Alienability Splits in Swedish from a Diachronic Perspective

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ABSTRACT

The paper discusses possessive expressions with body-part nouns in Swedish (1300–1550) with particular focus on the so-called alienability splits, i.e., separate patterns of marking possession for alienable and inalienable entities. The key problem to be addressed is to what extent such splits can be found in Swedish and the aim of the study is to establish when they arise and what motivates their formation. The inalienable possessive constructions with body-part referents in Modern Swedish include the so-called implicit possession, where only the definite article is used and the inalienable prepositional construction of the type 'the head on him'. The analyzed material consists of Old Swedish prosaic texts written between 1300 and 1550. The corpus includes eight texts and amounts to ca. 250,000 words. The material is studied both quantitatively and qualitatively; collostructional analysis is used for the statistical overview of the data. The results of the collostructional analysis confirm that the implicit possessive construction first appears in Period II (1350–1450) and becomes grammaticalized in the late 1400s. The inalienable prepositional construction is not found in the material studied and thus must be of later origin. The results suggest further that the inalienable possessive constructions do not arise as a result of the speaker's wish to disambiguate the notion of inalienability but are a by-product of other diachronic processes, such as the grammaticalization of the definite article in the indirect anaphoric context.

Keywords: alienability; split possession; Swedish; definite article; prepositional construction

INTRODUCTION

In this paper, we consider possessive constructions in Old Swedish (1225–1536) with focus on split possession, namely the use of separate possessive constructions for separate notions of possession. We look in particular at distinct constructions[1] for alienables, i.e., possessum referents which can be separated from their possessors, and inalienables, i.e., entities which cannot be divorced from their possessors (e.g., *Hon höjde handen* 'She raised her hand'). The latter group typically includes body parts and kinship terms. Other objects deemed of value for survival, such as clothes being worn by a person, weapons, glasses or perhaps a mobile phone may also be included in the inalienable group. In the present paper we discuss the possessive expressions involving body-part nouns.

The aim of the paper is to trace the sources of alienability splits present in Modern Swedish. The point of departure for the present study is twofold. Firstly, despite claims that Indo-European languages lack separate constructions to express inalienability, modern North Germanic languages, in particular Norwegian and Icelandic, have recently been argued to

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[1] The term 'construction' is used throughout as a form-meaning pairing (Goldberg, 2013).

exhibit alienability splits (Stolz, Kettler, Stroh & Urdze, 2008; Lødrup, 2009; Schuster, 2019). Being a close relative of Norwegian, Swedish shows similar splits (see section 3 for an overview). The constructions used to express inalienability include the so-called implicit possession (Lødrup, 2009), which uses the definite article as a shortcut for a possessive (example (1)) and prepositional inalienable constructions (example (2)).

(1)   *Sara   kammade   **hår-et**.*
      Sara   combed   hair-DEF
      'Sara combed her (own) hair.'

(2)   *Flera   person-er   dog,   de   flesta   inför   **ögon-en**   **på**   **honom***.
      many   person-PL   died   DEF   most   before   eye.PL-DEF   on   him
      'Many people died, most of them right before his eyes.'

Secondly, the differences between the North Germanic languages with respect to alienability splits (see section 3) suggest that their rise belongs to the individual histories of these languages. In particular, the constructions which are used to express inalienability involve the definite article, which grammaticalizes by 1500s (Skrzypek, Piotrowska & Jaworski, 2021). The diachronic perspective in alienability studies is not very common (see, however, Skrzypek & Piotrowska, 2017; Schuster, 2019; Cristofaro, 2020) and we lack sufficient data to judge how these splits arise. The period chosen for the study coincides with major shifts in the grammar of the Swedish language, which have a bearing on the constructions in question. It is the period when, among others, the definite article is formed and the NP word order stabilizes with a preference for the preposing of determiners and modifiers (Delsing, 2014; Skrzypek et al., 2021).

The theoretical background of the present study is Diachronic Construction Grammar, an application of the Construction Grammar (CxG) to diachronic studies. CxG extends the notion of the Saussurean sign to include 'constructions', namely morphemes, words, idioms and abstract phrasal patterns, as arbitrary form-meaning pairings, which together form a lexicon-syntax continuum, a 'constructicon'. Constructions can be represented by notations symbolising schematic slots that can accommodate more or less narrowly defined elements. In CxG the focus of study is constructions understood very broadly (Goldberg, 2013). They are abstract, schematic entities, which can be equated with types and which serve as blueprints for the actual tokens of usage, i.e., constructs. CxG makes a theoretical distinction between the *external* (or 'constructional') properties, i.e., a set of constraints on how a given expression fits in and interacts with larger grammatical patterns and the *internal* (or 'constituent level') properties, which are the requirements placed on the construction's constituents. The two levels are linked via a symbolic correspondence link. This distinction is useful in studies of language change, as the change is gradient in nature and typically consists of a series of small-scale adjustments which may result in a perceptible makeover of the entire construction.

CxG is a family of frameworks. In the spirit of Barðdal and Gildea (2015) we do not endorse any specific version, basing the model adopted on the foundations common to all frameworks within CxG, however, in line with most diachronic CxG research, we favour Radical Construction Grammar (Croft, 2001; see also Traugott & Trousdale, 2013; Barðdal & Gildea, 2015).

ALIENABILITY SPLITS

It is common among the languages exhibiting split possession to group nouns into alienables – such that can be divorced from their possessors, and inalienables – such that cannot be separated from them. Consider examples (3a) and (3b).

(3a)   *a kattigu*
         'my liver' (inalienable)

(3b)   *agu kat*
         'my liver that I am going to eat' (alienable) (Patpatar, Melanesia, after Chapell & McGregor, 1996: 3)

Typically, the inalienable set is small, closed and comprises only a limited number of lexemes, usually body parts and kinship terms, while the alienable set is open and infinite. Even if the inalienable set appears to be open (as in some Polynesian languages), the alienable set is always open and infinite. Furthermore, alienability splits usually involve some form of coding asymmetry (van Lier & van Rijn, 2018: 631), so that the alienable possessive constructions are longer and/or more complex than the inalienable ones, which can also be expressed by a zero marker. Two explanations for this asymmetry have been offered in literature: it is either seen as iconically motivated, so that the inalienable possessum is viewed as (conceptually) closer to the possessor than an alienable one (Haiman, 1983, 1985), or as economically motivated, namely that inalienables appear so frequently as possessum referents that they need no longer be marked, or do not require elaborate marking, as the hearer expects them to be possessed (Haspelmath, 2017). A unified account of both the iconic and economic motivation is found in van Rijn (2016), who argues that as body-part nouns and kinship terms are relational nouns (such that inherently presuppose a relation with another noun), the inalienable possessive relations are predictable to the hearer and thus need less coding.

If we consider examples (3a) and (3b) above again we note that both involve the same lexeme, 'liver'. Yet, they illustrate separate possessive constructions for alienables and inalienables. Here we find an important difference between body-part nouns and kinship terms – while it is hardly possible to understand the meaning of the noun 'mother' without its relation to some other referent, it is fully conceivable to discuss a body part such as a liver without any reference to the whole that is the body of its 'owner'.[2] Admittedly, in terms of frequency, body-part lexemes most often appear as possessum referents in inalienable constructions. However, it is also possible to use the nouns as alienables, as in (3b). This further substantiates the claim that it is not the nouns themselves that show alienable or inalienable semantics, but rather they are given an interpretation through their use in specific constructions. And since the expected interpretation is as an inalienable part, the inalienable constructions tend to require less linguistic coding (Nichols, 1988).

In the following we use the terms 'alienable/inalienable nouns' as shortcuts for 'nouns which appear in alienable/inalienable constructions'. With relation to body-part nouns, it is the construction used which determines their reading and not their semantics (see especially Haspelmath, 2017: 198).

In languages with true alienability splits there is no free variation of form. The speaker does not make a choice of the structure but only one structure is available to her, depending on whether she intends to present the referent as alienable or inalienable (Nichols, 1988). According to Nichols, this division coincides with the typological identity of a language: head-

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[2] We exclude here constructions such as *I am a mother, that's why!*, where the noun is not referential.

marking languages tend to exhibit alienability splits while dependent-marking languages do not. She further offers a tentative diachronic explanation as to how these patterns emerge: the most often possessed nouns are more likely to undergo fusion, and as a result distinct marking patterns are developed.

Alienability splits are well-described for a number of North American and Pacific languages (Nichols, 1988: 561). It has long been claimed that the Indo-European languages lack split possession (see, e.g., Nichols & Bickel, 2011). Typologically, the Indo-European languages, as dependent-marking languages, fit thus with the theoretical model offered by Nichols. Recently, however, a number of facts about some Indo-European languages, among them the North Germanic ones, have been uncovered, or rather, seen in a new light, and the lack of alienability splits is no longer a dogma which it once was. It is only in the recent decade that research has been carried out to show that these splits in fact do occur in the European languages. The change is partly due to the admittance of more varied data, and admittance of a wider array of constructions which are under consideration. Also, apart from there being more constructions in play, more factors are involved, which results in the arbitrariness of choice, or which makes the choice of a given structure more dependent on other factors than pure alienability (see, e.g., Stolz et al., 2008).

ALIENABILITY SPLITS IN MODERN SWEDISH

The main means to express possession adnominally in Modern Swedish are: the s-genitive constructions (example (4)), pronominal constructions with regular possessive pronouns (5) and reflexive possessive pronouns (6), the definite article (7), and the prepositional construction (=PP) (8).

(4)   *De   tvättade   **Jan-s   hår   /bil**.*[3]
      they   washed   Jan-S   hair   /car
      'They washed John's hair/car.'

(5)   *De   tvättade   **hans   hår   /bil**.*
      they   washed   his   hair   /car
      'They washed his hair/car.'

(6)   *Han   tvättade   **sitt   hår   /sin   bil**.*
      he   washed   POSS.REFL hair   /POSS.REFL car
      'He washed his (own) hair/car.'

(7)   *Han   tvättade   **hår-et   /bil-en**.*
      he   washed   hair-DEF   /car-DEF
      'He washed his (own) hair/car.'

(8a) *De   tvättade   **hår-et   på   honom**.*[4]
      they   washed   hair-DEF   on   him
      'They washed his hair.'

(8b) **De   tvättade   **bil-en   på   honom**.*

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[3] As there is no case system in Modern Swedish, we do not gloss the s-genitive as GEN but rather as S (Piotrowska, 2021).

[4] Adapted from an original example: *En kväll sa han till mig att han skulle tvätta **håret på mig*** 'One evening he said he would wash my hair' (lit. 'the hair on me') (Elliott, 2020, *Den lilla fången*).

they   washed   car-DEF   on   him
'They washed his car.' (intended meaning)

Considered superficially, there is little or no relation to alienability in the choice between these constructions. It seems that all can be used felicitously with either alienable or inalienable reading, with the exception of the prepositional construction, which does not allow the alienable *bil* 'car' in example (8b). It is, however, fully felicitous when describing a partitive or a locative relation, see examples (9) and (10) respectively.

(9)   *De   målade   **tak-et   på   hus-et**.*
       they   painted   roof-DEF   on   house-DEF
       'They painted the roof of the house/the roof on the house.'

(10)   *Det   kryper **en   snigel på   honom**.*
       it   crawls INDF   snail   on   him
       'There is a snail crawling on him.'

The reflexive possessive pronoun (example (6) above) cannot be used if the NP expressing the possessum referent is the subject of the clause. There are no similar restrictions on the use of the other constructions, although the PP seems to be less felicitous as a subject, and other constructions are preferred in its stead, consider (11) and (12).

(11)   *?**Hår-et   på   honom**   var   mörkt.*
       hair-DEF   on   him   was   dark
       'His hair was dark.' (intended meaning)

(12)   ***Hans /Peter-s   hår   var   mörkt**.*
       his   /Peter-S   hair   was   dark
       'His/Peter's hair was dark.'

In comparison with Norwegian and Icelandic, the North Germanic languages for which there is most data on alienability splits, the prepositional inalienable construction in Swedish seems to be less frequent (Skrzypek, 2021). Yet, the original locative meaning of the preposition is at least partly bleached, so that the construction can be used with names of the internal body organs, consider (13).

(13)   *[...]   han   berättade   mödosamt   att   de   tagit   ena   **njur-en***
       [...]   he   said   laboriously   that   they   taken   one   kidney-DEF

       ***på   honom,*   *'men   annars   var   han   frisk'.*
       on   him   but   otherwise   was   he   healthy
       '[...] he said with an effort that they have taken one of his kidneys, 'but that he is healthy otherwise'.' (Pettersson, 1987, *När året gått*)

The extent to which the construction can be used in Modern Swedish merits a separate study, in particular in a comparative perspective against the Norwegian data.

The use of the PP construction brings with it an 'inalienability effect' which is lacking in the other possessive constructions (possibly with the exception of the definite article) even if they include referents which can be inalienable, compare the following sentences:

(14a) *Hon*   *tvättade*   **hår-et**   **på**   **honom**.
    she   washed   hair-DEF   on   him
    'She washed his hair.'

(14b) *Hon*   *tvättade*   **hans**   **hår**.
    she   washed   his   hair
    'She washed his hair.'

Example (14a) has only one interpretation: the hair is the hair growing out of his scalp. Example (14b) also has this interpretation, but given more context it could also read as *his hair* being the toupee in a drawer or *his hair* that has been cut off and is now lying on the floor. Thus (14a) and (14b) are similar to the Polynesian 'liver' examples (3a) and (3b), in that the choice of the possessive structure has consequence for our understanding of the possessum as alienable or inalienable. The 'inalienability effect' arises only when the possessum is a body-part noun, with animate possessors (human or animal body). Importantly, only with body-part nouns is this construction subject to certain grammatical restrictions, for instance it cannot appear as a subject in a sentence as long as it refers to body parts that are currently part of the living organism.

The prepositional inalienable construction discussed so far seems to pattern better with inalienables and can also be used to create inalienability effects. Another way to show, grammatically, the difference between alienable and inalienable possession, is by implicit possessives. There is, in fact, no possessive here at all (hence, implicit), only the definite article, which reads as a shortcut for the possessive.

(15) *Han*   *tvättade*   **hår-et**.
    he   washed   hair-DEF
    'He washed his (own) hair.'

Without any preceding context, in which we would be introduced, for example, to a child, whose hair has been mentioned and is now referred to anaphorically (which is of course possible and grammatically correct), the neutral interpretation of 'the hair' here is 'his hair' (i.e., the subject's). The definite noun phrase used here is restricted to the physical context and is bound by the closest subject. This use of the definite article is common in all North Germanic languages and sets them apart from, for example, English, where the possessive pronoun is used in the corresponding examples (as illustrated by the translations into English provided with each example).

We have seen that there are two constructions in Modern Swedish which render inalienable reading of the noun in a possessum role – the implicit possession and the prepositional construction. The readings are restricted to body-part nouns used as possessum referents with animate possessors, with other lexemes the definite article marks textual relations instead (direct and indirect anaphora) and the prepositional construction is either partitive or locative.

In comparison with other possessive constructions, namely possessive pronouns (regular and reflexive) and the s-genitive, the implicit possessive construction (the definite article alone) is shorter, as predicted by Haiman (1983) and Haspelmath (2017), but the prepositional construction is not. In the following sections we introduce the corpus and methodology and we will take a closer look at the rise of these constructions as documented in Swedish texts from early 1300s to 1500s. The research questions to be addressed are: to what extent the implicit possessive construction and the prepositional inalienable construction can

be found in Swedish texts from that period, when these constructions arise and what motivates their formation.

CORPUS AND METHODOLOGY

The study is based on a corpus of eight Old Swedish texts written between 1300 and 1550 (see the list of sources at the end of the paper). The timeframe of the study coincides with the Old Swedish period (1225–1526), a time of major shifts and changes in the language system. Among others, during that period the original case system is reduced and finally lost, the definite and indefinite articles are formed, the word order in the NP stabilizes with preposing of all determiners and modifiers and the verbal flection is reduced.

The oldest extant texts from this period represent legal prose. They are not included in the corpus, partly due to their contents – body-part referents are not expected to be very frequent, especially since the extant legal texts include long passages of the church laws, inheritance laws, etc. – and partly due to the somewhat more archaic language of legal prose and abundance of aberrant structures (see, e.g., Holmbäck & Wessén, 1979; Skrzypek, 2012: 17). We have chosen to focus on religious and profane prose. The texts contain longer narratives and stories describing battles, journeys and adventures of many protagonists as well as miracles performed by saints. With such rich narratives a relatively high frequency of body-part mentions is expected. As nearly all non-legal texts from that time period are based on foreign models, it is not possible to obtain fully native Scandinavian texts. All of the texts included in the corpus are thus free translations of original Latin texts, or they are based on earlier translations to German or other Scandinavian languages. The influence of the original language of the texts cannot be denied, but the same texts have previously been successfully used in diachronic research of the Swedish language (see, e.g., Håkansson, 2008; Skrzypek, 2012; Stroh-Wollin, 2016; Piotrowska & Skrzypek, 2021; Skrzypek et al., 2021).

The texts were obtained from the digitized database of Swedish historical texts *Fornsvenska textbanken* created by Lars-Olof Delsing.[5] In earlier studies of Old Swedish it has become customary to divide the period into three sub-periods: 1225–1350, 1350–1450 and 1450–1526. The studies revealed that the second subperiod, between 1350 and 1450, is the time of most intense change (notably Delsing, 2014). This division is followed in the present study.

The corpus consists of ca. 253,000 words; the length of the corpus texts is highly comparable across the three periods (there are respectively ca. 84,000, 86,500, and 82,500 words in Periods I, II and III). Firstly, the corpus was searched manually for any instances of body-part referents. All body-part referents were excerpted and sorted according to the type of the nominal phrase used to express them. Any instances of predicative possession and body-part referents in NPs modified by adjectives or numerals were excluded from the material. The types of NPs taken into consideration in the present study are given in (16).

(16) a.   bare nouns = BN (both singular and plural unmodified NPs, e.g., *Han lyfte hand* 'He raised hand'),
      b.   the definite article = DEF (an NP with a suffixed definite article, e.g., *Han lyfte handen* 'He raised the hand'),
      c.   the genitive = GEN (e.g., *Kungens hand* 'The king's hand'),
      d.   regular possessive pronouns = POSS PRON (e.g., *Han höll hans hand* 'He held his hand'),

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[5] *Fornsvenska textbanken*, https://project2.sol.lu.se/fornsvenska/.

    e.   reflexive possessive pronouns = REFL PRON (e.g., *Han lyfte sin hand* 'He raised his hand'),

    f.   constructions with prepositional phrases = PP (e.g., *Handen på honom* 'His hand' lit. 'The hand on him').

The material gathered and sorted in this way resulted in 1,083 instances of body-part referents. Body-part referents expressed in prepositional constructions are not included in this amount, as there were very few such instances in the corpus (see section 5.1 for exact frequencies). They will be analysed qualitatively rather than quantitatively.

Secondly, in order to make the statistical analysis feasible the abovementioned NP types had to be annotated in the entire corpus with regard to all other referents, not body-part referents only. For the annotation, computer software called *DiaPoss* was used. It is a programme that facilitates annotation of texts; it was developed and used for other projects concerned with corpus linguistics (see Piotrowska, 2021; Skrzypek et al., 2021). The annotation is manual, but the programme aids the user with features such as assigning keyboard shortcuts to selected tags, storing and sorting of the annotated words, and generation of simple statistics. Due to the scarcity of the prepositional constructions with body-part referents, this NP type was excluded from the overall annotation of the corpus texts; all other NP types mentioned in (16) were annotated. The material consists of 27,359 annotated NPs (including the 1,083 body-part referents).

The material is analysed both qualitatively and quantitatively. We present the overall frequencies for each period to analyze any changes in marking of body-part referents in Old Swedish. We further utilize collostructional analysis (Stefanowitsch & Gries, 2003) which is widely used in CxG. It is used to measure the relative strength of mutual attraction of each NP type and body-part referents. We compare observed and expected frequencies of body-part referents in the given constructions. We also analyze the strength of mutual attraction based on statistical measures commonly reported in collostructional analysis, such as Mutual Information, t-scores, as well as the measures of Attraction and Reliance. Mutual Information (MI) expresses the extent to which two elements co-occur (in this case body-part referents and a specific construction) compared with the number of times they occur separately. MI is sensitive to token frequency of individual elements, however, so that low-frequency lexemes may receive a high MI rating. T-score might be more reliable than MI, as it is sensitive to the frequency of the whole collocation, not the individual lexemes. Attraction and Reliance (Schmid & Küchenhoff, 2013) are proportions that illustrate the directionality of the association. Attraction is the proportion with which a grammatical construction is filled by a given lexeme (attraction exerted by the construction on the lexeme), while Reliance is the proportion with which a lexeme occurs in a given construction (reliance of the lexeme on the construction). Further, as some instances of body-part referents, especially those expressed in prepositional constructions, are too few to analyze statistically, we will present a qualitative analysis of the material.

RESULTS

GENERAL RESULTS

In the corpus, the body-part nouns are overwhelmingly presented as possessum referents in adnominal possessive constructions listed in (16). Table 1 illustrates the raw frequencies of all body-part referents in the corpus sorted by the most frequently used constructions.

TABLE 1. Raw frequencies of body-part referents in the corpus

Construction	Count	Percentage
possessive pronoun	362	29.9%
reflexive pronoun	284	23.5%
definite article	202	16.7%
bare noun	118	9.8%
genitive	117	9.7%
Intermediate total	*1,083*	*89.6%*
other modifiers (adjectives, numerals, etc.)	82	6.8%
non-possessive (body parts as possessors)	14	1.1%
predicative	13	1.1%
possessive dative	13	1.1%
prepositional phrase	4	0.3%
Total	*1,209*	*100.0%*

Grey shading marks the constructions that are excluded from further analysis due to their low frequency or comparability. Firstly, we exclude body-part referents that occur with modifiers such as adjectives or numerals only (i.e., without the accompanying article or possessive pronoun, see example (17)), as such NPs cannot be compared to entirely bare NPs.

(17) *Thy   at   ödhmiukt   oc   **blek-a kind-ir**   oc   **sulten***
      for   that humility   and   pale-PL cheek-PL   and   starved

  kroppir   är   munk-s-en-s   hedhir.
  body   are   monk-GEN-DEF-GEN   honour
  'Because humility, pale cheeks and starved body are a monk's honour.' (HML, 1380)

Secondly, only a handful of instances of body parts are not possessed (i.e., where no possessor is mentioned or inferred). These are examples where the body-part referent is in the possessor role, see examples (18) and (19).

(18) *Spegel-en   lather   syna-s   **änlet-s-en-s**   skippelse*
      mirror-DEF   lets   view-PASS   face-GEN-DEF-GEN   semblance
      'The mirror lets (us) see the semblance of the face.'[6] (Linc, 1520)

(19) *oc   altidh haffwandes   **hiärt-an-s**   frögdh aff   himeriki-s   glädhi*
      and   always have.PTCP   heart-DEF-GEN   delight of   heaven-GEN   joy
      'and always having the heart's delight from heaven's joy' (Linc, 1520)

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[6] One could argue that the definite form of the noun *änlete* 'face' is an instance of implicit possession, however, in this particular example it is used generically.

In the studied material, 98.9% of body-part referents are at least implicitly possessed, which coincides with previous research stating that body parts most frequently occur as possessum referents (van Rijn, 2016; Haspelmath, 2017).

Thirdly, there are few examples of body-part nouns used in other possessive constructions, namely predicative constructions (most commonly with the verb *have*), possessive dative and prepositional constructions. The latter construction, which has the inalienability effect in Modern Swedish, is the least frequently used construction. It is nearly missing altogether from the corpus. Possessive dative, a construction in which the possessor NP is in dative case (often referred to as possessor raising; cf. Herslund & Baron, 2001), occurs in the corpus largely in one text from Period I only, see example (20). It is not a commonly used construction in Modern Swedish, although possessor raising is possible with body-part referents as complements of a preposition, see (21).

(20) *binda* **hanom** **hænd-ar** **ok** **føt-ar**
      tie   him   hand-PL   and   foot-PL
      'tie his hands and feet' (lit. tie him hands and feet) (Bur, 1300)

(21) *Jan* *kysste* **henne på** **munn-en**.
      Jan   kissed   her   on   mouth-DEF
      'Jan kissed her on the mouth.'

Naturally, not all of the constructions listed in Table 1 are possessive constructions – bare nouns, definite articles, and NPs with other modifiers are not possessive. However, in all instances the body-part referent is at least implicitly possessed in that the possessor referent is mentioned and unambiguous, as in examples (22) and (23).

(22) *Tha*   *stighu*   *the*   *aff*   *häst-om*   *sin-om*   *oc*
      then   stepped   they   off   horse-DAT.PL REFL.POSS-DAT.PL and

      fiollo *a*   **knä**.
      fell   on   knee
      'Then they stepped off their horses and fell to their knees.' (KM, 1430)

(23) *aff*   *myklom*   *wärk* *oc*   *vee,* *för*   **bryst-et**   *sloo*   *hon*
      of   much   pain   and   woe   for   breast-DEF   hit   she

      sik   *mz*   **händh-er-na**
      REFL   with   hand-PL-DEF.PL
      'because of much pain and woe, she hit herself on her breast with her hands' (Linc, 1520)

The material analysed further comprises the five most frequently used constructions with body-part referents. We present their raw frequencies across the three time periods both with body-part referents (Table 2) and their overall frequencies in the corpus (Table 3).

TABLE 2. Frequency of the analyzed constructions with body-part referents in the corpus

Body-part referents	Period I	Period II	Period III	Total
poss pron	79	187	96	*362*
	38.9%	32.7%	31.2%	*33.4%*
refl pron	22	172	90	*284*
	10.8%	30.1%	29.2%	*26.2%*
definite art	20	100	82	*202*
	9.9%	17.5%	26.6%	*18.7%*
bare noun	40	66	12	*118*
	19.7%	11.5%	3.9%	*10.9%*
genitive	42	47	28	*117*
	20.7%	8.2%	9.1%	*10.8%*
Total	*203*	*572*	*308*	*1,083*
	100.0%	*100.0%*	*100.0%*	*100.0%*

TABLE 3. Overall frequency of the analyzed constructions in the corpus

Overall frequencies	Period I	Period II	Period III	Total
poss pron	1,534	1,457	1,251	*4,242*
	17.1%	15.5%	13.9%	*15.5%*
refl pron	656	1,034	1,114	*2,804*
	7.3%	11.0%	12.4%	*10.3%*
definite art	2,290	3,713	3,591	*9,594*
	25.5%	39.4%	40.0%	*35.1%*
bare noun	2,923	2,124	1,667	*6,714*
	32.6%	22.6%	18.6%	*24.5%*
genitive	1,574	1,081	1,350	*4,005*
	17.5%	11.5%	15.1%	*14.6%*
Total	*8,977*	*9,409*	*8,973*	*27,359*
	100.0%	*100.0%*	*100.0%*	*100.0%*

In the first period, regular pronouns are the most frequent means to mark body-part referents. Interestingly, bare NPs and the genitive are also relatively frequent constructions, both of which see a significant decline in later periods. In the second period, both regular and reflexive pronouns are most commonly used with body parts with nearly the same frequency. The frequency of pronominal constructions stabilizes in the second period and there are no significant changes in the last period. The same can be claimed for the genitive construction, its frequency decreases in Period II and stabilizes at ca. 8–9%. As already mentioned, the use of bare nouns with body-part referents decreases significantly across the three periods. At the same time, the use of the definite article with body-part referents increases from ca. 10% of all body-part referents in Period I to ca. 26% in Period III. This development is expected, as the frequency of bare nouns decreases overall in the corpus, while the frequency of the definite article increases as it becomes fully grammaticalized.

In the material we find the same nouns used with alienable and inalienable reading (as in examples (3a) and (3b)). With some constructions, the reading is dependent on the context, for instance, the definite article may signal implicit possession (example (24)), but it can also be an expression of anaphora (example (25)).

(24) | *Än* | *nar* | *iak* | *war* | *swa* | *iordsatter* | *som* | *sakt* | *är,* | *hände* |
| | but | when | I | was | so | buried | as | said | is | happened |

| | *at* | *mykyt* | *rängh* | *nidherfyöl* | *aff* | *hymel-en,* | *oc* | *bärghol-an* |
| | that | much | rain | fell | of | heaven-DEF | and | cave-DEF |

rympnadhe	*offwan*	***hwffudh-et***	*hwar*	*iak*	*stodh*	*i*	*iordh-enne*
cracked	over	head-DEF	where	I	stood	in	earth-DEF

'But when I was so buried, as was said before, it so happened that rain fell down from heaven and the cave cracked over my head where I was in the ground.' (Linc, 1520)

(25)

han	*skulle*	*smidha*	***eth***	***hwffudh***	*oc*	*änlete-s*	*skipilse [...]*	
he	should	forge	INDF	head	and	face-GEN	semblance […]	

Oc	*tha*	*kesare-n*	*saa*	***hwffwdh-et***	*aff*	*silff,*	*syntes*	*thz*
and	when	emperor-DEF	saw	head-DEF	of	silver	seemed	it

honom	*mykyt*	*magerth,*	*snorket*	*oc*	*wanskapat*
him	much	lean	creased	and	deformed

'He should forge a head and a semblance of a face […]. And when the emperor saw the silver head it seemed to him to be lean, wrinkled and deformed.' (Linc, 1520)

In example (25) we see that the definite NP *hwffwdhet* 'the head' refers back to the indefinite NP *eth hwffudh* 'a head', the definite article is thus anaphoric, not expressing implicit possession.

Overall, the relationship between the possessum and the possessor is always of the part–whole type. This is also applicable to a handful of examples that we find which relate to body parts of possessors that are no longer alive (religious relics, examples (26–27)) or body parts that are forcibly divorced from the body (example (28–29)).

(26)

tu	*hundraþa*	*ok*	*þrætighi*	*arom*	*æpte*	*var-s*	*hærra*
two	hundred	and	thirty	year.PL	after	our-GEN	lord.GEN

døþ.	*flyto-s*	***hans***	***ben***	*tel*	*edissam.*
death	moved-PASS	his	bone.PL	to	Edessa

'Two hundred and thirty years after the death of Our Lord his bones were moved to Edessa.' (Bur, 1300)

(27)

Patriarch-en	*gaff*	*honum*	***armläg***	***sancti***	***symeonis.***	***howudh***
patriarch-DEF	gave	him	arm	saint	Symeon.GEN	head

lazari.	*aff*	***blodhe***	***sancti***	***stephani [...]***	*Karl*	*magnus*
Lazarus.GEN	of	blood	saint	Stephen.GEN [...]	Karl	Magnus

konung	*war*	*thässom*	*gafwom*	*mykith*	*fäghin.*
king	was	these	gift.PL	much	glad

'The patriarch gave him Saint Symeon's arm, Lazarus' head and some Saint Stephen's blood [...] Karl Magnus was very happy for these gifts.' (KM, 1430)

(28)

Egh	*star*	*iak*	*up*	*fra*	*borþe.*	*før æn*	*iak*	*se*	*hund*	*bæra*
not	stand	I	up	from	table	before	I	see	dog	carry

þina	***hand***	*in*	*for*	*borþ.*
your	hand	in	for	table

'I will not rise from the table before I see a dog carry in your hand.' (Bur, 1300)

(29)	*ok*	*natalia*	*gømde*	***sin-s***		***bond-a***	***hand***	*mz*	*heþar*
	and	Natalia	hid	REFL.POSS-GEN		master-GEN	hand	with	honour

'And Natalia honourably hid the hand of her (own) master.' (Bur, 1300)

The examples suggest inalienable readings. This applies equally to the body parts of living and dead organisms. There are quite a few examples of body-part nouns referring to relics, such as body parts of saints. Even though the possessor (which is the body of the saint) is no longer living, its animacy lingers, so that the body part remains inalienable. In theory, it seems possible to find examples of possessive alienable relations (such as ownership) in which the possessor is the current owner of the relic and the possessum is the body part, for example '*bishop's finger*', when the finger is a relic of, say, St Peter, now belonging to a different bishop. Such examples, however, were not found in the corpus.

COLLOSTRUCTIONAL ANALYSIS

Table 4 illustrates the results of the collostructional analysis for the entire corpus (all texts and all periods). The results are ranked according to the t-score, which measures the association between the given construction and body-part referents. Note, however, that both Mutual Information (MI) and Attraction follow the same ranking pattern. Since the prepositional construction is so infrequent in the corpus, here we focus on the definite article in comparison to the remaining adnominal constructions.

TABLE 4. Results of the collostructional analysis

Construction	Observed value	Expected value	T-score	MI	Attraction	Reliance
refl pron	284	111	10.266	1.355	10.13%	26.22%
poss pron	362	168	10.201	1.108	8.53%	33.42%
genitive	117	158	-3.840	-0.438	2.92%	10.80%
definite NP	202	380	-12.508	-0.911	2.11%	18.65%
bare NP	118	266	-13.604	-1.171	1.76%	10.89%

The two pronominal constructions are the only ones whose observed value is higher than the expected value. Body-part referents are thus generally attracted by the pronominal expressions and repelled by the remaining constructions. This is also reflected by the proportion of Attraction, which illustrates what proportion of the construction is filled with body-part referents. Respectively 10.1% and 8.5% of all pronominal constructions occur with body-part referents, compared to less than 3% of the remaining constructions. The last measurement, Reliance, illustrates how many of all body-part referents in the corpus occur in a given construction (note that the Reliance values add up to 100%, i.e., all body-part referents). The Reliance of body-part nouns on pronominal constructions is also significantly higher than for the remaining constructions. It is, however, worth noting that as much as 18.6% of all body-part referents occur with the definite article, placing it as the third most common construction if the results were ranked according to Reliance.

Tables 5–7 illustrate the results of the collostructional analysis separately for each time period.

TABLE 5. Results of the collostructional analysis – Period I (1250–1350)

Construction	Observed value	Expected value	T-score	MI	Attraction	Reliance
poss pron	79	35	4.985	1.187	5.15%	38.92%
refl pron	22	15	1.528	0.569	3.35%	10.84%
genitive	42	35	0.989	0.239	2.67%	20.69%
bare NP	40	66	-4.127	-0.725	1.37%	19.70%
definite NP	20	52	-7.107	-1.373	0.87%	9.85%

TABLE 6. Results of the collostructional analysis – Period II (1350–1450)

Construction	Observed value	Expected value	T-score	MI	Attraction	Reliance
refl pron	172	63	8.322	1.452	16.63%	30.07%
poss pron	187	88	7.198	1.078	12.83%	32.69%
genitive	47	66	-2.730	-0.484	4.35%	8.22%
bare NP	66	129	-7.770	-0.968	3.11%	11.54%
definite NP	100	226	-12.572	-1.175	2.69%	17.48%

TABLE 7. Results of the collostructional analysis – Period III (1450–1550)

Construction	Observed value	Expected value	T-score	MI	Attraction	Reliance
refl pron	90	38	5.456	1.235	8.08%	29.22%
poss pron	96	43	5.415	1.161	7.67%	31.17%
genitive	28	46	-3.466	-0.727	2.07%	9.09%
definite NP	82	123	-4.557	-0.588	2.28%	26.62%
bare NP	12	57	-13.054	-2.253	0.72%	3.90%

In no period is the definite article observed more frequently than the expected value, indicating that it is rather repelled than attracted by body-part referents. Only in Period III is the definite article ranked higher, with Reliance of nearly 27%, but its Attraction of body-part referents is not nearly as high as that exhibited by both pronominal constructions. This is mainly due to the large difference between the overall frequency of the definite article and the pronominal constructions in the corpus (see Table 3). Instances of the definite article in the corpus (N = 9,594) are over twice as frequent as those of the regular possessive pronouns (N = 4,242) and over three times as frequent as those of reflexive possessive pronouns (N = 2,804). The Attraction of body-part referents by the definite article will thus never reach the levels of the pronominal construction, simply due to the high overall frequency of this construction in the corpus.

Since the overall frequency of the definite article heavily influences the results of the t-score and MI measures, as well as that of Attraction, it is worthwhile to analyse the Reliance results more closely, as they do not take into consideration the overall frequency of the construction. Figure 1 illustrates the changes in Reliance of body-part referents on the analysed constructions across the three periods.

Reliance of body part referents

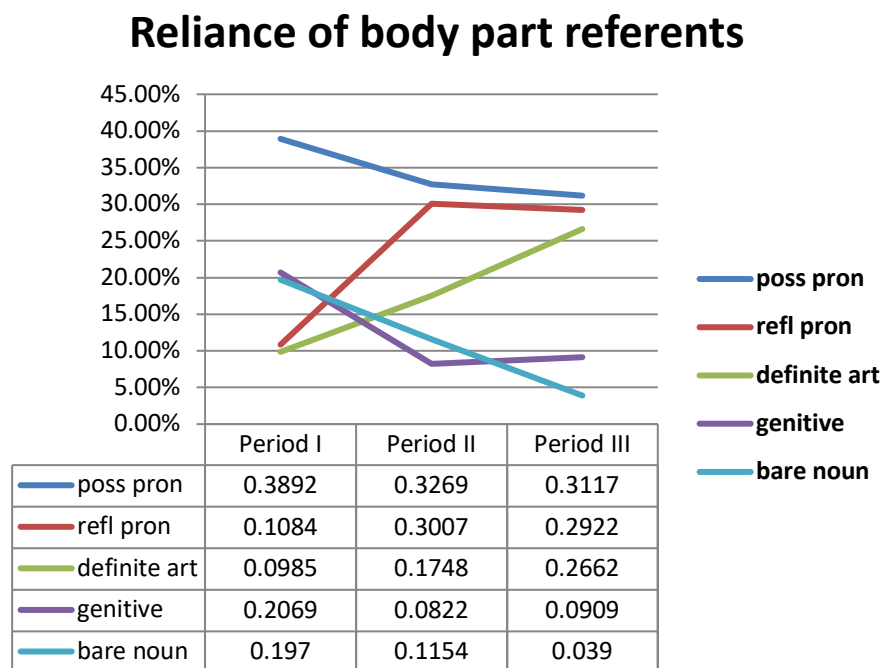|	Period I	Period II	Period III
poss pron	0.3892	0.3269	0.3117
refl pron	0.1084	0.3007	0.2922
definite art	0.0985	0.1748	0.2662
genitive	0.2069	0.0822	0.0909
bare noun	0.197	0.1154	0.039

FIGURE 1. Changes in Reliance across the three periods

Firstly, the proportion of body-part referents expressed in a bare nominal phrase decreases significantly from ca. 20% of all body-part referents in Period I to only about 4% in Period III. Secondly, the proportions of body-part referents with pronominal constructions (both with regular and reflexive pronouns) stabilize in the second period at around 30%. Most importantly, however, the frequency of body-part referents expressed with the definite article consistently increases across the three periods. In the last period, the proportion of the definite article reaches that of the pronominal constructions – nearly a third of all body-part referents are expressed with the definite article and the proportion applies to both pronominal constructions as well.

To sum up, the dominating overall frequency of the definite article in the corpus has a strong influence on the results. Overall, only 2.11% of all definite article uses include body-part referents, proving the association (or Attraction) between body-part referents and the definite article not to be particularly strong. However, by taking into consideration the proportions of all body-part referents in each construction (i.e., Reliance) we observe that the use of the definite article increases significantly for body-part referents. In the last studied period, the definite article is used with body-part referents nearly as frequently as the pronominal constructions.

QUALITATIVE ANALYSIS OF THE MATERIAL

It may come as a surprise that the prepositional inalienable construction is entirely missing in the corpus. Admittedly, only a selection of extant sources was excerpted, however, other studies demonstrate the same results (Piotrowska, 2021). The prepositional constructions we do find in the corpus are locative and, most notably, do not include the preposition *på* 'on', but other prepositions (30–31). Example (30) is admittedly dubious here, as *aff* might both be a verb particle (*huggia aff* 'chop off') or a locative preposition.

(30) *hiog*   ***hoffwdh-it***   ***aff***   ***enom***   ***hertugha***
      chopped   head-DEF   off/of   one   duke

'Chopped off one duke's head.' (KM, 1430)

(31)   ***hiärta-t   i   enom   iomffrw-nna-s   thiänara***
       heart-DEF   in   one   maiden-DEF-GEN   servant
       'One of the maiden's servants' heart.' (Linc, 1520)

The absence of the construction in the material does not allow us to study the factors leading to its formation. A selection of younger texts is needed to fully understand the reason for the rise of the construction. What we may note is that the construction seems to originate in a locative one (which may be the source of both the partitive and the inalienable prepositional constructions, see example (9)). Furthermore, the prepositional inalienable construction shuffles the order of the elements within the NP, so that the possessum precedes the possessor. The neutral order in (Standard) Modern Swedish is possessor–possessum, so that the s-genitive, the possessive pronoun and the reflexive possessive pronoun all precede the main noun. In the implicit possessive construction with the definite article the possessor is also usually referred to before the head noun.

The prepositional inalienable construction allows the speaker to put the possessum in focus, by fronting it. This is contrary to what a typical inalienable construction does. As noted in earlier research on alienability splits, inalienables such as body parts do not need to be singled out, because they usually do not represent salient discourse referents (Koptjevskaja-Tamm, 1996; Dahl & Koptjevskaja-Tamm, 1998). The neutral expressions of possession are those which background the body-part nouns. Conversely, the prepositional inalienable construction in North Germanic puts them in focus. This might be due to the fact that the prepositional inalienable construction can only be used in what Lødrup (2009: 231) calls 'physical context', in which the action expressed by the verb in the clause is an action *on* or *in relation to* the body part (example (32)). If the physical context is missing, the PP construction is not possible or at least dubious (33). Thus, in such a construction the possessum referent is fronted and in focus, because the action is specifically affecting the body-part referent. This may also be why the PP construction is not felicitous as a subject in a clause – the physical context presupposes that the body-part referent in a PP construction is an object not an agent in a clause.

(32)   *Snart   kommer   Iza   ner   så   ska   jag   färga*
       soon   comes   Iza   down   so   will   I   dye

       hår-et   på   henne
       hair-DEF   on   her
       'Iza comes down soon and I will dye her hair.' (lit. the hair on her)[7]

(33)   *?Vi   diskuterade   **hår-et**   **på**   **henne***
       we   discussed   hair-DEF   on   her
       'We discussed her hair.' (intended meaning)

Another important feature of the prepositional inalienable construction is that the body-part noun is in the definite form. This fact places the origin of the structure no earlier than 1300s, as the definite article starts to grammaticalize then (Skrzypek et al., 2021). The function of the definite article in the prepositional inalienable construction is the same as in the implicit possessive construction, namely it serves to show the link between the part and the whole. In

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[7] Source: språkbanken corpus, Bloggmix 2008, https://spraakbanken.gu.se/korp, accessed 8 Sep 2021.

this respect, both the prepositional inalienable construction and the implicit possessive construction are instances of indirect anaphora (see below). The definite article establishes a link between the anaphor (the possessum, the body-part noun) and the anchor (the possessor, the noun signifying the whole).

Diachronically, the prepositional inalienable construction seems to have arisen out of a purely locative construction with a restricted use. Using simplified CxG notations, Figure 2 represents the locative construction [[NP] [PP]] in Old Swedish and the inalienable construction [defNP PP] in Modern Swedish.
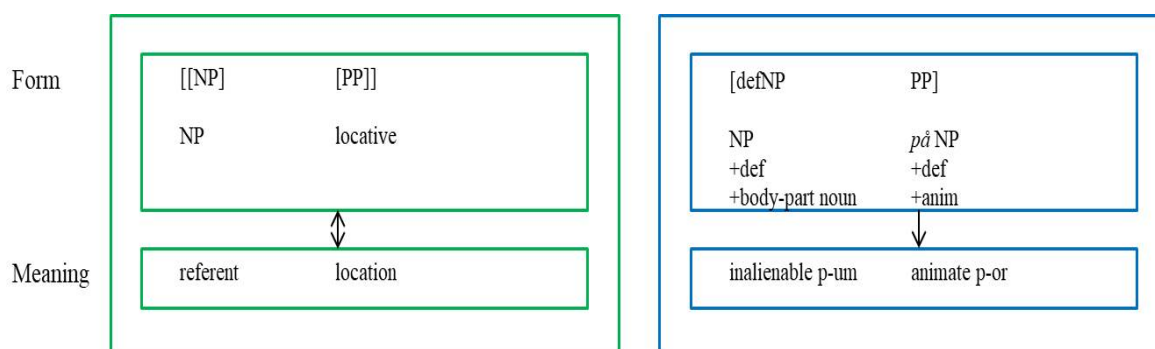
FIGURE 2. Proposed evolution of prepositional inalienable construction from Old Swedish to Modern Swedish

What we do not yet know is when the restricted use of the construction and its inalienable interpretation arise in the history of Swedish, but the development does not seem to take place until 1600–1700s (see Piotrowska, 2021). Compared with the western branch of North Germanic it is at least two hundred years later (Schuster, 2019 on Icelandic).

The constructional representation of the inalienable prepositional construction shows it as an internal possessive construction, namely the possessor is incorporated in the NP.[8] Even though we are not able to retrace the rise of the construction in the material studied here, its distributive properties in Modern Swedish strongly suggest that it should be regarded as a case of internal possession (see 34–37).

(34)   *En gång hade jag och min sköterska ett privat samtal över **huvudet på en patient**. Efteråt sa patienten lite försynt, att han egentligen inte var så intresserad av vad vi hade gjort i helgen. Vi skämdes!*

'Once me and my nurse held a private conversation over a patient's head (lit. over the head on a patient). Afterwards the patient said a little shyly that he was in fact not so interested in what we had done during the weekend. We were ashamed!'[9]

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[8] Similarly in Lødrup (2009), who differentiates between two types of prepositional constructions in Norwegian, which he terms BIP (body-part noun with internal possessor) and BEP (body-part noun with external possessor). The first can be illustrated with *Det fløy en fugl over hodet på ham* 'There flew a bird over his head (lit. the head on him)', in which the construction cannot be reduced to the noun alone. *Det fløy en fugl over hodet* 'There flew a bird over the head' is only correct as long as the reading of the head noun is alienable. The second construction, Lødrup's BEP, can be illustrated by the following example *De måtte fjerne leveren på ham* 'They had to remove his liver (lit. the liver on him)', in which it is possible to use the noun alone felicitously: *De måtte fjerne leveren* 'They had to remove the liver' (all examples are in Norwegian, after Lødrup, 2009).
[9] Source:
https://folkhalsaochsjukvard.rjl.se/contentassets/09faa7851dbd473892dd3a1c36ef717b/etikradet_pulsen_1_2016.pdf; accessed 3 Sep 2021.

(35) *?En gång hade jag och min sköterska ett privat samtal över **huvudet**.*[10]
      'Once, my nurse and I held a private conversation over the head.'

(36) *De   fick   ta   bort   **livmoder-n   på   henne**.*
      they   got   take   away   uterus-DEF   on   her
      'They had to remover her uterus (lit. the uterus on her).'

(37) *De   fick   ta   bort   **livmoder-n**.*
      they   got   take   away   uterus-DEF
      'They had to remover the uterus.'

The change from a regular locative PP which appears alongside an NP (i.e., two constructions) into a singular construction consisting of an NP, in which the head noun is a body-part lexeme, and of a PP with preposition *på* 'on', seems to be the diachronic development which takes place in Swedish (and apparently in other North Germanic languages). What we lack so far is the exact dating of the process.

The other inalienable construction, namely the implicit possession, involves the use of the definite article only, with no other markers of possession. Its use in Modern Swedish is restricted to contexts in which the referent of the possessor phrase has already been introduced in the discourse.

(38) *Jan   kammade   **hår-et**.*
      Jan   combed   hair-DEF
      'Jan combed his (own) hair.'

So is the case in the Old Swedish material as well.

(39) *han   at   aff   sik   **tungo-na***
      he   ate   of   REFL   tongue-DEF
      'He bit off his tongue.' (Jart, 1380)

In the quantitative analysis (5.2) we saw that the rise of the definite article with body-part nouns does not coincide clearly with the decline of other possessive markers (except for the BNs). True enough, the genitive is less frequently used in Periods II and III, but this construction is not readily interchangeable with implicit possessives. The pronominal construction (especially with reflexive pronouns), which can be textually interchangeable with the definite article (see examples (6) and (7)) does not decline in frequency. It would seem, therefore, that there is no interdependency between the use of the reflexive possessive pronoun and the definite article in that the use of the former declines, while the use of the latter increases. In fact, a closer look at the data reveals that the inalienable reading of the definite article arises in such contexts which could also be, and in fact are, expressed by the reflexive possessive pronoun (see examples (40–41)).[11]

(40) *En   dagh   hände   thz   swa   thz   greffwi-n   haffdhe*
      one   day   happened   it   so   that   count-DEF   hade

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[10] The sentence is not grammatically incorrect, but the scene evoked contains a decidedly alienable head, such as one lying on the table between the people having the conversation, something which would normally require more specific context.
[11] This is true of Modern Swedish as well, to some extent.

en	*kniiff*	*i*	***sinne***	***hand***
INDF	knife	in	POSS.REFL	hand

'It so happened one day that the count had a knife in his hand.' (SVM, 1420)

(41)
Frwa-n	*räkte*	*fram*	***hand-ena***	*owarandis*
wife-DEF	stretched	out	hand-DEF	unawares

'The wife reached out her hand unawares.' (SVM, 1420)

We may note that in Period I when the new referent – the body part – is introduced into the discourse, it is presented as a possessum in a possessive NP with a reflexive possessive. In subsequent mentions, however, the definite article is used, anaphorically. In Period III we begin to find examples of the implicit possessive construction, the definite article used with first-mention body-part noun (example (42)). Such examples are also instances of anaphora, but not a direct one: the anaphor is grounded in preceding discourse by means of an anchor, in this instance, the whole (Skrzypek 2021). The indirect anaphors appear as definite NPs from late 1300s in Swedish (Skrzypek et al., 2021).

(42)
Tha	*gaff*	*hälga*	*iomffru-n*	*sik*	*til*	*gudelika*	*bön-er*
then	gave	holy	virgin-DEF	REFL	to	godly	prayer-PL

lönlika	*swa*	*at*	*alle*	*sagho*	***lippo-na***	*röras,*	*än*	*hennas*
covertly	so	that	all	saw	lip-DEF.PL	move	but	her

ordh	*hördo*	*enghen*
words	heard	no-one

'Then the holy virgin gave herself covertly to godly prayers so that all saw her lips move but no-one could hear her words.' (Linc, 1520)

The implicit possessive construction seems to be a side effect of textual considerations, so that the possessum referents that are body parts come to be marked as indirect anaphors (anchored by their possessors). This development does not seem to have any explicit purpose to express the possessive relation more precisely or in any way focus on the inalienability. In fact, part–whole relations are a paragon example of indirect anaphora, and the definite article can be, and is, used felicitously also with alienable relations. What sets this construction apart is that when the whole is a living organism an inalienability effect arises, which is not present when the whole is inanimate.

DISCUSSION

In the present study we looked at possessive expressions with body-part nouns in historical Swedish texts dating from 1300 to 1550. The aim of the study was to establish when the alienability splits which can be found in Modern Swedish arise and whether their formation is motivated by an effort to mark the inalienable relation between the referents.

The inalienable possessive constructions in Modern Swedish include the so-called implicit possession, where only the definite article is used, and inalienable prepositional construction of the type 'the head on him'. The statistical data confirms that the implicit possessive construction first appears in Period II and becomes grammaticalized in the late 1400s. The inalienable prepositional construction, on the other hand, is not found in the material studied and thus must be of later origin.

The absence of the inalienable prepositional construction in the corpus came as a surprise, considering its presence in the closely related contemporary Icelandic; Schuster (2019) cites examples of its use in Icelandic from early 1400s. In light of this, it would be of great interest to conduct a comparative analysis of the construction in modern Danish, Swedish, Norwegian and Icelandic, to establish to what extent the construction differs between the languages in the level of its grammaticalization. Perhaps the earlier date of its appearance in a North Germanic language of the western branch (Icelandic) leads to the higher level of its grammaticalization, in comparison with languages of the eastern branch (Danish and Swedish).[12] In her study of expressions of possession in Danish and Swedish, Piotrowska (2021) finds the earliest instances of this construction in ca. 1520 but only with preposition *i* 'in' (see example (31)). The earliest instances with the preposition *på* 'on' can be found in a text from 1640 (*handen på hertigen* 'the hand on the count', *knäet på hertigen* 'the knee on the count'), but there are very few such examples overall (Piotrowska, 2021: 122–124).

In Modern Swedish the prepositional inalienable construction creates an 'inalienability effect' when the possessum is a body-part noun, but not with any other types of nouns. The construction is, however, quite different from prototypical inalienable possessive constructions, which are shorter than the corresponding alienable possessive constructions. Furthermore, it puts the referent of the body-part noun in focus, making it a salient discourse referent. This is mainly achieved by fronting the possessum within the NP. As the hearer expects the body-part nouns to be possessed, but also not to be salient discourse referents, when they are presented as such, a different construction must be used. Derived from locative constructions, which are a common source of possessive constructions, this one is specialized as inalienable with certain types of referents only.

The material studied suggests that the inalienable possessive constructions do not arise as a result of the speaker's wish to disambiguate the notion of inalienability, or to express the possessive relation between the possessum and the possessor in more precise terms. Rather, the splits are a by-product of other diachronic processes, such as the grammaticalization of the definite article in indirect anaphoric contexts (see Skrzypek et al., 2021). The element that gives rise to the implicit possessive marker (the definite article) does not denote a possessive relation between the two nouns involved. Instead, the relation is anaphoric, though indirectly so. This is also reflected in the results of the collostructional analysis. While body-part referents are most strongly attracted to possessive pronouns (as these unambiguously express a possessive relation between the possessor and the body part), they are increasingly attracted to the construction with the definite article throughout the periods studied. As the definite article grammaticalizes in the context of indirect anaphora, the implicit possessive construction becomes more frequent with body-part referents.

Within the framework of Diachronic Construction Grammar the present research allowed us to study the competition between constructions, here, expressions of possession, forming a construction network. At a first glance, the possessive pronouns and the definite article do not share parts of their functional profiles (pronouns express possession, the definite article the familiarity or uniqueness of the referent). There is, however, a common denominator, as both the reflexive possessive pronoun and the definite article can be used anaphorically, the reflexive being co-referential with its antecedent, located within the same clause. This functional overlap, or rather, functional affinity between the two constructions, leads to the emergence of a new construction, which shares the form of a regular definite NP, but is functionally restricted to expressing (inalienable) possession.

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[12] It should be noted, however, that it is only in Norwegian that the preposition *på* 'on' is the only alternative in this construction. The Icelandic construction may not show the same degree of grammaticalization, as there is a choice between *på* 'on' and *i* 'in' (Stolz et al., 2008:114–116).

CONCLUSION

Alienability splits in North Germanic is a topic which merits further study. We do not yet fully understand the scope of alienability splits in each North Germanic language, how free or restricted their use is, and when the differences between the languages arise. We have seen that the implicit possessive, marking inalienable possession, is formed relatively early, in tact with the grammaticalization of the definite article. It is likely that the development proceeded in a similar manner in other North Germanic languages. As for the other marker of inalienability, the prepositional inalienable construction, the present study has shown that it is missing in Swedish until at least early 1500s. Similarly, Piotrowska (2021) finds very few instances of the prepositional inalienable construction in texts from the 17th and 18th centuries. It thus seems to be a very late arrival in Swedish, at least in comparison with its western relatives. This in turn suggests that the origins of the construction date back to the 18th or even 19th century. We do not yet know when it is formed and what were the forces driving it. This result is striking, in particular when one considers that the construction is found in Icelandic as early as 1400s (Schuster 2019) and suggests a potential divergence between the languages of the western and of the eastern branch of North Germanic.

Despite the limitations of the present study, i.e., the limited time-frame and data from one North Germanic language only, we have been able to account for the rise of one inalienable construction, the implicit possessive, found in Modern Swedish. As the origins of the other, the inalienable prepositional construction, still elude us, the future research should consider the diachrony of inalienability in all North Germanic languages diachronically.

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SOURCES

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HML   Helga manna lefverne. (1877–1878). *Klosterläsning*, Gustaf E. Klemming (Ed.). Stockholm: Norstedt. Manuscript Holm A 110 (Codex Oxenstierna).

Jart   Järteckensboken. (1877–1878). *Klosterläsning*, Gustaf E. Klemming (Ed.). Stockholm: Norstedt. Manuscript Holm A 110 (Codex Oxenstierna).

KM   Karl Magnus. (1887–1889). *Prosadikter från Sveriges medeltid*, Gustaf E. Klemming (Ed.). Stockholm: Norstedt. Manuscript Holm D 4.

Linc   Linköpingslegendariet, Legenden om Sankt Amalberga. (1847). *Ett fornsvenskt legendarium*, George Stephens (Ed.). Stockholm: Norstedt. Manuscript Linc B 70a.

Pent   Pentateukparafrasen. (1955). *Fem Möseböcker på fornsvenska*, Olof Thorell (Ed.). Uppsala: Almqvist & Wiksell. Manuscript Codex Thott (Köpenhamn).

SVM   Sju vise mästare. (1887–1889). *Prosadikter från Sveriges medeltid*, Gustaf E. Klemming (Ed.). Stockholm: Norstedt. Manuscript Holm D 4.

Troj   *Historia Trojana*. (1892). Robert Geete (Ed.). Stockholm: Norstedt. Manuscript Holm D 3a.

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