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Predicative Adjective Agreement and Optimality Theory

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Abstract

Among the Germanic and Romance languages, the languages that lack predicative adjective agreement without lacking attributive adjective agreement are all SOV languages (including Yiddish). I will link this to the OV/VO-difference, based on the Optimality Theory analysis of this difference given in Vikner (2001b).

Contents

1. Introduction, 2
2. Scandinavian, 3
3. West Germanic, 4

4. Explaining the differences, 8
5. The subject originates inside the predicative AdjP, 9
6. Extraction does not always have to go via AdjP-spec, 9

7. Constraints and tableaux, 11
8. Predictions, 13
9. Conclusion, 16

References, 17

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1. Introduction

German would seem to have much more morphology than e.g. French or Danish. However, there is one area where German agreement morphology could not possibly be simpler, and where German is much easier for non-native speakers than e.g. French or even Danish: predicative adjectives. Both gender and number distinctions, (1a-b), disappear when adjectives are used predicatively, (1c-f):

(1) Ge.
a. ein grüner Bus / zwei grüne Busse
a.M.NOM green.M.SG.NOM bus two green.PL.NOM buses
b. ein grünes Haus / zwei grüne Häuser
a.N.NOM green.N.SG.NOM house two green.PL.NOM houses

c. Ein Bus ist grün_, (die anderen sind gelb)
One.M.NOM bus is green, (the others are yellow)
d. Zwei Busse sind grün_, (die anderen sind gelb)
Two buses are green, (the others are yellow)

e. Ein Haus ist grün_, (die anderen sind gelb)
One.N.NOM house is green, (the others are yellow)
f. Zwei Häuser sind grün_, (die anderen sind gelb)
Two houses are green, (the others are yellow)

Compare this to the situation in French (and all other Romance languages), where the inflectional differences found in the attributive construction are also found in the predicative construction:

(2) Fr.
a. un autobus vert_ / deux autobus verts
a.M bus green.M.SG two buses green.M.PL
b. une maison verte / deux maisons vertes
a.F house green.F.SG two houses green.F.PL

c. Un autobus est vert_, (tous les autres sont jaunes)
One.M bus is green.M.SG, (all the others are yellow)
d. Deux autobus sont verts (tous les autres sont jaunes)
Two buses are green.M.PL, (all the others are yellow)

e. Une maison est verte, (toutes les autres sont jaunes)
One.F house is green.F.SG, (all the others are yellow)
f. Deux maisons sont vertes, (toutes les autres sont jaunes)
Two houses are green.F.PL, (all the others are yellow)

In the following sections, the situation in the other Germanic languages will be examined.

2. Scandinavian

Danish (and also Norwegian and Swedish) are like French, exactly the same inflectional differences are found in the attributive construction and in the predicative construction :

(3) Da.
a. en grøn_ bus / to grønne busser
a.M/F green.M/F.SG bus two green.PL buses
b. et grønt hus / to grønne huse
a.N green.N.SG house two green.PL houses

c. En bus er grøn_, (de andre er gule)
One.M/F bus is green.M/F.SG, (the others are yellow)
d. To busser er grønne, (de andre er gule)
Two buses are green.PL, (the others are yellow)

e. Et hus er grønt, (de andre er gule)
One.N house is green.N.SG, (the others are yellow)
f. To huse er grønne, (de andre er gule)
Two houses are green.PL (the others are yellow)

(These inflectional endings are only found in indefinite DPs. In definite DPs, attributive adjectives display no number or gender differences, cf. the form *grønne* in (35) below).

The situation is no simpler in those Scandinavian languages which have retained a rich inflectional system, Faroese and Icelandic:

(4) Fa.
a. ein grønur bussur / tveir grønir bussar
a.M green.M.NOM.SG bus two.M green.M.NOM.PL buses
b. eitt grønt hús / tvey grøn_ hús
a.N green.N.NOM.SG house two.N green.N.NOM.PL houses

c. Ein bussur er grønur
One.M bus is green.M.NOM.SG
d. Tveir bussar eru grønir
Two.M buses are green.M.NOM.PL

e. Eitt hús er grønt
One.N house is green.N.NOM.SG
f. Tvey hús eru grøn_
Two.N houses are green.N.NOM.PL

(5) Ic.
a. grænn strætisvagn / tveir grænir strætisvagnar
(a) green.M.NOM.SG bus two.M green.M.NOM.PL buses
b. grænt hús / tvö græn_ hús
(a) green.N.NOM.SG house two.N green.N.NOM.PL houses

c. Einn strætisvagn er grænn
One.M bus is green.M.NOM.SG
d. Tveir strætisvagnar eru grænir
Two.M buses are green.M.NOM.PL

e. Eitt hús er grænt
One.N house is green.N.NOM.SG
f. Tvö hús eru græn_
Two.N houses are green.N.NOM.PL

Agreement is thus found in predicative adjective constructions in all the Romance and all the Scandinavian languages, irrespective of whether these have a rich inflectional system (like Icelandic, Faroese, or French) or a relatively poor one (like Danish, Norwegian, and Swedish).

3. West Germanic

Is German unique in not having agreement in predicative adjective constructions? No.

Two situations will have to be kept apart: Languages which trivially lack predicative adjective inflection, because they do not have any adjectival inflection at all, and languages which only lack adjectival inflection in predicative adjective constructions, but have adjectival inflection in attributive constructions.

Two Germanic languages lack adjectival inflection completely, English and Afrikaans:

(6) En. a. a green_ bus / two green_ buses
b. a green_ house / two green_ houses

c. One bus is green_
d. Two buses are green_

e. One house is green_
f. Two houses are green_

(7) Af. a. 'n groen_ bus / twee groen_ busse
a green bus *two green buses*
b. 'n groen_ huis / twee groen_ huizen
a green house *two green houses*

c. Een bus is groen_
One bus is green
d. Twee busse is groen_
Two buses are green

e. Een huis is groen_
One house is green
f. Twee huizen is groen_
Two houses are green

The other West Germanic languages all lack adjectival inflection in predicative adjective constructions only, not in attributive adjective constructions. We have already seen the German data in (1) above, and the following examples show that the situation is completely parallel in Dutch, West Flemish, Frisian, Swabian, three types of Swiss German (from Sankt Gallen, Zürich, Bern), and finally Yiddish:

(8) Du. a. een groene bus / twee groene bussen
a green.M/F bus *two green.PL buses*
b. een groen_ huis / twee groene huizen
a green.N.SG house *two green.PL houses*

c. Een bus is groen_
One bus is green
d. Twee bussen zijn groen_
Two buses are green

e. Een huis is groen_
One house is green
f. Twee huizen zijn groen_
Two houses are green

(9) WF. a. nen groenen bus / twee groene bussen
a.M/F green.M/F bus two green.PL buses
b. een groen_ us / twee groene uzen
a.N green.N.SG house two green.PL houses

c. T' is eenen bus groen_
There is one bus green
d. T zyn twee bussen groen_
There are two buses green

e. T' is een us groen_
There is one house green
f. T zyn twee uzen groen_
There are two houses green

(10) Fs. a. in griene bus / twa griene bussen
a green.M/F bus two green.PL buses
b. in grien_ hûs / twa griene huzen
a green.N.SG house two green.PL houses

c. Ien bus is grien_
One bus is green
d. Twa bussen binne grien_
Two buses are green

e. Ien hûs is grien_
One house is green
f. Twa huzen binne grien_
Two houses are green

(11) St. a. an grinr Bus / zwoi grine Bus
a.M.NOM green.M.SG.NOM bus two green.PL.NOM buses
b. a grins Haus / zwoi grine Heisr
a.N.NOM green.N.SG.NOM house two green.PL.NOM houses

c. Oin Bus isch grin_
One.M.NOM bus is green
d. Zwoi Bus sen grin_
Two buses are green

e. Oi Haus isch grin_
One.N.NOM house is green
f. Zwoi Heisr sen grin_
Two houses are green

(12) SG. a. än grüene Bus / zwei grüeni Büs
a.M.NOM green.M.SG.NOM bus two green.PL.NOM buses
b. äs grües Huus / zwei grüeni Hüser
a.N.NOM green.N.SG.NOM house two green.PL.NOM houses

c. Ain Bus isch grüe_
One.M.NOM bus is green
d. Zwei Büs sind grüe_
Two buses are green

e. Ais Huus isch grüe_
One.N.NOM house is green
f. Zwei Hüser sind grüe_
Two houses are green

(13) Zü. a. en grüene Bus / zwäi grüeni Büs
a.M.NOM green.M.SG.NOM bus two green.PL.NOM buses

b. es grüens Huus / zwäi grüeni Hüüser
a.N.NOM green.N.SG.NOM house two green.PL.NOM houses

c. Äin Bus isch grüen_
One.M.NOM bus is green

d. Zwäi Büs sind grüen_
Two buses are green

e. Äis Huus isch grüen_
One.N.NOM house is green

f. Zwäi Hüüser sind grüen_
Two houses are green

(14) Be. a. ei grüene Böss / zwe grüeni Bösse
a.M.NOM green.M.SG.NOM bus two.M.NOM green.PL.NOM buses

b. eis grüens Huus / zwöi grüeni Hüser
a.N.NOM green.N.SG.NOM house two.N.NOM green.PL.NOM houses

c. Ei Böss isch grüen_
One.M.NOM bus is green

d. Zwe Bösse si grüen_
Two.M.NOM buses are green

e. Eis Huus isch grüen_
One.N.NOM house is green

f. Zwöi Hüser si grüen_
Two.N.NOM houses are green

(15) Yi. a. a griner oytobus / tsvey grine oytobusn
a green.M.SG.NOM bus two green.PL buses

b. a grin_ hoyz / tsvey grine hayzer
a green.N.SG house two green.PL houses

c. Eyn oytobus iz grin_
One bus is green

d. Tsvey oytobusn zaynen grin_
Two buses are green

e. Eyn hoyz iz grin_
One house is green

f. Tsvey hayzer zaynen grin_
Two houses are green

The possibilities given for Yiddish in (15) above do not give the complete picture. In plural, Yiddish predicative adjectives might seem also to be possible with agreement:

(16) Yi. Tsvey oytobusn zaynen grine
Two buses are green.PL

However, I shall follow e.g. Weinreich (1971:308), Katz (1987:87), and Lockwood (1995:112) in taking the agreeing form in (16) to be a nominalisation. Lockwood (1995:112): "Exceptionally frequently, [Yiddish] adjectives (including participles) in predicative position are nominalisations". In other words, (16) would correspond to English "two buses are green ones" (see Olsen 1988:345 and Delsing 1993:86 on nominalised attributive adjectives). This analysis is based on the fact that the possibilities for inflected predicative adjectives in the singular are:

(17) Yi. a. *Eyn oytobus iz griner
b. Eyn oytobus iz a griner
One bus is (a) green.M.SG.NOM

which makes it clear that the Yiddish for "one bus is green" must use an uninflected adjective, cf. (15c), and that the only way to have an inflected adjective in a predicative construction is to use the expression corresponding to "one bus is a green one", namely (17b).

Also Afrikaans merits a few more remarks, even though there is no reason to question the picture given in (7) above, that Afrikaans has no predicative adjective agreement. It is the situation concerning attributive adjectives in Afrikaans which is more complex than (7) might indicate.

Like predicative adjectives, attributive adjectives never show agreement in Afrikaans. In some cases, however, e.g. if they are polysyllabic (Lass 1990:88-95, Donaldson 1993:163, Ponelis 1993:366), attributive adjectives have an affix (*-e*), but although this ending is diachronically derived from an agreement ending (Lass 1990:88-90, Ponelis 1993:364), it shows no distinctions of number, gender, or case:

(18) Af. a. 'n reusagtige bus / twee reusagtige busse
a huge.ATT bus two huge.ATT buses
b. 'n reusagtige huis / twee reusagtige huise
a huge.ATT house two huge.ATT houses

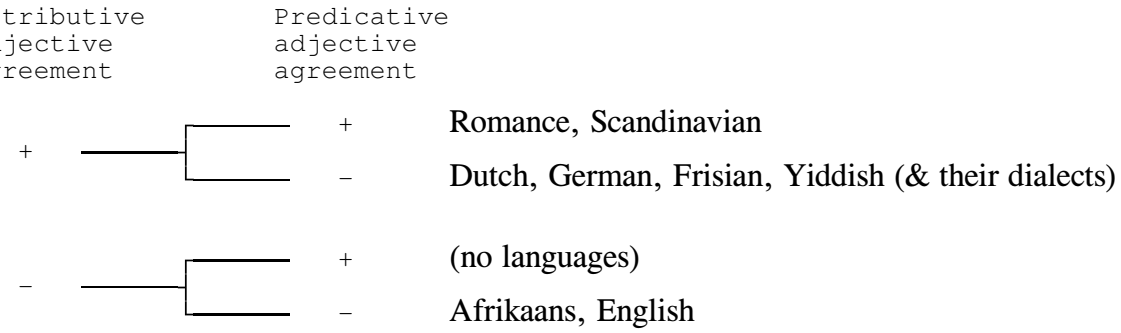
c. Een bus is reusagtig_
One bus is huge
d. Twee busse is reusagtig_
Two buses are huge

e. Een huis is reusagtig_
One house is huge
f. Twee huise is reusagtig_
Two houses are huge

Presumably, it is not a coincidence that the remains of an agreement affix is found only on the attributive adjectives in Afrikaans, and not on the predicative adjectives. Unfortunately, the analysis to be suggested below will have nothing to say about this.

Summing up, the overall picture is as follows: Of all the Romance and Germanic languages, only the West Germanic ones lack predicative adjective agreement. English and Afrikaans lack both attributive and predicative adjective agreement, the other West Germanic languages lack only predicative adjective agreement.

(19)



4. Explaining the differences

The observations made in the preceding sections are not completely new. They have also been made, at least partially, in e.g. Haugen (1982:173), Abraham (1995:245), and Kester (1996:89, 92), although these works merely note the difference and do not try to relate them to other differences between the languages in question.

The goal of an account of the adjective agreement facts should be to explain why the West Germanic languages lack predicative adjective agreement, why the Scandinavian and the Romance languages have it, and why it is not the other way around. This is only possible if the adjective agreement facts are related to other properties of the languages in question.

In the following, I would like to suggest an analysis which relates the facts discussed to other properties of the languages in question. So far we have seen that the two groups could be described as

(20)
1. Predicative adjective agreement: Romance, Scandinavian
2. No predicative adjective agreement: West Germanic

but unless this is related to other differences, it remains as descriptive as the treatments cited above. I shall suggest that the crucial property is whether verb phrases and adjective phrases are head-initial or head-final, making a slightly different division between the languages:

(21)
1. Head-initial VPs and AdjPs: English, Romance, Scandinavian
2. Head-final VPs and AdjPs: All West Germanic languages except English

It is not always possible simply to take the surface word order as an indication of head-finality (or the opposite). Cases where surface word order seem to conflict with the above classification include the assumption that Yiddish has a head-final VP. As in Vikner (2001b, 2003, 2005), I shall follow e.g. Hall (1979), Geilfuß (1991) and Haider & Rosengren (1998:78-81, 2003:253-255), against e.g. Santorini (1993), Diesing (1997), in assuming Yiddish to be an OV-language.

Now English belongs to group (21.1) where it before belonged to group (20.2). This regrouping of English has no empirical consequences, however, as it merely says that English may have predicative adjective agreement, not that it has to have it. To be more precise, given the predictions spelled out in (37) below, the prediction for English now is that it either has agreement with both attributive and predicative adjectives or with neither.

5. The subject originates inside the predicative AdjP

According to Delsing (1993:84), "normally, linguists assume, implicitly or explicitly, that predicative adjectival agreement is an instance of Spec-Head agreement where the XP subject is base generated as the specifier of AP and raised to SpecIP, to get Case". This analysis is also found in, among others, Couquaux (1981), Stowell (1981:262), Burzio (1986:154), Vikner & Sprouse (1988:19), and to some extent even in Bach (1967:467).

Chomsky (1995) also belongs in this group, as he gives the following analysis of predicative adjectives (1995:354, (184)):

(22) En. John is [$_{AdjP}$ t_1 [$_{Adj'}$ t_2 intelligent]]

The subject *John* is base-generated in the position marked t_2, i.e. inside the complement of the Adj° *intelligent*. It then moves to the position marked t_1, i.e. AdjP-spec, where adjectival agreement is "checked". Finally it moves out of the AdjP into the subject position of the clause.

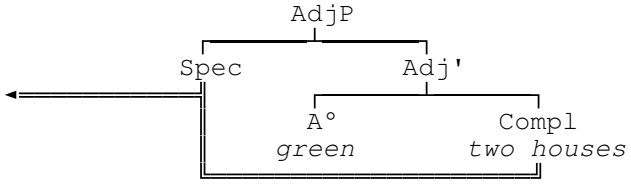
I shall follow this and assume that the subject of a predicative adjective construction has to be linked (presumably by movement) to an empty category inside AdjP (which represents an empty argument slot in the argument structure of the adjective). If we assume that such a link takes the form of a chain that includes AdjP-spec, the result is adjective agreement. If AdjP-spec is not part of such a chain, there is no adjective agreement.

This also means that the copula in a predicative adjective construction does not assign any thematic role to its subject. This assumption is supported by the fact that in the syntax of English, the copula *be* falls into the same group as auxiliary *be*, *have*, and *do* (they do not assign any thematic roles, they may occur to the left of sentential adverbs, and they do not require *do*-insertion in negated sentences) and not into the same group as all other main verbs, including main verb *have* and *do* (they assign thematic roles, they occur only to the right of sentential adverbs, and they require *do*-insertion in negated sentences).

6. Extraction does not always have to go via AdjP-spec

I assume that in languages where the AdjP is head-initial, the subject DP of a predicative adjective construction is base-generated either inside the complement of Adj°, (23a,b), or in AdjP-spec, (23c). It does not matter for the purposes of this analysis whether a given DP is base-generated in one or the other of these two positions, as long as any DP that is moved out of the AdjP (by means of A-movement) has to move via AdjP-spec, i.e. as long as (23b) is ruled out. This is trivially the case for DPs base-generated in AdjP-spec, and I will also assume that it holds for DPs base-generated inside the complement of Adj°. As the movement in question is an A-movement, this would follow from e.g. Relativised Minimality (Rizzi 1990:93), which basically says that any particular type of movement may not skip any specifiers of the same type (this can presumably be reformulated in terms of e.g. the Minimal Link Condition, Chomsky 1995:294). As both IP-spec and AdjP-spec are potential argument positions, i.e. A-positions, any movement to IP-spec which skips AdjP-spec violates Relativised Minimality, cf. the impossible (23b), in which an attempt is made to skip the specifier:

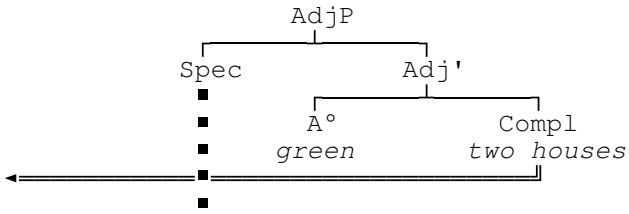
(23) a.



The result is adjective agreement

(AdjP-spec is part of the chain)

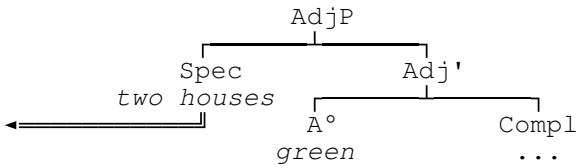
b. *



The result would have been no adjective agreement

(AdjP-spec is not part of the chain)

c.

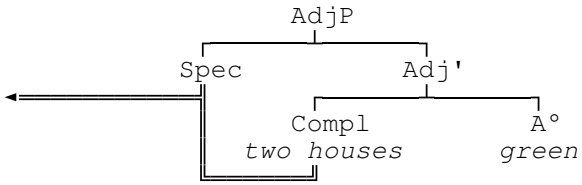


The result is adjective agreement

(AdjP-spec is part of the chain)

Adapting the analysis of head-final VPs in Haider & Rosengren (1998:48-51, 2003:207-211), I would like to suggest that languages with a head-final AdjP have one more option in addition to base-generation in the complement of Adj°, (24a,b), or in AdjP-spec, (24c): Base-generation in a position left-adjoined to AdjP, (24d). If a DP is generated in this position, movement of the DP out of AdjP does not have to go via AdjP-spec (and may nevertheless observe Relativised Minimality). Leaving the AdjP from the adjoined position without going through AdjP-spec could not be seen as skipping AdjP-spec, (24d), as opposed to the impossible (24b), where leaving the AdjP without going through AdjP-spec counts as skipping (and thus violating Relativised Minimality):

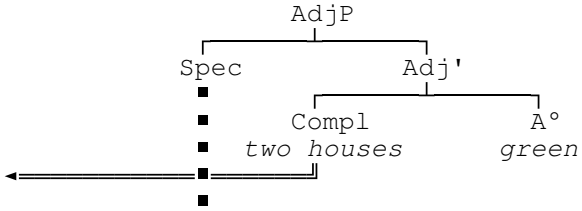
(24) a.



The result is adjective agreement

(AdjP-spec is part of the chain)

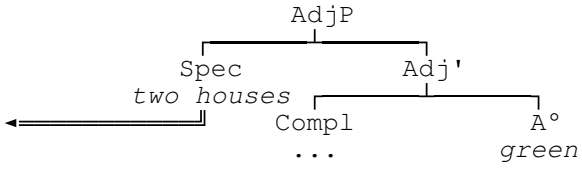
b. *



The result would have been no adjective agreement

(AdjP-spec is not part of the chain)

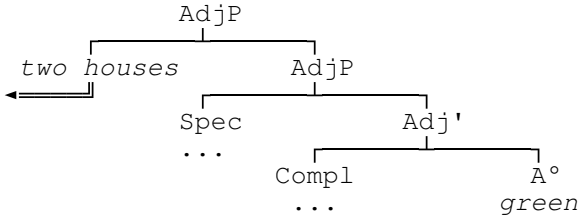
c.



The result is adjective agreement

(AdjP-spec is part of the chain)

d.



The result is no adjective agreement

(AdjP-spec is not part of the chain)

7. Constraints and tableaux

I will assume the following to be achieved by highly ranked constraints in all the languages under discussion:

(25) a. All adjunction is to the left of an XP
b. All specifiers are to the left of X-bar
c. An X° may licence an argument either via spec-X° agreement or via M-command
d. (Full) agreement only arises between Adj° and its specifier

I will assume the following four constraints:

(26) **X°-left** (see Vikner 2001b:145)
(violated by any head that licenses an argument via M-command to the left, regardless of whether this argument is a complement of X° or adjoined to XP)

(27) **Pred-right** (see Vikner 2001b:145)
(requires any V° or Adj° to license an argument via M-command to the left)

(28) **Rel-min** (see Rizzi 1990:93)
(requires any A-extraction from XP to go via the specifier

(29) **XPs crossed**
(violated by any extraction from XP)

(30)

AdjP with one Θ-role (Danish and other SVO)	X° Left	Pred. Right	Rel. Min.	XPs crossed	
►► a. [t Adj° t]		*		*	= (23a)
b. [t t Adj°]	*!			*	= (24a)
c. [Adj° t]		*	*!	*	= (23b)
d. [t Adj°]	*!		*	*	= (24b)
►► e. [t Adj°]		*		*	= (23c), (24c)
◄ f. [t [Adj°]]	*!				= (24d)

(31)

AdjP with one Θ-role (German and other SOV)	Pred. Right	X° Left	Rel. Min.	XPs crossed	
◄ a. [t Adj° t]	*!			*	= (23a)
b. [t t Adj°]		*		*!	= (24a)
c. [Adj° t]	*!		*	*	= (23b)
d. [t Adj°]		*	*!	*	= (24b)
◄ e. [t Adj°]	*!			*	= (23c), (24c)
►► f. [t [Adj°]]		*			= (24d)

Consider now what happens in examples where the adjective has a complement PP, as in

(32) En. The parents$_i$ are [$_{AdjP}$ t$_i$ proud of their children]

which has the same agreement pattern as the other cases discussed so far, i.e. agreement in Romance and Scandinavian, but not in the other languages:

(33)

	AdjP with two Θ-roles (Danish and other SVO)	X° Left	Pred. Right	Rel. Min.	XPs crossed
►►	a. [t Adj° PP]		*		*
	b. [t PP Adj°]	*!			*
	c. [t [Adj° PP]]	*!	*		
◄	d. [t [PP Adj°]]	*!			

(34)

	AdjP with two Θ-roles (German and other SOV)	Pred. Right	X° Left	Rel. Min.	XPs crossed
◄	a. [t Adj° PP]	*!			*
	b. [t PP Adj°]		*		*!
	c. [t [Adj° PP]]	*!	*		
►►	d. [t [PP Adj°]]		*		

The rankings of **Rel-Min** and **XPs crossed** do not matter, both of them are only violated by candidates that are harmonically bounded.

Why do head-final AdjPs only base-generate the subject DP in the position adjoined to AdjP, (24d), when it should also be possible to do this in AdjP-spec, (24c), or in the complement of Adj°, (24a)? Because there is a cost on crossing an XP (i.e. the lowest segment of an XP).

Why is it only possible to base-generate the subject DP in a position adjoined to AdjP if the AdjP is head-final? In other words, why is there no head-initial version of (24d)? Because of the interaction between the constraint ruling out adjunction to the right and the constraint ranking that determines whether the AdjP is head-initial or head-final:

> An argument base-generated in a position right-adjoined to AdjP is ruled out by a highly ranked constraint, as assumed in (25c).
>
> An argument base-generated in a position left-adjoined to AdjP violates **X°-left**. This has very negative consequences in a VO language, because **X°-left** is ranked above **Pred-Right**. On the other hand, it has rather few consequences in an OV language where **Pred-Right** is ranked above **X°-left** anyway.

As indicated above, this is an attempt to elaborate on Haider & Rosengren's (1998:48, 2003:207) *Basic Branching Condition*.

A potential weakness is that the analysis has nothing to say about why predicative adjectives in the superlative lack agreement in more languages than predicative adjectives in general. Predicative superlative adjectives lack agreement not only in the languages where all adjectives lack agreement (English, Afrikaans) and in the languages where all predicative adjectives lack agreement (Dutch, Frisian, German, …), but also in some of the languages where all other predicative adjectives show agreement, namely Danish, Norwegian and Swedish. Only in Icelandic (and conservative Faroese) is there agreement:

(35) Da. a. Den grønne bus er størst_
The.M/F.SG green bus is biggest
b. De grønne busser er størst_
The.PL green buses are biggest

c. Det grønne hus er størst_
The.N.SG green house is biggest
d. De grønne huse er størst_
The.PL green houses are biggest

(36) Ic. a. Græni strætisvagninn er stærstur
Green.M.NOM.SG bus-the.M.NOM/AKK.SG is biggest.M.NOM.SG
b. Grænu strætisvagnanir eru stærstir
Green.PL buses-the.M.NOM.PL are biggest.M.NOM.PL

c. Græna húsið er stærst_
Green.N.SG house-the.N.NOM/AKK.SG is biggest.N.NOM/AKK
d. Grænu húsin eru stærst_
Green.PL houses-the.N.NOM/AKK.PL are biggest.N.NOM/AKK

8. Predictions

There are two reasons why predicative adjectives might not agree. One is a **phonetic/ morphological** reason: the erosion of endings found throughout the Germanic and Romance languages, and the other is a **syntactic** reason: head-final AdjPs, as discussed in the preceding sections. This syntactic reason does not apply to attributive adjectives. Presupposing that there are no other reasons why adjectives should lack agreement, the following predictions are made:

(37) 1. Languages with head-final AdjPs do not have agreement on predicative adjectives.
2. Languages with head-initial AdjPs do not have agreement only on attributive adjectives.
3. No languages have agreement only on predicative adjectives.

The prediction (37.3) is borne out, at least for the Germanic and the Romance languages. The predictions (37.1), that languages with head-final AdjPs never have predicative adjective agreement, and (37.2), that languages with head-initial AdjPs never have adjective agreement only with attributive adjectives, are more problematic.

There is not much agreement in the literature as to what might count as reliable independent evidence of whether a given language has head-final or head-initial AdjPs, and therefore this prediction is difficult to test (cf. e.g. that Haider & Rosengren (1998:27) take the German AdjP to be head-final, whereas Corver 1997 takes the Dutch AdjP to be head-initial).

If the additional assumption is made, as in section 4 above, that head-finality in the

AdjP cooccurs with head-finality in the VP (at least in the Germanic and Romance languages), the two predictions become much easier to test: (37.1), that OV-languages never have predicative adjective agreement, and (37.2), that VO-languages never have adjective agreement only with attributive adjectives. As outlined in section 4 above, both turn out to be correct for all the Germanic languages, that is, for all the Germanic languages spoken today[1].

For one of these languages, namely Yiddish, the situation with respect to head-finality in the VP and in the AdjP is not uncontroversial. In so far as the analysis of predicative adjectives given here is on the right track, the fact that Yiddish has agreement only with attributive adjectives lends some support to the grouping of Yiddish with the Germanic OV-languages, as also suggested by e.g. Hall (1979), Geilfuß (1991) and Haider & Rosengren (1998:78-81, 2003:253-255), cf. the discussion of (21) at the end of section 4 above. Notice that under this analysis, we expect head-final AdjPs to be the only option in Yiddish, head-initial AdjPs are not possible at all, as otherwise Yiddish should have optional predicative adjective agreement.

Testing the two predictions for earlier stages of the Germanic languages is made difficult both by the scarcity of evidence and by the fact that the evidence that does exist is not always unambiguous. It seems that the older languages fall into three groups:

Languages with no predicative adjective agreement, e.g. **Middle Dutch** (Burridge 1993:248) and **Old Frisian** (Markey 1981:169). As these languages are always taken to be OV-languages, this is as expected.

Languages where predicative adjectives do not show any agreement in the majority of the cases, e.g. **Old English** (Brunner 1965:236, Mitchell 1985:62), **Old High German** (Paul 1917:164, Penzl 1986:55), and **Middle High German** (Paul 1998:360, Penzl 1989:82). If this is taken as evidence that predicative adjectives do not agree, then this is as expected, as these languages are commonly taken to be OV-languages. If, however, this is taken to show that some varieties/dialects of the three languages did have predicative adjective agreement, then this is unexpected, in that at least for Old and Middle High German, it is not commonly assumed that they had any varieties/dialects which were VO.

And finally, the third group of older Germanic languages is languages where predicative adjectives do show agreement, e.g. **Old Norse** (Nygaard 1905:68) and **Gothic** (Braune 1956:74). This is not unexpected for Old Norse, if e.g. Nygaard (1905:357-358) and Hróarsdóttir (1999:318-319) are right that Old Norse was a VO-language, like the modern Scandinavian languages (contra Faarlund 1990:110, who takes Old Norse to be non-configurational). It is, however, rather unexpected for Gothic, at least if Eythórsson (1995:22),

---

[1]As Jürg Fleischer (p.c.) has pointed out, this is actually not quite true: In the very southernmost varieties of Swiss German, e.g. in the German-speaking part of the canton Valais (German: *Wallis*), predicative adjective agreeement occurs, although not obligatorily:

(i) Wa. a. Är isch altä *He is old.M*
b. Si isch alti *She is old.F*
c. Es isch alts *It is old.N* (from Hotzenköcherle 1961:214)

Fuchs (1993:77) finds predicative adjective agreement to have applied only in 40% of the possible cases. She also reports that only adjectives used in their literal sense may inflect:

(ii) Wa. a. Das isch schweer_ *It is heavy*
b. Das isch schweers *It is heavy.N* (from Fuchs 1993:76)

The German adjective *schwer* corresponds to both *heavy* and *difficult* in English. When something is heavy, either (iia) or (iib) can be used, whereas when something is difficult, only (iia) can be used.

Ferraresi (1997:7, 34) and references cited there are right that Gothic was an OV-language (This last remark also goes for Latin: Like Gothic, it has predicative adjective agreement but it is most commonly assumed to be an OV-language).

Summing up, the data that go against the predictions made are that Old and Middle High German show predicative adjective agreement in some cases, and that Gothic always show predicative adjective agreement.

The analysis also makes another prediction, still under the assumption that head-finality in the AdjP and head-finality in the VP cooccur. In the languages where VPs and AdjPs are head-final, we would not only expect there to be no agreement with Adj° when an argument is extracted under A-movement from AdjP (i.e. in predicative adjective constructions), we would also expect there to be no agreement with V° when an argument is extracted under A-movement from VP. The relevant constructions are those where a non-finite verb in V° shows agreement with an argument extracted to the subject position, e.g. passive and unaccusative (ergative) constructions, as the following French examples show :

(38) Fr. a. Ce bureau$_i$ a été [$_{VP}$ t$_i$ repeint_ t$_i$]
This desk has been repainted.M.SG

b. Cette table$_i$ a été [$_{VP}$ t$_i$ repeinte t$_i$]
This table has been repainted.F.SG

(based on Kayne 1985:77, (31))

(39) Fr. a. Les soldats$_i$ sont [$_{VP}$ t$_i$ morts t$_i$] il y a des années
The soldiers are died.M.PL it there has of years
(The soldiers have died years ago)

b. Les victimes$_i$ sont [$_{VP}$ t$_i$ mortes t$_i$] il y a des années
The victims are died.F.PL it there has of years
(The victims have died years ago) (based on Kayne 1985:84, (74))

The subjects are base-generated in the object position, i.e. following the main verb, then move to VP-spec, and from there to the subject position in IP-spec. Agreement with the participles is triggered when the subjects move through VP-spec. Under the present analysis, such agreement should never occur in the OV-languages, as here there would be no need to move through VP-spec, cf. the argumentation above why A-movement out of AdjP does not have to go via AdjP-spec in head-final AdjPs. This prediction seems to be correct, at least for the Germanic OV-languages spoken today, which never show agreement with the participles in constructions like (38) and (39), even though the same participles might show agreement used in other constructions, e.g. used attributively.

Notice that no predictions are made about subject-verb agreement, since this is agreement between the subject and not the lexical head, V°, but a functional one, I°/AgrS°/ Tense°/Person°.

9. Conclusion

In this paper, I have tried to argue that languages with head-final AdjPs and VPs do not show predicative adjective agreement (nor any other kind of agreement with Adj° or V° under A-extraction), because in these languages such extraction may not go via AdjP-spec or VP-spec. The following predictions are made:

(40) 1. Languages with head-final AdjPs do not have agreement on predicative adjectives.
2. Languages with head-initial AdjPs do not have agreement only on attributive adjectives.
3. No languages have agreement only on predicative adjectives.

These predictions seem to hold for the modern languages (with the exception noted above of the southernmost varieties of Swiss German, none of the present-day OV-languages have predicative adjective agreement), even if the predictions made for the older languages are less impressive (here the main problem case would seem to be Gothic).

The paper started out by noting a paradox, namely how unexpected it is that a language with so much agreement morphology as German lacks predicative adjective agreement, when predicative adjective agreement is found in languages with so little agreement morphology as Danish or French. The analysis presented resolves this paradox by setting the lack of predicative adjective agreement in the OV-languages apart from other kinds of lack (or loss) of agreement, in attributing it to a particular structural cause, head-finality in AdjP.

This allows us to keep the general view that both German and Icelandic are languages which tend to express agreement with respect to many categories (person, number, gender, case, …) , whenever they have the chance, whereas e.g. Danish, Dutch, and English are languages which tend to either not express agreement at all or only express agreement with respect to very few categories.

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TO BE LEFT OUT

More on the Danish data:

(West Jutlandic, a dialect of Danish, has lost gender distinctions, but maintains number distinctions, both with attributive and with predicative adjectives. However, neuter is now used for all mass nouns, so maybe neuter singular forms are still possible in "grønt græs", "gult korn", "græs er grønt, men korn er gult") (Skautrup IV:88, 128)

More on Lattewitz 1997:54:

AgrAdjP is situated in AgrNP. This means that adjectival agreement is spec-X° agreement between the noun in AgrN° and the AgrAdjP in AgrNP-spec. However, normally the agreeing X° (here Adj°) is the head (here AgrN°) in the spec-X° agreement configuration, but here the agreeing X° (Adj°) is a head inside the spec of the spec-X° agreement confguration.

Applies to Bernstein's 1993 amalysis too, Judy also has the adjective in NP-spec.

on Chomsky 1995

(though he want to remain vague on whether the "subject" of the adjective is base-generated in the complement of Adj° or not, Chomsky 1995:393, n133).

VP-lg.s: Forced base-generation in AdjP-spec

Maybe I can't force extraction via AdjP-spec in e.g. Danish, when it isn't forced in German. If so, then maybe I could base-generate the subject in AdjP-spec in e.g. Danish, and inside the Adj' in German. Then extraction would never be forced to go via AdjP-spec.

Danish has the external/non-external argument distinction. External ones have to be b.g. in spec.

What if what makes the OV languages special is that they don't have this distinction?

on Afrikaans

(why doesn't Afrikaans have as complicated a system for predicative adjectives as it does for attributives??? Just saying that it is agreement tells us almost nothing, I would have to claim that Af. has agreemement which is the same in all persons!).

On French NPs

French has a head-initial NP (as argued in Valois 1991, Bernstein 1993:32, Cinque 1994, among others),