Extending Hawkins' comparative typology: Case, word order, and verb agreement in the Germanic languages

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Abstract:

In a well-known book, Hawkins (1986), expanding on an original idea by Sapir (1921), attributes a number of typological differences between German and English to the fact that German uses morphological means (i.e. case) to distinguish grammatical relations, whereas English makes use of a strict-SVO word order. Dutch seems problematic to Hawkins' generalisation, in that neither case nor word order can be used consistently to express the basic grammatical relations. Using verb agreement as an extra parameter, Dutch can be integrated in Hawkins' typology. In addition, data from Scandinavian languages and Afrikaans indicate that Hawkins' notion of 'grammatical word order' can be replaced by a more precise word order feature, viz. the possibility to place verbs in between subjects and objects in all sentence types.

1. Introduction[1]

1.1 Comparing German and English: Hawkins (1986)

In a well-known book, Hawkins (1986), expanding on an original idea by Sapir (1921), attributes a number of typological differences between German and English to the way in which both languages distinguish grammatical relations. Whereas German uses morphological means (i.e. case) to do so, English makes use of a rather 'tight' syntax (strict-SVO word order), as shown in (1).

(1) Hawkins' contrastive typology of German and English (1986:121)

GERMAN	ENGLISH
More grammatical morphology	Less grammatical morphology
More word order freedom	Less word order freedom
More specific selectional restrictions	Less specific selectional restrictions
Less semantic diversity of GRs	More semantic diversity of GRs
Less raising	More raising
Less extraction	More extraction
More Pied Piping	Less Pied Piping
Less deletion of NPs	More deletion of NPs

[1] This paper is an extended version of a section from my Ph.D.-dissertation (De Vogelaer 2005). I would like to thank Magda Devos and Johan van der Auwera for their comments to the relevant chapter. I would also like to thank the audience at the Grand Meeting of the ScanDiaSyn network in Leikanger, August 2005, for their interesting questions and relevant remarks.

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In addition, a large number of syntactic phenomena are found to correlate with this basic distinction, such as the specificity of selectional restrictions posed by predicates, the semantic diversity of the grammatical relations and the degree of raising, extraction, pied piping, and NP-deletion in the language, as is also shown in (1). Since the emphasis in this paper will be on case and word order, it would lead us to far here to discuss all the phenomena in (1) in detail. Some examples may clarify the typology in (1), however. The specificity of the selectional restrictions on predicates in English is illustrated through the contrast between German 'verbs of placing' and English ones: whereas German has a whole set of verbs of placing (*liegen, stehen, sitzen, legen, stellen, setzen*), English almost always uses *to be* or *to put*. Hence the selectional restrictions on *to be* and *to put* are less strict than on the German verbs of placing. The same holds for at least one category of transitive verbs, viz. verbs which can take both an 'affected' and an 'effected' object in English (e.g. *to dig* in 'to dig potatoes' (affected) and 'to dig a tunnel' (effected)). Their German counterparts only take effected objects (e.g. *graben*; affected objects are combined with *umgraben*). A second point concerns the semantic diversity of the grammatical relations, which is larger in English. For instance, the English direct object subsumes both accusative and dative objects from German. In addition, English is much more tolerant towards non-agentive subjects (such as instruments, in '5 Euros should buy you a meal,' or locations, in 'This tent sleeps four people'). The third phenomenon in (1) is raising, which is found more often in English than in German, cf. utterances such as 'I believe John to be ill,' which are ungrammatical in German. Fourth, English has wider extraction possibilities. For instance, it can extract non-subject complements from finite clauses, as in 'I don't know who the police thought that the guilty man was.' In connection with these wider extraction possibilities, it is observed that English has less pied piping, cf. the ungrammaticality of '*the man to kill whom I have tried,' in which the VP is pied piped, whereas the German equivalent is judged grammatical ('der Mann, den zu töten ich öfters versucht habe'). The last phenomenon under investigation is NP-deletion. Again, the possibilities in English are wider: as the case distinction between accusative and dative objects is no longer present in English, sentences can be formed such as 'He went through and out of the tunnel,' which are not grammatical in German, where one of the objects carries accusative case ('durch den Tunnel'), and the other one dative case ('aus dem Tunnel'). In an attempt to unify the contrasts, the typological contrasts in (1) are subsumed under one generalisation by Hawkins (1986:121), which is stated as follows:

> Where the grammars of English and German contrast, the surface forms (morphological and syntactic) of German are in a closer correspondence with their associated meaning.

Put differently, German surface forms are much less ambiguous than their English counterparts, which have undergone realignment in the mapping between form and meaning. Ultimately, these typological differences are caused by morphological syncretism in the English NP, which puts the parameter 'case' in a special position. Among the other parameters, it seems as if word order is more 'basic' than the other ones,[2] as, unlike the other phenomena, there is diachronic evidence suggesting that some word order changes function as a direct 'compensation' for ambiguities caused by the loss of case. In English, the oldest attestations of SVO word order are typically found in clauses in which SVO may indeed serve a disambiguating function, viz. in clauses with (non-case-marked) nouns as subjects and objects, rather than (case-marked) pronouns (Bean 1983:139). A correlation between the presence or absence of case on the one hand and word order on the other is also typologically well-attested: SOV-languages show a strong tendency to have case, both in absolute terms and relative to SVO-languages (Greenberg 1966; Siewierska and Bakker 1996:137). Hence a shift from SOV word order to SVO in a certain language might give rise to the loss of case in that language, or, alternatively, a loss of case may cause a shift from SOV to SVO.

In Hawkins' account, SVO word order and morphological case are seen as two so-called 'functional equivalents' (Keenan 1978), i.e. two properties in a language that perform the same linguistic function. The relevant function is the marking of grammatical relations in a clause (henceforth 'GR-marking'): both case and word order can be used to signal which element is the subject of the clause and which one is the object. This is quite obvious for case. SVO word order can replace case, cf. Hawkins (1986:48-49):

> Subjects and objects have to maintain their fixed position in order to be clearly recognisable as such. And verb position is the

[2] To be accurate, Hawkins (1986:125) himself is quite hesitant to consider word order as more basic than the other parameters in the typology: "The word order parameter is thus a secondary consequence of morphological richness in particular (which is just one component of our semantic transparency parameter) and constitutes just a small part of the overall typology for which I am arguing." Shannon (1990:52), however, in a paper about the place of Dutch in Hawkins' typology, clearly assumes the presence of fixed word order to be the cause of some of the other phenomena: "due to the fixed word order of English, the only way to get certain NPs in the at times pragmatically preferred initial position is to make them subject." See section 3.2 for a more detailed discussion.

> particular vehicle which most conveniently enables these basic grammatical relations to be expressed by means of word order: the subject occurs to the immediate left, and the object to the immediate right of the verb. I.e. the verb acts as an anchor.

Hence, it is expected that not only English and German, but also the other Germanic languages should have at their disposal at least one of these two basic parameters to distinguish grammatical relations, either case or SVO word order. After having addressed some methodological issues (section 1.2), it will be shown that Dutch provides a problematic case for Hawkins' typology. Using data from Dutch, a new typology will be proposed (section 2), which takes into account not only the distribution of case and different word order types in German, English, and Dutch, but in all the Germanic languages (section 3.1). In the rest of section 3, some problematic data from Continental Scandinavian and Afrikaans will be discussed. The main findings are summarised in section 4.

1.2 Methodological preliminaries

This paper deals, essentially, with the distribution of a number of syntactic and morphological features, such as different word order types and case, in the Germanic languages. In the discussion of these phenomena, a Usage-Based approach will be taken, in which "substantial importance is given to the actual use of the linguistic system and a speaker's knowledge of the full range of linguistic conventions, regardless of whether these conventions can be subsumed under more general statements" (Langacker 1987:494; cf. also the papers in Barlow and Kemmer 2000). For instance, for the parameter word order this means that it will not be attempted to determine one specific order that is more 'basic' than other possible orderings. Rather, the variability of word order will be taken into account. In doing so, the notion of a language having one basic word order feature will be abandoned. The two alternative parameters that will be used are the unmarked word order in main clauses and in embedded clauses, because, among the Germanic languages, both clause types are known to give rise to different orderings of the S, V, and O.

Ideally, a Usage-Based approach to word order or case would include quantitative data on the frequency of the linguistic variants under investigation, which is, however, outside the scope of this paper. But one does not need quantitative data to be able to make a comparison between several genetically closely related languages. In many cases, the structural possibilities in one language form a "proper subset" (cf. Hawkins 1986:4) of the possibilities in one or more of the related languages. Hence it is clear that one of the languages must have expanded or limited the possibilities

which were common to the ancestral language. As the grammatical properties of some older stages of several Germanic languages are well-described, it can often be established quite easily how the variation within the Germanic languages has come about, and, consequently, in what respect some linguistic changes may have caused other ones.

2. Dutch: a counterexample?

Dutch is an interesting test case for Hawkins' typology, as presented above, in (1). Since Dutch is known to be intermediate between German and English in many ways (cf. Van Haeringen 1956), it is expected that, with respect to the grammatical features in (1), Dutch will sometimes pattern like English, sometimes like German, and sometimes show a 'mixed' behaviour. This is indeed the case for most parameters. To give only a few examples: with regard to grammatical morphology (other than case), Dutch has less genders than German and more than English, and the same holds for its plural markers and verb agreement markers. In addition, Dutch has a greater semantic diversity in its grammatical relations than German, but less than English. For instance, it allows (some) recipient subjects in passives. For a detailed comparison of German, Dutch, and English, with extensive references to Hawkins' comparative typology, see Shannon (1990).

As for the basic parameters in (1), word order and case, Dutch occupies an intermediate position as well. This is shown in (2), where the realisation is shown of Hawkins' basic parameters, case and SVO word order. The Dutch case system is, like the English one, almost completely lost: NPs do not show case, and, in addition, in the pronominal system syncretism is rife as well. The parameter SVO word order is split into two different subparameters in (2), both of which distinguish Dutch (and Frisian and German) from English.[3] On the one hand, Dutch and Frisian main clauses have not abandoned the Verb Second-constraint, like German but unlike English, which has a strict SVO word order in main clauses (in contemporary English, V2 is kept only in a limited number of syntactic environments, such as questions and constructions with topicalised negative elements, whereas it used to be found more frequently in older

[3] There are, of course, more differences. For example, as in German, in Dutch main clauses the infinitives and participles are placed at the end, forming a so-called 'brace' with the inflected verb in second position. Word order in German and Dutch differs as well, for instance with respect to the types of elements that may appear to the right of these infinitives and participles, i.e. out of the brace. These differences are not really important for the present purpose, though. The main issue here is whether subjects and objects can occur on different sides of the (inflected) verb.

varieties of English, i.e. so-called 'residual V2'). On the other hand, Dutch, Frisian, and German embedded clauses have preserved the SOV word order, whereas embedded clauses in English have SVO order. Hence, the Dutch word order resembles German rather than English: whereas English has a rather consistent SVO order, Dutch, Frisian, and German extensively use other patterns, such as OVS or XVSO in main clauses, or SOV in embedded clauses. There are some estimates on the frequencies of these non-SVO orders: according to De Meersman (1985:128), approximately 40% of Dutch main clauses show OVS or XVSO order. For German, Nübling (1992:257) counts 65% non-SVO clauses, including both main and embedded clauses.

(2) GR-marking in English, German, Dutch, and Frisian

	Word order		**Case**
	main clause	*subclause*	
English:	mainly SVO residual V2	SVO	residual (some pronouns only)
German:	mainly V2	SOV	productive on NPs
Dutch, Frisian:	mainly V2	SOV	residual (some pronouns only)

While occupying this intermediate position between German and English, Dutch nevertheless seems problematic to Hawkins' generalisation, in that neither case nor word order can be used consistently to express the basic grammatical relations (subject and object). In other words, while the absence of a productive case system in Dutch is expected to cause some 'compensation' through a (functionally equivalent) stricter word order, word order in Dutch does not differ significantly from German. Dutch, then, provides an apparent counterexample to the alleged correlation between the loss of case and the fixation of word order in English. However, it would be going too far to abandon the correlation for this reason, as it is a well-documented one, which seems not only to have occurred in English, but in the Romance languages as well, most notably in Standard French (see Schøsler 2001:176-179 and the references cited there).

An obvious way to explain the unexpected behaviour of Dutch is to look for a third parameter that can be considered functionally equivalent to both case and strict SVO word order. Both in the generative and in the typological literature, several candidates can be found of linguistic

phenomena that correlate with case and/or word order.[4] One phenomenon known to correlate with word order, is verb agreement.[5] In the generative literature on the Germanic languages, a correlation is suggested between verb inflection and the verb being placed in the left periphery of the clause (cf. Vikner 1995, Rohrbacher 1999; see also Bobaljik and Thráinsson 1998). This suggestion seems compatible to the typological observation that verb-initial languages favour head-marking, of which verb agreement is an example (Nichols 1992:81-82).[6] However, a typological study by Siewierska and Bakker (1996) does not corroborate this observation, as, in their sample of 237 languages, they only find a correlation between SVO word order and the absence of verb agreement. This correlation is explained in a very similar manner to the one between strict-SVO order and the absence of case, i.e. through the assumption that agreement facilitates the identification of grammatical relations, as do case and SVO word order. Hence, the presence of SVO order may render verb agreement obsolete (see especially Siewierska and Bakker 1996:136-139).[7] The distribution of verb agreement does not only correlate with word order, but also with case. Nichols (1992) has pointed out the functional equivalence of case and verb agreement, explaining both phenomena as different ways to mark clause relations, case being an instance of dependent-marking, and verb agreement of head-marking.[8] Hence it comes as no surprise that the

[4] Examples of phenomena that are possibly relevant for the developments in the Germanic case system, but that will not be discussed, are the use of the definite article (cf. Barðdal 2001:192-193), and, of course, also phonological phenomena such as vocalic reduction or accent shift.

[5] Hawkins (1986) discusses verb agreement as a part of the grammatical morphology of German and English, on a par with, among other things, gender, plural marking, and tense marking. However, verb agreement is not identified as a 'functional equivalent' to case and strict word order, i.e. as a way to express grammatical relations.

[6] It needs to be remarked, though, that the generative and the typological frameworks use rather different criteria to decide whether a verb occurs in the left periphery of a clause. In the generative tradition, the position of the inflected verb vis-à-vis so-called 'high adverbs' is crucial, whereas most typologists restrict themselves to the relative position of the V and the O.

[7] A similar statement is found already in Sapir (1921), chapter 5, section 34: "Psychologically the methods of sequence and accent lie at the opposite pole to that of concord. Where they are all for implication, for subtlety of feeling, concord is impatient of the least ambiguity but must have its well-certificated tags at every turn. Concord tends to dispense with order."

[8] See Shiraki (2004) and the references cited there for attempts to incorporate this insight in a generative framework; see also Markman (2005) for discussion.

distribution of the relevant phenomena over the languages of the world is not random. Significantly, Nichols' sample (n=60) contains no examples of languages without both case and verb agreement (Nichols 1992:68-69). The picture becomes even clearer if word order is drawn into the picture. Unlike Nichols, Siewierska and Bakker (1996:136-138) do provide instances of languages lacking both verb agreement and case. However, 16 of their 20 examples (n=237) come from SVO or OVS-languages, in which, in Hawkins' (1986:48-49) terms, "verb position is the particular vehicle which most conveniently enables these basic grammatical relations to be expressed by means of word order." The preference for case- and agreementless languages to have SVO word order is statistically significant at the .001-level.[9]

In sum, it is clear from typological studies that the distribution of SVO word order, case, and verb agreement in the languages of the world shows interesting correlations, indicating that the three phenomena are functionally equivalent. Integrating verb agreement in Hawkins' comparative typology, Dutch is no longer a problematic case. Although the Dutch verb agreement system does not show any sign of compensation for the loss of case, the preserved agreement markers apparently suffice to help in the tracking of subjects and objects. Cf. Lehmann (1988:55): "[...] agreement is referential in nature. It helps identify or re-identify referents. It does by giving information of grammatical properties of its referent and, thus, of the NP representing it, if one is around."

3. A Pan-Germanic perspective

3.1 A typology of the Germanic languages

As shown in section 2, the parameters SVO word order, case, and verb agreement are not distributed randomly across English, German, Frisian, and Dutch. Rather, the relevant languages have at least one way at their disposal to distinguish basic grammatical roles, be it case, verb agreement, or an almost exceptionless SVO word order, a parameter subsuming two different word order features, viz. strict-SVO main clauses and SVO-subclauses. In (3), the distribution of these parameters in a number of Germanic languages is shown, including English, German, Frisian, and Dutch, but also Yiddish, Faroese, and Icelandic (i.e. the Insular Scandinavian languages); Continental Scandinavian and Afrikaans will be discussed below.

[9] To provide more precise data: among 110 SOV or OSV languages, 3 (2,73%) have neither case nor agreement. For VSO or VOS-languages, the ratio is 1 to 33 (3,33%); for SVO and OVS languages it equals 21,05% (16 to 76).

(3) A typology of some Germanic languages (preliminary)

	Word order			
	strict-SVO in main clause	*SVO subclause*	**Verb agreement**	**Case**
English:	mainly SVO residual V2	SVO	varieties found without agreement	residual (some pronouns only)
German:	mainly V2	SOV	in all varieties	productive on NPs
Dutch, Frisian:	mainly V2	SOV	in all varieties	residual (some pronouns only)
Yiddish:	mainly V2	mainly V2	in all varieties	productive on NPs
Insular Scandinavian:	mainly V2	mainly V2	in all varieties	productive on NPs

Word order and the distribution of case in English, German, Dutch, and Frisian have been discussed in the previous section. As for verb agreement, there are some varieties of English that indeed no longer show verb agreement (Börjars and Chapman 1998). Significantly, in the German, the Frisian, and the Dutch language areas, unlike in the English ones, no dialects are found in which the verb agreement system has disappeared. Yiddish and the Insular Scandinavian languages pattern with German in their preservation of case-marked NPs and verb agreement. In main clauses, the Verb Second principle applies, so there is no strict-SVO in main clauses. Yiddish and Insular Scandinavian display SVO word order rather than SOV in subclauses (see Vikner 1995:65-130 for discussion). The overview in (3) strongly suggests that all Germanic languages must have at least one way to distinguish the basic grammatical relations of subject and object. In English, Dutch, and Frisian, only one strategy is used, viz. word order in English and verb agreement in Dutch and Frisian. In the other languages in (3), both case and verb agreement are used. With respect to GR-marking, these languages can be considered conservative languages.

The variation in the attested combinations of the grammatical properties in (3) is important, as it reveals that different diachronic paths are possible. On the one hand, the absence of case in English and certainly in Dutch and Frisian suggests that SVO-order arises when the case system is already lost. Hence it seems possible that these languages have gone through a stage in which the grammatical relations are somewhat underspecified, suggesting a causal relation between the loss of case and a subsequent rise of SVO-order (cf. also the English data in Bean 1983:139).

On the other hand, Yiddish and Insular Scandinavian seem to behave 'pro-actively,' through introducing SVO word order at a moment in which case is still productively used in the language. This leads Barðdal (2001:192) to conclude that there cannot be a direct causal relationship between the development of "rigid word order" and the loss of case in Scandinavian. This conclusion is too strong, however, as the existence of a causal relationship between two linguistic changes does not entail that both developments occur at the same time.[10] In Insular Scandinavian, the rise of SVO subclauses, which is a relatively recent one (cf. Hróarsdóttir 2000:259), may very well prove to be a necessary condition for the loss of case. The interesting fact about the data from Icelandic and Faroese is that the potential causal relationship between both changes seems to be different from that in some other Germanic languages, where the loss of case preceded the rise of SVO in time, and not vice versa.

Synchronically, none of the different distributional patterns of the linguistic phenomena under investigation causes any problems for the proposed generalisations: cross-linguistically, it is by no means exceptional that languages have more than one device at their disposal to distinguish subjects from objects. It is remarkable, though, that within Germanic, there are several languages in which there is only one way to perform this function, such as English, Dutch, and Frisian. A comparable pattern is found in the Continental Scandinavian languages and in Afrikaans, which have neither case-marked NPs, nor verb agreement.

3.2 Integrating the Continental Scandinavian languages

Given the observation in (3) that the Germanic languages tend to dispose of either case-marking, verb agreement, or SVO word order, the Continental Scandinavian languages, viz. Danish, Swedish, and Norwegian, are expected to have SVO as the dominant word order. To some extent, this is indeed so: the Continental Scandinavian languages have, unlike German, Frisian, and Dutch, subclauses with SVO word order, like English.[11] In

[10] Barðdal's second argument, the exceptional status of Dutch, does not seem to hold either. Whereas it is true that Dutch has not developed an English-style rigid word order subsequent to the loss of case, Dutch word order is in several respects more rigid than the word order of its closest relative, German, which can indeed be attributed to the fact that German has preserved morphological case. Thus, ever since morphological case disappeared from Dutch, the language has continuously developed a more rigid word order (see Shannon 2003 for discussion).

[11] Whether embedded clauses in the Continental Scandinavian languages must be considered SVO-clauses or V2-clauses, is a matter of debate. See Vikner (1995:65-130) for discussion.

main clauses however, the Scandinavian languages differ from English in that they still show Verb Second word order, in which subjects and objects can appear on the same side of the verb, as shown in (4).

(4) GR-marking in Continental Scandinavian

	Word order		**Verb agreement**	**Case**
	main clause	*subclause*		
Continental Scandinavian:	mainly V2	SVO / V2	mostly no agreement	residual (some pronouns only)

Rather than providing a counterexample to the proposed generalisation, the Scandinavian data indicate that Hawkins' notion of 'grammatical word order' can be replaced by a more precise word order feature, viz. the presence of SVO-subclauses, or, more precisely, the possibility to place verbs in between subjects and objects in all sentence types. Accordingly, an observation concerning the distribution of case-marking, verb agreement, and SVO-subclauses can be made, as in (5).

(5) Generalisation on GR-marking in Germanic

Each Germanic language must have at least one grammatical feature at its disposal to ensure the GR-marking, either case-marked NPs, verb agreement, or availability of SVO-order in both main and subordinate clauses.

The relevance of the generalisation is twofold. On the one hand, it can be read not only as a statement about the Germanic standard languages, but also as a prediction for all Germanic dialects, and, to some extent, about the languages of the world (although there are a limited number of counterexamples, cf. note 9). On the other hand, a generalisation such as (5) entails that different ways to mark grammatical relations, i.e. case-marking, verb agreement, and availability of SVO-order, keep each other in balance. For instance, if case and agreement are lost in a non-SVO language, there will be a pressure towards SVO.

That Hawkins' (1986) parameter of 'grammatical word order' can be replaced by the feature of SVO-subclauses, makes the notion of strict-SVO in main clauses dispensable for our purposes. This does not mean that the comparative typology in (1) needs to be adapted, of course. Distinguishing grammatical relations is just one of the linguistic functions that are mentioned in the typology. Note that some of the English phenomena that have been addressed in section 1 are notoriously absent from the other Germanic languages, such as some possibilities for raising, extraction, and NP-deletion. Hence these phenomena are likely to correlate with strict-

SVO, which is the only word order feature that occurs exclusively in English.

3.3 The case of Afrikaans

As the Scandinavian languages, Afrikaans does not have case-marked NPs and verb agreement. In addition, Afrikaans, being derived from Dutch, has SOV-subclauses. Hence the language provides a problematic case for the generalisation proposed in (5). However, Afrikaans seems to be undergoing quite radical changes when it comes to word order. Conradie (2004) mentions four important tendencies, which all boil down to a shift of the verb towards the left of the clause, both in subordinate and in main clauses (for SVO-subclauses, see also Ponelis 1978:440-442; Donaldson 2002:499):

(a) a preference for V2 subordinate clauses without conjunctions in general usage;

(b) a change in the combinatorial characteristics of conjunctions allowing subordinate order to be replaced by main clause declarative or interrogative order (i.e. with V2 and even V1);

(c) far-reaching penetration of final verbal clusters by noun phrases, prepositional phrases and the like, and

(d) the frequent 'fusion' of linking verb and main verb in V1 and V2 positions.

Properties (a) and (b) imply a shift towards SVO-subclauses, which is precisely what would be predicted by the generalisation in (5) for Afrikaans, in which both case and verb agreement are absent, and SVO-order is the only device left for marking subjects and objects. Thus, although Afrikaans still has SOV-subclauses, SVO-subclauses are indeed available to the language users, and they are increasingly used. Properties (c) and (d) concern main clauses, in which, apparently, Afrikaans tends to 'loosen' the brace between the inflected verb in the second position, and the infinitives and participles that (used to) occur at the end of the main clauses, a development that has also taken place in English. The distribution of the relevant linguistic phenomena is given in (6).

(6) GR-marking in Afrikaans

	Word order		**Verb agreement**	**Case**
	main clause	*subclause*		
Afrikaans:	mainly V2	basic: SOV but: SVO available	absent	residual (some pronouns only)

The nature of the change that Afrikaans is going through is clear: since both case and verb agreement are, apart from some case distinctions in the pronominal paradigm, completely lost, the shift towards SVO-subclauses seems of a compensating nature rather than a 'pro-active' one, as in Insular Scandinavian. Most Germanic creoles seem to have undergone similar changes as Afrikaans, having banned all relics of case and verb agreement, and having developed SVO order in all sentence types (Romaine 2002:590-591).

4. Conclusion: drift in the Germanic languages

The data from Continental Scandinavian and Afrikaans have shown that, with respect to GR-marking, the parameter 'grammatical word order' can be reformulated as an 'availability of SVO in all clause types' (i.e. both in main and subordinate clauses). The distribution of this feature in the Germanic languages, in combination with case-marked NPs and verb agreement, is shown in (7). The Germanic languages are ranked according to the degree in which they have moved away from the original Proto-Germanic situation, with SOV word order, case, and verb agreement. Hence, the most conservative languages are placed on top of the list; the more innovative languages are found at the bottom. It is striking that the order of the languages in (7) does not resemble the genetic classification of the Germanic languages at all: both the most conservative position and the most innovative one are taken by a West-Germanic language (German and English, respectively), and among the Scandinavian languages as well, substantial variation as to the marking of subjects and objects is found.

(7) GR-marking in the Germanic languages

	SVO-order available	**Verb agreement**	**Case**
German:	only in main clauses	present	productive on NPs
Yiddish:	in main and subclauses	present	productive on NPs
Insular Scandinavian:	in main and subclauses	present	productive on NPs
Dutch, Frisian:	only in main clauses	present	residual (some pronouns only)
Afrikaans:	in main and subclauses	absent	residual (some pronouns only)
Continental Scandinavian:	in main and subclauses	absent in most varieties	residual (some pronouns only)
English:	in main and subclauses	absent in some varieties	residual (some pronouns only)

A further observation in (7) is that all Germanic languages indeed can use at least one GR-marking device, as stated in (5). Also, case and verb agreement, i.e. the morphological devices to mark subjects and objects, tend to co-occur. In addition, it seems as if case is somewhat redundant in the table, as Dutch and Frisian, having preserved only verb agreement and not case, indicate that verb agreement may serve as a sufficient GR-marking. The opposite case, i.e. languages with case but without verb agreement, is not attested in the Germanic languages. Hence it seems that the shift towards SVO-order may be triggered not only by the loss of case-marked NPs, but also by the loss of verb agreement.

Hawkins (1986), following Sapir (1921), attributes the shift from morphological GR-marking to grammatical GR-marking in English to the loss of case, but the table in (7) reveals some differences in the way the current situation in these languages has arisen. Apparently, some languages lose case and verbal morphology before SVO-subclauses develop, e.g. Afrikaans, and to a lesser extent Dutch and Frisian. In other languages, SVO-order becomes dominant even in subclauses when case and verb agreement are still productive, as in Yiddish and Insular Scandinavian. These data do not correspond to Hawkins' account for English. The absence of a fixed chronology in the different steps in the shift from morphological GR-marking to syntactic GR-marking, raises important questions as to what has caused this entire shift. Probably, to find a solution to these questions, more fine-grained parameters are needed than the ones that are used here. This has to do with the nature of 'drift,' i.e. a gradual change whereby the participating, functionally equivalent phenomena keep each other in constant balance. This might involve subtle changes, for instance in the number of case markers or agreement markers that are kept, constraints on SVO or SOV-order etc., which are impossible to map using parameters like basic word order or binary oppositions between, for instance, languages with and without case-marked NPs. In addition, the current data base could be broadened, using data from non-standard varieties which are increasingly becoming available to linguists. In that respect, the Scandinavian languages could provide a very interesting test case, as the substantial variation among these languages suggests that there are varieties in which the shift from morphological to syntactic GR-marking is still on the go.

References:

Askedal, John Ole. 2002. 'Norwegian,' in Ekkehard König and Johan van der Auwera (eds.) *The Germanic Languages* [second edition]. Routledge, London and New York, 219-270.

Barðdal, Jóhanna. 2001. *Case in Icelandic: A Synchronic, Diachronic and Comparative Approach*. Department of Scandinavian Languages, Lund.
Barlow, Michael and Suzanne Kemmer (eds.). 2000. *Usage-Based Models of Language*. CSLI Publications, Stanford.
Bean, Marian C. 1983. *The Development of Word Order Patterns in Old English*. Croom Helm, London.
Bobaljik, Jonathan David and Höskuldur Thráinsson. 1998. 'Two heads aren't always better than one,' *Syntax* 1.1, 37-71.
Börjars, Kersti and Carol Chapman. 1998. 'Agreement and pro-drop in some dialects of English,' *Linguistics* 36, 71-98.
Conradie, C. Jac. 2004. 'Verb sequence and placement: Afrikaans and Dutch compared,' in Werner Abraham (ed.) *Focus on Germanic Typology*. Akademie Verlag, Berlin, 153-168.
De Meersman, Alfons. 1985. 'Een VSO-maneuver in de Zuidnederlandse dialecten,' in Hugo Ryckeboer, Johan Taeldeman, and Valeer Frits Vanacker (eds.) *Hulde-album Prof. dr. Marcel Hoebeke*. R.U.G.-Seminarie voor Nederlandse taalkunde, Gent, 123-131.
De Vogelaer, Gunther. 2005. *Subjectsmarkering in de Nederlandse en Friese Dialecten*. Ph.D. dissertation, Ghent University.
Donaldson, Bruce. 2002. 'Afrikaans,' in Ekkehard König and Johan van der Auwera (eds.) *The Germanic Languages* [second edition]. Routledge, London and New York, 478-504.
Faarlund, Jan Terje. 2002. 'Old and Middle Scandinavian,' in Ekkehard König and Johan van der Auwera (eds.) *The Germanic Languages* [second edition]. Routledge, London and New York, 38-71.
Greenberg, Joseph. H. 1966. 'Some universals of grammar with particular reference to the order of meaningful elements,' in Joseph. H. Greenberg (ed.) *Universals of Language* [second edition]. MIT Press, Cambridge.
Hawkins, John A. 1986. *A Comparative Typology of English and German: Unifying the Contrasts*. Croom Helm, London and Sydney.
Hróarsdóttir, Thorbjörg. 2000. *Word Order Change in Icelandic: from OV to VO*. John Benjamins, Amsterdam and Philadelphia.
Keenan, Edward L. 1978. 'Language Variation and the Logical Structure of Universal Grammar,' in Hansjakob Seiler (ed.) *Language Universals*. Gunter Narr Verlag, Tübingen, 89-124.
Langacker, Ronald W. 1987. *Foundations of Cognitive Grammar*. Stanford University Press, Stanford.
Lehmann, Christian. 1988. 'On the function of agreement,' in Michael Barlow and Charles A. Ferguson (eds.) *Agreement in Natural Language*. CSLI, Stanford, 55-66.
Markman, Vita G. 2005. *The Syntax of Case and Agreement: its Relationship to Morphology and Argument Structure*. Ph.D. Dissertation Rutgers University. (http://ling.rutgers.edu/papers/Markman2005Thesis.pdf)
Nichols, Johanna. 1992. *Linguistic Diversity in Space and Time*. University of Chicago Press, Chicago.
Nübling, Damaris. 1992. *Klitika im Deutschen. Schriftsprache, Umgangssprache, alemannische Dialekte*. Gunter Narr Verlag, Tübingen.

Ponelis, Friedrich Albert. 1978. *Afrikaanse Sintaksis*. Van Schaik, Pretoria.
Rohrbacher, Bernhard Wolfgang. 1999. *Morphology-Driven Syntax: A Theory of V to I Raising and pro-drop*. John Benjamins, Amsterdam.
Romaine, Suzanne. 2002. 'Germanic Creoles,' in Ekkehard König and Johan van der Auwera (eds.) *The Germanic Languages* [second edition]. Routledge, London and New York, 566-603.
Sapir, Edward. 1921. *Language: An Introduction to the Study of Speech*. Harcourt Brace, New York.
Schøsler, Lene. 2001. 'From Latin to Modern French: actualization and markedness,' in Henning Andersen (ed.) *Actualization: Linguistic Change in Progress*. John Benjamins, Amsterdam and Philadelphia, 169-186.
Shannon, Thomas. 1990. 'Nederlands tussen Engels en Duits: a typological comparison,' in Margriet Lacy (ed.) *The Low Countries: Multidisciplinary Studies*. University Press of America, Lanham, 45-60.
Shannon, Thomas. 2003. 'Drift in Dutch: Fleshing out the factors of change,' in Arie Verhagen and Jeroen van de Weijer (eds.) *Usage-based Approaches to Dutch*. LOT, Utrecht. (http://lotos.library.uu.nl/index.html).
Shiraki, Hitoshi. 2004. 'Anaphors, agreement and case,' in Ad Neeleman and Mary Pearce (eds.) *UCL Working Papers in Linguistics* 16, 109-147. (http://www.phon.ucl.ac.uk/publications/WPL/uclwpl16.html)
Siewierska, Anna and Dik Bakker. 1996. 'The Distribution of Subject and Object Agreement and Word Order Type,' *Studies in Language* 20.1, 115-161.
Van Haeringen, Coenraad Bernardus. 1956. *Nederlands tussen Duits en Engels*. Servire, Den Haag.
Vikner, Sten. 1995. *Verb Movement and Expletive Subjects in the Germanic Languages*. Oxford University Press, Oxford and New York.