

Clause types (and clausal complementation) in Germanic

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Summary

Clauses can fulfil various functions in discourse; in most cases, the form of the clause is indicative of its discourse function. The discourse functions (such as making statements or asking questions) are referred to as speech acts, while the grammatical counterparts are referred to as clause types (such as declarative or interrogative). Declarative clauses are canonical (that is, they are syntactically more basic than non-canonical ones, in the sense of Huddleston 2002: 46): they are by default used to express statements and they represent the most unmarked word order configuration(s) in a language. Other clause types, such as interrogatives, can be distinguished by various means, including changes in the intonation

pattern, different (non-canonical) word orders, the use of morphosyntactic markers (such as interrogative words), as well as the combination of these, as can be observed across Germanic. The explicit marking of clause types is referred to as clause typing and it affects both the syntactic component of the grammar and its interfaces.

Apart from main clauses, which can correspond to complete utterances, we can also find embedded clauses, which are contained within another clause, referred to as the matrix clause: matrix clauses can be either main clauses or embedded clauses. Embedded clauses may be argument clauses, in which case they are selected by a matrix element (such as a verb), but they can also be adjunct clauses, which modify some element in the matrix clause (or the entire matrix clause).

Embedded clauses also fall into various clause types. Some of these clause types are ones that can also be main clauses, such as declarative clauses or interrogative clauses. Other embedded clause types do not occur as main clauses, as is the case for relative clauses or comparative clauses. Clause typing in embedded clauses has two major aspects: embedded clauses are distinguished from matrix clauses and from other embedded clause types. While the typing of main clauses can involve various – syntactic and non-syntactic – ways, Germanic languages type embedded clauses by morphosyntactic means: intonation plays little, if any, role. These morphosyntactic markers fall into various categories according to what roles they fulfil in the clause. Germanic languages show considerable variation in morphosyntactic markers, depending on the particular clause type and the variety, and in many cases, such markers can also co-occur, resulting in complex left peripheries.

Keywords

declarative clause, clause typing, comparative clause, complementiser, conditional clause, embedded clause, finiteness, interrogative clause, main clause, relative clause

1. Clause Types and Discourse Functions

Clauses can fulfil various discourse functions: making statements, asking for information making request, etc.; these are referred to as speech acts. The grammatical counterparts are referred to as clause types: these are often treated as pairings of grammatical form and conversational use (Sadock & Zwicky 1985), though note that there are different views concerning the form–function relationship regarding clause types (see Meibauer 2008: 84–100). In most cases, the form of the clause is indicative of its discourse function, as in (1):

- (1) a. Ralph is interested in poetry.
 b. Is Ralph interested in poetry?

In (1a), the clause has the function of a statement; formally, it is declarative. In (1b), the clause has the function of a question; formally, it is interrogative.

In other cases the speech act does not match its canonical clause type counterpart, as shown in (2):

- (2) a. Can you swim?
 b. Can you tell me the time?

In (2a), the interrogative clause is a genuine question asking for information: it can be satisfactorily answered by ‘yes’ or ‘no’. In (2b), the interrogative clause functions as a polite request: as such, it cannot be simply answered by ‘yes’ or ‘no’ since the speaker uses this speech act to make the addressee tell them the time. The pragmatic function of sentences is

thus not in a one-to-one correspondence with the observed grammatical form; these issues are examined extensively in speech act theory (going back to Austin 1962).

Declarative clauses are canonical (syntactically more basic than other types): they are by default used to express assertions and they represent the most unmarked word order configuration(s) in a language.. Other clause types can be distinguished by various means, including intonation and different (non-canonical) word orders. In (1a), for instance, the clause has a falling intonation; the interrogative counterpart in (1b) has a rising intonation. In addition, the canonical word order in (1a), in which the subject (*Ralph*) precedes the copula (*is*), changes to a non-canonical one (the subject following the copula) in (1b). In this case, the interrogative clause type is marked by a combination of two means: prosodic means (different intonation) and syntactic means (different word order).

Again, there is no on-to-one relationship between the individual marking strategies and clause types:

(3) Ralph is interested in poetry?

The example in (3) is a declarative question: formally the clause is declarative, but it has a rising (interrogative) intonation; regarding its function, it constitutes a special type of question which does not ask about the truth of a proposition but rather asks for confirmation or expresses surprise.

The examples in (1)–(3) are all main clauses: these can correspond to complete utterances and constitute speech acts. Clauses can also be embedded:

- (4) a. I know [**that** Ralph is interested in poetry].
 b. I don't know [**if** Ralph is interested in poetry].

In these cases, the bracketed clauses are embedded clauses: they are contained in the matrix clauses *I know* and *I don't know*, respectively. The matrix clauses in (4) are main clauses at the same time, that is, they are not embedded: such clauses are referred to as root clauses. Due to the recursive nature of embedding, however, it is possible for matrix clauses to be embedded in other matrix clauses:

(5) Mary suspects [that Peter supposes [that I know [that Ralph is interested in poetry.]]]

Embedded clauses differ from main clauses: importantly, they cannot stand on their own and they do not constitute speech acts (which conversely means that speech acts can generally not be embedded, Hooper & Thompson 1973). Due to this, certain phenomena that are observed in main clauses cannot be found in embedded clauses; many of these are referred to as Main Clause Phenomena or root phenomena (following Emonds 1996), such as the availability of tag questions and parentheticals in root clauses but not in embedded clauses. Conversely, certain properties, such as the use of complementisers or non-finite constructions are generally restricted to embedded clauses (though they can occur in clauses that function as main clauses in cases of so-called insubordination, see Evans 2007).

Embedded clauses can fulfil various functions with respect to the matrix clause: they can be argument clauses, as in (6a), or adjunct clauses, as in (6b).

- (6) a. Ralph said [that the turtles were sunbathing].
 b. I was reading a newspaper [while Susan was writing an article].

Most clause types that are available as main clauses can be embedded (with the necessary changes affecting their discourse functions), while there are clause types that are available as embedded clauses (as the time adverbial clause in (6b) above) but not as main clauses.

2. Main Clauses and their Embedded Counterparts

In this section, the differences between main clauses and embedded clauses will be examined. The major questions to be addressed are what kinds of morphosyntactic markers are responsible for clause typing and how they differ between main and embedded clauses. The clause types to be looked at are declarative, interrogative, exclamative and imperative clauses.

2.1. Declarative Clauses

As stated in section 1, declarative clauses are canonical, and they represent the most unmarked clause type. In declarative clauses, Germanic languages generally have a V2 order, illustrated in (7) and (8):

- (7) a. Ralf hat übermorgen Geburtstag. (German)
 Ralf has day.after.tomorrow birthday
 ‘Ralf has his birthday tomorrow.’
- b. Übermorgen hat Ralf Geburtstag.
 day.after.tomorrow has Ralf birthday
 ‘The day after tomorrow, Ralf has his birthday.’
- (8) a. Karin hevur føðingardag í ovurmorgin. (Faroese)
 Karin has birthday on day.after.tomorrow
 ‘Karin has her birthday the day after tomorrow.’ (Heycock et al. 2010: 65)
- b. Í ovurmorgin hevur Karin føðingardag.
 on day.after.tomorrow has Karin birthday
 ‘The day after tomorrow, Karin has her birthday.’ (Heycock et al. 2010: 65)

In the prototypical case, the first constituent is the subject, as *Ralf* in (7a) and *Karin* in (8a);, however, essentially any other kind of phrase can occur in this position, such as the adverbials *übermorgen* in (7b) and *í ovurmorgin* in (8b). In all cases, the finite verb (inflected for tense) is located right after this constituent, i.e. in the second position.

English is exceptional in this respect: the subject has a fixed position in that it always precedes the verb (in fact, all verbal elements) in declarative clauses, as demonstrated in (9):

- (9) a. Ralph has his birthday the day after tomorrow.
 b. *The day after tomorrow has Ralph his birthday.
 c. The day after tomorrow, Ralph has his birthday.

As indicated, the subject must precede the verb: the inversion in (9b) is not possible, unlike in the German and Faroese counterparts in (7) and (8). Adverbials like *the day after tomorrow* may be fronted, as in (9c), but then they precede the subject: the subject stays in the preverbal position that it has in (9a). Historically, English also had V2 orders, as shown in (10).

- (10) 7 þy ilcan geare for se here ofer sæ (Old English)
 and that same year went that army over sea
 ‘and in the same year the army went over the sea’ (*Chronicle A*, for the year 880)
 (van Gelderen 2014: 72)

The two patterns, namely Germanic V2 and English SVO, have two different structures. In the V2 patterns, the first constituent moves to the specifier of the CP (Complementiser Phrase) and the finite verb moves to the head of the same CP (see Thiersch 1978; Den Besten 1983, 1989; Schwartz & Vikner 1990; Fanselow 2002, 2004a, 2004b; Frey 2005). In the Modern English pattern, there is no movement targeting a CP layer and the subject is located

in the specifier of the TP. Unlike the specifier of the CP, the specifier of the TP is a subject position.

Declarative clauses can also be embedded, as illustrated in (11) and (12):

(11) Ich weiß, [dass Ralf übermorgen Geburtstag hat]. (German)
 I know.1SG that Ralf day.after.tomorrow birthday has
 ‘I know that Ralf has his birthday tomorrow.’

(12) Karin sigur, [at hon hevur føðingardag í ovurmorgin]. (Faroese)
 Karin says that she has birthday on day.after.tomorrow
 ‘Karin says that she has her birthday the day after tomorrow.’ (Heycock et al. 2010: 65)

In both cases, the subordinated declarative clause is introduced by a complementiser, namely *dass* and *at*. These elements are by definition base-generated in C and they are in complementary distribution with verbs potentially moving up to the C position. In English, as can be expected on the basis of (11), this has no further consequences: a CP layer is added to the TP, which does not affect the internal structure of the TP.

In German, the lack of verb movement to C results in verb-final embedded clauses, as in (11); verb second order is ungrammatical with *dass*, as shown in (13):

(13) *Ich weiß, [dass Ralf hat übermorgen Geburtstag]. (German)
 I know.1SG that Ralf has day.after.tomorrow birthday
 ‘I know that Ralf has his birthday tomorrow.’

With a small class of verbs traditionally identified as “bridge verbs” (Vikner 1995; see also Green 1976), a V2 order in the embedded clause is possible:

(14) a. Peter sagt, dass sie Bücher mag. (German)
 Peter says that she books likes
 ‘Peter says that she likes books.’

- b. Peter sagt, sie mag Bücher.
 Peter says she likes books
 ‘Peter says she likes books.’

In this case, the verb is *sagen* ‘say’ and not *wissen* ‘know’; to what extent verbs allowing the kind of variation illustrated in (14) is subject to debate (Featherston 2004; Meklenborg Salvesen & Walkden 2017), the usual assumption being that so-called bridge verbs allow embedded V2 (the same group of verbs allowing *that*-drop in English) but it is clear that the particular subcategorisation properties of the given verb are decisive (embedded V2 is largely impossible with factive predicates, see Hooper & Thompson 1973, Weerman 1989, Reis 1997, Bacskai-Atkari 2018b).

At any rate, V2 is strict in German and occurs only in clauses that are complementiser-less; the same applies to Dutch and Afrikaans (den Besten 1989). This does not hold in North Germanic. As shown in the Faroese example in (13), the complementiser *at* is compatible with a verb in a second position (that is, following the subject but preceding the object and the VP-adjunct as in (8a) above). This is referred to as embedded V2: the verb in these cases is either assumed to be located in a lower C position, leading to a double CP structure (de Haan & Weerman 1986; Vikner 1995), or it is assumed to move to T, the TP being head-initial in these languages (unlike in German, see Rögnvaldsson & Thráinsson 1990; Diesing 1990; Heycock et al. 2010). While embedded V2 of this type is restricted to certain contexts in Mainland Scandinavian and also in Frisian (referred to as “narrow embedded V2” by Gärtner 2016; see also Vikner 1995 and Holmberg 2015, traditionally referred to as asymmetric verb-second), it occurs rather freely in Icelandic, Faroese and Yiddish (referred to as “broad V2”, traditionally referred to as symmetric verb-second; see Walkden & Booth 2020 for a recent overview of these distinctions).

The complementary distribution between the complementiser and the verb in languages like German also holds the other way round: the verb necessarily moves up in the absence of an overt complementiser:

- (15) *Ich weiß, [Ralf übermorgen Geburtstag hat]. (German)
 I know.1SG Ralf day.after.tomorrow birthday has
 ‘I know that Mary is tired.’

The same does not hold for English, where the complementiser may be zero in embedded declarative clauses in certain cases, as in (16):

- (16) Peter says [(**that**) she likes books].

Norwegian exhibits a similar pattern, illustrated in (17):

- (17) Peter sier [(**at**) Marit liker bøker]. (Norwegian)
 Peter says that Marit likes books
 ‘Peter says (that) Mary likes books.’

The availability of the zero complementiser is dependent on the matrix verb and on the position of the subordinate clause with respect to the main clause (cf. Kayne 1984, Stowell 198, Pesetsky 1995). Patterns like (16) and (17) clearly show that the C position does not necessarily need to be overt in embedded declaratives.

2.2. *Interrogative Clauses*

Main clause interrogatives by default express questions and they differ from declarative clauses in terms of word order and intonation patterns. Interrogative clauses fall into two major types, illustrated in (18):

- (18) a. **What** can you do in such a situation?
 b. Can you swim?

The clause in (18a) is a constituent question: it contains an interrogative pronoun (also referred to as a *wh*-element), namely *what*. This element corresponds to a focused element in the answer (Krifka 2008: 250) and it is associated with the presence of alternatives. It follows that a felicitous answer to questions like (18a) must contain a constituent that corresponds to the interrogative operator. Interrogative pronouns are obligatorily overt in constituent questions, as they express non-recoverable information. In addition to the presence of the interrogative pronoun, the inversion of the subject and the auxiliary is also indicative of the interrogative nature of the clause (apart from intonational differences).

In (18b), the interrogative clause expresses a polar question (also called yes/no question), which asks about the truth of a proposition (p or $\neg p$): the answer can essentially be ‘yes’ or ‘no’. In this case, there is no overt operator in the clause: the clause is typed by interrogative intonation and the inversion of the subject and the auxiliary (note that marking polar questions by an interrogative word order affecting the verb is a typical European phenomenon typologically, Dryer 2013).

Regarding (18b), there is in fact a distinct type referred to as alternative questions: these are formally similar to polar questions. The difference is illustrated in (19):

- (19) a. Have you met Peter (or not)?
 b. Have you met Peter or Matt?

While the polar question in (19a) can be answered by ‘yes’ or ‘no’, the alternative question in (19b) offers a closed set of alternatives that are expressed by constituents. In this respect, alternative questions are similar to constituent questions, which are also associated with the presence of alternatives. Formally, however, alternative questions are typed in the same way as polar questions, as indicated by the inversion of the subject and the auxiliary in (19).

As interrogative pronouns are obligatory in constituent questions, they overtly mark the type of the clause across Germanic; two examples are given in (20) and (21):

- (20) **Waar** woont je broer? (Dutch)
 where lives your brother
 ‘Where does your brother live?’
- (21) **Hvad** kan Kirsten lide? (Danish)
 what can Kirsten suffer
 ‘What does Kirsten like?’

In these cases, the *wh*-element is located in the specifier of the CP and the verb regularly moves to C. The structure is similar to the V2 declarative patterns in (7) and (8), with the important difference that the first position must be filled by a *wh*-phrase in *wh*-questions. Since English is no longer a V2 language, it follows that *wh*-questions have a different structure from the one underlying (9), as the *wh*-element moves to the specifier of the CP. As illustrated in (18a), English also has an inverted word order (compared to the default declarative order), indicating that the auxiliary moves up to C. This is available only for auxiliaries, not for lexical verbs, as shown in (22):

- (22) a. **What** will you say?
 b. **What** are you saying?
 c. **What** did you say?
 d. ***What** say you?

The auxiliary moving up to C can be a modal, as *will* in (22a), an aspectual auxiliary, as *be* in (22b), or the dummy *do*, as in (22c). While modal and aspectual auxiliaries would be present in the declarative counterparts as well, the insertion of the auxiliary *do* is necessary for inversion in (22c), as lexical verbs do not move out of the verb phrase in Modern English: moving lexical verbs to C is ungrammatical, as shown in (22d).

Fronting *wh*-phrases that function as subjects does not result in inversion and it does not require *do*-insertion either, as shown in (23):

- (23) **Who** invited Mary?

In this case, the tense-bearing element in T remains covert, just as in the declarative counterpart of the clause. In other Germanic languages, as V2 orders arise regularly, due to the movement of the finite verbal element to C, no asymmetries arise regarding subject *wh*-elements. This is illustrated in (24) and (25):

- (24) **Wie** woont in Amsterdam? (Dutch)
 who lives in Amsterdam
 ‘Who lives in Amsterdam?’
- (25) **Hvem** kan lide bøger? (Danish)
 who can suffer books
 ‘Who likes books?’

In polar questions, verb movement to C occurs regularly, as illustrated in (26) and (27):

(26) Lees hy vandag die koerant? (Afrikaans)
 read he today the newspaper
 ‘Does he read the newspaper today?’ (Biberauer 2002: 31)

(27) Líkar Maríu bækur? (Icelandic)
 likes María.DAT books
 ‘Does María like books?’

The verb moves also in these cases, just like in main clause declaratives and main clause constituent questions; the structure, is similar to those in (20)/(21). English follows the same pattern, with the important difference that only auxiliaries can move up to C, as shown in (28):

- (28) a. Will you sell the table?
 b. Are you selling the table?
 c. Did you sell the table?
 d. *Sold you the table?

Let us now turn to embedded interrogatives. Just as with their main clause counterparts, we can distinguish between constituent questions and polar/alternative questions. As the *wh*-element is obligatory, it occurs also in embedded clauses, as in (29) and (30):

(29) Pieter vroeg [wanneer Marlies aankwam]. (Dutch)
 Pieter asked.3SG when Marlies arrived.3SG
 ‘Peter asked when Marlies arrived.’

- (30) Peter spurgte [**hvad** Kirsten kunne lide]. (Danish)
 Peter asked_g what Kirsten can suffer
 ‘Peter asked what Kirsten liked.’

The *wh*-elements are regularly fronted, just as in main clauses (Chomsky 1977). In these cases, unlike in (21) and (22), there is no verb movement targeting C; it follows that English patterns with the other Germanic languages with respect to (29) and (30). In these cases, the head of the CP is phonologically zero. In non-standard varieties of Germanic, however, it is common for the complementiser to be lexicalised. This is illustrated in (31) and (32):

- (31) I frog mich [**wege wa dass** die zwei Autos bruchet]. (Alemannic German)
 I ask REFL for what that they two cars need
 ‘wonder why they need two cars.’ (Bayer & Brandner 2008: 88)
- (32) Thorsten spurte [**hvem som** likte bøker]. (Norwegian)
 Thorsten asked.PST who that liked.PST books
 ‘Thorsten asked who liked books.’

The doubling pattern (often referred to as Doubly-filled COMP; see Schallert & Bidese 2021 for a recent discussion) shows that the landing site of operator movement and the head position are distinct. The complementiser is the equivalent of English *that* across Germanic; in embedded interrogatives, this complementiser does not type the clause as declarative (since the clause type is interrogative) but, as it is restricted to finite clauses, it encodes finiteness overtly (Bacskai-Atkari 2020; see also Pittner 1995 on relative clauses). In terms of structural complexity, the patterns in (31) and (32) are comparable to the regular V2 patterns in (7)/(8) and in (20)/(21), so that they are not exceptional in the basic Germanic syntactic paradigms. Patterns like (31) and (32) exhibit two elements with clearly distinct functions, as the complementiser marks only that the clause is finite (that is, no non-finite clause is possible

after *that*) and the *wh*-element overtly marks the interrogative nature of the clause. The co-occurrence of two overt interrogative markers is rare but possible in Dutch, as shown in (33):

- (33) a. Hij weet [**hoe of** je dat moet doen]. (Dutch)
 he knows how if you this must do
 ‘He knows how you must do this.’ (Bayer 2004: 66, citing Hoekstra 1993)
- b. Ze weet [**wie of dat** hij had willen opbellen.
 she knows who if that he had wanted call
 ‘She knows who he wanted to call.’

The combination of the *wh*-element is possible not only with a single *dat* or with a single *of*, but also with both at the same time, leading to a complex left.

Let us now turn to embedded polar questions, which are regularly introduced by an interrogative complementiser in Germanic. This element is necessary because, unlike in constituent questions, the operator is regularly silent. The pattern is illustrated in (34):

- (34) Peter het gevra [**of** Mary van boeke hou]. (Afrikaans)
 Peter has asked.PTCP if Mary of books holds
 ‘Peter asked if Mary liked books.’

The complementiser is regularly specific to interrogative clauses and not identical to the declarative complementiser. In Thuringian, however, embedded polar questions can also be introduced by a single *dass* ‘that’, as shown in (35):

- (35) ich soll frägn, [**daß** sie heint zu uns kommen] (Thuringian German)
 I should ask that they today to us come
 ‘I should ask if they come to us today.’
 (Schallert et al. 2018: 24, citing Lösch et al. 1990: 1188)

In English, the polar operator can be lexicalised by *whether*; while it usually occurs on its own, there are sporadic examples for its co-occurrence with the complementiser *that* and even with the complementiser *if* in non-standard varieties, as in (36):

- (36) a. I just wondered [**whether that** as a next step we might look to see why this seems to be the case].
(CSE-FACMT97; van Gelderen 2013: 162)
b. The local authority will know [**whether if** they let the council house to the tenant].
(BNC-FC3-80; van Gelderen 2004: 96)

Doubling is also possible in Dutch (*of dat* ‘if that’) in non-standard varieties.

While complementisers do not regularly occur in Germanic main clause interrogatives, they can be used in various Germanic languages in deliberative questions, as in (37) and (38):

- (37) **Ob** Sophia immer noch in Potsdam wohnt? (German)
if Sophia always still in Potsdam lives
‘I wonder if Sophia still lives in Potsdam?’
- (38) **Om** Kristine liker bøker? (Norwegian)
if Kristine likes books
‘I wonder if Kristine likes books?’

Such questions are pragmatically restricted: they are not genuine information questions but rather express wondering on the part of the speaker; they are syntactically not embedded, yet they are contextually bound (Zimmermann 2013). Such cases are instances of insubordination (which is not restricted to interrogatives per se; see, for instance, Evans 2007, Verstraete, D’Hertefelt & Van linden 2012, König & Siemund 2013, Verstraete & D’Hertefelt 2016, D’Hertefelt 2017).

2.3 Exclamative Clauses

Exclamative clauses are formally similar to interrogatives as they denote a set of alternative propositions and conversely contain an operator-variable structure; at the same time, they are generally also factives (Zanuttini & Portner 2003; but cf. Chernilovskaya 2014 on exclamatives not always denoting factive propositions). These properties are illustrated in (39):

- (39) a. **How cute** he is!
 b. Mary knows [**how cute** he is].

In both cases, there is a *wh*-element in the specifier of the CP, just like in interrogatives.

However, unlike in interrogatives, there is no auxiliary moving to the C position in (39). The example in (39b) shows that exclamatives can be embedded under factive predicates, such as *know* (the same would not be possible with e.g. *wonder*, Zanuttini & Portner 2003: 46).

In Germanic, *wh*-exclamatives are common; the lack of verb movement is, however, not attested in all cases. The optionality of verb fronting can be observed in German (Altmann 1984, Reis 1985, Oppenrieder 1989, Rosengren 1992, D’Avis 2001, 2002, 2013, Thurmair 1991, 2013, Driemel 2018; see also Schallert 2019 for a diachronic perspective) and in Dutch (Nouwen & Chernilovskaya 2015). This is illustrated in (40).

- (40) a. **Wo** sitzt der nicht überall im Aufsichtsrat! (German)
 where sits he not everywhere in.the board
 ‘The many boards he is on!’ (Oppenrieder 1989: 219)
- b. **Wo** der überall im Aufsichtsrat sitzt!
 where he everywhere in.the board sits
 ‘The many boards he is on!’ (Oppenrieder 1989: 219)

The variation between the two orders is influenced by pragmatic factors; in addition, not all languages permit both orders, as is also the case for English (see Delsing 2010 for Scandinavian).

The lack of verb movement in patterns like (40) suggests that the C position is filled by a complementiser, which is regularly covert. In South German dialects, it is possible to have an overt complementiser in this position, as in (41):

- (41) **Wie schön** dass sie ist! (*South German*)
 how pretty that she is
 ‘How pretty she is!’ (Brandner 2010: 112)

The configuration is similar to the doubly filled COMP patterns observed in embedded interrogatives, indicating that main clause exclamatives have properties reminiscent of embedded clauses (see Petersson 2011 for an analysis as actual embedded clauses), that is, they are not prototypical main clauses.

A second type of exclamatives attested in Germanic is polar exclamatives, illustrated in (42):

- (42) Ist Syntax spannend! (*German*)
 is syntax exciting
 ‘Boy, is syntax exciting!’

This type is formally similar to main clause polar questions, as given in (26)/(27), and it cannot be embedded.

Finally, a third type of exclamatives constitutes *that*-exclamatives, illustrated in (43) and (44):

(43) **Dass** sie noch Auto fährt! (German)
 that she still car drives
 ‘That she is still driving!’

(44) **Att** du inte köpt bilen! (Swedish)
 that you not bought car.the
 ‘Oh, why haven’t you bought the car!’ (Petersson 2011 169)

These clauses are formally identical to embedded declaratives: they can be treated as declarative clauses with a non-matching discourse function (Brandner 2010: 100), or as factually embedded clauses (Petersson 2011). However, as they can occur on their own, they can be considered main clauses. Such exclamative clauses cannot be embedded.

2.4. Imperative Clauses

Imperative clauses are similar to interrogatives and to exclamatives in that they involve the verb fronting. Consider the examples in (45):

- (45) a. Don’t leave the house!
 b. Don’t you leave the house!
 c. *You don’t leave the house!

The subject is usually not overt, as in (45a), but it can be optionally added, as shown in (45b); this is usually assumed to be due to emphasis (Potsdam 1998; see also Flagg 2001 and Zanuttini 2008, especially on restrictions). In (45b), we can see that the order of the subject and the (negated) auxiliary is inverted; as shown by (45c), the basic order is not possible. In English, since lexical verbs do not move to C, non-negated imperatives show subject–verb order, as shown in (46) below (see Flagg 2001):

- (46) a. Leave the house!
 b. You leave the house!

Just like in West Germanic, subjects are usually not overt in Mainland Scandinavian (Platzack 2007, Garbacz & Johannessen), while it is usually overt (in the form of a clitic pronoun) in Icelandic (Thráinsson 2007:6). This difference is illustrated in (47) and (48):

- (47) Ät upp äpplet! (Swedish)
 eat.IMP up apple.DEF
 ‘Eat up the apple!’ (Jensen 2003: 152)
- (48) Tak-tu þátt í þessu. (Icelandic)
 take-you.2SG part in this
 ‘Take part in this!’ (Sigurðsson 2010 :36)

Strictly speaking, imperatives cannot be embedded (cf. Kaufmann 2012: 193–254): this seems to have been an option in Old Saxon, Old High German and Old Norse (Platzack 2007, Kaufmann 2012) but the modern Germanic varieties resort to functionally equivalent embedded counterparts, including infinitival clauses (Kaufmann 2012: 194). Consider the examples in (49) and (50):

- (49) Ich sag dir, [geh nach Hause]. (German)
 I say.1SG you.DAT go.IMP to home
 ‘I tell you to go home.’ (Kaufmann 2012: 208)
- (50) Jak manar thik... [at thu sikh mik sannindh] (Old Swedish)
 I advise you that you say.IMP me truth.DEF
 ‘I advise you to tell me the truth.’ (Platzack 2007: 195)

Cases like (50) are straightforward as they are introduced by a complementiser and can be formally treated as embedded. Cases like (49) are not distinguished morphosyntactically from main clauses and can in principle be regarded as instances of direct speech, i.e. not involving genuine embedding.

3. Embedded Clause Types

As mentioned in section 1, certain clause types can occur only as embedded clauses. Given the general properties of clause typing in Germanic, such clause types are by default marked by morphosyntactic markers and not by a distinctive intonation; word order changes may in some cases be also indicative. This section discusses three major clause types: conditional clauses, relative clauses, and comparative clauses.

3.1. *Conditional Clauses*

Conditional clauses are formally similar to (embedded) polar interrogatives: the two clause types are also semantically related, as both express disjunction (Bhatt & Pancheva 2006, Arsenijević 2009, Danckaert & Haegeman 2012).

The basic pattern is illustrated in (51) and (52):

(51) *Dutch*

[Als je te laat komt], mis je het begin van de film.
 if you too late come.2SG miss you the beginning of the film
 ‘If you come too late, you will miss the beginning of the film.’

(52) *Swedish*

[**Om** jag hinner med tåget], blir jag glad.
 if I catch with train.the be I happy
 ‘If I catch the train, I will be happy.’

Conditional clauses are introduced by a complementiser, which can be related to complementisers in temporal adverbial clauses (as in the case of Dutch *als*) or they can be identical to the polar interrogative complementiser (as in the case of Swedish *om*).

If the complementiser is absent, verb movement to C can occur, as in (53) and (54):

(53) [Ist die Entscheidung gefallen], gilt sie für alle. (*German*)
 is the decision fallen applies she for all
 ‘Once the decision has been taken, it applies to all.’

(54) [Gongst eftir ætlan], kemur bókin út til jóla. (*Faroese*)
 goes after plan comes book.the out to Christmas
 ‘If everything goes according to plan, the book will come out by Christmas.’
 (Franco 2008: 147, citing Thráinsson et al. 2004: 293)

In English, verb movement is limited to auxiliaries, in line with the general restrictions on movement to C in the language (cf. Leuschner & van den Nest 2015), as shown in (55):

- (55) a. [**If** the keeper fails], the whole team will fail.
 b. [Should the keeper fail], the while team will fail.

The two options are in complementary distribution (also cross-linguistically, Franco 2008: 146).

Conditional clauses are adjunct clauses. They may precede the main clause, as in (53)–(55), or follow it, as in (56) and (57):

- (56) Die Entscheidung gilt für alle, [**wenn** sie gefallen ist]. (German)
 the decision applies for all if she fallen is
 ‘The decision applies to all, once it has been taken.’
- (57) Bókin kemur út til jóla, [**um** tað gongst eftir ætlan]. (Faroese)
 book.the comes out to Christmas, if it goes after plan
 ‘The book will come out by Christmas if everything goes according to plan.’
 (Franco 2008: 147, citing Thráinsson et al. 2004: 293)

Conditional clauses following the main clause regularly contain an overt complementiser, though this is not exceptionless: Icelandic V1-conditionals may also follow the main clause (Franco 2008: 146–147, citing Thráinsson 2007: 30).

Non-fronted conditional clauses like (56) and (57) do not affect the regular V2 order in the main clause in V2 Germanic; in the fronted variants, as shown in (51)–(54), the main clause has V1 order. The main clause may also contain a placeholder element like *then* in these inverted orders, as in (58):

- (58) [**If** the keeper fails], then the whole team will fail.

In V2 Germanic languages, such placeholders occur regularly in the first position of the main clause, suggesting that the conditional clause itself is not located in the specifier of the CP but is adjoined higher (Reis & Wöllstein 2010, Haider 2010: 104, Bacskai-Atkari 2018b).

3.2. Relative Clauses

Relative clauses modify a noun or a noun phrase in the matrix clause: by default, relative clauses contain a so-called gap that is co-referent with the matrix noun (also called head noun).

In Germanic, there are various options to type such relative clauses. One option is the relative pronoun strategy, illustrated in (59) and (60):

(59) Het boek [**dat** ik gelezen heb] is gewoon geweldig. (Dutch)
 the.N book which.N I read.PTCP have.1SG is simply awesome
 'The book which I have read is simply awesome.'

(60) Dette er byen, [**hvor** jeg blev født]. (Danish)
 this is city.the where I was born
 'This is the city where I was born.'

Relative pronouns correspond to the gap in the relative clause: these elements are base-generated clause-internally and move to the specifier of the CP in the same way as in interrogatives (Chomsky 1977). These elements are inflected for gender (including both grammatical gender, as in Dutch, as well as a personal/nonpersonal distinction, as in English), case, and number (depending on the language), and they can be complements of prepositions (e.g. *from which*). Relative pronouns can be demonstrative-based, as in (59) or *wh*-based, as in (60). While the relative pronoun strategy is common in West Germanic, it constitutes a very restricted option in North Germanic, where relative pronouns almost exclusively appear in relative clauses containing adverbial gaps.

Apart from the relative pronouns, Germanic languages tend to use relative complementisers, illustrated in (61) and (62):

(61) Dit is die boek [**wat** Mary gekoop het]. (Afrikaans)
 this is the book that Mary bought.PTCP has
 'This is the book that Mary has bought.'

(62) Þetta er nemandinn [**sem** bauð Maríu]. (Icelandic)
 this is student.the that invited.3SG María.DAT
 'This is the student who invited María.'

The highlighted elements are relative complementisers (Den Besten 2012; Thráinsson 1980, 2007; Jónsson 2017). Unlike relative pronouns, relative complementisers are not inflected and they cannot be complements of prepositions; they are located in C and they encode finiteness as well. Relative complementisers constitute the default option in North Germanic; regarding West Germanic, there is a strong tendency towards the complementiser strategy in non-standard varieties (except for Dutch and Frisian, see Boef 2013 and Hoekstra 2015; for English, see Romaine 1982, citing Sweet 1900; see also Montgomery & Bailey 1991, van Gelderen 2004, Tagliamonte et al. 2005, Herrmann 2005; for varieties of German, see Fleischer 2004a for an overview, Brandner & Bräuning 2013 on Bodensee Alemannic, Salzmann 2017 on Zurich German, Fleischer 2017 on Hessian, Weiß 2013 on Bavarian, Kaufmann 2018 on Mennonite Low German).

Relative pronouns and relative complementisers may combine with each other, as in (63):

- (63) It's down to the community [**in which that** the people live].
(van Gelderen 2013: 59)

In Bavarian, even triple combinations are attested, as in (64):

- (64) *dea Mā, [dea wo dass des gsogd hod] (Bavarian German)*
the.M man which.M REL that that.N said.PTCP has
'the man who said it' (Weiß 2013: 781)

Such combinations result in a complex left periphery (Bacskai-Atkari 2021), in much the same way as can be observed in Dutch embedded interrogatives (see section 2.2).

Apart from the options mentioned so far, it is possible for relative clauses to lack both overt pronouns and overt complementisers; these are referred to as zero relatives, illustrated in (65) and (66):

(65) The man [Ø I saw yesterday] is the manager.

(66) Detta är boken [Ø Astrid köpte]. (Swedish)
 this is book.the Astrid bought.PST
 ‘This is the book that Mary bought.’

Zero relative clauses are attested in North Germanic and in English (Dekeyser 1986, Platzack 2002, Poppe 2006), but are absent from High German and Dutch (Fleischer 2004b, Boef 2013).

Apart from relative clauses that modify a head noun, as in (58)–(66), Germanic languages also have headless (or free) relative clauses, , illustrated in (67) and (68):

(67) [**Wer** die Prüfung bestanden hat], bekommt Schokolade. (German)
 who the.F exam passed.PTCT has gets chocolate
 ‘Whoever has passed the exam will get chocolate.’

(68) Han tog [**vad** han kom över]. (Swedish)
 he took what he came over
 ‘He took what he found.’ (Faarlund 2019: 102)

Headless relative clauses are regularly introduced by a *wh*-based pronoun, and they share properties of relative clauses and interrogative clauses (Groos & Riemsdijk 1981).

Specifically, the relative pronouns must be overt for the same reasons as in interrogative clauses. As the pronouns occupy the specifier position of the CP, they are not in complementary distribution with complementisers; in some varieties, a finite complementiser (marking finiteness only) can be inserted into C, leading to the doubly filled COMP configurations attested in embedded interrogatives and in ordinary (headed) relative clauses.

This is shown in (69):

- (69) [**Wie dat** er nou triouwt] zijn stommerike. (Flemish)
 who that there now marries are stupid.ones
 ‘Whoever gets married nowadays is stupid.’ (Zwart 2000; citing Vanacker 1948: 143)

In Bavarian, triple combinations are also reported, as shown in (70):

- (70) *Bavarian German*

[**dem wo dass** des zvei is], kann aa wenger zoin
 that.M.DAT REL that that.N too.much is can.3SG also less pay.INF
 ‘Whoever finds it too much can pay less as well.’ (Weiß 2013: 781)

Just as in the case of (64), such combinations involve a complex left periphery (Bacskai-Atkari 2021).

3.3. Comparative Clauses

Comparative clauses in Germanic show similarities to relative clauses (Bacskai-Atkari 2014): they also contain operator movement (Kennedy 2002). Comparison constructions fall into various types, illustrated in (71):

- (71) a. Mary is glamorous [**like** a film-star].
 b. Farmers have other concerns [**than** the farm bill].
 c. Mary is as tall [**as** her mother was].
 d. Mary is taller [**than** her mother was].

In (71a) and (71b), comparison does not involve degree: (71a) expresses similarity (also referred to as similitive clause, Haspelmath & Buchholz 1998) and (71b) expresses

difference. In (71c) and (71d), two degrees are compared: in (71c), the degrees are equal (the construction is also referred to as equative comparative or simply as equative) and in (71d), the degrees are different (the construction is also referred to as inequality comparative).

Comparison clauses are frequently elliptical (Bacskai-Atkari 2018a) and while the functional elements introducing these clauses are mostly subordinating complementisers, the resulting elliptical clauses show similarities to coordinate constructions as well (Lechner 2004, Jäger 2018). The bracketed clauses constitute the standard of comparison in each case. The standard markers are usually shared between similatives and degree equatives (but not always, as can be seen in (71a) and (71c) above), and between non-degree comparatives and degree comparatives expressing inequality. It is also possible for equality and inequality comparison to have the same standard marker: in fact, comparative standard markers often derive from equative markers (Jäger 2018).

Similative clauses are illustrated in (72) and (73):

(72) Maria ist so [**wie** ihre Mutter]. (German)
 Maria is so as her.F mother
 ‘Maria is like her mother.’

(73) Hon skriver [**som** hennes bror talar]. (Swedish)
 he writes as his brother speaks
 ‘He writes like his brother speaks.’ (Haspelmath & Buchholz 1998: 320)

In similative clauses, the matrix clause may contain a correlate, such as *so* in (72), but this is not always the case, as can be seen in (73). The standard marker in German is surface-identical to the interrogative pronoun *wie* ‘how’; in Swedish, it is surface-identical to the relative complementiser *som*. Both patterns are common across Germanic.

Degree equatives are illustrated in (74) and (75):

(74) Mijn zus is net zo groot [**als** ik]. (Dutch)
 my sister is just so tall as I
 ‘My sister is just as tall as I am.’

(75) Rikke er lige så gammel [**som** Per var sidste år]. (Danish)
 Rikke is like so old as Per was last year
 ‘Rikke is as old as Per was last year.’

The standard marker in Dutch is surface-identical to the standard marker *als* (as in *zoals* ‘so.as’) in similatives; in Danish, it is surface-identical to the relative and similative complementiser *som*. These patterns are common (though not exclusive) across Germanic. Degree comparatives are illustrated in (76) and (77):

(76) Mary is ouer [**as** Peter]. (Afrikaans)
 Mary is older than Peter
 ‘Mary is older than Peter.’

(77) María er eldri [**en** Pétur var í fyrra]. (Icelandic)
 María is older than Pétur was last year
 ‘María is older than Pétur was last year.’

The standard marker in Afrikaans is surface-identical to the standard marker *als* in similatives and in degree equatives; in Icelandic, *en* is restricted to inequality comparatives. Both of these patterns are common across Germanic.

In all the examples in (71)–(77), there is a single standard marker (a complementiser).

Doubling is also possible, as illustrated in (78) and (79) for equatives:

(78) *Bavarian German*

Dei Schweinsbraan schmeoggd genau a so fad [**ais wia** dei Schbinad].
 your roast.pork tastes just PRT so stale as how your spinach
 ‘Your roast pork tastes just as stale as your spinach.’
 (Jäger 2018: 327, citing Merkle 1975: 171)

(79) *Danish*

Rikke er lige så gammel [**som hvad** Per var sidste år].
 Rikke is like so old as what Per was last year
 ‘Rikke is as old as Peter was last year.’

Similar doubling patterns can be observed in comparative clauses, illustrated in (80) and (81):

(80) Ich bin gresser [**als wie** du]. (*Upper Saxonian German*)
 I am taller than as you.NOM
 ‘I am taller than you.’ (Jäger 2018: 292, citing Weise 1918: 174)

(81) Berit er eldre [**enn hva** Leif er]. (*Norwegian*)
 Berit is older than what Leif is
 ‘Berit is older than Leif is.’

Doubling patterns are more likely to occur in comparatives expressing inequality than in equatives (Bacskai-Atkari 2016), and they require the presence of multiple functional projections (Jäger 2010, 2018, Bacskai-Atkari 2018).

A special type of comparison clauses is hypothetical comparatives: these can be regarded as a mixed clause type combining conditional clauses and comparison clauses. This is illustrated in (82) and (83):

(82) Mary is pale [**as if** she had seen a ghost].

(83) Han uppträder [**som om** han vore en persisk sultan]. (*Swedish*)
 he behaves as if he were a Persian sultan
 ‘He behaves as if he were a Persian sultan.’
 (Nordström 2010: 102, citing Stroh-Wollin 2002: 100)

The first complementiser is the regular similative/equative complementiser, and the second one is the regular conditional complementiser (note that this is not always the case, as in the English combination *as though*; see Jäger 2010, 2018, Bacskai-Atkari 2018c,). The

conditional complementiser may be in complementary distribution with a fronted verb, as illustrated in (84) and (85):

- (84) Er schreit, [**als** würde er um sein Leben kämpfen]. (*German*)
 he shouts as would he for his.N life fight.INF
 ‘He is shouting as if he were fighting for his life.’
- (85) Han uppträder [**som** vore han en persisk sultan]. (*Swedish*)
 he behaves as were he a Persian sultan
 ‘He behaves as if he were a Persian sultan.’
 (Nordström 2010: 102, citing Stroh-Wollin 2002: 103)

Verb movement is not an option in English, due to the general restrictions on verb movement.

4. Summary

Clause typing in Germanic shows considerable variation both according to the specific clause type and according to the given language. Main clause declaratives are canonical, and they represent the default option. Other main clause types are differentiated by intonation and also by syntactic means, such as word order; in addition, morphosyntactic markers may also play a role, as is the case for constituent questions.

Embedded clauses are distinguished primarily by morphosyntactic markers (such as complementisers); word order may play a role, but it is in general a restricted option. For some main clause types (exclamatives and imperatives), embedding constitutes a highly restricted option. As markers of clause type and finiteness may differ, and since certain clause types represent complex and/or mixed patterns, morphosyntactic markers may also be combined, leading to complex left peripheries in Germanic.

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