EXTRAPOSITION AND DEFINITENESS EFFECTS IN ICELANDIC DPS*

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This paper investigates the morphosyntax of the Icelandic DP following work by Sigurðsson (1993, 2006); Julien (2005). In addition to providing an analysis of the basic structure of the Icelandic DP, this paper investigates two (apparent) movements within the DP: one involving the definite article suffix *-inn*, and one involving pronominal possessors (e.g., *minn* 'my'). I show that the fronting of pronominal possessors cannot be analyzed as movement, and instead must indicate a use of pronominal possessors as demonstratives. In contrast, the suffixed article does involve movement, and I argue that it is phrasal movement, contra the head movement accounts proposed by Sigurðsson (1993, 2006). I show than an analysis where the prenominal article and suffixed article occupy the same syntactic position cannot be maintained, which is surprising given that they never surface at the same time. Coupled with this is a requirement that PP complements to N extrapose to the right edge of DP, which is thus another case of the strange behavior of complements to N in Scandinavian languages (see Hankamer and Mikkelsen (2005, 2008) on Danish). Finally, I briefly investigate the syntax of some cases in English where apparent semantic complements do not occupy a syntactic complement position.

Keywords: Icelandic, DP-internal syntax, extraposition, head movement

It is no secret that much theoretical ground has been covered in DP-internal syntactic theory since it began with Abney 1987, including Sigurðsson's exploration of the Icelandic DP (Sigurðsson 1993). Since then, there has been a fair amount of work looking at mainland Scandinavian DPs and Scandinavian DP structure in general (see, for example, Delsing 1993; Vangsnes 1999; Hankamer and Mikkelsen 2002, 2005, 2008; Julien 2005), but no subsequent work focusing on the Icelandic DP except for an "analytic theory-neutral approach" by Sigurðsson (2006). One of the goals of this paper is to begin a critical investigation of Icelandic DP syntax in order to fill that gap.

Here, I will investigate the "basic" structure of the Icelandic DP as well as two other "non-basic" structures. The first non-basic structure involves apparent movement of an adjective, noun, and possessor (henceforth, ANP) to the other side of a numeral when the suffixed definite article is present, which I call *ANP movement*, and the second is the apparent leftward movement of possessive pronouns to a position equivalent to the canonical location of demonstratives and determiners, which I will call *possessor preposing*. Contra Sigurðsson (1993), I will argue that ANP movement is not head movement, but phrasal movement. Coupled with this is a stipulation: that PP (and probably CP) complements to N obligatory extrapose to the right edge of DP in Icelandic. By contrast, I will argue that possessor preposing is not movement at all, but that it is an instance of possessive pronouns being used as determiners/demonstratives.

The outline of the paper is as follows. In §1, I will outline some basic facts about Icelandic DPs, as well as explain the problems from a descriptive angle. In §2, I will discuss the works put forth by Sigurðsson (1993, 2006) and point out some areas where the accounts are unsatisfying. In §3, I will lay out the proposal for the structure of the Icelandic DP following Julien (2005), and I will propose an analysis of (apparent) movements occurring therein. This proposal requires that we say that PPs that look like complements to N obligatorily extrapose, and in §4, I will discuss some possible examples of obligatory extraposition of complement-like phrases in English DPs by looking at "hard nut" constructions (Berman 1974; Fleisher 2008a,b) and constructions similar to them. In §5, I will conclude.

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1 Empirical Focus: The Icelandic DP

With respect to ordering in the DP, Icelandic is a well behaved Scandinavian language in all respects. A "template" in the Icelandic DP is given below, with a canonical example in (2):[1]

(1) Quantifier - Demonstrative[2] - Numeral - Adj - N - Possessor - PP/CP Complement

(2) Allar þessar þrjár frægu bækur þínar um málfræði eru á borðinu.
all these three famous books your about grammar are on table.the
'All these three famous books of yours about grammar are on the table.'

One key way in which Icelandic differs from the rest of the family is in its inflectional system. Icelandic still differentiates three genders (masculine, feminine and neuter) and four cases (nominative, accusative, dative, and genitive). In a DP, every element (with a few exceptions) must agree in gender, number, and case, except PP/CP complements. This is the relationship of *concord*. The two exceptions are that only the numerals 1-4 show concord,[3] and only first/second person singular and third person reflexive possessors agree with the head noun. I will refer to the agreeing possessors as *possessive pronouns*. Other possessors are marked with genitive case. I will refer to these words as *genitives*. Some example inflectional paradigms are given in Tables 1-3, some examples of (non)agreeing numerals are given in (3), and examples of possessive pronouns/genitives in (4):

	Singular	*Plural*
NOM	hest-ur	hest-ar
ACC	hest-	hest-a
DAT	hest-i	hest-um
GEN	hest-s	hest-a

Table 1: Inflectional paradigm for the masculine noun *hestur* 'horse'

(3) a. fjór-ir/fimm hest-ar
four-M.NOM/five horse(M)-NOM.PL

b. fjór-ar/fimm bæk-ur
four-F.NOM/five book(F)-NOM.PL

c. fjög-ur/fimm hús-∅
four-N.NOM/five house(N)-NOM.PL

[1]In glossing, I will provide morphological decomposition only when it is necessary for explanatory purposes. Abbreviations used in glosses are as follows: NOM = nominative, ACC = accusative, DAT = dative, GEN = genitive, M = masculine, F = feminine, N = neuter, PL = plural, REFL = reflexive, DEF = definite, INDEF = indefinite.

[2]The prenominal definite article is either in the same position as demonstratives or in between numerals and the demonstrative.

[3]Numerals (probably) do not actually agree in number, or if they do, we cannot tell. For semantic reasons, any DP containing *two* or higher must be plural and any DP containing *one* must be singular. There is a set of special numerals used for *pluralia tantum* words and to count pairs of things that normally come in pairs (e.g., shoes, socks, mittens). Though they certainly look like "plural" numerals in that they have standard plural inflection, this is not concord in the same sense as gender concord. If these words are used in a partitive construction, only the regular numerals can be used:

(i) * tvær/tvenn-ar bux-ur
two.F/two.PLURALIA.TANTUM-F pants-(F)
'two (pairs of) pants'

(ii) tvær/*tvenn-ar af þessum bux-um
two.F/two.PLURALIA.TANTUM-F of these pants-(F)
'two of these pants'

The example in (i) shows that regular numerals are ungrammatical normally, but in partitive constructions, the regular plurals are the only grammatical option. However, the feminine gender still surfaces on the numeral. Thus, if these special numerals are actually a reflex of concord, then the concord is also special. I will set aside these numerals for the remainder of this paper.

	Singular			*Plural*		
	Masc	*Fem*	*Neut*	*Masc*	*Fem*	*Neut*
NOM	minn	mín	mitt	mínir	mínar	mín
ACC	minn	mína	mitt	mínir	mínar	mín
DAT	mínum	minni	mínu	mínum		
GEN	míns	minnar	míns	minna		

Table 2: Inflectional paradigm for the possessive pronoun *minn* 'my'

	Masc	*Fem*	*Neut*
NOM	fjórir	fjórar	fjögur
ACC	fjóra	fjórar	fjögur
DAT	fjórum		
GEN	fjóra		

Table 3: Inflectional paradigm for the numeral *fjórir* 'four'

d. um fjór-a/fimm hest-a
about four-M.ACC/five horse(M)-ACC.PL

(4) a. Ég fann hest-∅-inn m-inn.
I found horse-ACC.SG-the.M.ACC.SG my-M.ACC.SG
'I found my horse.'

b. Þú kastaðir bók-∅-inni hans.
You threw book-DAT.SG-the.F.DAT.SG he.GEN.SG
'You threw his book.'

In addition to gender, number, and case, there is another piece of the adjectival agreement paradigm: definiteness. Traditionally, the distinction is referred to as "strong" (indefinite) versus "weak" (definite), possibly due to the significant degree of syncretism in the "weak" paradigm.[4] I will follow Sigurðsson (2006) and others in referring to them as indefinite and definite. Notice, this does not seem to be direct agreement with the noun in the same way that gender agreement could be assumed to be, but rather agreement with some property of the entire DP, as the adjectives show definite form in the environment of demonstratives as well. The masculine paradigm for the adjective *svartur* 'black' and some examples are given below:

	SINGULAR		PLURAL	
	Indefinite	*Definite*	*Indefinite*	*Definite*
NOM	svart-ur-	svart-i	svart-ir	svört-u
ACC	svart-an	svart-a	svart-ir	svört-u
DAT	svart-um	svart-a	svört-um	svört-u
GEN	svart-s	svart-a	svart-ra	svört-u

Table 4: Masculine inflectional paradigm for *svartur* 'black'

(5) a. svart-ur hund-ur
black dog

[4]There is also a traditional distinction of "strong" versus "weak" nouns and verbs, which also seems to be a divide determined by morphological distinction.

b. svart-i hund-ur-inn
black dog-the

c. sá svart-i hundur
this/that black dog

d. * sá svartur hundur

e. * svartur hundurinn

f. * svarti hundur

Whether adjectival definiteness agreement comes about by the same mechanism as gender, number, and case concord is an important question, but we cannot even begin to investigate this question until we have an appropriate structure for DPs in Icelandic. A very important piece of that puzzle is the definite article, which I will turn to now.

1.1 The Icelandic Definite Article(s)

Just like the other members of the Scandinavian language family, Icelandic has both a free-standing version of the definite article, which I call the *prenominal (definite) article*, as well as a suffixed form, which I will call the *suffixed (definite) article*. Some examples are given below in (6). Just as in Danish and Swedish (Hankamer and Mikkelsen 2005), the prenominal article cannot be used with a bare noun (see (6a)), but it can be used when the noun is modified by an adjective (see (6b)). However, unlike Danish, the suffixed article is fully grammatical when attached to a noun modified by an adjective (see (6c)), and unlike Swedish, the suffixed article and prenominal article never co-occur– that is to say, Icelandic does not have so-called "double definiteness" marking (see (6d)).[5]

(6) a. * hin bók

b. hin rauða bók
the red book

c. rauða bók-in
red book-the

d. * hin rauða bók-in
(examples from Sigurðsson 2006:6)

Not only is the suffixed article always a valid option, but in fact, the suffixed article is widely preferred: Sigurðsson (2006) refers to the prenominal article as having a literary or archaic style.[6] Despite this, it seems to be the case that speakers have intuitions about grammatical and ungrammatical uses of it.[7]

[5]The one possible controversial piece of the data is the demonstrative *hinn*, which requires the presence of the suffixed article on the noun it modifies. Interestingly, this demonstrative is nearly morphologically identical to the prenominal article. The only form the two do not share in common is the neuter nominative/accusative singular: the demonstrative is *hitt*, while the article is *hið*. Similarly, there is a demonstrative in Danish that is phonologically identical to the prenominal article except that it must always be stressed, while the article cannot be (Hankamer and Mikkelsen 2002). Whether this is true in Icelandic as well is still unclear to me.

[6]In fact, it is used so rarely that Sigurðsson (2006) introduces a new symbol (-) to indicate that the sentence is "strictly speaking grammatical, but marked or dispreferred in most situations."

[7]It seems worth mentioning that during the two semesters of intensive Icelandic language courses I took at *Háskóli Íslands* from September 2005 – May 2006, the mere existence of a prenominal article was not mentioned even once. What I will treat here is the relevance of the prenominal article to the structure of the DP, not what the true nature of its synchronic status is.

1.2 Movement in Icelandic DPs

1.2.1 ANP Movement

Unlike the analysis for the suffixed article proposed in Hankamer and Mikkelsen (2002, 2005, 2008), who consistently argue that there is no movement involved with the suffixed article in Danish or Swedish, there seems to be evidence for movement related to the suffixed article in Icelandic. This evidence comes from the placement of numerals with respect to the noun. Recall from the ordering given at the beginning of this paper that numerals precede nouns in the general case. If the noun has the suffixed article, this order is reversed:

(7) Þrjár greingingar eru réttar.
three analyses are right
'Three analyses are correct.' (adapted from Sigurðsson 2006:10)

(8) Greiningar-nar þrjár eru réttar.
analyses-the three are right
'The three analyses are correct.' (adapted from Sigurðsson 2006:10)

(9) Þrjár greiningar-nar eru réttar.
'Three of the analyses are correct.' (adapted from Sigurðsson 2006:10)

Sigurðsson (2006) notes that, as in example (9), the numeral must have a partitive reading if it precedes a noun with the suffixed article: it is ungrammatical under a non-partitive reading.[8] When the DP contains an adjective and/or a possessor in addition to the noun and numeral, those pieces also seem to move around the numeral. This can be seen in the examples below:

(10) Allir bílar-nir þínir þrír eru rauðir.
all cars-the your three are red.
'All your three cars are red.' (Sigurðsson 2006:18)

(11) Frægu greiningar-nar þrjár eru réttar.
famous analyses-the three are correct.
'The three famous analyses are correct.' (Sigurðsson 2006:10)

(12) Stóru bækur-nar þínar þrjár eru á borði-nu.
big books-the your three are on table-the
'Your three big books are on the table.'

There are two obvious options here.[9] One is to extrapose the numeral just in cases where the suffixed article is present. It is not clear what the motivation for this movement would be, as numerals are probably not "heavy" constituents (at least, simple numerals are not). Furthermore, it is not at all clear how we could constrain this extraposition so that it only happens when the suffixed article is present. The other option is to move ANP to some position to the left of the numeral—perhaps where the suffixed article is located. The major complication here is that ANP movement must exclude PP/CP complements to N, which get left behind:

[8] I should note that I have been unable to get speakers to accept such examples even as partitives in my own fieldwork.

[9] A less obvious option is to have the numeral base-generated to the right of N, but in situations when D is null, it moves to D. There are three problems with this account. First of all, the order N-Num for a head-initial language would be bizarre at best and unattested at worst. Second, this account would presuppose that the suffixed article is in D. I will argue later that this cannot be the case. Lastly, the numeral appears to the left of the noun when the prenominal article is present (e.g., *hinir tveir hestar* 'the three horses').

(13) a. allar þrjár frægar greiningar á máli-nu
all three famous analyses of problem-the
'all three famous analyses of the problem' (adapted from Sigurðsson 2006:11)

b. allar frægu greiningar-nar þrjár á máli-nu
all famous analyses-the three of problem-the
'all the three famous analyses of the problem' (Sigurðsson 2006:11)

This also occurs with relative clauses, which may be expected depending on the analysis of relative clauses:

(14) a. þessar fimm bækur sem thú keyptir í kolaporti-nu
these five books that you bought at flea.market-the
'these five books that you bought at the flea market'

b. bækur-nar fimm sem þú keyptir í kolaporti-nu
books-the five that you bought at flea.market-the
'the five books that you bought at the flea market'

Leaving complements behind is one of the hallmarks of head movement. As PP complements to N are left behind in ANP movement, the first analysis to consider should be head movement, which is exactly the approach taken in Sigurðsson 1993. Before exploring that account, I will first give the background on possessor preposing.

1.2.2 Possessor Preposing

While the canonical location for possessors (both possessive pronouns and genitives) is after the possessed noun, possessive pronouns can also show up before numerals (in what looks like the same position as demonstratives). Descriptively, I call this construction *possessor preposing*, and it is depicted below:

(15) a. allar þessar þrjár nýju kenningar þínar
all these three new.DEF analyses your
'all these three new analyses of yours'

b. allar þínar þrjár nýju kenningar
all your three new.DEF analyses
'all your three new analyses'

As Sigurðsson (1993) notes, possessor preposing is not possible with full DP genitives (e.g., *John's*), and it seems to be impossible for pronominal genitives as well:

(16) a. allar þessar þrjár nýju kenningar Jóns
all these three new.DEF analyses Jón.GEN
'all these three new analyses of Jón's' (full DP genitive)

b. * allar Jóns þrjár nýju kenningar
all Jón.GEN three new.DEF analyses
Intended: 'all Jón's three new analyses' (full DP genitive)
(examples from Sigurðsson 1993)

(17) a. allar þessar þrjár nýju kenningar hennar
all these three new.DEF analyses she.GEN
'all these three new analyses of hers' (pronominal genitive)

b. * allar hennar þrjár nýju kenningar
all she.GEN three new analyses
Intended: 'all her three new analyses' (pronominal genitive)

1.2.3 Ordering of Nouns and Possessors

There is also one more potential movement, but it is not clear whether or not this movement truly exists. As we saw in (2), the canonical order shows the possessor following the noun. This order is the opposite of what we see in "most other Germanic languages" (Sigurðsson 2006:15).

(18) a. English: **Peter's** solution of/to the problem
b. German: **Peters** Lösung von dem Problem
c. Swedish: **Pers** lösning av problemet
d. Icelandic: Lausn **Péturs** á vandamálinu
(Sigurðsson 2006:15)

Sigurðsson also notes that the Icelandic order of noun-possessor is also seen in German,[10] written Faroese, and in some mainland Scandinavian varieties. In order to maintain the generalization that the ordering in Germanic languages is Poss-N, we could say that Poss-N is, in fact, the basic order in Icelandic, and that the order N-Poss is derived via movement in the languages where it occurs. While this need not be the case, there may be evidence for the movement, which I will return to later.

Now that we have (an introduction to) the facts that need to be accounted for, we must discuss some of the previous work on Icelandic DPs to see what they can tell us about what we might want (or might not want) to say about the structure of DPs in Icelandic.

2 Previous Work

2.1 Sigurðsson 1993

The choices that Sigurðsson (1993) makes in his analysis of aspects of the Icelandic NP[11] are influenced by two crucial assumptions that he makes: 1) that the order N-Poss in Icelandic is derived from an underlying Poss-N, and 2) that the suffixed article and prenominal article are generated in the same position, D (see also Magnússon 1984). The suffixation of the suffixed article is then derived via head movement of the noun to D.

2.1.1 Adjectives and Kase Phrases

Although Sigurðsson (1993) does not explicitly state that he believes possessors are in Spec,NP, there are a few trees that seem to show it in that position (see (62) on p.191, for example). To derive the order of N-Poss, he proposes head movement to a functional projection above NP called K(ase) P(hrase), which houses morphological case, or m-case, features. Then, nouns must move to K either at LF or in overt syntax in order to have their m-case features checked.[12] With this assumption, Sigurðsson (1993) claims we can

[10] In fact, the Poss-N order is less common than N-Poss for possessors other than names (Jorge Hankamer, p.c.).

[11] Throughout the paper, Sigurðsson (1993) refers to the entire nominal phrase as NP. To be clear, he never explicitly claims that the nominal phrase is headed by N. In fact, he advances an analysis where the head is in fact D.

[12] There seems to be an implicit assumption that m-case features *can* be checked at LF. As far as I can tell, there is no evidence that necessitates LF head movement. Rather, Sigurðsson's (1993) beliefs about feature checking require that features get checked *somewhere*, even if we cannot see the effects. Since Sigurðsson's (1993) account requires the availability of LF feature-checking of m-case features, we must accept it for the discussion here.

capture the difference in possessor-noun ordering in Icelandic from a language like German: in Icelandic, nouns must move to K in overt syntax, while in a language like German, that movement occurs (or can occur) at LF (Sigurðsson 1993). When it moves overtly, the order is N-Poss, and when it moves at LF, the order is Poss-N.

If we assume that possessors are in Spec,NP, then we need some kind of functional layer between DP and NP for N to head-move to. We can find evidence for the head movement of N to the left of possessors if we look at nouns with PP complements:

(19) greining Jóns á vandamáli-nu
analysis Jón.GEN on problem-the
'Jón's analysis of the problem'

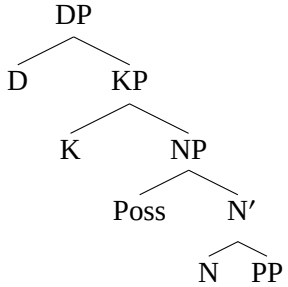
If we take the PP *á vandamálinu* to be the complement of *greining*, it is not clear how we could get *Jóns* to surface in between the two without movement. This fact coupled with the fact that PP "complements" are left behind in ANP movement could be explained nicely if we assume that these PP complements are not actually complements at all, but adjuncts.[13] This is what Hankamer and Mikkelsen (2005) are ultimately driven to say about PP complements in Danish, adjoining them to DP. While that may be where they end up, there is evidence from binding to suggest that PPs in Icelandic are lower than possessors at some point:[14]

(20) a. * þekking Jóns á bræðrum sínum
knowledge Jón.GEN on brothers his.REFL
'Jón$_i$'s knowledge of his$_i$ brothers'

b. * þekking bræðra sinna á Jóni
knowledge brothers his.REFL at Jón
Intended: 'his$_i$ brothers' knowledge of Jón$_i$'

The binding facts in (20) are certainly easier to explain if we assume that these PP complements do indeed begin as complements to N. However, that does not mean that we need something like KP. Since Sigurðsson (1993) assumes that the underived order is Poss-N, then the best way to account for both the splitting up of nouns and their PP complements and the order N-Poss is head movement. However, if we decide that possessors are not specifiers of NP, then we could also derive the order N-Poss-PP via extraposition of the PP. I will return to this issue later. So far, Sigurðsson's (1993) structure for the Icelandic DP is given below:

(21)



Whether or not we call it KP, there must be some projection in between N and D if we want to derive the order N-Poss via head movement. Sigurðsson (1993) motivates the presence of KP by first motivating the existence of a projection between N and D, and then revealing it to be KP towards the end of the paper.

[13]Of course, this is under the assumption that ANP movement is not head movement, but phrasal movement. This analysis is laid out in §3.2.

[14]Under Reinhart's (1981) definition of c-command, a possessor in Spec,NP could c-command into an NP adjunct, so perhaps PP "complements" to N need not be base generated below Poss, but they could not be generated any higher than adjunct to NP. However, we will see in the discussion of ANP movement (§3.2) that PP-complements must end up higher than NP.

Having KP so far down in the DP structure is clearly problematic, as morphological case is presumably assigned due to factors outside the DP like the verbs or prepositions that take the DP as a complement. In short, we seem to need a projection between N and D, but it is probably not KP.

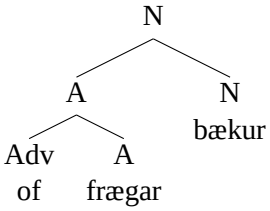
As a result of Sigurðsson's assumptions that the suffixed article and prenominal article are both generated in D and that suffixation is caused by head movement, he was forced to make a novel claim about adjective location. Consider once again the basic facts from (6), repeated here:

(6) a. rauða bók-in
red book-the

b. hin rauða bók
the red book

Based on the structure in (21), there does not seem to be a clear specifier position or adjunct position for adjectives that will yield the correct ordering. If we put them at the KP layer (adjoined or in Spec,KP), then we predict *hin rauða bók* but also something like **bók-in rauða*. If we put them at the DP layer (adjoined or in Spec,DP), we predict *rauða bók-in* but also something like **rauða hin bók*. The tricky part is getting the adjective to move when the noun moves but preventing the PP complement from doing so. The most straightforward way to do this is head movement, and for that reason, Sigurðsson (1993) proposes that adjectives head adjoin to nouns. He extends this to suggest that degree words (he calls them "adverbs") head adjoin to adjectives, leading to the structure below in (22):

(22) of frægar bækur
too famous book



(adapted from Sigurðsson (1993:p.195)

Since the adjective and noun move together to the exclusion of PP complements, this seems like it cannot be phrasal movement. However, if we say that PP complements are or can be extraposed, then the option of phrasal movement is available once more. An immediate counterexample to the structure in (22) would be a prenominal adjective with a complement. Sigurðsson (1993) claims this is the case without providing any examples, but Magnússon (1984) does:

(23) * hræddur við hunda maður
scared at dogs man
Intended: 'man that is scared of dogs'

(24) * lík móður sinni stúlka
like mother her.REFL girl
Intended: 'a girl that is like/looks like her mother'

As for numerals, Sigurðsson (1993) ultimately says that they are probably adjuncts (to KP). This is a direct result of the fact that he assumes concord is handled via Spec-Head agreement, which makes the specifier option for numerals difficult to maintain, as specifier positions need to be unoccupied so that the NP can stop off to trigger agreement with the head. If concord were due to some other process, then numerals could easily be in a specifier position. Generating numerals in specifier position correctly predicts that there cannot be more than one in any given DP. Under an adjunction analysis, this must be stipulated.

Sigurðsson (1993) also claims that demonstratives are generated in D, but that does not seem tenable considering the data on demonstrative *hinn*.[15] The demonstrative *hinn* requires the suffixed article on the noun, and in (25) below, we see that ANP movement is optional in the context of *hinn*:

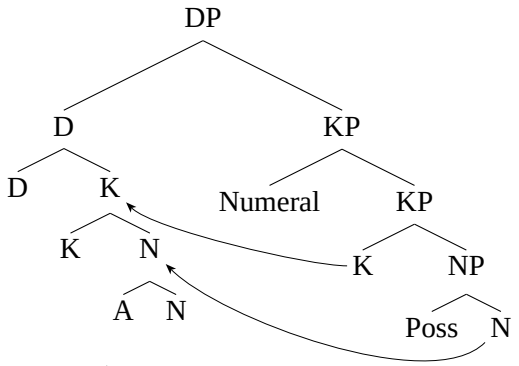
(25) a. hin-ir fimm nýju stúdentar-nir
other-NOM.M.PL five new.DEF.PL student.PL.DEF
'the other five new students' (Julien 2005:115)

b. hinir nýju stúdentar-nir fimm (Julien 2005:115)

For Sigurðsson (1993), it is enough of a problem that this is even possible, but it is unclear in any case why this would be optional. The simple co-occurrence of *hinn* and the suffixed article is enough to suggest that one of the two is not a D.

The most critical problem with this account is how to explain why the possessor moves along with the A-N head in ANP movement. If ANP movement is head movement, then both possessive pronouns and pronominal genitives (like 'our', 'her', etc.) must be heads as well, otherwise they would be left behind:

(26)



However, Sigurðsson (1993) needs them to be non-heads in order to get the proper ordering of N-possessor, as that was derived via head movement to K. The head status of possessors is also relevant for possessor preposing, so I will turn to this issue now.

2.1.2 Possessor Preposing

Sigurðsson (1993) claims that possessors (possessive pronouns, pronoun genitives, and full DP genitives) are generated in Spec,NP. Yet, as we have seen, there are cases where possessive pronouns appear much farther to the left than the canonical Spec,NP position. These are the cases of possessor preposing, examples of which are repeated below:

(15) a. allar þessar þrjár nýju kenningar þínar
all these three new.DEF analyses your
'all these three new analyses of yours'

b. allar þínar þrjár nýju kenningar
all your three new.DEF analyses
'all your three analyses'
(examples from Sigurðsson 1993:181)

[15] A reviewer questioned whether *hinn*, which I translate as 'other', is even a demonstrative at all. The motivation for calling it a demonstrative seems to be traditional, as it is always grouped together with *sá*, *þessi*. They all seem to occupy the same position within the DP, and they never co-occur. The only morphosyntactic difference between *hinn* and the other demonstratives (*sá*, *þessi*) is that *hinn* requires the suffixed article to be present, but *sá* and *þessi* do not require the article. In fact, it seems the canonical case is for *sá* and *þessi* to appear without the article, though they do allow it. It is unclear to me what factors influence the use of the article with the demonstratives *sá* and *þessi*, and I will not investigate that issue here. What will be crucial for us is the availability of a position for demonstrative-like elements in addition to D.

(16) a. allar þessar þrjár nýju kenningar Jóns
all these three new.DEF analyses Jón.GEN
'all these three new analyses of Jón's'

b. * allar Jóns þrjár nýju kenningar
all Jón.GEN three new.DEF analyses
Intended: 'all Jón's three new analyses'
(Examples from Sigurðsson 1993:181)

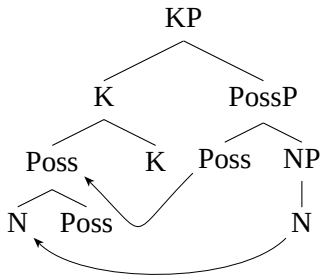
(17) a. allar þessar þrjár nýju kenningar hennar
all these three new.DEF analyses she.GEN
'all these three new analyses of hers' (pronominal genitive)

b. * allar hennar þrjár nýju kenningar
all she.GEN three new analyses
Intended: 'all her three new analyses' (pronominal genitive)

The key fact is that only the possessive pronouns (*minn, þinn, sinn*) can be preposed. Sigurðsson (1993) takes the fact that full DPs cannot be preposed as evidence that this is head movement, and the landing site is D. He does not suggest what kind of heads they are, nor does he suggest how this phrase fits into the general structure of the DP. Throughout the paper, he assumes possessors are in Spec,NP, and crucially, he does not want them to be heads, as N skips over possessors when it undergoes head movement to K. However, it may still be possible to get the proper ordering if possessors (or at least, possessive pronouns) are heads, so let us discuss that possibility.

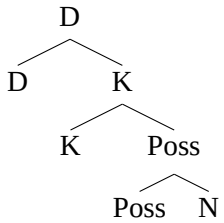
Let us assume possessors are generated as heads of PossP. If we put PossP below KP, then deriving cases with the suffixed article via head movement of N-to-K-to-D would involve rolling everything up along the way if we want to rigidly obey the Head Movement Constraint (Travis 1984) as Sigurðsson does. At the KP level, this would lead to the structure below:

(27)



Sigurðsson claimed that m-case features are checked on N when it head-moves to K. Under this analysis, it is no longer N that moves to K, but Poss. While we could find an explanation for how N's m-case features get checked (e.g., Government (Halle and Marantz 1993)), there are other problems that result when K moves to D, resulting in the complex head shown below:

(28)



When this complex head gets spelled out, we end up with two separate words: one corresponding to Poss (and case features, if Poss is a possessive pronoun), and one corresponding to N, K, and D. That does not seem to fall out straightforwardly from the above structure. Furthermore, head movement normally creates

complex words under morphological concatenation, but not here. Things look even worse when we turn to possessor preposing.

In that case, Poss must roll up K on its way to D. Combined with Sigurðsson's assumption that all Ns must get their m-case checked by moving to K, we have a problem. If possessor preposing has happened, we expect K to be all the way up in a complex D head. If we try to solve this by moving N to K first, then Poss will be rolled up in the complex K head. Extracting Poss out of the head (so it can appear to the left of the noun) would be impossible if we assume excorporation to be impossible, which is rare at best and unattested at worst. The bottom line is that analyzing possessor preposing as head movement under Sigurðsson's framework does not work.

2.2 Sigurðsson 2006: Theory-Neutral Structure

In his second paper, Sigurðsson (2006) aims to describe what he calls "the most central traits" of the Icelandic noun phrase, and he does this in (more or less) theory-neutral terms. The issues he concerns himself with are the ordering of the elements within the NP/DP, issues surrounding the possessive construction and definiteness, and the preproprial article.[16] I will focus my discussion on the issues pertaining directly to the structure of elements in the NP/DP.

The ordering of elements that Sigurðsson (2006) comes to by the end of the first section of his paper is given below in (29):

(29) Q - Spec/D - D - Num - Spec/G - G - (Adj+)Noun - Compl[17]

A small bit of explanation is in order here. First of all, recall from before that Sigurðsson (1993) made the claim that adjectives were head-adjoined to nouns. Though he does not formally propose the same analysis in this article, he often lists the sequence of adjective and noun as I have done in (29): (Adj+N), which seems to suggest that analysis, or at least something similar. Secondly, we should be clear about what the D position is actually for. Sigurðsson (2006) proposes that this is the surface position of demonstratives, preposed possessors, and the prenominal article. The Spec/D position is the position of the suffixed definite article as well as the Adj-N in the presence of the suffixed article. This assumption comes along with the claim that ANP movement around the Numeral is actually an instance of Adj-N movement combined with possessor preposing.

If ANP movement is really Adj-N movement plus possessor preposing, then all instances of grammatical ANP movement should have closely related constructions without Adj-N movement but with possessor preposing. In examples (15 – 17), we saw that only possessive pronouns can be involved in the possessor preposing construction. Neither pronominal genitives nor full DP genitives can appear grammatically in this position. We have seen examples of grammatical ANP movement involving possessive pronouns, and ANP movement also seems to be possible with pronominal genitives:

(30) a. Rauðu bílar-nir okkar fimm voru mjög dýrir.
red cars-the we.GEN give were very expensive
'Our five red cars were very expensive.'

[16]These are situations where a pronoun shows up directly to the left of another NP as in the genitive construction below:

1. Bók-in hans Jón-s
book-the he.GEN Jón-GEN
'Jón's book'

I will not analyze the preproprial article here, but it certainly warrants exploration in the future. Particularly interesting is that ANP movement does appear to be possible in the case of the preproprial article. Of course, a descriptive exploration of (some of) its properties is given in Sigurðsson (2006).

[17]Q = quantifier position, D = definite determiner position, Num = numeral position, G = genitive position, Compl = complement position

b. Börn-in þeirra þrjú eru í skóla.
children-the they.GEN three are in school
'Their three kids are in school.'

Thus, it cannot possibly be right that ANP movement is really Adj-N movement plus possessor preposing. If ANP movement is boiled down to Adj-N movement and possessor preposing, then a very complicated story would have to be told about why pronominal genitives are ungrammatical in the possessor preposing construction in all cases unless Adj-N has moved to Spec/D.

Furthermore, as I mentioned in discussion of Sigurðsson 1993, it is very unlikely that all demonstratives are truly in D, especially if the suffixed article is to the left of that position in Spec/D. Recall the examples involving the demonstrative *hinn*, repeated here:

(25) a. hin-ir fimm nýju stúdentar-nir
other-NOM.M.PL five new.DEF.PL student.PL.DEF
'the other five new students' (Julien 2005:115)

b. hinir nýju stúdentar-nir fimm (Julien 2005:115)

In both cases, the demonstrative appears to the left of the the Adj-N with the definite article. The optionality of the movement here is also a problem for Sigurðsson (2006). If the presence of the suffixed article is necessarily caused by movement to Spec/D, which involves movement to the other side of the numeral, then it is unclear how the definite article could become attached in (25a) where the hypothetical movement to Spec/D has not occurred.

The Spec/G position is the hypothetical place where Adj-N moves in possessive constructions. Again in this paper, Sigurðsson (2006) wants to maintain the canonical possessor-possessum ordering that can be seen across Germanic languages, although is rarely surface true in Icelandic.[18]

In summary, the hypothetical movements proposed in Sigurðsson 2006 are the following:

(31) a. Adj-N moving to Spec/G position in the environment of a possessor (something in the G position)

b. Possessor preposing: movement of a possessor (or at least a possessive pronoun) to D.

c. Adj-N movement to Spec/D position when the suffixed article is present. If there is a possessive pronoun in G, this movement is obligatorily coupled with (31b).

2.3 Summary

In this section, I summarized and discussed the two main papers focusing on the Icelandic DP: Sigurðsson 1993 and Sigurðsson 2006. While these works make significant headway, they also leave us with some important questions. First of all, where specifically are the various definite elements (the prenominal article, the suffixed article, demonstratives, and the preposed possessor)? Second, how do the word order changes in DPs with the suffixed article come about? Third, what is it about the structure of the DP and the analysis of DP-internal movements that makes adjectives appear to systematically "stick with" the nouns they modify? Let us approach an analysis of the Icelandic DP with the aim of providing principled answers to those questions.

[18]The two examples where it *is* true that Sigurðsson (2006) gives for this come from poetry and situations where the possessor is contrastively stressed, as shown below:

(i) ÞÍN bók
YOUR book

It may well be that word order is freer in poetry in Icelandic (as is often the case in other languages), but I leave it as an open question whether there is a special DP-internal focus position (e.g., somewhere that involves leftward movement).

3 Analysis

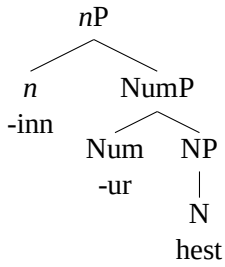
There are a few key facts that a sound analysis of the Icelandic DP needs to account for. First, we have seen some evidence that the suffixed article does not occupy the same position as demonstratives. This came from the fact that the demonstrative *hinn* requires the suffixed article on the head noun. Second, there is the issue of PP/CP "complements." Based on ANP movement as well as the alleged Adj-N movement around the possessor, which both leave PP complements behind, it seemed we had reason to propose that the PP/CP complement is not a complement at all or must always extrapose to the right edge of DP. The benefit of the extraposition analysis is it allows us to account for binding facts in a straightforward way.

Finally, figuring out where adjectives are in Icelandic DPs is critical. Sigurðsson (1993) motivated an account where adjectives were base-generated adjoined to nouns. This is not a structure commonly assumed for adjectives, and thus, I will treat this as a last resort.

3.1 Basic Structure of the Icelandic DP

The most recent work on the Scandinavian DP, which attempts to provide a unique structure for all of the languages, is Julien's (2005) work. Julien (2005) assumes the lowest portion of the DP is as given below, where the N hosts the noun stem, Num hosts the case/number suffix, and *n*[19] hosts the suffixed article:

(32) hest-ur-inn 'horse(M)-NOM.SG-DEF'



At this point, I have not found any empirical evidence in direct support of or opposition to the existence of NumP in Icelandic. I have found no reason to propose adjuncts to it or specifiers for it (numerals must be higher, see below), so we could possibly do away with it completely and assume that the (case/)number endings are in the nominalizing *n* and merge directly with the root. Nothing crucial hinges on this choice. Since there is cross-linguistic evidence for its existence, I am adopting the assumption that NumP is part of the Icelandic DP (Ritter (1992), Alexiadou (2004), Kramer (2009), *inter alia*).

Hosting the suffixed article in *n*P seems to be a good idea, though, especially given the data with demonstrative *hinn*, suggesting the suffixed article should be hosted in a different place than demonstratives (at least). Furthermore, we can straightforwardly account for the suffixation of the article to the noun and only the noun if the suffixation process is distinct from ANP movement. In this case, the suffix is joined with the noun via head movement, as we will see, and ANP movement can occur subsequently. If we tried to account for both in one fell swoop, it seems somewhat unclear to me how the suffix would find its way to the element in the middle of the phrase. However, the status of PP/CP complements is still a bit unclear. As far as I can tell, Julien (2005) (reasonably) assumes they are complements without much discussion.

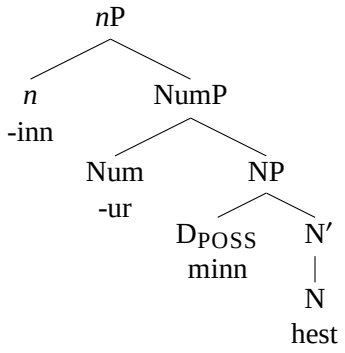
I would like to suggest that adjectives are adjoined to *n*P. This is in contrast to Julien (2005), who proposes that APs are specifiers of a functional projection (αP) that takes either *n*P or another αP as a complement. Thoroughly explaining her analysis would take us too far afield, but here is a brief synopsis of her motivation for αP (see LaCara (This volume) for more discussion of Julien's (2005) analysis). Her

[19]This *n* is distinct from the nominalizing head of Marantz (1997). We could call it something different, but that does not change the analysis.

motivation for α was (among other things) to block *n*P movement to Spec,DP in the presence of an adjective in the mainland Scandinavian languages (because they intervene between D and *n*P when D probes into its c-command domain.) Under Julien's theory, the DP layer must contain overt phonological material, so D must spell out overtly when movement is blocked. This explains why the presence of adjectives mandates the use of the prenominal article in the mainland Scandinavian languages. In Icelandic, recall that the suffixed article is perfectly acceptable when adjectives are present, so we do not want to block *n*P movement. For our purposes, we can safely assume adjectives are adjoined to *n*P.

If we assume that possessors are also contained in *n*P somewhere, then we have a clear way to account for the ANP movement: it is the movement of *n*P.[20] Julien (2005) proposes that possessors are specifiers of N, just as Sigurðsson (1993, 2006) does. This results in the structure below:

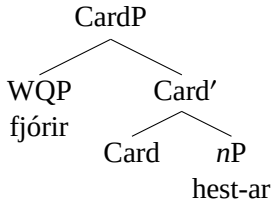
(33)



Notice, we can very easily derive the order N-Poss in this case, as the N will at least head-move to Num, and probably undergoes head movement all the way to *n*, though we cannot tell when there is no suffixed article.[21]

Now that we have identified the string that moves as *n*P, we must determine the location of numerals in order to analyze ANP movement. Julien (2005) proposes that Numerals are specifiers of a phrase she calls Card(inality)P, with a null head. Card heads take *n*P/αP complements:[22]

(34)



As far as I can tell, having numerals be specifiers (of some phrase) seems to make the most sense. They are not heads, as they are never obligatory, and it is not clear that the nouns they modify are complements. It is even less clear what kind of head would select a numeral as its complement. They are probably not adjuncts, as you cannot have more than one.[23] However, proposing functional structure that serves no purpose other than to host a specifier seems somewhat of a last resort. For now, let us accept that last resort, but I will return to the issue in discussion of ANP movement.

The next projection up the spine is DP. For Julien (2005), this is the location where prenominal determiners are generated, which are not so relevant for Icelandic, but are clearly relevant for Scandinavian DPs as a whole. As for demonstratives, there seem to be two schools of thought: one is that they are heads

[20]For Julien (2005), this movement must be αP. She does not discuss how we might constrain this movement to force the highest αP, but it probably involves some sort of feature percolation so that the highest αP has the features necessary to drive the movement.

[21]What is less clear under this assumption, though, is what to do about the order Poss-N in other Scandinavian/Germanic languages, but I leave this to question to future work.

[22]WQP here stands for *Weak Quanitifer Phrase* (see Julien (2005)).

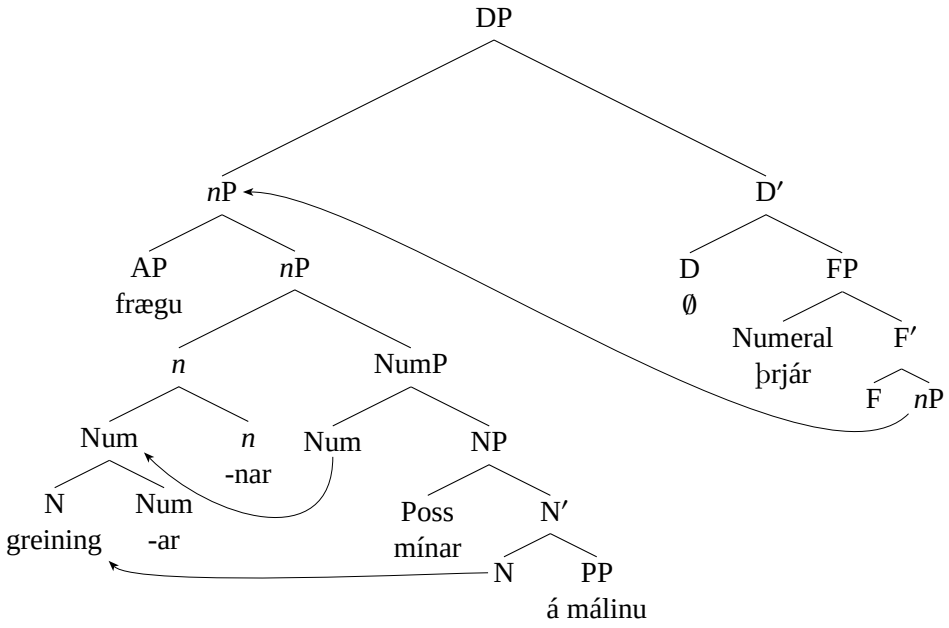
[23]I assume that complex numerals are actually complex phrases rather than several simple phrases adjoined at the same location in the same way as adjectives. The structure of complex numerals in Icelandic certainly warrants investigation.

above DP (Julien 2005), and one is that they are in Spec,DP (Giusti 1997, 2002; Harizanov This volume). Since demonstratives never co-occur with the prenominal determiner, it might be tempting to suggest that demonstratives and the prenominal determiner are generated in the same position. Based on how we analyze ANP movement, we will see that demonstratives are probably not all located in D.

3.2 ANP Movement as nP Movement

As I have already mentioned, I argue that ANP movement is movement of *n*P. I agree with Julien (2005) in assuming the suffixed article becomes suffixed via head movement. ANP movement is the subsequent phrasal movement of the entire *n*P. I propose that the landing site of *n*P is Spec,DP. It is clear that the landing site needs to be higher than CardP (which I will call FP for simplicity), because *n*P moves to the other side of the numeral, but lower than (some) demonstratives, because it ends up inside the demonstrative *hinn*. This means our resulting structure would look something like this:

(35) *frægu greiningarnar mínar þrjár á málinu*
'my three famous analyses of the problem'



In this structure, we immediately notice two things. First of all, if there was no numeral present, we might still want the FP projection to be there. If not, then we would say that something moves from complement of D to Spec,DP in that situation, and this seems theoretically dubious.

The other important thing to notice is we need to say something about the PP complement, because it always ends up on the other side of the numeral. Descriptively, I said it appeared they were "left behind." The examples given above are repeated below:

(13) a. allar þrjár frægar greiningar á máli-nu
all three famous analyses of problem-the
'all three famous analyses of the problem' (adapted from Sigurðsson 2006:11)

b. allar frægu greiningar-nar þrjár á máli-nu
all famous analyses-the three of problem-the
'all the three famous analyses of the problem' (Sigurðsson 2006:11)

As I have mentioned, there are two clear options. The first is that these PP complements are not complements at all, but adjuncts (see Hankamer and Mikkelsen 2005, 2008 on Danish). For us, they would need to

be adjoined somewhere higher than *n*P, as I argue it is *n*P (including AP adjuncts to *n*P) that moves to Spec,DP. The other option is that these PP complements must obligatorily extrapose to become adjuncts of something higher than *n*P. Recall that I argued that facts from binding of the reflexive possessive pronoun in the examples below would be more difficult to explain if the PP was never a complement to N:

(20) a. þekking Jóns á bræðrum sínum
knowledge Jón.GEN on brothers his.REFL
'Jón$_i$'s knowledge of his$_i$ brothers'

b. * þekking bræðra sinna á Jóni
knowledge brothers his.REFL at Jón
Intended: 'his$_i$ brothers' knowledge of Jón$_i$'

I propose that PP-complement extraposition is obligatory in Icelandic DPs. We could make it optional in the presence of the suffixed article, but then we would need to come up with a reason why. Since there is no word order difference if the PP is extraposed, it would not be problematic to suggest they always do. I propose the landing site for extraposition is a right hand adjunct to DP.[24]

3.2.1 ANP Movement as Definiteness-Driven

Since ANP movement only occurs when the suffixed article is present, it would be ideal if the movement were driven by some property related to the suffixed article. The most obvious choice is definiteness. As the name suggests, the suffixed article is presumably inherently definite. I take this to mean it comes into the derivation with the feature [+DEF] or [DEF]. In addition, I suggest that there is a phonologically null D that enters the derivation with an unvalued feature [*u*DEF] and is thus a probe. Furthermore, this feature has an EPP-like property, so when it probes finds the goal, the goal will move to the probe's specifier position (i.e., Spec,DP). Assuming the features of the head *n* project to *n*P, then the probe will find *n*P and move it to Spec,DP. Of course, nothing moves if *n* lacks the definite article, because it will also lack the feature [DEF]. This effect is essentially a sort of visibility condition for D like Julien's (2005) *Identification*.

An unresolved issue here is why the movement to Spec,DP is optional for demonstrative *hinn*. The relevant examples are repeated below:

(36) a. hin-ir fimm nýju stúdentar-nir
other-NOM.M.PL five new.DEF.PL student.PL.DEF
'the other five new students' (Julien 2005:115)

b. hinir nýju stúdentar-nir fimm (Julien 2005:115)

These examples are the only examples I have found where ANP movement is optional. Whatever we say ties in crucially with how we want to capture demonstratives, and importantly, how we want to capture the fact that some demonstratives allow the suffixed article (though not in the canonical case) (*sá* and þ*essi*), but *hinn* requires it.[25]

[24]Hankamer and Mikkelsen (2005) propose that "complement" PPs in Danish are also adjoined to Spec,DP.

[25]Magnússon (1984) gives a couple examples of the prenominal article with *sá* and þ*essi*. Magnússon's (1984) paper is written in Icelandic, thus, there are no translations into English for his examples. Unfortunately, I do not command the use of *sá* and þ*essi* with the definite article, so I cannot provide an approximate English translation.

(i) sú hin gamla kona
that the old woman

(ii) ? þessi hin gamla kona
this the old woman

Magnússon (1984) says he finds (ii) "not terrible," whereas (i) is fine. He does not give any examples of demonstratives with the suffixed article, and whether or not this is generally possible is still unclear to me. What is clear at this point is that the use of *sá* and þ*essi* with the article is definitely less common than their use with the article.

If my account of ANP movement as being feature-driven is correct, then the optional movement cases must involve cases of different D-heads, as the movement to Spec,DP should occur before *hinn* is even merged. This also allows us to explain the absence of the suffixed article with *sá* and þ*essi* via simple c-selection: they simply do not c-select the null D[*u*DEF]. Alternatively, perhaps the case when ANP movement movement does not occur with *hinn* would be better analyzed as a kind of definiteness agreement. I leave investigation of this to future work.

3.2.2 ANP Movement as Head Movement

Before moving on, I want to address the possibility of analyzing ANP movement as head movement one last time. Recall that Sigurðsson (1993) viewed the movement of A-N(-Poss) to be head movement of N to D. At several points in this paper, I have argued that this cannot be the case. Let me provide one final argument against that proposal. If this movement is head movement, then ANP must be a head. We have already seen a possible way to get adjectives to be part of the complex head: Sigurðsson's head adjunction analysis. In order to get Poss to be a part of this head as well, we must either assume possessors are also head-adjoined to nouns or assume Poss is the head of a projection in N's extended projection.

While it is certainly possible that possessive pronouns are heads of phrases given that they show concord with the rest of the elements in the DP in gender, number, and case, it is highly unlikely that pronominal genitives are heads in N's extended projection. As we have seen, both possessive pronouns and pronominal genitives move around the numeral in ANP movement, so if ANP movement is head movement, then pronominal genitives must be heads in the main spine. Since the *n*P movement analysis obviates this concern, I believe it to be a superior analysis.

3.3 Possessor Preposing

Although at first blush there does not appear to be any obvious definite element (e.g., demonstrative, suffixed or prenominal article) in constructions showing possessor preposing, the DP is still definite. We can see this because the adjective must be in the definite form:

(37) allar þínir þrír rauðu/*rauðir bílar
all your three red.DEF/*INDEF cars
'all your three red cars'

Since possessor preposing involves definiteness, it would be ideal if we could motivate possessor preposing via the same feature-valuing mechanism as *n*P movement. However, the fact that possessive pronouns *minn, þinn, sinn* would undergo this EPP driven movement but none of the genitives could would be quite puzzling under that analysis. It does not seem as though we can stipulate that only possessive pronouns are specified for definiteness, as full definite DPs can be in possessor position, and according to the analysis put forth here, full definite DPs are necessarily definite. Instead, I will argue that what I have been calling possessor preposing is actually a case of possessor pronouns being generated as Dem (or maybe D) heads. Before that, let us return to the analysis using head movement as first proposed in Sigurðsson 1993, exploring the possibility within the structure proposed for the DP in this paper.

3.3.1 Possessor Preposing as Head Movement

Recall that Sigurðsson (1993) suggested that possessor preposing is an instance of head movement. I argued that this head movement was possible, but resulted in relegating almost all of the DP syntax to head movement. Furthermore, it forced us to say that possessive pronouns are part of the DP spine, whereas

genitive possessors are left in Spec,NP. Part of the reason Sigurðsson (1993) proposes head movement is the assumption that the prenominal article and the suffixed article are both generated in D. Since I argue that they are syntactically different, let us explore the head movement possibility once again. Once more, here are the relevant examples:

(15) a. allar þessar þrjár nýju kenningar þínar
all these three new.DEF analyses your
'all these three new analyses of yours'

b. allar þínar þrjár nýju kenningar
all your three new.DEF analyses
'all your three analyses'
(examples from Sigurðsson 1993:181)

(16) a. allar þessar þrjár nýju kenningar Jóns
all these three new.DEF analyses Jón.GEN
'all these three new analyses of Jón's'

b. * allar Jóns þrjár nýju kenningar
all Jón.GEN three new.DEF analyses
Intended: 'all Jón's three new analyses'
(Examples from Sigurðsson 1993:181)

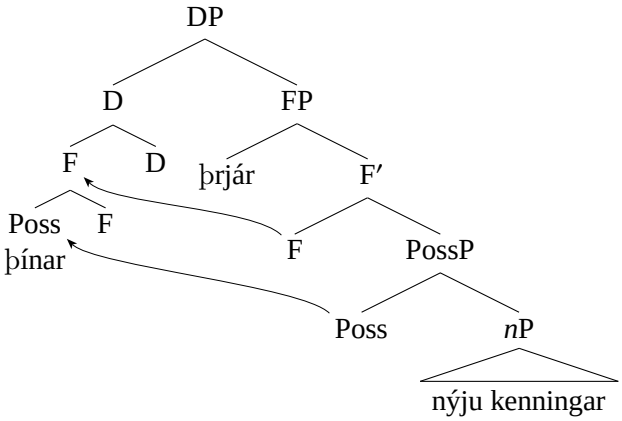
(17) a. allar þessar þrjár nýju kenningar hennar
all these three new.DEF analyses she.GEN
'all these three new analyses of hers' (pronominal genitive)

b. * allar hennar þrjár nýju kenningar
all she.GEN three new analyses
Intended: 'all her three new analyses' (pronominal genitive)

If possessor preposing is to be explained by head movement, then we must first assume that the possessive pronouns *minn, þinn, sinn* are probably not generated in the specifier of NP, as it would be quite unique for the heads of phrases in specifier position to undergo head movement. Instead, they must be heads somewhere on the DP spine. Let us say that possessive pronouns are the heads of a phrase called PossP.

There are two clear choices for the location of PossP: above *n*P and below *n*P. Crucially, we must find a location for PossP that allows for the possessor preposing construction as well as the standard construction where the possessor follows the noun. If we propose that PossP is above *n*P, then possessor preposing can be analyzed as successive head movement up to D, which results in a structure below:

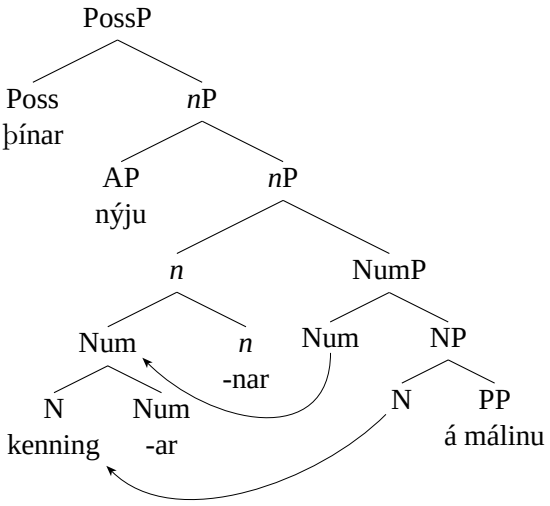
(38) *þínar þrjár nýju kenningar* 'your three new analyses'



The only issue with this structure is that we create a complex head where only one of the terminal nodes has any phonological material, whereas head movement is usually used to create complex morphological words through concatenation or fusion. We encountered this exact problem under the analysis where both articles were generated in D (see §2.1.2).

In the case of post-nominal possession, the structure must look something like this:

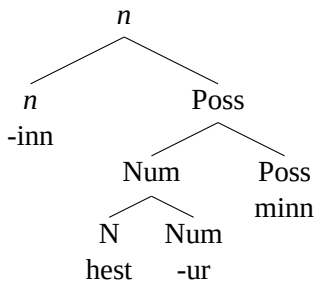
(39) *nýju kenningarnar þínar á málinu* 'new analyses your of problem-the'



This structure will work if we claim that Poss heads linearize on the right, whereas every other head linearizes to the left. If these possessive pronouns are truly heads, then descriptively, we would have to say that PossP is head-final. For a rigidly head-initial language like Icelandic, this would be an unfortunate stipulation. Though that is how it looks on the surface, we have already seen that this apparent head-final order can be straightforwardly derived from a base-generated head-initial order by generating possessors in Spec,NP.[26]

Putting PossP below *n*P is even more complicated. If we propose PossP is above NumP, but below *n*P, then we can no longer use head movement to get *n* suffixed to N, as N would have to head-move through Poss. This would result in the structure given below. Given this structure, there is no principled way to get the complex head above to linearize as *hesturinn minn*.[27]

(40) hest-ur-inn minn 'my horse'

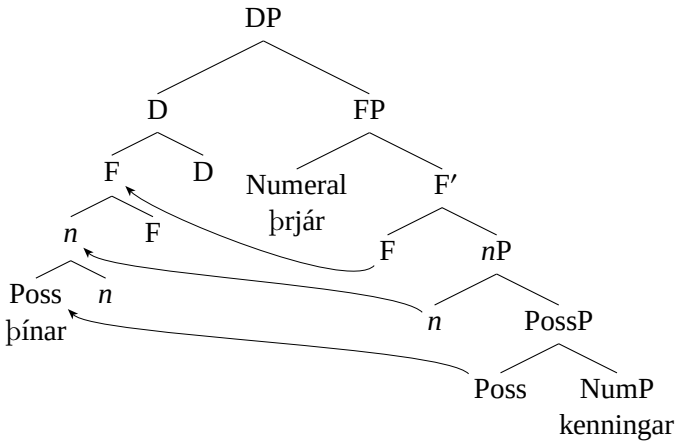


In the case of possessor preposing, we essentially have the same structure as before, except in this case, the *n* head needs to be included in the rolled up complex head:

[26]Note that the PP in the above structure is not an issue, as we independently need PP to extrapose to the right edge of DP in Icelandic, so it will find its way to the outside of Poss.

[27]One possible way to do it would be to suggest that N and Num undergo Fusion, and then *n* locally dislocates to adjoin to the right side of the fused N+Num head. This would be pure stipulation to get the facts right.

(41) *þínar þrjár nýju kenningar* 'your three new analyses'



No matter where we put PossP, motivating possessor preposing as head movement forces us to say that the end result is a complex head in D, composed of several phonologically null functional heads and one head with overt phonological material: Poss. Even if one admits structures like the one in (41), we still have tell very complicated and stipulative stories in order to derive the basic order of nouns and possessors. In short, we do not gain much, if anything, by analyzing possessor preposing as head movement.

3.3.2 Preposed Possessors as Determiners/Demonstratives

Instead of head movement, I propose that possessor preposing is actually a case of possessive pronouns being used as demonstratives (or maybe determiners). Admittedly, this is a stipulation, but it is not unmotivated. Recall that preposed possessors result in a definite interpretation for the entire DP in the absence of the prenominal or suffixed article. This is also true for the demonstratives *sá* and þ*essi*, as we have seen.

This proposal can get us the fact that possessor preposing cannot co-occur with the suffixed article: as long as we have a story for why the prenominal article and demonstratives (besides *hinn*) cannot co-occur with the suffixed article, then we have a story for preposed possessors. It can also get us the fact that while post-nominal possessors can co-occur with demonstratives, preposed possessors cannot:

(42) a. allar þessar þrjár nýju kenningar þínar
all these three new analyses your
'all these three new analyses of yours'

b. * allar þessar þínar þrjár nýju kenningar
all these your three new analyses
Intended: 'all these three new analyses of yours'

c. * allar þínar þessar þrjár nýju kenningar

In addition to being syntactically similar, pronominal possessors (preposed or not) are very similar morphologically to the demonstrative *hinn*. The paradigms are given below in Tables 5 and 6. Aside from the initial consonant, the only difference between demonstrative *hinn* and the possessor is the vowel alternating between *i* [ɪ] and *í* [i]. This alternation is entirely regular: any time the vowel is followed by a geminate consonant, it is realized as *i* and otherwise, it is *í*. As mentioned in fn. 5, demonstrative *hinn* and prenominal article *hinn* are also very similar. The only difference is in their forms for NOM/ACC neuter singular: the prenominal article is *hið*, while the demonstrative is *hitt*. Due to the fact that preposed possessors are more morphologically similar to demonstrative *hinn*, I believe they are more likely demonstratives than determiners.

	Singular			*Plural*		
	Masc	*Fem*	*Neut*	*Masc*	*Fem*	*Neut*
NOM	minn	mín	mitt	mínir	mínar	mín
ACC	minn	mína	mitt	mínir	mínar	mín
DAT	mínum	minni	mínu	mínum		
GEN	míns	minnar	míns	minna		

Table 5: Inflectional paradigm for the possessive pronoun *minn* 'my'

	Singular			*Plural*		
	Masc	*Fem*	*Neut*	*Masc*	*Fem*	*Neut*
NOM	hinn	hin	hitt	hinir	hinar	hin
ACC	hinn	hina	hitt	hinir	hinar	hin
DAT	hinum	hinni	hinu	hinum		
GEN	hins	hinnar	hins	hinna		

Table 6: Inflectional paradigm for the demonstrative *hinn*

Preposed possessors have much in common with demonstratives. They cause adjectives to be marked for definiteness, they cannot co-occur with other demonstratives or definite articles, and they are morphophonologically very similar to the demonstrative *hinn*. That being said, the analysis of preposed possessors as demonstratives is not without fault. It is certainly easier to motivate, but it is essentially a stipulation. The PossP analysis captures the fact that these possessive pronouns are syntactically different from the genitive possessors, which seems like something that we want to capture, because they certainly behave differently morphologically. Unfortunately, an analysis using PossP cannot capture the word order facts for the language. Given this shortcoming, the demonstrative account proposed here seems like the best option.

4 Complement Extraposition in English DPs

The analysis of ANP movement argued for here crucially involves the claim that PP complements of N are obligatorily extraposed to the right edge of DP. At this point, I can see no other clear option for handling the empirical facts. The binding facts suggested that these PP complements were lower than possessors at some point in the derivation, and given the possible locations for possessors, some of which were considered here, there do not seem to be many options for these PPs *besides* complement of N. If we want to avoid actually extraposing the PPs, then we are forced to say that ANP movement is head movement, which I have argued against in this paper. If extraposition is the right approach, then we expect to find examples of phrases that look like complements appearing outside of complement position in the absence of head movement in other languages. In this section, I will survey some such examples from English.

There are well-studied examples of both complement and adjunct extraposition in English (see, for example, Culicover and Rochemont (1990)). In most cases, though, the extraposition is completely optional. Some examples from Culicover and Rochemont (1990) are given below:

(43) a. A man that no one knew came into the room.
b. A man came into the room that no one knew.

(44) a. A man with blond hair came into the room.
b. A man came into the room with blond hair.

(45) a. John saw a picture of his brother in the paper.
b. John saw a picture in the paper of his brother.

(46) a. A report that the ambassador was still in hiding was made public today.
b. A report was made public today that the ambassador was still in hiding.

There are also cases of heavy DP shift. While the non-extraposed variants can become increasingly difficult to parse the larger the DP gets, the movement itself cannot be characterized as obligatory, as there are non-extraposed examples that are grammatical. In fact, unless the DP gets especially heavy, I believe the vast majority of non-extraposed variants would be grammatical. Here is an example of what I mean by heavy DP shift:

(47) a. I threw in the closet [all the clothes that haven't been washed for the past two weeks].
b. I threw [all the clothes that haven't been washed for the past two weeks] in the closet.

In addition to these optional extraposition examples from English, there are examples that seem to show obligatory extraposition of complements to prenominal adjectives.

(48) a. Frank solved a similar problem [to this one].
b. * Frank solved a similar to this one problem.

(49) a. The company hired the wrong man [for the job].
b. * The company hired the wrong for the job man.

Semantically, the PPs in brackets above seem to be modifying the adjectives. Specifically, they seem like complements to me, but even if they were adjuncts to AP, we would still expect them to surface in between the adjective and the noun (assuming APs adjoin to NP). When these adjectives appear postnominally or in predicate position, we see the bracketed PP right next to them:

(50) a. Frank solved a problem similar to this one.
b. The problem that Frank solved is similar to this one.

(51) a. The company hired a man wrong for the job.
b. The man that the company hired was wrong for the job.

In the cases where the adjectives are separated from their complements, I believe the most straightforward explanation is one where extraposition is at work. It is a well-established fact that nothing can intervene between prenominal adjectives and the nouns they modify in English (and the same is true for Icelandic), but why this should be the case based on the commonly assumed syntactic structure is quite unclear. The data in (48) and (49) suggest that prenominal adjectives *can* have complements, but the complement must be extraposed. I leave it as an open question here why some prenominal adjectives seem to allow complements, while others do not. Some ungrammatical examples are given below:

(52) *The proud farmer [of his son].

(53) *The scared child [of dogs].

There are slightly more complicated examples which were discussed in dissertations by Berman (1974) and Fleisher (2008b). These constructions, which Berman (1974) calls "hard nuts," involve CPs modifying the adjective. Some examples are given below:

(54) a. That is a hard nut to crack.
b. * That is a hard to crack nut.[28]

[28]I believe there is a reading of this that is grammatical, but I would argue that it is an example of a phrasal compound: hard-to-crack nut. I believe the same is true for (55b).

(55) a. Frank is an odd man to meet.
b. * Frank is an odd to meet man.

In these examples, the CP is clearly closely connected to the adjective, yet they surface disjointly. Fleisher (2008a,b) analyzes these as CP complements to A with obligatory extraposition to the right edge of DP, which makes this another case of obligatory extraposition of complement-like things inside DPs. I leave it as an unanswered question how to handle the connection of the noun in Hard Nut constructions to the gap/unpronounced object in the CP complement of A. While it is certainly a non-trivial issue, it is also much too large a topic to be addressed adequately in this paper. Whether or not the analysis of PP extraposition in Icelandic is on the right track, it is clear that we need to say *something* about these complement-like phrases appearing in non-complement positions. Extraposition is a good candidate, because it allows to generate the phrase as a complement, but subsequently move it to its surface position.

5 Conclusion

In this paper, I have investigated the basic structure of Icelandic DPs as well as two non-basic constructions: ANP movement and possessor preposing. Based on the data, we found evidence for generating the suffixed article and the prenominal article in different places in the syntax. One may take issue with this fact, especially given their phonological similarity: the prenominal article looks like the suffixed article with an *h* in front. In a just world, an analysis unifying the two would be straightforward, but doing so here would force us to analyze ANP movement as head movement. I have shown that such an analysis would force us to make some costly assumptions and argued that ANP movement is phrasal movement instead.

As always, there are unresolved issues. First of all, while I briefly surveyed the properties of concord in Icelandic, I did not approach an analysis here. The Icelandic system of concord is particularly robust, and it seems like a good place to look to investigate concord in general. Second, capturing the complementary distribution of demonstratives and the determiners (except, of course, for *hinn*) seems like a formally complex issue. In the account here, it could be captured with simple c-selection, as demonstratives can select for particular D heads, but this issue may not be best explained by c-selection. Finally, a broader theoretical issue is what exactly causes prenominal adjectives in English and Icelandic to have such tight connections with the nouns they modify. That is to say, why is it that nothing can come between them? Perhaps the head-adjunction structure for prenominal adjectives proposed by Sigurðsson (1993) is on the right track, but such an analysis does not seem tenable for English given the facts in §4.

While it is true that Icelandic shares many properties with its sisters, the important question to ask is to what extent it is similar and to what extent it is different. By gaining a better understanding of how DPs are structured in Icelandic specifically, we should be able to shine some light on exactly how Icelandic fits into the Scandinavian/Germanic families in general. Furthermore, turning a critical eye to a particular language usually uncovers broader theoretical issues, some of which start showing up everywhere once we start looking for them. It is likely that complements inside DPs do not behave strangely in only Icelandic, English, and Danish (Hankamer and Mikkelsen 2005, 2008), and if that is the case, then the syntactic behavior of semantic arguments will only become more interesting.

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