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Causal–Noncausal Verb Alternations in Norwegian*

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Abstract

This paper examines the typological characteristics of causal–noncausal verb alternations in Norwegian. To be more specific, the direction of formal basic–derived relationships in 31 causal–noncausal verb pairs in Norwegian is analyzed based on the verb list proposed by Haspelmath (1993). Moreover, a comparison is made between Norwegian and other Germanic languages. There are three major findings that this paper presents. First, Norwegian shows a great propensity for anticausative and labile coding. Second, Norwegian is similar to German in terms of the propensity for anticausative and labile coding. By contrast, English shows a dominant preference for labile coding, and Swedish for anticausative coding. Third, the direction of formal derivation in Norwegian can be accounted for in terms of the "spontaneity scale" proposed by Haspelmath (2016): different coding types are chosen depending on how spontaneously the events each noncausal verb denotes are likely to occur.

1. Introduction

A causal–noncausal verb pair refers to two verbs that express the same change-of-state event but differ in that one verb meaning includes a causing agent, whereas the other excludes it and presents the situation as occurring spontaneously. The former verb meaning is called "causal", and the latter "noncausal" (Haspelmath 1993; Haspelmath et al. 2014; Haspelmath 2016). An example of an English causal–noncausal verb pair is illustrated in (1).

(1) a. *I opened the door.* (causal)
b. *The door opened.* (noncausal)

In (1a), the causal verb includes a "cause" meaning, that is, it means 'I caused the door to become open,' while in (1b), the noncausal verb denotes a simple change-of-state event of the subject *the door*.

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In the coding of causal–noncausal verb pairs, languages in the world show interesting variations. Haspelmath (1993) distinguishes five types of formal basic–derived relationships of causal–noncausal verb pairs: causative, anticausative, equipollent, labile, and suppletive coding, as summarized in Table 1. The Japanese and English examples are cited from Haspelmath (1993: 116), and the Italian examples from Tanigawa (2020).

Table 1. Haspelmath's (1993) five coding types of causal–noncausal verb pairs

Direction	Coding type	Definition	Examples
directed	causative	causal verbs are overtly marked, while noncausal verbs are unmarked	Japanese: *wak-as-u* (causal)/*wak-u* (noncausal) 'boil'
	anticausative	causal verbs are unmarked, while noncausal verbs are overtly marked	Italian: *aprire* (causal)/*aprir=si* (noncausal) 'open'
non-directed	equipollent	both causal and noncausal verbs are equally marked	Japanese: *nao-s-u* (causal)/*nao-r-u* (noncausal) 'improve'
	labile	causal verbs and noncausal verbs are expressed in the same forms	English: *break*
	suppletive	causal verbs and noncausal verbs have different verb roots	English: *kill/die*

In directed coding, either the causal or the noncausal verb is derived from the other. There are two types of directed coding: causative and anticausative. In causative coding, the causal verb is marked, while the noncausal verb is unmarked. Conversely, in anticausative coding, the causal verb is unmarked, while the noncausal verb is marked.[1]

In non-directed coding, neither the causal nor the noncausal verb is derived from the other. There are three types of non-directed coding: equipollent, labile, and suppletive. In equipollent coding, the causal and noncausal verbs are derived from the same stem and are equally marked. In labile coding, the same form is used both as a causal and a noncausal verb. In suppletive coding, different verb roots are used.

Among the five different formal types of causal–noncausal verb pairs, many European languages tend to show a preference for anticausative coding (Haspelmath 1993; Nichols, Peterson & Barnes 2004; Comrie 2006). For example, Italian prefers anticausative coding. Noncausal verbs are expressed with the reflexive pronoun *si,* while causal verbs are not marked, as in (2).[2]

[1] To distinguish forms from meanings, this paper follows the terminology suggested by Haspelmath et al. (2014) and limits the use of the terms "noncausal" and "causal" to semantic senses and the terms "anticausative" and "causative" to formal categories.

[2] The abbreviations used in this paper are as follows: ACC-accusative, ART-article, CAUS-causative, DEF-definite, NOM-nominative, PASS-passive, PRS-present, PST-past, PTCP-participle, REFL-reflexive, SG-singular, 1-first person, and 3-third person.

(2) a. *Ho* *aperto* *la* *porta.*
have.1SG open.PST.PTCP ART door
'I opened the door.' (causal)

b. *La* *porta* *si* *é* *aperta.*
ART door REFL be.3SG open.PST.PTCP
'The door opened,' (noncausal)

Despite this overall tendency for European languages to prefer anticausative coding, Germanic languages show variations in the coding of causal–noncausal verb pairs. English shows a high propensity for labile coding, as in (1) (Haspelmath 1993). On the other hand, German and Swedish prefer anticausative coding, with noncausal verbs expressed with the reflexive pronouns *sich* (German) and *sig* (Swedish), as in (3) and (4), respectively (Haspelmath 1993; Comrie 2005).

(3) a. *Ich* *öffnete* *die* *Tür.*
I open.PST the door
'I opened the door.' (causal)

b. *Die* *Tür* *öffnete* *sich.*
The door open.PST REFL
'The door opened.' (noncausal)

(4) a. *Jag* *öppnade* *dörren.*
I open.PST door.DEF
'I opened the door.' (causal)

b. *Dörren* *öppnade* *sig.*
The door open.PST REFL
'The door opened.' (noncausal)

In this paper, I explore the typological characteristics of causal–noncausal verb alternations in Norwegian to further investigate microvariations among Germanic languages. To be more specific, this paper analyzes the direction of formal basic–derived relationships in 31 causal–noncausal verb pairs in Norwegian, based on the list proposed by Haspelmath (1993). Moreover, it compares Norwegian data with English, German, and Swedish data.

There are three major findings that this paper presents. First, Norwegian prefers both anticausative and labile coding. Second, among English, German, and Swedish, Norwegian is similar to German in terms of the propensity for anticausative and labile coding. By contrast, English shows a dominant preference for labile coding, and Swedish for anticausative coding. Last, in Norwegian, the direction of formal basic–derived

relationships can be accounted for in terms of the "spontaneity scale" proposed by Haspelmath (2016). Norwegian employs different coding types depending on how spontaneously the events each noncausal verb denotes are likely to occur.

This paper is organized as follows. Section 2 gives a brief description of Norwegian. Section 3 presents the Norwegian data of 31 causal–noncausal verb pairs in Haspelmath (1993). Section 4 analyzes the data presented in Section 3. It also compares Norwegian results with those of English, German, and Swedish and discusses the direction of formal derivation in Norwegian in terms of the "spontaneity scale" proposed by Haspelmath (2016). Section 5 concludes the paper.

2. Overview of Norwegian

Norwegian is a North Germanic language spoken by approximately 5 million people, mostly in Norway. There are two official written standards: *Bokmål* and *Nynorsk* (Wiggen 1997). *Bokmål* was created by introducing Norwegian elements into the Danish written standard at the beginning of the 20th century. It is the most widespread written standard of Norwegian.[3] *Nynorsk* was created during the mid-19th century on the basis of Norwegian dialects. This paper presents data from the standard *Bokmål* Norwegian.

From a morphosyntactic point of view, the basic word order in Norwegian is SVO. Norwegian verbs are divided into weak and strong verbs (see Section 3.2.3). They do not show agreement for person or number. Similar to German, Norwegian verbs follow the V2 rule, which means that, regardless of which grammatical element is placed first, the verb comes second. Nouns inflect for number and definiteness and belong to three genders: masculine, feminine, and neuter. Personal pronouns inflect for case (nominative and accusative).

3. Coding types of causal–noncausal pairs in Norwegian

This section presents 31 Norwegian causal–noncausal verb pairs based on Haspelmath (1993). The data are gathered by asking Norwegian native speakers to answer the questionnaire that I prepared in English.[4] In Section 3.1, the Norwegian data of the 31 causal–noncausal verb pairs are presented. In Section 3.2, the direction of formal basic–derived relationships in the causal–noncausal verb pairs is analyzed, based on Haspelmath's (1993) classification.

3.1. 31 causal–noncausal verb pairs in Norwegian

Table 2 presents 31 Norwegian causal–noncausal verb pairs. They are given reference numbers according to their rank on the scale of spontaneity proposed by Haspelmath (1993: 104): the smaller the reference number of a verb is, the more spontaneous the event it denotes is. The rightmost column represents the coding type of each verb pair. The detailed analysis of each verb pair is given in the rest of this section.

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[3] In the 2013/2014 schoolyear, *Nynorsk* was the language of instruction for 12.5% of the pupils in primary and secondary education (grades 1–10), while 86.8% of the pupils were taught in *Bokmål* (Vangsnes 2017).

[4] The data examined here were collected from two Norwegian native speakers from Namsos (both in their early twenties) from January to April 2020.

Table 2. The 31 causal–noncausal verb pairs in Norwegian

Ref No.	Meaning	Noncausal	Causal	Formal type
1	boil	*koke*	*koke*	labile
2	freeze	*fryse*	*fryse*	labile
3	dry	*tørke*	*tørke*	labile
4	wake up	*våkne*	*vekke*	equipollent
5	go out/put out	*slukke*	*slukke*	labile
6	sink	*synke*	*senke*	equipollent
7	learn/teach	*lære*	*lære*	labile
8	melt	*smelte*	*smelte*	labile
9	stop	*stoppe*	*stoppe*	labile
		stanse	*stanse*	labile
10	turn	*snu*	*snu*	labile
11	dissolve	*oppløse-s/bli oppløst*	*oppløse*	anticausative
		smelte	*smelte*	labile
12	burn	*brenne*	*brenne*	labile
13	destroy	*ødelegge-s/bli ødelagt*	*ødelegge*	anticausative
14	fill	*fylle seg*	*fylle*	anticausative
		fylle-s/bli fylt	*fylle*	anticausative
15	finish	*avslutte*	*avslutte*	labile
16	begin	*begynne*	*begynne*	labile
17	spread	*spre seg*	*spre*	anticausative
		spre-s/bli spredt	*spre*	anticausative
18	roll	*rulle*	*rulle*	labile
19	develop	*utvikle seg*	*utvikle*	anticausative
20	get lost/lose	*miste-s/bli mistet*	*miste*	anticausative
21	rise/raise	*heve seg*	*heve*	anticausative
		heve-s/bli hevet	*heve*	anticausative
22	improve	*forbedre seg*	*forbedre*	anticausative
23	rock	*gynge*	*gynge*	labile
24	connect	*koble-s/bli koblet*	*koble*	anticausative
25	change	*forandre seg*	*forandre*	anticausative
		forandre-s/bli forandret	*forandre*	anticausative
26	gather	*samle seg*	*samle*	anticausative
		samle-s/bli samlet	*samle*	anticausative

Ref No.	Meaning	Noncausal	Causal	Formal type
27	open	*åpne seg*	*åpne*	anticausative
		åpne-s/bli åpnet	*åpne*	anticausative
28	break	*knuse*	*knuse*	labile
		knekke	*knekke*	labile
		ødelegge-s/bli ødelagt	*ødelegge*	anticausative
29	close	*lukke seg*	*lukke*	anticausative
		lukke-s/bli lukket	*lukke*	anticausative
30	split	*dele seg*	*dele*	anticausative
		dele-s/bli delt	*dele*	anticausative
31	die/kill	*dø*	*drepe*	suppletive

3.2. Four types of coding in Norwegian

This section analyzes coding types of the Norwegian causal–noncausal verb pairs. Section 3.2.1 deals with two different types of anticausative coding. Sections 3.2.2, 3.2.3, and 3.2.4 deal with equipollent coding, labile coding, and suppletive coding, respectively.

3.2.1. Anticausative coding

Norwegian has two different types of anticausative coding: the *seg*-construction and the passive constructions. In the *seg*-construction, noncausal verbs are marked with the reflexive pronoun *seg*,[5] whereas causal verbs are unmarked. The noncausal verbs listed in (5) show this type of coding. Note that the numbers in square brackets represent the reference numbers in Table 2.

(5) *fylle seg* 'fill' [14], *spre seg* 'spread' [17], *utvikle seg* 'develop' [19], *heve seg* 'rise' [21], *forbedre seg* 'improve' [22], *forandre seg* 'change' [25], *samle seg* 'gather' [26], *åpne seg* 'open' [27], *lukke seg* 'close' [29], *dele seg* 'split' [30]

An example of an anticausative verb pair with the *seg*-construction is given in (6).

(6) a. *Døren* *åpner* *seg.*
door.DEF open.PRS REFL
'The door opens.' (noncausal; marked)

b. *Jeg* *åpner* *døren.*
I open.PRS door.DEF
'I open the door.' (causal; unmarked)

[5] The pronoun *seg* expresses many different middle situation types (Enger and Nisset 2000).

In (6a), the noncausal verb *åpner seg* 'open (intr.)' is overtly marked with the reflexive pronoun *seg*; in (6b), the causal verb *åpner* 'open' is unmarked. The former denotes a simple change-of-state event of the subject (*Døren* 'the door') that occurs spontaneously. On the other hand, the latter (*åpne* 'opened (tr.)') includes a "cause" meaning. Namely, it means 'I caused the door to become open.'

Norwegian has two main passive constructions for anticausative coding: the *s*-passive and the *bli*-passive. In these passive constructions, causal verbs are unmarked, while noncausal verbs are either marked with the suffix *-s*[6] or expressed periphrastically by a combination of the auxiliary verb *bli* 'become' and past participles. These passive constructions are employed with the verbs listed in (7).

(7) *oppløse* 'dissolve' [11], *fylle* 'fill' [14], *spre* 'spread' [17], *miste* 'get lost' [20], *heve* 'rise' [21], *koble* 'connect' [24], *forandre* [25], *samle* 'gather' [26], *åpne* 'open' [27], *ødelegge* 'break' [28], *lukke* 'close' [29], *dele* 'split' [30]

An example of an anticausative verb pair with the *s*-passive construction is given in (8). An example of an anticausative verb pair with the *bli*-passive is given in (9).

(8) a. *Sukker* *oppløse-s.*
sugar dissolve-PASS
'Sugar dissolves.' (noncausal; marked)

b. *Jeg* *oppløser* *sukker.*
I dissolve.PRS sugar
'I dissolve sugar.' (causal; unmarked)

(9) a. *Huset* *ble* *ødelagt.*
house.DEF become.PST destroy.PST.PTCP
'The house was broken.' (noncausal; marked)

b. *Jeg* *ødelegger* *huset.*
I destroy.PRS house.DEF
'I destroy the house.' (causal; marked)

In (8a), the noncausal verb *oppløse-s* 'dissolve' is overtly marked with the suffix *-s*; in (8b), the causal verb *oppløse* 'dissolve' is unmarked. In (9a), the noncausal verb is expressed by a combination of *bli* 'become' and the past participle of the verb *ødelegge* 'break'. In (9b), by contrast, the causal verb is unmarked.

[6] The suffix *-s* is a reflexive-middle-passive marker that has different functions, such as reflexive, reciprocal, and passive (Faarlund, Lie & Vannebo 1997; Enger 2000; Enger & Nesset 2000).

Crucially, the *seg*-construction and the passive constructions are different in that the former removes a causing agent from an argument structure, while the latter do not. In other words, the *seg*-construction denotes simple change-of-state events that occur spontaneously. On the other hand, the passive constructions retain a causing agent and do not denote change-of-state events that occur spontaneously. This contrast is borne out by the fact that a causing agent cannot be expressed with an *av* 'of'-phrase in the *seg*-construction, as in (10), but it can in the passive constructions, as in (11) and (12).

(10) *Landet* *utviklet* *seg* (**av* *lederen*).
country.DEF develop.PST REFL of leader.DEF
'The country developed (*by the leader).' (the *seg*-construction)

(11) *Huset* *ødelegge-s* (*av* *broren* *min*).
house.DEF destroy-PASS of brother.DEF my
'The house gets destroyed (by my brother).' (the *s*-passive)

(12) *Huset* *ble* *ødelagt* (*av* *broren* *min*).
house.DEF become.PST break.PST.PTCP of brother.DEF my
'The house got destroyed (by my brother).' (the *bli*-passive)

Note that, in this paper (Table 2), the passive constructions are counted as anticausative strategies only when no other coding options are available for expressing a noncausal meaning. For example, the noncausal meaning of the verb *oppløse* 'dissolve' cannot be expressed by any other means than the passive constructions. As in (13) and (14), this noncausal meaning cannot be expressed by the *seg*-construction (**oppløse seg*) or by labile coding (**oppløse*). Thus, the passive constructions are listed as anticausative coding strategies for the verb *oppløse* 'dissolve'.

(13) *Sukker* *oppløse-s.* / *blir* *oppløst.*
sugar dissolve-PASSIVE become dissolved
'Sugar is dissolved.'

(14) **Sukker* *oppløser* *seg.* / *oppløser.*
sugar dissolve REFL dissolve
'Sugar dissolves itself / dissolves.'

This analysis follows how Haspelmath (1993) analyzes English data, in which passive constructions are listed only when no other coding options are available. The passives *get lost* and *be destroyed* are listed as noncausal verbs in his list for English because these noncausal meanings cannot be expressed in other coding strategies.

Having said that, in my Norwegian data, there are also cases in which the same noncausal verbs are listed in both the *seg*- and the passive constructions ([14], [17], [21], [25], [26], [27], [29], and [30]). This is because different noncausal meanings are expressed by different anticausative constructions, depending on the spontaneity of events. To be more specific, events that are more likely to occur on their own can only be expressed by the *seg*-construction, while events that are less likely to occur on their own can only be expressed by the passive constructions. Consider examples (15) through (17).

(15) a. *Naturen* *forandrer* *seg.*
Nature.DEF change.PRS REFL
'The nature changes.'

b. *Reglene* **forandrer* *seg* */forandre-s* */blir* *forandret.*
rule. DEF.PL change.PRS REFL change-PASS become.PRS change.PST.PTCP
'The rules change.'

(16) a. *Tidevannet* *hever* *seg.*
tide.DEF raise.PRS REFL
'The tide rises.'

b. *Flagget* **hever* *seg* */heve-s* */blir* *hevet.*
flag.DEF raise.PRS REFL raise-PASS become.PRS raise.PST.PTCP
'The flag gets raised.'

(17) a. *Demningen* *fyller* *seg.*
dam.DEF fill.PRS REFL
'The dam fills.'

b. *Koppen* **fyller* *seg* */fylle-s* */blir* *fylt.*
cup.DEF fill.PRS REFL fill-PASS become.PRS fill.PST.PTCP
'The cup gets filled.'

The events expressed by the *seg*-construction in examples (15a), (16a), and (17a) are easily construed as occurring on their own, without causing agents, while those expressed by the passives in examples (15b), (16b), and (17b) do not easily occur on their own. To be more specific, the subjects *naturen* 'the nature' in (15a), *tidevannet* 'the tide' in (16a), and *demningen* 'the dam' in (17a) can undergo a change of state without causing agents, because they have some kind of control or power to do so. By contrast, the subjects *reglene* 'the rules' in (15b), *flagget* 'the flag' in (16b), and *koppen* 'the cup' in (17b) need some action by causing agents to undergo a change of state, as the referents of the subjects lack control or power to bring about changes on their own.

3.2.2. Equipollent coding

In equipollent coding, both noncausal and causal verbs are derived from the same stems. In Table 2, only the verb pairs *våkne/vekke* 'wake up' [4] and *synke/senke* 'sink' [6] show equipollent coding, as in (18) and (19).

(18) a. *Hun* *våkner.*
she wake.PRS
'She wakes up.' (noncausal)

b. *Jeg* *vekker* *henne.*
I wake.PRS her
'I wake her up.' (causal)

(19) a. *Båten* *synker.*
boat.DEF sink.PRS
'The boat sinks.' (noncausal)

b. *Jeg* *senker* *båten.*
I sink.PRS boat.DEF
'I sink the boat.' (causal)

The noncausal verbs that show equipollent coding denote simple change-of-state events that occur spontaneously and do not take causing agents, as illustrated in (20), unlike the passive constructions.

(20) *Hun* *våknet* (**av* *broren* *min*).
she wake.PST of brother.DEF my
'She woke up (*by my brother).'

The verb pair *våkne*/*vekke* 'wake up' may look like suppletive coding. However, the two members of this pair are historically connected. According to Ottósson (2013: 345), both *våkne* (*vakna* in Old Norse) and *vekke* (*vekja* in Old Norse) are derived from the Old Norse intransitive *vaka* 'be awake'. The former is derived with the inchoative suffix *-na*, and the latter with the causative suffix *-ja.* Because they are both derived from the same stem, this verb pair is analyzed as an equipollent verb pair.

3.2.3. Labile coding

In labile coding, the same forms are used in both the noncausal and causal senses. The verbs listed in (21) show this type of coding.

(21) *koke* 'boil' [1], *fryse* 'freeze' [2], *tørke* 'dry' [3], *slukke* 'go out/put out' [5], *lære* 'learn, teach' [7], *smelte* 'melt' [8], *stoppe/stanse* 'stop' [9], *snu* 'turn' [10], *brenne* 'burn' [12], *avslutte* 'finish' [15], *begynne* 'start' [16], *rulle* 'roll' [18], *gynge* 'rock' [23], *knuse* 'break' and *knekke* 'break' [28]

An example of labile coding is given in (22), in which the same form *koker* 'boil' is used in both the noncausal and causal senses.

(22) a. *Vannet* *koker.*
water.DEF boil.PRS
'The water is boiling' (noncausal)

b. *Jeg* *koker* *vannet.*
I boil.PRS water.DEF
'I boil the water.' (causal)

The noncausal verbs that show labile coding denote simple change-of-state events that occur spontaneously and do not imply the existence of causing agents, as illustrated in (23), unlike the passive constructions.

(23) *Timen* *begynte* (**av* *læreren* *min*).
class.DEF begin.PST of teacher.DEF my
'The class began (*by my teacher).'

Importantly, some labile verb pairs appear in the same forms for the present tense but in different forms for the past tense. As a result, causal and noncausal verbs can be formally distinguished in their past tense forms. To be more specific, in some labile verb pairs, noncausal verbs show strong conjugations,[7] while causal verbs show weak conjugations, as illustrated in Table 3 (Faarlund, Lie & Vannebo 1997: 666; Askedal et al. 2015: 30–31).

Table 3. Weak conjugation and strong conjugation of the verb *brenne* 'burn'

	present tense	past tense	conjugation type
brenne 'burn' noncausal	*brenner*	*brant*	strong
brenne 'burn' causal		*brente*	weak

An example of this distinction between weak and strong conjugations is given in (24). The past form of the noncausal verb *brant* 'burnt' is in strong conjugation in (24a), while the past form of the causal verb *brente* 'burnt' is in weak conjugation in (24b), formally distinguishing between causal and noncausal verbs.

[7] Verbs carrying a syllabic suffix in the past indicative are weak; those without a syllabic suffix in the past indicative are strong (Endresen & Simonsen 2001: 84).

(24) a. *Huset* *brant.*
house.DEF burnt
'The house burnt.' (noncausal; strong conjugation)

b. *Jeg* *brente* *huset.*
I burnt house.DEF
'I burnt the house.' (causal; weak conjugation)

However, in colloquial speech, this distinction is not always clearly made, and both types of conjugations are randomly used for both causal and noncausal meanings (Faarlund, Lie & Vannebo 1997: 667; Lie 2012: 95; Askedal et al. 2015: 30–31). This means that, in colloquial speech, the distinction between weak and strong conjugations does not strictly serve to distinguish between causal and noncausal meanings. For this reason, this paper analyzes the verb pairs that have the same form in the present tense as showing labile coding.

3.2.4. Suppletive coding

In suppletive coding, different verb roots are used in noncausal and causal verbs. In Table 2, only the verb pair illustrated in (25) shows suppletive coding.

(25) a. *Katten* *dør.*
cat.DEF die.PRS
'The cat dies.' (noncausal)

b. *Han* *dreper* *katten.*
he kill.PRS cat.DEF
'He kills the cat.' (causal)

The noncausal verb *dø* 'die', which shows suppletive coding, does not take causing agents, as illustrated in (26), unlike passive constructions.

(26) *Katten* *døde* (**av* *broren* *min*).
cat.DEF die.PST of brother.DEF my
'The cat died (*by my brother).' (suppletive coding)

4. Discussion

This section discusses the characteristics of Norwegian in the typology of causal–noncausal verb alternations. To be more specific, Section 4.1 shows the numbers of each coding type employed in the 31 Norwegian causal–

noncausal verb pairs. Section 4.2 compares the Norwegian data with those of English, German, and Swedish. Section 4.3 argues that the direction of formal basic–derived relationships can be accounted for in terms of the "spontaneity scale" proposed by Haspelmath (2016)—different coding types are chosen depending on how spontaneously the events that noncausal verbs denote are likely to occur.

4.1. Numbers of each coding type in Norwegian

This section reveals the numbers of each coding type employed in the 31 Norwegian causal–noncausal verb pairs. The numbers of verb pairs (total 30.9) in Norwegian that belong to each of the five formal types and the percentage of non-directed coding are given in Table 4.

Table 4. The numbers of each coding type

coding type	A	C	E	L	S	% non-dir.
number	13.8	0	2	14.1	1	55.3

Note that two synonymous verb pairs showing different coding types were counted as 0.5 each. For example, 'dissolve' can be expressed both in labile coding *smelte* and in anticausative coding *oppløses/oppløse*; therefore, each is counted as 0.5. When there were three synonymous verb pairs, each of them was counted as 0.3. For example, 'break' can be expressed by three different verb pairs:[8] *knuse* and *knekke* in labile coding and *ødelegge-s/bli ødelagt/ødelegge* in anticausative coding. In this case, each is counted as 0.3.

Table 4 reveals that Norwegian shows a strong preference for the anticausative and labile types of coding. To be more specific, anticausative coding is employed in 13.8 verb pairs, and labile coding is employed in 14.1 verb pairs. Equipollent coding and suppletive coding are observed only in 2 verb pairs and in 1 verb pair, respectively. In total, non-directed coding occupies 55.3% of the total number of verb pairs.

4.2. Comparison between Germanic languages

This section discusses the microvariations between English, German, Norwegian, and Swedish in the coding of causal–noncausal verb pairs. English and German are West Germanic languages, and Norwegian and Swedish are North Germanic languages. The comparison between these four languages is made in Table 5, which shows the numbers of verb pairs (total 31) that belong to each of the five formal types and the percentages of non-directed verb pairs in the four languages. The numbers represented in Table 5 are depicted in Figure 1.

Table 5. Comparison between Germanic languages

	A	C	E	L	S	% non-dir.	Source
English	2	0	1	25	3	94	Haspelmath (1993)
Norwegian	13.8	0	2	14.1	1	55.3	This paper

[8] Admittedly, there are more verbs to express *break* in Norwegian, but only three are listed here.

German	14.5	0	4	11.5	1	53	Haspelmath (1993)
Swedish	19	4	3	4	1	25.8	Comrie (2005)

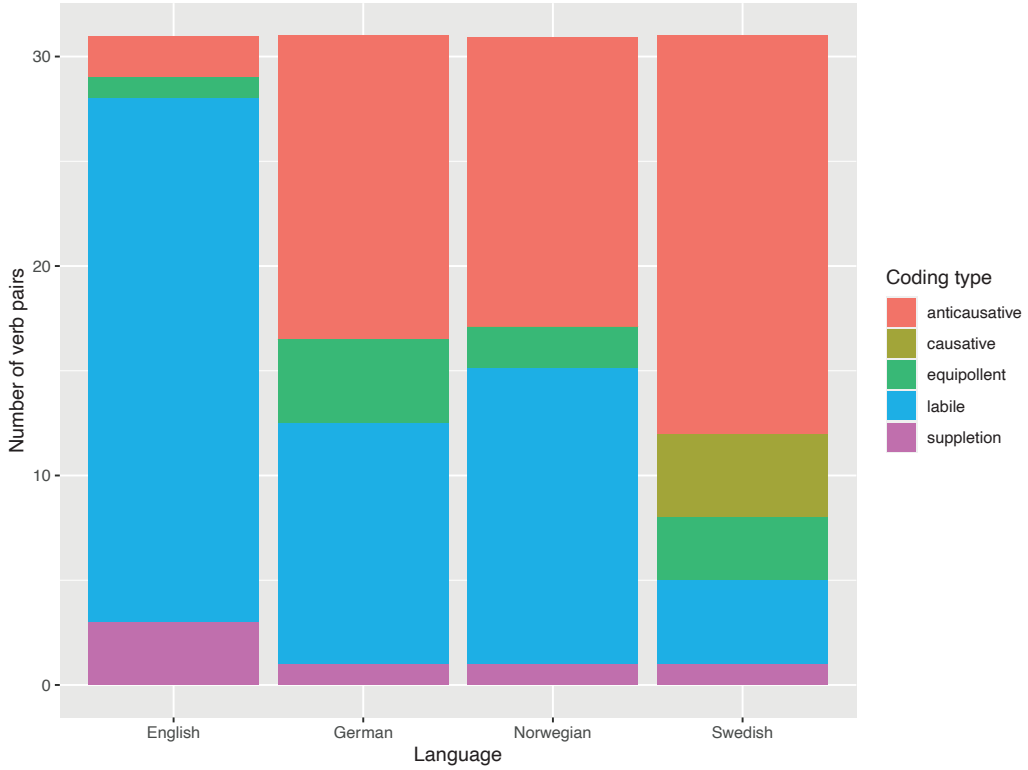


Figure 1. Comparison between Germanic languages

Table 5 and Figure 1 reveal that, although they belong to the same Germanic branch of the Indo-European language family, English, German, Norwegian, and Swedish differ quite remarkably in the coding of the causal–noncausal verb alternation. English dominantly prefers labile coding (25 verb pairs), while Swedish dominantly employs anticausative coding (19 verb pairs). German can be placed in-between these languages, since it prefers both anticausative coding (14.5 verb pairs) and labile coding (11.5 verb pairs).

This result suggests that a close genetic relationship does not guarantee similarities in preferences for the coding types of causal–noncausal verb pairs. Norwegian is genetically closer to Swedish than German. However, it is more similar to German than Swedish in terms of preference for anticausative and labile coding.

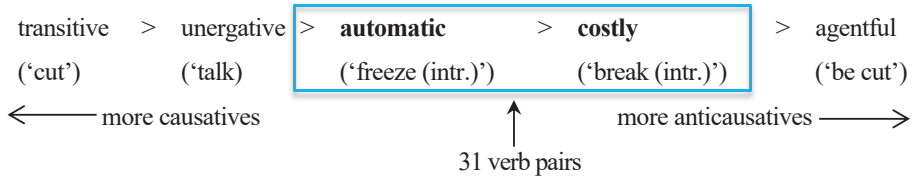
4.3. Explaining causal–noncausal coding types in Norwegian

We have so far observed that there are five distinct causal–noncausal coding types in Norwegian—labile, equipollent, suppletive, the *seg*-construction, and the passive constructions. In this section, I argue that the choice among these coding types can be accounted for in terms of the "spontaneity scale" proposed by

Haspelmath (2016). Norwegian speakers choose different coding types depending on how spontaneously the events each noncausal verb denotes are likely to occur.

Haspelmath (2016) proposes that the "spontaneity scale" of noncausal meanings in (27) (transitive > unergative > automatic unaccusative > costly unaccusative > agentful) can explain the occurrence of causative and anticausative verb forms.

(27) The spontaneity scale (Haspelmath 2016:34)



In this section, we focus on automatic and costly verbs on the "spontaneity scale", as shown in boldface in (27), because the 31 noncausal meanings we examined here belong to either of these classes. Haspelmath's definitions of these terms are as follows. "An automatic process is a process that is easily construed as occurring on its own, without any external energy input, such as 'melt', 'freeze', 'dry', 'wake up', 'sink', 'go out (fire)'. A costly process is a process that does not so easily occur on its own, but typically involves some energy input ("cost"), e.g., 'break (intr.)', 'split (intr.)', 'open (intr.)', 'close (intr.)', 'change (intr.)', 'gather (intr.)'" (Haspelmath 2016: 35–36).

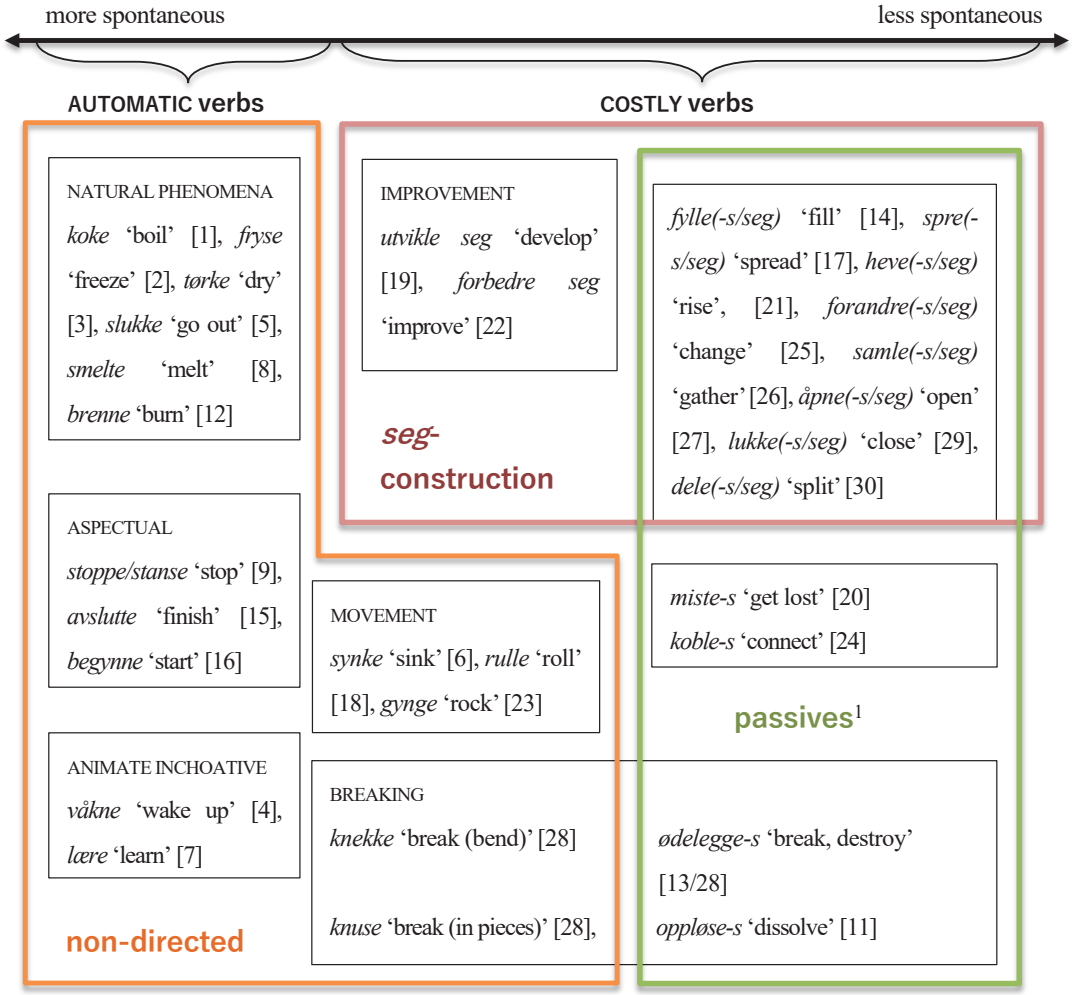
According to Haspelmath (2016), causative coding is more likely when the noncausal meaning is on the higher end of the scale, while anticausative coding is more likely when the meaning of the noncausal verb is on the lower end of the scale. Haspelmath (2016) further explains the motivation for these tendencies in terms of form–frequency correspondence. The reason why the meanings higher on the spontaneity scale tend to show causative coding is that it is less frequent, and thus less expected, to find them in a causal context. On the other hand, verbs with the meanings lower on the scale tend to show anticausative coding, as it is less frequent, and thus less expected, to find them in a noncausal context. More expected meanings tend to be unmarked, while less expected meanings tend to be overtly marked.

I argue that this hypothesis accounts for Norwegian causal–noncausal verb pairs very well. Figure 2 illustrates the spontaneity scale and the coding types of the 31 Norwegian verb meanings. It also tentatively categorizes the 31 verbs into semantic classes. Automatic verbs show non-directed coding, namely, either labile or equipollent. For example, these coding types are used to express the verb meanings of NATURAL PHENOMENA such as *fryse* 'freeze' [2], ASPECTUAL events such as *slutte* 'finish', MOVEMENT such as *rulle* 'roll' [18], ANIMATE INCHOATIVE events such as *våkne* 'wake up' [4], and some BREAKING events such as *knuse* 'break (in pieces)' [28]. The reason why these automatic verbs do not need formal marking to express a noncausal meaning is that they are expected to appear in a noncausal context.

By contrast, the noncausal meanings of costly verbs are expressed by anticausative coding, namely by the *seg*-construction, the passive constructions, or both. For example, some noncausal meanings, such as 'develop' and 'improve' (*utvikle seg* [19] and *forbedre seg* [22]), are expressed by the *seg*-construction, and other noncausal meanings, such as 'get lost'(*miste-s/bli mistet* [20]), are expressed by the passive constructions. The costly verbs need formal marking to express a noncausal meaning, as they are not expected to appear in a noncausal context.

The spontaneity scale can also account for the choice between the *seg*-construction and the passive constructions. First, some noncausal verbs expressing IMPROVEMENT events, such as *utvikle seg* 'develop' [19] and *forbedre seg* 'improve' [22], are expressed by the *seg*-construction. This can be explained in terms of the high spontaneity of the events expressed by these noncausal verbs. Second, other noncausal verbs, such as *oppløse-s* [11] and *miste-s* 'get lost' [20], can be expressed only by the passive constructions. This is due to the low spontaneity of the events expressed by these noncausal verbs. Last, when the same verbs have both coding options, different noncausal meanings can be expressed by different constructions, depending on the spontaneity of events. As already mentioned in Section 3.2.1, some noncausal verbs, such as *forandre(-s/seg)* 'change' [25], are expressed by either the *seg*-construction or the passive constructions. When such costly verbs unexpectedly express events that occur on their own, they need to be marked with the reflexive pronoun *seg* to emphasize their inchoative meanings, as in (15a), (16a), and (17a) above. On the other hand, when the same costly verbs denote events that are less likely to occur on their own, they can only be expressed by the passive constructions, as in (15b), (16b), and (17b) above. Thus, Norwegian employs three major different coding types depending on how spontaneous the events each noncausal verb denotes are likely to occur.

Figure 2. Spontaneity scale and coding types in Norwegian



5. Conclusion

This paper examined the typological characteristics of causal–noncausal verb alternations in Norwegian. Specifically, this paper provided the Norwegian data of Haspelmath's (1993) list of 31 causal–noncausal verb pairs and compared them with English, German, and Swedish data. There are three major findings that this paper presented. First, Norwegian shows preferences for anticausative and labile coding. Second, Norwegian is similar to German in terms of the preferences for anticausative and labile coding. By contrast, English shows a dominant preference for labile, and Swedish for anticausative coding. Third, the direction of formal basic–derived relationships in 31 causal–noncausal verb pairs in Norwegian can be accounted for in terms of the "spontaneity scale" proposed by Haspelmath (2016)—different coding types are chosen depending on how spontaneously the events each nocncausal verb denotes are likely to occur.

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ノルウェー語の自他交替

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キーワード：ノルウェー語　ゲルマン諸語　自他交替　動詞対　逆使役型　使役型

要旨

本論文の目的は、ノルウェー語の自他交替の類型論的特徴を明らかにすることである。具体的には、Haspelmath (1993) の動詞リストをもとに収集したノルウェー語の動詞対の交替の方向性について考察を行い、さらにノルウェー語のデータを他のゲルマン諸語 (英語・ドイツ語・スウェーデン語) と比較する。本論文は、以下の 3 点を明らかにする。第一に、ノルウェー語は、逆使役型、使役型、両極型、自他両用型、および補充型のうち逆使役型と自他両用型を多く用いる言語である。第二に、ノルウェー語は、自他交替を表す交替型の分布に関してドイツ語と似た傾向を示す。第三に、ノルウェー語の自他交替のパターンの分布は、Haspelmath (2016) により提案された「自発性スケール」によって説明することができる。

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