The passive voice in written and spoken Scandinavian*

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1 Introduction

This article deals with the use of the passive voice in Danish, Norwegian and Swedish. The three mainland Scandinavian languages are very similar and with only minor effort mutually comprehensible. Hence, one frequently experiences Scandinavians using their own respective languages when communicating with other Scandinavians. The three languages have developed out of a common Scandinavian protolanguage (Norse), closely resembling the present-day Icelandic. However, while the similarities among these languages are apparent, significant differences exist within the lexicon, syntax and pronunciation. Both the commonalities and differences among the three languages make them interesting to study taking a comparative approach.

Recent decades have shown an increasing interest in the relationship between spoken and written language, and it has become apparent that the use of grammatical structures and other language features varies considerably between the spoken and written language (Chafe & Tannen 1987, Biber 1988, Biber *et al.* 1999, Henrichsen & Allwood 2005). The present article is a contribution to the investigation into the spoken and written language variation, exploring the use of the passive voice in written and spoken Danish, Norwegian and Swedish.[1] The comparisons are carried out both across the three languages and across the spoken and written register, relying on a corpus investigation using empirical data from written and spoken language corpora.

1.1 Earlier research in the field

The research into the passive voice in Scandinavian languages has been quite intensive. Most studies dealing with the passive voice are single-case studies looking into written language. These studies fall within both a generative and a functional framework. Åfarli (1992), Engdahl (2001), Holmberg (2002) and Bjerre & Bjerre (2007) represent some recent studies with a generative approach. Many studies deal

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[1] In the analysis of Norwegian, only one of the official written language versions, *Bokmål,* is considered in this article. The analysis of the Norwegian spoken language is based on the East Norwegian dialect group (mainly from Oslo and the surrounding areas). In Swedish and especially in Danish the dialectal variation is less extensive.

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with a special aspect of the passive voice: such as the connection between voice and aspect or voice and modality/mood system (e.g. Enger 1998, 2001; Lødrup 2000, Heltoft 1994, Heltoft & Falster Jakobsen 1996, Brandt 1999); subject and control (Sundman 1983, 1987); and complex (double) passive constructions (Engh 1994).

Comparative studies of the passive voice between the Scandinavian languages have been less frequent. One of the first studies was carried out by Hulthén (1944). The study by Hulthén is part of his comprehensive comparison of the syntactic properties of the Scandinavian languages. On the basis of data from literary translations and his and his colleague's personal judgements, Hulthén concludes that there are some significant differences between the Scandinavian passives. However, as he himself points out, his empirical material does not warrant strong conclusions (Hulthén 1944: 26, 187). Laanemets (2004) is a comparative study investigating the use of the passive voice based on quantitative data. Laanemets finds that there is no difference in the overall frequency by which the passive voice is used in the three languages. There are, however, significant differences among the languages when looking at the distribution of different passive constructions. Swedish stands out in this respect from Danish and Norwegian. Engdahl (1999, 2000, 2006) looks more closely into the semantic and syntactic factors determining the choice between the morphological and periphrastic passive in Scandinavian languages. Engdahl concludes that the morphological passive is the unmarked passive form in Swedish, while this is not the case in Danish and Norwegian.

Studies into the use of the passive voice in spoken language have been less frequent. To the best of my knowledge, there exist only three such studies within the Scandinavian context. Two studies are by Holm (1952, 1967), who deals with the passive voice in Swedish dialects and in the formal language used in Swedish court hearings. Holm concludes that there are large differences in the use of the morphological passive voice between Swedish dialects and the formal spoken language, the latter being heavily influenced by written language (Holm 1976: 219). The third study carried out by Kirri (1974) also deals with Swedish. The main focus in his study is on the analysis of overt agent phrases in passive constructions. Kirri concludes, along with Holm (1952, 1976), that explicit agent phrases are infrequent in spoken Swedish (Kirri 1974: 144, 148).

To the best of my knowledge, there exist no studies comparing the use of the passive voice in written and spoken Scandinavian languages. In a comprehensive study of written and spoken English, Biber *et al.* (1999) also deal with the passive voice (chapters 6.4 & 11.3). Biber *et al.* find that there is considerable variation between the use of the passive voice in spoken and written English. The differences occur in relation to frequency, lexicon, type of subject and agent.

The results from the study of English are not necessarily transferable to the Scandinavian languages. However, due to the typological and genetic similarities of the English and Scandinavian languages, one could assume that the same kind of tendencies will emerge in Danish, Norwegian and Swedish.

2 The passive voice in the Scandinavian languages

Although most of the world's languages have at least one construction called passive, the differences between the various constructions are quite large (Siewierska 1984,

Keenan 1986). This has led to the suggestion that a common definition of the passive voice is rather difficult to establish. Instead, we can operate with a number of typical criteria or properties, which separately or together can define the passive voice in different languages (Comrie 2008).

In the present article, the passive voice is defined as an agent demoting process. This means that the semantic role that an active verb assigns to its subject (mainly agent or cause) cannot be assigned to the subject by the corresponding passive verb. The demoted agent/cause remains, however, in the semantic structure of the sentence and might optionally be present in the form of a prepositional phrase (PP). On the other hand, the promotion of an object is not decisive for the Scandinavian passive voice, as this criterion would exclude the impersonal passive constructions (i.e. constructions with intransitive verbs).[2]

2.1 Two passive construction—morphological and periphrastic

The three Scandinavian languages have two basic ways of forming the passive voice: a morphological and a periphrastic. Both of these constructions are, as will be discussed later, productive, and can be used in various contexts.

The morphological form is constructed by adding the suffix *–s* (or its variants) to the verbal stem.[3] The verb may be inflected for tense. In example (1a–c), a simple sentence with a morphological passive in present tense is given in Danish (DK), Norwegian (N) and Swedish (S).

(1) (a) Facebook bruges (af mange mennesker) over hele verden. DK
facebook use-S by many people over all world

(b) Facebook brukes (av mange mennesker) over hele verden. N
facebook use-S by many people over all world

(c) Facebook används (av många människor) över hela världen. S
facebook use-S by many people over all world

'Facebook is used by many people all over the world.'

The examples indicate the constructional similarities of the morphological passive in the three languages. In all of them an s-suffix is added to the verb. An explicit agent phrase (with the preposition *af*/*av*, 'by') is, as stated above, not required and is generally omitted.

The second option—called the periphrastic passive—is constructed by an auxiliary verb followed by the *perfect participle* of a main verb. There are two auxiliary verbs—*blive* (DK)/*bli* (N & S), 'become', and *være* (DK & N)/*vara* (S), 'be'—that are used to construct periphrastic passives. In some studies, a few special constructions with the verb *få*, 'get', followed by the *perfect participle* are also treated as a passive or passive-like construction (Diderichsen 1962, Ryen 1990,

[2] For a longer discussion of the notion of demotion and the passive voice, see Sundman (1987) and Solstad & Lyngfelt (2006).
[3] In the Scandinavian literature, this form is called the s-passive, which will also be used in this article.

Heltoft 1996, Faarlund *et al.* 1997, Teleman *et al.* 1999). This article focuses on the periphrastic constructions with the auxiliary verb *blive/bli*, 'become'.[4]

In example (2a-c), sentences with the periphrastic passive are presented. As with the morphological passive, the addition of an explicit agent phrase is possible but not obligatory.

(2) (a) Mine billeder bliver ofte brugt (af andre). DK
my pictures become often used by others

(b) Mine bilder blir ofte Brukt (av andre). N
my pictures become often Used by others

(c) Mina bilder blir ofta använda (av andra). S
my pictures become often Used by others

'My pictures are often used by others.'

2.2 Constructional differences

As seen from the examples (1a-c) and (2a-c), the three Scandinavian languages make use of the same ways to express the passive meaning, using either a morphological form or a periphrastic construction. However, despite the general similarity, there are important differences related both to the inflectional paradigm and to syntactic and semantic properties.

Table 1 gives a schematic overview of the tense inflection paradigm of the morphological passive in the standard versions of the three languages.

Tense	**Danish**	**Norwegian**	**Swedish**
Infinitive	bruge-s	bruke-s	använda-s
Present	bruge-s	bruke-s	använd-s
Preterite	kastede-s	*kastet-s/*kasta-s	kastade-s
	brugte-s	brukte-s	använde-s
	*sang-s	*sang-s	sjöng-s
Perfect	*har brugt-s	*har brukt-s	har använt-s
Pluperfect	*havde brugt-s	*hadde brukt-s	hade använt-s

Table 1. Inflection of the morphological passive in Danish, Norwegian and Swedish

In Swedish the tense paradigm is complete, and there are no structural restrictions mentioned in the grammatical literature. In this respect Danish and Norwegian stand out from Swedish. In Danish and Norwegian the tense paradigm in the morphological passive has considerable gaps in the past tenses. The compound past tense forms are ungrammatical, whereas the preterite tense can only be used with

[4] In the Scandinavian literature this passive is denoted as the *bli*-passive, which will also be used in this article. Unless otherwise stated, in this article *periphrastic passive* refers only to constructions with the auxiliary *blive/bli*.

some regular verb classes (those ending with *–e* in the preterite tense; i.e. the first and second conjugation in Danish (*kastede-s*, *brugte-s*) and the second conjugation in Norwegian (*brukte-s*)). Irregular verbs can generally not be used in the preterite tense with the morphological passive (**sang-s*). The missing past tense forms in Danish and Norwegian have traditionally been explained as a consequence of morphological and phonological factors (Diderichsen 1962: 119, Hansen 1967: 47; Western 1921: 160, Faarlund *et al.* 1997: 513).

Periphrastic passive constructions are, as mentioned above, formed by an auxiliary verb and a main verb. Table 2 shows the tense paradigm of the periphrastic passive for the three languages. It is the auxiliary verb *blive/bli* that is inflected in the tense, whereas the main verb remains in perfect participle. In contrast to the morphological passive, the tense paradigm of the periphrastic constructions is complete in all three languages.

Tense	**Danish**	**Norwegian**	**Swedish**
Infinitive	blive brugt	bli brukt	bli använd
Present	bliver brugt	blir brukt	blir använd
Preterite	blev brugt	ble brukte	blev använd
Perfect	er blevet brugt	har/er blitt brukt	har blivit använd
Pluperfect	var blevet brugt	hadde/var blitt brukt	hade blivit använd

Table 2. Inflection of the periphrastic passive in Danish, Norwegian and Swedish

If we recall the example sentences from (2c), reproduced below, we see that in Swedish the perfect participle (*använda*) agrees with the subject (*mina bilder*) in number.

(2) (c) Mina bilder blir ofta använda (av andra). S
my picture-PL become often used-PL by others
'My pictures are often used by others.'

The agreement in number and gender is mandatory in Swedish, and—as pointed out by Engdahl (2006: 23ff)—the use of the uninflected supine form in this function would be ungrammatical. In Danish and Norwegian, on the other hand, the participle remains in the basic form.[5] Agreement in number and gender would indicate that the participle is used as an adjective and the sentence would thus not have a passive meaning (Faarlund *et al.* 1997: 125, Becker-Christensen 2001). This contrast is best seen with *være* ('be') passives, as illustrated with a Danish example (3a–c) taken from Becker-Christensen (2001: 132):

(3) (a) Bænkene er [*lige] malede. (feature, state)
the.bench-PL are just painted-PL

(b) Bænkene er (lige) malet. (resultant state)
the.bench-PL are just painted

[5] In Norwegian, however, there is considerable dialectal variation and many dialects act like the Swedish pattern, requiring agreement inflection of the participle. For a detailed treatment of this topic see Åfarli in this volume.

(c)	Bænkene	er	(lige)	blevet	malet.	(activity,
	the.bench-PL	are	just	become-PART	painted	change of state)

Sentence (3a) with the inflected perfect participle describes the feature of the benches. Sentence (3b) with the non-inflected perfect participle expresses a resultant state, and is considered a periphrastic passive construction with the auxiliary *være*, 'be'. Finally, sentence (3c)—which is a periphrastic *blive*-passive with a non-inflected perfect participle—focuses on the change of state, or the activity.

It would be natural to assume that the inflectional differences among the three languages are also reflected in the actual use. The lack of (compound) past tense forms of the morphological passive forces Danish and Norwegian speakers to use some other constructions, be it one of the periphrastic passives or some non-passive expression. On the other hand, we should not expect the agreement/non-agreement of the subject and perfect participle to have an effect on the use of the periphrastic passive construction.

2.3 Conditions of use

In the following discussion of the use of the passive voice, the main focus is on written language. This is because of the nature of the passive voice research so far, in which most of the descriptions and discussions are based on examples from written sources.

From a language economy point of view we should expect that the two Scandinavian passive constructions have a difference in meaning or use. Hence, in many general descriptions of the passive voice, we find the claim that norms, rules, prescriptions and commands are expressed using morphological passive (e.g. Western 1921: 161, Diderichsen 1962: 136, Hansen 1967: 147, Thorell 1973: 135).

The distinction between the morphological and periphrastic passive voices is in addition explained as a distinction between general and specific events (Mikkelsen 1975 [1911]: 381, Western 1921: 159–61, Faarlund *et al.* 1997: 514, Thorell 1973: 135). Thus, the morphological passive is claimed to be used when describing general events or ongoing actions, whereas *bli*-passive is used to describe single events or events where the focus lies on the result of the action. As noticed by Engdahl (2006: 25f), this distinction does not hold for Swedish to the same extent, since the morphological passive is used both when talking about specific and general events.

In a recent study of Danish passives, Heltoft & Falster Jakobsen (1996) claim that the difference between the morphological and periphrastic (*blive*) passive in Danish is best described in relation to the mood system. They argue that the morphological passive expresses objective mood, whereas the periphrastic construction with the auxiliary *blive*, 'become', expresses subjective mood (Heltoft & Falster Jakobsen 1996). Example (4a, b), taken from Heltoft & Falster Jakobsen (1996: 203), illustrates the distinction:

(4)	(a)	Indledningen	skrives	til sidst.	(*objective mood,*
		the.introduction	write-S	Last	*norm, general statement*)
		'The introduction is to be written last.'			

(b) Indledningen Bliver skrevet til sidst. (*subjective mood*)
the.introduction become.PRES written last
'The introduction will be written last.'

As discussed by Engdahl (2006: 25f), the corresponding distinction between the two passive expressions does not occur in Swedish. In Swedish, both the objective statement and the subjective prediction have to be expressed by the morphological passive. In Norwegian (*Bokmål*), on the other hand, a similar interpretation as in Danish can be obtained (Enger 2001: 420f).

Another important difference between the two passive forms in Danish, Norwegian and Swedish relates to impersonal passive constructions. These are constructions with intransitive or transitive verbs with no object promotion to the subject position. Because of the subject requirement in the Scandinavian languages, a dummy pronoun (*det/der*, 'it'/'there') is added to fill the subject position, as shown in example (5a, b):

(5) (a) så skal der snakkes og hygges DK (BySoc)
so shall there talk-S and be-cosy-S
'Now it is time to talk and have a good time.'

(b) Det pratas alltför mycket här S (Thorell 1973: 134)
it talk-S all too much here
'People talk too much here.'

In Danish and Norwegian both the morphological and periphrastic forms can be used in impersonal passive constructions. As claimed for Danish, there is no special difference in meaning between the two forms (Hansen 1967: 147). To illustrate this, Hansen gives the following pair as an example (ibid.):

(6) (a) Der råbes og synges hele natten.
there shout-S and sing-S all the.night
'People are shouting and singing all night.'

(b) Der bliver råbt og sunget hele natten.
there become shout-PART and sing-PART all the.night
'People are shouting and singing all night.'

One restriction, mentioned in connection with Norwegian impersonal passives with intransitive verbs, is that the verb should express human action and have a durative aspect (Hovdhaugen 1977: 24). The agent phrase is seldom overt in these constructions, and even if the addition of an agent would be grammatical in most cases, it is often considered unnatural, as shown in the following example (ibid.):

(7) Det ble dvelt lenge (?av dem) ved det problemet.
it became dwelt-PART long time by them on this the.problem
'People were considering the problem for a long time.'

The Swedish impersonal passive also presupposes human action, but the perceived agent cannot be expressed overtly through an *av*-phrase (Teleman *et al.* 1999 Vol. IV: 363, Engdahl 2006: 38ff). Moreover, the Swedish impersonal construction is only productive with the morphological form, whereas the periphrastic construction is highly restricted in this function (Engdahl 2006: 38ff). Only some special constructions, as shown in example (8), are found. These constructions are characterised, as pointed out by Engdahl (ibid.), by a negative and/or quantitative phrase, such as e.g. *ingenting*, 'nothing', and *inte mycket*, 'not much', in (8a, b):

(8) (a) Det blev ingenting gjort. (Engdahl (2006: 39))
it became nothing done
'We got nothing done.'

(b) Det blev inte mycket sagt. (Engdahl (2006: 39))
it became not much said
'Not much was said.'

Besides the restrictions related to impersonal passive constructions, there exists at least one more limitation related to the Swedish periphrastic (*bli*) passive. It is pointed out that these constructions tend to have animate subjects in Swedish (Teleman *et al.* 1999 Vol. IV: 390, Engdahl 2006: 31). The animacy aspect constitutes, however, only part of the explanation. More important is that the subject in periphrastic passive constructions tends to have some control over or effect on the situation described (Sundman 1983, Engdahl 2006: 32ff). To have control or effect on an event obviously presupposes an animate subject.

2.4 Spoken language

In the grammatical literature we find only few references to the use of the passive voice in spoken language. The Danish, Norwegian, and Swedish grammars claim that the morphological passive is used mostly in written language (Rehling 1934: 87, Hovdhaugen 1977: 36, Teleman *et al.* 1999 Vol. IV: 360).

Holm (1967) and Kirri (1974) make no references to any special syntactic restrictions in relation to the use of the passive voice in spoken Swedish. In their studies, they describe the typical usage and frequencies of passive constructions. Holm finds that the s-passives in combination with an overt agent phrase are rare in spoken language (i.e. in Swedish dialects). This is also confirmed by Kirri's study. Concerning the use of the passive voice in different tenses, Holm (1967: 208) finds the s-passive to be most frequently used in the infinitive, especially after modal auxiliaries. The second most frequent forms are the present and preterite tenses, whereas the use of s-passive in the supine is very infrequent. Once again the result is supported by Kirri (1974: 148). While Holm only looks into the morphological form, Kirri also includes periphrastic constructions in his study (both with the auxiliary *bli*, 'become', and *vara*, 'be'). His investigation of the distribution of the morphological and periphrastic passives shows that the morphological form is the most frequently used form, whereas periphrastic constructions are less often used (Kirri 1974: 147).

Finally, Kirri also looks into the type of subject, finding that inanimate subjects are used most frequently together with the morphological passive, whereas the periphrastic constructions prevail when the subject is animate (Kirri 1974: 148). This corresponds well with Engdahl's (2006) results for written language.

Biber *et al.* (1999: chs. 6.4 & 11.3) find clear differences between the use of the passive voice in written and spoken English. When looking at the general distribution, the passive voice is eight times more frequent in written language (newspaper texts) than in spoken language (ibid.: 476). As in Holm's (1967) study of Swedish, Biber *et al.* (1999: 477) also find a low occurrence of passive constructions with overt agent phrases in spoken language (and as a matter of fact, also in written language).

In addition to differences in overall frequency and overt agent phrases, Biber *et al.* also find that certain lexical factors influence the choice between active and passive form. Hence, there exist a number of verbs which occur more often in the passive than in the active voice. Biber *et al.* (1999: 479) give the following examples: *be + born, reputed, based (on), deemed, positioned, subjected (to)*. In addition, there are a few passive constructions that are found more commonly in conversations than in writing. Biber *et al.* (1999: 480) list the following examples: *can't be bothered, be done, was meant, be allowed, be finished*. As they point out, many of these expressions could, however, be analysed as the copula *be* followed by a predicative adjective (ibid: 480).

Based on the discussion above, we should expect to find striking similarities between the Danish and Norwegian passive voices, whereas the Swedish passive voice probably will behave differently. This expectation is first and foremost based on two aspects. The first relates to the incomplete tense paradigm of the Danish and Norwegian morphological passive, which we would expect to translate into a lower frequency of s-passives in these two languages. Secondly, it is reasonable to assume that the numerous semantic and syntactic restrictions related to the Swedish periphrastic passive (with the auxiliary *bli*) will limit the usage of this construction.

There is no obvious reason to assume that the restrictions discussed above only apply to written language, and we would therefore expect to find similar tendencies in the spoken material. There is, however, an additional factor mentioned above that can influence the results, namely the preferential use of the morphological passive in written language. Furthermore, as pointed out by Biber *et al.*, the passive voice in English is generally more frequent in written than in spoken language, a tendency we would expect to find in Scandinavian languages too.

2.5 Non-passive verbs ending in –s

Before going on to the analysis of the corpus findings, a short comment is needed in order to delimitate passive from other passive-like constructions. This is important in relation to the coding of the empirical material to be presented in the next section.

Most researchers assume that the Scandinavian morphological passive has developed from the reflexive pronoun *sik*. During historical development the *–s* suffix has, however, attained different meanings. In addition to its reflexive meaning, it has furthermore attained reciprocal, medial and passive meaning (Wessén 1992: 173–182). In present-day Scandinavian languages, the so-called s-verbs, i.e. verbs

ending in *–s*, still have all these functions, although not all of them are productive in all modern Scandinavian languages (as argued for Norwegian in Faarlund *et al.* 1997: 512f).

One of these non-passive s-forms is referred to as *medial*. This form relates to constructions where the subject is part of, or an experiencer of, an event or action that is not caused by the subject itself or by any other (external) actor (Teleman *et al.* 1999 Vol. II: 556, Solstad & Lyngfelt 2006: 4). The following sentence (9) is an example of a medial construction:

(9)	Nya stjärnor	bildas	och	stjärnor	försvinner.	S (GSLC)
	new stars	create-S	and	stars	disappear	

'New stars are born and stars disappear.'

The subject *nya stjärnor*, 'new stars', in sentence (9) has the semantic role of patient, but the event *bildas*, 'create', is neither undertaken by the stars themselves nor by any other actor. It is a natural process, something that just happens without any deliberate cause.

Since the subject of a passive clause often is the promoted object of the corresponding active clause, passive clauses also tend to have a subject with the semantic role of patient. Medial constructions, on the other hand, have no agent or cause in their semantic structure that might have caused the action. The events or activities either happen by themselves, or are caused by some unspecified or unknown circumstances. This means that one can neither add an explicit agent phrase nor imagine an agent/cause in the semantic structure of the medial sentence, as required by the passive constructions (e.g. Sundman 1987: 325).

The borderline between medial and passive constructions is sometimes rather fuzzy, and it can therefore be hard to determine whether a sentence is medial or passive. The problems emerge especially in relation to sentences where the event/action can be caused by an inanimate, non-intentional entity (Teleman *et al.* 1999 Vol. II: 557). Teleman *et al.* (*ibid.*) give the following sentence (10) as an example:

(10)	Lagret	har	skadats	i vinter.
	the.storehouse	has	damage-S	in winter

'The storehouse was damaged during the winter.'

This sentence is open to two interpretations, one in which *skadas*, 'damage-S', attains a medial meaning and one in which it has a passive meaning. Hence, the sentence can be interpreted as a mere ascertainment that the storehouse—for some reason or another—was damaged during the winter. *Winter* is simply marking the time period during which the damage happened. Another interpretation is to consider *winter*—that is, the harsh winter weather—as the cause of the damage inflicted on the storehouse. In this case we might consider the construction to be passive. Interpreting the sentence in this way, one can add an explicit agent phrase (*av*), as suggested by Teleman *et al.* (*ibid.*):

(11) Lagret har skadats av vintervädret.
the.storehouse has damage-S by the.winter weather
'The storehouse was damaged by the winter weather.'

According to Teleman *et al.* (1999 Vol. II: 552–557), it is obvious that Swedish s-verbs are highly polysemous. In addition to the productive use of the above-mentioned meanings, the Swedish s-verbs can also be used with the so-called absolute function. Sentences with an absolute meaning refer to events that the agent of the verb tends to perform. An example is given in (12):

(12) Hunden bits.
the.dog bite-S
'The dog tends to bite.'

In Danish and Norwegian the absolute meaning cannot be expressed by the s-verb, and sentences like the one in (12) have to be expressed with the lexical verb *pleje*, 'tend to'.

In the current investigation, all uses of s-verbs other than passive—i.e. reflexive, reciprocal, medial and absolute—were left out. As just discussed, the borderline between medial and passive constructions can be fuzzy. In the event of uncertainty, a larger context was included to determine the meaning of the particular utterance.

3 Corpus investigation

The following empirical analyses are based on data from spoken and written language corpora. Both spoken and written language varies significantly in their different uses. For this reason, it is difficult to study the general use of the passive voice in written or spoken language. As the main purpose of this article is to examine the relation between the three languages, an important selection criterion for the empirical material has been to ensure comparability across the languages.

Spoken language can be divided into formal and informal language, depending on the communication situation. The formal and informal use of language can, however, vary a lot. As in written language, one generally distinguishes between different genres; in spoken language, it is relevant to distinguish between different activity types. In order to establish a valid base for comparison, one should ensure that the data represents similar genres in the written languages and similar activity types in spoken language.

For the spoken language part, this study makes use of the Danish Spoken Language Corpus (BySoc), the Oslo-part of the Norwegian Spoken Language Corpus (NoTa), and the Swedish Göteborg Spoken Language Corpus (GSLC). The material consists of two activity types: informal conversations and interviews. The general characteristics of the three corpora can be seen in Table 3. The three corpora consist of between 0.5 and 1.5 million words. The number of participants varies from ca. 80 to 200, and includes both sexes, as well as different age groups and occupations.

	BySoc (Danish)	NoTa (Norwegian)	GSLC[6] (Swedish)
Words	1.454 mil	908,057	493,824
Activity type	conversation	conversation + interview	conversation + interview
Participants	ca. 80	166	ca. 200
Recording period	1986–1990	2004–2006	1978–99

Table 3. Spoken language corpora

The spoken language corpora have been tagged automatically with parts of speech and morphological information. Unfortunately, it is not possible to extract passive constructions directly from the corpora. In the Danish and Swedish corpora, all words ending in *–s* as well as all forms of the verb *bli*, 'become', were selected in order to find the respective morphological and periphrastic passive constructions. In the Norwegian corpus it is possible to do more advanced searches, searching directly for verbs ending in *–s*. The subsequent sorting into passives and non-passives for all three languages was conducted manually.

The empirical material used to establish the overall frequencies of the passive voice in written language consists of feature articles from two major national newspapers in each language.[7] Feature articles are intended for a large audience and are a medium mainly used for communicative purposes. Although the corpus for each language only consists of about 35,000 words, these corpora are comparable in genre. In addition, they are manually tagged and hence can be expected to contain fewer tagging errors than the existing large written language corpora. These are the Danish written language corpus (Korpus DK), the Oslo Corpus of Tagged Norwegian Texts (*Bokmål* part), and the Swedish Parole and SUC corpora from the Bank of Swedish (Språkbanken), which has been used for some supplementary searches. The reason why the existing corpora are not used as primary material is due to the large genre variation across the corpora. Hence, there is a risk that results would be a reflection of genre differences between the corpora, and not actual differences between the languages.

3.1 Overall frequencies

We will first look at the overall frequencies of the passive voice in both written and spoken languages. To this end, we need a standardised unit of measurement allowing for comparisons across both languages and register. There are two obvious ways to do this: either by counting the number of passive constructions per word, or by counting the number of passive constructions per finite verbs. Since the passive voice is a clausal phenomenon, it would seem appropriate to opt for the latter measurement.

[6] The whole GSLC corpus consists of 1.416,248 words. This extract is based on similar activity types with BySoc and NoTa.
[7] This data originates from the study by Laanemets (2004).

Table 4 gives an overview of the use of the passive voice in written and spoken Danish, Norwegian and Swedish.

	Written language			Spoken language		
	% passive	finite verb	passive	% passive	finite verb	passive
Danish	10.8%	4,028	434	1.5%	182,927	2686
Norwegian	10.8%	4,015	432	0.8%	134,409	1043
Swedish	12.9%	4,029	520	1.2%	72,632	907

Table 4. Passive voice overall frequencies (*per finite verb*)

As expected, the passive voice is used much more frequently in written language than in spoken language. In written language passives account for 10.8% of all finite verbs in both Danish and Norwegian, and for 12.9% in Swedish. In spoken language the corresponding results are respectively 1.5% in Danish, 1.2% in Swedish and only 0.8% in Norwegian. Hence, based on the corpus findings, it seems that the passive voice is used 7–14 times more in writing than in spoken language, the biggest difference being within Norwegian.

Looking at the use of the passive voice across the three languages, one major difference leaps to the eye. The use of the passive voice is quite similar in the written material in all three languages. Moreover, there is no statistically significant difference between the results given in Table 4. In spoken language, however, the difference between Danish and Swedish on the one hand, and Norwegian on the other, is noticeable. Although the relative percentages are quite low, the difference between Danish and Norwegian use of the passive voice in spoken language is almost twofold.

The overall frequencies also correspond fairly well with the results found in English (Biber *et al.* 1999: 476). In English, the passive voice is found to be approximately eight times more frequent in newspaper texts than in speech. Thus, passives account for roughly 2% of all finite verbs in conversation, compared with 15% in newspaper articles.

As the results from Biber *et al.* (1999) indicate, there is a significant variation in the use of the passive voice between the different genres (registers). Besides the newspaper texts, the investigation by Biber *et al.* also included academic prose and fiction. The passive voice is found in 25% of the finite verbs in academic prose and only a little more in fiction than in conversations (Biber *et al.* 1999: 476).

The Oslo Corpus of Tagged Norwegian Texts (*Bokmål* part) makes it possible to search separately within different genres—factual prose (mainly legal texts), fiction and newspaper texts. Results from the Oslo Corpus indicate large differences between the genres in Norwegian, and correspond well in this way with the findings for English. The relative frequency of the passive voice in the legal text corpus is 20.4%, whereas the corresponding figure for fiction texts amounts to only 1.9%.

It seems safe to conclude that the overall use of the passive voice in the three Scandinavian languages is relatively similar. The passive voice is used primarily in written language, whereas its use in speech is significantly less frequent. In this

respect Norwegian seems to be somewhat different from the two other languages, as passive constructions in spoken Norwegian occur only half as frequently as in Danish and Swedish.

3.2 Distribution of morphological and periphrastic passives

When looking at the distribution of morphological and periphrastic passives in Table 5, some interesting differences emerge. In the written register the morphological passive is the main passive form in all three languages. In Swedish the form is overwhelmingly dominant. Hence, a full 98.7% of all passive occurrences in the Swedish sample are morphological passives, leaving only 1.3% for periphrastic constructions. In Danish and Norwegian the differences are less pronounced. Both languages use the morphological form in roughly two-thirds of the cases and periphrastic constructions in about one-third.

The distribution of the different passive forms changes quite dramatically when we look at the spoken language. Danish and Norwegian are quite similar. In both languages the periphrastic passive becomes more common than the morphological form, accounting for 76.9% in Danish and for 79.6% in Norwegian. The same tendency shows up in the Swedish material. In spoken Swedish, the use of periphrastic passive constructions increase with a factor of 12 compared to the written language. It accounts for 15.8% of the passive constructions in speech, compared to 1.3% in written language. The morphological passive remains, however, the dominant form in Swedish, accounting for 84.2% of all passive constructions.

	Written language		Spoken language	
	s-passive	*bli*-passive	s-passive	*bli*-passive
Danish	64.1 %	35.9 %	23.1%	76.9%
Norwegian	62.5 %	37.5 %	20.4%	79.6%
Swedish	98.7 %	1.3 %	84.2%	15.8%

Table 5. Distribution of morphological and periphrastic (*bli*) passives

The Norwegian reference grammar claims that the periphrastic passive with the auxiliary *bli*, 'become', can be used in almost every context in which a passive expression is possible (Faarlund *et al.* 1997: 524). However, the distribution shown in Table 5 suggests that there are different preferences in spoken Norwegian compared to written. Given the large difference in frequency of the two passive constructions in written and spoken language, it is likely that there are some factors affecting the choice between the morphological and periphrastic passive. One of the factors could be the register and the level of formality in style in different written language genres.

As mentioned earlier, the Oslo Corpus of Tagged Norwegian Texts provides a good possibility to check for genre-related variation. The results show that the distribution between the morphological and periphrastic passive voices in the legal text corpus is respectively 86% and 14%. In fiction the corresponding result is 42% morphological passives and 58% periphrastic passives. The use of the morphological

passive is thus highest in legal texts, followed by newspaper texts. In both genres the s-passive is the dominating form. In fiction and in conversation, on the other hand, the periphrastic passive is dominating.

These findings support the claim that the morphological passive dominates within formal contexts, whereas the use of the periphrastic passive increases along with the informal and colloquial use of language.

3.3 Agent phrases

As discussed in Section 2 the expression of the demoted agent (by an *af/av*-phrase) in the passive sentence is as a rule not mandatory. As earlier research on the topic has shown, the overt agent phrase is infrequent in actual use. Silén (1997) has investigated the use of agent phrases in written Swedish. On the basis of material consisting of fiction, academic prose and newspaper texts, she finds that 19% of morphological passives and 13% of periphrastic passives are used with an overt agent phrase (Silén 1997: 200). A similar result is found by Engdahl (2006). Based on a sample from the Swedish written language corpus Parole, Engdahl finds that 13% of morphological and 11% of periphrastic passives are used with explicit agent phrases. Roughly half of them had an animate agent (Engdahl 2006: 37).

In the written language corpus used in this study, the overt agent phrases are distributed as listed in Table 6.

	Danish		Norwegian		Swedish	
	s-passive	*bli*-passive	s-passive	*bli*-passive	s-passive	*bli*-passive
by-phrase	4.7% (13)	12.8% (20)	7.4% (20)	13.6% (22)	12.9% (66)	–
Total	278	156	270	162	513	7

Table 6. Overt agent phrases in written language

Due to the size of the corpora, the total number of agent phrases is not very high. The results, however, support the findings by Silén (1997) and Engdahl (2006). Agent phrases occur more often together with the periphrastic passive than with the morphological passive. In Danish there are just about 5% of s-passives and almost 13% of *blive*-passives with an overt agent phrase. The corresponding numbers in the Norwegian material are 7.4% and 13.6%.

In spoken Swedish, overt agent phrases have been studied by Holm (1952, 1967) and Kirri (1974). According to Kirri, the frequency of explicit agent phrases remains under 10% in relation to both morphological and periphrastic passives (Kirri 1974: 148). The data from the present spoken language corpora for Danish, Norwegian and Swedish correspond fairly well with these earlier findings; cf. Table 7.

	Danish		Norwegian		Swedish	
	s-passive	*bli*-passive	s-passive	*bli*-passive	s-passive	*bli*-passive
by-phrase	0.6% (4)	3.0% (63)	2.3% (5)	7.5% (62)	8.9% (68)	15.4% (22)
Total	620	2066	213	830	764	143

Table 7. Overt agent phrases in spoken language

In the Danish spoken language corpus (BySoc), only 0.6% of morphological passives and 3% of periphrastic passives have an overt agent phrase. In the Norwegian corpus (NoTa), the occurrence is approximately three times as high, respectively 2.3% and 7.5%. Also in the Swedish corpus (GSLC), the occurrence of overt agent phrases is less frequent in connection with the morphological passive than with the periphrastic passive. The frequency of use is, however, significantly higher than in Danish and Norwegian, corresponding to 8.9% of morphological passives and even 15.4% of periphrastic passives. The last result is a little unexpected, as the percentage is considerably higher than we would expect on the basis of Kirri's (1974) investigation.

Concerning the character of the agent, the following tendencies emerged. Both in the Danish and Norwegian corpus, a little more than half of the agent phrases were animate. In the Swedish corpus the relationship between animate and inanimate agent phrases is reversed. Hence, in Swedish the inanimate agent phrases are in the majority.

Overall, we can conclude that overt agent phrases occur more frequently with the periphrastic passive voice than with the morphological passive voice in all three languages. This applies both to written and spoken language. The reasons for this difference call for further research.

3.4 Subjects

Concerning the nature of the passive subject, three categories were established: a) inanimate subjects; b) animate subjects (inclusive metonymic inanimate nouns referring to people); and c) dummy subjects in impersonal passives. We will take a closer look at the first two categories. Table 8 presents the distribution of inanimate subjects (I-subj) and animate subjects (A-subj) in the spoken language corpora.

	Danish		Norwegian		Swedish	
	s-passive	*bli*-passive	s-passive	*bli*-passive	s-passive	*bli*-passive
I-subj	75.9%	35.5%	85.9%	40.4%	86.3%	27.5%
A-subj	24.1%	64.5%	14.1%	59.6%	13.7%	72.5%
Total	577	1940	192	775	735	131

Table 8. Distribution of inanimate and animate subjects in spoken language

Looking at the results in Table 8, one clear tendency emerges. In all three languages the majority of the subjects of morphological passives are inanimate, whereas the majority of the subjects of periphrastic passives are animate.

The dominance of the inanimate subjects with morphological passives is quite striking. In Swedish and Norwegian, as much as 86% of all subjects are inanimate. In Danish the corresponding number is 76%. The prevalence of animate subjects in periphrastic passive constructions is also quite outstanding. The largest differences are observed in Swedish. Here, 72.5% of periphrastic passive constructions have an animate subject. In Danish, the corresponding number is 64.5%, and in Norwegian 60%.

In written language the animacy aspect of passive subjects has been studied by Engdahl (2006: 30–34). Her random sample of 100 occurrences of each passive construction from the Swedish Parole corpus and the Norwegian Oslo *Bokmål*

corpus shows the same tendency as in spoken language. In her sample the Swedish periphrastic passives have an even higher frequency of animate subjects, i.e. 88%.

As briefly pointed out earlier, the passive subjects tend to have the semantic role of patient, i.e. normally an inanimate entity that undergoes a process. This tendency is also reflected by the subject characteristics of morphological passives. On the other hand, as discussed in Section 2, the Swedish *bli*-passives are subject to several syntactic and semantic restrictions. One of them is that the subject is likely to have some control over or influence on the ongoing event. Hence, it is quite reasonable that this kind of participation in the action requires an animate subject. If this is the typical pattern of Swedish *bli*-passives, the somewhat smaller amount of A-subjects in Swedish spoken language (72.5%) compared to written language (88%) calls for further investigation.[8]

It also remains to investigate whether the requirement that the subject should have control or influence plays an important role in the Danish and Norwegian periphrastic passive constructions, or whether the high co-occurrence of animate subjects and periphrastic passives is due to other reasons.

3.5 Modals with passive complement

An interesting observation relates to constructions where the modal verb is followed by the passive voice in the infinitive. By combining the modal verbs with either the morphological or the periphrastic passive, we might obtain different meanings. For Danish it has been claimed that it is the modal auxiliary that determines the choice between the morphological and periphrastic passive (Lauridsen & Lauridsen 1989). Thus, modal verbs in connection with morphological passive express non-epistemic (non-subjective) modality, whereas modal verbs in combination with periphrastic passive with the auxiliary *blive*, 'become', express epistemic (subjective) modality (Lauridsen & Lauridsen 1989, Heltoft & Falster Jakobsen 1996). As proposed by Engdahl (1999), the same tendency holds for Norwegian, whereas the distinction is less clear in Swedish. Here, the context of the utterance seems to play a more important role (Engdahl 1999: 19). The following example (13a, b) with the modal verb *skulle*, 'must/shall', from Heltoft & Falster Jakobsen (1996: 210) illustrates the meaning distinction in Danish.

(13) (a) Denne postej skal Blive spist inden ugens udgang.
this paté shall become-INF eaten before the week end
'This paté will be eaten before the week end.'

(b) Denne postej skal spises inden ugens udgang.
this paté must eat-S before the week end
'This paté is to be eaten before the week end.'

[8] A cursory look at the example sentences in the Swedish spoken language corpus shows that the result might be biased by the I-subjects. Many of the conversations in the Swedish spoken language corpus are concerned with the relationship between culture and nature, which leads to a disproportionally large share of inanimate subjects (denoting natural phenomena). Hence, out of the 27.5% (i.e. 36 occurrences) about 1/3 denoted natural phenomena.

According to Heltoft & Falster Jakobsen (1996: 209f), sentence (13a) with the modal verb *skal*, 'shall', followed by the periphrastic passive has a subjective (epistemic) reading; meaning a promise, a subjective guarantee about the eating of the paté. Sentence (13b) with the morphological passive has a non-subjective (deontic) reading; meaning an instruction or obligation about the eating. Engdahl (1999: 18) points out the same tendencies in Swedish and Norwegian, but according to her investigation the complementary distribution is not as strict as in Danish.[9]

Let us first look at the overall distribution of modals with passive complements, as presented in Table 9 for written language and Table 10 for spoken language.

	Danish		Norwegian		Swedish	
	s-passive	*bli*-passive	s-passive	*bli*-passive	s-passive	*bli*-passive
modal passive	43.2% (120)	6.4% (10)	53.7% (145)	11.7% (19)	25.1% (129)	–
Total	278	156	270	162	513	7

Table 9. Modals with passive complement in written language

The results from our newspaper corpus (Table 9) show two rather clear trends. It is the morphological passive that dominates in combination with the modal verb. This is so for all three languages, although the relative frequency between the languages varies quite substantially. The frequency is highest in Norwegian, where the morphological passive complement accounts for 53.7% of all s-passives, and lowest in Swedish, where it accounts for one-fourth of all s-passives. Modal verbs with periphrastic passive complements are rare in all three languages. Norwegian, again, has the highest number of modal passives (11.7%). In the Swedish sample, the periphrastic passive construction turned out to be very infrequent (7 occurrences); none of these occurred together with a modal verb.

	Danish		Norwegian		Swedish	
	s-passive	*bli*-passive	s-passive	*bli*-passive	s-passive	*bli*-passive
modal passive	88.5% (549)	3.4% (70)	61.0% (130)	4.5% (37)	25.3% (193)	9.8% (14)
Total	620	2066	213	830	764	143

Table 10. Modals with passive complement in spoken language

Turning to the results in the spoken language corpora (Table 10), some changes can be noticed, although the overall tendencies remain the same as in written language. Here again the morphological passive is dominating in modal constructions, whereas the frequency of modal verbs with a periphrastic passive complement remains under 10%. Swedish has the highest proportion (9.8%) and Danish the lowest (3.4%).

[9] It is worth mentioning that Brandt (1999) in his investigation of Danish modal verbs argues for a more ambiguous relationship between the combinations of modal verbs and the two passive constructions than claimed by Heltoft & Falster Jakobsen (1996). According to Brandt (1999: 119), *skal* + morphological passive can have a prospective or dynamic reading, whereas *skal* + periphrastic passive can have an epistemic or prospective reading.

Although the morphological passive complement is highest in all three languages, the relative frequency varies even more from language to language than was the case for written language. In Swedish, morphological passive complements account for approximately one-fourth of all morphological passives (which is the same result as in the written language). In Norwegian, the same constructions account for 61%. In Danish, on the other hand, the morphological passive complements with modal verbs constitute almost 90% of all occurrences of morphological passives.

Thus, in all three languages there is a clear tendency that modal verbs are preferably used with morphological passives, rather than with periphrastic (*blive*) passives. In addition, an interesting tendency emerged in connection with modal passives in spoken Danish. Thus, it is not only the morphological passive that dominates in modal constructions; it is overwhelmingly in this construction that Danish morphological passives are used (88.5% of all occurrences).

In order to explain this predominant use of the morphological passive in connection with modal verbs in spoken Danish, a closer look at these constructions is needed. Looking through the examples of modal passive, it appears that almost three-fourths of them occur with the modal verb *skal/skulle*, 'must, shall'. The majority of the remaining one-fourth occurs with the modal verb *kan/kunne*, 'can, may', and only a few examples occur together with other modal verbs, such as *må/måtte* 'may, must', and *vil/ville*, 'will, want'.

As discussed above, the modal verb *skal* in combination with the morphological passive in Danish is claimed to express non-epistemic (non-subjective) modality, meaning obligation or instruction. Examples like this are common in the Danish spoken language corpus (BySoc); some of them are given in (14a–c).

(14) (a) undervisningen **skal gøres** interessant og levende så barnet føler det
'the teaching has to be made interesting and lively so the child gets attentive'

(b) pigen synes der **skal støvsuges** før manden synes der **skal støvsuges**
'the girl thinks it needs to be vacuum-cleaned before the man thinks it needs to be vacuum-cleaned'

(c) der **skulle** jo sikkert også **skrælles** mange kartofler ~ ja vi var jo syv børn
'probably there needed to be peeled a lot of potatoes ~ you see, we were seven children'

In addition to the previous examples there are also examples with other meanings of the construction (*skal* + morphological passive) available in Danish. Consider the following examples in (15a, b).

(15) (a) alle havde virkelig sat sig op til ~ nu **skal** der altså bare **fejres** jubilæum ik
'everybody had really prepared themselves ~ now we were really ready to celebrate the jubilee'

(b) han skulle giftes ~ og så ~ altså anede jeg ikke hvor hvor det **skulle holdes** men lige pludselig så blev det sagt til morgenbordet
'he is going to marry ~ and then ~ well, I did not know where it would take place but all of a sudden it was mentioned at the breakfast table'

The first example (15a) is neither an obligation nor an instruction to celebrate the jubilee. It is rather a prospective plan (or wish) of the people (*alle*, 'everybody') who have made themselves ready for the event. The second example, (15b), in the preterite tense, should be interpreted as the speaker being unaware of where the wedding will take place.

According to our corpus data, these two readings both seem to be productive in Danish. A more extensive investigation of the spoken language data is needed, but it is likely that there is considerable variation in the use and meaning of Danish modal passives (as also suggested by Brandt (1999)).

4 Concluding remarks

The analysis has pointed to both similarities and differences in the use of the passive voice in the three Scandinavian languages. The differences and similarities are found both across the languages and across the spoken and written register. The largest difference is found between spoken and written language, whereas the differences between the languages when compared within one and the same register are smaller.

All in all, the general use of the passive voice is considerably higher in written language compared to spoken language. Hence, in the newspaper feature articles the passive voice accounts for slightly more than 10% of all finite verbs. In spoken language, on the other hand, the passive constructions account for around 1% of all finite verbs. In this respect, Norwegian is somewhat different compared to Danish and Swedish, as the use of passive is only half as frequent as in the other two languages.

On the basis of a genre-specific examination of the use of the passive voice in the Norwegian written language corpus, it turns out that the overall use of the passive voice is highly dependent on genre. Hence, a strong correspondence between the amount of passive occurrences and the formal character of the genre could be observed. This result corresponds well with the result from a similar investigation of the English passive voice (Biber *et al.* 1999).

When looking at the distribution of the two passive constructions—morphological and periphrastic—we also find both similarities and differences between the three languages. In written language, the morphological passive comes out as the most frequently used form in all three languages, and overwhelmingly so in Swedish. In the spoken language, the periphrastic passive is more common than the morphological passive in Danish and Norwegian, whereas the morphological form remains the most used form in Swedish. As in Danish and Norwegian the use of the periphrastic passive increases significantly when going from written language to spoken language.

We also looked into some special aspects of passive constructions, such as overt agent phrase, and the nature of the subject. The analysis pointed to some

interesting tendencies. We found only few prepositional phrases with demoted agents. The overt agent phrases were more frequently used in connection with periphrastic passive constructions than with the morphological passive. However, in order to get a more comprehensive understanding of the relationship between the type of passive and the overt agent phrase we should also take other factors, such as the information structure and dynamics, focus, or the relative length (weight) of the subject and agent phrase into consideration.

The analysis of the passive subjects in this article points out two aspects. Namely, the dominant use of inanimate subjects in connection with morphological passives on the one hand, and the almost as dominant use of animate subjects in connection with periphrastic (*blive*) passives.

Finally, modal verbs with passive complements were examined. All three languages showed a clear tendency to prefer morphological rather than periphrastic passive complements. This tendency applies to both written and spoken language. The most striking result thus emerged in connection with spoken Danish, where the modal constructions with the morphological passive accounted for almost 90% of all uses of morphological passives in our material.

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Corpora

BySoc = BySociolingvistik, Danish Spoken Language Corpus. <http://isvcbs.dk/~pjuel/BySoc/>
GSLC = Göteborg Spoken Language Corpus, Dept. of Linguistics, Göteborg University. <http://www.ling.gu.se/projekt/tal/>
NoTa = Norwegian Spoken Language Corpus, Oslo part. Tekstlaboratoriet, ILN, University of Oslo. <http://www.tekstlab.uio.no/nota/oslo/>
The Oslo Corpus of Tagged Norwegian Texts (*bokmål* part). <http://www.tekstlab.uio.no/norsk/bokmaal/>
Parole/SUC, Swedish written language corpora, Språkbanken, Göteborg University. <http://spraakbanken.gu.se/>
KorpusDK, Danish written language corpus. <http://ordnet.dk/korpusdk>

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