Adjectival definiteness marking and noun-phrase internal functions

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In many languages, the marking that gives a noun phrase a definite interpretation is structurally associated with the adjective (for an overview, see Lyons 1999:83–85). In this paper, we provide an analysis of one such language — Old Norse — within Lexical-Functional Grammar. We show that a solution that involves inside-out functional uncertainty not only makes the correct predictions about feature distribution, but also paves the way for a generalised analysis of other functions within the noun phrase.

Adjectives in Old Norse, as in other varieties of early Germanic, occurred in two forms: STRONG and WEAK. The strong form is the earlier one and the weak form is an innovation. In the earliest remaining records, the strong form is mainly associated with indefinite noun phrases, but can also occur in definite contexts (see for instance Delsing 1994 and Stroh-Wollin & Simke 2014). The weak form occurs only in definite noun phrases and then preceded by a definiteness marker (*h*)*inn*, and (*h*)*inn* occurs only immediately preceding a weak adjective. Examples are provided in (1) (references are to IcePaHC, but the spelling is that found in manuscripts).

(1) a. ungr   maðr   (Sturlunga,420.1037)
         young.STR.NOM man.NOM
     b. þessi   hinn   ungi   maðr   (Jomsvikingar, 1136)
         DEM.NOM HINN.NOM young.WK.NOM man.NOM

It is generally recognised in the literature that (*h*)*inn* was associated with the adjective, rather than being an element at a higher level within the noun phrase. Stroh-Wollin (2009:7) describes (*h*)*inn* as 'just a formal element preceding adjectives with the so-called weak inflection', and Perridon & Sleeman (2011:8) describe it as 'an "adjectival" article, which in principle only has scope over an adjective' (compare Curme (1910) and Heinrichs (1954) for similar conclusions with respect to other varieties of early Germanic).

In spite of the recognition of the close connection between (*h*)*inn* and the following adjective, this is not captured in any of the analyses of which we are aware. Instead, (*h*)*inn* is assumed to form the functional head of the noun phrase at some level, taking the remaining nominal phrase as its complement (for instance Roehrs & Sapp 2004; Stroh-Wollin 2009; Lohndal 2007; Faarlund 2007). One exception is Börjars et al. (2016), who propose an analysis in which (*h*)*inn* occurs inside the AP, but they do not provide further analysis of its function. We will show that LFG allows an analysis in which (*h*)*inn* forms a constituent with the adjective, but still contributes features to the highest level within the noun phrase. Leu (2008) analyses the article in both modern Scandinavian and English as forming a constituent with the adjective, but on the basis of very different assumptions. We would only argue for an AP-internal definiteness marker in earlier stages of the Scandinavian languages.

We argue that noun phrases in Old Norse showed a degree of non-configurationality, as indicated informally in (2), where the order of the elements is not structurally determined (compare Braunmüller 1994 and Börjars et al. 2016).

(2)

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                    NP
        ┌─────┬────┬──┼──┬─────┬──────┐
        Q   Poss   AP  N  Dem   AP    ···
```
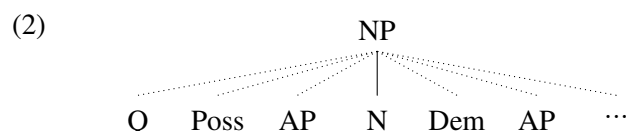
In (2), the AP does not have a structurally unambiguous position and hence its function as a modifier — ADJ in LFG terminology — cannot be defined in terms of a structural position. We propose instead that the crucial clue to the function of the phrase is to be found in the lexical items contained in the adjective phrase. In LFG terms; the mapping to ADJ is part of a lexical item. A strong adjective can provide the relevant functional information directly. The strong form can then be compared to, say, the way in which

the nominative form of a nominal maps to the function SUBJECT in a language with non-configurational clause structure. The weak form, on the other hand cannot on its own function as ADJ. Instead the required mapping information is provided by (*h*)*inn*; it is a functional element whose role it is to allow a weak adjective to function as an ADJ. This is a development and formalisation of an idea put forward by Rießler (2011:164).

The lexical entry for an adjective like *ungr* in (1-a) contains the mapping to ADJ. This is illustrated in (3), where PRED captures the semantics. Since modifiers can occur recursively, the value of ADJ is a set, but in (3) we use a notational alternative, where the set membership symbol becomes the value of a feature (Dalrymple, 2001:154). This lexical entry makes use of inside-out functional uncertainty (Nordlinger 1998:62ff; Dalrymple 2001:143–6), which means that the information defines an f-structure within which it itself is contained. The first line in (3) can then be informally restated as 'there is an f-structure which contains an ADJ set and the f-structure associated with this node forms one member of this set.' The second line assigns the PRED feature to that f-structure. The lexical entry for a weak adjective, on the other hand, does not contain any information about its function, but just about other features, such as semantics, as in (4a). Instead, the information that ensures that *hinn ungi* in (1-b) functions as an ADJ is associated with (*h*)*inn* as in (4b), where a feature ADJ is defined which has the f-structure associated with the phrase containing (*h*)*inn* as a member and which also assigns the feature value [DEF +] to the structure which contains ADJ. Note that the strong form is not associated with any value for DEF since it can occur in both indefinite and definite environments.

(3) $ungr$: $(\text{ADJ} \in \uparrow)$
$(\uparrow\text{PRED}) = \text{'young'}$

(4) a. $ungi$: $(\uparrow\text{PRED}) = \text{'young'}$
b. $hinn$: $((\text{ADJ} \in \uparrow) \text{DEF}) = +$

The elements in (3) and (4) are inserted in the relevant trees in (5a) and (6a), with the resulting f-structures in (5b) and (6b), respectively. We use the category label Sp — rather than D — for (*h*)*inn* in order to distinguish it from noun-phrase level determiners. The labelling f_1 etc links each c-structure constituent with its associated f-structure.

(5) a.

$\text{AP} f_1$
|
$\text{A} f_2$
$\uparrow = \downarrow$
|
ungr
$(\text{ADJ} \in \uparrow)$
$(\uparrow\text{PRED}) = \text{'young'}$

b. $\left[\text{ADJ} \quad \left\{ \left[\text{PRED} \quad \text{'young'} \right]_{f_1 \, f_2} \right\} \right]$

(6) a.

$\text{AP} f_1$

$\text{Sp} f_2$ $\text{A} f_3$
$\uparrow = \downarrow$ $\uparrow = \downarrow$
| |
hinn   ungi
$((\text{ADJ}\in\uparrow)\text{DEF}=+)$ $(\uparrow\text{PRED}) = \text{'young'}$

b. $\left[\begin{array}{l} \text{DEF} \quad + \\ \text{ADJ} \quad \left\{ \left[\text{PRED} \quad \text{'young'} \right]_{f_1 \, f_2 \, f_3} \right\} \end{array} \right]$

The question then arises what the appropriate annotation of the AP in (5a) and (6a) is given the non-configurational structure in (2). The function of the phrase is mapped from lexical elements within it, hence the AP itself does not require an annotation mapping it to ADJ. We can then borrow an idea

developed by Nordlinger (1998). In her analysis of the non-configurational clause structure of Wambaya, inside-out functional designators associated with case markers ensure that, for instance, an ergative noun is associated with SUBJ. This is referred to as CONSTRUCTIVE CASE, and it allows an annotation like that in (7) for any NP daughter of S, where GF is a variable over all grammatical functions. The annotation on the NP in (7) involves functional uncertainty; it permits any grammatical function, but the nature of that function has to be specified by information coming from some lexical item contained within the NP (adapted from Nordlinger 1998:66).

(7)

$$
\begin{array}{c}
\text{S} \\
\diagdown \\
\dots \quad \text{NP} \quad \dots \\
(\uparrow \text{GF}) =\downarrow
\end{array}
$$
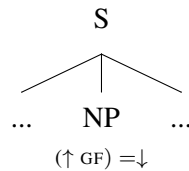
We suggest that in much the same way (*h*)*inn* or the strong marking on an adjective provides the relevant function for the AP in our analysis. ADJ is an instance of a grammatical function, GF, and hence we can use a similar functional uncertainty analysis for Old Norse noun phrases. An AP annotated with (↑GF)=↓ would not achieve the desired generalisation since an AP can only have the function ADJ here. However, if we generalise also over category, we would get the tree in (8).

(8)

$$
\begin{array}{c}
\text{NP} \\
\diagdown \\
\dots \quad \text{XP} \quad \dots \\
(\uparrow \text{GF}) =\downarrow
\end{array}
$$
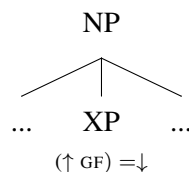
This general tree can then account for any element that has a function within the noun phrase, such as possessors, which can occur pre- or post-nominally, as illustrated in (9). Assuming that GEN is constructive case marking, we get the lexical entry in (10), for *Grettis* in (9-a).

(9) a. bróðir   Grettis
         brother.NOM Grettir.GEN (Grettir, 157)
     b. Ásmundar   lið
         Ásmundr.GEN people.NOM (Morkin, 750)

(10)   *Grettis*:   (POSS ↑)
                    (↑PRED) = 'Grettis'
                    (↑CASE) = gen

Having developed and illustrated this analysis in more detail, we show that it offers an account of the development to the modern Mainland Scandinavian languages. Over time, (*h*)*inn* becomes associated with the noun phrase as a whole, rather than with the AP. The position of the AP, which in Old Norse was flexible, becomes more rigidly prenominal and hence the determiner's position is noun-phrase initial. However, in current Mainland Scandinavian, the occurrence of the modern syntactic determiner is still dependent on the presence of an adjective.

References

Börjars, Kersti, Pauline Harries & Nigel Vincent. 2016. Growing syntax: the development of a DP in northern Germanic. *Language* 91(2). e000–000.

Braunmüller, Kurt. 1994. Some typological trends in the development of the noun phrase in Germanic languages. In Toril Swan, Endre Mørck & Olaf Jansen Westvik (eds.), *Language change and language structure: older Germanic languages in a comparative perspective*, 27–50. Berlin: Mouton.

Curme, George O. 1910. The origin and growth of the adjective declension in Germanic. *The Journal of English and Germanic Philology* 9(4). 439–482.

Dalrymple, Mary. 2001. *Lexical Functional Grammar*. New York: Academic Press.

Delsing, Lars-Olof. 1994. 'Hans sjukt ben' – om starka och svaga adjektiv i Fornsvenskan. In Nils Jörgensen, Christer Platzack & Jan Svensson (eds.), *Språkbruk, grammatik och språkförändring. En festskrift till Ulf Teleman*, 99–108. Lund: Lund University.

Faarlund, Jan Terje. 2007. From clitic to affix: the Norwegian definite article. *Working Papers in Scandinavian Syntax* 79. 21–46.

Heinrichs, Heinrich Matthias. 1954. *Studien zum bestimmten Artikel in den germanischen Sprachen*. Giessen: Wilhelm Schmitz Verlag.

Leu, Thomas. 2008. *The internal syntax of determiners*: New York University dissertation.

Lohndal, Terje. 2007. On the structure and development of nominal phrases in Norwegian. In Elisabeth Stark, Elisabeth Leiss & Werner Abraham (eds.), *Nominal determination. typology, context constraints, and historical emergence typology, context constraints, and historical emergence*, 287–310. Amsterdam: John Benjamins.

Lyons, Christopher. 1999. *Definiteness*. Cambridge: Cambridge University Press.

Nordlinger, Rachel. 1998. *Constructive case: evidence from Australian languages*. Stanford, CA: CSLI Publications.

Perridon, Harry & Petra Sleeman. 2011. The noun phrase in Germanic and Romance. In Harry Perridon & Petra Sleeman (eds.), *The noun phrase in Romance and Germanic*, 1–21. Amsterdam: John Benjamins.

Rießler, Michael. 2011. *Typology and evolution of adjective attribution marking in the languages of northern Eurasia*: Universität Leipzig dissertation. http://omnibus.uni-freiburg.de/ mr5496/downl/RIESSLER2011.pdf.

Roehrs, Dorian & Christopher D Sapp. 2004. The rise of the suffixal article in the early North Germanic DP. In Michal Temkin Martínez, Asier Alcázar & Roberto Mayoral Hernández (eds.), *Proceedings of WECOL 2004*, 290–301. Department of Linguistics, California State University.

Stroh-Wollin, Ulla. 2009. On the development of definiteness markers in Scandinavian. *Working Papers in Scandinavian Syntax* 83. 1–25.

Stroh-Wollin, Ulla & Rico Simke. 2014. Strong and weak adjectives in Old Swedish. In Petra Sleeman, Freek Van de Velde & Harry Perridon (eds.), *Adjectives in Germanic and Romance*, 95–112. Amsterdam: John Benjamins.