to-C (FA)
he want.PST gladly eat.INF it
'he would gladly eat it'
b. $[_{CP}$ Den *ville*$_v$ $[_{IP}$ han *gärna* t_v äta]] V-to-C (XFSA)
it want.PST he gladly eat.INF
'he would gladly eat it'

Normally, V-to-C movement does not occur in subordinate clauses, where C instead hosts a complementizer; see (7a) below. Since V-to-I is not an option, FA order is out, as can be seen in (7b).

(7) a. Den mat $[_{CP}$ som $[_{IP}$ han *gärna*$[_{VP}$ *ville* äta]]] fick vi
the food that he gladly want.PST eat.INF get.PST we
kasta. V in situ (AF)
throw.INF
'The food that he would gladly eat, we had to throw away'
b. * Den mat $[_{CP}$ som $[_{IP}$ han *ville*$_v$ *gärna* $[_{VP}$ t_v äta]]] fick vi
the food that he want.PST gladly eat.INF get.PST we
kasta. *V-to-I (FA)
throw.INF

However, in certain contexts, an entire CP may be embedded under the complementizer *att*, 'that'.[5] Consequently, both word orders occurring in main clause CPs (i.e. FA in (6a) and XFSA in (6b)) sometimes occur in embedded contexts; see (8a–d). As in main clauses, the high position of the finite verb is a result of V-to-C movement.

[5]Unlike English *that*, Swedish *att* never introduces relative clauses. Here, the complementizer is instead *som* (as in 7).

(8) a. Då sa hon [$_{CP}$ att [$_{CP}$ han emb. V-to-C (FA)
then say.PST she that he
ville$_{v}$ [$_{IP}$ *gärna* t$_{v}$ äta den.]]]
want.PST gladly eat.INF it
'Then she said that he would gladly eat it.'

b. De meddelade [$_{CP}$ att [$_{CP}$ den emb. V-to-C (XFSA)
they report.PST that it
ville$_{v}$ [$_{IP}$ han *gärna* t$_{v}$ äta.]]]
want.PST he gladly eat.INF
'They reported that he would gladly eat it.'

c. Poängen är [$_{CP}$ att [$_{CP}$ han emb. V-to-C (FA)
point.DEF is that he
ska$_{v}$ [$_{IP}$ *alltså* t$_{v}$ ha den.]]]
shall thus have.INF it
'The point is that he is supposed to have it, you know.'

d. Vi drog slutsatsen [$_{CP}$ att [$_{CP}$ den emb. V-to-C (XFSA)
we draw.PST conclusion.DEF that it
fick$_{v}$ [$_{IP}$ vi *nog* t$_{v}$ ta hand om sedan.]]]
get.PST we probably take.INF hand about later
'We came to the conclusion that we would probably have to deal with that later.'

Embedded V-to-C is possible when the content of the embedded clause can be interpreted as asserted by the speaker (Andersson 1975: 21). This means either the actual speaker as in (8c–d), where it is the person uttering the sentences who asserts the content of the embedded clause, or that there is an implicit speaker as in (8a–b), where the third person subject of the matrix verb (*hon* 'she' in (8a) and *de* 'they' in (8b)) is reported as having asserted the content of the embedded clause. Julien (2015: 164–167) notes that it is not always possible to determine whether the embedded assertion is direct or indirect. However, the crucial point remains the same: speaker assertion (of some sort) appears to be a prerequisite for embedded V-to-C.

Typically, embedded assertions are the complement of some sort of *verbum dicendi* (see 'say' and 'report' in (8a–b)) or of a semantically equivalent predicate (such as 'the point is' in (8c) and 'we came to the conclusion' in (8d)). As argued by Julien (2009), the latter type may come in a variety of guises. Minimally, the matrix predicate consists of a single word, for instance the predicative adjective in an elliptic copular construction (see 9a below), the additive adverbial *plus* (9b),

or even an isolated conjunction, such as the adversative *men* in (9c) (see Lyngfelt 2003 for more examples).

(9) a. (Det är) klart [$_{CP}$ att [$_{CP}$ då *blir*$_{v}$ emb. V-to-C (XFSA)
it be.PRS clear that then become.PRS
[$_{IP}$ man *ju* t$_{v}$ ledsen.]]]
one of_course sad.
'Of course, then you become sad.'

b. Valparna är för små emb. V-to-C (FA)
puppy.PL.DEF be.PRS too small
för transport. Plus [$_{CP}$ att [$_{CP}$ de *är*$_{v}$ [$_{IP}$ *knappast* t$_{v}$
for transport. plus that they be.PRS hardly
rumsrena än.]]]
housebroken yet
'The puppies are too small to be transported.
Also, they are hardly housebroken yet.'

c. Jag har köpt ett halsband emb. V-to-C (FA)
I have.PRS buy.PTCP a necklace
till Kalle. Men [$_{CP}$ att [$_{CP}$ jag *vet*$_{v}$ [$_{IP}$ *inte* t$_{v}$ om han
to K but that I know.PRS not whether he
gillar det.]]]
like.PRS it
'I have bought Kalle a necklace. However, I do not
know if he will like it.'

Furthermore, embedded assertions can also occur in *att* clauses expressing causal, consecutive, or causative meaning (Julien 2015: 166–167). This is shown in the examples in (10).[6]

[6]Teleman et al. (1999: 467) claim that concessive clauses introduced by *fast(än) att* belong to this group as well. However, according to my native intuitions, *fast att* can only introduce a clause displaying main clause word order when it has adversative meaning. Consequently, to me, the second sentence in (ia) is parallel with the second sentence in (9c). Conversely, in (ib), the AF order forces a concessive meaning, which is infelicitous in this context (hence the #), since it implies that my lack of knowledge of his preferences is expected to have an impact on his inclination towards pursuing higher education.

(i) a. Han pluggar på universitetet. Fast att jag *vet* *inte* om han
he study.PRS on university.DEF although that I know.PRS not whether he
gillar det.
like.PRS it
'He studies at university. However, I do not know if he likes it.'

b. # Han pluggar på universitet, fast att jag *inte vet* om han gillar det.

(10) a. Anna gick hem emb. V-to-C (XFSA)
Anna went home
[$_{CP}$ därför att [$_{CP}$ så *ville*$_{v}$ [$_{IP}$ hon *inte* t$_{v}$ bli
because that so want.PST she not become.INF
behandlad.]]]
treat.PTCP
'Anna went home, because she did not want
to be treated like that.'

b. Hon blev så arg [$_{CP}$ att [$_{CP}$ hon emb. V-to-C (FA)
she become.PST so angry that she
skällde$_{v}$ [$_{IP}$ *helt enkelt* t$_{v}$ ut honom.]]]
scold.PST whole simple out him
'She was so angry that she simply scolded him.'

c. Det innebar till slut emb. V-to-C (FA)
it mean.PST to end
[$_{CP}$ att [$_{CP}$ jag *blev*$_{v}$ [$_{IP}$ *faktiskt* t$_{v}$ instängd.]]]
that I become.PST actually trap.PTCP
'In the end, I was actually trapped.'

In sum, subordinate clauses with FA order are possible in Standard Swedish, but only as instances of embedded V-to-C (see 8a,c, 9b–c, 10b–c). This is possible in *att* clauses, where the content can be interpreted as asserted by the speaker (actual or implicit). In other subordinate clauses, the complementizer does not take a CP complement. Consequently, the FA order is ungrammatical, since the syntactic operation creating FA below C, namely V-to-I movement, is not available (see 7b).

2.3 The word order categories AF and FA

Before proceeding to the distribution of AF and FA in the corpus, a brief methodological point is in order. I have only counted an example as a case of AF if there is an explicit subject preceding this string (i.e. SAF). Without a subject, it is difficult to exclude that the A of the AF string is, in fact, in the higher position for adverbials that we have in examples like (11) below. Here, A precedes the subject (S), which means that A can tell us nothing of the position of the finite verb.

(11) naur *inte vi* fiskam AS
when not we fish.PST.1PL
'when we were not fishing' (Träsl1)

As for the FA category, the presence or absence of a subject is irrelevant. However, what follows the FA string can be of relevance; see (12), where A is followed by a non-finite verb.

(12) om ja *hade* *bare* hört FA
if I have.PST.SG/3PL only hear.PTCP
'if only I had been a hearing person' (Grimm)

If the non-finite verb marks the left edge of the VP, A must be to the left of VP and the finite verb, in turn, must have moved out of VP. As will be evident shortly, however, this diagnostic is valid in Viskadalian only for sentence adverbials.

2.4 Results

Let us now consider the use of AF and FA in the corpus. In Table 1, I give the numbers for SV in the first row and the numbers for CV in the second row. Although the total number of relevant examples is much greater in CV, the overall tendency is quite clear: AF order occurs in both varieties; FA, on the other hand is common in CV, but strikingly marginal in SV.

Table 1: AF and FA order in Viskadalian subordinate clauses

	AF	AF%	FA	FA%	Total
SV	16	80%	4	20%	20
CV	42	55%	34	45%	76

Table 2: Type of FA order

	FA-OK	*FA1	*FA2
SV	2	0	2
CV	17	13	4

The difference between the varieties regarding FA becomes even clearer when we consider the nature of the FA cases in more detail; see Table 2. Here, I have divided all FA examples into three groups. The first group contains FA examples that would be acceptable in Standard Swedish as cases of embedded V-to-C (see (8–10) above; hence the label FA-OK). These are introduced by *att* 'that', and they

can all be interpreted as asserted by the speaker (actual or implicit). All but one of the FA-OK examples are embedded under a *verbum dicendi* or a similar matrix; see (13a–b) below; cf. the examples in (8) above. The remaining one is the causal example given in (13c); cf. (10a).

(13) a. ja glömde å tala ôm att garnet FA-OK
I forget.PST to speak.INF of that yarn.DEF
skulle ju spelltas
shall.PST.SG/3PL of_course coil.INF.PASS
'I forgot to tell you that the yarn should of course be coiled' (Värö3)

b. de kôm skrivelse ifrå kunglia majestät FA-OK
it come.PST.SG decree from royal majesty
att da *få* *aldri* ta=t
that they must.PRS.3PL never take.INF=it
'there came a royal decree stating that they must never take it' (Öxn)

c. för de att da *kunne* *ente* manövrera FA-OK
for that that they can.PST.SG/3PL not navigate.INF
'because they could not navigate' (Träsl1)

The two other FA groups, on the other hand, both contain examples that would be ungrammatical in Standard Swedish (hence the *; the numbers following it will be explained shortly). These include restrictive relative clauses (see 14a below) and various adverbial clauses (e.g. temporal as in (14b) and conditional as in (14c)).

(14) a. da som *vöre* *då* lite försiktiare *FA2
they that be.PST.3PL then slightly cautious.COMP
'those who were then a bit more cautious' (Vedd)

b. då svina *kômme* *väl* bôrt *FA1
when pig.PL.DEF come.PST.3PL expectedly away
'once the pigs got away' (Värö3)

c. om ja *finge* *bara* kômma dit *FA1
if I get.PST.SBJV.SG/3PL only come.INF there
'if only I would get to come there' (Ist)

Three of the *FA examples are introduced by *att*; see (15) below. However, they cannot be interpreted as CPs conveying an embedded assertion: in (15a), the *att* clause is the complement of a non-assertive matrix verb ('not remember'), and in (15b) the semantics of the clause (expressing a purpose) is incompatible

with assertion. Finally, in (15c), the *att* clause is certainly the complement of the verb 'say', just like many of the FA-OK examples. Still, the FA order in (15c) hardly reflects V-to-C movement. The reason for this is that the object of the verb *gör*, 'do.PRS.SG', (i.e. *de*, 'that') has been extracted from the embedded clause and topicalized in the matrix clause. At least since Holmberg (1986), we have known that this sort of extraction is incompatible with embedded V-to-C, as shown in (16a) below; cf. the AF order in (16b) where extraction works fine. In effect, the FA order in (15c) cannot be the result of V-to-C.

(15) a. de hugar ja inte att vi *FA1
that remember.PRS.SG I not that we
ådem särskilt gröd
eat.PST.1PL particularly porridge
'I cannot remember that there was a particular tradition for us to have porridge' (Strå)

b. för att de *skulle säkert* vara värme nock *FA1
for that it shall.PST.SG/3PL surely be.INF heat enough
'in order for it to be sufficiently hot for sure' (Strå)

c. de_i sa ja att ja *gör inte* t_i *FA1
that say.PST.SG I that I do.PRS.SG not
'I said that I will not do that' (Ist)

(16) a. * Den_i trodde jag att du *hade faktiskt* emb. V-to-C (FA)
that think.PST I that you have.PST actually
sett t_i
seen

b. Den_i trodde jag att du *faktiskt hade* sett t_i V in situ (AF)
that think.PST I that you actually have.PST seen
'I thought that you had actually seen it'

I move on now to the difference between *FA1 and *FA2, which regards the nature of A. In the former group, the A is a sentence adverbial (including negation); see (17a–b) below (as well as (14b–c) and (15) above).[7] By contrast, the *FA2 adverbials are all temporal, as in (17c–d) (see also 14a).

[7]These are the particular adverbials that occur in the 13 *FA1 examples: 3 *la* 'presumably', 2 *inte* 'not', 2 *bara* 'just', 1 *gärna* 'gladly', 1 *eventuellt* 'possibly', 1 *säkert* 'surely', 1 *särskilt* 'particularly', 1 *väl* 'expectedly', 1 *kanske* 'maybe'.

(17) a. den förlusta vi *skullem* *eventuellt* lia *FA1
the loss.DEF we shall.PST.1PL possibly suffer.INF
'the loss we would possibly suffer' (Ås)

b. de va en gang som ja *åkte* *inte* te gästis *FA1
it be.PST.SG a time that I travel.PST.SG/3PL not to inn
'it was a time that I did not go to the inn' (Ist)

c. om de *va* *nu* laom tört *FA2
if it be.PRS.SG now just dry
'if it was dry enough now' (Spann)

d. när da *hade* *då* slått=et *FA2
when they have.PST.SG/3PL then beat.PTCP=it
'when they had then beaten it (i.e. the hay)' (Vedd)

Temporal adverbials may certainly occur in the same position as sentence adverbials, directly to the left of VP, as can be seen in the AF example in (18a) below. However, in Viskadalian, temporal adverbials could also reside in a medial VP position, after the finite verb but before complements of the verb. We see this in (18b). Here, the finite verb is clearly in situ, since it is preceded by the sentence adverbial *liaväl*. The PP *om viskepelser* is an adverbial argument occupying a complement position somewhere below V^{o}. Consequently, the intervening *nu* must be somewhere in VP.

(18) a. när da *då* *komme* ain bit AF
when they then come.PST.3PL a piece
'when they then made some progress' (Värö3)

b. eftersom vi *liaväl* *pratam* *nu* om viskepelser AFA
since we anyway talk.PST.1PL now about superstition.PL
'since we were just talking about superstitions anyway' (Träsl2)

Given that temporal adverbials can appear within VP (as in 18b), we cannot exclude that the A has precisely that position in FA examples like (14a) and (17c–d). In that case, the reason that these examples are bad in Standard Swedish is that Standard Swedish is not as liberal when it comes to VP-medial placement of temporal adverbials as Viskadalian is. For the*FA1-type, on the other hand, such an explanation is not available, since sentence adverbials never appear as the

second adverbial in AFA strings like (18b).[8] Consequently, the only reasonable way to explain the 13 instances of *FA1 order in CV is to conclude that V-to-I was indeed possible in this variety.[9]

As pointed out, FA-OK could be the result of V-to-C movement. However, on such an account, it is hard to understand why FA-OK is so much more common in CV than it is in SV. If we instead assume that it is the possibility of applying V-to-I in CV that is responsible for the frequent use of FA-OK, the difference between the varieties follows straightforwardly. See Falk (1993) and Sundquist (2003) for a similar approach to FA-OK in historical Swedish and Danish.

Still, it is evident that V-to-I is not mandatory in CV. AF order not only occurs in CV, it in fact outnumbers the FA variant. The simplest (and most probable) analysis of AF is that V is in situ, as in (5b) above. How to account for this variation in CV is the topic of §5.3 below.

2.5 Summary

As shown in the introduction (see example 2), present day speakers of SV (in Träslövsläge) find the FA order derived by V-to-I highly ungrammatical. Now, adding the results from the investigation of 20th century Viskadalian (south and central), the judgements of the modern speakers are hardly surprising: there was no V-to-I in SV a couple of generations back either. In the recordings from CV, on the other hand, V-to-I and V in situ occurred side by side.

[8] One reviewer suggests that the lack of examples where the lower adverbial is a sentence adverbial might be because the sentence adverbial needs to take scope over the higher adverbial. If this were the case, we would expect the restriction to be at work also when both adverbials precede the finite verb, which they do in Standard Swedish. However, both orders are possible in the standard equivalent to (18b); see (ia–b). In fact, the one where the sentence adverbial (*ändå*) does not take scope over the temporal (*nu*) adverbial feels more natural than the alternative order (as indicated by the single question mark in (ib)). This strongly suggests that the lack of post-finite sentence adverbials in clauses with AFA word order has a syntactic rather than a semantic explanation.

(i) a. eftersom vi *nu* *ändå* pratade om vidskepelser
since we now anyway talk.PST about superstition.PL

b. ? eftersom vi *ändå* *nu* pratade om vidskepelser
'since we were just talking about superstitions anyway'

[9] Many scholars in the past have claimed that only FA clauses with sentential negation are unambiguous indicators of V-to-I movement, since sentential negation (unlike other adverbials) has to appear above VP (Falk 1993: 171–172; Wiklund et al. 2007: 222–223; Koeneman & Zeijlstra 2014: 586; Heycock & Sundquist 2017: 177–178). However, such rigidity is hardly called for in my Viskadalian sample. Here, all sentence adverbials refuse to appear as the second adverbial in AFA contexts, indicating that they are all unable to reside in VP and thereby – when appearing to the right of the finite verb (i.e. FA) – constitute solid indicators of verb movement out of VP.

3 Verbal morphology in Viskadalian and beyond

The main aim of this section is to describe the various forms of (indicative) finite verbs in traditional Viskadalian; this description is given in §3.1. In §3.2, I broaden the perspective, addressing the less differentiated inflectional systems in the neighbouring dialects. §3.3 is a summary.

3.1 Agreement inflection in traditional Viskadalian

My primary source for the Viskadalian inflectional paradigm is the same collection of audio recordings used in the word order investigation (see §2.1 above). In addition, I have consulted a number of descriptions of the dialect of specific parts of Viskadalen. These include (in chronological order): von Möller (1858); Belfrage (1871); Andersson (1922); Kalén (1923); Lindberg (1927); Götlind & Landtmanson (1950).

To exemplify the full array of varying forms, I use both disyllabic and monosyllabic verbs, both strong verbs and weak verbs, and, finally, both verbs in the present tense and verbs in the past tense. I give all the present tense forms in Table 3 and all the past tense forms in Table 4. The hyphen (-) marks the boundary between stem and ending.

Table 3: Viskadalian present tense inflection

	‘read’		‘begin’		‘get’		‘have’	
	CV	SV	CV	SV	CV	SV	CV	SV
1SG	läs-er	läs-er	börja-r	börja-r	få-r	få-r	ha-r	ha-r
2SG	läs-er	läs-er	börja-r	börja-r	få-r	få-r	ha-r/st	ha-r
3SG	läs-er	läs-er	börja-r	börja-r	få-r	få-r	ha-r	ha-r
1PL	läs-om	läs-om	börj-om	börj-om	få-m	få-m	ha-m	ha-m
2PL	läs-e(n)	läs-en	börj-e(n)	börj-en	få-(n)	få-n	ha-(n)	ha-n
3PL	läs-a	läs-a	börj-a	börj-a	få	få	ha	ha

Let us first address some general issues, starting with the vowel in endings expressing 1PL: the system given in the tables, where there is an *e* in the past tense and an *o* in the present tense, is the most common in actual speech. There is some variation: *o* appears on occasion in the past tense as well, all over Viskadalen, and the pronunciation of *o* is often more *u*-like in the Westrogothian part of CV. What does not exist, however, is the use of *e* in 1PL endings in the present tense

Table 4: Viskadalian past tense inflection

	'read'		'begin'		'get'		'have'	
	CV	SV	CV	SV	CV	SV	CV	SV
1SG	läs-te	läs-te	börja	börja	fick	fick	ha-de	ha-de
2SG	läs-te(st)	läs-te	börja-(st)	börja	fick-(st)	fick	ha-de(st)	ha-de
3SG	läs-te	läs-te	börja	börja	fick	fick	ha-de	ha-de
1PL	läs-tem	läs-tem	börja-m	börja-m	fing-em	fick-em	ha-dem	ha-dem
2PL	läs-te(n)	läs-ten	börja-(n)	börja-n	fing-e(n)	fick-en	ha-de(n)	ha-den
3PL	läs-te	läs-te	börja	börja	fing-e	fick-e	ha-de	ha-de

(**läsem*).[10] Another general point regards weak verbs of the *börja* type. Originally, there was a dental affix there as well (*börja-**de**-m*), but this is all gone, as can be seen. There is a lingering effect of this affix, though: the final vowel of the past tense stem is more robust than the final vowel of the present tense stem. Although superficially identical (*börja*), the *a* vowel is intact across the paradigm in the past tense, but deleted in the present tense when the agreement affix starts with a vowel.

Now, there are some important morphological differences between CV and SV. First, the two varieties differ with respect to the expression of second person, both in the plural and the singular. In CV, we still find the old *-(s)t* ending for 2SG.[11] This ending never co-occurs with the *-r*-ending, which means that it is more common in the past than in the present tense. As we can see in Table 1, most verbs have the *-r* ending across the singular, 'have' being the only exception; with this verb, there is variation between *-r* and *-st* in 2SG. This sort of variation is quite uncommon, and there are only a few similar verbs (e.g. *si**st*** 'see.PRS.2SG', which varies with *si**r*** 'see.PRS.SG', and *ä**st*** 'be.PRS.2SG', which varies with *ä**r*** 'be.PRS.SG').

Nevertheless, *-(s)t* is by no means banned from the present tense, it is only incompatible with *-r*, which, in turn, is restricted to the present tense. There are so-called preterite-present verbs that never have the *-r*-ending; consequently, *-(s)t*

[10] In present-day Träslövsläge, the vowel in 1PL is always *o*; this is a recent development that I will not address here.

[11] In Old Swedish, the *s* occurred only when the verb stem ended in *t*/*d* (*bad-st*, 'pray.PST.SG-2SG'), but during the early modern era, most notably in the Bible from 1541, the *s* was used more generally, including with other stem endings (*gaf-st*, *tok-st*, 'give.PST.SG-2SG, take.PST-2SG'). With stems ending in *l* or *n*, the *s* is never part of the affix, neither in historical texts nor in Viskadalian. In the latter case, the stem-final consonant is sometimes suppressed in these contexts, for instance *skal-t* ⟶ *ska-t* 'shall.PRS.SG-2SG'.

works fine: *kan**t*** ‘can.PRS.2SG’, *ska**t*** ‘shall.PRS.2SG’, *vai**st*** ‘know.PRS.2SG’. Furthermore, this affix is more versatile in CV than it ever was in Old Swedish, most notably since it occurs in the past tense of weak verbs (see *läste**st***, *hade**st*** in the table).

Both the *-(s)t* ending and the *-n* ending for 2PL are somewhat unstable in CV. They are attested all over the area, but they may be inconsistently represented even within the system of a single informant; this motivates the parentheses surrounding them in the table. By contrast, in SV, the *-n* ending is robust, whereas the *-(s)t* ending is completely absent.

Second, the stem in the past tense of the highly frequent verbs *få* ‘get’, and *gå* ‘go’ varies with number in CV, but not in SV. This can be seen with the verb *få* in Table 4, where SV has the stem *fick-* across the board but CV has *fick-* only with singular subjects and *fing-* with plural subjects.

There are some additional differences between CV and SV regarding pronouns, most of which are simply irrelevant for the issues at hand.[12] One pronominal difference, however, is crucial for our understanding of the agreement system in general. It concerns the expression of second person singular and is clearly related to the difference regarding second person inflection described above. In CV, the 2SG clitic is always *ä*; see (19). By contrast, in SV the 2SG clitic is either *tä* or *stä*, as shown in (20).

(19) a. töcker=ä
think.PRS.SG=ä (Fag)

b. skat=ä
shall.PRS.2SG=ä (G-sjö)

c. vaist=ä
know.PRS.2SG=ä (Värö1)

(20) a. töcker=tä
think.PRS.SG=you.sg.cl (Himl)

b. kan=tä
kan.PRS.SG=you.SG.CL (from Andersson 1922)

c. hade=stä
have.PST.SG/3PL=you.SG.CL (Dags)

[12]These include, for instance, the form of the free 3PL pronoun, which is *dai* in SV and *da* in CV, and the form of the 1SG clitic, which is *ik* in CV but *ja* in SV (in the latter case coinciding with the free pronoun). For a thorough description and discussion of the Viskadalian pronominal system, see Petzell (2017).

Consider, first, the (a) examples, where the verb forms are identical (*töcker*), straightforwardly distinguishing the CV clitic *ä* from the SV clitic *tä*. However, from the forms in the (b) and (c) examples alone we cannot determine where the verb ends and the clitic starts. To be able to conclude that the SV clitic is indeed *(s)tä*, we need to rely on the inflection paradigm. Seeing that there is never any inflection for 2SG with subject-verb word order in SV (**du kant*, **du hadest*), the *(s)t* sequences in (20b–c) can hardly be affixes; consequently, they have to belong to the enclitic pronoun. As for CV, on the other hand, *(s)t* does function as an affix (e.g. *du skat, du vaist*); thus, we have strong reason to assume that the clitic is *ä*, not only in (19a), but also in (19b–c).

Now, disregarding second person singular, the enclitic *ä* is by no means restricted to CV. In SV, it occurs both in 1PL and in 2PL, as can be seen in (21a–b). In CV, the usage of *ä* is less consistent in the plural: in 2PL, it only occurs together with the *-n* ending; without it, the inverted subject is the free pronoun; see (22a–a′). However, in 1PL, the *ä* is as robust as in SV (see 22b).

(21) a. ficken=ä
get.PST.2PL=ä (Träsl1)

b. vävom=ä
weave.PRS.1PL=ä (Träsl1)

(22) a. fengen=ä
get.PST.2PL=ä (Värö1)

a′. skräppe i
boast.PRS.2PL you.PL (from Lindberg 1927)

b. gjordem=ä
do.PST.1PL=ä (Strå)

It may seem tempting to analyse the *ä* as some sort of dummy pronoun, licensed by semantically rich agreement: it does occur when the reference of the subject is explicitly expressed in the ending, as in (19b–c), (21), and (22a, b), but it does not occur in 2PL when there is no *-n* (as in 22a′). The absence of *ä* in (22a′) could possibly be linked to the fact that the remaining ending *-e* does not unambiguously point to a 2PL referent (as further explicated in §4.2 below). Such an analysis does not hold, however, when we include examples like (19a), where *ä* follows the *-r* ending, which only marks the singular. Furthermore, the *ä* is not compatible with *-a*, although this ending is unique to 3PL.

3.2 Less richly inflected verbs further to the southeast

In other places to the south and southeast of Viskadalen, the traditional dialects inflect their finite verbs to a varying extent (see Horn 2015, 2017 for details). There are no varieties where there is a distinction between all three persons (as in Viskadalian). But south of Viskadalen, we find varieties which make a distinction between 1/2PL on the one hand (expressed with the original *-n* ending for 2PL) and 3PL, as shown in (23a) below with the verb *få* 'get', in the past tense. Even further to the south, primarily in the province of Skåne, the *-n* form lived on as a designated 2PL form together with a common 1/3PL ending (originally used for 3PL); see (23b). Note that the number-based stem alternation found in central (but not southern) Viskadalian is productive in these less richly inflecting varieties as well.

(23) a. SG *fick*
1/2PL *fing-en*
3PL *fing-e*

b. SG *fick*
1/3PL *fing-e*
2PL *fing-en*

The most widespread verbal inflection in the Swedish southwest, at least when we reach the middle of the 20th century, is inflection for number only; see (24a) below, where the ending for 3PL is generalized to all plural persons. We find this system in the traditional dialects of a vast area, including southern Halland, as well as parts of the provinces of Skåne, Blekinge, and Småland. In a small area in the southeast of Småland (in the parish of Södra Sandsjö, which is outside of Figure 1), there appear to have existed varieties where the original 2PL ending had developed into a general plural; see (24b).[13]

(24) a. SG: *fick*; PL: *fing-e*
b. SG: *fick*; PL: *fing-en*

As can be seen, the stem alternation is intact even in the dialects with inflection only for number.

3.3 Summary

This section contains a detailed description of verbal agreement in Viskadalian, with a specific focus on the differences between the central (CV) and the southern (SV) varieties. In CV, we find both the *-(s)t* affix for 2SG and *-en* for 2PL, but neither

[13] I have not come across the system in (24b) in any audio recording, nor is it mentioned by Horn (2015, 2017); the only source of it is Granström (1915).

of them is used consistently. In SV, by contrast, the *-en* is robust and the *-(s)t* non-existent. There is, however, a remnant of the *-(s)t* affix in the 2SG clitic, which is *(s)tä* in SV, not *ä* as in CV. Furthermore, the past tense stem form of *få*/*gå* varies with number in CV, but not in SV. Such stem variation is also found in neighbouring dialects where verbs are less richly inflected than in Viskadalen.

4 The Rich Agreement Hypothesis

This section starts with an overview of the RAH in §4.1, from its birth in the 1980s to its present day status. Then, in §4.2, I present my two-dimensional definition of rich agreement. In §4.3, I address the difference between CV and SV, and propose a way to derive it diachronically. §4.4 is a summary.

4.1 The history of the Rich Agreement Hypothesis: Birth, life, death, and resurrection

At least since the mid-1980s, the empirical correlation between agreement and the position of finite verbs in the Scandinavian languages has fascinated researchers. Kosmeijer (1986) set the ball in motion by drawing attention to the word order difference in subordinate clauses between Icelandic (FA order) and Mainland Scandinavian (AF order), proposing that this difference was grammatically linked to the presence (Icelandic) and absence (Mainland Scandinavian) of verbal agreement. Although this presumed link, later labelled the Rich Agreement Hypothesis (RAH), was explored early on in the history of Swedish as well by Platzack (1988), the early to mid-1990s were the prime era for the RAH. It inspired many of the (now classic) monographs on Germanic morphosyntax that were published during this period (e.g. Falk 1993; Rohrbacher 1994; Vikner 1994; Holmberg & Platzack 1995).

However, by the turn of the new millennium, the RAH appears to have lost its appeal: more and more exceptions turned up, forcing the formulation of a weaker (and less interesting) hypothesis (see Bobaljik & Thráinsson 1998 and Sundquist 2003 for discussion). Some even suggested that the RAH be abandoned altogether (Wiklund et al. 2007). Still, the RAH did not die. A few years ago, it was defended by Koeneman & Zeijlstra (2014), who argue that it should be rehabilitated in its strongest form (having rejected all known counter-evidence). And even more recently, in 2017, Tvica entered the scene with his dissertation (Tvica 2017), in which, unlike previous studies of rich agreement and word order, he tests the RAH on a typologically balanced sample. Hitherto, the empirical

scope has been limited to Germanic, with few exceptions, and to Indo-European with no exceptions (to my knowledge). In contrast, Tvica's sample consists of 24 languages that are neither related to each other nor belong to the Indo-European family. Given that the RAH has never been tested this thoroughly before, the outcome of Tvica's study will, no doubt, be a natural starting point for all future testing of the hypothesis.

Among Tvica's 24 languages, there are 17 that corroborate the RAH. These either have richly inflected verbs that move out of VP (leading to obligatory FA order as in Finnish, exemplified in (25a) below from Tvica 2017: 189–190), or they lack both agreement and verb movement (leading to mandatory AF order as in Haitian, shown in (25b) from ibid.: 120–121).

(25) a. Minä *luin* *usein* kirjan FA
I read.PST.1SG often book.ACC

a′. *Minä *usein luin* kirjan *AF
I often read.PST.1SG book.ACC
'I often read the book'

b. Boukinét *preéske kite* Bouki AF
B. almost leave B.

b′. *Boukinét *kite* *preéske* Bouki *FA
B. leave almost B.
'Boukinét almost left Bouki.'

The remaining 7 languages can neither corroborate nor falsify the RAH. The reasons for this vary. In some languages, there is no way to tell where the left edge of VP is, since adverbs are clause-final (e.g. Lango, Tvica 2017: 240–241, and Hmong Njua, ibid.: 162–163). Other languages always move the verb out of VP for independent reasons, which makes it impossible to determine whether there is agreement-triggered V-to-I going on or not (e.g. Quicgolani Zapotec, ibid.: 168–171, and Moro, ibid.: 242–244).

In sum, none of the 24 languages in Tvica's (2017) typological test of the RAH can falsify the hypothesis. In other words, the RAH is not only rehabilitated (to use the words of Koeneman & Zeijlstra 2014), it is, in fact stronger than ever. However, one solid counter-example would of course be enough to kill the hypothesis – such is the constant nature of the testing of hypotheses. Nevertheless, we cannot get around the fact that a groundbreaking effort such as Tvica's study will have effects on how we assess the solidity of proposed counter-examples. After all, in a world without Tvica (2017), one would certainly be more prone to

regard the subordinate clause word order in present-day southern Viskadalian as a piece of quite strong evidence against the RAH (see example (2) in the introduction). On the other hand, when we now know that the RAH is strikingly robust in a broad typological perspective, we are, naturally, more inclined to place the data from Träslövsläge in a bigger context before jumping to conclusions. In that way, the present study of Viskadalian variation can be seen as building on the strengthening of the RAH through Tvica (2017).

4.2 What is richness?

The precise formulation of richness of agreement has been debated for as long as the hypothesis has been around (see Vikner 1997; Rohrbacher 1999 for overview and discussion). Here, I will adopt the semantics of Tvica's (2017) definition, but the morphological criterion for richness proposed by Bobaljik & Thráinsson (1998). According to Tvica, all human languages have a system of nominal reference that makes use of at least the following distinctions: first, second, and third person and number.[14] When this so-called Person-Number Universal (PNU) is expressed as a verbal ending, we have a case of rich agreement (Tvica 2017: 32). However, why the semantic richness of the ending would trigger V-to-I is far from evident. I think that there has to be an additional dimension to syntactically active agreement: it needs to be morphologically distinct in the sense of Bobaljik & Thráinsson (1998). This means that agreement forms a grammatical category that is distinct from other such categories (such as tense). My proposal is that in order to trigger V-to-I, agreement needs to be both semantically rich and morphologically distinct. I will return to the details of the syntactic analysis of V-to-I-movement in §5.

If we thus measure agreement richness on both a semantic and a morphological scale, we expect there to exist a total of 4 grades of richness. Besides the doubly rich, as it were, which triggers V-to-I (and which I will call type 1), there is the semantically rich but morphologically indistinct (type 2), and the semantically poor but morphologically distinct (type 3); finally, there is type 4, which entails neither semantic richness nor morphological distinctiveness. Languages with no verbal agreement morphology at all (such as Standard Swedish) would count as type 4. The four types are schematized in Table 5.

[14] Koeneman & Zeijlstra (2014: 573–574) describe this as "the most minimal pronominal system", which is a bit unfortunate. Although many languages certainly express the PNU with pronouns, this strategy is not mandatory. As shown by Harbour (2016), languages can indeed have a pronominal system with fewer distinctions (e.g. Hocąk, described by Lipkind (1945), where there are only two personal pronouns, *nee* and *ee*, which distinguish first/second person from third person but nothing more).

Table 5: Four types of agreement

	semantically rich	morphologically distinct
Type 1	✓	✓
Type 2	✓	-
Type 3	-	✓
Type 4	-	-

In the following, I will argue that all of the types 1–3 are or have been present in Viskadalen.

4.3 The rich, the poor, and the in-between

In §4.3.1, I readdress the difference regarding inflectional endings between CV and SV described in §3.1 above in the light of the four-graded definition of richness of agreement that I propose in §4.2. In §§ 4.3.2–4.3.3, I derive the difference diachronically. In §4.3.3, I account for the distribution of number-based stem alternation in Viskadalian and beyond.

4.3.1 The critical difference between CV and SV

When we go about establishing the level of semantic richness in a paradigm of inflectional endings, it may seem like a trivial task. Given Tvica's (2017) PNU-based definition of richness, we should be able to just count semantic distinctions: thus, if a system contains distinctions between first, second, and third person, as well as a number distinction, it is a semantically rich system. However, such counting is, I believe, too blunt an instrument. In fact, a semantic distinction may come about in various ways. Some finite endings are unique to a particular person and number (I will call this uniquely rich). Other endings may not be unique in that sense, although they are in contrast with all other forms within a particular paradigm.

Among the Viskadalian endings, there are four uniquely rich endings (or segments within endings): *-m* (for 1PL), *-n* (for 2PL), *-a* (for 3PL) and *-(s)t* (for 2SG). When the *-n* is missing in 2PL, as it sometimes is in CV, it is only in the present tense of disyllabic verbs that the form for 2PL, which is then stem-*e*, differs from 1PL (stem-*om*) and 3PL (stem-*a*). However, although this *-e* ending thus distinguishes second person from first and third in this particular context, it is not uniquely rich, since it also occurs with 3PL in the past tense of strong verbs (e.g.

da finge 'they got').[15] I propose that in order for inflection to count as semantically rich it needs to express the PNU on V with uniquely rich endings.

Let us now turn to the issue of morphological distinctiveness. Given that the Viskadalian agreement endings are always adjacent either to the stem or to the dental tense affix (*-te*/*-de*), acquirers of the language face at least two possible interpretations of the morphological status of agreement. It could be analysed as a distinct category added directly to the stem, or, on occasion, to a tense affix; see (26a) below. Alternatively, the entire ending could be interpreted as a tense affix containing additional (and secondary) information about person and number; see (26b). I exemplify both possibilities in (27) with the 1PL form of 'read' in both the present (*läsom*) and the past tense (*lästem*).

(26) a. stem-([tense])-[agr]
b. stem-[$\text{tense}_{\text{agr}}$]

(27) a. stem-([tense])-[agr] → *läs-om, läs-te-(e)m*
b. stem-[$\text{tense}_{\text{agr}}$] → *läs-om, läs-tem*

Given the formulation of the RAH in §4.2, organising agreement as in (26a) is – together with semantic richness – a prerequisite for a syntax with V-to-I. As shown in §2.4, V-to-I occurs in CV but never in SV. Based on this syntactic evidence, *läsom* and *lästem* in CV should have the structure in (27a) (type 1 richness) and the corresponding forms in SV should instead have the structure in (27b) (type 2 richness). However, for this to be more than just an ad hoc solution to salvage the RAH, we require independent evidence that the agreement systems do indeed differ as the syntactic evidence leads us to believe.

4.3.2 From agreement to tense

Clearly, type 1 agreement is the original one, seeing that Old Swedish had V-to-I. At some point then, the output of (26a) must have been reanalysed as (26b). But why was the interpretation in (26b) favoured in SV but not in CV? In order to reconstruct the split into southern and central Viskadalian we need to assume the presence of a common paradigm, pre-dating both SV and CV and containing all the endings occurring in Tables 3–4.

In the common Viskadalian paradigm, there is a strict correspondence between certain person endings and certain tenses: *-om* and *-a* occur only in the present tense, whereas *-em* and *-e* occur only in the past tense. Based on this distribution,

[15] Petzell (2017) suggests that the *-e* ending is a general plural marker, in which case the distinguishing force of *-e* in parts of the present tense paradigm is a mere bi-effect of *-e* being unspecified for person (unlike *-om* and *-a*).

acquirers of the variety can interpret them as tense affixes, containing additional information about person and number; see (28a–b) below. Given such an interpretation, we expect *-em* and *-e* to be associated with the dental past tense marker, together forming a group of past tense affixes where the *e* is constant, and the dental and *m* vary depending on the type of verb (dental only with certain conjugations or classes) and the type of subject (*m* with 1PL subjects). These extended past tense affixes are given in (28c), where the dental (which can in practice be either *d* or *t* depending on the stem ending) is represented by *t*.

(28) a. present tense only: *-om*, *-a* → $\text{PRS}_{1\text{PL}}$, $\text{PRS}_{3\text{PL}}$
b. past tense only: *-em*, *-e* → $\text{PST}_{1\text{PL}}$, $\text{PST}_{3\text{PL}}$
c. past tense affixes: *-(t)em*, *-(t)e*

Both *-(s)t* and *-en* are different, however, occurring both in the present and the past tense: *du ä**st***, *va**st***, 'you.SG be.PRS.2SG, be.PST.2SG'; *i läs**en***, *fing**en***, 'you.PL read.PRS.2PL, get.PST.2PL' The fact that these endings are not restricted to any particular tense provides evidence for new acquirers that agreement is indeed a category of its own. As a consequence, the correspondence between tense and the other endings (e.g. present tense *-om* vs. past tense *-em*) could be deemed coincidental and grammatically irrelevant. In that case, distinct agreement lives on.

However, there is an important difference between *-(s)t* and *-en*. The latter contains an *e*, which means that it could be associated with a varying dental in the past tense, just like *-em* and *-e* in (28c). Thus, we still end up with two different 2PL morphemes in the two tenses: *-en* and *-(t)en*. Adding it all up, and also including the singular endings *-er* and *-te*, we get four distinct pairs of present and past tense affixes, as shown in (29).

(29)

PRS	PST
-er	*-te*
-om	*-(t)em*
-en	*-(t)en*
-a	*-(t)e*

As for *-(s)t*, on the other hand, it does not fit into this binary system. First, the past tense marker would be *-(te)st* rather than *-(t)est*, since the *e* accompanies the dental (*läs**te**st* read.PST.2SG) but is absent when the past tense stem ends in a consonant (cf. *feckst* 'get.PST.2SG'). This would exclude it from the well-ordered group of past tense suffixes with a varying dental and a constant *e*, where all the other former person agreement endings have found their place (viz. *-(t)em*, *-(t)en*,

-(t)e). Second, there would be no strict correspondence between one past tense form and one present tense form, since *-(te)st* would sometimes correspond to *-er* (e.g. *läs-**er*** 'read-PRS$_{SG}$' vs. *läs-**test*** 'read-PST$_{2SG}$) and sometimes to *-(s)t* (e.g. *vai-**st***, 'know-PRS$_{2SG}$ vs. *vess-**test*** 'know-PST$_{2SG}$). In other words, in order to preserve the neat system in (29), the *-(s)t* affix would have to be excluded. Still, just getting rid of an ending that is present in the input because it does not behave as expected is hardly feasible. On the contrary, children apparently strive to create a mental grammar that generates the same strings as they hear around them.

To be able to stick to the system in (29) without having to give up the *(s)t* sequence, the younger generation of southern Viskadalians seems to have incorporated *(s)t* in another guise, as part of the pronominal system. Recall the ambiguous nature of strings such as *kantä* and *hadestä* discussed in §3.1 above. If *(s)t* is analysed as part of the enclitic *ä*, forming the new clitic *(s)tä*, there is a minimum of mismatch between the parental output (generated by the system in (26a)) and the output of the child (generated by the system in (26b)). To be more precise, it is only with subject-verb order and 2SG reference, predominantly in the past tense, that the grammars in (26a) and (26b) would create different outputs: *du hadest* vs. *du hade*. However, in all contexts with verb-subject order, including direct questions and declaratives introduced by non-subjects, the transition from affix (*kant=ä*, *hadest=ä*) to pronoun (*kan=tä*, *hade=stä*) would be seamless.

4.3.3 Promoting the reanalysis (or resisting it)

What, then, triggered the reanalysis of the inflectional paradigm in SV? And how could the old system survive in CV? Let us start with the first question. As noted in the introduction, the modern AF order of subordinate clauses started spreading over the Scandinavian mainland during the 15th and 16th centuries. We can follow the spread in historical texts from both Sweden (see Falk 1993) and Denmark (see Sundquist 2003); both Copenhagen and Stockholm appear to have been major spreading centres. At some point, the AF order must have reached Viskadalen, presumably as it gradually gained ground from the south along the Hallandian coast. As shown by Petzell (2018), the AF order is fully established as the normal subordinate clause word order in a collection of folk tales that was written down in the traditional dialect of the parishes just south of the town of Falkenberg in 1871.[16]

[16]This collection, published by Bondeson in 1880, is unique. Certainly, there are dialectal fragments from the region in texts from the 18th and 19th centuries, but nothing nearly as long as Bondeson's tales (126 pages); see Petzell (2018) for more details. It is worth noting that the agreement system of the tales is more or less identical with the system in SV. Apparently, the poorer system mentioned above (in §3.2), where the *-n* ending is used for both 1PL and 2PL, had not yet been established as the general pattern in these parts of Halland when Bondeson collected his dialectal material.

What happened, then, when children growing up with the Viskadalian morphology around them were exposed to the increasing usage of subordinate AF order? Judging from previous studies of acquisition, they would have acquired the syntax before they acquired the full inflectional paradigm. Waldmann (2014) shows that children acquiring Standard Swedish start realizing as early as the age of 3 that finite verbs are in situ in subordinate clauses, correctly producing the target AF order.[17] The acquisition of the inflection of finite verbs comes later, or even much later, depending on the morphological complexity of the verb forms. Thus, Ragnarsdóttir et al. (1999) report that Norwegian children (being exposed to finite verbs without agreement) produce adult-like finite verbs from the age of four, whereas Icelandic children (being exposed to agreeing verbs) reach the equivalent adult-like level around the age of six.

We now return to Viskadalian. Once the AF order became dominant enough, children would have already created a V in situ grammar by the time they started mastering the inflectional system. With a grammar in place where there is no movement of V to the I-domain, the children will not be expecting any distinct agreement in the paradigm they are acquiring. Consequently, the tense correspondence in the inflectional system is quite naturally interpreted as primary and the phi-features merely as embedded under tense (or part of the enclitic pronoun, as in the case of *(s)t*).

How did CV manage to resist going through the same development? First, there is the obvious issue of geography. Southern Viskadalen is simply more likely to be affected by such linguistic novelties as the AF order than the more remote parts of Viskadalen further to the northeast. Thus, speakers of SV are both closer to the main spreading centre in the Scandinavian southwest (i.e. Copenhagen) and to the urban environment of Varberg, which would have served as a secondary centre of spread in the area.

Second, there is a morphological difference between SV and CV that is predicted to make the tense interpretation of the inflectional endings less probable in CV than in SV. As noted in §3.1, the *-n* ending for 2PL is not as robust in CV as it is in SV. Given that the tense reanalysis (see 29) is promoted by the fact that the endings are different in the present and past tense respectively, the lack of an *-n* in 2PL removes some of the basis for reanalysis. Without the *-n*, single *-e* becomes a much more common ending: crucially, the *-e* cannot be interpreted as

[17] Before the age of three, however, they misinterpret subject-initial main clauses (see 6a above) as IP structures where the verb has moved out of VP. They take this to indicate a general V-to-I rule, producing non target-like FA order in subordinate clauses (see 7b). According to Waldmann, this over-usage of verb movement is due to the fact that children do not yet comprehend that the I-domain may be different in subordinate and main clauses (2014: 62–65).

a past tense affix, since it occurs both in the present (e.g. *läs-e*) and in the past tense (*fing-e*).

Nevertheless, the CV system is indeed vulnerable as well. Without the *-n*, the crucial prerequisite for upholding a semantically rich agreement is that *-(s)t* is preserved as an affix. As we know, however, the *-(s)t* affix is quite unstable too. If both are absent, agreement is semantically too poor to be syntactically active, since there is no uniquely rich ending for second person (only for first and third). I will get back to the syntactic effects of the varying second person morphology in CV in §5.3 below.

4.3.4 Number-based stem alternation

If agreement is a distinct category in CV but embedded under tense in SV, the difference between the varieties regarding number-based stem alternation in the past tense of *få*/*gå* follows straightforwardly. To be more precise, the stem alternation is indicative of distinct (unembedded) agreement. Furthermore, it is clear that it is the distinctiveness that is important here. In the semantically much poorer varieties with agreement inflection to the southeast, the stem alternation is intact, as we saw in §3.2 above. Our fine-grained analysis of richness enables us to predict precisely this sort of micro-variation. Even if agreement is semantically poor, it can still be morphologically distinct (i.e. type 3); such a combination is expected to have morphological effects (the stem alternation), but we do not expect it to trigger V-to-I.[18] On the assumption that semantic richness is the only relevant factor, the observed variation in stem alternation would be incomprehensible.

4.4 Summary

In this section, I argue that richness of agreement has a semantic as well as a morphological dimension. When agreement is both semantically rich (in the sense of Tvica 2017) and morphologically distinct (in the sense of Bobaljik & Thráinsson 1998), it triggers V-to-I. CV has preserved such doubly rich agreement morphology, but in SV, the distinctiveness has been lost; here, the agreement features are instead embedded in the category of tense. This change was brought about by an increasing frequency of AF order in the input of children (indicating a

[18] Although I have not conducted any quantitative investigation of the subordinate clause word order in these dialects, my general impression is that AF is the unmarked order. This makes them parallel to the traditional dialect of Hallingdalen in Norway, where there is number agreement and stem alternation but no V-to-I (Trosterud 1989).

syntax without V-to-I), and it was facilitated by the ambiguous nature of the inflectional paradigm. In CV, however, the paradigm offered less ambiguity, and geographically, the area was better protected from the AF invasion coming from the south. The assumption that agreement was reanalysed as part of tense in SV felicitously predicts the development of the *-(s)t* ending for 2SG into a pronoun; *-(s)t* is the only ending that is not distributed symmetrically across the tenses. The loss of number-based stem alternation is also expected. Nevertheless, the two-dimensional analysis of agreement leaves the ground open for stem alternation in the semantically less rich dialects to the southeast. Here, agreement is distinct (as indicated by the stem alternation), but too poor (semantically) to be syntactically active.

5 Morphology in syntax

In this section, I address the issue of verb raising to I. In §5.1, I argue that the precise target for verb movement is T^{o} and that this movement is motivated by the phonological dependence of the agreement affix, merged in Arg^{o}. In §5.2, I return to the proposed reanalysis of agreement as part of tense in SV, showing that this represents a well-known form of syntactic grammaticalization. In §5.3, I address the AF/FA variation in CV and argue that the two variants are generated by separate grammars.

5.1 What is V-to-I?

As we have seen, there is an empirical correspondence between distinct and semantically rich agreement and movement of V out of VP. How to understand this correlation in grammatical terms is the topic of this subsection. Here, I will adopt an analysis of V-to-I that builds on the analysis proposed by Koeneman & Zeijlstra (2014). Their idea is that when agreement is sufficiently rich, it counts as an argument of the verb; it therefore triggers the projection of an Argument Phrase,[19] where it is subsequently merged in its head. ArgP is in the I-domain above the position for sentence adverbials (AdvP); see (30).

(30) $[_{\text{ArgP}}\ agr\ [_{\text{AdvP}}\ [_{\text{VP}}\ ]]]$

[19] Although superficially similar to an AgrP (as proposed by e.g. Chomsky 1995), ArgP is fundamentally different. According to Koeneman & Zeijlstra (2014: 600), it is an argument feature (motivated by rich agreement) that is semantically relevant (thereby projecting a phrase) in the extended projection of V; the agreement features, on the other hand, are semantically relevant only in the extended projection of N.

The question, then, is how this leads to FA word order. In (30), *agr* precedes any sentence adverbial in AdvP, but how does the verb end up to the left of AdvP as well? Following Rohrbacher (1999) in spirit, Koeneman & Zeijlstra (2014: 601) propose that since *agr* is an affix, it needs to attach to a verb, and for that to happen, the verb has to move out of VP to Arg^{o}. In effect, the finite verb form (F) precedes adverbials (A) in AdvP.

However, why the verb has to move to the head of ArgP to bind the affix is not entirely clear. As pointed out by Koeneman & Zeijlstra (2014), the lack of independence on the part of *agr* is a matter of phonology. Consequently, what is crucial is that *agr* ends up to the right of the verb stem in PF. In fact, the most straightforward way to accomplish that would be to move the verb to the closest head above ArgP. My suggestion is that this head is T^{o}. Note that there is nothing in T^{o} itself that attracts the tensed verb: in languages like Standard Swedish where tense is clearly a distinct category (projecting a TP), the verb can remain in situ (in VP) in subordinate clauses.[20] Nevertheless, V-to-T may still occur in PF, if there is a phonologically dependent *agr* in ArgP that is in need of an adjacent verb to its left.

On the present account, the category of tense ([tense]) is the same in SV and CV: it combines with the verb stem, forming a tensed verb (*verb-tense*) which is merged in V^{o}, where it remains throughout the syntactic derivation. In SV, *tense* may contain additional information about what sort of subject the verb agrees with (*tense*$_{agr}$). This sort of agreement is part of the category of [tense] and has no impact on the structure of the I-domain; see (31a) below. In CV, on the other hand, agreement is a distinct category ([agr]) merged as a single morpheme (*agr*) in Arg^{o} (see 31b). Since *agr* is an affix, it requires phonological support; this requirement is met in PF by moving the verb to T^{o}; see (31b′).[21]

(31) a. $[_{TP}$ e $[_{AdvP}$ $[_{VP}$ *verb-tense*$_{agr}]]]$
b. $[_{TP}$ e $[_{ArgP}$ *agr* $[_{AdvP}$ $[_{VP}$ *verb-tense*$]]]]$
b′. in PF → $[_{TP}$ *verb-tense*$_{v}$ $[_{ArgP}$ *agr* $[_{AdvP}$ $[_{VP}$ $t_{v}]]]]$

In sum, my analysis of V-to-I is that it comprises a form of phonological rescue operation.

[20] For a semantic explanation of the lack of V-to-T in languages like Swedish, see Zeijlstra (2012).

[21] In main clauses, where the finite verb raises to C before spell-out, *agr* would be incorporated in V as V moves head by head up the tree (the standard analysis of syntactic head movement, at least since Chomsky 2001). In other words, when the verb thus leaves the VP for independent reasons, there is no naked affix in PF that requires verbal support.

5.2 Aiming higher without climbing

Let us now return to the reanalysis of *tense-agr* as $tense_{agr}$, as proposed in §4.2 above. Adding the more fine-grained IP outlined in §5.1, we can describe the reanalysis in syntactic terms as follows: the head of ArgP, *agr*, is associated with the head of TP, *verb-tense*, which is higher in the tree. This tendency for elements to strive upwards, as it were, in the syntactic tree is well attested and has been analysed as a form of syntactic grammaticalization (see Roberts & Roussou 1999, 2003). Although most examples of such "tree-climbing" involve elements in the nominal and verbal domains, it is clearly a more general phenomenon (for adjectival examples, see Oxford 2017 and Delsing 2022 [this volume]).

Still, "climbing" is a metaphor that can be a bit misleading, since the association with a higher head does not necessarily lead to a higher syntactic position. In the case at hand, what happens is that the complex string *verbtenseagr* is interpreted as having the structure $verb\text{-}tense_{agr}$, rather than *verb-tense-agr*. Indirectly, such a reanalysis may certainly have syntactic consequences, depending on how it affects the inventory of morphological categories and, in turn, the functional structure of the clause. But there is no guarantee that there will be any climbing. On the contrary, when the *verb-tense-agr* generated by the parental grammar is reanalysed by children as $verb\text{-}tense_{agr}$, this places the tensed verb in a lower position, since embedding *agr* in [tense] removes the very motive for V-to-T (namely to bind the distinct *agr* in Arg^{o}); see (32a–b).

(32) a. $[_{TP}$ *verb-tense*$_{v}$ $[_{ArgP}$ *agr* $[_{VP}$ $t_{v}]]]$
b. → $[_{TP}$ e $[_{VP}$ $verb\text{-}tense_{agr}]]$

Intriguingly, there is a connected development in SV that also involves the association of agreement with TP, namely the pronominalization of the *-(s)t* affix. First, recall the complex forms like *hadestä* ('had you') discussed in §3.1 and §4.3.2 above. In SV, such forms were interpreted as consisting of a verb (*hade*) plus a referring clitic (*stä*) rather than a richly inflected verb (*hadest*) plus a general clitic (*ä*). Syntactically, this reanalysis can be described as in (33) below; in (33a), *st* is an affix of the verb, in (33b), *st* is instead part of the post-verbal subject.

(33) a. $[_{CP}$ *ha-de-st* $[_{TP}$ *ä*$]]$
b. → $[_{CP}$ *ha-de* $[_{TP}$ *stä*$]]$

What is originally a part of C (in 33a) becomes part of spec-TP (in 33b). At first glance, this may seem like the opposite of tree climbing: TP is lower in the tree than CP. But this hierarchical order is irrelevant. After all, it is not C that

is interpreted as T, but in fact the agreement affix *-st*, which happens to be in C, that is interpreted as part of the subject (i.e. *ä*) in spec-TP. It is important that agreement is adjacent to TP, which it is in both (32) and (33), since adjacency, on either side of TP, is a prerequisite for reanalysis. What is theoretically interesting, however, is that in both (32) and (33), a morpheme that is linked to ArgP in the parental grammar (*agr* in (32), *st* in (33)) is instead interpreted as being part of a morpheme that is linked to TP (*verb-tense* in (32) and *ä* in (33)), which is a higher functional projection.

5.3 Two grammars at once in CV

If agreement is syntactically active but phonologically dependent in CV, this crucially explains all the V-to-I derived FA orders that we find in the corpus (see Table 2). However, we have yet to account for how such a FA order can co-occur with the AF order (see Table 1). I can think of two possible explanations. There could be two grammars in use at the same time, one with V-to-I (generating FA) and one without V-to-I (generating AF). Alternatively, there is only one grammar with V-to-I but with an additional and higher position for adverbs, which makes the AF order a possible outcome even when the verb has moved out of VP. The latter option has been invoked to account for AF order in Icelandic. Here, AF is highly marked (compared to FA) and restricted in a number of ways (see Bobaljik & Thráinsson 1998; Thráinsson 2007, 2010). However, AF in central Viskadalian is neither marked nor restricted. To treat it as an exceptional case (on a par with Icelandic AF) is therefore hardly called for.

By contrast, to assume parallel grammars is morphologically motivated. Recall that both *-n* and *-(s)t* are only occasionally present in the area. Now, disregarding both at the same time demotes the agreement system to type 3, since the only uniquely rich endings are 1PL *-om/-em* and 3PL *-a*; see the second column of Table 6. However, by upholding only one of them, the paradigm gains precisely what it needs to count as rich (i.e. type 1): a unique marker of second person, be it the singular *-(s)t* or the plural *-n*; see the last two columns of the table.

In other words, the morphological variation that we can observe in CV balances on the border between categorically different systems: type 1 and type 3 agreement. The parallel usage of FA and AF in CV is thus expected, seeing that type 1 agreement triggers V-to-I, and type 3 does not.

Table 6: Possible types of morphologically distinct agreement in CV (rich endings in italics)

	Type 3	Type 1	
		possibility 1	possibility 2
1SG	-er	-er	-er
2SG	-er	-er/*(s)t*	-er
3SG	-er	-er	-er
1PL	*-om/-em*	*-om/-em*	*-om/-em*
2PL	-e	-e	*-en*
3PL	*-a*/-e	*-a*/-e	*-a*/-e

6 Concluding remarks and future tasks

The development of Viskadalian is certainly a linguistic history in its own right. However, it is also a piece in a larger puzzle, enriching our knowledge of the history of Scandinavian in general. In this paper, I have studied the differences between central and southern Viskadalian. It seems likely that this dialect split began as early as the early 1800s; at any rate, it is observable in recordings from the middle of the 20th century. From a macro perspective, we can consider the varying morphosyntax within Viskadalian as the last step in the diachronic transition of mainland Scandinavian from a richly inflecting FA variety to a poorly inflecting AF variety that started many centuries ago.

Nevertheless, the puzzle is not complete. We have yet to address the fascinating continuum of traditional Dalecarlian varieties spoken north and northwest of Lake Siljan. This is the only dialect area in Scandinavia besides Viskadalen where verbal inflection for both person and number has been preserved. Here too, there was a great deal of inflectional variation at the beginning of the 20th century, as shown by Levander (1928: 163–165). Unfortunately, apart from the most archaic variety in Älvdalen, where V-to-I was obligatory in the early 1900s (Levander 1909: 124) but is quite marginal today (Garbacz 2010: 131–132), we know very little of Dalecarlian word order. In light of the recent revitalization of the Rich Agreement Hypothesis, filling this empirical lapse stands out as a future task of utmost importance.

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Abbreviations

AF	Adverbial-Finite verb word order
CV	Central Viskadalian
FA	Finite verb-Adverbial word order
OS	Old Swedish
PDS	present-day Swedish
PNU	The Person Number Universal
RAH	The Rich Agreement Hypothesis
SV	Southern Viskadalian

Written sources

All entries containing an accession number are part of the collections of the Institute for Language and Folklore (Isof). However, at the time of collection, different local dialect archives were responsible for different regions of Sweden. The different prefixes of the accession numbers reflect this original division. DAL stands for 'the Dialect Archive in Lund', ULMA for 'Uppsala Dialect (Sw. *LandsMål*) Archive, and DAG for 'the Dialect Archive in Gothenburg'. Place names refer to the parish if nothing else is stated.

Himl: [Dialect texts from the hundred of Himle.] In *Svenskt folkmål* [Swedish dialect], pp. 72–75. Edited by Waldemar Hallin. Stockholm: Folket i Bilds Förlag, 1948.

K-styr: Moberg, Lennart (ed.). 1964. En nyttigh bok om konnunga styrilse och höfdinga. [A useful book on the royal rule]. Facsimile of edition from 1634 by Johannes Bureus. Uppsala. Original from the early 14th century. Available through FTB/Korp.

Fag: [Dialect texts from Fagered.] Isof Accession Number (A. No): DAG269F:II. Manuscript from the 1890s.

Värö1: [Dialect texts from Värö.] A. No: DAL8362. Manuscript from the 1960s.

Audio recordings

All recordings in the list are included in the investigation of word order (in §2), but only those recordings that are quoted in the text are preceded by an abbreviation (namely the one used in the text in connection to the quote).

Ås: Ås, a. No: DAL4227–4236; recorded in 1967 [67 min.]. Male informant (MI), time of birth unknown.

Dags: Dagsås, a. No: DAL2911– 2917; recorded in 1962 [52 min.]. MI born in 1883.

Grimeton, a. No: DAL1931–1937; recorded in 1957 [48 min.]. Female informant (FI) born in 1867.

Grimm: Grimmared, a. No: ULMA226B, 227; recorded in 1956 [43 min.]. MI born in 1869.

G-sjö: Gunnarsjö, a. No: ULMA1036–1038; recorded in 1960 [64 min.] Brother and sister born in 1883 and 1871, resp.

Horr: Horred, a. No: ULMA6211; recorded in 1948 [26 min.]. FI born in 1872.

Ist: Istorp, a. No: ULMA6212–6214; recorded in 1948 [71 min.]. FI born in 1860.

Källsjö, a. No: DAL350B; time of recording unknown [33 min.]. MI born in 1890.

Öxn: Öxnevalla, a. No: ULMA6804-6806; recorded in 1956 [36 min.]. FI born in 1870.

Spann: Spannarp, a. No: DAL:2048–2054; recorded in 1958. [64 min.]. MI born in 1889.

Stamnared, a. No: DAL2591–2592; 3439–3442; recorded in 1960 [28 min.]. MI born in 1894.

Strå: Stråvalla, a. No: DAL224A–B; recorded in 1966 [125 min.]. MI born in 1902.

Träslöv, a. No: DAL392–398; recorded in 1948 [67 min.]. MI born in 1868.

Träslöv, a. No: DAL359A–B; recorded in 1957 [66 min.] MI born in 1900.

Träsl1: Träslöv, a. No: DAL457A–B, 457A1, 401–402, 510A–B; recorded in 1966 [231 min.]. MI born in 1905.

Träsl2: Träslöv, a. No: DAL458A2, 458B; recorded in 1966 [61 min.]. FI born in 1905.

Vedd: Veddige, a. No: DAL2057–2066; recorded in 1958 [68 min.]. MI born in 1899.

Värö2: Värö, a. No: DAL402–408; recorded in 1962 [60 min.]. MI born in 1884.

Värö3: Värö, a. No: DAL245A–B; recorded in 1967 [64 min.]. FI born in 1895.

Electronic corpora

FTB: Fornsvenska textbanken [The text bank of Old Swedish]: https://project2.sol.lu.se/fornsvenska

Korp: https://spraakbanken.gu.se/korp/?mode=all_hist

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Chapter 8

From ‘big’ to ‘much’: On the grammaticalization of two gradable adjectives in Swedish

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In this paper, I give a short description of a language change that can be viewed as an instance of grammaticalization, namely the transition of the two adjectives *mycken/t* and *liten/t* into quantifiers. Data from the corpus of Swedish drama dialogue reveal that *liten/t* became a quantifier as early as the 1700s, whereas *mycken/t* seems to have gone through the same change roughly 150 years later. Inherent plurals (such as *pengar*, ‘money’) appear to be a promising context for the starting point of the transition. I further illustrate how both quantifiers have weak and strong versions in present-day Swedish, and I argue that weak *mycket* (*myke*) has turned into a negative polarity item that is found in negated clauses (but not for example in questions and conditionals), whereas weak *lite(t)* has turned into a positive polarity item and is found elsewhere. If we assume that weak versions of quantifiers are more frequent than strong ones, and that positive polarity contexts are more frequent than negative ones, we expect the frequency of *mycken/t* to drop, whereas the frequency of *liten/t* should rise over time. A preliminary study that seems to confirm this prediction is presented here.

Keywords: grammaticalization, quantifiers, adjectives, negative polarity, positive polarity, language change, Swedish

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1 Introduction

The quantifier *mycket* ('much') in present-day Swedish is primarily used to quantify mass nouns and plurals, roughly like *much* in Modern English:[1]

(1) (present-day Swedish)
mycket mjölk/socker/pengar
much milk.C.SG/sugar.N.SG/money.PL
'much milk/sugar/money'

As can be seen from (1), the quantifier is uninflected for number and gender, and the form is the same, whether the noun is common gender (glossed C) or neuter (N), or whether it is singular or plural. As in English it is also used with comparative adjectives:[2]

(2) (present-day Swedish)
mycket längre
much longer

In older Swedish, the adjective *mycken* ('big') agreed with its noun in gender and number, as in (3). Around 1600, it consistently agreed with the head noun in gender and number.

(3) (Early Modern Swedish)
a. mycken glädje
much.C.SG joy
b. mycket oljud
much.N.SG noise
c. myckna tårar
much.PL tears

[1]With countable nouns in the plural, *många* 'many' is normally used (see i), but *mycket* may also be used (see i.b), and then the plurality is seen more collectively.

(i) a. många böcker
many books
'many books'
b. mycket böcker
much books
'lots of books'

[2]In Swedish, *mycket* is also used with the meaning 'very' to denote degrees of positive adjectives. The Old Swedish distinction between *miok* 'very' and *mykit* 'much' was levelled in the 15th century. This development, however, is beyond the scope of this paper.

Comparing the examples in (1) and (3), we note that the agreement pattern has changed. The former neuter singular form *mycket* (as in 3b) has spread, and is now used with all nouns (common gender singular of uncountable nouns as well as plural of countable nouns, as shown in 1).

A very similar development has happened with the adjective *liten/t* 'little', which has been replaced by the uninflected *lite(t)*, based on the former neuter form of the adjective. Older phrases with the agreeing adjective (like in 4a) are expressed with the non-agreeing quantifier *lite* in present-day Swedish; cf. (4b). *Liten/t*, however, is slightly different from *mycken/t* (see §2).

(4) a. (EMS system)
Hon fick liten hjälp av sina grannar
she got little.C.SG help of POSS.REFL neighbours
'She got a little help from her neighbours'

b. (present-day Swedish)
Hon fick lite hjälp av sina grannar
she got little.N.SG help of POSS.REFL neighbours
'She got little/some help from her neighbours'[3]

In this paper, I make two claims. First, I claim that the adjectives *mycken* 'big' and *liten* 'little' have turned into quantifiers during the last three hundred years. The shift is most clearly noticeable in the increasing lack of agreement, i.e. in the use of the old neuter singular form even with common gender singular and plural nouns. The development is studied in the corpus of Swedish drama dialogue (Melander Marttala & Strömquist 2001), covering the years 1725–2000. The corpus is presented in §3. I will show that *lite* was grammaticalized as a quantifier a little earlier than *mycket*. Second, I will propose that the weak forms of the quantifiers *mycket* and *lite(t)* have turned into polarity items in present-day Swedish (§4). This leads to a prediction about the frequency of these words, namely that the positive polarity item *lite* should become more frequent and the negative polarity item *mycket* should become less frequent. In §5, this prediction is tested in the drama corpus.

2 Agreement in gender/number

In Old Swedish, there are basically two adjectives meaning 'big', *stor* and *mykil* (with the masculine accusative form *mykin*).[4] The first one is mainly used with

[3]The reading 'some help' in (4b) is only available with unstressed *lite*.

[4]The word *diger* 'big' is also used, but is nowadays almost obsolete, and has not interfered with the change studied in this paper. The word *stor* is less frequent in the oldest Swedish sources and is not attested in Runic Swedish (800–1225 CE), whereas *mykil* is found at least eight times in Runic Swedish (Peterson 2006).

countable nouns, whereas the second is mainly restricted to mass nouns, and occasionally occurs with plurals. The adjective *litil* (with the masculine accusative form. *litin*) 'little, small' is used both with count and mass nouns, but in the plural the suppletive form *smar* 'little, small' is normally used.

Adjectives used in Swedish definite noun phrases have a different inflection from adjectives used in indefinite noun phrases or as predicatives. The definite form is normally seen as a true sign of adjectivehood.[5] The forms (in the nominative singular) are given in Table 1 below.

Table 1: Inflection of the adjectives *mykil* 'big' and *litil* 'little' in Old and Early Modern Swedish

Adjectival inflection	Old Swedish	Early Modern Swedish
Indefinite/predicative	mykil/litil	mycken/liten
Definite	mykli/litli	myckna/lilla

We can note that the final *-l* of the nominative is replaced with final *-n* (from the accusative forms) in the history of Old Swedish. As for the definite forms, the Old Swedish masculine nominative singular, ending in *-i,* is often exchanged for the masculine oblique/feminine nominative form, ending in *-a*.

In the second half of the 17th century, we find the first occurrence of uninflected *mycket* (originally the neuter form) with plural or common gender singular nouns, according to the Swedish Academy dictionary (SAOB, the entry *mycken*), as illustrated in (5).

(5) (SAOB, example from 1676)
Mycket Lieutenanter och andra Officerare
much.N.SG lieutenant.C.PL and other officers
'lots of lieutenants and other (commissioned) officers'

As we will see, the word *liten/litet* seems to have turned into a quantifier slightly earlier than *mycken/mycket*, and, probably because of this, they differ in spelling today. Both are pronounced without the final *-t*, but the quantifier *mycket* is always spelled with a final *-t* in present-day Swedish, just like the

[5]The form used in definite noun phrases is traditionally called *weak inflection*, and the other, used in indefinites, is called *strong inflection.* This distinction is a traditional morphological distinction, which refers to more regular forms (weak), and more irregular forms (strong). To avoid confusion with *strong* and *weak* referring to stress, I only discuss *definiteness* here (although this is historically less adequate).

old neuter form, whereas the quantifier *lite(t)* normally lacks the final *-t* in the spelling.[6]

In the next section, I present a small study of the non-agreeing uses of *mycket* and *lite(t)* in the drama corpus.[7]

3 Investigation of the drama corpus (1725–2000)

The corpus of Swedish drama dialogue consists of 45 original Swedish dramas written between 1725 and 2000. They are partitioned into six periods of 25 years (with 25 years between each period), two in each century, where the three earliest periods contain five dramas each, while the three latter contain ten dramas each. The periods, the number of dramas, and the number of words of the corpus are given in Table 2. For details on the individual dramas, see Melander Marttala & Strömquist (2001) or Stroh-Wollin (2008: 38–39 and Appendix 1).

Table 2: The bulk of the drama corpus

Corpus section	Period	No. of dramas	No. of words (tokens)
Period 1	1725–1750	5	92,000
Period 2	1775–1800	5	73,000
Period 3	1825–1850	5	99,000
Period 4	1875–1900	10	178,000
Period 5	1925–1950	10	205,000
Period 6	1975–2000	10	166,000

I have studied all occurrences of the adjectives/quantifiers *mycken/mycket* and *liten/litet* with mass nouns and plurals in the drama corpus, noting the agreement pattern. Typical excerpted phrases are illustrated in (6) below. Reference to the specific drama is made with the corpus period number followed by a letter indicating the specific drama. The reference (5B) thus indicates drama B (the second) in the fifth period of the corpus (from 1925–1950).

[6] A relevant fact may also be that *mycken/t* as an adjective is no longer in use, whereas *liten/t* functions as a regular adjective with countable nouns (in the singular) today. In other words, it makes sense to distinguish the adjective *litet* from the quantifier/degree element *lite*, whereas this is not necessary for *mycket*.

[7] This study is limited both with regard to the number of elements studied and to the size of my corpus, but as far as I know it is new for Swedish. For other languages there are of course more extensive studies in these respects, e.g. Roehrs & Sapp (2016) is a diachronic study of quantifying elements in the history of German.

(6) a. Jag önskar Er lycka, Cousin, mycken lycka!
I wish you.OBJ happiness, cousin, much.C.SG happiness.C.SG
'I wish you happiness, (my) cousin, much happiness' (1B)

b. Nå, nu lär Ni väl föra mycket varor med Er?
well now AUX you DM bring much.N.SG merchandise.PL with you.OBJ
'Well, now you will bring much merchandise with you' (2C)

c. Lite sill har jag gudskelov
little herring.C.SG have I god.be.praised
'Little/some herring, I have, thank god' (5B)

Only cases where there is a head noun and where there are no other determiners are counted. Some determiners are incompatible with mass nouns and plurals, and others may only occur in front of adjectives, but not quantifiers. Examples of excluded noun phrases are given in (7).[8]

(7) a. (head noun missing)
så skulle *mycket* *ondt* kunna undvikas
so should much.N.SG evil.N.SG be.able.to be.avoided
'In that way, a lot of evil should possibly be avoided' (4B)

b. (head noun missing)
dessutan hade jag lärt så *mycket* af Fransyskan
additionally had I learned so much.N.SG of French
'Additionally, I had learned enough French' (1B)

c. (other determiner)
en *liten* förtrolig bekanntskap
AC.SG little.C.SG intimate.C.SG relationship.C.SG
'a small intimate relationship' (2C)

I have also excluded some other examples. Since *mycket/lite(t)* may be used either to quantify nouns or to signal degrees of adjectives (see footnote 2), some examples are ambiguous between quantifiers and degree adverbials, as in (8). If the word after *mycket/lite(t)* is ambiguous between adjective and noun, the status of *mycket/lite(t)* cannot be determined, which is the case in (9). Consequently, examples like (8) and (9) are also excluded from the investigation.

[8]The few cases with definite inflection are always adjectival and may co-occur with determiners. See Table 1 above.

(8) även detta ett rum med mycket konservativ möblering
also this a room with much/very conservative furnishing
'Also this being a room with {much of/ very} conservative furnishing' (5E)

(9) Var det för lite salt?
was there/it too little salt/salty
'Was there too little salt?/Was it not salty enough?' (6E)

The remaining examples are classified into three groups: unambiguous adjectives (which include clearly agreeing *mycken/liten* and the rare cases with definite inflection; see Table 2 above and (10c) below), unambiguous quantifiers, and ambiguous cases, illustrated in (10–12) respectively.

(10) a. agreement in common gender singular
mycken oro
much.C.SG unrest.C.SG
'much unrest'

b. agreement in plural
myckna tårar
much.PL tears.PL
'much tears'

c. definite inflection (i.e. adjective)
det myckna skrivandet
the much.DEF writing.N.SG
'the abundant writing'

(11) a. lack of agreement
mycket mjölk
much.N.SG milk.C.SG
'much milk'

b. lack of agreement
mycket pengar
much.N.SG money.PL
'much money'

(12) a. agreement in neuter singular
mycket kött
much.N.SG meat.N.SG
'much meat'

b. ambiguous in number
mycket folk
much.N.SG people.N.SG/PL
'much people'

Note that phrases may be assigned to the ambiguous group (as in 12) for two reasons: either because there seems to be agreement in the neuter (which was found both before and after the change, as in 12a), or because the head noun is ambiguous between singular and plural (which is the case with most neuter nouns), and therefore might be an instance of neuter agreement in the singular (as in 12b).

We are now in a position to present the data from the investigation of the drama corpus. In Tables 3–4, the numbers of unambiguous examples of adjectives and quantifiers are given as well as the numbers of ambiguous examples. The Q-quote is a percentage of unambiguous quantifiers out of all unambiguous examples (the sum of adjectives and quantifiers in the table). The numbers are quite small, so the percentages should be taken approximately, but in both cases the development is quite clear. We start out with *liten/lite(t)* in Table 3, and continue with *mycken/mycket* in Table 4.

Table 3: Agreement and Q-quote for *liten/lite(t)* 1725–2000

Period	Adjectives	Ambiguous	Quantifiers	Q-quote
1. 1725–1750	3	6	4	57%
2. 1775–1800	2	6	8	80%
3. 1825–1850	1	3	7	88%
4. 1875–1900	0	7	19	100%
5. 1925–1950	1	11	25	96%
6. 1975–2000	0	12	50	100%

The development of *liten/t*, illustrated in Table 3, seems quite clear. The Q-quote had already risen to 80% by the end of the 1700s, and since the end of the 1800s, *liten* is hardly ever used as an adjective with mass nouns/plurals.[9] As we will see, this is earlier than the development for *mycken/mycket*. Consider Table 4.

[9]The only example from the last 150 years in the corpus is the following:

(i) Men en sten har man mycket liten användning för
but a stone has one very little.C.SG use.C.SG for
'You only have very little use for a stone' (5H)

Table 4: Agreement and Q-quote for *mycken/mycket* 1725–2000

Period	Adjectives	Ambiguous	Quantifiers	Q-quote
1. 1725–1750	16	12	2	11%
2. 1775–1800	18	11	4	18%
3. 1825–1850	11	12	9	45%
4. 1875–1900	9	12	11	55%
5. 1925–1950	3	17	22	88%
6. 1975–2000	0	10	36	100%

The development of *mycket*, illustrated in Table 4, shows that the Q-quote reached 80% in the 1900s, and the development seems to be clearly slower than that of *lite(t)*. One reason that the Q-quote is higher for *liten/lite(t)* might be that this adjective does not have a plural form (but the suppletive forms *små* or sometimes *få/fåtaliga* 'few/few-numbery' are used instead). By contrast, the new quantifier *lite(t)* may indeed be used with plurals. Two examples from the corpus (with *lite(t)* followed by plurals) are given in (13).

(13) a. Junkaren Tusenskön, som har litet pengar
young.man.DEF T. who has little.N.SG money.PL
'Young T., who has little money' (2C)

b. Nu får du lite böcker
Now get you.SG little.N.SG book.PL
'Now, you will get some books' (6C)

In other words, if the development starts out in the singular, *liten/t* would be earlier than *mycken/t*. The plural cases with *lite(t)* (like in 13) are, however, quite rare in the older dramas, only 5 in the three oldest periods. With *mycken/mycket*, on the other hand, plurals are more frequent: there are 13 instances in the three older periods. If we calculate only singulars in the three oldest periods, we arrive at the figures in Table 5.

Thus, the difference between the Q-quote of the two pronouns is even stronger if we exclude the plurals, which means that we can say (even if the numbers are small) that *lite(t)* is certainly earlier as a quantifier than *mycket*.

We should also examine which kinds of nouns are the first to occur in the quantifier cases. Initially, it seems as if inherent plurals, i.e. plurals that lack a sin-

Table 5: Agreement and Q-quotes for singulars 1725–1850

Word	Adjectives	Ambiguous	Quantifiers	Q-quote
liten/lite(t)	6	15	14	70%
mycken/mycket	46	38	3	6%

gular form with the relevant meaning, are frequent; the word *pengar* 'money'[10] especially is over-represented as a quantified noun in the earlier periods. I have counted the nouns used with non-agreeing *mycket* and *lite(t)* during the four oldest periods, and the results are given in Table 6.

Table 6: Nouns with quantifying *mycket/lite(t)* 1725–1800

Quantified noun	*mycket*	*lite(t)*
inherent plurals	14	4
mass nouns	2	14
other plurals	6	1

Out of the 54 quantifiers in the first four periods (numbers given in Table 6), 18 take inherent plurals (17 are *pengar* 'money' and one is *förfriskningar* 'refreshments'). In the last two periods only nine out of 102 nouns are inherent plurals (five are *pengar* and one is *stålar*, both meaning 'money'). I think that this is significant; it seems as if *pengar* was the noun that introduced the possibility of using non-agreeing *mycket/lite(t)* with mass nouns. Ordinary plurals seem to come later. The majority of the seven ordinary plural examples in Table 6 are from period 4, and they become abundant in periods 5 and 6.

We have seen that in an initial stage of the change, the inherent plural *pengar* 'money' is over-represented as a quantified noun. With respect to *mycket*, we find 22 instances with a common gender singular or plural noun during the first four periods (1725–1800). Out of these, no fewer than 13 have the word *pengar* in the plural. Out of the other nine instances, six are other plurals, one word, *djur* 'animal(s)', is ambiguous between singular and plural, and only two are common gender singular, namely *kärlek* 'love' and *respekt* 'respect'.

[10]The word *pengar* 'money' is always plural (in the sense of 'money'). Occasionally it may be used in the singular, *peng*, but then the meaning is 'coin'.

To summarize, the adjective *liten/t* seems to have already grammaticalized into a quantifier in the 1700s, whereas *mycken/t* grammaticalized later, in the late 1800s and early 1900s. The corpus used is admittedly small, but the texts normally come close to the spoken language, and the tendencies are quite clear. There is thus good reason to conclude that *liten/t* was earlier than *mycken/t* in the grammaticalization process.

The grammaticalization process from adjective to quantifier can be described as climbing higher in the syntactic tree, as has been suggested by Roberts & Roussou (1999, 2003).[11] In this way lexical adjectives are changed into functional elements in a Q- or NumPhrase inside the extended DP.

4 Weak and strong quantifiers

In present-day Swedish, our two quantifiers, *mycket* and *lite(t),* have one strong and one weak form, i.e. one stressed and one unstressed form. We find both weak and strong quantifiers with nouns, as well as when they quantify comparative adjectives.[12] In the examples below, I mark the strong variants with *'*myke/'lite (to indicate the stress) and the weak ones with ˌ*myke*/ˌ*lite*, in the latter case signifying that both syllables are deaccentuated (i.e. it is not a prosodic word).[13]

In this section, I try to show that the weak forms of the two quantifiers are polarity items. Israel (1996) mentions two problems with the research on polarity items:

> [A]s the theorist strives for intimations of universality, the complexity and the subtle variability of the data are easily underestimated or ignored. On the other hand, when one considers the phenomenon in all its glorious messiness, one may quickly despair of ever finding any general explanation. (Israel 1996: 619)

[11] Related analyses of grammaticalization of adjectives that are described as climbing higher in the syntactic tree can be found in Oxford (2017); see also Petzell (2022 [this volume]).

[12] Quantifying *mycket/litet* may also be used with verb phrases: *Han simmar inte mycket nuförtiden* ('He doesn't swim much nowadays'), and this use seems similar to other quantifier uses; however, I will leave such cases aside in this paper.

[13] Weak and strong forms of *lite* are also present in present-day Norwegian, where they are distinguished in both the spoken and the written language: stressed *lite* and unstressed *litt*. Since they are separate entries in the dictionary, the meaning is well described (see e.g *Norsk ordbok*). Stressed *lite* means 'a limited amount', and the opposite is 'much', whereas unstressed *litt* means 'a small amount', and the opposite is 'nothing'. I find this to be a good description of the difference between the stressed and unstressed *lite* in Swedish, too.

In the literature, it has been mentioned that the English correspondents *much* and *a little bit* are polarity sensitive. Israel (1996) gives several examples with *much* (and *a little bit*) to discuss polarity sensitivity, but his focus is to explain the system of polarity sensitive elements, rather than to discuss the properties of the specific lexical items.

Israel's (1996) claim is that most (or all) lexical elements that show polarity sensitivity can be classified in terms of two features. The first feature is quantitative value, which describes whether the item is high-scalar or low-scalar, i.e. whether it denotes a high degree (like *much* and *as hell*) or a low degree (like *a little bit* and *at all*). The second feature is informative value, which describes whether the item is emphatic (like *as hell* and *at all*) or understating (like *much* and *a little bit*). The negative polarity items (NPIs) that are high-scalar (like *much*) are understating, whereas the positive polarity items (PPIs) that are high-scalar (like *as hell*) are emphatic. See Figure 1, adapted from Israel (1996: 628), with some of his examples.

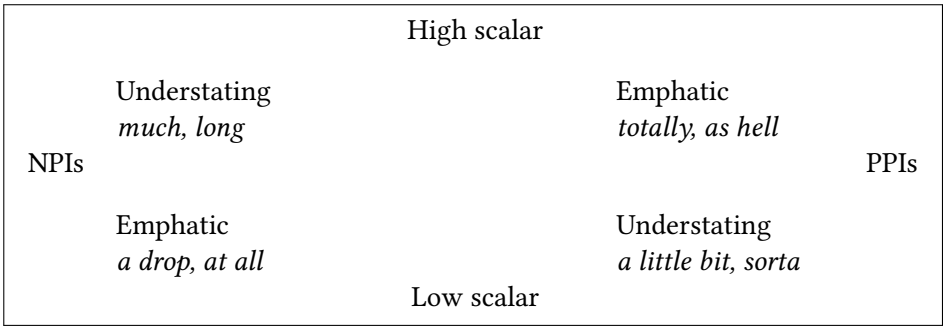

Figure 1: Israel's (1996) model for polarity items

I propose that both weak *mycket* and weak *lite(t)* are understating, i.e. they only express a small step on a scale, but that weak *mycket* is an NPI, whereas weak *lite(t)* is a PPI.

Let us now turn to some properties of these alleged polarity items. Consider first the examples below for the strong version of *mycket*, i.e. ʻMYke.

(14) Han har fått ʻMYke pengar.
he has received much money
'He has received lots of money.'

(15) Hon har blivit ʻMYke klokare.
she has become much wiser
'She has become much wiser.'

(16) Han har inte fått ˈMYke pengar (men han har fått LIte).
he has not received much money but he has received little

(17) Hon har inte blivit ˈMYke klokare (bara ˈLIte).
she has not become much wiser only little

As can be seen, the strong variant of *mycket* is felicitous both in affirmative and negative clauses. The same is true of the strong variant of *lite(t)*. All the examples above are focused or contrastive in one way or another, but we cannot detect any polarity effects. When we start looking at the weak variants, on the other hand, we do find polarity effects. Now, consider the different behaviour of weak ˌ*myke* in affirmative and negated clauses. I include a stressed verb to make sure that the quantifier is weak.

(18) # Han har FÅTT ˌmyke pengar.
he has received much money

(19) # Hon har BLIvit ˌmyke klokare.
he has become much wiser

(20) Han har inte FÅTT ˌmyke pengar.
he has not received much money
'He has not received very much money.'

(21) Hon har inte BLIvit ˌmyke klokare.
she has not become much wiser
'She hasn't become very much wiser.'

As can be seen in (18–19) above, weak ˌ*myke* is infelicitous in affirmative clauses. The '#' denotes that the clauses are possibly not ungrammatical, but to my mind they do not really mean anything.[14]

With *lite(t)*, the strong version, ˈLI*te*, also seems to be allowed in all contexts, whereas the weak version, ˌ*lite*, seems to behave in the opposite way to ˌ*myke*, i.e. like a positive polarity item, avoiding negative sentences. This is illustrated in (22–25) below.

(22) Han har FÅTT ˌlite pengar.
he has received little money
'He has received some money.'

[14] Judgements are often a bit uncertain, but I have checked my intuitions with a handful of other native speakers and they clearly agree on the difference between (18–19) on one hand and (20–21) on the other.

(23) Hon har BLIVIT ˌlite klokare.
she has become little wiser
'She has become a little bit wiser.'

(24) # Han har inte FÅTT ˌlite pengar.
he has not received little money
'He hasn't received any money.'

(25) # Hon har inte BLIVIT ˌlite klokare.
she has not become little wiser
'She hasn't become a little bit wiser.'

As indicated in (24–25), unstressed ˌ*lite* is infelicitous in negative contexts. It may not be ungrammatical, but it is my impression that these sentences may only be used as echo answers, when the concept of 'a little money' or 'a little (bit) wiser' have just been mentioned.

It is well known that many NPIs do occur not only in negated sentences, but also in other polarity contexts. Those that only occur in negative sentences are normally called strong NPIs, whereas those that may occur in other contexts too are normally called weak NPIs (see e.g. Brandtler 2010: 12–14). Other contexts include questions, conditionals, and comparative clauses/phrases after comparative adjectives. If we test our two PI candidates for these kinds of sentences, we get the following results:

(26) a. # Har hon fått ˌmyke pengar?
has she received much money

b. * Vem kan skala ˌmyke potatis?
who can peel much potatoes

c. * Om du har fått ˌmyke pengar, så…
if you.SG have received much money, then…

(27) a. Har hon fått ˌlite pengar?
has she received little money
'Has she received some money?'

b. Vem kan skala ˌlite potatis?
who can peel little potatoes
'Who wants to peel some potatoes?'

c. Om du har fått ˌlite pengar, så…
if you.SG have received little money, then…
'If you have received some money, then…

As indicated in (26) above, weak ˌ*myke* is ungrammatical or strange (as in 26a), but may be possible in echo-questions. Weak ˌ*lite* on the other hand works fine in these contexts, as illustrated in (27). The data presented above suggest that ˌ*myke* is a strong negative polarity item, i.e. one that requires an overt negation in the clause, whereas ˌ*lite* is used elsewhere.

We may tentatively conclude that weak ˌ*myke* has certain properties of a negative polarity item, and that unstressed ˌ*lite* has certain properties of a positive polarity item. Needless to say, there are lots of questions that have to be resolved before the claim can be substantiated in full. I leave this for future research.

Our two weak quantifiers are easily incorporated into Israel's model (see Figure 1 above). Weak ˌ*myke* is a high-scalar NPI, whereas ˌ*lite* is a low-scalar PPI. Both, however, are understating in Israel's terms. As Traugott (2010: 51) points out, it is a feature of negative polarity that words that are understating in positive contexts (she mentions *a bit (of)* and *a shred of*) are reversed and become emphatic in the sense of Israel (1996) in negative contexts. It seems to work both ways, so a word like *much* is originally emphatic in positive contexts, but when it becomes a NPI it becomes understating. Intuitively, it is not surprising that *not much* and *little* are used for the same function, namely to denote a small step on a scale. In a sense, then, they have a similar meaning, albeit with complementary distribution.[15]

5 A prediction

In the previous sections, we have seen that the adjectives *mycken* 'much' and *liten* 'little', have successively turned into quantifiers (roughly) over the last 300 years. The former neuter singular forms *mycket* and *lite(t)* are now also used with common gender mass nouns and plurals. The old adjective *mycken/t* is now only used (in its neuter form *mycket*) as a quantifier, whereas the adjective *liten/t* is still used as a regular adjective with countable nouns, but has turned into an uninflected quantifier with mass nouns and plurals. Second, it seems that the new quantifiers have developed a strong-weak distinction, and that the weak forms have turned into polarity items: ˌ*myke* has turned into a negative polarity item, whereas ˌ*lite* has turned into the opposite, a positive polarity item.

Now, let us make two assumptions: 1) weak quantifiers are less marked (and thus more frequent) than strong ones, and 2) positive polarity environments are

[15]The fact that weak *lite* has a bleached meaning, only signifying a step on a scale, is mentioned in the Swedish Academy Grammar (Teleman et al. 1999/2: 406). I claim that weak *mycket* has the same property in negated clauses.

less marked (and thus more frequent) than negative ones (this is especially relevant if, as I believe, ¸*myke* is only found in clauses with negation). Clauses with negation are simply less frequent than clauses without negation. If these two assumptions are on the right track, we predict that the introduction of the polarity sensitivity of our two weak quantifiers (¸*myke* and ¸*lite*) would yield a drop in the frequency of the quantifier *mycket*, whereas the quantifier *lite(t)* would increase in frequency.

I have counted the occurrences of the two words *mycken/t* and *liten/t*, both as adjectives and as quantifiers, with mass nouns and plurals in the drama corpus (leaving the quantifiers followed by comparatives and other types aside). I have calculated their frequency per 10,000 words. The results are found in Table 7, where the periods are given in pairs (period 1 and 2 together, etc.).

Table 7: Frequency per 10,000 words of *mycken/t* and *liten/t* with mass nouns/plurals

Period	No. of words	*mycken/t*	Frequency	*liten/litet*	Frequency
1725–1800	165,000	63	3.8	29	1.8
1825–1900	277,000	63	2.3	35	1.3
1925–2000	371,000	87	2.3	99	2.7

Table 7 indicates a drop in the frequency of the quantifier *mycken/t* from 3.8 to 2.3, whereas *liten/t* increases from 1.8 to 2.7, where the first value is from the 1700s and the second from the 1900s. The overall result (small as it is) is fully in accordance with the prediction: there is a clear drop in the (weak form of the) word which turns into a negative polarity item (*mycken/t*), whereas the word (*liten/t*) that (in its weak form) turns into a positive polarity item gains in frequency. We would need a larger corpus to see if the drop in the 1800s for *liten/t* is significant and if so what it means. Thus, more research is clearly needed, but these first results of this preliminary investigation seem to support the prediction.

The data should, of course, be checked further in other and larger corpora. Important questions for future research include whether the quantifiers *mycket* and *lite* used with comparatives behave in the same way, and, further, how degree adverbials *mycket/lite* with positive adjectives/adverbs behave. Further research is clearly needed. An additional complication might be that the drop in frequency for *mycken/t* is earlier than the rise for *liten/t*, although the previous investigation in §3 showed that *liten/t* turned into a quantifier earlier than *mycken/t* did. On the other hand, there is no reason to believe that the weak-strong distinction and polarity status emerged immediately after the transition from adjective to quantifier. More research is needed in this respect as well.

Although many questions remain, I hope to have shown that the adjectives *mycken/liten* turned into quantifiers (roughly) during the last three centuries, and that the weak versions of these quantifiers have turned into polarity items in present-day Swedish. If this is true, they also behave in the predicted way, as the weak quantifier that has become a negative polarity item (ˌ*myke*) has dropped in frequency, whereas the one that has become a positive polarity item (ˌ*lite*) has gained in frequency.

6 Summary

In this paper I have given a short description of a language change that can be viewed as an instance of grammaticalization, namely the transition of the two adjectives *mycken/t* 'big' and *liten/t* 'little' into quantifiers. Data from the drama corpus show that *liten/t* was already becoming a quantifier in the 1700s, whereas *mycken/t* seems to have gone through the same change roughly 150 years later. Inherent plurals (such as *pengar* 'money') appear to be a plausible context for the starting point of the transition.

I have further illustrated how both quantifiers have weak and strong versions in present-day Swedish, and I have argued that weak *mycket* (ˌ*myke*) has turned into a negative polarity item, found in negated clauses, whereas weak *lite(t)* has turned into a positive polarity item, found elsewhere. If we assume that weak versions of quantifiers are more frequent than strong ones, and that positive polarity contexts are more frequent than negative ones, we would expect the frequency of *mycken/t* to drop, whereas the frequency of *liten/t* should rise. In §4, I presented a small preliminary study that seems to confirm this prediction.

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Abbreviations

CE	Common Era
EMS	Early Modern Swedish
NPI	Negative Polarity Item
PPI	Positive Polarity Item

Sources

SAOB: *Ordbok över svenska språket, utg. av Svenska Akademien* [Dictionary of the Swedish language, published by The Swedish Academy]. 1893–. Lund. Available here: http://www.saob.se

The corpus of Swedish drama dialogue. 45 original Swedish dramas written between 1725 and 2000. Details of the corpus can be found in Melander Marttala & Strömquist 2001 or Stroh-Wollin 2008.

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Morphosyntactic change in Late Modern Swedish

This volume explores morphosyntactic change in the Late Modern Swedish period from the 18th century and onwards. This period is interesting, for a number of reasons. This is when Swedish is established as a national standard language. New genres emerge, and the written language becomes more generally available to all speakers. We also sometimes find diverging developments in the different North Germanic languages, and some of the much-discussed differences between Danish, Norwegian and Swedish are established during this period. In addition, during the 19th and 20th centuries, the traditional dialects undergo more dramatic changes than ever. Yet, the Late Modern Swedish period has previously received fairly little attention in the syntactic literature. This volume aims to remedy this, with studies that cover several different grammatical domains, including case and verbal syntax, word order and agreement, and grammaticalization in the nominal domain. The study by Cecilia Falk investigates the possibility of promoting an indirect object to subject in a passive, that emerges during the period. A chapter by Fredrik Valdeson studies change in the use of ditransitive verbs, from a constructional perspective. Three chapters are concerned with word order change. The study by Ida Larsson and Björn Lundquist investigates the development of a strict word order in particle constructions. Adrian Sangfelt studies the possibility of having adverbials (and other constituents) between the separate verbal heads in complex VPs in the final stages of the shift from OV to VO order. Erik M. Petzell investigates embedded verb placement and agreement morphology in the Viskadalian dialect, which on the surface seems to contradict the Rich Agreement Hypothesis. Mikael Kalm discusses the emergence of different kinds of adverbial infinitival clauses in the standard written language compared to Övdalian. Finally, the study by Lars-Olof Delsing is concerned with a case of grammaticalization in the nominal domain, specifically the development of the gradable adjectives *mycket* 'much' and *lite* 'little' into quantifiers.

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