Issue 98

June 2017

WPSS

WORKING PAPERS IN SCANDINAVIAN SYNTAX

LUND UNIVERSITY

UNIVERSITEIT GENT

Working Papers in Scandinavian Syntax is an electronic publication for current articles relating to the study of Scandinavian syntax. The articles appearing herein are previously unpublished reports of ongoing research activities and may subsequently appear, revised or unrevised, in other publications.

The WPSS homepage:
http://project.sol.lu.se/grimm/working-papers-in-scandinavian-syntax/

The 99th volume of WPSS will be published in December 2017. Papers intended for publication should be submitted no later than November 1, 2017.

June 2017,

Johan Brandtler, editor

Contact:
Johan Brandtler
Ghent University
Department of Linguistics
Blandijnberg 2
9000 Gent, Belgium

E-mail: johan.brandtler@ugent.be

Working Papers in Scandinavian Syntax
ISSN: 1100-097x

Contents

What makes the imperative clause type autonomous? A comparative study in a modular perspective **1**
Christer Platzack & Inger Rosengren

Subordinate V2 and verbal morphology in Övdalian **83**
Ásgrímur Angantýsson

Pragmatic differentiation of negative markers in the early stages of Jespersen's cycle in North Germanic **105**
Tam Blaxter & David Willis

Weight effects and heavy NP shift in Icelandic and Faroese **131**
Ingunn Hreinberg Indriðadóttir

What makes the imperative clause type autonomous? A comparative study in a modular perspective[1]

Christer Platzack & Inger Rosengren
Lund University

Abstract. This paper is a *case study* of the *imperative* clause type and its relation to other clause types in Swedish and German in a *modular* framework. We will argue that there are three independent clause types, the *finite,* the *imperative* and the *infinitive clause* type*,* the differences between them derived from a morphologically founded distinction between three verbal paradigms, the *finite*, the *imperative* and the *infinitive* one.

We will further show how the three basic clause types are built up by three autonomous and interdependent modular systems, the *morpho-syntactic*, the *semantic* and the *speech act* system. Whereas the morpho-syntactic system operates with valued and unvalued features of various kinds, like [finite] and [φ], the semantic system supplies modal operators, that will provide the clause type with a clause type meaning. The speech act system will turn the clause type with its clause type meaning into a speech act, being the *act the speaker performs,* when uttering a clause. Not until the clause is accepted as a proper *speech act* at the speech act interface, will it become speech.

Like in Platzack & Rosengren (1998), we also once more claim, that the imperative clause type lacks TP, which in turn prevents it from getting a subject and embed.

Because of its *non-finite*, i.e. *imperative* head, the imperative clause will be a clause type in the system of clause types right from the morphological beginning. It differs substantially in its syntactic structure from the finite clause as well as from the infinitive clause, being a clause type with a head with only a 2nd person inflection. This difference results in a slim structure, univocal meaning and a restricted area of application, the speaker uttering it in order to make or allow the addressee to act according to a norm. It can hence only be used to talk TO the addressee, not ABOUT him.

1 Introduction

We easily recognize an imperative clause:

(1) a. Spring fortare! Swedish
Run faster!
b. Lauf schneller! German
Run faster!

At first glance, the imperative clause seems to be structurally simple. In many languages it is marked by a specific verbal form, which normally only appears in 2nd person. We argued in Platzack & Rosengren (1998) that the imperative verb is morphologically meagre. We claimed that the imperative clause lacks TP (or rather FinP, as we assume a split CP in line with Rizzi, 1997). Since TP (FinP) is the bearer of finiteness, the presence of which is a

[1] A very preliminary start-up of this paper has been presented by Inger Rosengren at "Grammatik i Fokus" in 2014 at Lund University. Thanks to the audience for valuable comments. We also thank Johan Brandtler, Hubert Haider, David Petersson, Marga Reis and Wolfgang Sternefeld for many important discussions and valuable comments and suggestions. Thanks also to Lars-Olof Delsing, who has helped us with the Old Nordic examples.

prerequisite for a subject and for proper embedding, an imperative clause lacking TP (FinP) cannot have a subject and cannot properly embed.

In this paper we will once more repeat this claim. We will further argue that the imperative clause type, because of its specific, quite different, clause type structure, which in turn is the result of its head being 2nd person, sing./plur., also differs semantically and illocutionarily from the finite clause. When uttering a finite clause, the speaker talks ABOUT an event in the actual world, when uttering an imperative clause, he talks directly TO the addressee in order to make or allow him to act according to a norm.

1.1 Aim

We believe that we have arrived at a point where only a detailed *case* study with a thorough empirical foundation, on the basis of a consistent linguistic theory, will answer the question of what kind of clause type the imperative clause is and how it relates to other clause types.This paper is a *case study* of three independent basic clauses types, the *finite*, the *imperative* and the *infinitive* clause type in two related Germanic languages, Swedish and German, the focus being on the imperative clause. The differences between the three clause types will be derived from a morphologically founded distinction between three verbal paradigms, the *finite*, the *imperative* and the *infinitive* one.

We further show how the three basic clause types are built up by three autonomous and interdependent modular systems, a *morpho-syntactic*, a *semantic* and a *speech act* system. Whereas the morpho-syntactic system operates with valued and unvalued features of various kinds, like [finite] and [φ], the semantic system supplies modal operators, that will provide the clause type with a clause type meaning. The speech act system will turn the clause with its clause type meaning into a speech act, being the *act the speaker performs,* when uttering the clause. Not until the clause is accepted as a proper *speech act* at the speech act interface, will it become speech.

The paper is divided in three general parts, where the morpho-syntactic structure of the clauses is described in sections 2-4, the semantic mapping of the clause types onto a proper modal operator in section 5, and the mapping of the clause with its clause type meaning onto a proper speech act type in section 6. Section 7 contains a summary and a conclusion.

1.2 Theses

Thesis 1. We will argue that there are three autonomous and interdependent modules in what we call the linguistic system, the morpho-syntactic, the semantic and the illocutionary module. They are autonomous because they are characterized by their own specific system of principles, units and rules, and they are interdependent because they are dependent of one another for their realization, ending up in utterances produced and understood by speaker and addressee. From this follows that neither module shares any principles, units or rules with the other modules, but there exist mapping rules between them, which determine the mapping of each clause type. At the semantic interface the clause will map onto a modal operator, that

lends it a clause type meaning, and at the illocutionary interface the clause with its clause meaning will map onto a proper speech act type. (See e.g. the discussion of grammatical features in Pesetsky & Torrego, 2001: 364, and BRRZ, 1992).

Thesis 2. We will argue that *morphology* is the module where words are created by merging roots with e.g. inflection morphemes. Morphology differs from syntax in being concatenative, whereas syntax is recursive. Still they belong to the same type of structural module, which we will refer to as *morpho-syntax*. Looking at verbs only, we assume that a root *(skriv, schreib* 'write'*)* is merged with an inflection morpheme in the morphological module. The result is a finite, imperative or infinitive verb, which in syntax becomes the projective head of the syntactic tree, representing a corresponding clause type. Depending on category and different functional nodes, like T and C for verbs it may be merged to a categorical head giving rise to a vP for verbs.

Thesis 3. The possibilities of merging a specific node is determined by the root and the inflection morpheme. For verbs, we get three types of little v, based on three types of inflection:

(2) a. Little v hosts *finite* inflection (e.g. tense in Germanic languages: *skriver*, *schreibt,* 'writes')
b. Little v hosts *imperative* inflection (2nd person, sing./plur.: *skriv*, *schreib(e)/t,* 'write')
c. Little v hosts *infinitive* inflection (*skriva*, *schreiben*, 'write')

Merging additional functional heads to the three vPs, gives us three basic syntactic clause types, the *finite*, the *imperative* and the *infinitive* clause type. Note that only the finite clause projects TP and hence gets a subject, and that the inifinitive clause with its infinitive verb has only infinitive inflection: Swedish *-a*, German *-en*.

Thesis 4. We will distinguish between three types of embedding: *Proper embedding*, *Pseudo-embedding* and what we will call *Centaur-embedding*, only the two first being possible in modern Swedish and German. We will further argue that the imperative clause in modern Swedish and German cannot embed at all, the reason being that its independent morpho-syntactic structure with an inflected verb with *2nd person, sing./plur.* prevents it from projecting TP, TP being a prerequisite of a subject. The Centaur-embedding is only found in Old Nordic and is no real embedding of the imperative clause but a centaur of a finite clause on top of the tree and an imperative vP at the bottom.

Thesis 5. Each clause targets the *semantic* interface in order to find its proper semantic interpretation and will crash if not accepted. We argue that a finite clause (always with TP) and a non-finite clause (never allowing TP) map onto quite different modal operators at the semantic interface. We assume a *correspondence* relation between *finiteness* and *truth-oriented* modality, on one hand, and between *non-finiteness* and *action-oriented* modality, on the other. The correspondence relation is no stipulation, since the whole syntactic structure of each clause type is built up from the morphological basis via projection and merging of

lexical and functional nodes in order to allow a specific mapping at the semantic interface onto a matching modal operator, taking the clause in its scope.

Thesis 6. At the illocutionary interface the different clause types find their corresponding speech act types. We define the speech act system as the system of the acts the speaker performs when uttering a clause. Austin (1962) called it "How to Do Things with Words". The finite clause with its truth-oriented meaning maps per default onto a *constative* speech act type at the illocutionary interface, where the speaker talks ABOUT the proposition of the clause, anchoring it in time and space in the actual world. The imperative and the infinitive clause with their action-oriented meaning per default map onto a *constitutive* speech act type, where the speaker talks TO the addressee, see Platzack & Rosengren (1998). The finite clause has a wider area of application than the other two clause types.

2 The morpho-syntactic structure of vP, TP and CP

In section 2.1 below we present some central assumptions of the feature-driven version of the minimalist program that we use for our analysis of clause types in Swedish and German. In general, we will be close to but not slavishly follow Chomsky (1995), (2008) and Pesetsky & Torrego (2001, 2004, 2007).[2] In particular, even if we may strive for the "Strong Minimalist Thesis" (SMT), see Chomsky (2007: 4), we will give preference for descriptive adequacy over explanatory adequacy, in cases where conflicts appear.

We continue in section 2.2 and 2.3 with the relation between morphology and syntax, discussing the formation of the verb and its way to syntax, where it will become the head of the syntactic clause. In section 2.3, 2.4 and 2.5, finally, we specify the structure and function of vP, TP and CP respectively, as the cornerstones of the syntactic clause.

2.1 The computational machinery: Features, Merge, EPP and the operation Agree

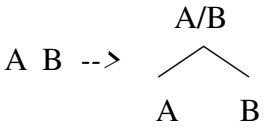
Features enter the syntactic computation either as valued or unvalued; the purpose of the computation is to value all unvalued features.

The central player of the Minimalist syntactic derivation is the operation *Merge* that builds structure. Merge operates on (bundles of) features (valued or unvalued) that provide the building material for syntactic structure. Merge takes a feature bundle and adds it to another feature bundle, creating a minimal structure, see (3):

(3) a. Pick the feature bundle A and merge it to an available feature bundle B:

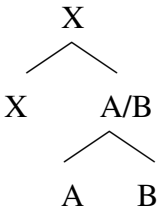
[2] In Pesetsky & Torrego (2007), the authors have made their feature driven approach more fine graded, complicating the derivation but reaching a level of detail that does not seem to be needed for our purposes here.

b.

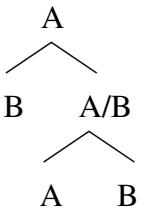


The result of merging A and B is labeled either A or B. Merge can now take a new feature bundle X from the lexicon and merge it to the root of the structure, illustrated in (4), or it may take the feature bundle B, already present in the derivation, and remerge it to the root of the structure, yielding (5); this operation may also be called "Move":

(4)



(5)



The operation Agree, see Chomsky (2001: 3ff.) and below, establishes a connection between an unvalued and a valued instance of a feature, valuing the unvalued one, see (6). The derivation will crash if there is any unvalued feature left at the semantic interface.

(6) **The operation Agree**

Step 1: Select a *probe* i.e. a head with at least one unvalued feature [¬F], where [F] is a variable over features.
Step 2: Search the c-command domain of the probe for the closest *goal* with a valued instance of the same feature, [F].
Step 3: Value the unvalued feature of the probe in accordance with the value of the goal.

Agree may be accompanied by movement of the bearer of the valued feature to the bearer of the unvalued feature. This operation will be triggered by the feature *EPP*[3], associated with an unvalued feature, here expressed as [¬F^{EPP}].

It should be noticed that, although the computation seems to proceed from right to left, and from bottom to top, a generative system does not involve any temporal dimension. The computation is, as Chomsky (2007: 6) expresses it, "similar to other recursive processes such as construction of formal proofs. Intuitively, the proof "begins" with axioms and each line is added to earlier lines by rules of inference or additional axioms. But this implies no temporal ordering. It is simply a description of the structural properties of the geometrical object "proof". The actual construction of a proof may well begin with its last line, involve independently generated lemmas, etc. The choice of axioms might come last. The same is true of generation vs. production of an expression, a familiar competence-performance distinction."

[3] EPP (Extended Projection Principle) was originally introduced (Chomsky 1982)) to capture the fact that a sentence must have a subject. Even if EPP is more widely used here, inspired by Pesetsky & Torrego (2001), the original use is partly retained, since EPP determines that there is a visible subject in languages like German and the Scandinavian ones.

2.2 The relation between morphology and syntax

Without arguments[4] we have chosen a version of the minimalist program where words are created in an autonomous morphological module by merging roots with categorial inflection morphemes taken from lexicon. Hence words ("Lexical Items" in the terminology of Chomsky (2008: 6)), can be seen as atomic elements from the point of view of syntax. Each word (i.e. lexical item) is, according to Chomsky (2007: 6), "a structured array of properties (*features*) to which Merge and other operations apply to form expressions." Cf. also Sternefeld (2010: 77f.).

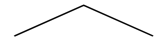
Both morphology and syntax are right-branching but differ from one another in that morphology is concatenative, whereas syntax is recursive. In Swedish this demands a shell structure not available for word structure (see 2.4 below, and Haider, 2010 and 2015: 18f., for a detailed analysis of this difference). Most important from our point of view is however that the *verb,* by virtue of it being the result of a concatenation of a root and an inflection morpheme, becomes the head of the syntactic derivation of the clause and thereby determines the projection line.

We find three categorial inflection possibilities in the Swedish and German morphological paradigm system:

(7) a. **The finite inflection** comprises person (1/2/3) and number (sing./plur.), mode (indicative/subjunctive) and tense (present/past),
b. **The imperative inflection** only comprises person (2nd person, sing./plur., sometimes 1st person, plur.),
c. **The infinitive inflection**, expressed by a final-*a* in Swedish and -*en* in German, is defined ex-negativo, neither person, number, mode nor tense.

Since word formation is not recursive and hence does not allow a shell structure (see Haider 2015, 18f. and fn. 7), we will in principle just find the following three formations of a verb as demonstrated below, where a root *(skriv, schreib* 'write'*)* is combined with a *finite, imperative* or *infinitive* verbal inflection morpheme, i.e. a categorial head (verb) with a valued inflection feature, *finite, imperative* or *infinitive*.

(8)



R	[fin]/[imp]/[infin]	
skriv	-er/0/-a	Swedish
schreib	-t/0(-e)/-en	German

Note once more that the lexical item is built in the morphological module and will only there explicitly demonstrate its structure. Hence only the inflected verb will be visible in syntax, however inherently carrying its inflectional information with it. By delivering this information to syntax it determines the projection of the syntactic tree.

[4] But see Cecchetto & Donati (2015) for a recent discussion.

For the time being we need not further discuss the finite and infinitive inflection. We shall return to all three inflection types when discussing their role in clause structure. The imperative inflection, however, being central in our explication of the imperative clause, needs further comment since its status is debated. Some linguists look upon it as an inflection type which is neither finite nor infinite. Most modern theoretic approaches, however, try hard to find evidence for regarding the imperative as a finite inflection, although the verb clearly may carry an imperative morpheme. Platzack & Rosengren (1998), on the other hand, argue that the imperative clause lacks finiteness because it lacks TP (FinP).

Empirically we will support our assumption that the imperative verb actually is imperative and not finite with the well-known behavior of clitic object pronouns in Italian (the same behavior is found e.g. in Spanish). The clitic object pronoun in Italian takes a position to the left of the finite verb and to the right of the imperative verb, the gerund, the participle and the infinitive (when representing independent clauses). This is a typical morphological property but with syntactic consequences. We will mention one example in order to illustrate this sharp distinction. See Renzi et al. (2001: I 565ff.) for a thorough description of the rules [5].

(9) Lo mangio. (1st person, sing. fin.)
it I eat

(10) Mangialo! (2nd person, sing. imp.)
eat it

We conclude that the imperative clause (10) obviously behaves as we would expect when the clause has a non-finite verbal form. In (9) the finite verb is in T and hence the clitic can left adjoin to T. In the imperative case, where T is lacking, no similar adjunction is possible, and the clitic will appear to the right of the verb in C. The important difference between the imperative verb and the infinitive verb is that the former has 2nd person represented in its inflection, whereas this is not the case with the latter. We assume that the clitics are generated in the syntactic position of the relevant DP and from there obligatorily move to a clitic position to the verb (cf. Renzi et al., 2001, I 569f.).[6] See also Wratil's (2005: 137ff.)

---

[5] Renzi et al. (2001: I 565), "Ci sono due possibilità: il pronome può apparire o in posizione preverbale o in posizione postverbale. Si ha la prima possibilità … nel caso in cui la forma verbale con cui il pronome occorre abbia tempo finito, la seconda … quando la forma verbale presenti un tempo non finito: infinito, participio, gerundio, e quando la forma verbale è imperativa. … Quando nella forma verbale con tempo finito è presente un ausiliare, il pronome clitico precede l'ausiliare".

[6] The following examples may demonstrate the difference between the imperative clause and the finite clause. Note that the finite clauses in context may be used as a order, but semantically are assertions, see section 6:

	imperative	*finite*	*infinitive verb*
(1)	Vattene!	Ti ne vai.	andarsene
	disappear	you disappear.	
(2)	Mangiatelo!	Lo mangiate.	*mangiare*
	eat it	you eat it.	
(3)	Compriamolo!	Lo compriamo.	comprare
	we buy it!	we buy it.	
(5)	Dimmi!	Mi dica.(3rd pers., sing. politeness)	dire
	tell me!	me tell	

See Renzi et al. (2001: III 156f.) as to the negated imperative and the position of the clitics.

decsription of the historical development of the two possible pronominal possibilities, the proclitization in finite clauses and the enclitization in imperative and infinitive clauses.

To our knowledge the behavior of the Italian and Spanish clitics has until now, although well-known, not been used as an argument in favor of the assumption that the imperative clause is non-finite.

2.3 The syntactic derivation of vP

In the present section, we will briefly show how vP is established. Following Cecchetto & Donati (2015: 14), we assume that "[a] word which is delivered by morphology to syntax, is intrinsically endowned with a category feature". For verbs, we assume the verbal feature [v], for nouns the nominal feature [n] and for adjectives the adjectival feature [a].

Simplifying, the first step in the derivation is to merge the verb *v* with a DP bearing an internal theta-role in relation to *v*. This is illustrated in (11) for Swedish and German by a finite clause. Specific theta roles are not indicated in the trees. Like all DPs, the object *boken /das Buch* carries a valued φ-feature. The tense inflection on the verb indicates that the verb carries a valued finiteness feature, rendered by [fin]. There are two possible orders: little *v* is merged to the left of DP, as in Swedish (11a)**,** or *v* is merged to the right of DP, as in German (11b).

(11) a. (Johan) köpte boken. b. (Johann) kaufte das Buch.

The different order of v and DP in Swedish and German is parametrically determined, Swedish being head-initial and German being head-final (see Haider, 2010 and 2015, for a detailed analysis[7]). In particular it results in the well-known position of the verb to the right in German embedded clauses. Since the VO/OV distinction is not in focus, we will not further

[7] Haider (2015: 12ff.) argues that all languages are rigtht-branching but differ parametrically in being either head-initial or head-final. Swedish is a SVO-language, whereas German is a SOV-language. This difference between Swedish and German, both being Germanic V2-languages, has the consequence that the head of the clause in Swedish will have to move to a position in vP from where it may c-command downwards, whereas the head in a German clause c-commands the whole vP from its basic position. Swedish like other head-initial languages will therefore have to reinstantiate v by moving it to a higher position in vP, resulting in a shell-structure, which is not necessary in German because of OV. The following formulas represent Swedish (a.) and German (b.) (somewhat simplified) as representatives of head-initial and head-final languages:

a. ……. $[V_i \rightarrow [YP\ [v'\ e_i \rightarrow ZP]]]$

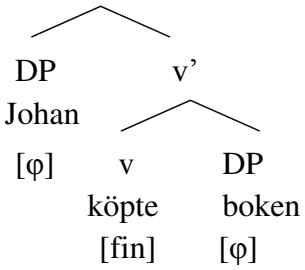
b. ……. $[\ldots\ [YP \leftarrow [v'\ ZP \leftarrow [v'\ ZP \leftarrow [\ v'\ V^0\ ]]]]]$

The fomulas demonstrate the parametrization of the two languages, including the movement of the verb to the top of v' in Swedish, allowing it to c-command the whole v'. To the left of the vP we will find the functional projections, one of them, as we shall see, being the functional projection c-commanding XP, the subject.

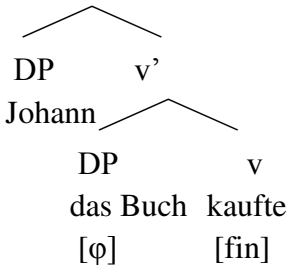
represent the assumed shell structure in our trees. We will return to the shell structure e.g. when discussing the infinitive clause, where we will see consequences of it as to the position of the negation.

The last step in the derivation of vP is to merge the external argument, if the verb provides for one, to the structure in (12). Note that the external argument is not a subject. In order to become a subject it needs a functional projection, i.e. T, see section 2.4:

(12) a.



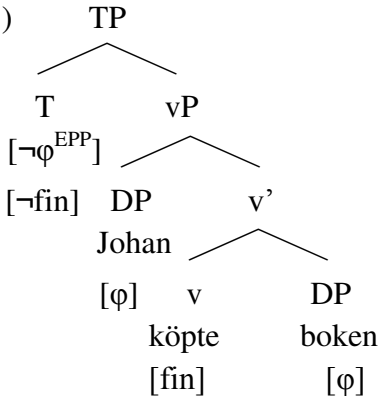
b.



2.4 The syntactic derivation of TP

As is evident from our assumptions until now, the structure of vP is in principle the same in all clause types, the only difference being VO versus OV for the Swedish and German clauses respectively. Only the finite clause, however, is compatible with TP. In the absence of sentence adverbs and auxiliaries, the next step in the derivation of the *finite* clause after the establishing of vP, therefore, is to merge T to vP, creating TP, the functional projection of tense. The result is depicted in (13), where we only illustrate the Swedish finite clause, assuming T to carry both unvalued [φ]-features and an unvalued [fin]-feature:

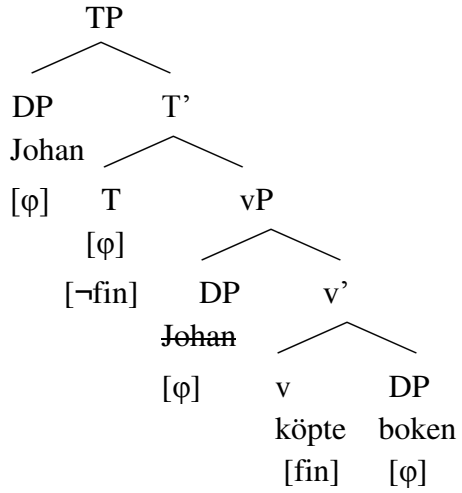
(13)



In the Germanic languages in general, the subject is visible in SpecTP, indicating the presence of an EPP feature, see section 2.1 above. The presence of a visible subject is accounted for by postulating that EPP is attached to the unvalued [φ]-features in T, hence the proper

formulation of this feature will be [¬φ^{EPP}]. This forces the closest c-commanded DP, i.e. *Johan*, to move to SpecTP[8] to pronounce the Agree-relation[9].

(14)



The derivation of TP, as illustrated in (14), is not complete, since T contains an unvalued finiteness feature, the presence of which would lead to a crash at the semantic interface. However, this problem is easily overridden. Acting as a probe, T with feature [¬fin] will establish an Agree relation with [fin] in little *v* and thereby the finite feature in T is valued. There is no reason to assume that the verb moves from *v* to T in Swedish;[10] if so, we would, contrary to facts, have expected the finite verb to appear in front of the negation in an embedded clause, taking for granted that the negation in Germanic VO languages is adjoined to vP and thus to the right of a verb that has moved to T.

2.5 The syntactic derivation of CP

Depending on inflection type, merging vP (TP in the finite case) with a functional head (C) gives us three independent basic syntactic clause types, the *finite*, the *imperative* and the *infinitive* clause type.

The three clause types are illustrated with Swedish examples in (15a)-(15c) and German examples in (16a)-(16c):

[8] Since DP is a phrase, it cannot move to T, which is a head. Notice that the result of the subject moving to SpecTP in many languages is visually expressed on the verb in T as subject-verb agreement.

[9] Sternefeld (2010: 84) defines the relation between the finite verb and the subject in the following way: "Die finiten Formen lassen sich im Deutschen dadurch charakterisieren, dass ihre Morphologie Informationen über das Tempus und das Subjekt des Satzes kodiert; Finitheit ist in erster Linie eine Abstraktion aus den Kongruenzmerkmalen für das Subjekt und den Merkmalen für Präsens und Präteritum. Die nicht-finiten Formen werden, wie die hier verwendete Bezeichnung schon suggeriert, ex negativo bestimmt."

[10] As we will see immediately, the verb moves visibly to C (verb second). See the discussion in Brandtler (2008) about T to v or v to C

(15) a.1. Kalle läser boken. a.2. Läser Lisa boken? a.3.Vad läser Anna?
Kalle read book-the read Lisa book-the what read Anna
b. Läs boken!
read book-the
c. Inte röra spisen!
not touch stove-the

(16) a.1. Peter liest das Buch. a.2. Liest Johanna das Buch? a.3. Was liest Petra?
Peter read the book read Johanna the book what read Anna
b. Lies das Buch!
read the book
c. Den Herd nicht rühren!
the stove not touch

The three types of verbal inflection in a.-c. can be seen as three types of valued features, *fin* (finite), *imp* (imperative) and *inf* (infinitive), situated in little v. These features correspond to the three clause types introduced in Thesis 2, section 1.2, above and discussed below, i.e. *finite*, *imperative* and *infinitive* clause types.

Technically, the correspondence between C and little v is achieved if C is merged to the structure with the corresponding three types of unvalued features, as illustrated in (17).

(17) a. C with feature [¬fin]: finite clause
b. C with feature [¬imp]: imperative clause
c. C with feature [¬ inf]: infinitive clause

Probing its c-command domain, (17a) will crash unless it finds a finiteness feature, (17b) will crash unless it finds an imperative feature, and (17c) will crash unless it finds an infinitive feature.

It is well-known that Swedish and German are so-called V2-languages, i.e. that finite clauses normally occur with the finite verb in second position and the subject, as in (15a1) and (16a1), or some other phrase, in SpecCP. This is the default finite clause type (see below 3.1.2).

In SpecCP we may also find a *wh*-phrase, see (15a3) and (16a3) and below section 3.3.2, traditionally called a *wh*-question. We further find finite V1-clauses with the verb in first position (15a2) and (16a2), traditionally called *yes/no* questions. These clauses differ from the standard V2-clause by not allowing a SpecCP-position at all. All of these *finite* clauses belong to the same clause type, because their verb is finite. We will return to them in section 3.1.2 and section 6.

Another clause with V1 is the *imperative* clause (15b) and (16b), with a structure differing from the finite clause (see section 3.2). Finally we find an *infinitive* clause type (15c) and (16c), which differs from both finite and imperative clauses (see section 3.3).

Until now we have not discussed the relation between our classification in three clause types *finite, imperative* and *infinitive clause* types and the traditional classification in *declarative*, *interrogative* and *imperative* clause types. As to the *declarative clause* type it

overlaps with our default *finite clause* type. Still there are important differences between them. The declarative clause in the traditional descriptions (see Meibauer et al., 2013 and section 5) is assumed to have *sentence mood*, which is regarded as the modal meaning of the clause type (therefore also the term *declarative)*. Our solution is different, since in our framework the finite clause is just a morpho-syntactic unit without any modal meaning connected with it. It receives its modal meaning at the semantic interface (see section 5).

What is more important, however, is that our classification also differs from the traditional one in *not* allowing *interrogativity* to be a marker of clause type modality. The reason is that our classification (see once more (17) above) is a classification founded only on the *verbal head* of the clause and interrogativity is not related to the morpho-syntactic verb that determines the basic syntactic structure of all clauses (main as well as embedded clauses). We think that the traditional distinction between *declarative*, *interrogative* and *imperative* clause types in fact is the result of a mismatch between a morpho-syntactic definition in terms of verbal features and a semantically influenced definition of the clause type in terms of ±*wh*-features. Since we argue that it is the basic morpho-syntactic verb that determines the clause type, *interrogativity* has to be explained in another way. This concerns both interrogative V1-clauses and interrogative *wh*-clauses. See Sternefeld (2010: 283ff., 407f., 319ff. and 426ff.), who presents a consistent classification of clauses only in terms of verbal features and emphazises the autonomy of syntax, however in a theoretical framework different from ours.

We will not go further into detail in Sternefeld's account. Instead we will just describe our syntactic solution with regard to *interrogative clauses*. We argue that the syntax of V1-clauses does not distinguish at all between a finite interrogative V1-clause and a finite "declarative" V1-clause[11]. This distinction is semantic, most likely also prosodic, but not syntactic (cf. also Sternefeld, 2010, 319ff.). Hence there does not exist an interrogative V1-clause type. Not until the V1-clause at the semantic interface maps onto a proper operator, it will get its interrogative meaning (see section 5).

We will further assume that C, besides having the finite feature [¬fin^{EPP}], may have a feature [¬wh^{EPP}]. If a C is picked from lexicon with [¬fin^{EPP}] and [¬wh^{EPP}], the [¬wh^{EPP}]-feature will probe a *wh*-phrase. If it finds one it will demand that it moves to SpecCP (cf. e.g. French where the *wh*-phrase normally does not move). If no *wh*-phrase is found, the derivation will crash. The clause with both [¬fin^{EPP}] and [¬wh^{EPP}] is in traditional linguistics called a *wh-question*, see (15a3) and (16a3).

In our languages the *wh*-phrase, when moved to C, c-commands the whole clause. Note that this does not imply semantic scope, since syntax and semantics are totally distinct modules in our framework. Hence there does not exist an interrogative *wh*-clause type either. Like the interrogative V1-clause it will not get its interrogative meaning until it at the semantic interface maps onto a proper operator. We will return to interrogativity in due course in 3.3.2 and section 5.

In the following section we will concentrate on the default V2-clause, the imperative clause and the infinitive clause.

---

[11] This latter clause is a finite V1-clause with a similar function as the standard V2-clause. Cf. Önnerfors (1997) and Mörnsjö (2002), who, however, both differ from us and from one another in their theoretic solutions.

Summarizing: In the morphological module verbs are built by concatenation between a root and an inflection morpheme. The inflection morpheme is the head of the concatenation, the result being v. v targets the syntactic interface and becomes the head in a clause, projecting complements (internal and external arguments) and functional nodes. There are three types of verbal inflection, [*fin*], [*imp*] and [*infin*], that give rise to three clause types, the *finite*, *imperative* and *infinitive* clause types. They have in principle the same vP in Swedish and German. Only the finite clause is compatible with TP, the prerequisite for a subject. An important difference is VO (Swedish) vs. OV (German), which is due to a different syntactic parametrization of Swedish and German but has no great impact on the relevant properties of the clause types. Interrogativity is not a marker of clause type modality, since it is not related to the morpho-syntactic verb that determines the basic syntactic structure of all clauses (main as well as embedded clauses). Interrogativity is a semantic property (see section 2.5 and 5).

3 Syntactic properties of the three clause types

3.1 The finite clause type

3.1.1 The T-projection and the subject position in SpecTP

As argued in section 2.3 above, the lexicalization of little v by a finite inflection [fin] correlates with the presence of a T-projection in the finite clause type, not allowed in the imperative and infinitive types. The presence of T is a prerequisite for the presence of a subject in the structure. Notice that T not only probes [fin] in v, it also probes the [φ]-features of the external argument in SpecvP, see section 2.4.

Hosting a subject hence is a property that is specific to the finite clause type. The question arises what may qualify as a subject.

3.1.2 Verb Second and the Finiteness Feature

As already mentioned in section 2.5, it is well-known that both Swedish and German are V2-languages, like most Germanic languages, with the exception of English. In this section we will concentrate on the default finite V2-clause type.

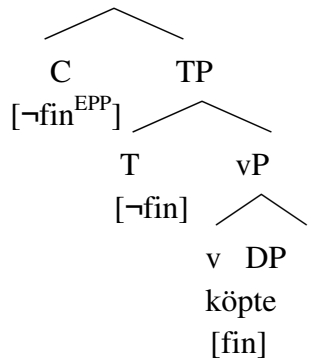
In (18) we find Swedish and German examples, where the finite verb (in bold face) always occupies second position, irrespectively of the status of first position (object or adverbial or subject):

(18)
a. 1. Boken köpte han igår.
Book-the bought he yesterday
b. 1. Igår **köpte** han boken.
yesterday bought he book-the
c. 1. Han **köpte** boken igår.
he bought book-the yesterday

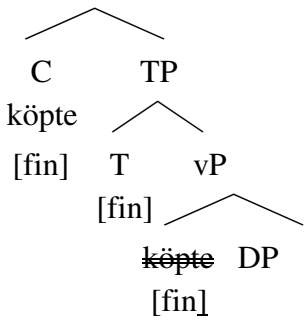
a. 2 Das Buch **kaufte** er gestern.
the book bought he yesterday
b. 2. Gestern **kaufte** er das Buch.
yesterday bought he the book
c. 2. Er **kaufte** das Buch gestern.
he bought the book yesterday

We follow standard assumptions that first position in a main finite clause is SpecCP, the finite verb is in C and that the subject is in SpecTP *when not in first position*. In (19) we schematically illustrate the derivation of V2-clauses in Swedish. Structure (19a) is the structure when T has merged to vP, and C has merged to TP, and (19b) shows the result of Agree applied to (19a):[12]

(19) a.



b.



To save space, the specifiers of C, T and v are not shown. See above section 2.5.

In the corresponding German case, the only difference is the difference between VO and OV (see 2.3). The movement of the verb to C disguises this difference between Swedish and German.

As demonstrated in (18) the subject, object or adverbial, e.g. may be hosted in SpecCP. This choice is not determined by the syntactic structure, but by the pragmatic use. But note that syntax demands that the position is made visible in normal standard V2-clauses and that one option among others is, as mentioned in section 2.5, that C may host an unvalued *wh*-feature [¬wh^{EPP}] that forces a *wh*-phrase to move to SpecCP as in (20), preventing any other phrase from going there.

(20) a. Vad köpte han igår?
what bought he yesterday
b. Was kaufte er gestern?
what bought he yesterday

However, note that there is a difference between standard V2-clauses and *wh*-clauses. In the first case, where there is no *wh*-feature in C, nearly any phrase in vP, e.g. the subject-phrase, object-phrase, adverbial-phrase, may move to SpecCP. This movement is often called *topicalization*. In the second case, however, the *wh*-feature in C will probe a *wh*-phrase, i.e. an interrogative phrase with a *wh*-pronoun (see (20)), and force it to move to SpecCP.This movement is often called *wh-movement*. We will regard the *wh*-feature in C, i.e. [¬wh^{EPP}], as a syntactic feature of the same kind as [¬fin^{EPP}] but nominal rather than verbal in character. At the semantic interface it will force the *wh*-clause to map onto a truth-functional operator. We will return some more in detail to this in section 6.

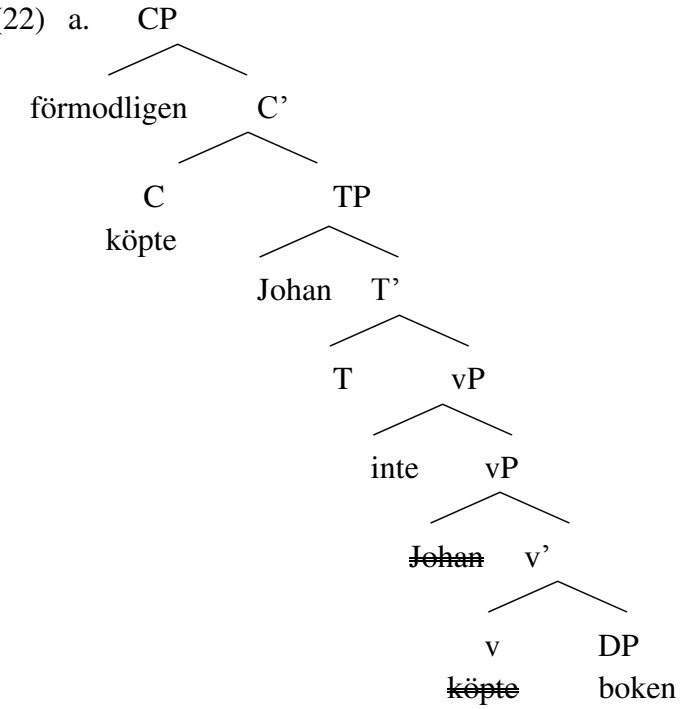
[12] T also hosts features for number, person and gender, here referred to as φ-features.

3.1.3 The finite V2-clause type in Swedish and German

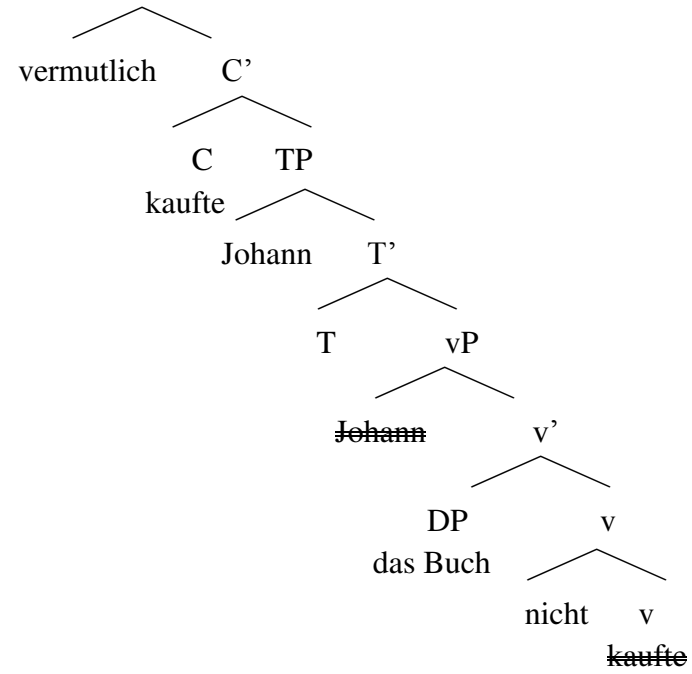
We will now present the derivation of the whole finite clause type in Swedish and German at the chosen level of specification.

(21) a. Förmodligen köpte Johan inte boken.
probably bought Johan not book-the
b. Vermutlich kaufte Johann das Buch nicht.
probably bought Johann the book not

(22) a. Swedish



b. German



The Swedish and German trees in (22a/b) differ in two interrelated respects. As already mentioned vP is head initial (VO) in Swedish and head final (OV) in German. A consequence of this difference is that the Swedish negation is a NegP, adjoined to vP, whereas the German negation is a negative particle (head) adjoined to little v.The feature driven derivation proceeds in the same way in both languages and the arguments occur in the same order (we therefore use the same simple tree, not a shell-construction concerning the Swedish clause as argued by Haider (see Haider, 2015:12ff. and fn.7). These differences do not affect our analysis.

Step by step:
Step 1: Pick v with the feature [fin] in the morphological module.
Step 2: Swedish: merge *boken* to v and the external argument *Johan* to v', resulting in a vP, and then adjoin the neg-phrase to vP. German: adjoin the negative particle to v and then merge *das Buch* to v and the external argument Johann to v', resulting in a vP.
Step 3: T with the feature [¬fin] is merged to vP and valued by [fin] in little v.
Step 4: T with the feature [¬φ ^{EPP}] probes vP and finds DP in SpecvP with the feature [φ] and moves to SpecTP due to EPP.
Step 5: Merge C to T and move the finite verb to C, due to EPP.
Step 6: Merge the adverbial *förmodligen/vermutlich* with CP.[13]

3.2 The imperative clause type

3.2.1 The differences between the finite and imperative clause

As mentioned in section 3.1, only a verb inflected for finiteness can project a TP with a subject. "Subject" is the name of a DP in SpecTP that takes part in two agree relations between TP and little vP, one involving [φ]-features in SpecTP and SpecvP, the other one involving the finiteness features in T and little v. Together the two Agree-relations constitute a nexus relation, i.e. a symmetric relation where neither part (subject nor predicate) is subordinated in relation to the other. Finiteness thus is defined by the Agree-relation between subject and verb. Hence, the finite clause maps per default onto a truth-oriented operator at the semantic interface (see section 5).

Many linguists think imperative clauses are finite, although the verb is imperative. See however Rosengren (1993) and Platzack & Rosengren (1998). We argue that the verb of the imperative clause, as the result of the morphological concatenation of a root and an imperative verb inflection, is not only an imperative verb qua inflection, but also the head of the imperative clause and determines its projection. The non-finite status of the verb (see sections 2.2-2.4) prevents it from projecting TP and a subject. Its inflection for 2nd person, sing./plur. makes it *deictic* (see Liedtke: 1993), pointing to the addressee. By moving to C the verb finally defines the imperative clause as 2nd person, sing./plur., too. The imperative clause hence is *imperative* and *non-finite* and it maps onto an *action-oriented* operator (see section 5) at the semantic interface, because of the inflection of the verb.

[13] Alternatively, the adverbial is probed by a feature in C with EPP and is moved to SpecCP.

3.2.2 The position of the imperative Verb

In the Germanic languages, here illustrated with Swedish and German, the imperative clause type has an initial verb inflected for imperative (the inflection often being hononymous with the stem or some finite inflection):

(23) a. Skjut! Hjälp honom genast! Swedish
b. Schiess! Hilf ihm sofort! German
shoot help him immediately

If the clause contains a sentential adverb or a negation, this is preceded by the imperative verb:

(24) a. Köp inte boken. Swedish
buy not book-the
b. Kauf das Buch nicht! German
buy the book not

However, whereas a Swedish imperative clause is almost always introduced by the imperative verb, see (25b) and (27b), a German imperative clause may also be introduced by an object or an adverbial but not by a subject, as illustrated in (26) and (28).[14] Structurally, we will regard this as a kind of topicalization, not to be compared with *wh*-movement, which is obligatory in German, see 2.5):

(25) a. *Vapnen låt ligga! Swedish
weapons let lie
b. Låt vapnen ligga! Swedish
let weapons-the lie
(26) Die Waffen lasst liegen! German
the weapons let 2nd plur. lie
(27) a. *Dit inte spring! Swedish
there not run
b. Spring inte dit! Swedish
run not there
(28) a. Dorthin lauf nicht! German
there run not

[14] An exception in Swedish and German is the case where the addressee is highlighted as one among other possible addressees in a group, being the group the speaker is talking TO; thus, the fronting has a kind of quantificational effect.
(i) En av er, håll igen dörren!
one of you keep closed door-the

3.2.3 ImpPron

One of the most discussed questions is the status of what we here will call *ImpPron*, i.e. the pronoun that may appear optionally in imperative clauses. Is it or is it not a subject? In our framework it cannot be a subject, since the imperative clause does not project a TP. But what is it then?

Significantly, there are two relations involving the subject DP and the predicate in a finite clause, the nexal one just described above in 3.2.1, and the *theta-role* relation between a DP in SpecvP and little v, expressing the highest thematic role of the verb. Notice that the theta-role in SpecvP is present independently of clause types, when the lexical entry of little v demands it and whether or not vP is merged with T.[15]

Hence, there will always be a DP (a noun or a pronoun) in the SpecvP of a finite clause that represents the highest thematic role of the verb, and this DP will become the subject when moving to SpecTP. In the imperative clause the highest thematic role is a feature bundle with the features for 2nd person, sing./plur. that will not move, there not existing a TP, and that in the default case will not be expressed separately at all, then being only visible in the inflected imperative verb. Sometimes it may be expressed by a pronoun (not by a noun).

We argue that the difference between the finite clause and the imperative clause is already present in the morphological representation of their verbs, the finite verb allowing all tenses, all persons and all numbers, whereas the imperative verb only has one form, i.e. 2nd person, sing./plur. We further argue that this difference between the two verb forms is visible also in the different syntactic projections of the two types of verb. The finite clause projects TP, which correlates with its broad morphological range, and hence obligatorily demands that the DP in vP moves to TP and there, through the above mentioned nexus relation, will make the DP a subject. In the imperative clause with only 2nd person features representing the highest theta-role there does not exist any TP and hence no movement to SpecTP. The realization of these features by an *ImpPron* in vP, therefore, will never be able to become an obligatory subject, but may very well express the theta-role in vP and may therefore also be expected to agree with the verb and bind anaphors (see below). Note, however, that this does not mean that there is any nexus-relation between *ImpPron* and the verb, since this relation demands TP. Note also that *ImpPron*, being possible but not necessary and when chosen always being *visible*, must not be mixed up with *covert* pronouns like *pro* and *PRO* having quite another function in *finite* clauses, being necessary in pro-drop languages and in subordinated clauses respectively.

Let us now discuss the empirical evidence, some of which is already presented in Platzack & Rosengren (1998), in order to support the above argumentation.

(29) a. Stäng (du) fönstret! Swedish
shut you window-the
b. Hilf (du) ihm! German
help you him

[15] The highest role will be merged in the complement of v in unaccusatives and passives.

Since there cannot be any subject in imperative clauses, *du* in the above examples are instances of *ImpPron.* This pronoun enters syntax in SpecvP with a valued [φ]-feature, including a valued 2nd person feature, representing the addressee. As shown by the Swedish examples in (30a), a predicative adjective agrees with the imperative verb but also with *ImpPron*. In (30a) we have a single addressee, in (30b) multiple addressees.

(30) a. Var försiktig (du)!
be careful (sg.) you (sg.)
b. Var försiktiga (ni)!
be careful (pl.) you (pl.)

Platzack & Rosengren (1998) also notice that *ImpPron* binds anaphors (31a/b) and does not turn up in control infinitives (31c/d). See the following Swedish and German examples:

(31) a. Skriv en bok om dig själv/er själva!
write a book about yourself
b. Schreibt ein Buch über euch selbst.
c. Besök London utan att PRO se en fotbollsmatch!
visitLondon without to attend a game-of-soccer
d. Besucht London ohne PRO ein Fussballspiel zu sehen!

The same results, with the exclusion of predicative agreement, can be obtained for the other Germanic languages (see Rosengren 1993; Platzack & Rosengren 1998).

We argue that it is the verbal inflection of the head that determines agreement in these cases as well as in the cases with a visible *ImpPron*, since the *theta-role* relation between a DP in SpecvP and little v, expressing the highest thematic role of the verb, is visible. The obligatoriness of the subject in finite clauses as well as the lack of a subject in imperative clauses hence follows from the different structures of the two clause types.

We therefore also expect differences between the behavior of the pronouns in the finite and imperative clause. According to Platzack & Rosengren (1998:199ff.), *ImpPron* in the imperative clause, not being a subject, differs in a subtle but clear way from the 2nd person pronoun, being the subject in the finite clause, cf. (32):

(32) a. Du hilfst mir.
You help me
b. Hilf (du) mir!
help you me

The clause in (32a) is a finite clause, the utterance referring to an event in the actual world.[16]As mentioned already in thesis 4 and above, this clause is semantically *truth*-oriented (see section 5). The imperative clause in (32b) can never be truth-oriented (see section 5); the utterance will be interpreted as a *direct* expression of an order or permission for the addressee

[16] This clause will sometimes also be interpreted indirectly in certain contexts, with the same meaning as an imperative clause (32b). Even then it keeps its truth value.

to act according to a norm. This clause is semantically *action*-oriented (see above and section 5) and therefore has no truth-value.

Let us now look at the word order differences between the subject and the *ImpPron* in Swedish and German:

(33) a. *Du skjut! Swedish
you shoot
b. *Du schiess! German
you shoot
c. Skjut du! Swedish
shoot you
d. Schiess du! German
shoot you

Obviously, the pronoun cannot front the imperative clause (cf. however below (36)-(38)). If it had occurred in a finite clause in first position, it would have been in one of the possible and even preferred positions of the subject pronoun. This cannot be explained by stating that the imperative clause is a V1-clause, since SpecCP in German may host an object-DP or an adverbial (see ex. (26) and (28) repeated here) but never a subject:

(34) Die Waffen lasst liegen! (Platzack & Rosengren, 1998)
The weapons let lie
(35) Dorthin geh nicht! (Platzack & Rosengren, 1998)
There go not

Platzack & Rosengren (1998) explain this movement in German by arguing that the object and the adverbial are topics, moved to SpecCP for pragmatic reasons. What this means is that the *ImpPron* never can be a topic. What then may be the function of *ImPron*, this pronoun not at all being frequent, always occurring after the verb and not being allowed to be the topic? The answer is that it *highlights* the addressee as one among other possible addressees, being the group the speaker is talking TO. It therefore has a kind of quantificational effect.

That this is a correct analysis is supported by the fact that not only *ImpPron* is possible but also a quantificational pronominal DP in 3rd person. This DP may be fronted, then being in SpecCP, but may also stay within vP (39):

(36) *En av er* håll igen dörren! Swedish
one of you keep closed door-the
(37) *Einer (von euch)* geh morgen hin! German
one (of you) go tomorrow there
(38) *Jeder* verlass den Raum! German
everyone leave the room
(39) Hört mal *alle* her! German
listen part. all part.

Obviously the 3rd person DPs and pronouns, when used, may, but must not, agree with the imperative verb, being 2nd person (39). It cannot be a vocative either (see Platzack & Rosengren, 1998, fn.2). This becomes evident when both a vocative and an *ImpPron* are present in the same clause (possible in Swedish, German and even in Italian, despite being a pro-drop language, see Renzi et al. 2001: III 392f.)

(40) a. *Peter, Johanna* und *Mia*, hört *alle* her!
b. *Peter, Johanna* och *Mia*, lyssna alla!
Peter, Johanna and Mia, listen all

(41) a. *Du mit dem grünen Hut*, geh *du* sofort das Auto holen!
b. *Du med den gröna hatten*, gå du med detsamma och hämta bilen!
you with the green hat, go you at once and fetch car-the

(42) *Peter*, sei *du* doch mal so nett und hilf mir!
Peter, be you *part*. so nice and help me

Furthermore, since the subject in the finite clause type moves to SpecTP and from there moves on to SpecCP but the *ImpPron* neither can move to SpecTP nor to SpecCP, it is not surprising that *ImpPron* may occur more freely in the clause, see the examples in (43)-(46), taken from Platzack & Rosengren (1998: 207).

Imperative clause

(43) Spring (du) bara (DU) hem (du) meddetsamma (du)
run you just you home you immediately you

Finite clause

(44) Igår sprang (du) bara (DU) hem (*du) meddetsamma (*du)
Y-day ran you just you home you immediately you

Imperative clause

(45) Lauf (du) nur (DU) nach Hause (du) sofort (du)!
run you just YOU home you at once you

Finite clause

(46) Gestern liefst (du) nur (DU) nach Hause sofort (*du).
Y-day ran you just YOU home at once you

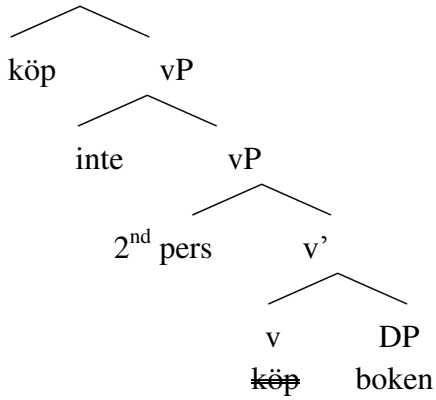
Notice that the pronoun after *bara/nur* is highlighted (focused).

3.2.4 The structure of the imperative clause in Swedish and German

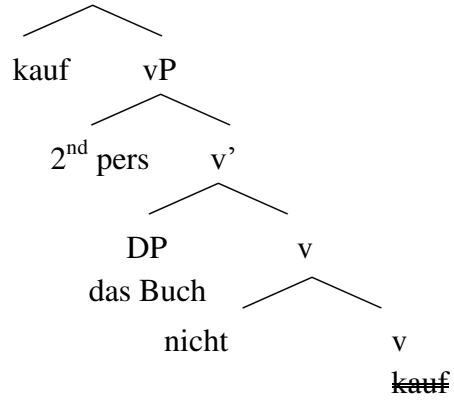
We will assume that the imperative clause has the following structure without any TP and consequently without any subject in both Swedish and German. See (47):

(47) a. Köp inte boken! Swedish
buy not book-the
b. Kauf das Buch nicht German
buy the book not

(48) a. Swedish



b. German



The imperative clause types in Swedish and German also differ, like the finite clause types, with respect to the status of the negation and the head-initial (VO) versus the head final (OV) status of the vP.

The derivation proceeds in the following steps.
Step 1: Pick v with the feature [imp] in the morphological modul.
Step 2: Swedish: merge *boken* to v, resulting in a vP and then adjoin the neg-phrase to vP. German: Adjoin the negative particle to v and then merge *das Buch* to v, resulting in a vP.
Step 3: C with the feature [¬imp^{EPP}] is merged to vP, valuing the unvalued imperative feature in C.

Summarizing: The imperative clause differs from the finite clause in not projecting TP, and therefore does not allow a subject. This difference determines the two clause types regarding both the clause structure and, especially, the status and function of what we have called *ImpPron*, always being optional and when present *visible*. It further differs from the

corresponding pronoun in finite clauses by having a somewhat different meaning and a greater freedom as to where it may occur in the clause. When *ImpPron* occurs, its function is obviously to highlight the person spoken TO, often as one of a group of persons being the addressees. As demonstrated it cannot front the clause in German, this position being the position where the finite clause prefers its subject. Its specific function as highlighting one or more persons among possible addressees explains its optionality. As oberserved above, there may also be quantificational DPs in 3rd person that may be fronted to SpecCP or stay behind within vP. However, not seldom, they do not agree with the verb, since they are not *ImpPron*. *ImpPron* is just marginally important, its function being more or less pragmatic in character.

3.3 The infinitive clause type

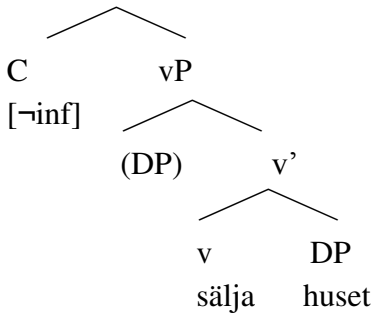
3.3.1 The bare infinitive clause type

The bare infinitive clause type is more or less identical with the default vP of all clause types. It differs from the *wh*-infinitive clause type, which in addition has a *wh*-phrase (see 3.3.2), as well as from the imperative clause type, the most prominent difference being the position of the verb. The imperative verb is expressed in C and hence placed in front of the negation. The infinitive verb is in v and hence placed after the negation, see below 3.3.3. The bare infinitive clause occurs both in Swedish and German but seems to be much more frequent in German.

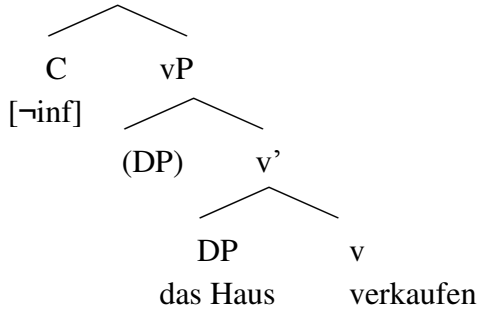
(49) Röra i gröten!
stir in porridge-the
(50) Sälja huset!
sell house-the
(51) Tvätta sig ordentligt!
wash yourself properly
(52) Den Saal verlassen!
the hall leave
(53) Noch einmal zwanzig sein!
once more twenty be
(54) Sich ordentlich waschen!
yourself properly wash
(55) Radfarher rechts abbiegen!
Cyclists to the right turn

The order VO vs. OV has of course consequences for the word order of the Swedish and German infinitive clauses. Otherwise they seem to have the same structure. There is no evidence that the verb moves anywhere, neither in Swedish nor in German. We will assume the following CP-structure:

(56) a. Swedish



b. German



We thereby assume consistently that C is merged to vP, since it is an independent clause, an assumption supported by the presence of *wh*-infinitive clauses, see 3.3.2. Note the difference between the independent and the subordinated infinitive clause, namely that the independent infinitive verb does not allow the complementizer *att* in Swedish nor the infinitive particle *zu* in German, more or less obligatory in subordinated infinitive clauses. C, therefore, will have only the feature [¬inf] assumed above, i.e. no EPP feature. We will return to this when discussing the infinitive clause with a *wh*-phrase.

The brackets around the DP in SpecvP signal that the clause must not have a visible external argument. Still we assume that a highest thematic role may be projected. In certain contexts a DP may occur very restrictedly as 3rd person, sing./plur., with a quantificational meaning. It picks out one person or a whole group of persons that the speaker is talking TO. Cf. above the imperative clause, see section 3.2.3, where the *ImpPron* may have similar functions.

In the absence of a *wh*-word, the infinitive clause in Swedish always begins with the infinitive verb, see examples (49)-(51) above. This word order is of course not available for German (see (52)-(55)), where the unmoved verb will be at the end of the clause.

3.3.2 The infinitive clause type with a *wh*-phrase

The presence of a *wh*-phrase introducing the infinitive clause tells us that there exists a C and hence a possible SpecCP. Both Swedish and German must front a *wh*-phrase if there is one in the numeration (see Teleman et al., 1999, volume IV, chapter 39, for Swedish, and Reis, 2003 for German). We will assume that the infinitive clause like the finite clause may take a C from lexicon with the features [¬inf] [¬wh^{EPP}]. The [¬wh^{EPP}] feature will probe a *wh*-phrase which

will move to SpecCP, exactly as it does in the corresponding finite clause. See the following *wh*-infinitive clauses in Swedish and German:

(57) a. Vart vända sig? Swedish
where to turn REFL
b. Wohin sich wenden? German, Reis (2003), ex. (1a)
where to REFL turn

(58) a. Varför läsa den här boken?
why read this here book-the
b. Warum dies Buch lesen?
why this book read

For some reason, Swedish *wh*-infinitives are mainly productive with the *wh*-adverbial *varför* 'why'; with other *wh*-words, the expression is more or less frozen, see Teleman et al. (1999), volume IV, chapter 39, and section 6. Some examples are given in (59), where # indicates semi-productivity:

(59) a. #Vad göra?
what do
b. #Vart vända sig?
where turn himself

Wh-infinitives are, however, more productive in German, see Reis (2003), from which the following examples are taken:

(60) a. Wem noch trauen? Reis (2003), ex. (1d)
whom DAT still trust
b. Welche Dämme dieser Lawine entgegensetzen? Reis (2003), ex. (1c)
which dams this DAT avalanche build-against

Note that the independent infinitive clause does not allow a *varför* 'why' to take scope over an embedded clause:

(61) a. Varför sa han att han hade skrivit brevet?
why said he that he had written the letter
b. Warum sagte er, dass er den Brief geschrieben hatte?
why said he that he the letter written had

(62) a. Varför säga att han hade skrivit brevet?
why say that he had written letter-the
b. Warum sagen, dass er den Brief geschrieben hatte?
why say, that he the letter written had

In (61a) *varför* may take scope over the whole clause but may also be interpreted as having scope only over the embedded clause. In (62a) *varför* has only scope over the matrix clause,

i.e. the infinitive clause. We think that the reason has to be looked for in the different structure of the finite clause and the infinitive clause. Since the finite clause consists of two finite clauses, it is possible to interpret *varför/warum* as belonging to the matrix or to the subordinated clause. The infinitive clause consists of an infinitive matrix and a finite clause, a combination which obviously prevents ambiguous scope. Since this fact is of no interest in our context, we will not discuss it further.

3.3.3 The infinitive clause type with a negation

Let us begin with some Swedish and German examples:

(63) a. Inte glömma skorna! Swedish
not forget shoes-the
b. Die Schuhe nicht vergessen! German
the shoes not foget
c. Varför inte köpa boken? Swedish
why not buy book-the
d. Warum das Buch nicht kaufen? German
why the book not buy

We do not think that the negation in (63a) is in SpecCP, since that would have blocked the *wh*-phrase in (63c) from moving to SpecCP and eliminate the EPP-feature on [¬wh^{EPP}] in C. We argue that the negation in (63a) is adjoined to vP (Swedish) and in (63b) to v (German), see section 2.3 above. Note also that the negation may turn up in SpecCP in a finite clause (64c), but not an imperative clause (64a), cf. (64).

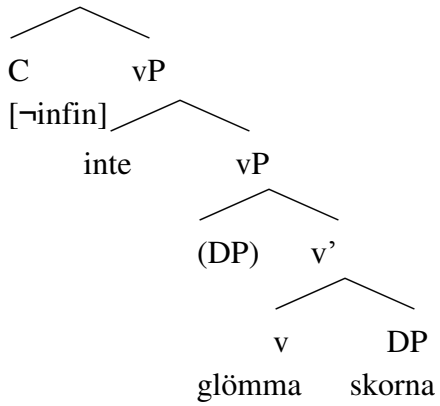
(64) a. *Inte rör spisen!
not touch the stove
b. Rör inte spisen!
touch not the stove
c. Inte rörde han spisen.
not touched he the stove

As for German we do not see any reason to assume that the object in (63b) above is in SpecCP, as there is nothing that triggers movement. We believe that the object is in its base position. This in turn is supported by the following clause, where we will assume that the inverted word order between the two objects is a result of scrambling, which is a movement within the vP (see Haider & Rosengren, 2003):

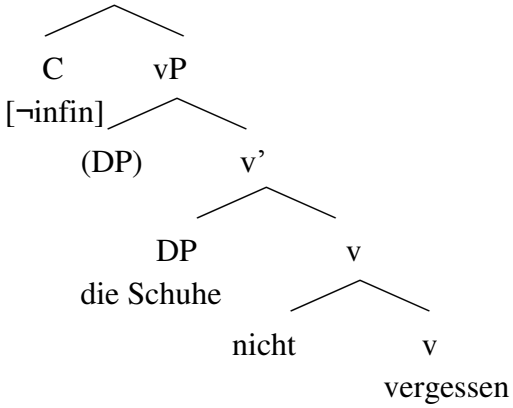
(65) Warum *das Buch* nicht *Peter* schenken?
why the book not Peter give

Hence the following trees may demonstrate the structure of (63a) and (63b):

(66) a. Swedish



b. German



The derivation proceeds in the following steps:
Step 1: Pick v with the feature [inf] from the morphological module.
Step 2: Merge the negative phrase, if there is one, to vP in the Swedish case, and the negative particle, if there is one, to v in the German case.
Step 3: Merge C with the feature [¬inf] to vP, valuing the unvalued infinitive feature in C.

4 Embedding

One of the recently most discussed questions in the description of imperative clauses is whether they may be embedded and, if that should be the case, if the embedding is similar to or identical with embedding of finite clauses. We will begin in sections 4.1 and 4.2 with short presentations and analyses of two types of embedding of finite clauses, which we will call *proper* embedding and *pseudo*-embedding, see examples (67) and (68) below. What is assumed to be embedding of imperative clauses, e.g. the Old Swedish example in (69), differs in several respects from proper embedding and pseudo-embedding. Such *Centaur*-embedding, as we will call it, is presented and discussed in section 4.3.3.

(67) *Modern Swedish: Proper embedding*
Han visste att Johan inte hade boken.
He knew that Johan not had bok-the

(68) *Modern Swedish: Pseudo-embedding*
Han visste att Johan hade inte boken.
He knew that Johan had not book-the

(69) *Old Swedish: Centaur-embedding*
Jac bidher thik at thu ey owergiff mik.
I beg you that you not abandon-imp me

Note that centaur-embedding like (69) is not well-formed in modern Swedish or German, see the Swedish example in (70):

(70) *Modern Swedish: Centaur-embedding:*
*Jag ber dig att du inte övergiv mig.
I ask you that you not abandon-imp me

The most obvious differences between the three types of embedding are listed in (71); notice that there are two types of Centaur-embedding, with the imperative verb in front of (71c) or after (71d) the sentential adverb:

(71) *Embedding types* (SA short for sentential adverb)
a. Proper embedding: complementizer>subject>SA>finite verb
b. Pseudo-embedding: (complementizer)>XP>finite verb>subject>SA
c. Centaur-embedding 1: complementizer>subject *du* 'you'>imperative verb>SA
d. Centaur-embedding 2: complementizer>subject *du* 'you'>SA>imperative verb

4.1 Proper embedding

Properly embedded clauses are *subordinate* finite clauses that are embedded within a higher finite clause (or a nominalization of such a clause), called the matrix, within which the embedded clause is satisfying a *thetarole.*[17]

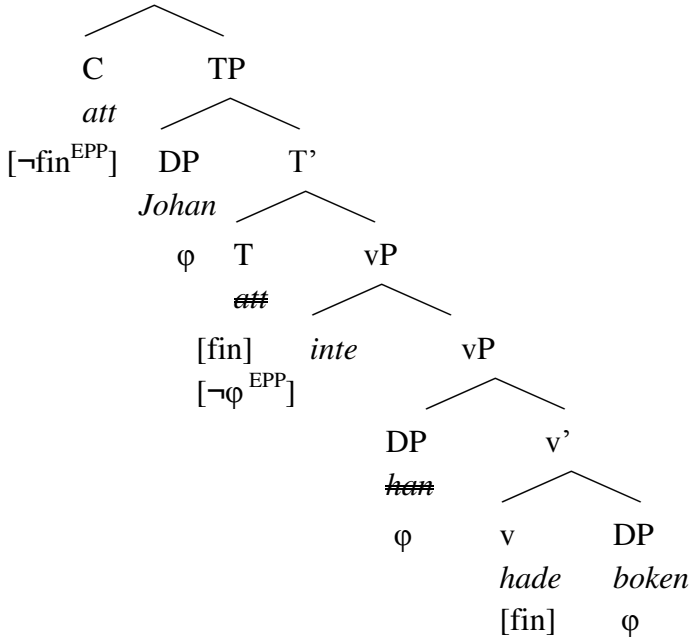
The main difference between the finite main clause and the finite embedded clause is found in the T-projection. T hosts an unvalued finiteness feature in both cases, but in addition, T is spelled out as a complementizer like Swedish *att* 'that' and German *dass* 'that' in the properly embedded case. When C with unvalued finiteness feature with EPP is merged to TP, the presence or absence of the complementizer makes a difference: due to EPP, C will probe little v in the main clause, forcing the finite verb to move to C (V2), whereas in the embedded clause, the complementizer moves to C, leaving the finite verb in v. That the verb is in v predicts that the finite verb of an embedded clause appears after the negation, irrespectively of its status as a negative phrase adjoined to vP as in Swedish, or as a negative particle, adjoined to little v, as in German. In (72) we present a Swedish and a German properly embedded clause with a negation. As was the case for main clauses, the main syntactic differences between a Swedish *att*-clause and a German *dass*-clause is the difference between VO and OV within vP. See above 2.3.

[17] Not all subordinate clauses are embedded. See a.o. Reis (1997).

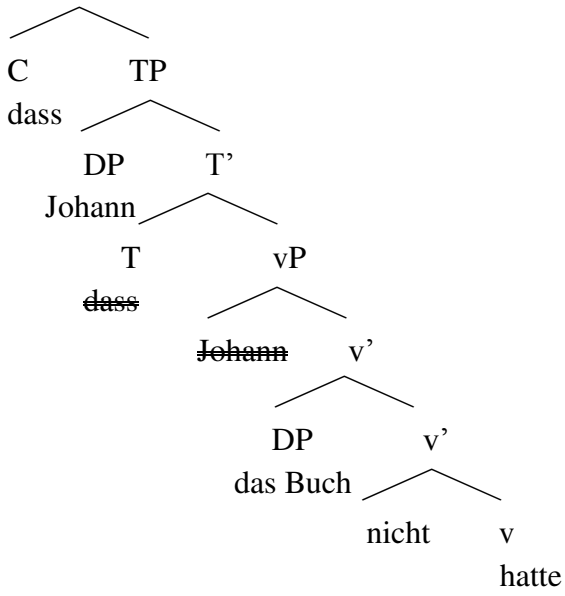
(72) a. Han visste, att Johan inte *hade* boken. Swedish
he knew that John not had book-the
b. Er wusste, dass Johann das Buch nicht *hatte*. German
he knew that John the book not had

In rough outline, the embedded clause in (72a) has the structure in (73a) (Swedish), the embedded clause in (72b) the structure in (73b) (German):

(73) a. Han visste CP Swedish



b. Er wusste CP German



Parts of the derivation:
1. The negative marker *inte* is merged to vP in the Swedish case (73a) and creates a new vP, with the feature [fin]. In the German case the negative particle *nicht* is merged to little v.

2. T with the features [¬φ ^{EPP}] and [¬fin] is merged to vP and is spelled out as *att* (Swedish) or *dass* (German).
3. T probes [φ] in SpecvP. Due to EPP *Johan* is moved to SpecTP; since *Johan* is a phrase, it must move to SpecTP and cannot move to T.
4. [¬fin] in T is valued by probing [fin] in little v.
5. C with feature [¬fin^{EPP}] is merged to TP. Due to EPP in C, the finite verb in v (main clause) or *att* in T (embedded clause) is moved to C, valuing [¬fin^{EPP}] in C.

The derivation of the German case proceeds in the same way, differing only with respect to the negation being a particle, not a phrase, and the OV order of vP.

Observe that C according to this description has the same features both in main clauses and embedded clauses. Observe also that according to the analysis, there must be a finiteness feature within vP for [¬fin] in T to probe; if not, [¬fin] in T will not be valued, and the derivation will crash. Alternatively, the complementizer *att/dass* is inherently valued for finiteness, with the consequence that the unvalued finite feature in T will disappear when *att*/*dass* is inserted.

Note finally, that the complementizer in C will prevent the clause from targeting the semantic interface on its own, and thereby anchoring the proposition in time and space.

4.2 Pseudo-embedding

In this section, we will discuss what we call *pseudo-embedding*, i.e. finite V2-clauses, with the structure of finite main clauses, that are c-commanded by a finite superordinated head C of a matrix clause. The following examples (we will only look at finite clauses without a *wh*-phrase) illustrate the Swedish and German clause types:

(74) a. Han tror att vi kan inte ändra detta beslut.
he believes that we may not change this decision
b. Han tror att detta beslut kan vi inte ändra.
he believes that this decision can we not change
(75) a. Er glaubt, wir können diesen Beschluss nicht ändern.
he believes we can this decision not change
b. Er glaubt, diesen Beschluss können wir nicht ändern.
he believes this decision can we not change

As is evident there is a difference between Swedish and German. The Swedish pseudo-embedded clause, more or less obligatorily, demands an introducing *att*. The German clause does not allow the corresponding complementizer *dass*.

The clause type illustrated in (74) and (75) has been very much discussed in recent syntactic literature, starting with the observations in Hooper & Thompson (1973) and Andersson (1975), see also Reis (1997), Brandtler (2008), Petersson (2014) and Julien (2015) among many others. Petersson (2014) and Reis (1997), independently of each other, convincingly argue for Swedish and German respectively, that "embedded" V2-clauses are

not properly embedded. Petersson and Reis mention much the same empirical facts, cf. Petersson (2014: 33ff.):

(76) a. *Pseudo-embedded clauses cannot be topicalized.*
*Att fönstret stängde han tror jag
That window-the he closed believe I
Jag tror att han stängde fönstret.
I believe that he closed window-the

b. *Pseudo-embedded clauses are islands for movement.*
*Vad trodde hon att han hade inte stängt?
what believed she that he had not closed
Vad trodde hon att han inte hade stängt?
what believed she that he not had closed

c. *Pseudo-embedded clauses are restricted to certain types of matrix predicates* (*say, believe, hope, find* etc.) *not allowing factive and negated predicates.*
*Jag beklagade att han hade inte stängt fönstret.
I deplored that he had not closed window-the
jag beklagade att han inte hade stängt fönstret
I deplored that he not had closed window-the

Both Petersson and Reis struggle with the question how the theta-role of the matrix clause can be satisfied when the clause is not properly embedded and therefore cannot carry a structural theta-role. Their solutions differ, however. Petersson argues that *att* is a kind of pronoun and thereby a constituent of the matrix clause, whereas Reis proposes adjunction of the embedded clause to the right in VP, which, at least in our framework, is not possible.

But Reis (1997: 139, ex. (69a) [=77b] also refers to other empirical data in order to support that the clauses are what she calls "*relatively unintegrated"*, namely data in the embedded clause, which signal dependence, like *variable* binding and *subjunctive*.

(77) a. [Var och en]$_i$ vill gärna tro, att han$_i$ är alltid omtyckt. (variable binding)
everyone will willingly believe that he is always liked

b. Jeder$_i$ möchte gerne glauben, er$_i$ *sei* unheimlich beliebt. (variable bind., subjunct.)
everyone$_i$ will willingly believe he$_i$ is enormously liked

Reis also points to another important fact, namely that the whole clause, i.e. the matrix and the "embedded" clause, has only one focus-background domain. The same holds for Swedish:

(78) a. Peter trodde, att Anna skulle inte besöka sin MOR i morgon.
Peter believed, that Anna would not visit her mother tomorrow

b. Peter glaubte, Anna würde morgen ihre MUTter nicht besuchen.
Peter believed, Anna would tomorrow her mother not visit

We think that the fact that the matrix clause has an unsatisfied thetarole contributes to the interpretation that the V2-clause is "relatively unintegrated" in German. However, we do not

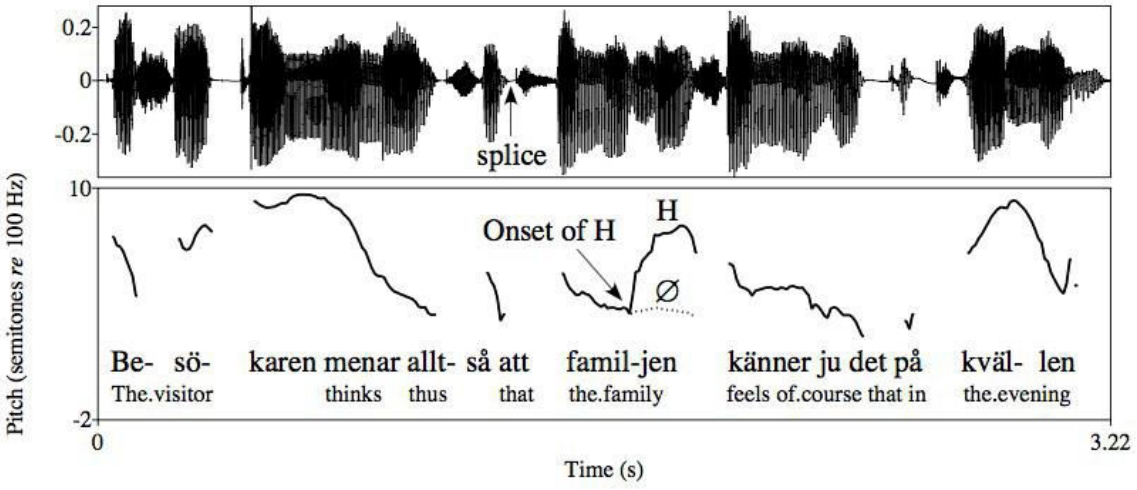
think that this is a syntactic fact, but the result of the semantic interface looking for a way to accept the construction as embedded.

Returning now to the above properties (76), which perhaps are the result of the fact that the pseudo-embedded clauses have to follow the matrix *linearily*, in order to allow them to be interpreted as a complement of the matrix-verb. Every movement that will disturb this word order between matrix and subordinated clause will make the whole derivation crash, because only with this order is the c-command linearily visible. Note, however, that the subordinated V2-clause may be more or less deeply embedded as long as the embedding is to the right of the matrix head (see Reis, 1997, who demonstrates this, which, of course, also is a way to support its subordinative character).

The property (76c), i.e. that the matrix only allows certain types of predicates is another fact that may be explained by the conflict between the structure of the V2-clause as a main clause and its pseudo-embedding in the matrix. In order to pseudo-embed a V2-clause the main verb of the matrix has in principle to be a *non-factive* verb (*believe, hope, think* etc.), since the syntactic structure of the V2-clause otherwise would be interpreted as an independent clause with all the consequences of an independent finite clause (truth value, illocutionary force etc.). In order to avoid this, the matrix verb has to prevent the semantic interface from recognizing that the embedded clause in fact is a V2-clause, normally interpreted as an independent clause. We will return to this when discussing if the imperative clause may be embedded.

Let us finally look at some prosodic data, cited in Petersson (2014: 57f.) "According to Roll & al. (2009), the left edge of a main clause in standard Swedish is "marked by a high (H) tone associated with the last syllable of the first prosodic word" (Roll & al., 2009: 59). As shown by Roll (2006), this high tone is also present in "embedded V2"-clauses but, crucially, not in canonical *att*-clauses. In other words, the prosody of 'embedded V2'-clauses patterns with that of main clauses rather than that of subordinate clauses. Consider figure A below, which is taken from Roll (2009: 35) (reproduced with permission from Mikael Roll)":

Figure 1



Petersson, interpreting this as a proof that the second V2-clause is just a main clause, uses it as support for his assumption that it cannot embed properly. We will, of course, agree, with the *restriction* that it is not to be interpreted as an *independent* finite clause, which is supported by the fact that only *non-factive* predicates are allowed. It is actually a *pseudo-embedded* clause.

We will now return to the important difference between Swedish and German, already mentioned above. Swedish, but not German, more or less obligatorily demands that the pseudo-embedded clause is introduced by an *att* 'that', which we regard as a complementizer, contra Petersson (2014), who regards it as a pronominal element, merged in C. German does not allow a complementizer.

Following Holmberg & Platzack (1995), we will argue that the pseudo-embedded clause is introduced by two CPs, where the obligatory complementizer *att* 'that' is heading for the highest CP and the finite verb of the embedded clause heads for the second CP. The V2-clause cannot embed properly, because the verb has moved to the embedded C and therefore prevents the complementizer from being merged in T and move to C, as in the proper embedding, see section 4.1. The effect we get can be described as a finite main clause introduced by two Cs (CP recursion). Notice that the higher C in a case with CP recursion does not seem to allow a specifier, which is in line with the observation in (76b) that this type of embedding are islands for movement out of CP (no available escape hatch), and also the observation in (76a) that the pseudo-embedded clause cannot be topicalized, which also involves SpecCP.

As to the difference between Swedish and German regarding the complementizer, we will simply assume that it is *visible* in Swedish and *invisible* in German, noticing that there is no structural difference except visibility between Swedish and German in this case.

Our solution hence is that there are two CP projections introducing the pseudo-embedded clause, the lower of them having the same structure as an ordinary main clause, and the higher of them being the result of merging the complementizer *att* to the higher CP. Swedish and German only differ as to the visibility of the complementizer. Swedish thereby signals pseudo-embedding overtly, whereas German prefers not to visualize the complementizer.[18] Hence Swedish uses the complementizer as a syntactic *bridge* in order to prevent the semantic interface to see the V2-character of the embedded clause, whereas German uses the invisibility of the complementizer as a syntactic *break*, a gap over which the semantic interface will build a *bridge*.

All taken together, the pseudo-embedded V2-clause is interpreted as embedded, *despite* of its V2-struture. Syntax does a lot to make this possible. One specific property, besides the complementizer, is the demand of *linearity*, which may be more important in German than in Swedish, where a complementizer explicitly signals embedding.

It is interesting that this type of syntactic conflict, which syntax tries to overcome in different ways, also exists in other cases. Confer, among others, Culicover & Jackendoff (1997: 195ff):

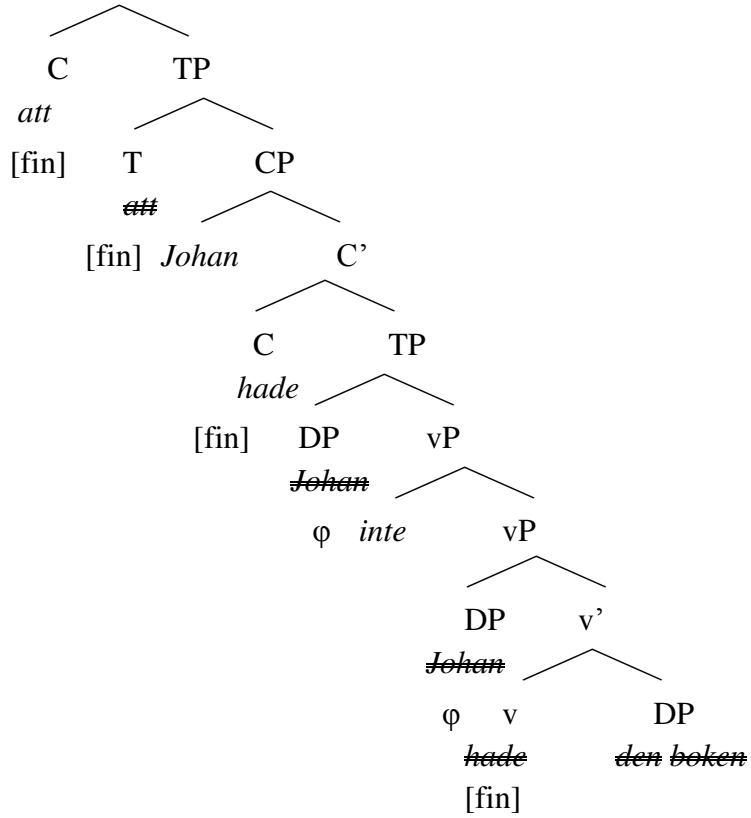
[18] We will assume that the theta-role is provided by the highest C in the embedded finite clause.

> "[T]he left-hand conjunct in 'left-subordinating' *and*-constructions (e.g., *you drink one more can of beer and I'm leaving*) behaves like a subordinated clause. …. Our final conclusion is that it is possible to separate genuine syntactic conditions on linguistic form from the reflections of semantic conditions in the syntax. The reflections of semantics in the syntax are more numerous than are generally assumed within the Government-Binding tradition – but syntactic conditions do not wither away altogether. There is still room for an autonomous syntax, and autonomous conceptual structure, as the Chomskyan tradition has always maintained." (216)

In (79-80) below,we demonstrate the structure of the Swedish pseudo-embedded V2-clause (the German clause is assumed to have an invisible complementizer, where Swedish has *att*). See (78) with the subject in the lower SpecCP:

(79) Kalle trodde att Johan hade *inte* den boken.
Kalle believed that Johan had *not* that book-the

(80) Kalle [$_{V'}$ trodde CP]



The derivation proceeds in the following steps:
1. DP *den boken* with feature φ is merged with the *v hade* creating vP with the feature [fin].
2. DP *Johan* with feature φ is merged to vP with feature [fin].
3. The negation *inte* is merged to vP, creating a new vP with the feature [fin].
4. T with the features[$\neg\varphi^{EPP}$] and [¬fin] is merged to vP.
5. T probes [φ] in Johan in SpecvP and *Johan* is moved to SpecTP due to EPP.
6. T probes its c-command domain and evaluates its unvalued fin-features
7. C with the feature [$\neg fin^{EPP}$] is merged to TP, and v with feature [fin] is moved to C due to EPP, evaluating C.

8. *Johan* in SpecTP is merged to C, creating the structure of a main clause with topicalized subject.
9. T with the lexical content *att* and the feature [¬fin] is merged to TP.
10. C with the feature [¬fin^{EPP}] is merged to TP, evaluating its finiteness feature and moving *att* to C, due to EPP.

Pseudo-embedded V2-clauses with the object or an adverbial in the lower SpecCP are analysed in a parallel way, the main difference appearing at step 8, where the adverbial or the object but not the subject take part in the evaluation of SpecCP.

(81) a. Kalle trodde att den boken hade Johan inte förra veckan.
Kalle thought that that book-the had Johan not last week
b. Kalle trodde att förra veckan hade Johan inte den boken.
Kalle thought that last week had Johan not that book-the

Summarizing: (a) The V2-clause cannot embed properly, because the finite verb is in C and embedding demands a complementizer in C, the position of the finite verb in main clauses. We propose a solution with two CP; (b) the V2-clause in Swedish and German may only pseudo-embed when the matrix has a *non-factive* predicate, otherwise the construction will crash at the semantic interface, the reason being that a *factive* predicate would allow the V2-clause to become an assertive speech act; (c) the languages differ as to the realization of the pseudo-embedding. Swedish uses the complementizer *att* which moves from the upper T to the upper C, whereas German, that does not allow visible *dass*, just links the two clauses overtly, relying on linearity, subjunctive, matrix verb a.o.; (d) there are, however, other properties the two languages have in common: the variable binding and the integration manifested in one focus-background domain; (e) pseudo-embedding is *marked* compared with proper embedding.

4.3 Embedded imperative clauses?

Nobody questions that the imperative clause structurally is an independent clause with its verb in first position, in our framework in C. We have seen above that *proper* embedding in both our languages means that a finite clause is connected with a matrix clause by means of a finite complementizer that occupies C, satisfying the theta-role of the matrix, and thereby preventing the verb from moving to C.

We have also seen that V2-clauses, i.e. clauses with the verb in C, cannot be properly embedded because the verb occupies C. We called this type of embedding *pseudo-embedding*. Swedish prefers a visible complementizer, whereas the complementizer in German is invisible; in other respects it is like the Swedish complementizer.

Certainly it would be most surprising if the imperative clause with its specific syntactic properties actually could embed *properly* in a finite matrix, as this possibility is not open for the V2 clause. Hence, we do not find any empirical reason for assuming that imperative clauses may embed *properly*. Our doubts are strengthened by the fact that there does not exist any imperative complementizer. Nevertheless, embedded imperative clauses have been

claimed to exist, in modern language as well as in e.g. Old Scandinavian. We will therefore examine some of the most dominant arguments that have been offered in linguistic literature.

4.3.1 Modern Swedish and German

One of the most interesting attempts to prove that imperative clauses may embed is found in the works of Kaufmann (2012, 2014). Note, however, that Kaufmann does not discuss the above mentioned proper- and pseudo-embedded types of embedding. In fact, she does not look at embedding as a strictly *syntactic* phenomenon but primarily as a semantic and sometimes even pragmatic phenomenon. This is particularly evident in her paper with Stegovec (2015) which treats "embeddings" of modern Slovenian imperative clauses, where the whole argumentation is based on different levels of reported speech and context. Although we think that embedding primarily is a syntactic phenomenon (of course not denying that it may have semantic and pragmatic consequences), we will look at Swedish and German clauses from Kaufmann's perspective. Kaufmann (2012: 208ff.) notes that the following clause is ambiguous:

(82) Ich sag dir, geh nach Hause.
I say you, go home

According to Kaufmann, (82) is ambiguous between an embedded imperative clause and an instance of direct speech. She therefore examines examples with indexicals, asking speakers to decide if there is more than one possible way to interpret them:

(83) Ich hab dir *gestern* schon gesagt, geh da *heute* hin.
I have you yersterday already said, go part. today there

According to Kaufmann (2012: 209) "[m]ost speakers accept (16) [= (83)] with *heute* 'today' referring to the day of the actual utterance context. Under such an interpretation, the imperative clause cannot be analyzed as an instance of direct speech." She concludes that if it is not direct speech then it must be an embedded clause.

Kaufmann does not tell us however, why this interpretation by "most" speakers proof that the clause is embedded.[19]

We believe that indexicals like temporal adverbs do not have anything to tell us about syntactic embedding. What they possibly tell us is that a given meaning of e.g. *heute* normally will be bound to the actual day the clause is uttered. When the adverb is used in a way where this meaning may not be correct or at least ambiguous, we will have to look for other ways of interpreting it, such as the context of the utterance. We cannot infer from this that the imperative clause in (83) is embedded in the matrix. First, it is obvious that (83) cannot be a case of proper embedding, as there is no complementizer or other marker of the embedding. But could it be some kind of pseudo-embedding that prevents the verb from raising to C? As Petersson (2014: 36) and Reis (1997: 123) have argued, what we call pseudo-embedding is

[19] To obtain this, we need a way to link together syntactic structure and deixis, e.g. something similar to Julien (2015), who bases her account of indexicals on Sigurdsson's syntactic account of logophoric agent and patient.

only possible with a matrix with non-factive and non-negated predicates. These predicates are doxastic, or just verba dicendi, e.g. verbs meaning 'say', 'maintain' (which therefore are verbs that should not be used in this context, because it is difficult to determine if the following clause is or is not direct speech).

Reis argues that this type of embedding may always appear with only one focus domain, i.e. one main non-contrasting focus accent in the clause. Testing Kaufmann's examples as to the possibility to have only one focus domain will not be possible, however. These clauses are built in a way that more or less automatically leads to a *contrastive* focus reading of the two adverbs, one accent on *gestern* and one on *heute*. Even when it seems possible to have only one accent, e.g. on *heute* only, the accent seems to be contrastive:[20]

(84) a. Ich habe dir GEStern schon gesagt, geh da HEUte hin!
b. Ich habe dir GEStern schon gesagt: Geh da heute hin!
c. Ich habe dir gestern schon gesagt: Geh da HEUte hin!

In order to get better examples just for this test, we propose the following clauses:

(85) a. Han RÖT, (?att) stäng DÖRren!
b. Er BRÜLLte, schliess die TÜR!
he roared (that) close the door
(86) a. Jag ber/BER dig, (?att) gå inte DIT!
b. Ich bitte/BITte dich, geh nicht dortHIN!
I beg you go not there

Note that the complementizers in (85a) and (86a) normally are not used in Swedish, so we have better not discussing them as even optional. This is expected, since *att* actually should not be able to be a complementizer for the imperative clause. In (85) we believe that we get two accents, one in each clause, i.e. one on *röt/brüllte* and one on *dörren/Tür.* The fact that two accents are possible in (85) speaks against the assumption that the imperative clause is pseudo-embedded. Instead it speaks in favor of a non-embedded imperative clause. In (86) there may be two accents but also only one accent on *dit* and *dorthin*. In this case the matrix, however, is performative, the type of clause Kaufmann calls "double access" (2012: 206f.), and the two clauses together normally are interpreted as *one directive* speech act. (See section 6 where this is discussed in detail.)

In (85) at least and in (86), when there are two accents, we also find the above mentioned pause (fig. 1) between the matrix and the imperative clause. This is however no support for the assumption that the imperative clause is *pseudo-embedded*. On the contrary, the pause may be expected in this case, if the imperative clause may never be embedded at all. We would, however, like to find some more substantial empirical evidence for the assumption that the imperative clause neither is *properly embedded* nor *pseudo-embedded*. Such evidence is found in the following clauses:

[20] Note that the verb *sagen* is not suited as the verb of the matrix, because it means 'say' and it therefore is easier to interpret the "embedded" clause as direct speech.

(87) a. *Jag vill, gå inte dit!
b. *Ich will, geh nicht hin!
I will, go not there

(88) a. ?Jag vill, (att) du går inte dit!
b. ?Ich will, du gehst nicht hin!
I will, you go not there

In (87) the matrix expresses a bouletic meaning (see section 5). Why is it ungrammatical? The ungrammaticallity of (87) should be surprising, since the verbs *vilja* 'will' and *wollen* 'will' in principle express the same modal meaning as the imperative clause. As for (88) we do not think that it really is ungrammatical, although it especially in Swedish seems a little strange. In Reis (1997: 123), this type of bouletic verb ("Präferenzprädikat") is one of the possible verbs that allow V2- clauses to *pseudo-embed* (in our terminology) but then, of course with a *finite* subordinate clause. Since the "embedded" clause in (87) is *imperative* and not *finite,* we will not expect that it may embed at all. The clause therefore supports our assumption that imperative clauses cannot even *pseudo-embed*.

Summarizing: We conclude that the imperative clause is an *independent basic clause type* that neither may *properly embed* nor *pseudo-embed*, because the imperative clause is not finite. But if it is neither proper embedding nor pseudo-embedding, then what do we see in (85) and (86) above?

We think, (85) is an instance of direct speech. The verbs of the matrix in similar cases probably always are verbi dicendi.What (85) means is, of course, that the speaker did not want the addressee to go there. Note that this clause cannot be performative. In (86), we have however, a performative clause, where the matrix describes the speech act performed. If this clause is not *1st person* and *present tense*, the clause will be interpreted as an assertion of the whole proposition. We will return to this in section 6.

We shall now look at Old Nordic, where the data are very interesting and have been taken as evidence for Old Nordic allowing embedding of imperative clauses.

4.3.2 Old Nordic

In old Nordic in general we find imperative clauses connected with a finite matrix by the complementizer *att/at.* See Rögnvaldsson (1996) and Delsing (1999); see also Platzack (2007). In a material based on 19 Old Swedish texts (mainly religious and historical texts), Delsing has found 77 imperative clauses that as it seems are "subordinated" to a finite main clause. The following examples are taken from Delsing's material:

(89) *Jak man-ar thik ... At thu **sigh** mik sannindh* (Leg-Bil 272)
I urge-pres you that you tell-imp me truth

(90) *Wi bidh-iom oc at thu **førlat** os the syndh* (Mos 210)
we beg-pres also that you forgive-imp us this sin

(91) *Jak bidh-ir thik at thu **döp** mik mz thässom* (Bo 38)
I beg-pres you that you baptize-imp me with this

(92) *vakta at thu ey **atirgak** til synda fylsko ---* (MP1 157)
beware that you not return-imp to sin's filth

There are at least four properties of these clauses which need to be discussed in order to understand the construction:

(a) The matrix clause
(b) The subject
(c) The position of the negation
(d) The subjunctive counterparts of this construction

(a) All examples in Delsing's material have *performative* matrix clauses, i.e. a matrix clause describing the illocutionary act performed by the clause *here* and *now*. The performative matrix always has present tense and 1st person (see especially section 6). The most frequent verbs appearing in Delsing's material are *bidhia* (37) 'beg', *mana* 'remind'(8), *vakta* 'take care' (7), *biudha* 'offer' (5).

(b) All Delsing's examples except two have a pronominal subject *thu* 'you' in the normal position next to the complementizer and strictly in front of the imperative verb. Since the imperative clause in Old Nordic normally does not realize the pronoun, this fact is difficult to explain. See the following example:

(93) *Jak man-ar thik ...At thu **sigh** mik sannindh* (Leg-Bil 272)
I urge-pres you that you tell-imp me truth

Delsing assumes that the two cases, where a visible subject is lacking, indicate that these two clauses are real main clauses.

Interestingly, however, is that the subject never occurs to the right of the verb. This is very surprising, since the verb found in independent imperative clauses always has to appear in front position, i.e. in front of what may be a subject. We therefore think that the pronoun in these clauses (89)-(92) is a real subject and hence the structure must contain a TP.

(c) In the material excerpted by Delsing, there are 13 examples with a sentential adverbial. Of these, 8 precede the verb, 5 follow it. The above example (92) demonstrates the first type with the negation in front of the imperative verb, the example (94) the second type with the negation following the imperative verb.

(94) *Jac bidhir thic...at wt **giwt** ey thit blodh* (HML 297)
I urge you that out pour-imp not your blood

As Delsing maintains, the 8 examples with the adverbial in front of the verb cannot easily be explained as main clauses because of the fact that two items would be in front of the verb. If we, however, assume that all examples are embedded, we will have to explain why the

clauses with the adverbial to the right of the verb are *grammatical*. We will therefore look for some other property of these clauses responsible for the two types of word order.

(d) Old Swedish normally has subjunctive in properly embedded clauses after verba dicendi (like German today). Since we discuss the imperative clause, we are interested in those matrix verbs that may have a similar meaning as the corresponding verbs with an imperative clause, like 'wish', 'order' and 'prohibition'. We find a rich material in Mattsson (1933: 96ff.) with clauses properly embedded in a matrix with a verb with this meaning. But first of all, the most important fact is perhaps that we do *not* find any examples where the embedded clause has a finite verb in indicative. This means that we have to compare embedded subjunctive clauses with corresponding imperative clauses in order to see if the above mentioned two word orders may appear even when the clause is a properly embedded *att*-clause with a subjunctive verb.

Mattsson observes a difference in this type of embedding compared with other embeddings: a subjunctive verb after a matrix with one of these meanings has an *optative* or *hortative* meaning. Mattsson thinks that the verb of the matrix is the reason why the subjunctive verb gets this meaning. He mentions the following matrix verbs: (a) *vilia, yskia*, *biþia, mana*, *biþa, befala, sighia* ('order') a.o. and (b) *göma, akta, (at)vakta* a.o. Delbrück calls them "zielstrebige" Verben (Mattsson's comment, Beiträge 29: 214) and the *att*-clauses obviously have a touch of finality. What is more is, that these clauses often have present tense in the subjunctive form, although the matrix is past tense. We also find both the word order *verb* > *negation*, e.g. examples (95-98, 100), and the word order *negation*> *verb* (99).

(95) Wir firibiuþum þæt at böndær giæri eigh
we forbid that that farmers do not ...
(96) at þe laten sik eigh finnæz wrangæ domæ györa
that they let themselves not be-found wrong judgements do
(97) at han läte sik ey forlanga ...
that he let himself not demand
(98) at iak stal eigh fæ þit
that I stole not cattle yours
(99) thz biwdhir iak thik at thu ey andreledh göre
that beg I you that you not otherwise do
(100) at han take ey aff liffs trae oc liwer ewinnelika
that he takes not of life's tree and lives eternally

Mattsson also gives examples where the embedded clause has an imperative verb and reminds us that the use of imperative instead of subjunctive may be the result of a contamination of "oratio obliqua och oratio recta" in the spoken language.

Interestingly, we also find embedded clauses with imperatives of auxiliaries, according to Mattsson in order to make sure that the correct meaning is final.

(101) þo mana iac þik at þw sculi ey astunda …
then ask I you that you should not ask for

This is important because this type of "embedding" is not possible today.

Summarizing: We think that the above data clearly lead to the following conclusions: The structural facts indicate that the old Nordic "embedded" imperative clauses have a structure, which we call "Centaur-embedding". This type of embedding obviously has a subject which resembles the subject in the corresponding subjunctive clause.

We, therefore, follow the explanation of Mattsson that there may be a kind of contamination between direct and indirect speech, a result of the matrix verb optionally selecting either the imperative or the subjunctive when it emphasizes an optative or hortative meaning. The fact that all imperatives are found in clauses with a performative matrix, makes us believe that the matrix licenses the imperative verb in the "embedded" clause, perhaps because the subjunctive and the imperative at this time are closely related to the optative and hortative subjunctive that still was strong also in main clauses.

This clause is accepted at the semantic interface because of its meaning. That the clause does not crash at the semantic interface is a consequence of both its structure and the meaning of the performative matrix clause. In the following section 4.3.3 we will propose a structure for the Centaur-embedding in Old Nordic.

4.3.3 Centaur-embedding: Structural suggestions

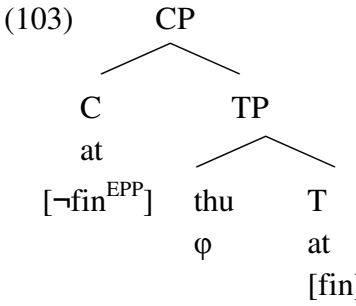
We will take our point of departure in the properties listed as (a)-(d) above, suggesting a structural account of these facts. As mentioned, we will argue that what looks like embedded imperatives in Old Nordic has a very special structure, which we have called a *Centaur*, indicating that what looks like an embedded imperative clause has two lines of derivation, one projecting a finiteness feature and responsible for the finite complementizer *att* and the subject *thu*, the other projecting an imperative feature that is responsible for an imperative vP. Since the basis for the projection of a clause usually is the verbal feature in little v, it might seem that we are in a hopeless situation, since there should not be such a thing as "both x and z" to determine the projection line, only x or z. However, recall our claim that the complementizer *at* carries a valued *fin*-feature, when inserted from the lexicon in T, thus providing a finite projection line. Furthermore, the subject *thu* 'you' is merged in *SpecvP* and due to the unvalued [φ]-feature in T must be spelled-out in SpecTP. Hence, notwithstanding the fact that the standard independent Old Nordic imperative clause, like the imperative clause in present day Swedish and German, is verb initial, does not project TP and hence does not have a subject, we see that the centaur, because of its upper part having a TP also has a subject.

The two projection lines for the embedded imperative in (102) are outlined in (103) and (104).

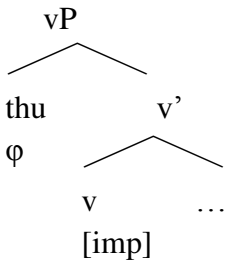
(102) *Jak man-arthik ... At thu* ***sigh*** *mik sannindh* (Leg-Bil 272)
I urge-pres you that you tell-imp me truth

(103) represents the finite projection line, (104) the imperative projection line:

(103)

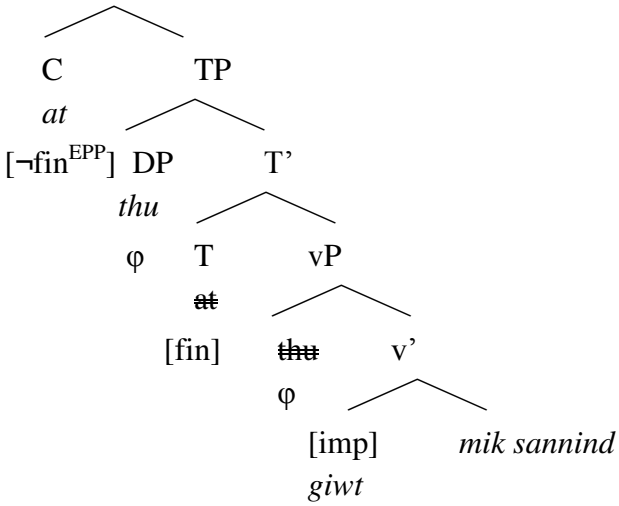


(104)



and (105) represents the combination of these two lines, the Centaur-structure of (102):

(105) Jak [$_{V'}$ manar thik CP]



Summarizing: The two different trees (103) and (104) illustrate parts of a finite and parts of an imperative projection line, respectively. The finite tree looks like the top part of a *proper* embedding that enters the derivation, when *at* is merged. The imperative tree corresponds to the vP-part of an imperative projection, lacking the CP part of such a tree. (101) and (102) are combined with the help of the T-projection, which introduces a finite projection line and that needs a subject (*thu* 'you' in SpecvP) to value its unvalued φ-feature. Hence the top and the bottom of the combined structure in (103) belong to different projection lines, which is the reason we call it *Centaur-embedding*.

We have proposed that the performative clause licenses the imperative verb, especially since the subjunctive and the imperative at this time are semantically related, both being able to express *deontic* meanings. So the speaker might as well utter a vP, projected by an imperative verb, as a vP, projected by a subjunctive verb. We have called this a centaur, because neither the upper part nor the lower part of the clause are fullfledged clauses. *So it is of course no proper embedding of an imperative clause. Neither is it a proper embedding of a finite clause.* It is what Mattson calls *a contamination* of two structures. Since it is a frequent structure, more frequent than the corresponding subjunctive clause structure, we may assume that the explicitness of the performative matrix is the trigger of the imperative verb (the whole clause being an *order* or a *request* illocutionarily, see section 6 below).

5 The semantics of the clause types

5.1 Introduction

We are now ready to look at the semantic interface and what happens there.[21] We assumed in the introductory theses that the morpho-syntax, the semantics and the illocutionary system are autonomous and interdependent modules.They are autonomous because they are characterized by their own specific system of principles, units and rules, and they are interdependent because they are dependent on one another for their realization, ending up in utterances produced and understood by speaker and addressee.

In section 2-3 we defined three *independent* clause types, the *finite,* the *imperative* and the *infinitive* clause type. They are projections of a finite, imperative and infinitive verb, and differ structurally from one another as a result of the difference between the inflection of the verbal head being finite in the finite clause but non-finite in the imperative and infinitive clause. The projection of the *independent finite* clause has a functional node TP and a subject, which is not present in the imperative and infinitive clauses. In both cases the verb moves to [Cfin]. Note that subordinated clauses are always dependent clauses, being part of a matrix clause that in turn itself may be a subordinated or an independent clause, and that imperative clauses do not allow embedding at all.

Traditionally it is assumed that *sentence types* have *sentence mood* and very often also that only *independent* sentences may have sentence mood (see Meibauer et al., 2013: 4ff.). The term *sentence mood* is, however, difficult to grasp. Meibauer et al. summarize: "Vielmehr hat man oft unter ‚Satzmodus' die Semantik eines Satztyps verstanden, also das, was ein bestimmter Formtyp, wie z.B. der Imperativsatztyp, semantisch (im Sinne der ‚Modalität' eines Satztyps) kodiert." We think that the intuition behind the notion *sentence mood* of the clause type in terms of *sentence type modality* is on the right track. We do not think, however, that the syntactic clause type encodes its modality.

In BRRZ (1992) we find a modular generative approach, where what we here call the *Semantic module* is called *Semantic Form* (SF), in turn related to *Logical Form* (LF). In this account it is assumed that a syntactic tree is homomorphically translated into a semantic tree. *Sentence mood* is an attitude free specification of the semantics of the sentence referring to an *event*. The semantics is based on the formula ∃e [e INST p), introduced by Bierwisch (1988), where *e* is a symbol for *event* and the mapping of the sentence onto semantics is guided by an assumed referential argument from the lexicon that has to be bound by a functional head.

There are several reasons the system in BRRZ does not work in our theoretical approach. *Firstly*, we do not think that there is any need of an instantiation of p in semantics by an event variable. *Secondly*, the existential quantifier is a *first-order* logical quantifier, taking *e* in its scope, quantifying over it. We propose an operator higher up in the hierarchy, i.e. a *modal* operator, onto which the clause type will map. *Thirdly*, the above formula in BRRZ is the formula of the *declarative sentence,* that is assumed to be present in all sentence

[21] In this section and section 6, we will primarily use German examples. It is seldom the case that we need to compare with Swedish or some other language (if so, we will, of course, do it), the reason being that these sections are of very general character and apply to very many languages.

types. In order to distinguish between this sentence type and other sentence types, BRRZ assume that other operators are added to the basic type. Since our clause types all are the result of the projection of a verbal head, they will of course be on the same clause type level, i.e. it is not possible that a clause type may be included in another clause type. *Finally*, the clause types are the traditional clause types, i.e. the *declarative, interrogative* and *imperative* clause types. As we argue in section 2.5 and 3.1.2 the interrogative clauses do not constitute clause types of their own. They are finite as are the standard finite clause types. Interrogativity is a semantic property. We will return to the interrogative clauses below.

Returning now to our own framework, we assume that the three modules are autonomous and interdependent; we further assume that the syntactic clause at the semantic interface maps onto a modal operator which takes the whole proposition in its scope and creates a new proposition, providing it with a modal meaning, which we call *clause type meaning*. Let us first look at the finite clause type.

5.2 The finite clause type

The modal operator, that a finite clause may map onto, is a *unary non-truth functional operator*, e.g. an *alethic*, *epistemic* or a *doxastic* operator. Of these operators only the *alethic* operators are strictly *truth-oriented*, as the other two are relating to the truth in a different way. There has been some discussion about what the difference is, if any, between e.g. the *alethic* and the *epistemic* modality, see below. We will call the meaning of the clause types their *intension*. Not until the clause maps onto a speech act type, does it get its *extension*. Cf. Frege (1892), who introduced this distinction.[22]

First, however, we will introduce the different *alethic* operators. There are three subtypes of alethic operators, *necessarily p*, *possibly p* and *contingently p* (□p, ◊p and ∇p, called 'box', 'diamond' and 'nabla', respectively, see Herrick (2000: 441ff.).

The *box* typically operates on mathematical or analytic propositions, like *2+2 = 4*, and '*All bachelors are unmarried'* (106) and (107). They may not be contradicted. The diamond may be paraphrased by "It is possible that p is true", see Herreck (2000: 443ff.). Since we are more interested in *synthetic* propositions, the truth of which can only be determined by looking at what the proposition is referring to in the actual world, we need another alethic operator than the box and the diamond. Cf. the following clauses:

(106) 2 + 2 = 4.
(107) Alle Junggesellen sind unverheiratet.
all bachelors are unmarried
(108) Peter hat gestern seine Mutter besucht.
Peter has yesterday his mother visited

[22] We are aware of the fact that *intension/extension* is not used by Frege in the way we use it here, as Frege did not approach language in a modular fashion. What is important to us is that the terms as such allow us to distinguish clearly between the semantic and the illocutionary module. The clause with a specific *intension* maps onto a speech act type and gets its *extension,* when referring to the actual world.

The propositions of (106) and (107) are both in the scope of □. As to (108), it is obvious that the proposition cannot be *necessarily true*. We will assume that it is in the scope of the *contingent* operator, nabla, ∇. In Herreck (2000: 449), this operator is paraphrased in the following way: "If P is contingent, in some circumstances P would be true, and in some circumstances P would be false. In other words, P's truth value depends on (is contingent upon) the circumstances that obtain or do not obtain." We will further assume that we need the concept of possible worlds semantics in the case of the alethic operators. See Herreck (2000: 449ff.) for a thorough analysis of this concept.

The formula of ∇p therefore will be the following:

(109) *∇p, iff p is true in some possible worlds and false in others.*

In our framework this means that a synthetic clause like (108), that has mapped onto a contingent operator, does not tell us the *truth value* of the proposition, it only tells us that the proposition may be *true* in some possible worlds and *false* in others (cf. German *wahrheitswertfähig* = 'capable of getting a truth value', which however is not quite the same). Not until the speaker utters a clause with the contingent operator, which maps onto a proper speech act at the illocutionary interface, he is asserting that it is true.[23]

We assumed above, thesis 5, that there exists a *correspondence relation* between the *finiteness* of a clause and a *unary non-truth functional* operator, which it may map onto. Note that none of the above clauses (106)-(108) have a lexically expressed modal operator. They are *bare* finite clauses, identical with their proposition. Still we assume that they are in the scope of a *unary non-truth functional operator*. Obviously they map directly, without any help from a lexically expressed operator, onto a proper modal operator at the semantic interface. The box may be expressed in (106) and (107), but the clause is normally bare. As to the contingent operator, i.e. the operator a synthetic clause may map onto, it normally is bare, too.

We find, however, cases where the alethic operator has to be expressed lexically. Let us look at the following clause, where the modal operator is lexically expressed. See BRRZ (1992: 66ff.) for a detailed analysis, from which we only deviate slightly:

(110) Vielleicht hat Peter seine Mutter gestern besucht.
perhaps has Peter his mother yesterday visited

In (110) the proposition contains an adverb *vielleicht* and the proposition in (108). We will assume that the proposition *p* is in the scope of a *non-truth functional* operator, expressed by

[23] A very interesting paper is Nelson & Zalta (2012), who discuss logical truth in terms of R-validity (R = real world validity) instead of G-validity (G = general validity) . "What drives the proponent of *R*-validity is the idea that a formula is true in a model just in case it is true in the distinguished actual world of that model. …. Intuitively and informally, a formula is *R*-valid just in case, for every model, it is true at the distinguished world of the model. A formula is *G*-valid, on the other hand, just in case, for every model, it is true in every world of the model." They propose to extend the definition of logical truth with an *actuality operator*. We will not discuss the philosophical question and the proposed solution with an actuality operator. We will however use the contingent operator in our *linguistic* framework to represent *the contingency* between the semantic and the illocutionary module. The truth-value of a clause in the semantic module is contingent upon a speech act type in the illocutionary module, referring to an event in the actual world.

vielleicht, i.e. the modal operator ◊, which modalizes the proposition, telling us that 'Peter may have visited his mother yesterday', exactly as we understand it in our standard language. The whole proposition, however, including *vielleicht*, will map onto the contingent operator and hence be true or false.

Note that *notwendigerweise* ('necessarily') is not acceptable, see (111), since the result would be an interpretation that there were no other possibility, and that is normally not the case with a syntethic clause:

(111) *Notwendigerweise hat Peter seine Mutter gestern besucht.
necessarily has Peter his mother yesterday visited

Important are also the *epistemic* and *doxastic* operators. Let us confer them with (108), here repeated as (112), which consists of only one clause and proposition and does not express the operator explicitly. In the following examples (113)-(116), we find two clauses, one being the matrix, the other being a subordinated clause:

(112) Peter hat gestern seine Mutter besucht.
Peter has yesterday his mother yesterday visited
(113) Anna weiss, dass Peter gestern seine Mutter besucht hat.
Anna knows that Peter yesterday his mother visited has
(114) Ich weiss, dass Peter gestern seine Mutter besucht hat.
I know that Peter yesterday his mother visited has
(115) Anna glaubt, dass Peter seine Mutter gestern besucht hat.
Anna believes that Peter yesterday his mother visited has
(116) Ich glaube, dass Peter gestern seine Mutter besucht hat.
I believe that Peter yesterday his mother visited has

The verbs in the matrix of (113)-(116) have an *epistemic* or *doxastic* meaning. The clauses (114) and (116) differ from the clauses (113) and (115) in having a matrix with an epistemic and a doxastic verb with *1st person, present tense.* These clauses refer to the *speaker* and will map onto an *epistemic* or a *doxastic* operator at the semantic interface.[24] The other clauses (113) and (115) have a matrix with the same verbs with *3rd person present tense*. In such clauses, of course, the interface cannot recognize a speaker-oriented operator. The epistemic and doxastic verbs in these clauses are *subject*-oriented and part of the proposition. The clauses, therefore, will map onto a *contingent* operator that takes the whole clause including the epistemic and doxatic verbs in its scope.

What we see in (114) and (116) is well-known from logic, where the epistemic and doxastic modality often is paraphrased with 'it is known that', 'it is believed that' etc. (see e.g. Hughes & Cresswell, 1996: 14f.). In our framework, which is linguistic, the difference in this case, however, is expressed explicitly by the difference between *1st person, present tense* and *3rd person present tense*, the result being that only the verbs in (114) and (116) are interpreted as *non truth functional* operators on the same level as the contingent operator,

[24] These types of clauses, (114) and (116), with an epistemic/doxastic verb in 1st person, present tense are in Rosengren (1984, 1985) called *Einstellungsbekundung* (*Attitude expression*).

while the verbs in (113) and (115), which are subject-oriented, cannot be interpreted as operators. Note that the difference between the epistemic and doxastic verbs in (113)/(115) and (114)/(116) is a difference between the scope of the verbs. The clauses with *1st person, present tense* have a wider scope than those with *3rd person present tense.*

It is illuminating to compare the scope differences of the epistemic and doxastic verbs above with the scope differences of modal verbs. We shall only briefly discuss this and return to it more in detail when discussing the imperative clause:

(117) a. Du musst/kannst deinen Freund gerettet haben.
You must/may your friend saved have
Paraphrase: For all we know/believe, you have saved your friend
b. Du musst/kannst deinen Freund retten.
You have to/can your friend save
Paraphrase:You have to/are able to save your friend
c. Peter muss morgen wieder zu Hause sein.
Peter must tomorrow again home be
Paraphrase 1: For all we know, Peter is back home again to morrow
Paraphrase 2: Peter has to be back again tomorrow.

The verbs in (117a) express speaker-oriented *epistemic* modality. The verbs in (117b), express subject-oriented *deontic* modality. The epistemic modal verb has, compared with the deontic modal verb, the widest scope (see Hacquard, 2009: 4). What interests us here, is that the modal verbs seem to be ambiguous, being either *epistemic* or *deontic*. This ambiguity has been discussed in linguistic literature at some length. See the influential work by Kratzer (1977), where Kratzer argues that they are not really ambiguous in the lexicon (see also Hacquard, 2009: 10). Their different meanings are according to Kratzer (simplified here) the result of a mapping onto *contextually* provided *conversational backgrounds* (see Hacquard, 2009: 12f.). We agree with the assumption that these modal verbs may be non-ambiguous in the lexicon. But we do not believe in a solution with conversational backgrounds.

We think that the different meanings in (117a/b) is a matter of *scope of the modal verbs*. The paraphrases demonstrate that (117a) is in the scope of an *epistemic operator*, and (117b) is in the scope of a *contingent operator,* taking the rest of the proposition with its *modal* verbs, meaning 'must, have to/be able to/be allowed to' in its scope. As expected, we therefore also find ambiguous clauses. (117c) is such a clause, as the paraphrases demonstrate. It may be interpreted either as a clause in the scope of the an epistemic operator or as a clause in the scope of the contingent operator, taking the whole proposition in its scope. Hence, these verbs do not have different meanings in the lexicon, they have different scopes in the above clauses, sometimes being ambiguous in the same clause. We will return to this interesting fact below, when discussing what Han (1999) calls *deontic modal sentences,* comparing them with imperative clauses. Note that both operators, the epistemic as well as the contingent, are truth-oriented, none is action-oriented.

We have until now only described and discussed the finite V2-clause, which we regard as the default independent finite clause type, mostly mapping onto the contingent operator.

But as already mentioned in section 2.5, there also exist finite V1-clauses without any SpecCP-position. Thus, the declarative V1-clause is a marked clause in the Germanic V2-languages, as it maps onto the same contingent operator as the V2-clause does[25].

We will concentrate on finite *interrogative* clauses, which in our framework cannot be basic clause types, since their basic finite morpho-syntactic *verb* has no impact on the clause type meaning (see section 2.5). The interrogative clause is simply in the scope of the contingent operator, like the finite clause discussed above, see (112).

Obviously interrogative clauses are used to express questions that demand answers. The finite *V1-clause*, when uttered, therefore is either interpreted just as a *contingent* clause (see fn. 25) or as an *interrogative* V1-clause, expressing what is called a *yes/no* question, the answer being *yes* or *no*:

(118) a. Kommt Peter morgen?
Come Peter tomorrow
b. Ja/Nein
yes/no

The finite *wh*-clause is a V2-clause in Swedish and German with a *wh*-phrase in SpecCP, that has moved from its basic position in vP (see section 2.5 and 3.1.2), representing a gap in the proposition. It is normally called a *wh*-question:

(119) a. *Wer* kommt morgen?
who comes tomorrow
b. Peter.

We interpret this specific property of the interrogative clauses as a semantic property, i.e. as semantic *openness* (see also BRRZ, 1992, and Rehbock, 1992b). In our framework the proposition of the interrogative V1-clause is *open* as to its *truth value*. The proposition of the *wh*-clause instead has a gap that has to be closed by a proper phrase out of a set of possible answers. This *openness* of the two interrogative clauses is the result of two different *open*-operators the proposition is mapping onto. We will follow Rehbock (1992b: 178ff.) as to a definition of the operators involved[26]. The V1-clause maps onto a truth functional *unary propositional* operator of the same kind as NEG, taking the whole proposition in its scope, giving rise to a new proposition that is *undetermined* as to its truth value[27]. The *wh*-clause will map onto a *first order logic operator* of the same type as the *universal quantifier*, that takes the variable *x* of the proposition in its scope and binds it, relating it referentially to a set of

---

[25] See Önnerfors, 1997, and Mörnsjö, 2002):
(i) Kam ein Mann zur Tür herein.
came a man the door through

[26] We differ from both BRRZ (1992) and Rehbock (1992a), however, since the contingent operator takes the clause with the open-operator in its scope, whereas BRRZ and Rehbock in the theoretic framework of BRRZ assume that the *open*-operator takes the whole proposition with its sentence mood in its scope. From our viewpoint this does not work, since the open-operator cannot take the higher modal operator in its scope.

[27] The openness of the proposition is not to be mixed up with the modal meaning of the contingent operator, true in some possible worlds and false in others. It is a *unary propositional* operator operating directly on the actual proposition.

possible "answers" that may close the gap (Rehbock 1992b: 189). Rehbock distinguishes between the two operators by using two omega symbols, upper case omega, Ω, for the first type, and lower case omega, **ω**, for the second type. The two propositions with their two open**-**operators will both map onto the modal contingent operator.

Note that there is an important difference between the two operators. The V1**-**clause will just map onto Ω and then map onto the contingent operator to get its clause type meaning, with the result that the proposition in the contingent clause is open. The interrogative *wh***-**clause will look for the corresponding operator **ω,** which will bind the variable *x* in the *wh***-**phrase, and then map onto the contingent operator and get its contingent clause type meaning.

Note also that the two operators, the open-operator and the modal contingent operator, both are *truth-oriented* and cooperate in order to create an open proposition, that will be the prerequisite for a *question* in the illocutionary module. The *question* hence is a speech act that will request an answer, see section 6.

5.3 The imperative clause type

Let us now move on to the imperative clause and see what happens there. The imperative clause is one of three clause types. We will therefore expect that it also maps onto a *modal operator*. We argued in section 3.2.1 that it differs from the finite clause by (a) having a projecting non-finite imperative verb in 2nd person instead of a finite verb, (b) therefore not allowing a subject, (c) neither allowing embedding nor pseudo-embedding.

Von Wright (1951: 1ff.) was one of the first (if not the first) to recognize that we need another clause modality than the truth-oriented one. In (1951) he made a sharp distinction between

> "the alethic modes or modes of truth" and "the epistemic modes or modes of knowing" on one hand, and "the deontic modes or modes of obligation, on the other." The first ones are true or false, the second type "are concepts such as the obligatory (that which we ought to do), the permitted (that which we are allowed to do), and the forbidden (that which we must not do).

He asks what are

> "the things which are pronounced obligatory, permitted, forbidden, etc.... and continues "we shall call these "things" acts. …. "There is one relevant respect, in which the deontic modalities differ from the alethic, epistemic, and existential modalities. It can be illustrated as follows: If a proposition is true, then it is possible … and not falsified …. But if an act is performed (or not performed), then nothing follows as regards its obligatory, permitted or forbidden character. There is thus an important sense in which the deontic modalities unlike the alethic, epistemic, and existential ones have no logical connexions with matters of fact (truth and falsehood)."

The above difference between two kinds of modalities has also very clearly been developed in a paper by Han (1999: 2ff.), where she compares *imperative* clauses with what she calls *deontic modal sentences*. She proposes

> "that imperative mood contributes as essential part of its meaning that (i) there is an obligation or a permission and that (ii) the speaker issues the obligation or the permission. These cannot be contradicted nor qualified. On the other hand, deontic modal verbs in the indicative mood contribute as assertion that there is an obligation or a permission in the current world. This assertion can be contradicted and qualified.…This captures the intuition that the speaker imposes an obligation or a permission on the addressee to bring about the state of affairs denoted by the core proposition of an imperative and helps us to define formally the semantics of imperatives."

Let us first look at what Han (1999) says about the differences between the *imperative* clause and what she calls *deontic modal sentences*. The following examples together with the comments are all taken from Han:

> "Imperatives cannot be either true or false. But deontic modal sentences have truth values.
>
> (120) [= (33)] a. Finish the paper by tomorrow!
> b. You must finish the paper by tomorrow
>
> For instance, (33a) cannot have a truth value under any circumstances. But (33b) is either true or false, depending on the state of the world. Imperatives do not assert anything about the current world. Thus, they cannot have a truth value. However, deontic modal sentences assert that there is an obligation or a permission in the current world.
>
> The deontic modal force cannot be negated in imperatives. In a negative imperative, negation does not have scope over the deontic modal force contributed by the imperative mood. The deontic modal force of the imperative mood always has scope over the negation.
>
> (121a) [= (24)] Don't go. ≡ It is necessary that you not go.
> ≠ It is not necessary for you to go.
> (121b) [= (25)] Nobody move.
> ≡ It is necessary for everybody not to move.
> ≠ It is not necessary for everybody to move.
>
> Moreover, if the addressee replies 'no' to an imperative, s/he is refusing to do what s/he is being commanded or requested to do, as in (26b). S/he cannot be contradicting the modal force itself, as shown in (26c) to (26e).
>
> (122) [= (26)] a. Go home.
> b. B: No, I will not.
> c. #B: No, I don't have to. Nevertheless, I will go home.
> d. #B: No, not necessarily.
> e. #B: No, that is not true. I can stay.
>
> Imperatives cannot take a sentential adverbial that qualifies the deontic modal force.
>
> (123) [= (29)] #Perhaps, take the exam.
>
> However, deontic modal sentences can take a sentential adverbial that qualifies the deontic modal force.
>
> (124) [= (30)] Perhaps, you must take the exam.
>
> If imperative mood contributes an obligation or a permission as an essential part of its meaning, then it is not surprising that the modal force cannot be qualified in imperatives. Furthermore, if

> deontic modal verbs contribute an obligation or a permission as an assertion, then it is not surprising that the modal force can be qualified in deontic modal sentences."

We agree with Han (1999) that there is an important difference between *imperative* clauses and what she calls the *assertion* of deontic modal clauses. Cf. the above example (117b), where the modal verbs *must* and *can* were said to be *deontic* and *subject-oriented* with a more narrow scope than the *epistemic must* and *can* in (117a), which are *speaker-oriented*. Here, we will compare the imperative clause with what Han calls deontic modal sentences (clauses like (117b).

The imperative clause (120a) resembles (117a) by mapping *directly* onto a modal operator. This operator is of course not an *epistemic* operator but a *deontic* operator. The imperative clause differs, however, from the epistemic (117a) in being a bare clause type, i.e. it does not lexically express the operator.

The deontic modal clause (120b) resembles the clause (117b) in being finite and having a modal verb that has the same scope as the modal verb in (117b), i.e. the modal verb is *subject*-oriented. The clause therefore cannot map onto a deontic operator, although the verb is deontic, it maps onto a contingent operator that takes the whole clause with its modal verb in its scope, mapping onto an *assertion* at the speech act interface, exactly what Han (1999) proposes, however without discussing the scope difference.

The imperative clause, being an independent clause type with an imperative head, hence maps directly onto a *deontic* operator at the semantic interface.The deontic logic is the logic of Obligation and Permission, the operators being *O* (for Obligation) and P (for Permission).We will use the following descriptive formula to represent the deontic operator *O*:

(125) *Op, iff p denotes an* ***action*** *that is* ***obligatory*** *according to certain* ***norms*** *in an* ***ideal*** *world.* [28]

We will call the deontic logic *action-oriented* logic, opposed to the above *truth-oriented* alethic, epistemic and doxastic logic.[29] Note that the speaker always talks TO the addressee and the action always is prospective. Not until the clause arrives at the illocutionary interface and maps onto a proper speech act type (= Searle's *directive*), does the proposition get its *extension*.

---

[28] Note that *action* here means something like 'episode' or 'occurrence', i.e. something that may happen, and must not get mixed up with *action* like *activity*.

[29] A somewhat confusing attempt to support the idea that the imperative clause has a truth value and consequently a subject is found in Kaufmann (2012: 86f.). She tries to prove it in the following way: "What I will defend is the truth-conditional equivalence of one reading of (35a) with (35b):

(35) a. You should open the door!
b. Open the door!

To obtain the equivalence, I propose that the imperatives contain a modal operator that is interpreted as human necessity/…/ OP".

We do not quite understand, why it is necessary to obtain an equivalence between the clauses and cannot quite see how there can be created one by just inventing a modal operator with the meaning necessary. Kaufmann herself is aware of her own theory being complicated: "However, at first glance, it suffers a huge draw-back in that it assigns truth-values to imperatives."

Note, once more that the *alethic* operators, and particulary the contingent operator, normally take bare clauses in their scope, where the operator is not lexically expressed. Exactly the same holds for the *imperative* clause. It always maps directly onto the *deontic* operator and can of course never be truth-oriented. This will prove very important when discussing the speech act types it may map onto.

Now, if the proposition denotes an action that is obligatory according to a certain norm, it is, of course, of interest to look at what verbs are incompatible with imperative clauses, because of their meaning. Han (1999: 4) regards the following examples, which contain individual-level stative predicates, as anomalous:

(126) [= (9)] a. *Know the answer.
b. *Be intelligent.
c. *Be tall."

She compares them with what she calls *deontic modal sentences* (finite clauses with a modal verb), which are quite normal:

(127) [= (13)] My blind date must be tall.

Interesting, therefore, are the following clauses:

(128) Hab einen schönen Tag!
have a nice day
(129) Werde bald gesund!
be soon well

They are totally grammatical, although the verbs are not activity predicates. Sometimes these clauses are called *bouletic*, meaning that the speaker expresses a *wish*. We will return to this in section 6, when discussing the illocutionary system, but will here just underline that the speaker's wish is always involved when he utters an imperative clause. We will therefore regard the above clauses as deontic, which also includes bouletic.

Still there are verbs that cannot project an imperative clause at all. In German such a verb is *grauen* 'dread'. This verb is an impersonal verb, i.e. a verb that does not project an external theta-role and therefore cannot occur in an imperative clause. Cf. (131), where Swedish *gruva* is a reflexive verb and therefore may occur in an imperative clause, although the clause sounds a little strange, probably because the verb is not agentive. However, the clause is not ungrammatical.

(130) a. Mir graut vor ihm.
me dread *prep*. him
b. *Grau dir nicht vor ihm!f
dread you not for him
(131) a. Jag gruvar mig inte för honom.
I do me not dread for him
b. ?Gruva dig inte för honom!
dread you not for him

We mentioned above that the proposition of the imperative clause seldom allows an adverbial qualification. This expectation comes more or less true. Only lexical items that fit into the deontic meaning of the clause are allowed.

(132) Lüg mich **vielleicht/*wahrscheinlich* nie wieder an.
Lie to me *perhaps/probably* never again
(133) **Notwendigerweise*, lüg mich nie wieder an!
necessarily, lie me never again to
(134) Lüg mich *lieber* nie wieder an!
lie me *rather* never again to
(135) Lüg mich *bitte* nie wieder an!
lie me *please* never again to

Recall that the imperative clause never can be performative. Cf. (132) with (136):

(136) Ich bitte dich (hiermit), dass du mich nie wieder anlügst.
I beg you (hereby) that you me never again lie to

This clause is not an imperative clause but still expresses a request like (132). We will return to its speech act type in section 6.

5.4 The infinitive clause

We have arrived at the *independent infinitive clause* (see Reis, 2003, and Gärtner 2013, 202ff. for thorough analyses of German independent infinitive clauses). There are two subtypes of independent infinitive clauses, the *bare infinitive clause* and the *infinitive wh-clause*. What characterizes both and distinguishes them from the above finite and imperative clauses is their syntactic structure (see section 3.3).

5.4.1 The bare infinitive clause type

The bare infinitive clause consists of only a default vP that in principle is identical with the vP of the other two clause types, but is just *infinitive*, not *finite* and not *imperative*. Since it is structurally underspecified it is difficult to grasp. We think that the problems materializing themselves in linguistic literature, depend on this underspecification, i.e. the fact that the bare infinitive clause does not have anything in its structure that explains its specific clause type semantics and hence its illocutionary function, since it consists of a default *infinitive* vP. In our framework the verb however projects a CP (see also below), because the infinitive clause is an independent clause type, see section 3.3.1. The brackets round the DP in the SpecvP signal that the clause normally does not have a visible external argument. Only in certain contexts a 3rd person DP may occur, quantifying over a set of addressees (see Reis, 2003: 185). Note that the independent infinitive clause normally does not allow the infinitive marker *zu*, which is more or less obligatory in subordinated infinitive clauses.This fact emphazises that it is an independent clause type.

The syntactic consequence of the clause being ***in****finitive* prevents it, as expected, from expressing what traditionally are called interrogative *yes/no*-questions and declarative V2- and V1-clauses (cf. Reis, 2003:161 and fn.7), these being finite. In our framework, finiteness triggers the mapping onto the contingent operator, whereas non-finite clauses, like the imperative and infinitive clause, cannot map onto this operator as a consequence of their not allowing T. This does not prevent the infinitive clause from mapping *directly* onto another operator, if it can find one that accepts it.

In this section we try to understand its semantics and look for an operator that may accept the infinitive clause. We discuss its illocutionary function in section 6. Cf. the following examples, where we compare the infinitive clauses with corresponding imperative clauses and with clauses with a modal verb:

(137) a. Die Schuhe nicht vergessen!
the shoes not forget
b. Vergiss die Schuhe nicht!
c. Du darfst die Schuhe nicht vergessen.

(138) a. Die Finger weglassen!
the fingers keep away
b. Lass die Finger weg!
c. Du sollst die Finger weglassen.

(139) a. Die Butter schmelzen lassen!
the butter melt let
b. Lass die Butter schmelzen!
c. Du musst die Butter schmelzen lassen.

(140) a. Den Rasen nicht betreten!
the lawn not walk onto
b. Betrete nicht den Rasen!
c. Du darfst den Rasen nicht betreten.

(141) a. Radfahrer rechts abbiegen! (Reis, 2003: 159)
cyclists to the right turn
b. Biegt rechts ab, Radfahrer!
c. Radfahrer sollen/müssen rechts abbiegen.

The question arises, of course, from where the deontic meaning of the infinitive clause comes. Reis (2003: 183f.) mentions that there exists a correlation between the invariably modal meaning of these bare infinitive clauses and their lack of finiteness. This, however, is according to her nothing else "than restating the facts".

Since they are *independent non-finite* clauses and hence cannot map onto the contingent operator, we assume that they map *directly* onto a *deontic* operator, like the imperative clause. The paraphrases above indicate this. We will return to them in section 6, when discussing and describing their illocutionary function.

Until now we have only discussed *addressee*-oriented infinitive clauses, where the addressee is expected to act. However, the underspecification of the bare infinitive clause will not prevent it from being also *speaker-oriented* (though not both at the same time, see Reis,

2003:195, who we think was first to notice this). In contrast, the imperative clause can never be speaker-oriented, due to the inflection of the verbal head for 2nd person.

Let us finally look at the following clauses:

(142) a. Noch einmal Venedig sehen! (Reis, 2003: 188)
once more Venice see
b. Ich möchte/will nochmals Venedig sehen/hoffe nochmals Venedig zu sehen.
I will once more Venice see/hope once more Venice part. see

(143) a. Noch einmal zwanzig sein! (Reis: 162)
once more twenty be
b. Ich möchte noch einmal zwanzig sein.
I will once more twenty be

The clauses (142a) and (143a) obviously, as the paraphrases (142b) and (143b) with *möchten, wollen* and *hoffen* demonstrate, may be interpreted as speaker-oriented, telling us what the speaker himself *wants* to do or even to be. They get a *bouletic* interpretation, which we regard as a subcategory of the deontic meaning. Note that the paraphrases (142b)-(143b) express an attitude and are propositional attitude expressions (cf. below 6.4.3). Compare also (142a)-(143a) to the above imperative clauses (128)-(129), that also are bouletic, but addressee-oriented. We will return to (142) and (143) in section 6 and there dicsuss their illocutionary speech act type.

5.4.2 The infinitive *wh*-clause type

For the infinitive *wh*-clause we assumed (as in the case of the bare infinitive clause, see 3.3.2), that the infinitive verb projects a CP, to which the *wh*-phrase has to move from its position in the default vP, as in normal *wh*-clauses. Note, however, that the *wh*-phrase is never the external argument. Cf. Reis (2003: 191), where we find a thorough discussion of this specific type of interrogative clause. She calls them *uncertainty* questions and emphazises that they are not information-seeking in contrast to finite *wh*-clauses. Cf. the following clauses, all taken from Reis (2003: 155):

(144) a. Wohin sich/mich denn wenden?
where part. you turn
b. Wohin soll ich mich wenden?
where shall I me turn

(145) a. Wem noch trauen?
on whom part. rely
b. Wem soll/darf man noch trauen?
on whom have to/is allowed to part. rely

(146) a. Wo eine Bleibe finden?
where find a place
b. Wo kann ich eine Bleibe finden?
where can I a place find

The clauses are obviously interrogative clauses, which is confirmed by *denn*, a particle which otherwise only occurs in standard interrogative clauses. Like the bare infinitive clause, the *wh*-infinitive clause may be paraphrased by clauses with deontic verbs like *sollen, können, müssen,* more seldom *dürfen.* Interestingly, this type of clause is not really productive in Swedish. We think there is a conflict between the *wh*-phrase, that normally is in the scope of the contingent operator, and the vP, mapping onto a deontic operator. This conflict has to be resolved in some way or other in order to allow the clause to be grammatical. This may be the reason that they are not productive in Swedish.

Let us finally look at one other type of infinitive *wh*-clause that is mostly addressee-oriented. Reis (2003: 177) refrains from analyzing them, because they seem to be quite another type than all the other *wh*-clauses. Interesting is of course that this type is the only really productive type in Swedish (and, as it seems, in English), see section 3.3.2:

(147) a. Varför inte läsa boken?
why not read the book
b. Varför skulle jag/du inte läsa boken
why should I/you not read the book

(148) a. Varför tvätta händerna nu igen?
why wash the hands now again
b. Varför behöver jag tvätta händerna igen?

(149) a. Varför resa till Venedig igen?
why go to Venice again
b. Varför skulle jag/du resa till Venedig igen?

(150) a. Warum darüber traurig sein? (Reis, 2003: 176)
why about that sorry be
b. Warum solltest du denn darüber traurig sein?
why should you part. over that sorry be

The paraphrases with modal verbs indicate that the clauses are deontic: the denoted action is related to some norm, which may be the norm of the speaker or some more generic norm. Most of them are only *addressee*-oriented. These clauses may allow an answer, at least when not meant rhetorically. But there is a rhetorical flavor to them. Note that their syntactic structure differs from the syntactic structure of the other infinitive *wh*-clauses in that the *wh*-phrase is not moving from a vP-internal position. It is directly inserted from the lexicon and projected on top of the vP, taking the whole vP in its scope. Hence, it is outside the deontic proposition, which is questioned as a whole. There is, therefore, no conflict between the contingent operator and the deontic vP that has to be resolved (cf. section 5.4.2). We think that this structure may be the reason that these clauses deviate from the other infinitive wh-clauses in being addressee-oriented per default. Their structure may also explain that they are productive in Swedish.

6 The Speech act system

6.1 Introduction

We have until now described the morpho-syntax and the semantics of three clause types, the *finite*, the *imperative* and the *infinitive* clause types. We will now turn to quite another module in the linguistic system, the *illocutionary system* or *speech act system.* Whereas morpho-syntax is the study of the structure of clauses and semantics is the study of the meaning of these clauses, constituting together the *grammatical* system, *the speech act system* is the study of *the act(s) the speaker performs, when uttering a clause*. The *speech act system* hence is the system within the overall *linguistic system,* defining the *illocutionary force* (the term was introduced by Austin, 1970, for the conventionally defined effect of a specific speech act, e.g. when a speaker utters an imperative clause with the intention to make the addressee do something).

Although our theoretical framework differs from the framework of BRRZ (1992), our analysis and conclusions with regard to the illocutionary system agree in more than one way with the analysis and description made in BRRZ. We will however only discuss the three clause types mentioned above, the *finite*, *imperative* and *infinitive* clause.[30] This means, as we already mentioned in 2.5, that we do not regard interrogative clauses as independent syntactic clause types, as is the standard assumption.[31] See also Sternefeld (2010: 283ff., 407 and 426ff.), who argues against the standard assumption of a specific empty syntactic interrogative operator. We argue with Sternefeld that *interrogativity* has to be explained in semantic terms with speech act consequences (see section 5). To these consequences we will return below.

It is important to notice that the difference between the grammatical system and the speech act system is a difference between the *structure* and *function* of clauses. Very often the semantic system and the speech act system are not kept strictly apart. In our modular approach, however, they are not only built up by different principles, units and rules but are also interacting, in other words, they are both *autonomous* and *interdependent*. The basic entity in this system is the *morpho-syntactic clause.* It will automatically head for the semantic interface in order to receive a clause type meaning. If it is not accepted by the semantic system it will crash, if it is accepted it will in turn head for the illocutionary interface. There it will map onto a proper speech act type. Sometimes it will find more than one. The addressee will hopefully interpret the speech act as the speaker intended. All this is

[30] Note that we are talking about *independent* clause types in our framework, i.e. *finite, imperative* and *infinitive* clause types, which are projections of a *finite*, *imperative* and *infinitive* head, and we do not discuss independent clauses, where the head is not finite, imperative or infinitive, e.g. is a participle. There are of course also independent clauses, some of them without a verb, some of them consisting of one word only. We will concentrate on the clause types analyzed in section 2-4. We will also once more emphazise that we do not treat different possible contexts, that the clause may occur in.

[31] Cf. the modular approach of BRRZ (1992: 51f.), where the interrogative sentence types are treated as clause types with a specific feature [+w], distinguishing them from the declarative sentence type with [-w], with the consequence that e.g. an interrogative V1-clause has an *Open*-operator that takes ∃e [e INST p) in its scope. This is not possible in our framework.

strictly *linguistic*, not pragmatic. Indirect speech acts therefore are not explained by this system. In order to interpret an utterance of a clause as indirect, we need another system, that tells us that the performed speech act is not intended to be interpreted *literally* but *indirectly,* i.e. a pragmatic system.

A speech act never has a truth value. Levinson (1983: 246f.) summarizes this in section 5.2. "*Thesis: speech acts are irreducible to matters of truth and falsity* in the following way: "Illocutionary force is an aspect of meaning …. that is quite irreducible to matters of truth and falsity. That is, illocutionary force constitutes an aspect of meaning that cannot be captured in a truth-conditional semantics. Rather, illocutionary acts are to be described in terms of felicity conditions, which are specifications for appropriate usage."

But what then exactly is a *speech act*? Let us begin with Austin, who may be said to be the first who really saw the difference between structure and function of clauses. He says (cit. from Levinson, 1983: 227) that "the total speech act in the total speech situation is the *only actual* phenomenon which, in the last resort, we are engaged in elucidating". We think this is important to understand. Up until the point where the clause maps onto a speech act, the clause exists only below the surface of speech, i.e. as a morpho-syntactic structure with a specific clause type semantics. When uttered, the clause surfaces, and becomes *speech* with the above mentioned properties. The difference between the structure and meaning of the clause type and its speech act function, hence, is like an ax with a shaft and a head, and what can be done with it. It is of no use when nobody swings it.

In "How to do things with words" (1962) Austin emphasized that there besides utterances having a truth value existed quite another type of utterance used to *do* things. Austin called these utterances *performatives* and contrasted them with what he called *constatives*. He talked about speech acts which in one way or other change the world, e.g. *baptizing*, *marrying etc*. These performative speech acts are based on conventional agreements, and they are, when performed by the right person in the right context, *felicitous* but do not have a truth value. Cf. the following example:

(151) Ich eröffne (hiermit) die Sitzung!
I open (hereby) the meeting

The speaker uses this speech act in order to open the meeting here and now. The result is that the meeting, from the moment the speaker utters the speech act, is opened (provided the speaker is authorized to open it) and the world is thereby changed. Searle called this speech act type *declaration*. What Austin failed to acknowledge was that there does not exist a contrast between constatives and performatives, as all speech acts have performative variants. Still Austin's identification of a performative speech act gave rise to the discussion of what exactly a performative speech act is. The following speech act is a performative speech act, too, but does not change the world:

(152) Ich verspreche (hiermit), dass ich morgen komme.
I promise (hereby) that I tomorrow come

The difference between (151) and (152) is obvious on more than one level. We see at once that (151) differs from (152) in that (151) consists of only one clause with only one proposition and one finite verb. This verb is performative and denotes at the same time the action of opening (by BRRZ, 1992: 63 called *verbum operandi*). (152) obviously consists of two clauses with two finite verbs and hence two propositions. The first clause is performative, the verb being a *verbum dicendi*, describing the *speech act.* The embedded clause denotes *the action* the speaker promises to carry out. Only (151) results in the world being changed, (152) describes a specific speech act.[32] We also see that in both cases the verb is *1st person present tense*, a formula that we will discuss at some length below. Cf. (152) to (153), where it is not present tense and the clause therefore is not performative:

(153) Ich versprach *hiermit, dass ich morgen komme.
I promised hereby that I tomorrow come

As expected, *hiermit* is only possible in (152). In accordance with these facts, we will, of course, not expect there to be a *performative speech act type*. We regard performativity as a tool (an IFID, see below), which the speech act system makes available and through which the speaker makes explicit the speech act he performs**.** All performative clauses are finite clauses. Sometimes, as in (151) above, performativity is a constitutive part of the speech act, but very often, as in (152), it is only used to make explicit, which speech act the speaker performs.

Searle (1969, 1979) tried to expand Austin's definitions to five different speech act types, the well-known list being (a) representatives (assertions), (b) directives, (c) commissives, (d) expressives and (e) declarations. They are all on the same level. This system has been critizised mostly because it lacks a theoretical consistency (see the very interesting criticism in Levinson, 1983: 240ff.). It is obvious, as we shall see below, that this taxonomy neither covers all speech act types nor differentiates between them in a theoretically satisfactory way. Still Searle's taxonomy, in combination with Austin's, clearly demonstrates the thesis above of Levinson (1983: 246f.).

6.2 The parameters of the speech act system

Let us first look at the basic parameters of the speech act system. Note once more that our framework is strictly linguistic,which means that we are just describing clause type structures and their meanings, as well as what can be *done* by uttering a specific clause with a certain syntactic structure and meaning, i.e. what speech act can be performed by it (which can be more than one). We will assume that the speech act system does not look outside into a wider

[32] Note that *change of the world* in (151) here means that by uttering the clause the speaker changes the actual world, i.e. opens the meeting. In (152) we just find a performative clause that describes the speech act the speaker performs when uttering the clause. The subordinated clause refers to an event he promises to carry out. The consequence of course also is that the *performative* clause with 1st *person, present tense* is not a speech act type itself, it only describes a speech act. In the marked case only, it may be interpreted as an *assertion* of a *promise*.

pragmatic frame. This means, as already mentioned, that we will not discuss indirect speech acts. The speech act parameters, which we propose, are well-known:

(a) **Speaker and Addressee.** The speech act is an (intentional) *act* with a specific *force,* performed by the *speaker,* mostly addressing an *addressee*. The speaker performs a speech act by uttering a finite or non-finite *clause*. *Speaker* and *addressee* are hence basic parameters, being the frame of the *speech act*. Sometimes speaker and addressee are part of the proposition of the clause.

(b) **Proposition.** The clause the speaker uses when performing a speech act will always contain a *proposition* with a matching *content*. The proposition is semantically in the scope of a *modal operator*. It is *truth-oriented* or *action-oriented.*

(c) **Force**. The illocutionary force of a speech act is the effect a speaker intends it to have.

(d) **Direction of fit.** A very important parameter is what Austin and Searle call *direction of fit*, see Searle (1979), and Searle & Vanderveken (1985). We think, thereby following Rehbock (1992a: 100ff.), that we only need *two directions of fit*: *Word to World* (= the words fit to an independent state of affairs in the actual world) or *World to Word* (= the actual world will have to change in order to fit the words).The two directions of fit will distinguish between two types of speech acts, the semantically *truth-oriented* and the semantically *action-oriented*.

(e) **IFIDs.** The propositions of the morpho-syntactic clauses will sometimes contain lexical expressions, which the speech act system recognizes as specific illocutionary entities that identify and indicate the actual speech act. These lexical expressions we call *illocutionary force indicating devices* (henceforth IFIDs) see Levinson (1983: 238).[33] We discussed some of them in section 5.2, where we distinguished between *bare* clauses (clauses where the operator the clause mapped onto was not expressed lexically) and clauses, where e.g. the *epistemic*, *doxastic* and *evaluative* operators were expressed lexically. These operators will be identified as IFIDs at the illocutionary interface. The formula *1st person present tense* (see the discussion of the performative clause above) is such an IFID, too, often occurring together with the particle *hiermit* ('hereby'). The illocutionary interface will always scan each clause to identify IFIDs. Not until this examination is fulfilled, does the system decide onto which speech act(s) the clause may map.

(f) **Speech acts are felicitous or infelicitous.** Levinson (1983: 236) emphazises, that Austin (1962) changed his definitions more and more and finally arrived at the conclusion "that all utterances, in addition to meaning whatever they mean, perform specific actions (or 'do things') through having specific *forces*". Actions cannot have a *truth value*. Hence all speech acts are either *felicitous* or *infelicitous*.

[33] Note that we do not discuss the influence of intonation and e.g. question tags in this section.

6.3 The speech act types

Although the imperative clause is in focus in our paper, we have to know what can be done with a *finite* clause, that per default is semantically *truth-oriented*, in order to understand what can be done with an *imperative* clause, that per default is semantically *action-oriented*. We will therefore first describe the truth-oriented speech acts, and then continue to the action-oriented speech acts, where we will find the imperative clause. The following table represents our speech act types:

Table 1: Speech act types

Word to World	
Constative speech acts	**Truth-oriented propositional attitude expressions**
Assertions (Searle's representatives) *Questions*	*epistemic, doxastic, evaluative* etc.
World to Word	
Constitutive speech acts	**Action-oriented propositional attitude expressions**
Declarations and *Expressives* *Interactionals* (Searle's *Directives, Commissives* and some more)	*wish, hope, expectation etc.*

The two directions of fit, *Word to World* and *World to Word* are the basic watershed dividing two main groups of speech act types, the constative speech acts and the corresponding propositional attitude expressions, on one hand, and the constitutive speech acts and the corresponding propositional attitude expressions, on the other. Following Rehbock (1992: 96ff. and 102) we deviate from Searle in assuming only these two directions of fit (cf. Searle, 1979, and Searle & Vanderveken 1985: 52ff., 92ff.).

This *vertical* contrast between the two directions of fit is accompanied by a *horizontal* contrast between the constative and constitutive speech act types, on one hand, and the truth-oriented and action-oriented propositional attitude expressions, on the other. The table hence reproduces two dimensions of four different basic speech act types, each type having a vertical and horizontal relation, respectively.

Austin and Searle did not discuss the *propositional attitude expressions* as speech act types. This speech act type, which in Rosengren (1984, 1985) and BRRZ (1992) is called *Einstellungsbekundung* (attitude expression), is a speech act type that explicitly expresses the *speaker's attitude* to a proposition, see also Rehbock, 1992a: 127ff. They are truth-oriented and action-oriented, respectively. They hence correspond to the constative and constitutive speech act types, with the directions of fit, *Word to World* ('epistemic, doxastic evaluative' etc.), and *World to Word* ('wish, hope, expectation' etc.).

In the following section we first describe and discuss the speech acts with a direction of fit *Word to World*, i.e. the assertions and the corresponding propositional attitude expressions. In section 6.4 we describe and discuss the speech acts with a direction of fit *World to Word,* the declarations, expressives and interactionals, on one hand, and the corresponding propositional attitude expressions, on the other.

6.3 Word to world

The clauses realizing these speech acts are always *finite*. Note that there are finite clauses realizing other speech act types as well (see below). Hence, there is no one-to-one relation between the direction of fit *Word to World* and *finite clauses*.

6.3.1 Constative speech acts: Assertions

Levinson (1983: 242) emphasizes that nearly all languages have basic clause types, which seem to be universal and may perform certain speech acts. This requires an explanation. In our framework a *bare finite* clause (a finite clause without IFIDs), by default maps *directly* onto an *alethic (*a *contingent)* operator at the semantic interface. The operator takes the proposition in its scope, thereby defining its clause type meaning. See (154):

(154) Peter hat seine Mutter gestern besucht.
Peter has his mother yesterday visited

With its clause type meaning defined, the bare finite clause heads for the illocutionary interface, where it per default maps onto an *assertion, referring to an event in the actual world* (its *extension*). The addressee may answer 'This is not true'. Notice that in this case speaker and addressee are not represented within the proposition. The event is independent of them. Note also, once more, that the clause does not have any IFIDs.

Since all non-performative speech act types may have performative variants, we expect that the *assertion* also has one or more performative variants. This expectation comes true. See the following examples:

(155) Ich behaupte (hiermit)/stelle (hiermit) fest, dass Peter gestern seine Mutter besucht hat.
I claim/state (hereby) that Peter yesterday his mother visited has

The clauses consist of two clauses, the matrix and the subordinated *dass*-clause. The matrix has the structure *1st person present tense*, made available by the speech act system as an IFID (see above, 6.2 e). By uttering (155) the speaker describes his speech act explicitly by using *verba dicendi*. The speech act system will recognize the IFID and interpret the clause as performative, in this case as a *variant of an assertion*. Bare finite clauses with all other persons and tenses (e.g. (154) above) will per default result in standard assertions. The same holds in the marked case, when the speaker asserts the *whole* proposition of (155), including the performative matrix (see Rehbock, 1992a: 150ff.), but in this case the clause illocutionarily is an assertion of the speakers's claim that p.

Note, that by explicitly describing what speech act is performed here and now, using a verbum dicendi, the performative speech act will always be *constitutive*. The performative clause, however, is not a speech act type itself. It just functions as an IFID describing what kind of speech act the utterance is. Rehbock (1992a: 152ff.) argues that the proposition in (155) is asserted. Though we agree with him in principle, we argue that the whole clause (155) is to be regarded as a variant of an assertion. But there is a difference between uttering the bare finite clause (154) and the performative variant (155), namely that the performative variant, being performative, directly relates to the *speaker*. The speaker explicitly claims that the proposition refers to an event in the actual world.

The examples (154) and (155), hence, clearly demonstrate the principal difference betweeen a bare finite clause, that *directly* maps onto the contingent operator and from there onto an assertion, on one hand, and a performative variant of this speech act, where the *speaker* claims/states that such an event exists in the actual world. Both are truth-oriented assertions.

Before leaving the assertion and its variants, we will just once more mention another constative speech act:

(156) Peter kommt vielleicht morgen.
Peter comes perhaps tomorrow

As already argued in section 5.2, this proposition is modalized by a *non-truth functional operator*, the diamond, ◊. The proposition refers to an event that *may* happen tomorrow. This proposition, including *vielleicht*, will at the semantic interface map onto the contingent operator and from there head for the illocutionary interface and map onto an assertion. For further discussion of these and other similar operators see the detailed analysis in BRRZ (1992: 66ff.) within a theoretical framework similar to ours.

6.3.2 Constative speech acts: Questions

Questions have always been a problem for speech act theories. As BRRZ (1992: 52) argue there are many reasons why questions cannot be directives as Searle (1969) and other linguists sometimes have proposed. BRRZ categorize them as subtypes of *Darstellungshandlungen* together with *assertions*. In our framework they are more complex. Since they obviously express questions and demand answers, there must be something more that distinguishes them from assertions. Cf. the following examples (157-159):

(157) Peter kommt morgen.
Peter comes tomorow

(158) Kommt Peter morgen?
comes Peter tomorrow
Answer: yes/no

(159) *Wer* kommt morgen?
who comes tomorrow
Answer: Peter.

(157) is per default interpreted as an assertion. Syntactically it is a V2-clause, the default finite clause type in the Germanic languages studied here. (158) is a finite V1-clause, which, when uttered, by default will be interpreted as expressing what is called a *yes/no* question, requiring an answer. Note that a finite V1-clause may also be interpreted as an assertion. See section 5, fn. 5, and (160):

(160) Kam ein Mann zur Tür herein.
came a man through the door in

Hence, the position of the verb is not what makes (158) a question.

The finite *wh*-clause in (159) is a V2-clause, in our languages with a *wh*-phrase in SpecCP, moved from its basic position (see section 2.5 and 3.1.2), representing a gap in the proposition. It is normally called a *wh-question*. The answer is a DP that may close the gap. So (158-159) give rise to answers, which (157) and (160) do not.

In section 5.2 we argued that interrogative clauses are in the scope of two operators that denote two types of semantic *openness* (see Rehbock, 1992b: 176ff.).The proposition in the *yes/no* question is semantically *open* with regard to its *truth value*. The proposition of the *wh*-clause instead has a gap in its proposition, that has to be closed by a proper phrase out of a set of possible answers. Following Rehbock, we assume two different *unary truth functional open-operators,* ***Ω*** and ***ω*.** The clauses with their operators map onto the contingent operator. The speech act system, when scanning these clauses, will identify these open-operators as well as the contingent operator. It will interpret the combination of the contingent operator and the two open-operators as two different types of *questions,* which demand two types of answers. The answers in turn will refer to an event in the actual world. See also BRRZ (1992: 52), where we find much the same argumention.

Below, 6.4.2 (187)-(188), we shall see that questions may also be used in interactional speech acts.

6.3.3 Truth-oriented propositional attitude expressions

Truth-oriented propositional attitude expressions express the speaker's attitude to the truth of the proposition. Rosengren (1984, 1985), BRRZ (1992: 56ff.), and Rehbock (1992a: 113ff.) argue that they are a specific speech act type, see section 5.2 and 6.3:

(161) Ich weiss/glaube (*hiermit), dass Peter gestern seine Prüfung bestanden hat. *epistemic/ doxastic*
I know/believe (hereby) that Peter yesterday his exam passed has
(162) Ich bedaure (*hiermit), dass Peter gestern verreist ist. *evaluative*
I deplore (hereby) that Peter yesterday went away has

We discussed their semantics in section 5.2 (113)-(116) above. They have the same matrix with the IFID *1st person, present tense* as the performative clause in (155), but they are not variants of an assertion. They express directly a truth-oriented operator, e.g. an *epistemic*, a *doxastic* or an *evaluative* operator. Note that they are not performative and therefore do not

allow *hiermit.* Hence, although the matrix is the same in (155) and in (161)-(162), i.e. *1st person, present tense,* they differ from one another in that the performative clause in (155) only describes the speech act it maps onto, i. an *assertion*, whereas the matrices in (161) and (162) are part of the proposition and mediate important information about the speaker's attitudes. These latter clauses map directly onto a *propositional attitude expression*. This difference becomes evident, when we look at the verbs in the matrix of (155) and the matrices of (161) and (162). In (155) the verbs are *verba dicendi* and describe the speech act, in (161) and (162) the verbs denote an *epistemic*, a *doxastic* and an *evaluative* operator. This difference between a performative variant of an assertion and a propositional attitude expression is therefore very substantial.

The obvious question is how the speech act system is able to distinguish between the two different speech act types in (155) and (161)-(162), as the syntactic structure of the matrix clause is identical. The answer is that the speech act system sees the same as we see, namely that the performative matrix in (155) describes a speech act with a verbum dicendi, whereas the verb in the matrix of the attitude expression denotes a semantic operator, which may be epistemic, doxastic or evaluative.

In section 5.2 we also discuss the semantics of modal verbs, see (117), which seem to be ambigue, repeated here as (163-165).

(163) Du musst/kannst deinen Freund gerettet haben.
you must/may your friend saved have
Paraphrase: For all we know/believe, you have saved your friend)

(164) Du musst/kannst deinen Freund retten.
you have to/can your friend save
Paraphrase:You have to/are able to save your friend)

(165) Peter muss morgen wieder zu Hause sein.
Paraphrase 1: For all we know, Peter is back home again to morrow
Paraphrase 2: Peter has to be back again to morrow.

We argued that (163) and (164) differ as to the scope of the modal verbs. The proposition in (163) is semantically in the scope of a *non-truth-functional* operator. The modal verb relates to the *speaker* and the clause therefore will be interpreted as an *epistemic propositional attitude expression*. The proposition in (164) is in the scope of the contingent operator, the modal verb relating to the *subject.* The clause therefore maps onto an *assertion* in the speech act system. Hence, we think that the different meanings between (163) and (164) are a matter of *different scope* of the modal verbs, and we conclude that the speech act difference between them, resulting in a *propositional attitude expression* in (163) and an *assertion* of a modalized clause in (164), respectively, is solely due to the different semantic scope of the same modal verbs.

6.4 World to Word

The speech acts with the direction of fit *World to Word*, where we find the imperative clause type, differ from the speech acts with the direction of fit *Word to World* by being either

constitutive speech acts or *propositional attitude expressions.* The common denominator of the *constitutive* speech acts is that a speaker by *uttering* them, change the world with a result that did not exist before uttering the speech act. (See Rehbock,1992a:148, who suggests this term instead of Austin's *performative*). The change may be *simultaneous* with the speech act or *prospective,* i.e. may become a later result of the speech act. This last type is expressed per default by the *imperative* clause type. The attitude expressions with this direction of fit differ from the above truth-oriented propositional attitude expressions by being *action-oriented*, expressing *wish, hope, expectation etc,* see below.

6.4.1 Constitutive speech acts: Declarations and Expressives

We will begin by briefly describing what Searle called *declarations* and *expressives*. They differ from *assertions* as well as from *interactionals*, where we find the *imperative* clause. In Searle's speech act system declarations and expressives are two different speech act types on the same level as e.g. assertions. We will, however, treat them together as a specific kind of speech act type, based on the observation that these two speech acts have very much in common. By uttering the clause the speaker changes the world here and now. Important is that they are always *performative*, which may be tested by inserting *hiermit*. We also find the same formula *1st person, present tense.* What distinguishes these clauses from standard performative clauses, however, is a.o. that both declarations and expressives are clause types of their own and have a matrix with a verb that at the same time is performative and denotes the action, see (166-168). (See also BRRZ, 1992: 63, and below.) Naturally, it is also possible to interpret them as an assertion of the speech act (this being constative), but this is the marked case.

In order for a *declaration* to be felicitous, the speaker, when uttering the clause, must be conventionally authorized to change the world: the child from not having a name to having a name, the meeting from not existing to being opened.

(166) Ich taufe dich (hiermit) auf den Namen Felix. Du heisst jetzt Felix. (The result)
I baptize you (hereby) on the name Felix. Your name is now Felix.
(167) Ich eröffne (hiermit) die Sitzung. Die Sitzung ist eröffnet. (The result)
I open (hereby) the meeting. The meeting is opened.
(168) Ich schenke dir hiermit das Buch. Das Buch gehört jetzt dir. (The result)
I give you hereby the book. The book belongs now to you.

We will summarize how BRRZ put it (1992: 63): the proposition of the *declaration* describes a non-linguistic state of affairs, that comes about exactly by referring to this state of affairs. Because of this type of reference we find a large number of verbs, which are semantically unrelated, namely verbs denoting state of affairs, which may be brought about by uttering such verbs. BRRZ call these verbs *verba operandi*.

Searle's *expressives* are also conventional and the verbs are well-known. They resemble declarations in that they change the world, but the change is located in the speech act itself (cf. BRRZ (1992), i.e. by uttering the clause the speaker performs a conventional *speech act* here and now, not a state of affairs in the actual world. Hence, the speaker *constitutes* a

speech act directed to the adressee, like *thanking*, *congratulating* etc. The verbs are *verba dicendi* (see BRRZ 1992: 63):

(169) Ich danke dir (hiermit) für deine Hilfe/dass du mir geholfen hast.
I thank you (hereby) for your help/that you me helped have
(170) Ich heisse dich (hiermit) herzlich willkommen.
I call you (hereby) heartly welcome
(171) Ich gratuliere dir (hiermit) zu deinem Erfolg.
I congratulate you (hereby) to your success
(172) Ich will mich (hiermit) für mein Benehmen dir gegenüber entschuldigen.
I will (hereby) for my behavior towards you apologize

As expected, the two speech act types, the declarations and the expressives, cannot be contradicted, since they are constitutive.

Note that the verbs are not expressing an attitude of the speaker. The speaker may feel quite differently compared with what he expresses in his speech act and the speech act is still felicitous.The expressives must not be mixed up with what has been called propositional attitude expressions.

We will once more have to ask, how the illocutionary system recognizes these two types of speech acts. We will assume that the system recognizes them as we do, by looking at the verbs and combine them with the IFID *1st person, present tense*.

6.4.2 Constitutive Speech acts: Interactionals

Up until this point we have described *constative* and *constitutive* speech acts, *Assertions, Questions, Declarations* and *Expressives* in the left column, and *Propositional attitude expressions in the right column* (see table 1 above), all realized by finite clauses. We have not found any speech act that may be realized by an imperative or infinitive clause.

The following group of speech acts, which is the location for the imperative clause type, differs totally from the above described speech acts, since both speaker and addressee interact in the speech act. Some of them are performed by an *imperative* clause but not all. We find also finite as well as infinitive clauses. Note that all these interactional speech acts are *constitutive* (see below).

BRRZ (1992: 50ff.) call these speech acts *Regulations*. They comprise Searle's Directives and Commissives but also some other speech acts. Instead of *Regulations*, we call them *Interactionals,* since this term better captures the fact that speaker and addressee normally interact. Rosengren (1984, 1985) and BRRZ (1992: 52f.) propose the following parameters:

Speaker/Addressee *wishes*
Speaker/Addressee *decides*
Speaker/Addressee *acts*.

A cross classification results in eight illocutionary types, where only the following six are *interactional*, meaning that the speaker as well as the addressee are represented. We will concentrate on these speech act types:

Table 2. Interactional subtypes

Initiative	*Reactive*
Order	*Offer*
S wishes	A wishes
S decides	A decides
A acts	S acts
Request	*Promise*
S wishes	A wishes
A decides	S decides
A acts	S acts
Request of permission	*Permission*
S wishes	A wishes
A decides	S decides
S acts	A acts

These speech act types differ from constitutive declarations and expressives by being *prospective.* Instead of simultaneously creating a new event, the event may come about by the speaker or addressee as the result of the speech act.

The column labels we use are the labels proposed in BRRZ except *Offer*, which we think could be the label of the first constellation in the second column. We will, however, not discuss the labels, since they just are meant as *labels* of different constellations of parameters and have no position of their own in the system. Instead we look particularly at each constellation and ask which of them may be expressed by an imperative clause and which may be expressed by a finite (including interrogative) or infinitive clause. Note that the two columns differ with regard to the constellations, the speech acts in the left column being *initiative* (out of the blue) and in the right column being *reactive*, meaning that the speaker reacts on a possible *wish* of the addressee. Let us first look at the imperative clause.

The imperative clause type

The *imperative clause* is, as the finite and infinitive clause, an independent clause type. It differs, however, syntactically from the finite clause by being *non-finite* and lacking TP, hence having neither tense nor subject. These properties it shares with the infinitive clause. Its head is an inflected verb for *2nd person*. Thereby it differs from the finite clause with its extensive inflection for *person, number, mode* and *tense*, and from the infinitive clause, that is just *infinitive*. The imperative clause may, therefore, seem to be a clause type between the finite and infinitive clause, without specific properties of its own. This is, however, misleading, as we have tried to prove. The imperative clause is an autonomous clause on the

same level as the finite clause, with its own properties, based on the head of the clause being 2nd person,sing./plur. Besides being independent and on the same level as the finite and infinitive clause, it is always a *bare* clause (cf. the finite clause, that may be bare but also occurs with lexically expressed operators, IFIDs). It maps directly onto an *action-oriented (deontic*) operator, and, as we shall see, will directly map onto an *interactional* speech act type at the illocutionary interface, thereby both semantically and illocutionarily differing totally from the finite clause.

Before discussing the different speech act types, we will, however, return once more to Levinson (1983: 244), who emphazises that clause types should play an important role in speech act theory, since they are basic and found in nearly all languages. Levinson sees an association between *performative* and *clause type*. "We may also treat the three basic sentence types in English, namely the imperative, the interrogative and the declarative, as containing grammaticalized conventional indicators of illocutionary force, namely those associated respectively with the explicit performative prefixes (or phrases) *I request you to, I ask you whether, I state to you that.* ….We may say that sentences in the imperative, interrogative or declarative….are implicit performatives**.**"

We object against this association between *performative* and *implicit* and argue that none of the clause types, neither those Levinson calls sentence types nor the clause types we propose in our framework, the *finite, imperative* and *infinitive* clause types, may be implicit performatives.We think *implicit performative* is a contradiction in adiecto. Since performative clauses normally tell us what kind of speech act is performed in an explicit way, they cannot be implicit. And since all three clause types by definition, without any help of what Levinson calls performative prefixes, map directly onto a semantic operator that correponds to their finite, imperative and infinitive morpho**-**syntactic structure, respectively, they cannot be performative. They are *bare* clause types, normally lacking IFIDs (note however *bitte* ('please') in (135), (179), (183), meaning 'request'). Consequently, they do not allow *hiermit* as the following finite and imperative clauses demonstrate:

(173) Besuch *hiermit Mutter! *Imperative*
Visit *hereby mother
(174) Du besuchst *hiermit Mutter. *Finite*
You visit *hereby mother

Whereas the bare finite clause in (174) is *constative*, the imperative clause in (173) is *constitutive*. An imperative clause can never be used to talk ABOUT an event, i.e. be constative. This is morphologically manifested already in the inflection of the imperative verb for 2nd person, which determines not only its clause type semantics (a *deontic* clause type meaning) but also determines its speech act potential. It expresses a *constitutive* speech act, e.g. an *order, request* or *permission,* where the speaker talks TO the addressee (see Platzack & Rosengren, 1998) in order to make him carry out a specific action. As we shall see below, it may, however, have performative variants.

This is in accordance with what Han (1999: 2ff.) concludes (see section 5.3), who, however, does not strictly distinguish between semantics and speech act system. She argues that *imperative* clauses differ from what she calls *deontic modal sentences* by being directly

deontic (in our framework a semantic property), whereas what she calls *deontic modal clauses* are assertions (in our framework an illocutionary property).

We agree in principle with Han, but will briefly return to the discussion of (163)-(165). In (164) the modal verbs have a *narrow* scope (being *subject-oriented)*. They therefore cannot be *non-truth functional* operators as they are in (163). They modalize the rest of the proposition and are themselves in the scope of the contingent operator. The result is exactly what Han claims, namely that *deontic modal sentences* are *assertions*.

We, therefore, claim that the finite clauses in (164), because of the narrow scope of the modal verb never can map onto a deontic operator *directly*, and therefore may never express an *order, request* or *permission*, which is exactly what the imperative clause always does. Neither are they variants of the imperative clause. They are assertions *of a modalized* proposition, and as such talk ABOUT an event in the actual word, namely that the subject *has to/may* help his friend.

For real variants of imperative clauses, see (175)-(177):

(175) Ich verlange (hiermit) von dir, dass du ihm hilfst.
I demand (hereby) of you that you him help
(176) Ich bitte dich (hiermit), mich morgen zu besuchen.
I ask you (hereby) me tomorrow to visit
(177) Ich erlaube dir (hiermit), baden zu gehen.
I permit you (hereby) bathe to go

These performative clauses are of course finite and constitutive, as are all performative clauses. They allow, as expected, *hiermit*. What makes them variants of imperative clauses, is that the performative matrix expresses the speech act explicitly, which the imperative clause never does. Note, however, that the performative verbs in this case express *an order, a request* and *a permission*, respectively, whereas the performative verbs in (155) express *a claim* or *a statement*.)

This demonstrates that the performative variants in (155) and in (175)-(177) relate to the speaker and thereby distinguish explicitly between different subtypes of illocutions, in (155) *statement* and *claim* and in (175)-(177) *order*, *request* and *permission*. Note that the performative matrix is to be regarded as an IFID. Note also that these clauses in the *marked* case may be assertions of the whole proposition, including the performative IFID. Quite naturally, they are then assertions of the whole proposition and not variants of the imperative clause.

We have already noticed that the imperative clause may perform three of the six constellations *order, request* and *permission.* Two of them are SSA and SAA, where the speaker wishes and decides in the first one and the addressee decides and acts in the second one. These constellations may be regarded as the *default* constellations of the imperative clause. The third constellation is ASA in the second column, i.e. a permission, where the addressee wishes and acts but the speaker decides, which we regard as a reactive speech act to SAS in the left column. Cf. the following clauses, where (178) and (179) perform the first two initiative constellations in the left column, and (180) is the reactive constellation in the right column.

(178) Hilf ihm! *Order*
Help him
(179) Besuch mich doch (bitte) morgen! *Request*
Visit me part (please) to morrow
(180) Geh baden, wenn du willst! *Permission*
Go bathing if you want

What keeps these three constellations together? The answer is their morpho-syntactic structure (2nd person, sing./plur.) and their clause type meaning, corresponding directly to the meaning of the deontic operator, which the imperative clause maps onto at the semantic interface, see the deontic formula in section 5, (125). The imperative clause hence is at the same time very *simple* and *univocal* as well as very *restricted* as to its area of application. The finite clause neither has the simplicity and unambiguity nor the restrictions.

Note also that we sometimes only need one imperative verb to build an imperative clause as in (181). We also find clauses without any verb at all, like (182).These are of course not imperative clauses, since they have no imperative verb, but they are still clauses that have the same illocutionary force as (182), being an *order*:

(181) Geh!/Kom!/Verschwinde!
Go/come/disappear/
(182) Raus!
Out

The imperative clause also allows a few IFIDs e.g. the particle *bitte (*'please'), that emphazises that the speech act is to be interpreted as a request and not as an order, and e.g. *gefälligst* ('will you'), meaning that the addressee has to do what the speaker wants.

(183) Hol doch bitte/gefälligst die Zeitung!
Get *part* please/will you the newspaper

Summarizing: We conclude that the imperative clause will never be a constative speech act, it is always *constitutive.* It is caracterized by being an independent *bare* basic clause type, similar to the finite clause. It differs however a.o. from the finite constative clause (assertion) and the other finite *constitutive clauses* (declaration and expressive).What characterizes it particularly is the very close relation between its morpho-syntactic structure, its deontic meaning and what can be done by uttering it. Note, however, that the imperative clause has to pay for this slimness and unambiguity of clause and clause type meaning by being restricted to a few (but very important) speech act constellations. It can only be used to express *Order, Request* and *Permission*.

The finite clause type

We have argued that the imperative clause because of its structure and clause type meaning may express three of the speech act constellations in the above table 2. But there are three more constellations that the imperative clause cannot express. One of them is the *promise*,

which Searle called *commissive*. He assumes that a promise commits the speaker to carry out an action and regards it as a specific speech act type on the same level as the directive. In the above table 2 the promise has the constellation ASS, the addressee wishes, the speaker decides and acts. It is a *reactive* speech act type in the sense that the speaker promises an act he believes the addressee wants him to carry out. Its default expression is a *performative* clause with the verb *versprechen* ('promise', having many synonyms) in (185). We may regard (185) as the answer to a *Request* expressed by an imperative (184):

(184) Besuch mich doch morgen!
Visit me *part.* tomorrow
(185) Ich verspreche dir, dass ich dich morgen besuche.
I promise you that I you tomorrow visit

Hence it is reverse to the request, where the speaker wishes. So we will not expect the imperative clause to realize this constellation. Cf. however, the following clauses (186), taken from BRRZ (1992: 62, see also Rehbock, 1992a: 155ff.), who assume that they may be assertions (the default interpretation), or, in a proper context, which is the marked case, be interpreted as resultative utterances:

(186) a. Dies ist ein Schiff. *Deklaration*.
This is a ship
b. Karl wird ab morgen das Kommando übernehmen. *Directive*.
Karl will from tomorrow the command over take
c. Ich werde den Sekt nicht vergessen. *Promise*.
I shall the champagne not forget

In our framework these clauses are assertions, since they have nothing, no IFID e.g., that indicates that there may be another interpretation. What BRRZ call their marked interpretation, needing a proper context, is *pragmatic* and lies *outside* the speech act system that we try to describe in this paper. Note, however, that the assertion is basic and a prerequisite for the pragmatic interpretation, not the other way around.

There remain two further constellations that cannot be realized by the imperative clause. Cf. the following clauses:

(187) Darf ich (*hiermit) baden gehen?
may I (hereby) bathe go
(188) Soll ich (*hiermit) Kaffee kochen?
shall I (hereby) coffee cook

These speech act types are interactional, SAS and AAS, respectively. See BRRZ (1992: 64) who analyze them in some detail. They emphazise that the interrogative clause, because of its openness, is suitable for this type of interactional speech act, where the speaker does not know, if the event will come about. They also point to the interaction between the interrogative clause and the modal verbs. The modal verbs express speaker attitudes: *dürfen* expresses a *volitive* attitude on behalf of the speaker and *sollen* expresses that the *volitive*

attitude may be an attitude on behalf of the addressee. We agree with BRRZ in principle and think that our semantic definition of the interrogative V1-clause predicts its appropriateness for the realization of these two speech act types. Semantically it carries (see above 5.3.2) the openness of all V1-questions. But something more is required. This is contributed by the modal verbs *dürfen* and *sollen,* which make these clauses interactional.

We therefore argue that the interrogative clause together with *dürfen* ('may','be allowed to') denotes the constellation SAS (speaker wants, addressee decides, speaker acts) and together with *sollen* ('should', 'are to', 'are supposed to') denotes the constellation AAS (addressee wants, addressee decides, speaker acts). This means that the modal verbs are a necessary part of the proposition and that their meaning cooperates with the interrogativity of the V1-clause. Although the system will recognize the well-known structure *1st person, present tense*, it will not interpret these clauses as performative, which the ungrammaticality of *hiermit* demonstrates. The verbs with their meaning prevent this interpretation. These clauses, therefore, like the imperative clause, map directly onto an interactional speech act, i.e. onto a *request of permission* and onto an *offer*, respectively.

The infinitive clause type

The third clause type in our framework is the *infinitive clause.* We will begin with the bare infinitive clause (see its semantics in section 5.4.1):

(189) a. Die Schuhe bitte nicht vergessen!
the shoes not forget
b. Vergiss bitte die Schuhe nicht!
forget the shoes not
c. Du darfst die Schuhe nicht vergessen.

(190) a. Schnell mal die Zeitung holen!
quickly *part* the paper fetch
b. Hol doch schnell mal die Zeitung!
fetch *part* quickly the paper
c. Du sollst schnell mal die Zeitung holen.

(191) a. Die Finger weglassen!
the fingers keep away
b. Lass die Finger weg!
keep the fingers away
c. Du sollst die Finger weglassen.

(192) a. Den Rasen nicht betreten!
the lawn not go on
b. Betrete nicht den Rasen!
not go on the lawn

(193) a. Nicht hinauslehnen!
not lean out
b. Lehne dich nicht hinaus!
lean you not out

Both their structure and semantics determine the infinitive clauses. Because of their infinitiveness they cannot map onto *assertions*. Since they are independent clauses, they may, however, map directly onto a *deontic* operator like the imperative clause. We, therefore, expect them to realize much the same speech act types as the imperative clause. This expectation does not come quite true. As the paraphrases demonstrate, they seem to express the iniative *order* and *request* but not the reactive *permission*. The reason may be that they are syntactically underspecified as they lack an explicit addressee and therefore are less distinctive than the imperative clause. At the same time, however, they are more flexible than the imperative clause, by allowing a speaker-oriented interpretation, see (196)-(197) below.

Its underspecification, however, also allows them to be much more *generic* than the imperative clause may be. In *German*[34], they are therefore often used on public *warning signs* and *ban signs*, where the addressee is 'to whom it may concern', see (192)-(193), and in cookbook instructions like (195), where the infinitive clause is nearly the only possibility. It is worth pointing out that they may project a 3rd person DP (194), that represents an external thetarole with a *quantificational* meaning, picking out one person or a whole group as the person/group the speaker is talking TO:

(194) Radfahrer rechts abbiegen! (Reis, 2003: 159)
Cyclists to the right turn
(195) Dann die Kartoffeln in die Pfanne geben! (Reis, 2003:159)
Then the potatoes in the pan give

We may conclude that bare infinitive clause, from a linguistic point of view, is able to do both more and less than an imperative clause, due to its structural underspecification.

Until now we have only discussed *addressee*-oriented infinitive clauses, where the addressee is expected to act. The underspecification of the bare infinitive clause will also allow it to be *speaker-oriented*, but never both (see Reis, 2003:195, who, we think, was first to notice this). The imperative clause can never be speaker-oriented, due to the inflection of its main verb, being 2nd person. Let us look at the following clauses:

(196) a. Noch einmal Venedig sehen! (Reis, 2003: 188)
once more Venice see
b. Ich möchte/will nochmals Venedig sehen/hoffe nochmals Venedig zu sehen.
I should like once more Venice see/hope once more Venice to see
(197) a. Nocheinmal zwanzig sein! (Reis, 2003: 188)
once more twenty be
b. Ich möchte noch einmal zwanzig sein.
I should like once more twenty be

The clauses (196a) and (197a) obviously may be interpreted as expressions of what the speaker himself *wants* to *do* or even to *be*, not what the addressee *ought to* do or *may* do/be,

[34] Note that Swedish is much more restricted, as regards the use of independent infinitive clauses.

as the paraphrases (196b) and (197b) with *möchten, wollen* demonstrate. They are bouletic, which we regard as subcatery of deontic. What kind of speech act are (196a) and (197a) then?

They differ from all the other six interactional speech act types by not being interactional. The speaker expresses a wish to act, if it is possible in his world, which in the case of (197a) it is not. We think that the independent infinitive clauses allow this because of their underspecification and will regard them as *propositional attitude expressions,* like their paraphrases. Hence, they may be compared with the imperative clause, which they resemble by mapping *directly* onto an *action oriented* speech act, i.e. here a *propositional attitude expression,* see section 6.4.3, below. Note, once more that they differ from the imperative clause in not being interactional.

Notice also that the verbs are what Han calls individual level stative predicates and may be compared with the above corresponding imperative clauses (see 5.3, (128)-(129)) that also are bouletic. Since these latter clauses are imperative clauses, it is still the addressee that is expected 'to be well' or 'have a nice day'. We normally do not find this type with infinitive clauses.

A short look at the semantics of the *wh*-infinitive clauses demonstrates a conflict between the *wh*-phrase and the propositional part of the clause, see section 5.3. This influences its speech act potential. These clauses are interrogative clauses but still not standard interrogative clauses, as we already mentioned, because of the underspecification of the infinitive clause and the conflict with the *wh*-phrase. For this reason, they cannot be classified as pure questions, i.e. *word to world*. Nor are they pure interactionals, i.e *world to word*. Since they do not contribute to the comparison between the finite and imperative clause and Swedish primarily allows those with a *why*-phrase, we will not discuss them further here.

6.4.3 Action-oriented propositional attitude expressions

The propositional attitude expressions with the direction of fit *World to Word* differ from the truth-conditional propositional attitude expressions with the direction of fit *Word to World*. They are semantically action-oriented. They express the speaker's *wish, hope, expectation* etc:

(198) Ich will/hoffe/erwarte (*hiermit), dass du bald wieder kommst.
I will/hope/expect (hereby), that you soon again come
(199) Ich würde mich freuen, wenn du morgen kämest.
I would be glad if you to morrow would come
(200) Ich hoffe, dass du morgen kommst.
I hope that you to morrow come
(201) Ich erwarte, dass du mich morgen besuchst.
I expect that you me to morrow visit
(202) Ich will/möchte baden gehen.
I will/want bathe go

Whereas a truth-oriented attitude expression refers to the speaker's *belief*, with regard to the truth of the proposition, the *action-oriented* attitude expression is prospective, similar to the imperative clause, and refers to the speaker's wish with regard to a future action.

Levinson (1983: 241) presents a short discussion around the predictability of the felicity conditions from general considerations of rationality and cooperations of the sort represented by Grice's maxims. He refers in a footnote to an unpublished paper by Grice (1973). "Grice … has himself suggested such a classification under a further restriction: he hopes to achieve a motivated taxonomy by building up complex communicative intentions, or illocutionary forces, from just two primitive propositional attitudes, roughly *wanting* and *believing*."

We think that this corresponds very well with our whole speech act system (see table 1), where the speaker's *belief* and *wish* are so fundamental and basic, that the speaker need not express them explicitly in order to distinguish between *Word to World* and *World to Word*, *belief* being the basic property of the first group and *wish* being the basic property of the second. Only when the speaker wants to shed light on these basic attitudes for some reason or other, does he need to express them in terms of a propositional attitude expression.

7 Summary and concluding remarks

In this paper we have presented a detailed case study of the imperative clause type in two Germanic languages, Swedish amd German, in a modular framework. We have argued that there are three independent clause types the *finite*, the *imperative* and the *infinitive* clause type, where the relation of the imperative clause type to the other two clause types is in focus. The differences between the three clause types have been derived from a morphologically founded distinction between the three verbal paradigms, the *finite*, the *imperative* and the *infinitive* one.

We have shown how the three basic clause types are built up by three autonomous and interdependent modular systems, a *morpho-syntactic*, a *semantic* and a *speech act* system, which account for the different properties of these clause types. The morpho-syntactic system, based upon the Minimalist program, see Chomsky (1995) and many others, operates with valued and unvalued features of various kinds, like [finite] and [φ], calculating the syntactic interface that constitutes the input to the semantic and the speech act interfaces. The semantic system supplies modal operators, that provide the clause type with a clause type meaning, and the speech act system turns the clause with its clause type meaning and morpho-syntactic structure into a speech act, being the *act the speaker performs,* when uttering the clause. Not until the clause is accepted as a proper *speech act* at the speech act interface, does it become speech.

We have argued that *morphology* is the module where words are created by merging roots with inflection morphemes. Looking at verbs only, we have assumed that in morphology a root *(skriv, schreib* 'write'*)* is merged with an inflectional morpheme. The result is a *finite*, *imperative* or *infinitive* verb, which in syntax will become the projective head of the syntactic tree, representing a corresponding clause type. We claim that the imperative clause is *non-finite*. Depending on category and different functional nodes, like T and C for verbs, the verb may be merged to a categorical head giving rise to a vP for verbs. Merging a verb with an inflection morpheme like [finite], [imperative] and [infinitive] hence is a basic step in building a particular clause type.

We have further argued that only the finite feature is compatible with projecting TP and thus allowing a subject in SpecTP, whereas CP, projected by all three features (the finite, imperative and infinitive ones), provides for different clause types with different meanings, resulting in different speech acts. This difference between the finite clause type with TP and the other two clause types without TP may be said to the be the most basic difference between the clause types. "Subject" hence is the name of a DP in SpecTP that takes part in two Agree relations between TP and little vP, one involving the [φ]-features in SpecTP and SpecvP, the other one involving the finiteness features in T and little v. Together the two Agree-relations constitute a nexus relation, i.e. a symmetric relation where neither part (subject nor predicate) is subordinated the other part. Finiteness is thus defined by the Agree-relation between subject and verb.

As a consequence of our analysis, what is often regarded as a subject in the *imperative* clause is not a subject but a theta-role carrying a DP. We call this DP *ImpPron*. It is optional, which the subject never is, and it differs as to its behavior in the clause in more than one way from the subject in a finite clause.

As mentioned above, we have only three independent clause types, the *finite*, *imperative* and *infinitive* clause types. Traditional linguistics normally distinguish between *declarative*, *interrogative* and *imperative* clause types, with two types of *interrogative* clause types. In our framework the interrogative clause cannot be an independent basic clause type on a par with the finite and imperative clause type, since its verb, although finite, is not the verb defining the *interrogativity* of the clause. We claim that the interrogative clauses are just finite clause types with the same [fin]**-**feature as the other clause types with a finite verb. As to V1-clauses, syntax does not distinguish at all between an interrogative V1-clause and other finite V1-clauses. Hence there does not exist an interrogative V1**-**clause type. As to interrogative *wh***-**clauses we will further assume that C, besides having the finite feature [¬fin^{EPP}], may have a feature [¬wh^{EPP}]. If a C is picked from lexicon with [¬fin^{EPP}] and [¬wh^{EPP}], the [¬wh^{EPP}]**-**feature will probe a *wh***-**phrase and demand that it moves to SpecCP. The difference between standard finite clauses and the interrogative finite clauses hence has to be defined semantically. The V1-clauses and *wh***-**clauses will not get their interogative meaning until they map onto a proper semantic operator at the semantic interface. At the illocutionary interface they will become *yes/no-* and *wh-questions*.

We have furthermore distinguished between three types of embedding. We distinguish between *Proper embedding*, where T hosts an unvalued finiteness feature which is spelled out as a complementizer, and *Pseudo-embedding*, being the embedding of a V2-clause, where we assume that the pseudo-embedded clause is introduced by two CPs. Only these two types of embedding are possible in modern Swedish and German. We also find an "embedding" in Old Nordic, which we call *Centaur-embedding*. It is a centaur with an upper part of a finite clause, with a subject, and a lower part of an imperative vP, from where the subject moves to the upper part. This "embedding", found in Old Nordic, only occurs with imperative clauses. We conclude that the *imperative* clause type cannot embed at all, since it is not finite and hence does not have a complementizer or any other entity or structure, that allows it to embed. It only exists as an *independent* clause.

The finite and the imperative clause (as well as the infinitive clause) have in common

that they map *directly* onto a modal operator at the semantic interface. We have claimed that there exists a *correspondence* relation between *finiteness* and *truth-oriented* modality, on one hand, and between *non-finiteness* and *action-oriented* modality, on the other. Each clause type is targeting the *semantic* interface in order to find its proper semantics and will crash when not accepted. The finite clause (always with TP) will map onto a *truth-oriented* operator and the imperative and infinitive clauses (witout TP) will map onto an *action-oriented* operator. The correspondence relation is no stipulation, since the whole syntactic structure of each clause type is built up from the morphological basis via projection and merging of lexical and functional nodes in order to allow a specific mapping at the semantic interface onto a matching modal operator, taking the clause in its scope.

At the illocutionary interface the different types of clauses will find their corresponding speech act types, onto which the clauses will map with their clause type meaning.We have defined the speech act system as the system of *the acts the speaker performs when uttering a clause*. We argued that there exists a basic watershed between *Word to World* and *World to Word*, deviding the speech acts types in two distinct groups, each of the groups being in turn divided in two further groups. *Word to World* hence comprises the *constative speech act* types, where the speaker per default maps *directly* onto an *assertion* (or a *question*) and talks ABOUT an event, anchoring it in time and space in the *actual* world, and the corresponding *truth-oriented* propositional attitude expressions, where the speaker expresses his *attitudes* to a proposition. *World to Word* comprises the *constitutive speech act types,* i.e. the *declarations* and *expressives*, but also the *interactional* speech act types and the corresponding *action-oriented* propositional attitude expressions. The imperative clause may map onto three of the six interactional speech act types. The speaker talks TO the addressee in order to make or allow him to act according to a norm.

The finite clause has a wider range of usage than the imperative clause. Per default it maps onto a constative assertion (or a question), but it also maps onto constitutive declarations and expressives as well as onto propositional attitude expressions. The imperative clause, being slim and univocal, as a consequence is restricted to a few (but important) speech act constellations. It can only be used to express an *Order, Request* and *Permission*.

References

Andersson, L.-G.1975. Form and Function of Subordinate Clauses. PhD. University of Gothenburg. Gothenburg.

Austin, J.L. 1862. *How to Do Things With Words*. Oxford: Clarendon Press.

Austin, J.L. 1970. *Philosophical Papers*. Oxford: University Press.

Bierwisch. M. 1989. Event Nominalizations. Proposals and Problems. In: Motsch, W., (1989), (ed.), *Wortstruktur und Satzstruktur.* Linguistische Studien, Reihe A, 194, 1-73. Berlin.

Brandtler, J. 2008. On the Structure of Subordinate Clauses in Swedish. *Working Papers in Scandinavian Syntax* 81, 79–97.

BRRZ = Brandt, M., Reis, M., Rosengren, I., Zimmermann, I. 1992. Satztyp, Satzmodus und Illokution. In: Rosengren, I. (ed.), *Satz und Illokution*, vol. 1. Linguistische Arbeiten, 278. Tübingen: Niemeyer.

Cecchetto, C. & C. Donati (2015), *(Re)labeling.* Cambridge, MA and London, England: The MIT Press.

Chomsky, N. 1982. *Some Concepts and Consequences of the Theory of Government and Binding.* Cambridge, MA: The MIT Press.

Chomsky, N. 1995. *The Minimalist Program*. Cambridge, MA, The MIT Press.

Chomsky, N. 2001. Derivation by Phase. In: Kenstowicz, M. (ed), *K. Hale. A Life in Language*, 1-52. Cambridge, MA and London, Engl.: The MIT Press.

Chomsky, N. 2007. Approaching UG from Below. In: U. Sauerland and H.-M. Gärtner (ed.) *Interfaces + Recursion = Language? Chomsky's Minimalism and the View from Syntax-Semantics,* 1-29. Berlin, New York: Mouton de Gruyter.

Chomsky, N. 2008. On Phases. In: R. Freidin, C.P. Otero, and M.L. Zubizarreta. *Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud*, 133-166. Cambridge, MA, London.

Culicover, P.W. & Jackendoff, R. 1997. Semantic Subordination Despite Syntactic Coordination. *Linguistic Inquiry* 28, No 2, 195-217.

Delsing, L.-O. 1999. Om Imperativsatser i Fornsvenskan. In: Haskå, I. & Sandqvist. C. (eds.), *Alla Tiders Språk: En Vänskrift till Gertrud Pettersson November 1999*, 50-58. Lund: Lund University.

Frege, G. 1892. Über Sinn und Bedeutung. *Zeitschrift für Philosophie und Philosophische Kritik*, Vol. 100, 25-50.

Grice, H.P. 1973. Probalility, Defeasibility and Mood Operators. Paper Delivered at the Texas Conference on Performatives, Presuppositions and Implicatures.

Gärtner, H.-M. 2013. Infinite Hauptsatzstrukturen. In. Meibauer et al. 202-231.

Haider, H. 2010. *The Syntax of German*. Cambridge: Cambridge University Press

Haider, H. 2015. Head Directionality ‑ in Syntax and Morphology. In: Fabregás, A. & Matteu, J. & Putnam, M. (eds.), *The Handbook of Parameters*. Bloomsbury Academic.

Haider, H. & Rosengren, I. 2003. Scrambling - Nontriggered Chain Formation in OV-Languages. *Journal of Germanic Linguistics* 15, 203-266.

Han, Chung-hye. 1999. Deontic Modality, Lexical Aspect and the Semantics of Imperatives. *Linguistics in Morning Calm 4.* Seoul. Hanshin Publications.

Herreck, P. 2000. *The Many Worlds of Logic*. Harcourt Brace and Company.

Hacquard,V. Modality. In: Maienborn, C. von Heusinger, K. and Portner, P. (eds.), *Semantics: An International Handbook of Natural Language Meaning*. HSK 33.2 Berlin: Mouton de Gruyter. 1484-1515.

Holmberg, A. & Platzack, C. 1995. *The Role of Inflection in Scandinavian Syntax.* Oxford: Oxford University Press.

Hooper, J.B. & Thompson, S.A. 1973., On the Applicability of Root Transformations. *Linguistic Inquiry*, No.4, 465-497.

Huddleston, R. & Pullum, G. K. 2003. *The Cambridge Grammar of the English Language,* Cambridge: Cambridge University Press.

Hughes G.E. & Cresswell, M.J. 1996. *A New Introduction to Modal Logic*. USA and Canada: Routledge.

Julien, M. 2015. The Force of V2 Revisited. *The Journal of Comparative Germanic Linguistics* 18, 139-181.

Kaufmann, M.. 2012. Interpreting Imperatives*. Studies in Linguistics and Philosophy*, Vol. 88.

Kaufmann, M. 2014. Embedded Imperatives Across Languages, too Rare to Expect, too Frequent to Ban. Handout for Presentation at Colloquium Stony Brook.

Kratzer, A.. 1977. What *Must* and *Can* Must and Can Mean. *Linguistics and Philosophy* 1 (3), 337-355.

Levinson, S. C. 1983. *Pragmatics*. Cambridge University Press.

Liedtke, F. 1993. Imperativsatz, Adressatenbezug und Sprechakt-Deixis. In: Rosengren, I. (ed.), *Satz und Illokution*, vol. 2., 49-78. *Linguistische Arbeiten*, 279. Tübingen: Niemeyer.

Mattsson, G. (1933), Konjunktiven i Fornsvenskan. Lund.

Meibauer et al. = Meibauer, J., Steinbach, M., Altmann, H. (eds.). 2013. *Satztypen des Deutschen*. De Gruyter, Berlin/Boston.

Mörnsjö, M. 2002. V1 Declaratives in Spoken Swedish. Syntax, Information Structure and Prosodic Patterns. PhD Thesis, Lund University, Lund.

Nelson, M. & Zalta E.N. 2012. A Defense of Contingent Logical Truths. *Philosophical Studies* 157: 153-162.

Pesetsky, D. & E. Torrego (2001), Tense-to-C Movement. Causes and Consequences. In: M. Kenstowicz*, ed. Ken Hale. A Life in Linguistics*, (ed.), 355-426. Cambridge: The MIT Press.

Pesetsky, D. & E. Torrego. 2004. Tense, Case, and the Nature of Syntactic Categories. In J. Guéron and J. Lecarme *ed. The Syntax of Time*, 495-537. Cambridge, MA: The MIT Press.

Pesetsky, D. & Torrego, E. 2007. *The Syntax of Valuation and the Interpretability of Features*. In: *Phrasal and Clausal Architecture. Syntactic Derivation and Interpretation*, (ed.) S. Karimi, V. Samiian & W. K. Wilkins, 262-294. Amsterdam, Philadelphia: John Benjamins.

Petersson, D. 2014. The Highest Force Hypothesis. PhD, Lund University. Lund.

Platzack, C. 2001. The Computational System as a Minimal Feature Driven Device and the Tripartite TP/VP-Hypothesis of the Universal Clause. Ms., Lund University.

Platzack, C. 2007. Embedded Imperatives. In: van der Wurff, W. (ed.), *Imperative Clauses in Generative Grammar*, 181-204. Linguistics Today. Vol 103. John Benjamins Publishing Company. Amsterdam/Philadelphia.

Platzack, C. & Rosengren, I. 1998. On the Subject of Imperatives: A Minimalist Account of the Imperative Clause. *Journal of Comparative Germanic Linguistics* 1: 177-224.

Rehbock, H. 1992a. Deklarativsatzmodus, Rhetische Modi und Illokutionen. In: Rosengren, I. (ed.), *Satz und Illokution*, 91-172. Vol. 1. Linguistische Arbeiten, 278. Tübingen: Niemeyer.

Rehbock, H. 1992b. Fragen Stellen – Zur Interpretation des Interrogativsatzmodus. In: Rosengren, I. (ed.), *Satz und Illokution*, 173-212. Vol. 1. *Linguistische Arbeiten*, 278. Tübingen: Niemeyer.

Reis, M. 1997. Zum Syntaktischen Status Unselbständiger Verbzweit-Sätze. In: Dürscheid, C. et al.(eds.), *Sprache in Fokus*, 121-144. Tübingen. Niemeyer.

Reis, M. 2003. On the Form and Interpretation of German *wh*-infinitives. *Journal of Germanic Linguistiscs* 15.2, 155-201.

Renzi et al.= Renzi, L., Giampaolo, S., Cardinaletti, A. 2001. *Grande Grammatica Italiano di Consultazione.* Il Mulino, Bologna. Nuova edizione I – III.

Rizzi, L. 1997. The Fine Structure of the Left Periphery. Haegeman, L. (ed.), *Elements of Grammar*, 281-337. Handbook in Generative Syntax. In: Kluwer International Handbooks of Linguistics. Springer.

Roll, M. 2006. Prosodic Cues to the Syntactic Structure of Subordinate Clauses in Swedish. In: *Nordic Prosody: Proceedings of the IXth conference, Lund 2004*, (ed.) G. Bruce and M. Horne, 195–204. Frankfurt am Main: Peter Lang.

Roll, M. 2009. The Neurophysiology of Grammatical Constraints – ERP Studies on the Influence of Syntax and Morphology in Swedish. PhD, Lund University.

Rosengren, I. 1984. Die Einstellungsbekundung im Sprachsystem und in der Grammatik. In: Stickel, (ed.) *Pragmatik in der Grammatik*. Sprache der Gegenwart LX ,152-174.

Rosengren, I. 1985. Die Beziehung zwischen Sprachhandlungssystem und Sprachsystem am Bedispiel der Einstellungsbekundung. *Zeischrift für Germanistik* 6, 322- 337.

Rosengren, I. 1993. Imperativsatz und ”Wunschsatz” – zu ihrer Grammatik und Pragmatik. In: Rosengren, I. (ed.), *Satz und Illokution*, vol. 2. *Linguistische Arbeiten*, 279. Tübingen. Niemeyer.

Rögnvaldsson, E. 1998. The Syntax of the Imperative in Old Scandinavian. Ms., University of Iceland.

Searle, J.R. 1969. *Speech acts*. Cambridge University Press. Cambridge.

Searle, J.R. 1979. *Expression and Meaning: Studies in the Theory of Speech Acts*. Cambridge. University Press.

Searle, J.R & Vanderveken, D. 1985. *Foundations of Illocutionary Logic*. Cambridge, UK.

Sigurdsson, H. 2004. The Syntax of Person, Tense, and Speech Features. *Italian Journal of Linguistics* 16:219–251.

Stegovec, A. & Kaufmann, M. 2015. Slovenian Imperatives: You Can't Always embed What You Want! Csipak, E. & Zeijlstra, H. (eds.). *Proceedings of Sinn und Bedeutung 1,* 625-638.

Sternefeld, W. 2006/2008. *Syntax. Eine morphologisch motivierte generative Beschreibung des Deutschen*. 1 /2. Tübingen. Stauffenburg. Linguistik.

Teleman, U., S. Hellberg, E. Andersson. 1999. *Svenska Akademiens Grammatik*, Stockholm: Nordstedts Ordbok.

Wratil, M. 2005. Die Syntax des Imperativs. Studia Grammatica 62. PhD Thesis, Philosophische Fakultät der Johann Wolfgang Goethe-Univeristät, Frankfurt a.M.

Wright, von, G.H. 1951. Deontic logic. Mind, New Series, Vol. 60, No. 237. 1-15.

Önnerfors, O. 1997. Verb-Erst-Deklarativsätze. Lunder Germanistische Forschungen 60. PhD, Lund University, Lund.

Christer Platzack
Lund University
christer.platzack@gmail.com

Inger Rosengren
Lund University
inger.rosengren@comhem.se

Subordinate V2 and Verbal Morphology in Övdalian

Ásgrímur Angantýsson
University of Iceland

Abstract
The purpose of this paper is (i) to locate Övdalian among the Scandinavian languages with regard to verbal morphology and embedded V2, and (ii) to formalize and test hypotheses predicting that languages/dialects that have the relevant morphological differences also show certain syntactic differences. It turns out that the older speakers of Övdalian allow Vfin-Adv order in various types of subject-initial clauses more freely than the younger speakers. The results from a verbal paradigm fill-in task reveal substantial variation in the use of verbal affixes and, interestingly, a tendency, especially by the younger speakers, to simplify the verbal morphology. The relevance of these results for different versions of the so-called Rich Agreement Hypothesis is discussed in the paper (see Koeneman and Zeijlstra 2014 and references there). In short, it is maintained that two kinds of V2-order can be found in Övdalian embedded clauses. On the one hand there is V-to-C and hence there is clear evidence that assertion plays a role in the distribution of V2-order in subject-initial complement clauses. But embedded V2-order in Övdalian cannot be attributed to V-to-C alone since they are also accepted, by some speakers at least, in clauses where Embedded Topicalization is completely impossible, such as relative clauses and indirect questions (clauses that have no root properties). This suggests that V-to-I is also a possibility in Övdalian. Some versions of the Rich Agreement Hypothesis would then predict that Transitive Expletives Constructions should also be possible in Övdalian but this prediction is not borne out.

1 Introduction[1]

Övdalian (Elfdalian, Älvdalen Swedish) is spoken by about 2,400 people in Älvdalen Municipality in Dalarna in Western-Sweden. Unlike the Mainland Scandinavian languages, this variety preserves a relatively rich inflectional system and certain aspects of its syntax have more in common with the Insular Scandinavian languages (see Holmberg and Platzack 1995:8). In fact, Övdalian is mutually incomprehensible among its closest standard relatives so it is debatable whether it should be regarded as a Swedish dialect or a separate language (see discussions in Bentzen, Rosenkvist and Johannessen 2015: 3–4).

The topic of this paper is the status of Övdalian among the Scandinavian languages, in particular concerning verbal morphology and verb placement in embedded clauses. Icelandic is known for its robust inflectional system and V2 (meaning simply 'the finite verb in second position') in all types of subject-initial embedded clauses while the Mainland Scandinavian languages typically lack these properties. Traditionally, Övdalian has been regarded as more similar to Icelandic than Swedish in this respect, based on the view that the finite verb generally precedes pre-VP adverbs in subject-initial embedded clauses (Levander 1909 and much later work), but it has also been claimed that V-to-I movement in Övdalian is optional (Garbacz 2015). The data presented here show that this Scandinavian variety can be viewed

[1] I want to thank Johan Brandtler for his suggestions and corrections. I am also indebted to Höskuldur Thráinsson and two anonymous reviewers of *Íslenskt mál* for their comments on an earlier (Icelandic) version of this paper (Angantýsson 2015). Remaining errors are, of course, mine.

as standing midway between Icelandic and Mainland Scandinavian with regard to verb placement in embedded clauses.

The examples in (1) present Vfin-Adv (V2) and Adv-Vfin orders (V3), respectively, in a subject-initial complement clause in Övdalian.

(1) a. Du wet at påitjin **twä'dd oltiett** biln
you know that boy-the washed always car-the
'You know that the son always washed the car'
b. Du wet at påitjin **oltiett twä'dd** biln
you know that boy-the always washed car-the
'You know that the son always washed the car'

Vfin-Adv as in (1a) is always the default word order in all types of embedded clauses in Icelandic but it is restricted to certain types of embedded clauses in the Mainland Scandinavian languages (Bentzen et al. 2007b). Adv-Vfin as in (1b) is the default word order in embedded clauses in the Mainland Scandinavian languages, but it is heavily restricted in Icelandic (Angantýsson 2007). It has been observed that Övdalian has considerable variation with respect to this construction (see for instance Rosenkvist 2011, Garbacz 2015, and references there).

In languages like Swedish, the embedded Vfin-Adv order seems to behave in a similar manner as embedded topicalization (ET), which is restricted to clauses containing the main assertion of the utterance (see Wiklund et al. 2007 and further discussion below). In (2b), we see an example of topicalization in a complement clause of that type in Övdalian:

(2) a. An wart iwari at an add it lesið o-dar buotję
he became aware that he had not read she-there book-the
'He discovered that he had not read that book'
b. An wart iwari at **o-dar buotję** add an it lesið
he became aware that she-there book-the had he not read
'He discovered that he had not read that book'

Topicalization is commonly referred to as a root phenomenon in the literature because its use is mostly restricted to main clauses or "main-clause-like" embedded clauses in languages like English. In order to find out the extent to which the distribution of the Vfin-Adv order correlates to that of root phenomena (especially fronting of direct objects) in Övdalian, I include sentences like (2b) in my discussion.

Finally, I shall consider the possibility of transitive expletive constructions (TECs) in Övdalian:

(3) a. Nog autleningger tjyöpt gamtstugų
some foreigners bought old-house-the
'Some foreigners bought the old house'
b. **Ed** tjyöpt nog autleningger gamtstugų
EXPL bought some foreigners old-house-the
'Some foreigners bought the old house'

Sentences like (3b), have commonly been assumed to be a characteristic of languages with "extra" subject positions, most famously Icelandic (see the discussion of Multiple Subject Constructions in Chomsky 1995: 341–394 and later work). This construction will be discussed in connection with the idea of a split inflectional phrase (IP) in languages like Icelandic and Övdalian.

The paper is organized as follows. In section 2, I sketch the theoretical background and spell out the predictions about the constructions in question. Section 3 reports on the results from my data collection in Älvdalen, with a comparison to recent studies on syntactic variation in Icelandic, Faroese and Danish. It turns out that the older speakers of Övdalian allow V2 more freely than the younger speakers, and the conditions for V2 depend to a certain extent on the type of embedded clause as well as the type of finite verb and adverb. The results from a verbal paradigm fill-in task reveal substantial variation in the use of verbal affixes and, interestingly, a tendency, especially by the younger speakers, to simplify the verbal morphology. In short, we see evidence for V2-order as a root phenomenon, which is reminiscent of the Mainland Scandinavian languages (but not Icelandic), i.e. dependent on the properties of the CP, but we also see evidence for V-to-I movement as in Icelandic (but not the Mainland Scandinavian languages) because the V2-order is not completely impossible in embedded clauses where topicalization is excluded. My data does not provide support for the 'strong version' of the Rich Agreement Hypothesis (RAH) (Holmberg & Platzack 1995; Vikner 1995, 1997; Rohrbacher 1999; Koeneman & Zeijlstra 2014) but it is argued that the facts regarding verb/adverb placement can be accounted for under a 'weak' RAH analysis (Bobaljik 1995; Jonas 1996b; Thráinsson 1996; Bobaljik & Thráinsson 1998; Bobaljik 2002; Thráinsson 2010; Heycock et al. 2010; Angantýsson 2011; Heycock et al. 2012). Section 4 concludes the paper.

2 Background

2.1 Inflection and verb movement

In the literature on Scandinavian syntax, various differences between the languages and aspects of their historical changes (word order, subject-verb agreement, case marking etc.) have frequently been associated with the properties of IP (Thráinsson 1986, Platzack 1987, Sigurðsson 1989, Rögnvaldsson & Thráinsson 1990, Holmberg & Platzack 1995, Thráinsson 2010; see also Heycock et al. 2012, 2013, and Koeneman & Zeijlstra 2014). Vikner (1995:160–163), who otherwise analyzes generalized V2 in embedded clauses in languages like Modern Icelandic as V-to-C movement, also assumes that the change from subject-initial V2 to V3 in embedded clauses in the Mainland Scandinavian languages is related to verbal morphology. However, various diachronic and synchronic studies have shown that the connection between (verbal) morphology and syntactic rules cannot be direct (Sundquist 2002; Thráinsson 2003, 2010; Bentzen et al. 2007a; Garbacz, Håkansson, & Rosenkvist 2007; Wiklund et al. 2009; Angantýsson 2011).

According to the 'strong' version of the Rich Agreement Hypothesis (RAH), a language will have V-to-I movement if and only if it has 'rich verbal morphology' (see discussions on

'strong' and 'weak' RAH in Thráinsson 2010). Vikner (1997:103–104) claims, for instance, that V-to-I is only found in languages where person inflection can occur in the same verbal form as temporal inflection. The problem with this approach is that some Scandinavian dialects, in particular the Tromsø-dialect in Norway (Bentzen 2007; Wiklund et al. 2007) and the (Swedish) Kronoby-dialect in Finland (Bentzen forthcoming), allow subject-initial V2 in various types of embedded clauses despite 'poor' verbal morphology (see also Bobaljik 2002, Thráinsson 2003, 2007:60 and 2010:1078–1079). Evidence from Old Swedish and Old Danish also shows that the relevant inflectional distinctions merged long before the change from V2 to V3 in subject-initial embedded clauses took place (Falk 1993). The 'weak' version of RAH (RAHw) entails that if a language has rich verbal morphology it will have V-to-I movement (Holmberg & Platzack 1995; Bobaljik & Thráinsson 1998; Bobaljik 2002; Thráinsson 2003, 2010). This approach leaves open the possibility that languages/dialects with poor verbal morphology can have V-to-I movement.

Icelandic has all the morphological and syntactic properties that Bobaljik and Thráinsson (1998) mention as potential evidence for a split IP, i.e. tense/agreement distinction in the past tense of weak verbs, Vfin-Adv order in subject-initial embedded clauses and the possibility of TECs. In the Mainland Scandinavian standard languages we have the reverse situation: No separated tense and agreement markers, Adv-Vfin order is the default word order in subject-initial embedded clauses and TECs are not possible. This is shown in (4) with examples from Icelandic and Danish (see further section 2.3):

(4) a. ég **talaði**, þú **talaðir** : jeg **snakkede**, du **snakkede.**
I talked you talked: I talked you talked
b. ef maður **hefði ekki** séð myndina: om man **ikke havde** set filmen.
if one had not seen movie-the: if one not had seen movie-the
c. **Það hefur einhver** borðað epli í bílnum. : ***Der har nogen** spist et æble í bilen.
there has somebody eaten apple in car-the

In Övdalian, the verbal inflection is richer than in the Mainland Scandinavian languages but not as rich as in Icelandic, and Vfin-Adv order in subject-initial embedded clauses is not as common or general as in Icelandic. Obviously, this situation makes Övdalian (along with Faroese) very interesting as a testing ground for theories predicting a connection between verbal morphology and verb movement.

2.2 Different types of complement clauses

It has been claimed that the distribution of root phenomena like topicalization can be accounted for in terms of the semantic notion of ASSERTION (see Hooper & Thompson 1973, Levin 1993, Heycock 2006, Julien 2007 and Simons 2007). According to Hooper & Thompson's definition of the term, the assertion of a sentence is "its core meaning or main proposition" and it "may be identified as that part which can be negated or questioned by the usual application of these processes of negation and interrogation" (1973: 473). Some examples are shown in (5):

(5) a. It's just started to rain.
b. He said it's just started to rain.
c. It's just started to rain, he said.

Example (5a) is a typical speaker assertion. (5b) contains two assertions: *He said X* and *It's just started to rain*, which gives this sentence at least two readings. On the first reading, the former assertion is "taken to be the important assertion, the assertion whose truth is in question or being discussed in the discourse context" (Hooper & Thompson 1973: 475), while on the second reading, this value judgement applies to the latter assertion. If the latter assertion is the main assertion of (5b), then the former assertion is used in its "parenthetical" sense, where the reading of (5b) is synonymous with (5c) (Hooper & Thompson 1973: 475).

In table 1 we see a classification of predicates that take clauses as their complements (cf. Hooper & Thompson 1973; see also Levin 1993 and Simons 2007).

Table 1: Classification of predicates that take clauses as their complements.

Class	**Predicates**
A	*say, report, exclaim, assert, claim, vow, be true, be certain, be sure, be obvious*
B	*suppose, believe, think, expect, guess, imagine, it seems, it happens, it appears*
C	*be (un)likely, be (im)possible, be (im)probable, doubt, deny*
D	*resent, regret, be sorry, be surprised, bother, be odd, be strange, be interesting*
E	*realize, learn, find out, discover, know, see, recognize*

Classes A, B and C represent nonfactive predicates and classes D and E represent factive predicates. In classes D and E the content of the complement clause is presupposed.

2.3 Predictions of RAH: The research questions

The standard paradigm of weak verbs like *spilå* 'play' in Övdalian is shown in table 2 (Åkerberg 2012), with a comparison to Icelandic and Danish (see also Garbacz 2010: 45 and references there).

Table 2: Verbal inflection in Icelandic, Övdalian and Danish

	Icelandic		Övdalian		Danish	
	Present	Past	Present	Past	Present	Past
1sg.	*spil-**a***	*spil-**að-i***	*spil-**är***	*spil-**ädd***	*spill-**er***	*spill-**ede***
2sg.	*spila-**ar***	*spil-**að-ir***	*spil-**är***	*spil-**ädd***	*spill-**er***	*spill-**ede***
3sg.	*spila-**ar***	*spil-**að-ir***	*spil-**är***	*spil-**ädd***	*spill-**er***	*spill-**ede***
1pl.	*spil-**um***	*spil-**uð-um***	*spil-**um***	*spil-**äð-um***	*spill-**er***	*spill-**ede***
2pl.	*spil-**ið***	*spil-**uð-uð***	*spil-**ið***	*spil-**äð-ið***	*spill-**er***	*spill-**ede***
3pl.	*spil-**a***	*spil-**uð-u***	*spil-**å***	*spil-**ädd***	*spill-**er***	*spill-**ede***

Icelandic shows person distinction in both tenses and numbers. Övdalian makes no person distinction in the singular but it does in the plural. Danish has no person distinction at all. In Icelandic, tense and agreement suffixes can be separated very clearly in both numbers. In Övdalian, the same holds true for the plural.

Whether or not the person distinction in the past tense plural of weak verbs is sufficient evidence for "independent tense and agreement morphology" in terms of the Rich Agreement Hypothesis is an open question. If it is, one expects the following to hold true[2]:

(6) Informants who have independent tense and agreement morphology are more likely than others to(i) to allow verb movement in non-V2 contexts, and (ii) to allow TECs.

The idea in (6) is that some speakers might have a split IP grammar, while others have a simple IP grammar. On the assumption that V-to-I movement is obligatory in a complex IP structure one would expect the split IP group to prefer the Vfin-Adv over the Adv-Vfin order. Another property of a split IP structure as opposed to a simple IP structure is that it has the extra subject positions required for TECs. Therefore one would expect that the group who has more structure is more likely to accept TECs.

If Övdalian is not like Swedish but rather somewhere between Icelandic and the Mainland Scandinavian languages with respect to embedded V2 (cf. Thráinsson 2001, 2003, 2010, and Heycock et al. 2012, 2013 for Faroese), it can be hypothesized that there are two kinds of verb movement in Övdalian embedded clauses: V-to-I movement (as is typically assumed for Icelandic) and V-to-C which is dependent on the properties of the CP (as is usually assumed for the Mainland Scandinavian languages). This idea is illustrated further in (7):

(7) a. If there are some remains of "Icelandic" verb movement in Övdalian it means that the IP is split (cf. Bobaljik & Thráinsson 1998). According to this some speakers of Övdalian should accept TECs.
b. If the varying acceptance rate of V2 in complement clauses is related to the semantic properties of the predicate in the root clause, which in turn is reflected in the structure of the CP, then one expects the typical root phenomenon of topicalization to show the same distribution.
c. If all instances of V2 are root phenomena, it is to be expected that topicalization has the same distribution.

The hypotheses in (7) assume a connection between embedded verb movement and TECs on the one hand and verb movement in complement clauses and topicalization on the other hand. A structure with a split IP has "extra positions" for subjects. Therefore, one would expect that informants who have such a structure as a part of their grammars are more likely to accept transitive expletive constructions. We will come back to this in section 3.

[2] Koeneman & Zeijlstra (2014) argue for a new version of the strong Rich Agreement Hypothesis, namely that there is a connection between argumenthood, which postulates a particular functional projection in the extended *v*P, and obligatory verb movement. According to their analysis, Övdalian has unambiguous rich agreement while Faroese does not. However, it can be argued that Övdalian and Faroese behave very similarly with respect to verb/adverb placement in subject-initial embedded clauses (see Angantýsson 2011).

3 Results from fieldwork in Älvdalen

3.1 About the data collection

The results presented here are from two written questionnaires administered to 52 speakers of Övdalian during fieldwork in Älvdalen. The first questionnaire (45 participants) included 16 minimal pairs contrasting Vfin/Adv order (V2) and Adv/Vfin order (V3) in various types of subject-initial embedded clauses with sentence adverbs like *int/it* 'not', *older/aldri* 'never' and *oltiett* 'always'. The second questionnaire (7 participants) consisted of 35 minimal pairs/triplets of (i) embedded topicalization, (ii) Stylistic fronting, (iii) transitive expletive constructions (TECs), as well as some additional examples of V2/V3 in subject-initial embedded clauses. A subset of the speakers (34 in total) also performed verbal paradigm fill-in tasks. The number of informants tested simultaneously ranged from one to four. The method can be described as 'supervised questionnaire completion' (see discussions on the written questionnaire method and 'oral elicitation' in Cornips & Poletto 2005).

In the first questionnaire, 27 speakers out of 45 solved the verbal paradigm fill-in task illustrated in (8). The expected forms according to Åkerberg (2012) are given in brackets.

(8) *baita* 'bite'

ig bait	'I bite'	wį̈ð 'we'	_____	(*bait**um***)
du bait	'you bite'	ið 'you pl.'	_____	(*bait**ið***)
an 'he'	_____ (*bait*)	dier 'they'	_____	(*bait**a***)

It turned out that this verb is not the best choice for a fill-in task of this kind, since it also has a reciprocal form *baitas* 'bite each other, fight', which probably makes the task more complicated and makes the results more difficult to interpret. The second questionnaire was administered to seven informants. All of them also solved a verbal-paradigm fill-in task comparable to the one in (9), but this time including the verbs *dröma* 'dream' and *spilå* 'play' instead of *baita* 'bite'.

As for the test sentences, there were three possible responses in both questionnaires:

(9) Yes = A natural sentence that I could easily say
? = An odd sentence that I could hardly ever say
No = An unacceptable sentence that I could not say

The instructions were given in standard Swedish. The test sentences in the first questionnaire were modeled after the examples in Garbacz (2006). In the second questionnaire, my choice of sentences was aimed at obtaining systematically comparable material to Icelandic and Faroese. When designing the questionnaires I obtained translations from experts on Övdalian who consulted with native speakers about the examples.

3.2 Verbal inflection

The results from the first fill-in task revealed substantial variation in the use of verbal affixes in both age groups, and a tendency by the younger speakers to simplify the verbal

morphology (the standard endings/forms are boldfaced, cf. Åkerberg 2012). Table 3 presents the results for 3sg. and 1pl.

Table 3: Variation in the use of verbal affixes (the present tense of *baita* 'bite', 3sg. and 1pl.)

		Adolescents (10)	Adults (17)	Total (27)
3sg.	*bait-**Ø***	10	14	24
	bait-s	0	3	3
	Null affix	**100%**	**82%**	**89%**
	Non-null affix	**0**	**8%**	**11%**
1pl.	*bait-Ø*	3	0	3
	*bait-**um***	6	15	21
	bait-ums	0	2	2
	bait-a	1	0	1
	Null affix	**30%**	**0**	**11%**
	Non-null affix	**70%**	**100%**	**89%**

The forms of 3sg. and 1pl. are for the most part in accordance with Åkerberg's (2012) handbook of Övdalian grammar. The main exceptions are (i) the lack of an ending in 1pl. (among the adolescents) and (ii) an additional *s*-sound in both categories (among the adults). In 3pl., an *-a* plus an extra *s*-sound is the most common form, followed by the expected *a*-ending. Interestingly, this category has no ending for most adolescents. Table 4 shows the results for 2pl. and 3pl.

Table 4: Variation in the use of verbal affixes (the present tense of *baita* 'bite', 2pl. and 3pl.)

		Adolescents (10)	Adults (17)	Total (27)
2pl.	*bait-Ø*	7	2	9
	*bait-**ið***	1	5	6
	bait-ir	1	5	6
	bait-is	0	2	2
	bait-ier	0	1	1
	bait-as	0	1	1
	bait-um	0	1	1
	bait-t	1	0	1
	Null affix	**70%**	**14%**	**33%**
	Non-null affix	**30%**	**86%**	**77%**
3pl.	*bait-Ø*	7	1	8
	bait-as	1	9	10
	*bait-**a***	1	6	7
	bait-n	1	1	2
	Null affix	**70%**	**7%**	**30%**
	Non-null Affix	**30%**	**93%**	**70%**

In 2pl. there are various forms. For most adolescents this category has no ending. Among the adults, *-ið* and *-ir* are equally common.[3] Two speakers use *-is* but the other variants are only

[3] The variation between *-ð* and *-r* is dialectal (Henrik Rosenkvist, p.c.).

isolated examples. If all endings of the type *-i* plus a (dental/alveolar) consonant are added together there are 15 speakers (13 adults) who use this type of ending.

Among the adolescents, three speakers use the same verbal form throughout the paradigm (no suffix). Among the adults the *-um* suffix is used consistently and productively[4] and so is the *-a(s)* ending in 3pl. On the other hand, the ending for 2pl. seems to be rather unstable (although this can be affected by the choice of verb, or even orthography). Only five informants solved the paradigm fill-in task in full accordance with the handbook. In order to see if there is a direct correlation between having the "correct" verbal morphology and allowing subject-initial V2 in non-V2 contexts, I compared the syntactic results from the individuals who show the full paradigm and the individuals who show no person distinction. It turned out that the acceptance rate of sentences of this type was very low in both groups (close to the average).

Tables 5–6 below present the results for the present tense of two other verbs (from the second questionnaire).

Table 5: Variation in the use of verbal affixes (pres. tense of *dröma* 'dream' and *spilå* 'play')

		Children (2)	Grown-ups (5)	Total (7)
3sg.	*dröm-er*	2	4	6
	dröm-ð	0	1	1
1pl.	*dröm-um*	2	5	7
2pl.	*dröm-ir*	1	2	3
	dröm-id	1	1	2
	dröm-er, dröm-de	0	2	2
3pl.	*dröm-a*	1	4	5
	dröm-er, dröm-d	1	1	2
1pl.	*spil-um*	2	5	7
2pl.	*spil-ir*	2	5	7
3pl.	*spil-å*	2	4	6
	spil-o	0	1	1

In table 5 we see that unlike the results for *baita* 'bite', there is no tendency to use null affixes in the plural. The forms of 3sg., 1pl. and 3pl. are in accordance with handbooks of Övdalian grammar (cf. Åkerberg 2012) with one exception in 3sg. and two exceptions in 3pl. As before (cf. table 4), most speakers either choose *-ir* or *-id* in 2pl. but there also the variants *-er* and *de* (the last one presumably mistaken as past tense). The data does not indicate any important difference between the younger speakers and the older ones.

Table 6 shows the results for the past tense which was not tested in the first questionnaire.

[4] Note that the subject is usually omitted in 1pl. so this particular form has a special syntactic status.

Table 6: Variation in the use of verbal affixes (past tense of *dröma* ‘dream’ and *spilå* ‘play’)

		Children (2)	Grown-ups (5)	Total (7)
3sg.	*dröm-de*	2	4	6
	dröm-d	0	1	1
1pl.	*dröm-dum*	1	5	6
	dröm-de	1	0	1
2pl.	*dröm-dir*	2	2	4
	dröm-did, dröm-der	0	3	3
3pl.	*dröm-de, dröm-d(e)*	2	3	5
	dröm-dä, dröm-dir	0	2	2
1pl.	*spil-edum, spil-eðum, spil-äðum*	2	3	5
	spil-äð, spil-um	0	2	2
2pl.	*spil-äðir, spil-eðir, spil-edir*	0	3	3
	spil-äð, spil-ed, spil-et, spil-id	2	2	5
3pl.	*spil-äð, spil-äd, spil-eð, spil-ed, spil-et*	2	5	7

Here we see more variation than in the present tense. The 3sg. forms of both verbs and the 1pl. form(s) for *dröma* ‘dream’ are in accordance with Åkerberg’s (2012) handbook with one exception in each category (the exceptions are not from the same speaker though). Abstracting away from the spelling, all speakers use the same form in 3pl. of *spilå* ‘play’, i.e. *-äð* (*-äða* would be the expected form in environments where there is no deletion of final vowels), and 5 out of 7 speakers use (some form of) the expected *-äðum* ending in 1pl. of this same verb. 2pl. of *spilå* ‘play’ has seven different forms if spelling diffences are taken into account but abstracting away from orthography presumably leaves only two different pronunciations, i.e. *-äðir* and *-äð*. Again, there is no tendency to use zero-endings and there is no important difference between the younger speakers and the older ones.

The crucial data with respect to the RAHw concern the past tense forms of weak verbs like *dröma* ‘dream’ and *spilå* ‘play’ (table 6), as these forms are expected to distinguish between the tense marker and the agreement marker. Although most speakers make this distinction in most cases (cf. the plural endings in table 6), there is considerable variation, with only 3 out of 7 speakers showing no sign of a merger between different forms in the past tense. Actually, one of the older informants told me after she had taken the test that the verbal paradigm fill-in task was the most difficult part and that she would need help with things of this sort in her formal writing. A situation like this is unexpected in a stable system of verbal inflection. These results regarding verbal inflection suggest that morphological evidence for a positive setting for a split IP is not unambiguous in Övdalian anymore.

The expectation that speakers that consistently inflect verbs according to the traditional pattern, as presented by Åkerberg (2012), would score differently with respect to the syntactic variables that were investigated, was not fulfilled. The three consistent speakers did not form a uniform group when grading the example sentences.

3.3 Verb/adverb placement in subject-initial embedded clauses

In the previous literature on verb movement in the Scandinavian languages it has often been pointed out that the conditions for Vfin-Adv order (V2) and Adv-Vfin order (V3) in subject-initial clauses depend to some extent on the type of embedded clause. In the Mainland Scandinavian languages, where Adv-Vfin is the default word order, embedded V2 is mostly restricted to complements of predicates of type A, B and E. In Icelandic, where Vfin-Adv is always the unmarked word order, subject-initial V3 is for the most part restricted to relative clauses, some types of adverbial clauses (including conditional clauses) and indirect questions introduced by a *wh*-pronoun (Angantýsson 2007). In this section I shall present the total results by different types of embedded clauses and consider the results on an individual basis, in light of the results from the verbal paradigm fill-in task.

Tables 7–8 show the results for assertive *att*-clauses, i.e. complements of bridge verbs (11–16) versus non-bridge verbs (17–18).[5]

Table 7: V2/V3 in subject-initial *att*-clauses (complements of bridge-verbs)

	OK	?	*	Both OK	Neither OK
(10) *Du wet att påitjin **twä'dd oltiett** biln* **(V2)** you know that son-the washed always car-the 'You know that the son always washed the car'	33%	37%	30%		
(11) *Du wet att påitjin **oltiett twä'dd** biln* **(V3)** you know that son-the always washed car-the 'You know that the son always washed the car'	80%	10%	10%	14%	2%
(12) *Du wet att Anna **wild int** kriuop ijuop sos* **(V2)** you know that Anna wanted not nestle up like *iet fuoster* a fetus 'You know that Anna did not want to nestle up like a fetus'	67%	18%	13%		
(13) *Du wet att Anna **int wild** kriuop ijuop sos* **(V3)** you know that Anna not wanted nestle up like *iet fuoster* a fetus 'You know that Anna did not want to nestle up like a fetus'	69%	13%	18%	47%	11%
(14) *Du wet att Anna **wild it** kriuop ijuop sos* **(V2)** you know that Anna wanted not nestle up like *iet fuoster* a fetus 'You know that Anna did not want to nestle up like a fetus'	60%	24%	16%		
(15) *Du wet att Anna **it wild** kriuop ijuop sos* **(V3)** you know that Anna not wanted nestle up like *iet fuoster* a fetus 'You know that Anna did not want to nestle up like a fetus'	56%	23%	21%	27%	14%

[5] Examples (10–11) were used in both questionnaires (52 speakers) whereas examples (12–17) were only used in the first quesionnaire (45 informants).

Table 8: V2/V3 in subject-initial *att*-clauses (complements of non-bridge verbs)

	OK	?	*	Both OK	Neither OK
(16) *Ed war undelit att Anna* ***wild oltiett*** *kriuop ijuop* **(V2)** it was strange that Anna wanted always nestle up *sos iet fuoster* like a fetus 'It was strange that Anna always wanted to nestle up like a fetus'	30%	23%	46%		
(17) *Ed war undelit att Anna* ***oltiett wild*** *kriuop ijuop* **(V3)** it was strange that Anna always wanted nestle up *sos iet fuoster* like a fetus 'It was strange that Anna always wanted to nestle up like a fetus'	82%	11%	7%	16%	7%

The Adv-Vfin order was widely accepted, although the acceptance rate never surpasses 82%, while the Vfin-Adv order is much more restricted. There is a slight difference between the acceptability of V2 in complements of bridge verbs on the hand (10) and non-bridge verbs on the other hand (16), in such a way that more speakers fully reject it in the latter type of clauses. The main contrast, however, is between Vfin-Adv as in (10) and (16) and Vfin-Neg as in (12) and (14). In other words, the finite verb can more easily precede the negation than a sentence adverb like *oltiett* 'always' (cf. also Garbacz 2006 and 2010). This is exactly the opposite of the situation in Northern Norwegian (Bentzen 2007).[6] In addition to the information in tables 7–8, it should be mentioned that no speaker who accepted or rejected both orders did do so consistently. We do not know if there was a preferred order for those who accepted both orders since the informants were not asked to rank two acceptable choices.

According to Garbacz (2006:179), verb movement "seems to be obligatory" in indirect questions introduced by *wiso* 'why'. Table 9 presents my overall results for this type of embedded clauses.

Table 9: V2/V3 in indirect questions

	OK	?	*	Both OK	Neither OK
(18) *Ig will witå* <u>*wiso*</u> *Anna* ***kumb it*** *noð* **(V2)** I want know why Anna comes not NPI 'I want to know why Anna does not come'	80%	13%	7%		
(19) *Ig will witå* <u>*wiso*</u> *Anna* ***it kumb*** *noð* **(V3)** I want know why Anna not comes NPI 'I want to know why Anna does not come'	75%	20%	5%	63%	4%
(20) *Ig will witå* <u>*wiso*</u> *Anna* ***add it*** *kumið noð* **(V2)** I want know why Anna had not come NPI 'I want to know why Anna had not come	57%	25%	18%		
(21) *Ig will witå* <u>*wiso*</u> *Anna* ***it add*** *kumið noð* **(V3)** I want know why Anna not had come NPI 'I want to know why Anna had not come NPI'	48%	32%	20%	34%	32%

[6] The default position of the negation seems to be between the complementizer and the subject in embedded clauses in Övdalian (see Rosenkvist 1994, 2011 and Garbacz 2010 and references there). Actually, the sentence adverb *older/aldri* 'never' also occurs in that position (see also Garbacz 2010). As examples (14) and (16) show, the strong form of the negation (*int*) is preferred over the weak form (*it*) in pre-verbal position. This is expected under Garbacz's analysis of negation in Övdalian (Garbacz 2010).

Both orders receive similar scores and for many speakers V2/V3 is optional. This is totally different both from Icelandic, where the V3 order is difficult to use in indirect questions of this type, and from Danish where the V2 order is very hard to get. In (19) and (21), the negation preceding the finite verb has a weak form which probably results in more negative judgments because usually the negation only appears in the weak form when following the finite verb (Garbacz 2006). The Vfin-Neg order is easier if the finite verb is a main verb than an auxiliary ((18) versus (20)). Interestingly, relative clauses behave differently in this respect as we will see.

The results for adverbial clauses are shown in tables 10–12. Let us first look at causal clauses introduced by *ettersos* 'because' (table 10).[7]

Table 10: V2/V3 in causal clauses

	OK	?	*	Both OK	Neither OK
(22) *Pappa war faingen ettersos påitjin* ***twä'dd oltiett*** **(V2)** father-the was glad because boy-the washed always *biln* car-the 'The father was glad because the son always washed the car'	34%	16%	50%		
(23) *Pappa war faingen ettersos påitjin* ***oltiett twä'dd*** **(V3)** father-the was glad because boy-the always washed *biln* car-the 'The father was glad because the son always washed the car'	88%	8%	4%	24%	5%
(24) *Warum tungner tjyöp wineð ettersos Anna* **(V2)** (we) were forced buy wine-the because Anna ***drock older*** *öleð* drank never beer-the 'We were forced to buy the wine because Anna never drank the beer'	29%	25%	46%		
(25) *Warum tungner tjyöp wineð ettersos Anna* **(V3)** (we) were forced buy wine-the because Anna ***older drock*** *öleð* never drank beer-the 'We were forced to buy the wine because Anna never drank the beer'	98%	0%	2%	27%	0
(26) *Bruorn wart jälåk ettersos Ierk* **(V2)** brother-the was angry because Ierk ***byövd oltiett*** *lån peningg min kamratum sainum* needed always borrow money from friends his-REFL 'The brother was angry because Ierk always needed to borrow money from his friends'	40%	28%	33%		
(27) *Bruorn wart jälåk ettersos Ierk* **(V3)** brother-the was angry because Ierk ***oltiett byövd*** *lån peningg min kamratum sainum* always needed borrow money from friends his-REFL 'The brother was angry because Ierk always needed to borrow money from his friends'	78%	11%	11%	22%	7%

As before the V3 order is clearly the unmarked choice. The V2 order gets similar judgments as in complement clauses with a non-negation adverb (there were no examples of Neg-Vfin or

[7] Examples (32–35) were used in both questionnaires (52 speakers) whereas examples (36–37) were only used in the first quesionnaire (45 informants).

Vfin-Neg order in my questionnaires). This is similar to the situation in the Mainland Scandinavian languages (Julien 2007) but different from Icelandic which has V2 as the default word order in causal clauses.

Tables 11–12 present the results for verb/adverb placement in conditional clauses introduced by *um* 'if'.[8]

Table 11: V2/V3 in conditional clauses (with the adverb *older* 'never')

	OK	?	*	Both OK	Neither OK
(28) *Dier werd fel lie'ssner um Alfrið* ***kumb older***[9] **(V2)** they become disappointed if Alfrið comes never 'They become disappointed if Alfrið never comes'	18%	20%	62%		
(29) *Dier werd fel lie'ssner um Alfrið* ***older kumb*** **(V3)** they become disappointed if Alfrið never comes 'They become disappointed if Alfrið never comes'	98%	2%	0%	16%	0

Table 12: V2/V3 in conditional clauses (with negation)

	OK	?	*	Both OK	Neither OK
(30) *Dier werd fel lie'ssner um Alfrið* ***kumb it*** *noð* **(V2)** they become disappointed if Alfrið comes not NPI 'They will be disappointed if Alfrið doesn't come'	45%	16%	39%		
(31) *Dier werd fel lie'ssner um Alfrið* ***it kumb*** *noð* **(V3)** they become disappointed if Alfrið not comes NPI 'They will be disappointed if Alfrið doesn't come'	58%	20%	22%	13%	12%
(32) *Dier werd fel lie'ssner um Alfrið* ***kumb int*** **(V2)** they become disappointed if Alfrið comes not 'They will be disappointed if Alfrið doesn't come'	21%	17%	62%		
(33) *Dier werd fel lie'ssner um Alfrið* ***int kumb*** **(V3)** they become disappointed if Alfrið not comes 'They will be disappointed if Alfrið doesn't come'	80%	4%	16%	11%	9%
(34) *Dier werd fel lie'ssner um Alfrið* ***kumb it*** **(V2)** they become disappointed if Alfrið comes not 'They will be disappointed if Alfrið doesn't come'	44%	16%	40%		
(35) *Dier werd fel lie'ssner um Alfrið* ***it kumb*** **(V3)** they become disappointed if Alfrið not comes 'They will be disappointed if Alfrið doesn't come'	49%	17%	34%	14%	21%

V3 is strongly preferred over V2. The number of speakers who accept V2 in conditional clauses ranges from 18% to 45%. Again, the Vfin-Neg order scores much higher than other Vfin-Adv orders (*older* 'never'), i.e. in case the negation has the weak form. According to Garbacz (2006, 5) the negative polarity item *noð* is optional in sentences like (31).

Finally, table 13 shows the results for relative clauses.[10]

[8] Examples (28–29) were used in both questionnaires (52 speakers) whereas examples (30–35) were only used in the first quesionnaire (45 informants).

[9] Some speakers said that they would use the (Swedish) lexical item *aldri* 'never' rather than *older* 'never'. When this came up I asked them to judge the sentence as if it had the former.

[10] The results in (36–39) are from 45 informants (both questionnaires) whereas the results for (40–41) are from 7 informants (only the second questionnaire). In the latter case I use actual numbers instead of percentages.

Table 13: V2/V3 in relative clauses[11]

	OK	?	*	Both OK	Neither OK
(36) *Ittað-jär ir ien buok so Alfrid* ***ar older*** *lesið* **(V2)** this is a book that Alfrið has never read 'This is a book that Alfrið has never read'	33%	17%	50%		
(37) *Ittað-jär ir ien buok so Alfrid* ***older ar*** *lesið* **(V3)** this is a book that Alfrið never has read 'This is a book that Alfrið has never read'	91%	7%	2%	21%	2%
(38) *Ittað-jär ir ien buok so Alfrið* ***ar sakt*** *lesið* **(V2)** this is a book that Alfrið has probably read 'This is a book that Alfrið has probably read'	36%	23%	41%		
(39) *Ittað-jär ir ien buok so Alfrið* ***sakt ar*** *lesið* **(V3)** this is a book that Alfrið probably has read 'This is a book that Alfrið has probably read'	78%	20%	2%	20%	7%
(40) *Ittað-jär ir buotję so Alfrið* ***las older*** **(V2)** this is a book that Alfrið read never 'This is the book that Alfrið never read'	0	0	7		
(41) *Ittað-jär ir buotję so Alfrið* ***older las*** **(V3)** this is a book that Alfrið never read 'This is the book that Alfrið never read'	7	0	0	0	0

Again, V3 is highly preferred over V2, which is very much the same situation as in the Mainland Scandinavian languages. The judgments of (40–41) indicate that V2 is more acceptable if the finite verb is an auxiliary, which is consistent with Garbacz's (2006) findings, but contrary to what we just saw for indirect questions. Abstracting away from (40), around one third of the speakers accepted V2 in relative clauses, which is similar to the acceptance rate in adverbial clauses and complement clauses. Notice that examples (38) and (39) contain the adverb *sakta* 'probably' whose distribution might be different from the distribution of central sentence adverbs like 'never' and 'always'. I did not have examples with negation in my questionnaires but Garbacz's (2010) data show that Neg-Vfin order is preferred over Vfin-Neg in relative clauses.

Table 14 shows a comparison of the different sentence types tested (regardless of the type of adverb and whether or not there was an auxiliary).

[11]Johan Brandtler (p.c.) points out that these relative clauses are all restrictive, and according to Hooper and Thompson (1973) we would not expect root transformations (nor subject-initial V2) in them. V2/V3 in non-restrictive relative clauses are certainly a relevant topic for further research.

Table 14: V2/V3 in different sentence types

			OK	?	*
Complements of bridge verbs	(table 6)	**V2**	52%	26%	22%
		V3	69%	17%	14%
Complements of non-bridge verbs	(table 6)	**V2**	30%	23%	47%
		V3	82%	11%	7%
Causal clauses	(table 8)	**V2**	53%	20%	27%
		V3	89%	6%	5%
Conditional clauses	(table 9)	**V2**	35%	22%	43%
		V3	72%	13%	15%
Indirect questions	(table 7)	**V2**	69%	19%	12%
		V3	61%	26%	13%
Relative clauses	(table 10)	**V2**	32%	18%	50%
		V3	85%	13%	2%

These data show very clearly that the Vfin-Adv order is always more marked than the Adv-Vfin order. The overall picture is very similar to the situation in the Mainland Scandinavian languages, with the exception of indirect questions.

Another interesting finding is that the older speakers allow V2 more freely than the younger speakers (table 15).

Table 15: V2/V3 in different age-groups

		The youngest informants (14-16 years old, 14 people)			**The oldest informants (74-89 years old, 14 people)**		
		OK	?	*	OK	?	*
that-clauses of type A, B and E	**V2**	6	5	3	8	4	1
	V3	11	2	1	10	4	0
that-clauses of type C and D	**V2**	3	4	7	6	5	3
	V3	10	2	1	12	2	0
Causal clauses	**V2**	3	4	6	7	4	3
	V3	13	1	0	13	1	0
Conditional clauses	**V2**	2	3	9	7	3	4
	V3	12	1	1	11	1	2
Indirect questions	**V2**	7	4	3	12	2	0
	V3	8	3	2	9	4	1
Relative clauses	**V2**	5	2	7	7	2	5
	V3	12	2	0	11	2	1

The V3 order scores similarly in both age groups, while the V2 order is always scored higher by the older speakers. Of course, these results are not statistically reliable since the number of informants is too low, but they suggest that there is age-related variation with respect to verb placement in embedded clauses in Övdalian. The overall results for verb/adverb placement are consistent with recent syntactic studies (Rosenkvist 1994; Garbacz 2006) which indicate that V2 is not obligatory in embedded clauses in Övdalian as has been traditionally assumed (on the basis of Levander 1909). Moreover, my data show very clearly that V2 is always marked as opposed to the V3 order, with the exception of indirect questions with a negation,

and, most interestingly, that there is a correlation between declension of V2 and simpler morphology (the younger speakers).

3.4 Embedded topicalization

There have been conflicting claims in the literature as to the extent to which ET is applicable in complement clauses in the Scandinavian languages. Rögnvaldsson & Thráinsson (1990), Vikner (1995: 72) and Holmberg & Platzack (1995: 78–79) all assume that Icelandic allows it more freely than the Mainland Scandinavian languages, whereas Ottósson (1989), Jónsson (1996, 36–37), and Wiklund et al. (2009) claim that Icelandic and Mainland Scandinavian ET display similar restrictions (see also discussions and an analysis in de Cuba 2007). The data in tables 16–17 suggest that Övdalian does not show any significant peculiarities in this respect.

Table 16: Embedded topicalization in *att*-clauses (matrix predicates of classes A and E)

	OK	?	*
(42) *Gunnar miener at Ilma ar stuolið iss-jär peningger* Gunnar claims that Ilma has stolen this-there money 'Gunnar claims that Ilma has stolen this money'	7	0	0
(43) *Gunnar miener at* ***iss-jär peningger*** *ar* Ilma *stuolið* Gunnar claims that this-there money has Ilma stolen 'Gunnar claims that Ilma has stolen this money'	5	2	0
(44) *An wart iwari at an add it lesið ǫ-dar buotję* he became aware that he had not read she-there book-the 'He discovered he had not read that book'	7	0	0
(45) *An wart iwari at* ***ǫ-dar buotję*** *add an it lesið* he became aware that she-there book-the had he not read 'He discovered he had not read that that book'	4	2	1

Table 17: Embedded topicalization in *att*-clauses (matrix predicates of classes C and D)

	OK	?	*
(46) *Ig twivler ǫ at ǫ ar råkað an-dar kall'n* I doubt on that she has met he-there man-the 'I doubt that she has met that man'	7	0	0
(47) *Ig twivler ǫ at* ***an-dar kall'n*** *ar ǫ råkað* I doubt on that he-there man-the has she met 'I doubt that she has met that man'	0	4	3
(48) *Ministern aunggrer at dier åvå it diskutirað ǫ-dar satję* Minister-the regrets that they have not discussed she-there matter 'The minister regrets that they have not discussed this matter'	6	1	0
(49) *Ministern aunggrer at* ***ǫ-dar satję*** *åvå dier it diskutirað* Minister-the regrets that she-there matter have they not discusse 'The minister regrets that they have not discussed this matter'	4	3	0

The acceptability of topicalization in *att*-clauses varies with respect to the type of predicate in the matrix clause. Five speakers out of seven accept ET in a clause which is a complement of the non-factive and assertive predicate *miena* 'claim' (class A) and four out of seven fully accept it in a complement of the semi-factive *wårå iwari* 'discover' (predicate of class E). This is to be expected under Hooper & Thompson's (1973) theory. Nobody fully accepts ET in a complement of the non-assertive predicate *twivel* 'doubt' (class C) which is also predicted by Hooper & Thompson. ET in a complement of the factive, non-assertive predicate *aungger*

'regret' (class D) gets rather positive judgments. This is a bit surprising in the light of Hooper & Thompson's (1973) theory.

Not surprisingly, the acceptability rate of ET in other types of embedded clauses is very low (tables 18–19).

Table 18: Embedded topicalization in indirect questions and adverbial clauses

	OK	?	*
(50) *Ig spuord wiso Pietter ar it lesið ǫ-dar buotję* I asked why Peter has not read she-there book-the 'I asked why Peter had not read that book'	7	0	0
(51) *Ig spuord <u>wiso</u> **ǫ-dar** **buotję** ar Pietter int lesið* I asked why she-there book-the has Peter not read 'I asked why Peter had not read that book'	0	2	5
(52) *Um an ar aldri si'tt filmin ur beller an doǫ åvå nogų mieningg um an?* if he has never seen movie-the how can he then have some opinion about he 'If he has never seen the movie how can he have any opinion of it?'	7	0	0
(53) *<u>Um</u> **filmin** ar an aldri si'tt ur beller an doǫ åvå nogų mieningg um an?* if movie-the has he never seen how can he then have some opinion about he 'If he has never seen the movie how can he have any opinion of it?'	0	1	6
(54) *Äva ly'dd ǫ raðio mes ǫ kuokeð suppą* Äva listened to radio while she cooked food-the 'Äva listened to the radio while she cooked the food'	7	0	0
(55) *Äva ly'dd/ärd ǫ raðio <u>mes</u> **suppą** kuokeð ǫ* Äva listened to radio while food-the cooked she 'Äva listened to the radio while she cooked the food'	0	1	6

Table 19: Embedded topicalization in relative clauses

	OK	?	*
(56) *Ittað-jär ir påitjin so ig råkeð i Stokkol sienest gaundjin* this-here is boy-the that I met in Stockholm last time 'This is the boy that I met in Stockholm last time'	7	0	0
(57) *Ittað-jär ir påitjin <u>so</u> **i Stokkol** råkeð ig sienest gaundjin* this-here is boy-the that in Stockholm met I last time 'This is the boy that I met in Stockholm last time'	0	0	7

Most speakers judge all the ET-examples as fully ungrammatical. Similar trends hold true for Icelandic, Faroese and Danish (see Angantýsson 2011). Therefore, it seems reasonable to assume that the possibilities of ET depend on semantic/syntactic properties of CPs rather than IPs: If it were related to morphology one would expect variation.

Finally, let us look at the transitive expletive construction. This phenomenon has been assumed to be a characteristic of languages with "extra" subject positions and the RAHw predicts that it should exist in languages with separate tense and agreement markers. Table 20 shows the results for the test sentence:

Table 20: Transitive expletive construction

	OK	?	*
(58) *Nog autleningger tjyöpt gamtstugų* some foreigners bought old-house-the 'Some foreigners bought the old house'	7	0	0
(59) ***Eð** tjyöpt nog autleningger gamtstugų* EXPL bought some foreigners old-house-the 'Some foreigners bought the old house'	0	0	7

As we can see, the TEC-example gets no "votes" (for a detailed discussion on expletive constructions in Icelandic and related languages, see Thráinsson 2007, 309-340).

In section 2, I proposed the following hypothesis:

(60) The speakers who are most willing to accept verb movement in non-V2 contexts are also most willing to allow TECs.

This hypothesis is obviously not supported by my data, so here we have a "disassociation" of V-to-I movement and a phenomenon commonly associated with V-to-I movement.

The result is that Övdalian can be viewed as standing midway between Icelandic and the Mainland Scandinavian languages with respect to V2-order in embedded clauses. We have seen evidence for V2-order as a root phenomenon, which is reminiscent of the Mainland Scandinavian languages (but not Icelandic), i.e. dependent on the properties of the CP, but we have also seen evidence for V-to-I movement as in Icelandic (but not the Mainland Scandinavian languages) because the V2-order is not completely impossible in embedded clauses where topicalization is excluded.

None of the working hypotheses introduced in section 2.3 are supported by the Övdalian data. For instance, there is no connection between accepting Vfin-Adv order in non-V2 contexts and allowing ET and there is no direct connection between showing the full inflectional paradigm for verbs and allowing TECs or Vfin-Adv order in non-V2 contexts. However, the general picture is that the younger speakers are most likely to simplify the verbal morphology and least likely to accept the Vfin-Adv order. In that sense there is a correlation between the two linguistic variables.

4 Conclusions

In modern Övdalian, verb movement in various types of embedded clauses appears to be on its way out. This is similar to the situation in Faroese, but unlike in Faroese (and Icelandic), TECs are heavily degraded in Övdalian. ET seems to obey restrictions that are similar to those of the other Scandinavian languages. It turns out that the older speakers of Övdalian allow the Vfin-Adv order more freely than the younger speakers, and the conditions for subject-initial V2 depend to a certain extent on the type of embedded clause as well as the type of finite verb and adverb. The results from a verbal paradigm fill-in task reveal substantial variation in the use of verbal affixes and, interestingly, a tendency, especially by the younger speakers, to simplify the verbal morphology.

The relevance of these results for different versions of the Rich Agreement Hypothesis is discussed in the paper (Holmberg & Platzack 1995, Vikner 1995, 1997, Jonas 1996, Rohrbacher 1999, Bobaljik 2002, Thráinsson 1996, Bobaljik and Thráinsson 1998, Thráinsson 2010, Koeneman and Zeijlstra 2014, Gärtner 2016). In short, it is maintained that two kinds of V2-order can be found in Övdalian embedded clauses (see a similar analysis of Faroese in Heycock et al. 2012). On the one hand there is V-to-C and hence there is very clear evidence that assertion plays a role in the distribution of V2-order in subject-initial complement clauses in Övdalian: If the complement proposition can be interpreted as the

main assertion of the utterance then V2 is usually fine, but if the matrix predicate expresses the main assertion then V2 is heavily degraded in most cases. But embedded V2-orders in Övdalian embedded clauses cannot all be attributed to V-to-C since they are also accepted, by some speakers at least, in clauses where ET is completely impossible, such as relative clauses and indirect questions (clauses that have no root properties). This suggests that V-to-I is also a possibility in Övdalian. Some versions of the so-called Rich Agreement Hypothesis (e.g. Bobaljik and Thráinsson 1998) would then predict that transitive expletives should also be possible in Övdalian but this prediction is not borne out.

References

Angantýsson, Á. 2007. Verb-third in embedded clauses in Icelandic. *Studia Linguistica 61*(3): 237–260.

Angantýsson, Á. 2011. *The syntax of embedded clauses in Icelandic and related languages*. Ph.D.-thesis, University of Iceland.

Angantýsson, Á. 2015. Um sagnbeygingu og sagnfærslu í elfdælsku ['On verbal inflection and verb movement in Övdalian']. *Íslenskt mál* 37: 81–112.

Bentzen, K. 2007. *Order and Structure in Embedded Clauses in Northern Norwegian.* Ph.D. thesis, University of Tromsø.

Bentzen, K. forthcoming. Kronoby revisited: Verb movement in embedded non-V2 contexts in Northern Ostrobothnian. *Nordlyd. Tromsø Working Papers in language and Linguistics*.

Bentzen, K., Hrafnbjargarson, G. H., Hróarsdóttir, T., & Wiklund, A.-L. 2007. The Tromsø guide to the Force behind V2. *Working Papers in Scandinavian Syntax 79*: 93–118.

Bentzen, Kristine, Henrik Rosenkvist and Janne Bondi Johannessen (eds.). 2015. *Studies in Övdalian Morphology and Syntax. New Research on a Lesser Known Scandinavian Language*, pp. 87–105. Amsterdam: John Benjamins.

Bobaljik, J. D. 2002. Realizing Germanic Inflection: Why Morphology Does Not Drive Syntax. *Journal of Comparative Germanic Linguistics 6*: 129–167.

Bobaljik, J. D., & Thráinsson, H. 1998. Two Heads Aren't Always Better than One. *Syntax 1*: 37–71

Chomsky, N. 1995. *The Minimalist Program*. Massachusetts: The MIT-Press.

Cornips, L., & Poletto, C. 2005. On standardising syntactic elicitation techniques (part 1). *Lingua 115*(7): 939–957.

de Cuba, C. 2007. *On (Non)Factivitiy, Clausal Complementation and the CP-Field.* Ph.D. thesis, Stony Brook, New York.

de Haan, G. 2001. More is going on upstairs than downstairs: embedded root phenomena in West Frisian. *Journal of Comparative Germanic Syntax 4*(1): 3–38.

Emonds, J. 2004. Unspecified Categories as the Key to Root Constructions. In D. Adger, C. de Cat & G. Tsoulas (Eds.), *Peripheries. Syntactic Edges and their Effects* (pp. 75–120). Dordrecht / Boston / London: Kluwer Academic Publishers.

Falk, C. 1993. *Non-Referential Subjects in the History of Swedish.* Ph.D. thesis, University of Lund.

Garbacz, P. 2006. Verb movement and negation in Övdalian. *Working Papers in Scandinavian Syntax 78*: 173–190.

Garbacz, P. 2010. *Word Order in Övdalian.* Ph.D. thesis, Lund University.

Garbacz, Piotr. 2015. Optional V-to-I Movement in Övdalian. In Bentzen, Kristine, Henrik Rosenkvist and Janne Bondi Johannessen (eds.). 2015. *Studies in Övdalian Morphology and Syntax. New Research on a Lesser Known Scandinavian. Language*, pp. 87–105. Amsterdam: John Benjamins.

Garbacz, P., Håkansson, D., & Rosenkvist, H. 2007. [Review of] John D. Sundquist. Morphosyntactic Change in the History of Mainland Scandinavian Languages. Ann Arbor, MI: ProQuest, 2002, 389 pp. *Nordic Journal of Linguistics 30*(1): 137–146.

Gärtner, H.-M. 2016. A Note on the Rich Agreement Hypothesis and Varieties of "Embedded V2". *Working Papers in Scandinavian Syntax* 96: 1–13.

Haegeman, L. 2003. Conditional Clauses: External and Internal Syntax. *Mind and Language 18*(4): 317–339.

Haegeman, L. 2006a. Argument Fronting in English, Romance CLLD and the Left Periphery. In R. Zanuttini, H. Campos, E. Herburger & P. Portner (Eds.), *Negation, Tense and Clausal Architecture: Cross-linguistic Investigations* (pp. 27–52). Washington: Georgetown University Press.

Haegeman, L. 2006b. Conditionals, factives and the left periphery. *Lingua 116*(10): 1651–1669.

Haegeman, L. 2010. *The movement derivation of conditionals*. The Movement Derivation of Conditional Clauses. *Linguistic Inquiry* 41 (4): 595–621.

Heycock, Caroline, Antonella Sorace and Zakaris S. Hansen. 2010. V-to-I and V2 in Subordinate Clauses: An Investigation of Faroese in Relation to Icelandic and Danish. *Journal of Comparative Germanic Linguistics* 13(3):61–97.

Heycock, Caroline, Antonella Sorace, Zakaris Svabo Hansen, Frances Wilson and StenVikner. 2012. Detecting the Late Stages of Syntactic Change: The Loss of V-to-T in Faroese. *Language* 88 (3):558–600.

Holmberg, A., & Platzack, C. 1995. *The Role of Inflection in Scandinavian Syntax*. Oxford: Oxford University Press.

Hooper, J., & Thompson, S. 1973. On the applicability of Root Transformations. *Linguistic Inquiry 4*: 465–497.

Iatridou, S., & Kroch, A. S. 1992. The Licensing of CP-recursion and its Relevance to the Germanic Verb-Second Phenomenon. *Working Papers in Scandinavian Syntax 50*: 1–24.

Jonas, D. 1996a. *Clause structure and verb syntax in Scandinavian and English.* Ph.D. thesis, Harvard University.

Jonas, D. 1996b. Clause Structure, Expletives, and Verb Movement. In W. Abraham, S. D. Epstein, H. Thráinsson & C. J.-W. Zwart (Eds.), *Minimal Ideas: Syntactic Studies in the Minimalist Framework* (pp. 176–188). Amsterdam: John Benjamins.

Jónsson, J. G. 1996. *Clausal Architecture and Case in Icelandic*. Amherst: GLSA, University of Massachusetts.

Julien, M. 2007. Embedded V2 in Norwegian and Swedish. *Working Papers in Scandinavian Syntax* 80: 103–161.

Koeneman, Olaf and Hedde Zeijlstra. 2014. The Rich Agreement Hypothesis Rehabilitated, *Linguistic Inquiry* 45:571–615.

Levander, L. 1909. *Älvdalsmålet i Dalarna. Ordböjning ock syntax [Övdalian. Inflection and syntax]*. Stockholm: Kungl. boktryckeriet P. A. Norstedt & söner.

Ottósson, K. 1989. VP-Specifier Subjects and the CP/IP Distinction in Icelandic and Mainland Scandinavian. *Working Papers in Scandinavian Syntax 44*: 89–100.

Pollock, J.-Y. 1989. Verb Movement, Universal Grammar and the Structure of IP. *Linguistic Inquiry* 20: 365–424.

Rizzi, L. 1997. The Fine Structure of the Left Periphery. In L. Haegeman (Ed.), *Elements of Grammar. Handbook in Generative Syntax* (pp. 281–337). Dordrecht/Boston/London: Kluwer Academic Publishers.

Rohrbacher, B. W. 1999. *Morphology-Driven Syntax. A Theory of V-to-I Raising and Pro-Drop*. Amsterdam/Philadelphia: John Benjamins.

Rosenkvist, H. 1994. *Tecken på syntaktisk utveckling i älvdalsmålet under senare tid.* BA thesis, Lund University

Rosenkvist, Henrik. 2011. Verb Raising and Referential Null Subjects in Övdalian. *Working Papers in Scandinavian Syntax* 88:1–20.

Rögnvaldsson, E., & Thráinsson, H. 1990. On Icelandic Word Order Once More. In J. Maling & A. Zaenen (Eds.), *Syntax and Semantics 24. Modern Icelandic Syntax* (pp. 3–40). San Diego: Academic Press.

Sigurðsson, H. Á. 1989. *Verbal Syntax and Case in Icelandic*. Lund: Department of Scandinavian Languages, Lund University.

Sundquist, J. D. 2002. *Morphosyntactic Change in the History of the Mainland Scandinavian Languages.* Ph.D. thesis, Indiana University.

Thráinsson, H. 1986. V1, V2, V3 in Icelandic. In H. Haider & M. Prinzhorn (Eds.), *Verb Second Phenomena in Germanic Languages* (pp. 169–174). Dordrecht Foris.

Thráinsson, H. 1996. On the Non-Universality of Functional Categories. In W. Abraham, S. D. Epstein, H. Thráinsson & C. J.-W. Zwart (Eds.), *Minimalist Ideas: Syntactic Studies in the Minimalist Framework* (pp. 253–281). Amsterdam: John Benjamins.

Thráinsson, H. 2001. Object Shift and Scrambling. In M. Baltin & C. Collins (Eds.), *The Handbook of Contemporary Syntactic Theory* (pp. 148–202). Oxford: Blackwell.

Thráinsson, H. 2003. Syntactic Variation, Historical Development and Minimalism. In R. Hendrick (Ed.), *Minimalist Syntax* (pp. 152–191). Oxford: Blackwell.

Thráinsson, H. 2007. *The Syntax of Icelandic*. Cambridge: Cambridge University Press.

Thráinsson, H. 2010. Predictable and unpredictable sources of variable verb and adverb placement in Scandinavian. *Lingua* 120: 1062–1088.

Vangsnes, Ø. A. 2002. Icelandic Expletive Constructions and the Distribution of Subject Types. In P. Svenonius (Ed.), *Subjects, Expletives and the EPP* (pp. 43–70). Oxford: Oxford University Press.

Vikner, S. 1995. *Verb Movement and Expletive Subjects in the Germanic Languages*. Oxford: Oxford University Press.

Wiklund, A.-L., Bentzen, K., Hrafnbjargarson, G. H., & Hróarsdóttir, T. 2009. On the distribution and illocution of V2 in Scandinavian *that*-clauses. *Lingua* 119: 1914–1938.

Wiklund, A.-L., Hrafnbjargarson, G. H., Bentzen, K., & Hróarsdóttir, T. 2007. Rethinking Scandinavian verb movement. *The Journal of Comparative Germanic Linguistics* 10(3): 203–233

Åkerberg, Bengt. 2012. *Älvdalsk grammatik*. Älvdalen: Ulum Dalska.

Ásgrímur Angantýsson,
University of Iceland
E-mail: asgriman@hi.is

Pragmatic differentiation of negative markers in the early stages of Jespersen's cycle in North Germanic

Tam Blaxter & David Willis
University of Cambridge

This paper investigates the pragmatic function of new negative markers during incipient cyclic renewal of negation (Jespersen's cycle). It outlines a typology of such markers, suggesting a pathway along which their function develops from emphatic to negation of explicitly stated/forward-inferable existing propositions to negation of discourse-old propositions. This framework is applied to a previously overlooked case of Jespersen's cycle, replacement of early Norwegian *ei*(*gi*) 'not' by *ekki* (originally 'nothing'). We document a sharp rise in frequency of *ekki* around 1425, suggesting that, until then, *ekki* had been subject to a constraint restricting it to negating discourse-old propositions. Once this constraint was lifted, *ei*(*gi*) and *ekki* competed directly, the result being rapid replacement of *ei*(*gi*) by *ekki*. This typologically unusual direct replacement of a negator with no intervening doubling stage can be attributed to the new negator's origin as a negative indefinite and the lack of negative concord in early Norwegian.

1 Introduction

A number of recent studies have suggested that, where a language has two ways to express negation, one of them is associated with additional procedural meaning, often based on the information-structure status of the negated proposition. Furthermore, when applied to historical situations, this suggestion leads to the idea that new markers of negation proceed through a stage when they act as negators of discourse-old propositions, extending their domain over time along a hierarchy of discourse contexts before generalizing as the unmarked negation strategy in the language. In this paper, we take stock of these existing proposals, and extend the resulting framework for understanding the development of innovative negative markers to a new case study, namely the emergence of *ekki*, a new marker of negation that developed in Old Norwegian (1000–1350) and Middle Norwegian (1350–1550) in competition with the existing marker *ei*(*gi*), eventually replacing it entirely.

2 Background to Jespersen's cycle

Jespersen's cycle is the name given to a sequence of changes by which the means of marking clausal negation in a language are renewed. This remarkably consistent sequence has been observed in the histories of a large number of languages. While the cycle was first described as early as 1904 by the Egyptologist Alan Gardiner (1904: 134), it came to prominence principally through the work of Otto Jespersen (1917: 6–14), who originally described it on the basis of developments from Latin to French, Old Norse to Danish, and Old to Modern English:

> The original negative adverb is first weakened, then found insufficient and therefore strengthened, generally through some additional word, and this in its turn may be felt as the negative proper and may then in course of time be subject to the same development as the original word.
>
> (Jespersen 1917: 4)

Jespersen's work was integrated into a typological framework by Östen Dahl, who first termed this phenomenon 'Jespersen's cycle' (Dahl 1979: 88–89).

Jespersen's description gives the following constructions in the cycle, illustrated using examples from the development of negation in French, the best known example:

construction I: negation is marked with a (canonically preverbal) adverb (*ne* V);
construction II: negation is marked with the preverbal adverb plus an innovative (canonically postverbal) adverb (*ne* V *pas*);
construction III: negation is marked only with the innovative postverbal adverb (V *pas*).

In the canonical Jespersen's cycle, constructions I and II coexist for a time, before construction II wins out, and constructions II and III coexist for a time, before construction III wins out. A language that consistently uses only construction II can be referred to as a stage II language, and so on for the other constructions, but most languages undergoing the cycle are in fact in transition between two stages, the relative stability of French *ne…pas* being atypical in this respect, perhaps due to the unusually strong prescriptive pressure in this case (cf. Ayres-Bennett 1994: 74–75). It is indeed not unknown for a language to exhibit all three constructions at a single point in its development (van der Auwera 2010: 78, Willis 2012: 115).

The innovative adverb added in construction II typically begins life as an adverbial or nominal generalizer or minimizer. The nominal minimizers known from the most well-studied examples of the cycle generally start out as nouns referring to small objects (e.g. *κλωνί* "twig" and *ψίχαλο* "crumb" in Greek; *pas* "step" and *mie* "crumb" in French) before being reanalysed as adverbial elements and undergoing semantic extension to a wider set of contexts. The pathway of semantic development for such a noun is "minimal piece" > "minimal quantity" > "minimal degree" (Kiparsky & Condoravdi 2006: 173–175).

Minimizers are focused elements, used by speakers to stress the informativity of their message. As a result they become negative polarity items (NPIs), ultimately restricted to direct negative contexts only. By being focused, they evoke alternative propositions ordered on a scale (*I didn't eat a crumb*, *I didn't eat an apple*, *I didn't eat a sandwich*, *I didn't eat a three-course meal* etc.). Being used by speakers to stress informativity, they must express the most surprising point on the scale. The minimal amount is only the most surprising or improbable point on a negative scale: *I didn't eat a crumb* is more surprising or improbable than *I didn't eat an apple*, since it gives rise to a scalar implicature that the predicate fails to hold of all objects greater than "a crumb". However, in an affirmative context, a minimizer is the least informative choice: *I ate a crumb* is not more surprising or improbable than *I ate an apple* (Eckardt 2006, 2012, Israel 2001, 2011; see also discussion of emphasis below). Once conventionalized as the usual way of expressing surprising or improbable negation, the minimizer may be reanalysed as a marker of clausal negation. It is widely assumed that during the transition from stage I to stage II, when the stage II negation option is available but not mandatory, it has the function of expressing distinctively 'emphatic' negation (Kiparsky & Condoravdi 2006: 173–175).

Similar logic can be applied to another common source of Jespersen's cycle, namely indefinites (e.g. *nāwiht* "nothing" > *not* in Old and Middle English; *niowiht* "nothing" > *nicht*

in Old and Middle High German; *dim* "anything" in Welsh etc.). These may sometimes function directly as minimizers, but in other cases, they are generalizing items, developing negative uses from their association with free-choice items: the proposition is said to be false for an arbitrarily chosen member of the set of possible objects (cf. Horn's 2000 view of English *any*) or for the value assigned to the object in all possible worlds, cf. Giannakidou's (2001) account of free choice. Thus it is said to be true of even the most surprising or improbable member of that set.

Finally, negative indefinite temporal adverbs (Colloquial English *never*, Cape Verdean Portuguese Creole *ka* "not" < Portuguese *nunca* "never") become negators as a consequence of being extended metaphorically from quantifying over possible times to quantifying over possible worlds (situations). They thereby come to mean that the proposition is false even under the most favourable conceivable conditions for it to be true.

3 Explanations for Jespersen's cycle: emphatic negation and information structure

Awareness of the form of the constructions present at each stage of the cycle was present in large part in Jespersen's original work on the subject and remains relatively uncontroversial. In other respects, our understanding of the cycle has developed. Jespersen originally understood the cycle as a pull chain driven by phonetic weakening through sound change of the plain negative creating the need for a more salient element (Breitbarth 2009: 85–96, Hansen 2009: 230, Horn 1989: 456–457, van der Auwera 2010: 80–81, Willis 2010: 113–114). This now seems dubious, at least for some cases. Kiparsky & Condoravdi (2006: 175) argue that, in the attested cases of Jespersen's cycle — they disregard the reduction of Latin *non* to French *ne* — there is no evidence that the original negator underwent phonological reduction, but abundant evidence that the new negator did so, a development expected from our understanding of the way phonological erosion operates in grammaticalization more generally (cf. the irregular phonological reduction of Old English *nāwiht* to Middle English *noht* and Present-day English *not*). Hansen (2009: 230) argues that the reduction of Latin *non* to French *ne* cannot be responsible for the onset of Jespersen's cycle in French. She suggests that such an approach fails to account either for the gap of many centuries between the reduction of *non* to *ne* and for the emergence of reinforcement or for the presence of the cycle in other Romance varieties (northern Italo-Romance and Catalan) where reduction did not go this far. Van der Auwera (2010: 76, 80–81) regards this view as now outdated for the paradigm examples of Jespersen's cycle (French *pas* and Dutch *niet*), but leaves open the question of whether it could be correct in other cases.

Instead, building on the idea of a spiral of weakening proposed by Meillet (1912: 394), various linguists have suggested that semantic–pragmatic forces weakening the force of the 'emphatic' negative are the trigger and driver of the cycle: increased expressive use of the new form leads to its losing its emphatic force, and a pressure to eliminate the resulting redundancy (as both old and new negators now compete for the same function) leads to the replacement of the old by the new (Breitbarth 2009: 86–87, Kiparsky & Condoravdi 2006: 176, Schwegler 1983: 320–32, 1988: 36, 48, Willis 2010: 114). Detges (2003: 226–227) suggests that, since the emphatic negator indicates that the proposition expressed is

unexpected or surprising, speakers are incentivized to overuse it in order to capture the hearer's attention according to the Gricean maxim of relation (relevance). Israel (2011: 110–11) views this as a positive politeness strategy to intensify the hearer's interest. As speakers overuse the emphatic negator, however, the emphatic effect is gradually lost by an invisible-hand process, as hearers increasingly discount the contribution of the second negator. Hearers understand speakers' use of the expression as overstating the proposition, and conventionalize their understanding accordingly, weakening the semantic contribution of the expression (Detges & Waltereit 2002: 176–181).

Other recent work has suggested a hybrid approach, namely, that, in at least some cases, Jespersen's cycle may be both a pull and push chain. Research into the rise of the modern Welsh negative *ddim* via Jespersen's cycle demonstrates that the change was a push chain in its early stages, driven by a loss of the emphatic character of the innovative form, but later became a pull chain, as sound change rendered the older negative *ni*(*d*) phonetically weak (Willis 2010: 148–149). Work on Jespersen's cycle in West Germanic suggests that one trigger for the cycle may have been semantic–syntactic weakening of the preverbal negative *ne/ni*, which came in some contexts to be interpreted as a negative polarity item rather than an expression of sentential negation, but that it was also triggered by the reanalysis of postverbal negative items as expressions of sentential negation; thus here too the cycle can be seen as simultaneously a pull and push chain (Breitbarth 2009: 104–107).

4 Emphasis and activation

Before turning to our case study, we need to clarify another aspect of Jespersen's cycle, namely the pragmatic status of the new negator and the terminology used to describe this status. While new negators at the early stages of Jespersen's cycle are often described as 'emphatic', this term is often treated in an intuitive, undefined way, and, even when linguists do define emphasis, they do not always agree on what it means.

Some linguists define emphatic negation in an essentially syntactic way as the use of more than one negative item. Van der Wouden (1997: 243) thus defines it as "the usage of multiple negation to strengthen the force of the negation". Similarly, for Zeijlstra (2004: 58), emphatic negation occurs when "one negative element enforces [*sic*] another negative element", the result being "stronger than would be the case with just the second negative element". However, this kind of definition does not help us to distinguish between, say, *ne…pas* in Old French (normally thought of as in some way 'emphatic'), and *ne…pas* in Modern French (normally thought of as expressing ordinary negation). It is also not particularly useful when dealing with historical data, since it not the form of the negation that is at issue, but its semantics at a given state of the history of a language.

More relevant to the present discussion is Israel's (1996, 2001, 2011) treatment of emphasis as a property of one type of negative polarity item, namely, minimizers such as (*sleep*) *a wink*, and of one type of positive polarity item, such as *awfully*. On this view, emphatic items are inherently scalar and have a high informational value (i-value). Emphasis involves a speaker expressing the attitude that the informative strength of their proposition is high. Emphatic items license inferences to all informationally weaker options on their scale, and thereby commit the speaker to a maximally informative interpretation of what has been

said. Thus, in (1), the emphatic element *the least bit* evokes a scale of nervousness, and commits the speaker to the inference that all degrees of nervousness greater than or equal to "the least bit" would cause the sky-diving to be cancelled.

(1) If you're the least bit nervous, we can skip the sky-diving. (Israel 2001: 298)

Continuing in this tradition, Larrivée (2014: 121) interprets emphasis as concerning "unmitigated assertions … which cannot … be subsequently hedged or toned down". Thus, example (2), with the emphatic negator *rien du tout* "not (nothing) at all", is pragmatically infelicitous because the hedge in the second sentence is incompatible with the claim of maximal informativity made in the first sentence. Conversely, example 0, with ordinary negation, makes no such claim and is felicitous.

(2) #J' ai dormi rien du tout. Peut-être un petit peu, mais pas beaucoup.
I have slept nothing at all perhaps a little little but NEG much
'I slept not at all. Maybe a little, but not much.' (Larrivée 2014: 121)

(3) J' ai pas dormi. Peut-être un petit peu, mais pas beaucoup.
I have NEG slept perhaps a little little but NEG much
'I didn't sleep. Maybe a little, but not much.' (Larrivée 2014: 121)

Piñón (1991), building on work by Fillmore, Kay & O'Connor (1988), argues that emphatic negation in Hungarian serves to deny the truth of a context proposition, "a previously posed proposition which is part of either the spoken or unspoken, pragmatically given and shared context and a proposition which the speaker can either explicitly accept or reject in the course of the discourse" (Piñón 1991: 250). Wallage (in press: section 6.3.2) also retains the term 'emphatic negation' but defines it as "denial of an antecedent proposition and cancellation of an inference".

Other linguists distinguish this or related special pragmatic functions for certain negators in some languages, but do not equate that function with 'emphasis'. Espinal (1999) argues that, in central dialects of Catalan, bipartite negation with *no…pas* enriches the pragmatic interpretation of negation either (i) to deny a contextually available proposition or inference; or (ii) to confirm a negative proposition that can be contextually inferred. The former situation is illustrated in **Error! Reference source not found.**, where B denies speakers A's assumption that A will be able to tell B something tomorrow. The latter is found in (5), where the inference of the first sentence that you have not changed is confirmed by the second.

(4) a. Demà t'ho diré.
tomorrow you-it tell.FUT.1SG
'I'll tell you tomorrow.' (Espinal 1999: 354)

b. Oh! no ens veurem pas demà.
oh NEG we see.FUT.1PL PAS tomorrow
'Oh! I will not see you tomorrow.' (Espinal 1999: 355)

(5) Al col·legi ja eres irònic i sorneguer. Veig que
in.the school already be.IMPF.2SG ironic and mocking see.PRS.1SG that
no has pas canviat.
NEG have.PRS.2SG PAS changed
'At school you were already ironic and mocking. I see that you have not changed.'
(Espinal 1999: 355)

This differs from Piñón's (1991) interpretation of the Hungarian case discussed above in allowing the negation to confirm an existing negative proposition, and in not using the term 'emphasis' to describe what is going on.

Schwenter (2006) argues that Catalan, Italian and Brazilian Portuguese can offer us living insights into stage II of Jespersen's cycle and proposes a more detailed analysis of the distribution of negative forms in those languages. Schwenter accepts Israel's (2001) definition of the term 'emphatic' as describing "the high informativity of a proposition relative to a scalar norm" (Schwenter 2006: 221, cf. above). Given this definition, it is clear that, in all of these cases, the postverbal negative element is not in fact emphatic but is instead regulated by information structure (2006: 329). Using Dryer's (1996) notion of 'activation', Schwenter unites Espinal's two contexts for the licensing of Catalan postverbal *pas* by suggesting that it is licensed by some prior element in the discourse (or physical context) referring to the same proposition: the proposition being negated must be discourse old (and also salient), although the relationship between the prior element in the discourse and the proposition may be one of inference. *Pas* is thus sensitive to the discourse status of the proposition being negated and not its hearer status. An important practical distinction between this 'activation hypothesis' and the cancellation-of-presupposition hypothesis is that *pas* can be used to agree with a prior negative statement in the discourse as well as to disagree with a positive one (Schwenter 2006: 333–334).

Finally, some linguists retain the terms 'emphasis' and 'emphatic negation' but apply them in a different way. Some simply have a wider definition of emphasis and allow it to take many forms. Thus, Kiparsky & Condoravdi (2006: 179–180), discussing multiple complete instances of Jespersen's cycle in Greek, write that emphatic negatives can have three functions: contradiction of a previous (possibly implicit) assertion; denial of an existing presupposition or expectation; and lifting contextual restrictions on the negative assertion, in particular, disambiguating telic and atelic readings of predicates by forcing a telic interpretation (e.g. an interpretation of *I haven't eaten the porridge* as "I haven't eaten any of the porridge"). Detges & Waltereit (2002) also seem to operate with a wider understanding of emphasis that includes both maximization of informativity and denial of presupposition among the possible forms that it might take.

In this paper, we take 'emphasis' and 'activation' to be distinct hypotheses about the pragmatic function of a given negator (cf. Larrivée 2016). We will limit 'emphasis' to refer to highly informative negation in the sense of Israel (2001, 2011) and Eckardt (2006, 2012), while we understand 'activation' to refer to sensitivity to information structure in the sense of Dryer (1996) and Schwenter (2006).

5 More on activation

As Larrivée (2010: 2242) notes, it is difficult, without access to native-speaker intuitions, to test whether a given use of a negator is emphatic in the sense defined here. He suggests that, when faced with a corpus of historical data, a linguist will be better placed to test whether an item is sensitive to activation than whether it is emphatic. In this section, we look further at the concepts involved in activation, before applying them to Middle Norwegian data in the coming sections.

Activation has been used to analyse the distribution of various negative items, and a variety of patterns has emerged. Schwenter (2006) extends the activation analysis to those varieties of Italian which use *non…mica* in a construction II negation, noting that it is licensed (but not obligatory) when the proposition is part of the common ground and discourse old (and salient) (Schwenter 2006: 334–336; see also Cinque 1976 and Zanuttini 1997: 61, who make the same observation).

Brazilian Portuguese presents a somewhat more complex case, as here variation is found between all three stages of Jespersen's cycle: stage I with only a preverbal negative; stage II with both pre- and postverbal negatives; and stage III with only a postverbal negative. Here Schwenter demonstrates that, just as in Catalan and Italian, construction II is licensed by the proposition being discourse-old and salient. The conditions for construction III are the same except that the proposition must be explicitly activated within the discourse, not merely inferred (Schwenter 2005: 1450, 2006: 336–340). In (6), speaker F denies a proposition ("You cook") that has been explicitly activated by speaker E in the preceding context:

(6) E: Mas você cozinha. E você deve ter algum prato que os seus fregueses gostam mais. Qual é?
'But you cook. And you must have some dish that your clients like most. What is it?'
F: Ah, eu cozinho não, a minha tia é que cozinha!
'Ah, I don't cook; my aunt is the one that cooks!' (Schwenter 2005: 1450)

In the historical domain, Hansen (2009) and Hansen & Visconti (2009) investigate the transition from stage I to stage II of Jespersen's cycle in Old French, aiming to determine whether the variation found there was conditioned by the same information-structure factors as in the modern Romance languages. They find similar, but not identical conditioning factors, and propose a more detailed typology of information statuses on the basis of Birner (2006) to account for these. Specifically, they distinguish two types of inference: forward or elaborating inference, where a proposition can be immediately inferred by the hearer from a trigger, and backward or bridging inference, where a proposition can only be inferred from or linked to an earlier trigger in retrospect.

These types are exemplified by (7) and (8). In (7), the existence of the wedding can be forward-inferred from the statement "she got married": it is immediately possible for the hearer to make this inference and so the existence of the wedding is both discourse-old and hearer-old when it is mentioned in the next clause (the fact that it is discourse-old is confirmed by the word order as only discourse-old constituents can be preposed; Birner 2006: 16). In (8), a classic example of a bridging inference reproduced in several publications, the

existence of the beer cannot be automatically inferred from the mention of the picnic as not all picnics involve beer; however, the inferential relationship between the two is clear once the beer is mentioned explicitly. Accordingly, at this point the existence of the beer can be considered discourse-old but hearer-new.

(7) She got married recently, and at the wedding was the mother, the step-mother and Debbie. (Birner 2006: 22)
(8) We checked the picnic supplies. The beer was warm. (Haviland & Clark 1974: 515)

Whereas the stage II negative in Catalan and Italian is licensed only when the proposition has been explicitly stated, is part of the perceptual context, or can be forward inferred from earlier discourse, in Old French the stage II negative was also licensed when it was backward-inferable from earlier discourse. Furthermore, in Old French the stage II negative was sensitive not only to the discourse status of the negated proposition, but also the hearer status: it was also licensed in contexts where the proposition was discourse new but hearer old, such as where the proposition represented part of general common knowledge or where it was pragmatically presupposed by an element in earlier interaction (Hansen 2009: 235–236).

In addition, Hansen and Visconti noted that where the stage I negative in Old French was used to negate a proposition which was discourse and/or hearer old, there tended to be certain 'special semantic features' which downplayed the discourse salience of that information status: it tended to occur in irrealis and non-referential contexts such as the antecedent or consequent of conditionals, in maxim-like statements, with modal verbs and in non-declarative clauses (Hansen 2009: 244–245). This further strengthens the case for a relationship between the choice between the stage I and II negative in Old French and information structure.

Table 1 summarizes the resulting typology of information structure contexts. Applying this typology to those cases of stage II negatives (plus stage III Brazilian Portuguese *não*) yields the pattern in Table 2. This can be compared to the situation for stage I negatives summarized in Table 3. We immediately see that, while stage I negators are felicitous in all information-structure contexts, stage II negators are restricted to a continuous sequence at the discourse-old end of an information-structure hierarchy. Whether this set of contexts truly represents an implicational scale or whether other combinations are possible remains to be seen. Certain other distinctions examined by Hansen (2009), such as whether the proposition in question has been previously asserted or denied (or whether assertion or denial of it can be inferred), whether the proposition is part of the perceptual common ground or has been explicitly stated, and whether the proposition is part of general common knowledge or is a pragmatic presupposition in preceding discourse, have not been found to be relevant to the distribution of any of the negatives so far examined.

Table 1. Typology of information structure contexts.

	Discourse old (explicit)	Discourse old (inferred)	Discourse new
Hearer-old	explicitly mentioned	forward-inferable	common knowledge/pragmatically presupposed
Hearer-new		backward-inferable	completely new

Table 2. Typology of stage II and III negatives.

Form	explicitly mentioned	forward-inferable	backward-inferable	common knowledge	completely new
Old French ne … pas/mie	felicitous	felicitous	felicitous	felicitous	infelicitous
Catalan no … pas	felicitous	felicitous	infelicitous	infelicitous	infelicitous
Italian non … mica	felicitous	felicitous	infelicitous	infelicitous	infelicitous
Brazilian Portuguese *não ... não*	felicitous	felicitous	infelicitous	infelicitous	infelicitous
Brazilian Portuguese Ø ... *não*	felicitous	infelicitous	infelicitous	infelicitous	infelicitous

Table 3. Typology of stage I negatives.

Form	explicitly mentioned	forward-inferable	backward-inferable	common knowledge	completely new
Old French *ne* ... Ø	felicitous	felicitous	felicitous	felicitous	felicitous
Catalan *no* ... Ø	felicitous	felicitous	felicitous	felicitous	felicitous
Italian *non* ... Ø	felicitous	felicitous	felicitous	felicitous	felicitous
Brazilian Portuguese *não* ... Ø	felicitous	felicitous	felicitous	felicitous	felicitous

One further case study of variation during Jespersen's cycle has been undertaken which has not been discussed thus far: that of stage I/II/III variation in Middle English. Wallage (2013: 10–15) finds that none of the forms of negation are categorically restricted according to the information status of the negated proposition, but that stage I negation (*ne* ...) is statistically specialized for discourse new propositions and stage II negation (*ne ... not*) is statistically specialized for discourse old propositions (while the occurrence of stage III negation, ... *not*, appears to be unrelated to information structure). However, Wallage

explicitly opts not to take into account text-external factors that might have some bearing on the discourse and hearer status of the negated proposition: "As texts cannot be read in the social and cultural contexts in which they were written, the socio-cultural common ground between writer and reader that informs interpretation of the discourse is missing. Therefore we can only examine the relationships between propositions within the texts themselves." (Wallage 2013: 10). Furthermore, he does not make the distinction between forward and backward inference. Thus it is difficult to fit Middle English neatly into the typology drawn above. From the evidence, it is hard to determine whether Middle English stage II negation was preferred or dispreferred in discourse-old but hearer-new contexts (backward-inferable) and in discourse new but hearer old contexts (common knowledge, pragmatic presupposition). Given this information it might conceivably emerge that Middle English stage II negation represented an exact parallel case to Old French stage II negation (felicitous for all propositions except those which were both hearer-new and discourse-new) or that it was parallel to the Old French stage II or modern Romance stage II cases but subject to a statistical as opposed to categorical restriction.

6 Negation in Northwest Germanic

A number of changes in the expression of negation have taken place in the history of North Germanic. The inherited preverbal negative adverb *ne* (cf. Old High German *ni*, Old English *ne*, Gothic *ni*) was replaced by the suffixed negative *-a(t)* via Jespersen's cycle; this was then replaced by other adverbs, primarily *eigi* (< *ei* "ever" + indefinite particle *-gi*) and later its contracted form *ei*. These changes, which had largely taken place before the earliest extant alphabetic Old Norse texts, are relatively well understood (Eythórsson 2002). However, *ei(gi)* was then replaced by a new adverb, *ekki*, originally the neuter nominative/accusative singular of the negative adjective/pronoun *engi* "no, none, no one, nothing" (*ekki* < **eitt-ki* < **eitt-gi*, cf. Magnússon 1989: 149), in all of the North Germanic languages. This results in the modern forms Norwegian Bokmål/Danish *ikke*, Nynorsk *ikkje* (and dialectal Norwegian *isje*, *itte*), Faroese *ikki* and Icelandic *ekki*. In the history of Swedish (and some eastern dialects of Norwegian), the cycle repeated once more and *ekki* was replaced by *enkti*, the regularized neuter nominative/accusative singular of the negative pronoun/adjective. This results in Modern Swedish/dialect Norwegian *inte*. While the status of *ikke* in the modern languages has received some attention (e.g. K. K. Christensen's 1985 treatment of *ikke* as a clitic; see also K. R. Christensen 2005 and Munch 2013), the change from *ei*(*gi*) to *ekki* in the medieval period has gone largely unstudied. Existing analyses of the development of negation in Old and Middle Norwegian, such as K. R. Christensen (2003) and van Gelderen (2008: 205–211), treat the shift from *ne* or *-a*(*t*) to modern *ikke* as a direct one. They thus assume *ikke* to be a phonological variant of *eigi*, overlooking an additional cycle of change.

Unlike a number of the stage II negatives mentioned above, *ekki* does not have its etymology in a noun for a small object functioning as a minimizer in negative clauses, but in an adjective/pronoun meaning "no(thing)". This, in connection with the observation mentioned above that it also occurs frequently as a negative adverb with comparative adjectives, offers a clue as to its pathway to become a clausal negative and the reason that this particular instantiation of Jespersen's cycle advanced directly from stage I to stage III.

Breitbarth, Lucas & Willis (2013) suggest that there is a fairly small set of possible bridging contexts for the emergence of incipient Jespersen's cycle where a direct object can be reanalysed as a negative adverb. They divide them broadly into two types: (i) optionally transitive verbs such as *eat*, *drink*, *read*, *write*; and (ii) predicates taking an optional degree argument. Willis (2016) applies this to the incipient uses of Old English *nāwiht* "nothing". He shows, on the one hand, that *nāwiht* occurs commonly as the degree argument of verbs of succeeding, harming and caring. However, even more common are cases where it is used as a degree modifier of an adjective or adverb, either with narrow focus on the adverb under sentential negation, or else with constituent negation.

Old Norwegian offers parallel opportunities. In (9), *ekki* can be found negating the comparative adjective *meira*.

(9) kom ekki meira þa fram firir oss at þui sinn-i.
came EKKI more then forward before us.DAT at that.M.DAT.SG time-DAT.SG
'No more [evidence] then came before us at that time.' (*DN* II.146, 1322)

Examples such as this could have been acquisitionally ambiguous between an analysis in which *ekki* forms a noun-phrase constituent with *meira* ("no more [evidence] came before us") and one in which it is taken as a negative adverb ("more [evidence] did not come before us"). Thus they provide a possible bridging context for the reanalysis that first enabled *ekki* to function as a negative adverb. Furthermore, the older sentential negator, *ei*(*gi*), could also occur in these constructions, offering an analogical parallel for the reanalysis of *ekki* and a model for extension from this to contexts without the presence of a comparative adjective.

In (10), where the object of the verb is a neuter noun in the accusative singular, the function of *ekki* is ambiguous between a negative adverb ("Arnfinnr and Sigurðr did not have evidence thereof") and a negative adjective ("Arnfinnr and Sigurðr had no evidence thereof").

(10) þeir Arnfinn -er ok Sigurd-er optnemnd-er
they.M.NOM.PL Arnfinnr -NOM.SG and Sigurð-NOM.SG oft-mentioned-NOM.PL
haf-d-u ecki prof þer
have-PST-3PL ekki evidence there
'the oft-mentioned Arnfinnr and Sigurðr had no evidence thereof' (*DN* III.163, 1332)

Other instances exemplify contexts in which *ekki* was acquisitionally ambiguous between a negative indefinite acting as a degree argument and a negative adverb. In (11), the function of *ekki* is ambiguous between a negative adverb ("[he] didn't do [anything] to him") and a negative pronoun object of the verb ("[he] did nothing to him").

(11) æn Þorgæir uar i gong-u-nne medr þæim ok
but Þórgeirr was in walk-DAT.SG-DEF.M.DAT.SG with them.DAT.PL and
vann ækki a honum
achieved ekki on him.DAT.SG
'but Þórgeirr was walking with them and didn't harm him' (*DN* II.156, 1280)

These contexts where there was acquisitional ambiguity in alphabetic Old Norwegian between *ekki* as a negative adverb and *ekki* in one of its historically prior functions all have one thing in common: they contain only the new negative, not both the old and new negatives. There was no context containing *ei(gi)* ... *ekki* where the reanalysis could have taken place and thus no stage II construction in *ei(gi)* ... *ekki* ever arose. Furthermore, given certain properties of the grammar of Old Norwegian, no such context could ever have been available. The canonical cases of Jespersen's cycle exemplifying stage II are either in languages with negative concord, where constructions with multiple negatives would be possible or even required and would express only a single logical negation, and/or concern an innovative form based on an earlier negative polarity item. Old Norwegian did not allow negative concord and pronominal/adjectival *ekki* was not a negative polarity item but a true negative indefinite. Thus any construction containing both *ei*(*gi*) and *ekki* would have resulted in a double logical negation, and could not have been the basis of a new form of clausal negation.

Whether or not synchronic variation between the stages of Jespersen's cycle is always conditioned by information-structure factors like those which structure stage I/II variation in Old French, modern Italian and Catalan and stage I/II/III variation in Brazilian Portuguese is a topic of ongoing investigation (Willis, Breitbarth & Lucas 2013: 10–11). The change from *ei(gi)* to *ekki*, with its unusual progression directly from 'stage I' to 'stage III', thus represents a particularly interesting test case for this topic.

The primary source of Old Norwegian and the only source of Middle Norwegian is a large corpus of legal letters (charters) known as the *Diplomatarium Norvegicum* (*DN*). Examples can already be found in thirteenth-century texts of *ekki* functioning as a negative adverb. This early period thus represents the period of variation between stage I and stage III. Relative frequencies of the three negatives by year in the DN are shown in Figure 1 (with raw data in Table 4). Note that these counts cover all instances of *ekki*, including those where it appears in its historically prior adjectival/(pro)nominal function.

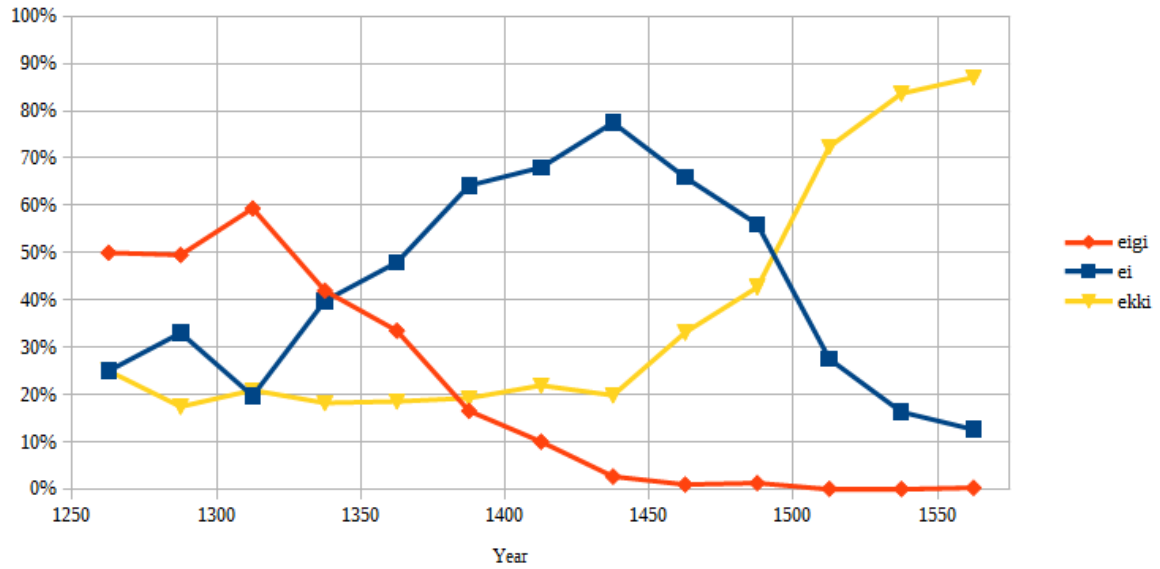


Figure 1. Relative frequencies of *ei, eigi* and *ekki* in the *Diplomatarium Norvegicum* by 25-year period, 1250–1575.

Table 4. Relative frequencies of *ei*, *eigi* and *ekki* in the *Diplomatarium Norvegicum* by 25-year period, 1250–1575.

period			ei	eigi	ekki	% *ei*	% eigi	% ekki
1250	–	1275	1	2	1	25%	50%	25%
1275	–	1300	36	54	19	33%	50%	17%
1300	–	1325	81	244	86	20%	59%	21%
1325	–	1350	203	214	93	40%	42%	18%
1350	–	1375	106	74	41	48%	33%	19%
1375	–	1400	190	49	57	64%	17%	19%
1400	–	1425	183	27	59	68%	10%	22%
1425	–	1450	406	14	104	77%	3%	20%
1450	–	1475	203	3	102	66%	1%	33%
1475	–	1500	260	6	198	56%	1%	43%
1500	–	1525	359	1	945	28%	0%	72%
1525	–	1550	785	2	4022	16%	0%	84%
1550	–	1575	84	2	580	13%	0%	87%

Figure 1 shows clearly the replacement of the original full form *eigi* with the reduced form *ei*, with the crossover point reached around 1375. This pattern confirms our assumption that the change from *eigi* to *ei* was purely phonological, and thus not an instantiation of Jespersen's cycle. If so, then *eigi* and *ei* can be treated as a single variant. Collapsing these two categories, the relative frequencies of *ei(gi)* (stage I negation) and *ekki* (stage III negation) are thus as shown in Figure 2.

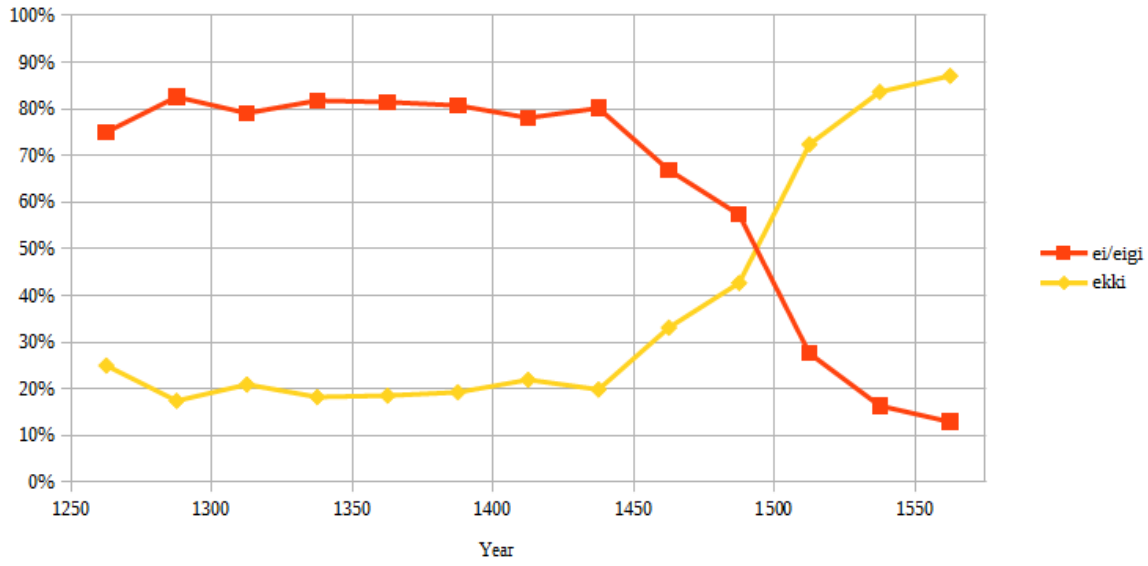


Figure 2. Relative frequencies of *ei*(*gi*) and *ekki* in the *Diplomatarium Norvegicum* by 25-year period, 1250–1575.

As can be seen from these figures, the relative frequencies of the stage I and III negatives were relatively stable at 80% and 20% respectively until around 1425, at which point the relative frequency of *ekki* rose sharply. On the basis of this, we hypothesize that, in the period before 1425, there were restrictions on the occurrence of *ekki*, and that these were then lost, allowing it to compete directly with *ei*(*gi*). Given the broader context of research on new markers of negation, we hypothesize that these restrictions were initially grounded in information structure.

7 Method

It is this hypothesis which we will now test on the basis of detailed textual examination of instances of negation in the charters before 1425. All instances of *ekki* in the *Diplomatarium Norvegicum* were identified and those occurring in the period 1150–1425 were examined in detail. The following categories of document were excluded from consideration as providing unreliable evidence or as providing insufficient evidence for analysis in terms of information structure:

(i) those known or suspected to be forgeries;
(ii) those known to be copies of older documents (and therefore whose date attribution is questionable);
(iii) those which do not take charter form (such as list-form records of goods or sales).

The function of *ekki* in each case was identified and those in which it functioned as an adjective, as in (12), or a pronoun, as in (13), were excluded.

(12) leggi-um ver ecki skaplag ne skylld-u
lay-1PL we EKKI tax.N.ACC.SG nor due-ACC.SG
a nockor-n lærð-an mann
on any-M.ACC.SG learned-M.ACC.SG man.ACC.SG
'we impose no tax nor due on any learned man' (*DN* I.59, 1263–1265)

(13) Saker þærs at ekke er mann-e-nom vis-are en
because EKKI is man-DAT.SG-DEF.M.DAT.SG certain-COMP than
dauð-inn
death-def.m.nom.sg
'Because nothing is more certain to man than death' (*DN* I.70, 1280–1286)

The remaining instances were those in which *ekki* had adverbial function. Among these, two frequent patterns emerged. Firstly, *ekki* was very commonly found modifying a comparative adjective:

(14) skil-d-u þau ok s[er all-a] þeira lifdag -a en
decide-PST-3PL they also REFL all-M.ACC.PL their life.days -ACC.PL but
ecki leng-r
ekki long-COMP
'they also made an agreement for themselves for all the days of their lives but no longer...' (*DN* II.72, 1304)

This may provide a hint at the pathway of change via which adverbial *ekki* was first innovated, as noted above.

The remaining examples were those in which *ekki* functioned as a clausal negator. Among these, a striking number appeared specifically in the context of stating that individuals who had been summoned to appear in court failed to appear. A variety of different exact wordings were found, illustrated in (15) and (16), so these did not appear to represent a legal formula. Rather, this seemed to point towards exactly the hypothesis being tested, namely, that *ekki* was used here to cancel the inference from "they were summoned to appear" to "they appeared".

(15) En Þolfu-ar a Æikin-i kom ækki ok ængh-in
but Þólfr-NOM.SG of Eikinn-DAT.SG came EKKI and none-M.NOM.SG
hans vmbodsmað -r j aðrnæmfd -an laghudagh
his representative -NOM.SG in aforementioned -M.ACC.SG lawday.ACC.SG
'Þólfr of Eikinn did not come on the aforementioned day for legal cases, nor did any representative of him.' (*DN* I.269, 1341)

(16) En af þui at Halzstæin var ækki aa stæmfn-u fyrst-æ
but because Hallsteinn.NOM.SG was EKKI at meeting-DAT.SG first-M.ACC.PL
tua dagh-a
two.m.acc day-acc.pl
'But because Hallsteinn was not at the meeting for the first two days...'
(*DN* II.432, 1374)

All of these instances in which *ekki* functioned as a clausal negative were examined in detail. Any earlier statements related to the negated proposition were identified and the relationship between the two was categorized according to the scheme give in Table 5.

Table 5. Categorization scheme for Old and Middle Norwegian negatives.

Relation of preceding discourse to negated proposition	Information status
explicit assertion of proposition	explicitly mentioned
explicit denial of proposition	explicitly mentioned
explicit mention of proposition without assertion or denial	explicitly mentioned
forward-inferable assertion of proposition	forward-inferred
forward-inferable denial of proposition	forward-inferred
forward-inferable activation of proposition without assertion or denial	forward-inferred
backward-inferable assertion of proposition	backward-inferred
backward-inferable denial of proposition	backward-inferred
backward-inferable activation of proposition without assertion or denial	backward-inferred

The proposition was then categorized for other factors which could affect its information status, as listed in Table 6.

Table 6. Other information-structure factors considered.

Factor	Information status
part of perceptual common ground	explicitly mentioned
part of general common knowledge	common knowledge
pragmatically presupposed by preceding discourse	common knowledge

All instances of *ei(gi)* occurring in the same charter as an instance of *ekki* functioning as a clausal adverb were then examined. This subset of the instances of *ei(gi)* in the period under consideration was chosen to ensure that all of the instances of *ei(gi)* examined would come from texts whose grammar contained this variation between *ei(gi)* and *ekki*. Thus if some of the variation represented by Figures 1 and 2 reflected not contextually conditioned intraspeaker variation between *ei(gi)* and *ekki* but interspeaker variation in the grammaticality of *ekki* as a clausal adverb, this would not confound results of the comparison.

As with the instances of *ekki*, all these instances of *ei(gi)* were then categorized according to their relationship with any earlier statements in the discourse and for other factors affecting their information status. Both authors categorized the examples blind, that is, without access to knowledge of whether the negative word in a given sentence was *ei*(*gi*) or *ekki*, and cases of disagreement in the independent categorization were then discussed to produce a consensus attribution of each example to a single category.

8 Results

The results of these categorizations are given in Tables 7, 8 and 9. First, consider the rates at which the negated proposition was denied or asserted in the preceding discourse, given in Table 7. As can be seen, there is not a large difference in the rate at which the negated proposition has earlier been denied or asserted between *ekki* and *ei(gi*). The difference is not significant according to a χ^2 test (χ^2=0.038, df=1, p=0.8454). This suggests that the difference in function of *ekki* and *ei(gi)* cannot have been that *ekki* was used to deny the truth of a previously asserted proposition.

Table 7. Relationship of negated propositions to denials or assertions in the preceding discourse.

The negated proposition has earlier been...	All	%	ekki	%	eigi	%
denied	17	11.18%	11	13.10%	6	8.82%
asserted	82	53.95%	51	60.71%	31	45.59%
neither	53	34.87%	22	26.19%	31	45.59%

Table 8. Information status of the negated proposition.

Information status	All	%	ekki	%	eigi	%
explicitly mentioned	36	23.68%	22	26.19%	14	20.59%
forward-inferable, common ground	0	0.00%	0	0.00%	0	0.00%
forward-inferable, presupposed	7	4.61%	5	5.95%	2	2.94%
forward-inferable, common knowledge	2	1.32%	0	0.00%	2	2.94%
forward-inferable	50	32.89%	31	36.90%	19	27.94%
backward-inferable, common ground	0	0.00%	0	0.00%	0	0.00%
backward-inferable, presupposed	4	2.63%	2	2.38%	2	2.94%
backward-inferable, common knowledge	1	0.66%	1	1.19%	0	0.00%
backward-inferable	16	10.53%	12	14.29%	4	5.88%
common ground	3	1.97%	1	1.19%	2	2.94%
presupposed	8	5.26%	4	4.76%	4	5.88%
common knowledge	4	2.63%	3	3.57%	1	1.47%
new	21	13.82%	3	3.57%	18	26.47%

Secondly, consider the breakdown into more complex categories of the information status of the negated proposition, given in Table 8. No evidence can be seen here for any of the distinctions not found to be relevant in previous studies (such as the difference between

explicitly mentioned and common ground, or the difference between presupposition and common knowledge). Thus the categories were collapsed into only those found to be relevant in earlier studies on variation during Jespersen's cycle. For this simplified categorization, in cases where the proposition was both backward-inferable (and thus discourse old) and presupposed or common knowledge (and thus hearer old), it was counted in the forward-inferable category on the basis that it was discourse old and hearer old but not explicitly mentioned. The results of this procedure are shown in Table 9.

Table 9. Simplified categorization for discourse status of the negated proposition.

Information status	All	%	ekki	%	eigi	%
explicitly mentioned	39	25.66%	23	27.38%	16	23.53%
forward-inferable	64	42.11%	39	46.43%	25	36.76%
backward-inferable	16	10.53%	12	14.29%	4	5.88%
common knowledge	12	7.89%	7	8.33%	5	7.35%
completely new	21	13.82%	3	3.57%	18	26.47%

As can be seen, a large discrepancy is seen in the distribution of *ei(gi)* and *ekki* for two categories: forward-inferable and completely new. The difference in distribution into the different information-status categories for *ekki* and *ei(gi)* is significant according to a χ^2 test (χ^2=17.88, df=4, p=0.0013). If the distinctions are collapsed into just completely new vs. discourse- and/or hearer-old, the distribution is still significant (χ^2=16.891, df=1, p<0.0001). This is in line with the broad hypothesis that during the period of variation, the stage I and stage III negative would be pragmatically differentiated, just as has been found for stage I/II and stage I/II/III variation for other languages. Specifically, this seems most in line with the conclusion that *ekki* in Old Norwegian was subject to the same restriction as that on the stage II negatives in Old French: it could not occur where the negated proposition was both discourse and hearer new.

The three instances where *ekki* was found negating a completely new proposition are worthy of more detailed examination, both because they represent the small subset of the data which was not in line with the hypothesis and because they exemplify certain issues that arose in the tagging of the data.

First, consider the following example:

(17) fyrnæmdær Þorkiæl skal liokæ siræ Lodenæ þretighi mærkær peningæ firi þæt at han giorde ekki þæn auærkkæ vppa hans jord swm Vallær hæitir æftir þui swm þettæ bref sæghir swm þettæ er vidærfæst
'The aforementioned Þórkell shall pay síra Loðinn thirty marks of money because he didn't do the tenancy work on his land which is called Vallir in accordance with what this charter to which this is attached says.' (*DN* III.502, 1392)

This clearly raises the issue of exactly what should be considered part of the prior discourse. There is no earlier mention of the tenancy work or the thirty-mark fine in the preceding text (as indeed this example occurs very near the beginning of the text), so there is nothing in the text itself from which it can be inferred that Þórkell undertook the work or did not undertake the work. However, in the attached document (which was evidently DN IV.559, dated three years earlier and concerning the same individuals), the work is enumerated and assigned to Þórkell:

(18) Þorkiæl skwldi gera allæn þæn awærk iord siræ Lodens swm
Þórkell should do.INF all.M.ACC.SG the work land síra Loðinn REL
Wallær heitir
Vallir be.called.PRS.3SG
'Þórkell should do all the tenancy work in síra Loðinn's land which is called Vallir' (*DN* IV.559, 1389)

Charters were often read out (*sýnda* "exhibited") at legal meetings. It seems reasonable to assume that the earlier charter, verifying that the work had been assigned and what it entailed, would have been read at the meeting before the fine was determined and the new charter made to record it. Thus it seems reasonable to take the earlier charter as part of the preceding discourse for the later one, making the information status of the proposition "Þórkell undertook the tenancy work on síra Loðinn's land" forward-inferable rather than completely new. Nevertheless, this highlights the problem that the exact constitution of the preceding discourse in such texts is often unclear. In many instances it might not be as obviously signposted as in this one that a given text follows on from some other text (or indeed some unrecorded spoken discourse).

Secondly, consider the following example:

(19) fyrsagd hustrw Marghreta j Brandzgarde sagde swa firi honom fiorom aarom fyr en hon dødhe. firi gudz skuld dæil ekki vm Brandzgard æftir mina liifdagha firi þy at Mari kirkia j Oslo aa han æftir mina dagha.
'The aforementioned Mrs. Margreta of Brandsgarðr said thus before him four years before she died: "As due to god, do not divide up Brandsgarðr after the days of my life because Mariakirkja in Oslo should [possess] it after my days."' (*DN* IV.583, 1390)

Again, the notion of dividing up Mrs. Margreta Brynjulfsdóttir's land is neither raised in the preceding charter text nor can it be inferred from it. Here, however, two issues are raised. The first is an instance of the problem discussed above: the content of the preceding discourse is unknown. In this example, the negative occurs in reported speech; no other speech in the conversation is reported and the context of the conversation is not given in any detail. This statement might, for all we can tell, be the final word in a long conversation between Mrs. Margreta Brynjulfsdóttir and the other interlocutor (Barðr Gunnarssonr) about what to do with the land, but could equally be a statement made out of the blue about a topic they had never previously discussed. With so little information, it is hard to have much confidence in the judgment of information status.

The second issue is that of common knowledge. The charter states that Barðr Gunnarssonr is the son of Margreta Brynjulfsdóttir's heir and it is clear from her name (in full *hustru Marghreto Bryniulfs dottor j Brandzgarde* "Mrs. Margreta Brynjulfsdóttir of Brandsgarðr") that she was the owner of the land. Would it have been common knowledge, and thus assumed as hearer old, that her heir(s) would have divided up the land after her death?

Finally, consider the following example:

(20) þat er bod vart oc sanner vili at þit taker ekki læiðangren a Varnnu þui at ver vilium at Mariekirkia capella vor j Oslo oc hennar korsbrøðr oc prester hafue frealslega þæn sama læiðanger eftir þui sæm hon oc þeir hafua fyr haft han.
'It is our order and true will that you do not take the levy at Varna because we wish Mariakirkja, our chapel in Oslo, and her choristers and priests to freely have that same levy as she and they have had it before.' (*DN* I.173, 1323)

As before, there is no preceding statement in the charter which explicitly mentions that the addressees (Hákon of Hvalr and Þróndr Krakasonr) might take the levy nor from which such a proposition could be inferred. Indeed, with the exception of the opening and closing formulae, the extract above constitutes the entire text of this exceptionally short charter. No other charter survives dated earlier than 1323 which mentions the levy at Varna. Thus on the basis of the textual evidence alone, the proposition must be judged as completely new.

It is very tempting with this example to argue that the sender (King Magnús VII Eiríkssonr) would not have sent this instruction were there not some reason to believe that Hákon of Hvalr and Þróndr Krakasonr would otherwise have taken the levy: either an earlier contrary instruction that was to be rescinded, an earlier piece of interaction creating a pragmatic presupposition, or general common knowledge. However, the danger of this line of argument is that it seems to be an instantiation of the more sweeping argument "why would a speaker deny a proposition unless there was some reason to consider it asserted otherwise?" (cf. Dahl's 1979: 80 observation that negated sentences are often used to deny a previous assertion). This line of argument would seem to apply equally to any negative statement the full context for which is not known (inevitably true of almost any example in a historical text). Furthermore, although it might seem commonsensical that denying previous assertions is the canonical and primary function of negation, examination of the use of negation in real usage suggests that this is not the case (Schwenter 2006: 341–342). Thus, on the basis of the available evidence, our best judgment for this example can only be that the proposition is completely new and thus that the example represents an exception to the distributional pattern of *ekki.*

Table 10. Final typology of stage II and III negatives.

Form	explicitly mentioned	forward-inferable	backward-inferable	common knowledge	completely new
Old Norwegian *ekki*	felicitous	felicitous	felicitous	felicitous	infelicitous
Old French ne … pas/mie	felicitous	felicitous	felicitous	felicitous	infelicitous
Catalan no … pas	felicitous	felicitous	infelicitous	infelicitous	infelicitous
Italian non … mica	felicitous	felicitous	infelicitous	infelicitous	infelicitous
Brazilian Portuguese *não ... não*	felicitous	felicitous	infelicitous	infelicitous	infelicitous
Brazilian Portuguese Ø ... *não*	felicitous	infelicitous	infelicitous	infelicitous	infelicitous

Nevertheless, this leaves only one or two instances of *ekki* functioning as a clausal negative for completely new propositions, compared to 16 for *ei(gi)*, a significantly greater proportion. Thus we can conclude that, as with other new negators, *ekki* initially negates discourse-old propositions (of any kind) and is strongly disfavoured for negation of completely new propositions. This is consistent with our initial hypothesis that *ekki* was subject to some kind of constraint which limited its frequency up to 1425, and that it was the relaxing of this constraint in the period after 1425 that led to a rapid increase in its frequency and its ultimate adoption as the sole marker of sentential negation in Norwegian.

We thus place *ekki* and *ei(gi)* in the typology of Jespersen's cycle variants as a parallel to the stage I/II variation found in Old French, expanding our earlier typology of stage II/III markers to include *ekki* in Table 10, and our earlier typology of stage I markers to include *ei*(*gi*) in Table 11.

Table 11. Final typology of stage I negatives.

Form	explicitly mentioned	forward-inferable	backward-inferable	common knowledge	completely new
Old Norwegian *ei(gi)*	felicitous	felicitous	felicitous	felicitous	felicitous
Old French *ne ... Ø*	felicitous	felicitous	felicitous	felicitous	felicitous
Catalan *no ... Ø*	felicitous	felicitous	felicitous	felicitous	felicitous
Italian *non ... Ø*	felicitous	felicitous	felicitous	felicitous	felicitous
Brazilian Portuguese *não ... Ø*	felicitous	felicitous	felicitous	felicitous	felicitous

9 Conclusion

Our examination of the distribution of Old and Middle Norwegian *ekki* has led us to conclude that this item was probably restricted to negating discourse-old propositions, including propositions that were contextually inferable or common knowledge. We have argued that it was this distinction that allowed two sentential negators, *ei*(*gi*) and *ekki*, to co-exist in the language up to around 1425, after which time they competed directly with one another. We have briefly considered the reasons for the reanalysis of *ekki* from a negative indefinite to a negative adverb, suggesting possible bridging contexts.

The ultimate shift of *ekki* to become the unmarked negator seems to be mainly an inflationary bleaching process (a push chain): the loss of a specialized function for *ekki*, allowing it to appear in all contexts, was the main trigger for change. It should be noted, however, that two factors speak instead in favour of an explanation of it as a pull chain triggered by weakening of the older negator *ei(gi)*. First, the rise in the frequency of *ekki* coincides exactly with the final disappearance of the full form *eigi*. Secondly, the syncopated form *ei* was a homophone for *ei* "yet, still; always" and in many contexts the two must have been ambiguous. Positive *ei* does not survive into Modern Norwegian, suggesting that it was this meaning that was pushed out rather than the negative. Nevertheless, this singularly awkward ambiguity may have played a role in the dwindling use of negative *ei*, resulting in a hybrid push/pull chain as argued for in other cases by Breitbarth (2009) and Willis (2010).

Finally, we have noted that Norwegian provides an example of a crosslinguistically surprising direct shift from a stage I negator to a stage III negator without an intervening doubling stage. We have attributed this to the fact that the new negator *ekki* derives from an indefinite rather than a negative polarity item minimizer and to the absence of negative concord in Old Norwegian.

In crosslinguistic perspective, the development of *ekki* is part of a wider pattern for which we have suggested a hierarchy of discourse contexts, with new negators typically spreading from discourse-old to discourse-new contexts. Our finding in a non-canonical case of Jespersen's cycle strengthens the suggestion that such pragmatic differentiation of negatives is a universal feature of the development of negative markers, not one dependent on the distinctive form associated with stage II of the cycle. A plausible pathway behind this common finding is as follows. A minimizer functions by explicitly stating that a proposition applies at the most surprising point on a conceptual scale and so by implication must also apply at all other points (Eckardt 2006, 2012, Israel 2001, 2011), that is, it is emphatic in the sense adopted in section 4 above. Thus, when such a minimizer develops into a negative, it is already specialized for surprising contexts. Development from such emphatic negation to negation specialized for negating propositions which have previously been asserted, whose assertion can be inferred or is generally known (cf. Wallage, in press) would represent a systematization of a type familiar from grammaticalization studies: such a development might be expected immediately or shortly after the minimizer developed into a negative adverb or negator. The development to a negator specialized for all discourse-old propositions (that is, expansion to include propositions which have previously been denied or whose denial can be inferred from preceding discourse) and the further development to a negator specialized for all hearer-old propositions (that is, expansion to include propositions which are known to speaker

and hearer but are new to the discourse) would each represent a bleaching or generalization, again typical of grammaticalization. It is important to note, however, that although this pathway seems plausible, only the latter two stages are actually attested: no case of a negator specialized for surprising or emphatic contexts has been reported in the literature.

Texts cited

Dokumentasjonsprosjektet. 1997. Ein kort introduksjon til Dokumentasjonsprojektet. http://www.dokpro.uio.no/organisasjon/Infobrosjyre.html.

Huitfeldt-Kaas, H. J. (ed.). 1901–1903. *Diplomatarium Norvegicum.* Vol. 16. Oslo: Christiania.

Huitfeldt-Kaas, H. J., Gustav Storm, Alexander Bugge, Christian Brinchmann & Oluf Kolsrud (eds.). 1902–1919. *Diplomatarium Norvegicum. Romerske oldbreve.* Vol. 17–18. Oslo: Christiania.

Huitfeldt-Kaas, H. J., Gustav Storm, Alexander Bugge, Christian Brinchmann & Oluf Kolsrud (eds.). 1910–1915. *Diplomatarium Norvegicum. Aktstykker vedrørende Norges forbindelse med De britiske øer.* Vol. 19–20. Oslo: Christiania.

Langer, Christian C. A. & Carl R. Unger (eds.). 1847–1861. *Diplomatarium Norvegicum.* Vol. 1–5. Oslo: Christiania.

Magerøy, Hallvard (ed.). 1970–1976. *Diplomatarium Norvegicum.* Vol. 21. Oslo: Christiania.

Næshagen, Ferdinand Linthoe (ed.). 1990–1995. *Diplomatarium Norvegicum.* Vol. 22. Oslo: Christiania.

Unger, Carl R. & H. J. Huitfeldt-Kaas (eds.). 1863–1900. *Diplomatarium Norvegicum.* Vol. 6–15. Oslo: Christiania.

References

Auwera, Johan van der. 2010. On the diachrony of negation. In Laurence R. Horn (ed.), *The expression of negation*, 73–109. Berlin: De Gruyter Mouton.

Ayres-Bennett, Wendy. 1994. Negative evidence: Or another look at the non-use of *ne* in seventeenth-century French. *French Studies* 48. 63–85.

Birner, Betty J. 2006. Semantic and pragmatic contributions to information status. *Acta Linguistica Hafniensia* 38. 14–32.

Breitbarth, Anne. 2009. A hybrid approach to Jespersen's cycle in West Germanic. *Journal of Comparative Germanic Linguistics* 12. 81–114. doi:10.1007/s10828-009-9027-7.

Breitbarth, Anne, Christopher Lucas & David Willis. 2013. Incipient Jespersen's cycle: The (non-)grammaticalization of new negative markers. In Jürg Fleischer & Horst J. Simon (eds.), *Sprachwandelvergleich – Comparing diachronies*, 143–64. Berlin: De Gruyter.

Christensen, Kirsti Koch. 1985. Subject clitics and Ā-bound traces. *Nordic Journal of Linguistics* 8, 1–23.

Christensen, Ken Ramshøj. 2003. On the synchronic and diachronic status of the negative adverbial *ikke* / *not*. *Working Papers in Scandinavian Syntax* 72. 1–53.

Christensen, Ken Ramshøj. 2005. *Interfaces: Negation – Syntax – Brain*. PhD dissertation, Aarhus University.

Cinque, Guglielmo. 1976. Mica. Annali della Facoltà di Lettere e Filosofia dell'Università di Padova 1. 101–12.

Dahl, Östen. 1979. Typology of sentence negation. *Linguistics* 17. 79–106.

Detges, Ulrich. 2003. La grammaticalisation des constructions de négation dans une perspective onomasiologique, ou: la déconstruction d'une illusion d'optique. In Peter Koch & Andreas Blank (eds.), *Kognitive romanische Onomasiologie und Semasiologie*, 213–33. Tübingen: Niemeyer.

Detges, Ulrich & Richard Waltereit. 2002. Grammaticalization vs. reanalysis: A semantic-pragmatic account of functional change in grammar. *Zeitschrift für Sprachwissenschaft* 21. 151–95.

Dryer, Matthew S. 1996. Focus, pragmatic presupposition, and activated propositions. *Journal of Pragmatics* 26. 475–523.

Eckardt, Regine. 2006. *Meaning change in grammaticalization*. Oxford: Oxford University Press.

Eckardt, Regine. 2012. The many careers of negative polarity items. In Kristin Davidse, Tine Breban, Lieselotte Brems & Tanja Mortelmans (eds.), *Grammaticalization and language change: New reflections*, 299–325. Amsterdam: John Benjamins.

Espinal, M. Teresa. 1999. The interpretation of *no-pas* in Catalan. *Journal of Pragmatics* 19. 353–69.

Eythórsson, Thórhallur. 2002. Negation in C: The syntax of negated verbs in Old Norse. *Nordic Journal of Linguistics* 25. 190–224.

Fillmore, Charles J., Paul Kay & Mary Catherine O'Connor. 1988. Regularity and idiomaticity in grammatical constructions: The case of *let alone*. *Language* 64. 501–38.

Gardiner, Alan H. 1904. The word iwn3. Zeitschrift für Ägyptische Sprache und Altertumskunde 41. 130–5.

Gelderen, Elly van. 2008. Negative cycles. *Linguistic Typology* 12. 195–243.

Giannakidou, Anastasia. 2001. The meaning of free choice. *Linguistics and Philosophy* 24. 659–735.

Hansen, Maj-Britt Mosegaard. 2009. The grammaticalization of negation markers in Old and Middle French: A discourse-functional approach. In Maj-Britt Mosegaard Hansen & Jacqueline Visconti (eds.), *Current trends in diachronic pragmatics and semantics*, 227–251. Bingley, UK: Emerald Group Publishing Ltd.

Hansen, Maj-Britt Mosegaard & Jacqueline Visconti. 2009. On the diachrony of 'reinforced' negation in French and Italian. In Corinne Rossari, Claudia Ricci & Adriana Spiridon (eds.), *Grammaticalization and pragmatics: Facts, approaches, theoretical issues*, 137–71. Bingley: Emerald.

Haviland, Susan E. & Herbert H. Clark. 1974. What's new? Acquiring new information as a process in comprehension. *Journal of Verbal Learning and Verbal Behavior* 13. 512–21.

Horn, Laurence R. 1989. *A natural history of negation*. Chicago: University of Chicago Press.

Horn, Laurence R. 2000. Pick a theory (not just *any* theory): Indiscriminatives and the free-choice indefinite. In Laurence Horn & Yatsuhiko Kato (eds.), *Negation and polarity: Syntactic and semantic perspectives*, 147–92. Oxford: Oxford University Press.

Israel, Michael. 1996. Polarity sensitivity and lexical semantics. *Linguistics and Philosophy* 19. 619–66.

Israel, Michael. 2001. Minimizers, maximizers and the rhetoric of scalar reasoning. *Journal of Semantics* 18. 297–331.

Israel, Michael. 2011. The grammar of polarity: Pragmatics, sensitivity, and the logic of scales. Cambridge: Cambridge University Press.

Jespersen, Otto. 1917. *Negation in English and other languages*. (Det Kgl. Videnskabernes Selskab. Historisk-Filologiske Meddelser I 5). Copenhagen: Høst & Søn.

Kiparsky, Paul & Cleo Condoravdi. 2006. Tracking Jespersen's Cycle. In M. Janse & A. Ralli (eds.), *Proceedings of the Second International Conference on Modern Greek Dialects and Linguistic Theory*. Mytilene: Doukas.

Larrivée, Pierre. 2010. The pragmatic motifs of the Jespersen cycle: Default, activation and the history of negation in French. *Lingua* 120. 2240–58.

Larrivée, Pierre. 2014. The syntax of pragmatics: The case of presuppositional negatives. *Syntaxe et sémantique* 15. 115–37.

Larrivée, Pierre. 2016. The pragmatics of marked configurations: Negative doubling in French. *Journal of Pragmatics* 95. 34–49.

Magnússon, Ásgeir Blondal. 1989. *Íslensk orðsifjabók*. Reykjavík: Orðabók Háskólans: Mál og menning.

Meillet, Antoine. 1912. L'évolution des formes grammaticales. *Scientia 12*. 384–400.

Munch, Christine B. Østbø. 2013. North Germanic negation: A microcomparative perspective. PhD dissertation, University of Tromsø.

Piñón, Christopher J. 1991. Presupposition and the syntax of negation in Hungarian. In Lise M. Dobrin, Lynn Nichols & Rossa M. Rodriguez (eds.), *Papers from the 27th Regional Meeting of the Chicago Linguistics Society 1991, Part two: The parasession on negation*, 246–62. Chicago: Chicago Linguistic Society.

Schwegler, Armin. 1983. Predicate negation and word-order change: A problem of multiple causation. *Lingua* 61. 297–334.

Schwegler, Armin. 1988. Word-order changes in predicate negation strategies in Romance languages. *Diachronica* 5. 21–58.

Schwenter, Scott. 2005. The pragmatics of negation in Brazilian Portuguese. *Lingua* 115. 1427–56.

Schwenter, Scott. 2006. Fine-tuning Jespersen's Cycle. In Betty J. Birner & G. Ward (eds.), *Drawing the boundaries of meaning: Neo-Gricean studies in honour of Laurence R. Horn*, 327–344. Amsterdam: John Benjamins.

Wallage, Phillip. 2013. Functional differentiation and grammatical competition in the English Jespersen Cycle. *Journal of Historical Syntax* 2. 1–25.

Wallage, Phillip. in press. *A history of English negation: Grammatical and functional change*. Cambridge: Cambridge University Press.

Willis, David. 2010. Motivating the emergence of new markers of sentential negation: The case of Welsh *ddim*. *Diachronica* 27. 110–156. doi:http://dx.doi.org/10.1075/dia.27.1.04wil.

Willis, David. 2012. A minimalist approach to Jespersen's cycle in Welsh. In Dianne Jonas, John Whitman & Andrew Garrett (eds.), *Grammatical change: Origins, nature, outcomes*, 93–119. Oxford: Oxford University Press.

Willis, David. 2016. Incipient Jespersen's cycle in Old English negation. In Sten Vikner, Henrik Jørgensen & Elly van Gelderen (eds.), *Let us have articles betwixt us: Papers in historical and comparative linguistics in honour of Johanna L. Wood*, 465–91. Aarhus: Dept. of English, School of Communication & Culture, Aarhus University.

Willis, David, Christopher Lucas & Anne Breitbarth. 2013. Comparing diachronies of negation. In David Willis, Christopher Lucas & Anne Breitbarth (eds.), *The history of negation in the languages of Europe and the Mediterranean, volume 1: Case studies*, 1–50. Oxford: Oxford University Press.

Wouden, Ton van der. 1997. Negative contexts: Collocation, polarity and multiple negation. London: Routledge.

Zanuttini, Raffaella. 1997. Negation and clausal structure: A comparative study of Romance languages. New York: Oxford University Press.

Zeijlstra, Hedde H. 2004. Sentential negation and negative concord. PhD dissertation, University of Amsterdam.

Tam Blaxter
University of Cambridge
E-mail: ttb26@cam.ac.uk

David Willis
University of Cambridge
E-mail: dwew2@cam.ac.uk

Weight effects and Heavy NP Shift in Icelandic and Faroese

Ingunn Hreinberg Indriðadóttir
University of Iceland

Abstract
This paper presents the results of two surveys on Heavy NP Shift in Icelandic and Faroese, where speakers evaluated sentences with shifted subjects and direct objects. The NPs were all shifted across a VP-modifying PP and the length of the NP and the PP was controlled. The results show that Heavy NP Shift with both subjects and direct objects is acceptable to most Icelandic speakers and to some Faroese speakers, although Faroese speakers clearly prefer shifted objects to subjects. The survey also revealed that different factors contribute to how speakers of these two languages evaluate sentences with shifted arguments. For Icelandic speakers it is important that the NP is relatively heavier than the PP it shifts across, whereas Faroese speakers do not seem to be sensitive to this factor. Also, a number of speakers of both languages accept shifted NPs that cannot be considered long and are even relatively shorter than the PP. This tells us that for some speakers it is perfectly acceptable to shift NPs that would generally not be considered heavy at all.

1. Introduction

In traditional English word order a direct object NP tends to immediately follow the verb, as demonstrated in example (1a). Most English speakers would readily accept the sentence in (1a), whereas few would accept the word order in (1b), in which the VP-modifying PP immediately follows the verb and the direct object NP is at the rightmost end of the clause.

(1) a. Mary read [the book] [to the children][1].
b.*Mary read [to the children] [the book].

Icelandic word order is similar in this respect. The word order in (2a) is the most natural for Icelandic speakers, whereas the word order in (2b) might be considered unusual and is not acceptable to most speakers.

(2) a. María las [bókina] [fyrir börnin].
María read the book to the children
'María read the book to the children.'
b. ?María las [fyrir börnin] [bókina].
María read to the children the book
'María read to the children the book.'

Although the direct object typically precedes a VP-modifying PP in English and Icelandic, as in (1a) and (2a), most speakers would find examples (3b) and (4b) a lot better than (2b).

[1] For the sake of convenience the XPs that are relevant to discussion will be marked with square brackets.

(3) a. María las [bókina um Línu Langsokk og sjóræningjana] [fyrir börnin].
María read the book about Pippi Longstockings and pirates to the children
'María read the book about Pippi Longstocking and the pirates to the children'.
b. María las [fyrir börnin] [bókina um Línu Langsokk og sjóræningjana].
María read to the children the book about Pippi Longstockings and the pirates
'María read to the children the book about Pippi Longstocking and the pirates'.

(4) a. Mary read [the book about Pippi Longstockings and the pirates] [to the children].
b. Mary read [to the children] [the book about Pippi Longstockings and the pirates].

Normally this would be explained by saying that the NP in sentences (3b) and (4b) has undergone Heavy NP Shift (henceforth HNPS) (see Kimball 1973 and much later work), which has been described as a movement of "heavy" NPs to the rightmost position of the clause.

But what is it that makes an NP heavy? Is it the amount of words it consists of or its syntactic complexity? Is it the amount of syllables it contains or perhaps its informational value? And is it just the absolute weight of the NP itself that matters or does the weight of the word string it moves over, in this case the PP [to the children], matter as well? Although we have seen that similar factors apply to HNPS in Icelandic and English, it has been claimed that HNPS only occurs in certain languages and that the conditions for HNPS in different languages are not always the same. It is generally believed that HNPS only applies to direct objects in English, whereas in Icelandic, HNPS has been claimed to also work with subjects and even indirect objects[2] (Rögnvaldsson 1982, Thráinsson 2007).

Faroese is very closely related to Icelandic but the literature does not agree whether it allows HNPS with both direct objects and subjects (Barnes 1992, Vikner 1995, Holmberg and Platzack 1995). If HNPS is only possible in some languages, does it then create a categorical difference between languages? And why does HNPS not apply to NPs with the same grammatical roles, e.g. subjects and direct objects, in all languages HNPS occurs in? Is there a particular factor, such as length, complexity or relative "heaviness", that facilitates HNPS in all languages, or is it the case that some languages do not allow HNPS at all, even if the relevant NP is really heavy?

The study described in this article is only a fragment of a larger work in progress and will not answer all of these questions. This article looks at HNPS in two languages, Modern Icelandic and Faroese, and presents the results from two large-scale acceptability surveys where speakers evaluated sentences with shifted subjects and objects and the length of the NP and PP was controlled. The results show that most Icelandic speakers and some Faroese speakers accept sentences with HNPS, whether the NP is a subject or a direct object, although Faroese speakers clearly prefer shifted objects to subjects. They also show that different factors contribute to how speakers of these two languages evaluate sentences of this kind. For Icelandic speakers it is important that the NP is relatively heavier than the PP it shifts across, whereas Faroese speakers do not seem to be sensitive to this factor. It seems that what matters

[2] A pilot study conducted for this project indicated that Icelandic speakers rarely accept or produce sentences with shifted indirect objects. This is a matter that has yet to be thoroughly studied so the question of HNPS with indirect objects will not be addressed in this article.

most to Faroese speakers is that the NP is long. Also, a number of speakers of both languages accept shifted NPs that cannot be considered long and are even relatively shorter than the PP. This means that for some speakers it is perfectly acceptable to shift NPs that are generally not considered to be heavy. This article will not answer the question whether HNPS behaves in the same way in all languages but a comparison between these two particular languages is very interesting nonetheless because of how closely related they are and because the literature does not agree on how HNPS works in Faroese.

The article is laid out as follows: In section 2 I give a brief overview of the literature on heaviness and HNPS. In section 3 I introduce the literature on HNPS in Icelandic and Faroese. In section 4 I describe an acceptability experiment conducted in March-April 2017 on HNPS and weight effects in Icelandic and Faroese. Section 5 presents the results from the two surveys and in section 6, I give some concluding remarks.

2. Weight effects and Heavy NP Shift

HNPS and the notion of "heaviness" has been defined in different ways over the years. Ross (1967:51-56) referred to HNPS as "Complex NP Shift", describing it as a rule that allows complex NPs to move to the end of a sentence, as in (5c). Ross described sentence (5b) as ungrammatical and attributed its ungrammaticality to the lack of the NP's [the fire] complexity.

(5) a. He attributed [the fire] [to a short circuit].
b. *He attributed [to a short circuit] [the fire].
c. He attributed [to a short circuit] [the fire which destroyed most of my factory].

Ross used the same definition as Chomsky (1955/1975) who, when explaining the position of objects in particle constructions, in examples (6a-d), claimed that it is "apparently not the length in words of the object that determines the naturalness of the transformation, but, rather, in some sense, its complexity."

(6) a. They brought in [all the leaders of the riot].
b. They brought [all the leaders of the riot] in.
c. They brought in [the man I saw].
d. ?They brought [the man I saw] in.

Chomsky claimed that the sentence in example (6b) was somehow more "natural" than the sentence in (6d) on the basis that the NP [the man I saw], although shorter than [all the leaders of the riot] is more complex. Both Ross and Chomsky used the notion of "complexity" without offering any definition of how this complexity is measured, e.g. whether the NP needs to include a subordinate clause to be considered complex. Another issue, as Wasow and Arnold (2005) thoroughly discussed and criticised, is that when Chomsky and others deemed a sentence such as (5b) as ungrammatical, they based this judgment solely on their own intuition, which they expect their readers and other native speakers to share with them. The

issue with this approach is that it assumes that all speakers have the same language intuition and perceive the grammar of their language the same way. Studies on variation in grammar have shown the opposite: the grammar of different speakers varies and what one speaker finds perfectly grammatical, another speaker finds completely unacceptable (e.g. Thráinsson et al. (eds.) 2013, 2015 and references cited there).

If the NP in the example Ross uses in (5c) is "more complex" than the NP in (5b) because it contains a subordinate clause, it is still by no means obvious from this example that complexity is the appropriate measure of heaviness, as the NP is also considerably longer than the NP in (5a,b). If the sentence in example (5c) is better than the one in (5b), then it is impossible to determine whether that is because the NP is long or complex, or for any other reason. The only way to demonstrate that one factor is more important than the other is by comparing NPs of equal length but of different complexity. Wasow and Arnold (2005) conducted a corpus study on verb-particle constructions and Dative Alternation. They found that although all complex direct object NPs occurred after the particle in the verb-particle construction, the behaviour of the complex NPs was still predictable by length alone. They found that almost all NPs longer than four words were found following the particle and that almost no NPs shorter than five words are complex.

Zec and Inkelas' (1990:376-377) syntax-prosodic approach claimed that HNPS was for the benefit of prosodic structure and that in order for an NP to be dislocated it needs to form an Intonational Phrase (IP) that contains at least two phonological phrases[3] as shown in (7b). Their claim was that the heavy NP shifts because it creates better prosodic structure than leaving the NP in situ. According to their definition the example in (7a) is unacceptable because the NP forms only one phonological phrase (marked with φ) and not an IP.

(7) a. *Mark showed to John [some letters]φ.
b. Mark showed to John ([[some letters]φ [from Paris]φ])$_{IP}$.

The NP in (7b) may consist of two phonological phrases but obviously it also consists of four words. Although Zec and Inkelas describe HNPS as a prosodic shift, rather than a syntactic one, their analysis is still focused on the length of the NP and a minimal quantity of elements that it includes. This is the same issue as with Ross's example: it proposes a certain factor as the measure of heaviness but it fails to clearly distinguish one factor from another.

One common definition of heaviness is that it is measured in the number of words that the NP contains (e.g. Kimball 1973). The issue with that definition is that it is difficult to define how many words an NP needs to contain in order to be considered heavy. A number of researchers have suggested that for HNPS it is not only the length of the NP that is important, but also the length of other material in the verb phrase. Based on the results from a small text corpus analysis, Hawkins (1994) suggested that NPs rarely shift across a PP unless they exceed the PP by at least four words. Wasow (1997) and Wasow and Arnold (2005) reported similar results from corpus analyses and acceptability tests. Stallings and MacDonald (2011)

[3] A phonological phrase is a constituent in the prosodic hierarchy that generally corresponds to an XP in syntax. (see Selkirk 2011 and references cited there).

performed production experiments with HNPS and found that speakers were much more likely to shift the NP if it exceeded the PP in length by at least five words. They found that as the difference between the length of the NP and the PP increased, shifting rates also increased and that when there was no difference between the two, shifting almost never occurred.

3. Heavy NP Shift in Icelandic and Faroese

Holmberg and Platzack (1995) described variation between Mainland Scandinavian languages (MSc), Danish, Norwegian and Swedish, and Insular Scandinavian languages (ISc), Icelandic and Faroese. They claimed that in ISc it is possible to shift subjects with HNPS, whereas it isn't possible in MSc due to the lack of morphological case in MSc. It is generally considered in the literature that Icelandic allows HNPS in sentences with subject-NPs and direct-object-NPs. (Rögnvaldsson 1982, Thráinsson 2007), as demonstrated in (8b) and (9c):

(8) a. Ég bakaði [brauð með ólífum og sólþurrkuðum tómötum] [í gær].
I baked bread with olives and sundried tomatoes yesterday
'I baked bread with olives and sundried tomatoes yesterday'
b. Ég bakaði [í gær] [brauð með ólífum og sólþurrkuðum tómötum].
I baked yesterday bread with olives and sundried tomatoes
'I baked yesterday bread with olives and sundried tomatoes'

(9) a. [Þúsundir erlendra ferðamanna] koma [til Reykjavíkur] árlega.
Thousands foreign travelers come to Reykjavik annually
'Thousands of foreign travelers come to Reykjavik annually.
b. Árlega koma [þúsundir erlendra ferðamanna] [til Reykjavíkur].
Annually come thousands foreign travelers to Reykjavik
'Annually come thousands of foreign travelers to Reykjavik'
c. Árlega koma [til Reykjavíkur] [þúsundir erlendra ferðamanna].
Annually come to Reykjavik thousands foreign travelers
'Annually come to Reykjavik thousands of foreign travelers'

Vikner (1995:201) claimed that HNPS cannot work in sentences with subject-NPs in Faroese (see also Barnes 1992:26-27) and he used the following example to support that claim:

(10) …*at tað hevur etið [hetta súreplið] [onkur drongur frá Danmark].
that there has eaten this apple some boy from Denmark
'...that there has eaten this apple some boy from Denmark'

This one sentence can hardly demonstrate anything about HNPS in Faroese because the sentence might be considered unacceptable for other reasons. This sentence has both a transitive expletive and a direct object and the literature agrees that sentences with this structure are rarely accepted by speakers (see Thráinsson et al. 2012:240-241). Thráinsson et

al. (2012:240-241) claimed that in order for most speakers to accept sentences with subjects at the rightmost end of the clause, the subject must be "very heavy", as demonstrated in (11b):

(11) a. Í fjør komu [nakrir málfrøðingar úr Íslandi] [til Havnar].
Last year came some linguists from Iceland to Torshavn
'Last year came some linguists from Iceland to Torshavn'
b. Í fjør komu [til Havnar] [nakrir málfrøðingar úr Íslandi].
Last year came to Torshavn some linguists from Iceland
'Last year came to Torshavn some linguists from Iceland'

Thráinsson et al. did not offer an explanation of what makes an NP heavy or even "very heavy", although presumably they were referring to the amount of words the NP contains.

One of the main goals of the study presented here is to see whether one particular factor, namely relative weight, affects the way speakers of Icelandic and Faroese evaluate sentences with HNPS and whether that factor is more important than the length of the NP alone. The other main goal is to see whether HNPS is possible in both languages with subjects and direct objects. These questions were addressed by asking a large number of speakers to evaluate sentences with HNPS across a PP where the NPs were either subjects or direct objects and the weight of the NP and the PP were controlled. By testing a large number of speakers we can hopefully see which factors are important for HNPS for most speakers of these particular languages and compare the results. What is equally important is to find out whether these factors affect all speakers the same way and whether all speakers accept HNPS at all.

4. The study

In this section I describe two acceptability surveys that were conducted in March and April 2017. The surveys tested similar or identical sentences with HNPS, one for Icelandic speakers and one for Faroese speakers. The goal of the survey was to test whether speakers of these languages would accept sentences with HNPS where the NPs have different grammatical roles, i.e. subjects and direct objects. The Faroese speakers evaluated 28 sentences and the Icelandic speakers evaluated 34. All of the test sentences included an NP that had been shifted with HNPS over a verb-modifying PP. None of the sentences had an expletive and the sentences with subject-NPs did not include an object. In both surveys the sentences where constructed according to a formula where the length of the NP and the PP was controlled. The NPs were all constructed in a similar way so that they included a noun, adjectives and/or a PP. I decided to use only the length of each phrase in the amount of words it contains as a measure of heaviness so as to avoid the question of syntactic "complexity". Hence, none of the sentences included subordinate clauses[4]. The following model was used to control the length of the phrases in the test sentences:

[4] As mentioned above, Wasow and Arnold (2005) have already addressed the issue of complexity vs. amount of words so I decided not to include it at this stage of the project.

(1) a. NP: 6 words, PP: 2 words
b. NP: 2 words, PP: 6 words
c. NP: 6 words, PP: 6 words
d. NP: 2 words, PP: 2 words

This model was chosen to test the effects of relative weight between phrases in sentences with HNPS using 'length in amount of words' as the measure of heaviness. If the heaviness of an NP is measured by the amount of words it contains, it would seem reasonable to assume that a six-word NP is heavy and a two-word NP is not. Not only the amount of words per phrase was controlled but also the amount of syllables per word and per phrase, e.g. if the phrase consisted of six words, it could only have twelve syllables in it altogether and each word could consist of maximum three syllables. The same rules applied for two-word phrases, which could altogether consist of only four syllables. Heavy consonant clusters were also avoided. This was done in order to make the syllables maximally similar in structure (syllables with a complex onset or coda might be intrinsically more heavy than simple CV-syllables).

In the sentences that had a length difference between the two phrases, the difference was always four words. According to Hawkins (1994), as mentioned above, NPs do not tend to shift unless they exceed the nearest word string in length by at least four words. It would be expected then that the sentence in (12a), where the NP consists of six words and the PP is only two words, would be the optimal example for HNPS out of the test sentences, whereas sentence in (12b), where the length difference is the other way around, should be the least likely to occur. One would then expect more speakers to accept sentence (12a) than (12b).

(12) a. Sigríður les [á morgnana] [ýmiss konar nýleg tímarit um tísku].
Sigríður reads in the mornings various recent magazines about fashion
'Sigríður reads in the mornings various recent magazines about fashion.'
b. Í fyrra fóru [á spennandi námskeið um vistvæna hugsun][nokkrir nemar].
Last year went to exciting course about ecological thinking some students
'Last year went to an exciting course on ecological thinking some students.'

The question is then how speakers evaluate sentences that have equally long NPs and PPs, such as the ones in examples (13a,b). There is no obvious reason for speakers to reject the sentence in (13a), where the NP and PP each consists of six words, but it is interesting to see whether speakers evaluate them equally well as the sentence in (12a).[5]

(13) a. Listmálarinn málaði [á gamla veggi í úthverfum bæjarins]
the artist paintedon old walls in suburbs town
[stórar og fallegar myndir af tunglinu].
large and beautiful pictures of the moon.

[5] Another question is whether speakers are likely to actually produce sentences such as (13a), should they accept them in written form. That question will not be addressed in this article, however.

‘The artist painted on old walls in the town’s suburbs large and beautiful pictures of the moon.’

b. Ég geymi [fyrir börnin] [nokkrar kökur].
I keep for the children some cakes
‘I’ll keep for the children some cakes.’

By all accounts, speakers should not readily accept the sentence in (13b). Here the NP itself is only two words and the PP it moves over is equally long. If the results are consistent with the literature (e.g. Stallings & McDonald 2011, Hawkins 1994, Wasow 1997, Zec & Inkelas 1990) then the sentence in (13b) is not optimal for HNPS and should be rejected by most speakers.

The test sentences were presented in a randomized order that was different for each participant, interspersed with filler sentences. The filler sentences were mixed so that a few of them were sentences that should, by all accounts, be accepted by most speakers and a few of them should be rejected by most speakers. A large portion of the filler sentences were “decoy” test sentences, so they had grammatical structures that are known to only be acceptable to some speakers. There were three times as many filler sentences as there were test sentences, so for every ten test sentences there were thirty filler sentences. This was done in the hope of distracting the participants from the pattern of sentences that was actually being tested.

The surveys were conducted online where speakers were asked to read sentences and evaluate them based on their own language intuition. They were asked not to judge the sentences according to what they had been taught is “good” or “bad” language but to base their judgement on how they think they use language themselves. The speakers were given three options to choose from as they rated the sentences.

(2) Yes = This sentence is perfectly grammatical. I would use a sentence like this.
? = This sentence is questionable. I would probably not use a sentence like this.
No = This sentence is ungrammatical. I would not use a sentence like this.

443 speakers participated in the Icelandic survey and 107 speakers participated in the Faroese survey. The speakers were asked about their gender; female, male or other, and their age, which was categorized into four age groups: younger than 18, 18-30, 31-50 and older than 50.[6]

5. The results

In this section I describe the results from the two surveys. Section 5.1. presents the results from the Icelandic survey and section 5.2. presents the results from the Faroese survey. The acceptance rates for the test sentences are presented in tables. Each table is split into two sections: one for shifted subjects and one for direct objects. The columns display the

[6] There is no obvious reason to believe that speakers’ acceptance of sentences with HNPS varies between age groups and gender but that remains to be tested.

percentage of speakers that rated the sentences fully acceptable, not acceptable at all or questionable. The highest percentage in each row is displayed in bold.

5.1. The Icelandic results

Table 1 presents the acceptance rates for sentences with equally long two-word NPs and two-word PPs by 443 speakers.

Table 1. Acceptance rates for sentences with two-word NPs and two-word PPs.

Subject PP 2 NP 2	**Yes**	**No**	**?**
a. Í sumar koma [á námskeiðið] [margir krakkar].	15%	**60,6%**	24,4%
b. Seinast mættu [á bjórkvöldið] [þrír nemendur].	36,6%	**38,2%**	25,1%
c. Um síðustu helgi flaug [til Marokkó] [gamall vinur].	17,5%	**62,9%**	19,6%
Direct Object PP 2 NP 2	**Yes**	**No**	**?**
d. Ég geymi [fyrir börnin] [nokkrar kökur].	36,4%	**41,9%**	21,7%
e. Mamma keypti [handa Sigga] [nýjar buxur].	34,6%	**46,3%**	19,1%
f. Ólafur skrifaði [í gær] [nokkur bréf].	36,4%	**39,2%**	24,4%

The first thing that's obvious in Table 1 is that all the test sentences were rejected by the majority of the speakers. On closer inspection, for some of the sentences, the ratings are relatively evenly distributed, showing great variation in speakers' acceptance. That can at least be said about sentences (1b,f) where the number of speakers that deemed these sentences completely ungrammatical is almost equal to the ones who thought they were fully acceptable, and the ratings for sentences (1d,e) are also not that far apart. The most distinctive difference in the distribution of ratings is for sentences (1a,c) which were rejected by over sixty percent of all participants and more speakers found them questionable than fully acceptable.

There is variation in acceptance between sentences with shifted subjects and direct objects. The two sentences that were rejected by the most speakers and accepted by the fewest both have subject NPs so, based on these results alone, one could say that speakers in general prefer shifted direct objects to subjects. But this raises the question of why so many more accept sentence (1b) and much fewer reject it. The sentences are all constructed in the same way and sentences (1a) and (1b) are very close to being a minimal pair.

The anticipated result for these sentences was that the majority of speakers would reject them, so it's interesting to see the variation between speakers. The options that participants were given are not a scale of seven where speakers can rate the sentences "a little bit acceptable" or "a little less acceptable". They are very clear, which means that a large percentage of speakers finds the sentences in Table 1 ungrammatical and would never use them, and an almost equally large percentage (for some of the sentences at least) finds them perfectly grammatical.

The distribution of ratings for the sentences with six-word NPs and six-word PPs was quite a bit different, as we see in Table 2.

Table 2. Acceptance rates for sentences with six-word NPs and six-word PPs.

Subject PP 6 NP 6	**Yes**	**No**	**?**
a. Árlega fara [til heitra suðlægra landa í Evrópu] [sjö til átta hundruð íslenskir ferðamenn].	25,4%	20%	**54,6%**
b. Í fyrra leituðu [til félags íslenskra nema í útlöndum] [um sjötíu nemendur úr fimmtán skólum].	**57,9%**	22,2%	19,9%
c. Í síðustu viku mættu [á opna fundinn fyrir unga höfunda] [bæði virkir nemendur og starfandi skáld].	**52,6%**	10,7%	36,7%
Direct Object PP 6 NP 6	**Yes**	**No**	**?**
d. Ég eldaði [fyrir nokkra góða vini úr vinnunni] [heilt læri með fallegum rauðum paprikum].	26,3%	31,6%	**42,1%**
e. Foreldraráð keypti [fyrir alla krakkana í tíunda bekk] [margar dýrar bækur og nýjar spjaldtölvur].	21,1%	21,2%	**57,6%**
f. Listmálarinn málaði [á gamla veggi í úthverfum bæjarins] [stórar og fallegar myndir af tunglinu].	**63,2%**	10,5%	26,3%

The acceptance rates for these sentences are quite scattered. More than half of the participants found sentences (2b,c,f) fully acceptable and a group of a similar size found sentences (2a,d,e) questionable. There is no obvious reason these sentences should get such mixed remarks but it is clear hat none of them is completely rejected by more than just over 30% of speakers. The consistency in the ratings is found in the rejection column, which means that the vast majority of speakers do not find sentences of this kind ungrammatical.

One possible explanation for why so many speakers find sentences (2a,d,e) is that the construction of the phrases themselves is less successful than in the other sentences. Perhaps the speakers thought it was odd to see so many adjectives and perhaps they disliked some words in these sentences in particular, although none of the comments speakers left suggested that. Two of the three sentences that were most widely accepted have subject NPs and the rest of the sentences had a similar acceptance rate. This throws the idea that Icelandic speakers prefer shifted direct objects to subjects out the window as the responses seem a lot more random and the speakers' preference might stem from different factors. This is confirmed by the results presented in Table 3 where we see the acceptance rates for sentences with six-word NPs and two-word PPs.

Table 3. Acceptance rates for sentences with six-word NPs and two-word PPs.

Subject vs Direct Object PP 2 NP 6	**Yes**	**No**	**?**
a. Um helgina keppa [á mótinu] [ungir iðkendur frá Ármanni og Gróttu].	**70,4%**	7,5%	22,1%
b. Í fyrra komu [til bæjarins] [nokkrir litlir leikhópar frá öðrum löndum].	**63,7%**	10,5%	25,8%
c. Venjulega mæta [á fundina] [nokkur hundruð ungar konur úr hverfinu].	**72,2%**	1,5%	26,3%

Direct Object PP 2 NP 6	**Yes**	**No**	**?**
d. Sigríður les [á morgnana] [ýmiss konar nýleg tímarit um tísku].	**73,8%**	10,2%	15,9%
e. Við skoðuðum [á safninu] [fágætar gamlar styttur úr hvítum steini].	**62,6%**	9,2%	28,2%
f. Þjófarnir stálu [frá Ólöfu] [gömlum fallegum úrum og dýru skarti].	**67,4%**	10,5%	22,1%

All the sentences with two-word PPs and six-word NPs were accepted by the majority of the speakers and none of them were completely rejected by more than just over ten per cent. The numbers are very consistent, particularly for the speakers that found the sentences completely grammatical. Two of the direct object sentences and one of the subject sentences were rated slightly lower than the other sentences, but the lowest rating was still only about 11% lower than the sentence with the highest rating, which also happened to be a sentence with a direct-object-NP. The rejection rates are also consistently low as no sentence was deemed completely ungrammatical by more than just over 10%. A slightly higher percentage of the informants found the sentences questionable which, again, means that although they do not fully accept the sentences as grammatical, they also do not find them completely ungrammatical. The results from the last category of sentences, where the PP consists of six words and the NP consist only of two words were not quite as consistent, as we can see in Table 4.

Table 4. Acceptance rates for sentences with two-word NPs and six-word PPs.

Subject vs Direct Object PP 6 NP 2	**Yes**	**No**	**?**
a. Á vorin synda [á litlu tjörninni í gamla miðbænum] [hvítir svanir].	26,3%	**46,8%**	26,8%
b. Á laugardaginn mættu [á árlega samkomu kvenna í listum] [margar konur].	5,5%	**61,4%**	33,1%
c. Í fyrra fóru [á spennandi námskeið um vistvæna hugsun] [nokkrir nemar].	0%	**64,2%**	35,8%
Direct Object PP 6 NP 2	**Yes**	**No**	**?**
d. Siggi eldaði [fyrir nokkra gamla vini úr skólanum] [þykkar steikur].	10,5%	41,8%	**47,7%**
e. Ólöf keypti [handa öllum fjórum litlu frænkum sínum] [fallega skó].	28,6%	34,6%	**36,8%**
f. Ég las [fyrir síðasta próf í sögu Evrópu] [margar bækur].	10,5%	**52,6%**	36,9%

The results from this category were actually quite surprising. The anticipated result was that most speakers would completely reject these sentences and although the majority of the sentences was not found fully grammatical by most speakers, they were accepted to higher degree than was expected. Sentences (4b,c,d,f) were found fully grammatical by very few speakers, in fact no speaker thought sentence (4c) was acceptable. Sentences (4a,e) however had a much higher rating and were actually found fully grammatical by almost 30% of the

participants. Although most of the highest numbers fall into the "ungrammatical" column, a surprisingly high percentage of speakers marked the sentences as questionable, not rejecting them completely.

5.2. The Faroese results

In this section I describe the results from the Faroese survey where I tested similar sentences. Table 5 presents how 107 Faroese speakers responded to sentences with two-word NPs and two-word PPs. Most speakers completely rejected these sentences but there is a clear difference in how speakers reacted to sentences with subject-NPs and direct-object-NPs. Almost all speakers found sentences (5a,b) completely ungrammatical and very few rated them grammatical or questionable, whereas sentences (5c,d) got a more positive response and were rejected by fewer speakers. These results are similar to the ones the Icelandic speakers gave, as we saw in Table 1, but it is clear that far more Faroese speakers find sentences of this kind unacceptable.

Table 5. Acceptance rates for sentences with two-word NPs and two-word PPs.

Subject PP 2 NP 2	**Yes**	**No**	**?**
a. Seinasta vikuskiftið flugu [til Danmarkar] [gamlir vinir].	0,9	**92,5**	6,6
b. Í summar fara [til Svøríkis] [nógvir dreingir].	4,7	**86,8**	8,5
Direct Object PP 2 NP 2	**Yes**	**No**	**?**
c. Anna keypti [á útsølu] [nýggjar buksur].	17	**62,3**	20,8
d. Eg fjaldi [fyri Beintu] [nakrar kakur].	15,1	**68,9**	16

In table 6 we see acceptance rates for sentences with six-word NPs and six-word PPs. Here the rates are spread out a bit more evenly. Most of the highest numbers are in the "ungrammatical" column but they are considerably lower than the ones in Table 5 and far more speakers found the sentences questionable or perfectly acceptable. Again the Faroese speakers show a clear preference for sentences with shifted direct objects, which, in this case, the Icelandic speakers did not. It is interesting to see that the percentage of speakers that accepted sentences (6d,e,f) is quite similar to the percentage of speakers that completely reject them. Compared to the way the Icelandic speakers responded to sentences of this kind, like we saw in Table 2, the responses from the Faroese speakers were much more consistent.

Table 6. Acceptance rates for sentences with six-word NPs and six-word PPs.

Subject PP 6 NP 6	**Yes**	**No**	**?**
a. Í fjør komu [á almenna ráðstevnu um nýggja tøkni] [umleið hálvfjerðs næmingar úr fimtan skúlum].	17,9	**52,8**	29,2
b. Í seinastu viku komu [á almennan fund fyri ungar høvundar] [bæði virknir limir og framfús listafólk].	30,2	**39,6**	30,2
c. Hvørt ár flúgva [til sólríkar strendur í heitu londunum] [átta til níggju túsund íslendsk ferðafólk].	16	**63,2**	20,8

Direct Object PP 6 NP 6	**Yes**	**No**	**?**
d. Eg borðreiddi [fyri nøkrum góðum vinum úr skúlanum] [ræstan fisk við saltaðum spiki afturvið].	35,8	**46,2**	17,9
e. Foreldrini lósu [fyri øllum næmingum í fjórða flokki] [bókina um Hannibal og horvna hundin].	**45,3**	35,8	18,9
f. Listakonan málaði [á gamlar veggir í Tórshavnar kommunu] [stórar og vakrar málningar av mánanum].	25,5	**49,1**	25,5

The results in Table 6 are surprisingly similar to the ones in Table 7. Here we see the acceptance rates for sentences with six-word NPs and two-word PPs. The Icelandic speakers rated sentences of this kind quite a bit higher than any of the other test sentences, as we saw in Table 3, and all of the sentences in Table 3 were accepted by the majority of the speakers and none of them were completely rejected by more than just over 10%. Those results strongly indicated that relative weight affects the way Icelandic speakers react to HNPS. The Faroese speakers do not seem to be so affected by this particular factor. One could point out that two of the subject-sentences in Table 7 (7a,c) were accepted by almost 30% of the speakers, whereas only one of the subject-sentences in Table 6 (6b) had a comparable rate, but that is weak ground for claiming an overall effect of relative weight. The acceptance rate in Table 7 for sentences with direct objects is still visibly higher than the rate for sentences with subject-NPs.

Table 7. Acceptance rates for sentences with six-word NPs and two-word PPs.

Subject PP 2 NP 6	**Yes**	**No**	**?**
a. Vanliga renna [um summarið] [nakrar hundrað ungar kvinnur í Havnini].	27,4	**58,5**	14,2
b. Um vikuskiftið spæla [í dystinum] [ung ítróttafólk úr Víkingi og TB].	10,4	**63,2**	26,4
c. Í fjør komu [til Havnar] [nakrir kendir listamenn úr øðrum londum].	27,4	**45,3**	27,4
Direct Object PP 2 NP 6	**Yes**	**No**	**?**
d. Beinta lesur [um morgnarnar] [øll møgulig stuttlig tíðarrit um móta].	**47,2**	39,6	13,2
e. Vit sóu [á savninum] [avbera nógvar myndir av gomlum kirkjum].	30,2	**40,6**	29,2
f. Tjóvarnir stjólu [úr handlinum] [átta gomul lummaur og fýra armbond].	38,7	**41,5**	19,8

Finally, Table 8 presents the acceptance rates for sentences with two-word NPs and six-word PPs. The majority of the speakers found these sentences ungrammatical but clearly there are some speakers of Faroese that fully accept sentences of this kind. There isn't a significant difference between the acceptance rate for subject- and direct-object-sentences but considerably fewer speakers found the sentences with direct objects completely

ungrammatical, compared to the subject-sentences. More speakers marked them questionable, meaning that although they do not fully accept them, they also do not completely reject them.

Table 8. Acceptance rates for sentences with two-word NPs and six-word PPs.

Subject PP 6 NP 2	**Yes**	**No**	**?**
a. Í gjár vóru [á spennandi skeiði um føroyska mentan] [nógvir danir].	5,7	**86,8**	7,5
b. Um várið svimja [á lítlu tjørnini í gamla miðbýnum] [hvítir svanir].	14,2	**70,8**	15,1
c. Leygardagin vóru [á fundi um umstøður teirra lesandi] [tjúgu mannfólk].	10,4	**80,2**	9,4
Direct Object PP 6 NP 2	**Yes**	**No**	**?**
d. Turið keypti [í lítla nýggja handlinum í miðbýnum] [nýggjar skógvar].	12,3	**66**	21,7
e. Eg las [til seinastu royndina í donskum máli] [nógvar bøkur].	15,1	**66**	18,9
f. Jógvan stjól [frá einum góðum gomlum íslendskum vini] [nógvan pening].	17,9	**56,6**	25,5

6. Conclusion

The results from the two surveys are quite different in a few aspects. One of the main questions of this article was whether HNPS applies to subjects and direct objects in both Icelandic and Faroese and whether HNPS works equally well with NPs that have these different grammatical roles in both languages. It is clear from these results that HNPS works with both subjects and direct objects in both languages but the importance of these grammatical roles is not the same for both languages. The results from the Icelandic survey show that most speakers accept sentences with shifted subjects and direct objects, and the grammatical role of the shifted NP does not seem to affect their judgement. The results were quite different from the Faroese speakers, as they showed a clear preference for sentences with shifted direct objects over subjects in every category.

The second main question of this article was whether relative weight plays a role in Icelandic and/or Faroese. The Icelandic speakers preferred sentences where the PP was relatively shorter than the NP, whereas this factor did not have any noticeable impact on the way the Faroese speakers rated comparable sentences. These results suggest that for Icelandic speakers it is important that the NP is relatively longer than the PP it shifts over but for Faroese speakers, it is more important that the shifted NP is long. What is also interesting is that there were a number of speakers of both languages that accepted sentences with short NPs, that were shifted over either a longer PP or an equally long PP. That tells us that for some speakers, the NP doesn't need to be longer than the PP or even to be long at all in order for it to shift.

When we say that HNPS works in a particular language, like Icelandic or Faroese, we're really just saying that it works for some speakers of that language. What one speaker

finds perfectly acceptable, another speaker finds completely ungrammatical. That makes it impossible for one speaker to draw conclusions about a language's grammar based on his own intuition, as the next speaker's grammar might be completely different. If one was to talk to one or two Faroese speakers and ask them to evaluate the sentences that were tested in this study, their answers might not tell us anything about Faroese in general, contrary to what has often been assumed in the literature. Of course there might be other factors that affect the weight of an NP than the amount of words or syllables it contains and that is an issue that needs to be further investigated but that will be reserved for future research.

References

Barnes, M. (1992). Faroese syntax—achievements, goals and problems. The Nordic languages and modern linguistics 7, 17-37.

Chomsky, N. (1955/1975). The Logical Structure of Linguistic Theory, University of Chicago Press, Chicago.

Hawkins, J. A. (1994). A performance theory of order and constituency. Cambridge University Press, Cambridge.

Holmberg, A., and Platzack C. (1995). The Role of Inflection in Scandinavian Syntax. Oxford University Press, Oxford.

Kimball, J. (1973). Seven principles of surface structure parsing in natural language. Cognition 2, 15–47.

Ross, J. R. (1967). Constraints on variables in syntax. Unpublished PhD Dissertation, MIT.

Rögnvaldsson, E. (1982). Um orðaröð og færslur í íslensku. MA-thesis. University of Iceland, Reykjavík.

Selkirk, E. (2011). The Syntax-Phonology Interface. The Handbook of Phonological Theory, 2nd edition, John Goldsmith, Jason Riggle and Alan Yu, eds. Blackwell Publishing, Oxford.

Stallings, L. M., & MacDonald, M. C. (2011). It's not just the "heavy NP": relative phrase length modulates the production of heavy-NP shift. Journal of Psycholinguistic Research 40:177-187.

Thráinsson, H. (2007). The syntax of Icelandic. Cambridge University Press, Cambridge.

Thráinsson, H., Petersen, H. P., Jacobsen, J. í Lon & Hansen, Z. S. (2012). Faroese: An overview and reference grammar. Fróðskapur / Málvísindastofnun Háskóla Íslands, Tórshavn / Reykjavík.

Thráinsson et al. (eds.) (2013) Tilbrigði í íslenskri setningagerð I. Markmið, aðferðir og efniviður [Variation in Icelandic syntax, vol. I. Purpose, methods and materials.]. Editors Höskuldur Thráinsson, Ásgrímur Angantýsson, Einar Freyr Sigurðsson. Málvísindastofnun Háskóla Íslands, Reykjavík.

Thráinsson et al. (eds.) Tilbrigði í íslenskri setningagerð II. Helstu niðurstöður. Tölfræðilegt yfirlit. [Variation in Icelandic syntax, vol. II. Main results. A statistical overview.]

Editors Höskuldur Thráinsson, Ásgrímur Angantýsson, Einar Freyr Sigurðsson. Málvísindastofnun Háskóla Íslands, Reykjavík.

Vikner, S. (1995). Verb movement and expletive subjects in the Germanic languages. Oxford University Press, Oxford.

Wasow, T. (1997). Remarks on grammatical weight. Language Variation and Change 9, 81–105.

Wasow, T., & Arnold, J. (2005). Intuitions in linguistic argumentation. Lingua 115: 1481-1496.

Zec, D., & Inkelas, S. (1990). Prosodically constrained syntax. The phonology-syntax connection (pp. 365–378). S. Inkelas & D. Zec, eds. CSLI and the University of Chicago Press, Chicago.

Ingunn Hreinberg Indriðadóttir
University of Iceland
ingunn@hi.is

Working Papers in Scandinavian Syntax — Previous issues

These working papers have been sponsored by the Norwegian Research Council for Science and the Humanities (NAVF) (no. 1–27) and by the Swedish Research Council for the Humanities and the Social Sciencies (HSFR) (no. 28–42), as well as by Erik Philip-Sörensen's stiftelse (no. 42–43). Issues 80–92 were sponsored by the Centre for Languages and Literature, Lund University. As of no. 93, WPSS is published by Ghent University and Lund University.

PUBLISHED BY JUNE 2016

1. Tarald Taraldsen: Som (1983)
2. Christer Platzack: Germanic word order and the COMP/INFL parameter (1983)
3. Anders Holmberg: The finite sentence in Swedish and English (1983)
4. Kirsti Koch Christensen: The categorial status of Norwegian infinitival relatives (1983)
5. Lars Hellan: Anaphora in Norwegian and theory of binding (1983)
6. Elisabet Engdahl: Parasitic gaps, subject extractions, and the ECP (1983)
7. Elisabet Engdahl: Subject gaps (1984)
8. Eiríkur Rögnvaldsson: Icelandic word order and flað-insertion
   Höskuldur Thráinsson: Some points on Icelandic word order (1984)
9. Tarald Taraldsen: Some phrase structure dependent differences between Swedish and Norwegian (1984)
10. Jan Engh: On the development of the complex passive
    Lars Hellan: A GB-type analysis of complex passives and related constructions (1984)
11. Tor A. Åfarli: Norwegian verb particle constructions as causative constructions (1984)
12. Martin Everaert: Icelandic long reflexivization and tense-connectedness (1984)
13. Anders Holmberg: On raising in Icelandic and Swedish
    Anders Holmberg: On certain clitic-like elements in Swedish (1984)
14. Toril Fiva: NP-internal chains in Norwegian (1984)
15. Kirsti Koch Christensen: Subject clitics and A-bound traces (1984)
16. Annie Zaenen, Joan Maling, Höskuldur Thráinsson: Passive and oblique case
    Joan Maling, Annie Zaenen: Preposition-stranding and oblique case (1984)
17. Nomi Erteschik-Shir: Der (1985)
18. Halldór Ármann Sigurðsson: Subordinate V/I in Icelandic. How to explain a root phenomenon (1985)
19. Kirsti Koch Christensen: Complex passive and conditions on reanalysis (1985)
20. Christer Platzack: The Scandinavian languages and the null subject parameter (1985)
21. Anders Holmberg: Icelandic word order and binary branching (1985)
22. Tor A. Åfarli: Absence of V2 effects in a dialect of Norwegian (1985)
23. Sten Vikner: Parameters of binder and of binding category in Danish (1985)
24. Anne Vainikka: Icelandic case without primitive grammatical functions (1985)
25. Halldór Ármann Sigurðsson: Moods and (long distance) reflexives in Icelandic (1986)
26. Wim Kosmeijer: The status of the finite inflection in Icelandic and Swedish (1986)
27. Robin Cooper: Verb second - predication or unification? (1986)
28. Joan Maling: Existential sentences in Swedish and Icelandic: Reference to Thematic Roles (1987)
29. Tor A. Åfarli: Lexical structure and Norwegian passive and ergative constructions (1987)
30. Kjell-Åke Gunnarsson: Expressions of distance and raising (1987)
31. Squibs, Remarks and Replies (Klaus von Bremen, Christer Platzack) (1987)
32. Cecilia Falk: Subjectless clauses in Swedish (1987)
33. Anders Holmberg: The Structure of NP in Swedish (1987)
34. Halldor Ármann Sigurðsson: From OV to VO: Evidence from Old Icelandic (1988)
35. Lars Hellan: Containment and Connectedness Anaphors (1988)
36. Tomas Riad: Reflexivity and Predication (1988)
37. Squibs, Remarks and Replies (Elly van Gelderen, Arild Hestvik, Tomas Riad) (1988)
38. Sten Vikner & Rex A. Sprouse: Have/Be-Selection as an A-Chain Membership Requirement. (1988)
39. Sten Vikner: Modals in Danish and Event Expressions (1988)
40. Elisabet Engdahl: Implicational Universals: Parametric Variation in GB and GPSG. (1988)
41. Kjell-Åke Gunnarsson: Expressions of Distance, Prepositions and Theory of Theta-Roles (1988)

Beginning with no. 42, the papers were no longer published as separate issues. There are two issues each year, one in June and one in December.

42. [December 1988]
Lars Hellan: The Phrasal Nature of Double Object Clusters
Anders Holmberg & Christer Platzack: On the Role of Inflection in Scandinavian Syntax
Barbro Lundin & Christer Platzack: The Acquisition of Verb Inflection, Verb Second and Subordinate Clauses in Swedish
Lars Olof Delsing: The Scandinavian Noun Phrase
Gunnel Källgren & Ellen F. Prince: Swedish VP-Topicalization and Yiddish Verb-Topicalization

43. [June 1989]
Torbjørn Nordgård: On Barriers, Wh-movement and IP-Adjunction in English, Norwegian and Swedish
Bonnie D.Schwartz & Sten Vikner: All Verb Second Clauses are CPs.
Christer Platzack & Anders Holmberg: The Role of AGR and Finiteness.

44. [December 1989] ***Special Issue on Comparative Germanic Syntax***
Tor Åfarli: On Sentence Structure in Scandinavian Languages.
Jan Anward: Constraints on Passives in Swedish and English.
Kathrin Cooper & Elisabet Engdahl: Null Subjects in Zurich German.
Cecilia Falk: On the Existential Construction in the Germanic Languages.
Lars Hellan: A Two Level X-bar System.
Jarich Hoekstra & Lásló Marácz: On the Position of Inflection in West-Germanic.
Kjartan G. Ottósson: VP-Specifier Subjects and the CP/IP Distinction in Icelandic and Mainland Scandinavian.
Charlotte Reinholtz: V-2 in Mainland Scandinavian: Finite Verb Movement to Agr.
Wolfgang Sternefeld: Extractions from Verb-Second Clauses in German.
Sten Vikner: Object Shift and Double Objects in Danish.
Chris Wilder: Wh-Movement and Passivization in Infinitive Predicates

45. [June 1990]
Helge Lødrup: VP-topicalization and the Verb *gjøre* in Norwegian.
Christer Platzack: A Grammar Without Functional Categories: A Syntactic Study of Early Swedish Child Language
Halldór Sigurðsson: Icelandic Case-marked PRO and the Licensing of Lexical A-positions.

46. [December 1990]
Halldór Sigurðsson: Feature Government and Government Chains
Lena Ekberg: Theta Role Tiers and the Locative PP in Existential Constructions
Sjur Nørstebø Moshagen & Trond Trosterud: Non-Clause-Bounded Reflexives in mainland Scandinavian Cecilia Falk: On Double Object Constructions

47. [June 1991]
Norbertt Hornstein: Expletives: a comparative study of English and Icelandic
Lars-Olof Delsing: Quantification in the Swedish Noun Phrase
Helge Lødrup: The Norwegian Pseudopassive in Lexical Theory
Gunlög Josefsson: Pseudocoordination – A VP + VP Coordination

48. [December 1991]
Jóhannes Gísli Jónsson: Stylistic Fronting in Icelandic
Kirsti Koch Christensen: Complex Passives Reanalyzed
Kjartan G. Ottósson: Icelandic Double Objects as Small Clauses

49. [June 1992]
Halldór Sigurðsson: The Case of Quirky Subjects
Anders Holmberg: Properties of Non-heads in Compounds: A Case Study
Gunlög Josefsson: Object Shift and Weak Pronominals in Swedish
Peter Svenonius: The Extended Projection of N: Identifying the Head of the Noun Phrase

50. [December 1992]

Sabine Iatridou and Anthony Kroch: The Licensing of CP-recursion and its Relevance to the Germanic Verb Second Phenomenon.
Christer Platzack: Complementizer Agreement and Argument Clitics.
Halldór Sigurðsson: Agreement as Visible F-government.
Tor A. Åfarli: Seeds and Functional Projections.

51. [June 1993]

Molly Diesing & Eloise Jelinek: The Syntax and Semantics of Object Shift.

52. [December 1993]

Gunlög Josefsson: Scandinavian Pronouns and Object Shift
Anders Holmberg: Two Subject Positions in IP in Mainland Scandinavian

53. [June 1994]

Hans-Martin Gärtner & Markus Steinbach: Economy, Verb Second, and the SVO - SOV Distinction.
Kyle Johnson & Sten Vikner: The Position of the Verb in Scandinavian Infinitives: In V° or C° but not in I°.
Christer Platzack: Null Subjects, Weak Agr and Syntactic Differences in Scandinavian.

54. [December 1994]

Jan-Wouter Zwart: The Minimalist Program and Germanic Syntax. A Reply to Gärtner and Steinbach
Knut Tarald Taraldsen: Reflexives, pronouns and subject / verb agreement in Icelandic and Faroese
Christer Platzack: The Initial Hypothesis of Syntax: A Minimalist Perspective on Language Acquisition and Attrition

55. [June 1995]

Sten Vikner: V°-to-I° Movement and Inflection for Person in All Tenses
Anders Holmberg & Görel Sandström: Scandinavian Possessive Constructions from a Northern Swedish Viewpoint
Höskuldur Thráinsson and Sten Vikner: Modals and Double Modals in the Scandinavian Languages
Øystein Alexander Vangsnes: Referentiality and Argument Positions in Icelandic

56. [December 1995]

Gunlög Josefsson: The Notion of Word Class and the Internal Make-up of Words
Lars Hellan and Christer Platzack: Pronouns in Scandinavian Languages: An Overview
Joan Maling and Jóhannes Gísli Jónsson: On Nominative Objects in Icelandic and the Feature [+Human]

57. [June 1996]

Halldór Ármann Sigurðsson: Icelandic Finita Verb Agreement
Peter Svenonius: The Optionality of Particle Shift
Helge Lødrup: The Theory of Complex Predicates and the Norwegian Verb *få* 'get'
Thorbjörg Hróarsdóttir: The decline of OV Word Order in the Icelandic VP

58. [December 1996]

Øystein Alexander Vangsnes: The role of gender in (Mainland) Scandinavian possessive constructions
Anna-Lena Wiklund: Pseudocoordination is Subordination
Eiríkur Rögnvaldsson: Word Order Variation in the VP in Old Icelandic
Tor A. Åfarli: An Argument for a Minimalist Construal of Case Licensing

59. [June 1997]

Øystein Nilsen: Adverbs and A-shift
Kristin M. Eide & Tor A. Åfarli: A Predication Operator: Evidence and Effects
Christer Platzack: A Representational Account of Restrictive and Non-Restrictive Relatives: The Case of Swedish

60. (December 1997)
Sten Vikner: The Interpretation of Object Shift, Optimality Theory, and Minimalism
Jóhanna Barðdal: Oblique Subjects in Old Scandinavian
Elisabet Engdahl: Relative Clause Extractions in Context
Anders Holmberg: Scandinavian Stylistic Fronting: Movement of Phonological Features in the Syntax

61. [June 1998]
Verner Egerland: On Verb-Second Violations in Swedish and the Hierarchical Ordering of Adverbs
Gunlög Josefsson & Christer Platzack: Short Raising of V and N in Mainland Scandinavian
Christer Platzack: A Visibility Condition for the C-domain
Gunlög Josefsson: On the Licensing and Identification of (Optionally) Null Heads in Swedish

62. [December 1998]
Cedric Boeckx: Agreement Constraints in Icelandic and Elsewhere.
Jens Haugan: Right Dislocated 'Subjects' in Old Norse.

63. [June 1999]
Jan Terje Faarlund: The notion of oblique subject and its status in the history of Icelandic
Elisabet Engdahl: Versatile Parasitic Gaps
Benjamin Lyngfelt: Optimal Control. An OT perspective on the interpretation of PRO in Swedish
Gunlög Josefsson: Non-finite root clauses in Swedish child language

64. [December 1999]
Inger Rosengren: Rethinking the Adjunct
Maria Mörnsjö: Theories on the Assignment of Focal Accent as Applied to Swedish
Jóhanna Barðdal: The Dual Nature of Icelandic Psych-Verbs
Christer Platzack: The Subject of Icelandic Psych-Verbs: a Minimalist Account

65 [June 2000]
Inger Rosengren: EPP and the Post-finite Expletive
Anders Holmberg: Expletives and Agreement in Scandinavian Passives
Halldór Ármann Sigurðsson: The Locus of Case and Agreement
Jóhanna Barðdal and Valeria Molnár: Passive in Icelandic – Compared to Mainland Scandinavian

66 [December 2000]
Halldór Ármann Sigurðsson: To be an oblique subject: Russian vs. Icelandic
Marit Julien : Optional *ha* in Swedish and Norwegian
Hjalmar P. Petersen: IP or TP in Modern Faroese
Christer Platzack & Gunlög Josefsson: Subject Omission and Tense in Early Swedish Child Language

67 [June 2001]
Thórhallur Eythórsson: The Syntax of Verbs in Early Runic
Jóhanna Barðdal & Thórhallur Eythórsson: The Evolution of Oblique Subjects in Scandinavian
Gunlög Josefsson: The True Nature of Holmberg's Generalization Revisited – Once Again
Halldór Ármann Sigurðsson: Case: abstract vs. morphological

68 [December 2001]
Hubert Haider: How to Stay *Accusative* in Insular Germanic
Gunnar Hrafn Hrafnbjargarson: An Optimality Theory Analysis of Agreement in Icelandic DAT-NOM Constructions.
Nomi Erteschik-Shir P-syntactic motivation for movement: imperfect alignment in Object Shift
Zeljko Boskovic: PF Merger in Scandinavian: Stylistic Fronting and Object Shift
Susann Fischer & Artemis Alexiadou: On Stylistic Fronting: Germanic vs. Romance
Lars-Olof Delsing: Stylistic Fronting, Evidence from Old Scandinavian

69 [June 2002]
Line Mikkelsen: Reanalyzing the definiteness effect: evidence from Danish
Verner Egerland: On absolute constructions and the acquisition of tense
Peter Svenonius: Strains of Negation in Norwegian
Anders Holmberg & Thorbjörg Hróarsdóttir: Agreement and movement in Icelandic raising constructions

70 [December 2002]
Joan Maling: Icelandic Verbs with Dative Objects
Jóhanna Barðdal: "Oblique Subjects" in Icelandic and German
Halldór Ármann Sigurðsson: Agree and Agreement: Evidence from Germanic

71 [June 2003]
Arthur Stepanov: On the "Quirky" Difference Icelandic vs. German: A Note of Doubt.
Janne Bondi Johannessen: Negative Polarity Verbs in Norwegian.
Verner Egerland: Impersonal Pronouns in Scandinavian and Romance.
Erik Magnusson: Subject Omission and Verb Initial Declaratives in Swedish.
Thórhallur Eythórsson & Jóhanna Barðdal: Oblique Subjects: A Germanic Inheritance!

72 [December 2003]
Ken Ramshøj Christensen: On the Synchronic and Diachronic Status of the Negative Adverbial *ikke/not.*
Luis López: Complex Dependencies: the Person-Number restriction in Icelandic.
Katarina Lundin-Åkesson: Constructions with *låta* LET, reflexives and passive -s –
a comment on some differences, similarities and related phenomena.
Thorbjörg Hróarsdóttir: Economy: On simplicity, default values and markedness in
language acquisition and change.
Gunnar Hrafn Hrafnbjargarson: On Stylistic Fronting Once More
Thórhallur Eythórsson & Jóhannes Gísli Jónsson: The Case of Subject in Faroese

73 [June 2004]
Øystein Alexander Vangsnes: On *wh*-questions and V2 across Norwegian dialects.
A survey and some speculations.
David Håkansson: Partial *wh*-movement in the history of Scandinavian
Christer Platzack: Agreement and the Person Phrase Hypothesis

74 [December 2004]
Halldór Ármann Sigurðsson: Agree in Syntax, Agreement in Signs
Ute Bohnacker: Is V2 really that hard to acquire for second language learners?
On current universalist L2 claims and their empirical underpinnings
Johan Brandtler: Subject Omission and Discourse Anchorage in Early Swedish Child Language

75 [June 2005]
Johanna Barðdal & Thórhallur Eythórsson: Case and Control Constructions in
German, Faroese and Icelandic: Or How to Evaluate Marginally-Acceptable Data?
Fredrik Heinat: Reflexives in a phase based syntax
Gunlög Josefsson: How could Merge be free and word formation restricted:
The case of compounding in Romance and Germanic
Christer Platzack: Uninterpretable features and EPP: a minimalist account of
language build up and breakdown

76 [December 2005]
Björn Rothstein: Perfect parasitism in inferential contexts. On the inferential present perfect in Swedish.
Kristín M. Jóhannsdóttir: Temporal adverbs in Icelandic: Adverbs of quantification vs. frequency adverbs.
Katarina Lundin Åkesson: The multifunctional *ba* – A finiteness marker in the guise of an adverbial.
Halldór Ármann Sigurðsson: Accusative and the Nom/Acc alternation in Germanic.
Fredrik Heinat: A note on 'long object shift'.

77 June [2006]
Marit Julien: On argument displacement in English and Scandinavian
Christer Platzack: Case as Agree Marker
Halldór Ármann Sigurðsson: PF is more 'syntactic' than often assumed
Jackie Nordström: Selection through Uninterpretable Features. Evidence from Insular Scandinavian
Camilla Thurén: The syntax of Swedish present participles. The lexical category problem.
Johan Brandtler: On Aristotle and Baldness – Topic, Reference, Presupposition of Existence, and Negation

78 December [2006]
Þorbjörg Hróarsdóttir, Gunnar Hrafn Hrafnbjargarson, Anna-Lena Wiklund and Kristine Bentzen: The Tromsø guide to Scandinavian verb movement.
Terje Lohndal: The phrase structure of the copula.
Ute Bohnacker: Placing verbs and particles in non-native German and Swedish.
Björn Rothstein: Why the present perfect differs cross linguistically. Some new insights.
Henrik Rosenkvist: Null subjects in Övdalian.
Piotr Garbacz: Verb movement and negation in Övdalian.

79 [June 2007]
Geoffrey Poole: Defending the "Subject Gap" Requirement: Stylistic Fronting in Germanic and Romance
Jan Terje Faarlund: From clitic to affix: the Norwegian definite article
Terje Lohndal: *That*-t in Scandinavian and elsewhere: Variation in the position of C
Tor A. Åfarli: Features and Agreement. Expletive *det* 'it' and *der* 'there' in Norwegian dialects
Kristine Bentzen, Gunnar Hrafn Hrafnbjargarson, Þorbjörg Hróarsdóttir and Anna-Lena Wiklund: The Tromsø guide to the Force behind V2
Kristine Bentzen, Gunnar Hrafn Hrafnbjargarson, Þorbjörg Hróarsdóttir and Anna-Lena Wiklund: Extracting from V2

80 December [2007]
Željko Bošković: Don't feed your movements: Object shift in Icelandic
Werner Abraham & Elisabeth Leiss: On the interfaces between (double) definiteness, aspect, and word order in Old and Modern Scandinavian
Þorbjörg Hróarsdóttir, Anna-Lena Wiklund, Kristine Bentzen & Gunnar Hrafn Hrafnbjargarson: The afterglow of verb movement
Henrik Rosenkvist: Subject Doubling in Oevdalian
Marit Julien: Embedded V2 in Norwegian and Swedish
Britta Jensen: In favour of a truncated imperative clause structure: evidence from adverbs
Mai Tungset: Benefactives across Scandinavian

81 [June 2008]
Halldór Ármann Sigurðsson & Joan Maling: Argument drop and the Empty Left Edge Condition (ELEC) Gunlög Josefsson: Pancakes and peas – on apparent disagreement and (null) light verbs in Swedish
Fredrik Heinat: Long object shift and agreement
Johan Brandtler: On the Structure of Swedish Subordinate Clauses

82 December [2008]
Elly van Gelderen & Terje Lohndal: The position of adjectives and double definiteness
Terje Lohndal, Mari Nygård & Tor A. Åfarli: The structure of copular clauses in Norwegian
Þorbjörg Hróarsdóttir: Verb particles in OV/VO word order in Older Icelandic
Johan Brandtler: Why we should ever bother about *wh*-questions. On the NPI-licensing properties of wh- questions in Swedish
Gunnar Hrafn Hrafnbjargarson: Liberalizing modals and floating clause boundaries
Tavs Bjerre, Eva Engels, Henrik Jørgensen & Sten Vikner: Points of convergence between functional and formal approaches to syntactic analysis.

83 [June 2009]
Ulla Stroh-Wollin: On the development of definiteness markers in Scandinavian.
Anna-Lena Wiklund: In search of the force of dependent V2: A note on Swedish.
Þorbjörg Hróarsdóttir: Restructuring and OV order.
Eva Engels: Microvariation in object positions: Negative Shift in Scandinavian.
Þorbjörg Hróarsdottir: Notes on language change and grammar change.
Dennis Ott: Stylistic fronting as remnant movement.

84 [December 2009]
Maia Andreasson: Pronominal object shift – not just a matter of shifting or not
Gunnar Hrafn Hrafnbjargarson & Anna-Lena Wiklund: General embedded V2: Icelandic A, B, C, etc.
Gunlög Josefsson: "Disagreeing" pronominal reference and gender in Swedish
David Petersson: Embedded V2 does not exist in Swedish
Henrik Rosenkvist: Referential null-subjects in Germanic languages – an overview
Anna-Lena Wiklund: The syntax of Surprise: unexpected event readings in complex predication
Marit Julien: The force of the argument
Anna-Lena Wiklund: May the force be with you: A reply from the 5th floor

85 [June 2010]
Mayumi Hosono: Scandinavian Object Shift as the cause of downstep
Jackie Nordström: The Swedish *så*-construction, a new point of departure
Anton Karl Ingason: Productivity of non-default case

86 [December 2010]
Gunlög Josefsson; Object Shift and optionality. An intricate interplay between syntax, prosody and information structure
Mayumi Hosono: On Icelandic Object Shift
Mayumi Hosono: Why Object Shift does not exist in Övdalian.
Mayumi Hosono: On Unshifted Weak Object Pronouns in the Scandinavian Languages.
Eva Engels: Local licensing in Faroese expletive constructions.
Irene Franco: Issues in the syntax of Scandinavian embedded clauses.
David Petersson & Gunlög Josefsson: ELLERHUR and other Yes/No-question operator candidates in Swedish.
Mikko Kupula: Causers as derived Subject – An unaccusative view from Finnish

87 [June 2011]
Jim Wood: Icelandic *let*-causatives and Case.
Eva Klingvall: On past participles and their external arguments.
Ulla Stroh-Wollin: Embedded declaratives, assertion and swear words.
Verner Egerland: Fronting, Background, Focus: A comparative study of Sardinian and Icelandic.
Caroline Heycock, Antonella Sorace, Zakaris Svabo Hansen, Sten Vikner & Frances Wilson: Residual V-to-I in Faroese and its lack in Danish: detecting the final stages of a syntactic change.

88 [December 2011]
Henrik Rosenkvist; Verb Raising and Referential Null Subjects in Övdalian
Kari Kinn: Overt non-referential subjects and subject-verb agreement in Middle Norwegian
Mayumi Hosono: Verb Movement as Tense Operator Movement
Jim Wood & Einar Freyr Sigurðsson: Icelandic Verbal Agreement and Pronoun Antecedent Relations
Eva Klingvall: On non-copula *Tough* Constructions in Swedish
David Petersson: Swedish exclamatives are subordinate

89 [June 2012]
Eva Engels: Wh-phrases and NEG-phrases in clauses and nominals.
Fredrik Heinat: Adjective and clausal complementation.
Mayumi Hosono: Information structure, syntax and information properties of multiple *Wh*-questions.

90 [December 2012]
Ermenegildo Bidese, Andrea Padovan, AlessandraTomaselli: A binary system of complementizers in Cimbrian relative clauses
Camilla Thurén: The syntax of Swedish copular clauses
Eva Klingvall: Topics in pseudo passives
Fredrik Heinat: Finiteness in Swedish.
Gunlög Josefsson: ”Disagreeing” doubling *det*

91 [December 2013]
Roland Hinterhölzl: Economy conditions and coreference: From minimal pronouns to referential acts
Dorian Roehrs: Possessives as Extended Projections
Björn Lundquist: On inter-individual variation and mid-distance binding in Swedish
Verner Egerland: The Apropos-Topic, the Concerning-Topic and the syntax-pragmatics interface

92 [June 2014]
Elisabet Engdahl & Filippa Lindahl: Preposed object pronouns in Mainland Scandinavian
Katarina Lundin: An unexpected gap with unexpected restrictions
Dennis Ott: Controlling for movement: Reply to Wood (2012)
Halldór Ármann Sigurðsson: About pronouns

93 [December 2014]
Filippa Lindahl: Relative Clauses are not always strong islands
Gunlög Josefsson: Pseudo-coordination with gå ‘go’ and the “surprise effect”
Jóhanna Barðdal, Thórhallur Eythórsson & Tonya Kim Dewey: Alternating Predicates in Icelandic and German
Mayumi Hosono: Scandinavian Verb Particle Constructions and the Intonational Principles

94 [June 2015]
Marit Julien: Microvariation in Norwegian long distance binding
Fredrik Heinat & Anna-Lena Wiklund: Scandinavian Relative Clause Extractions
Mayumi Hosono: On Verb Movement in the *Labeling Algorithm*-Based Derivation

95 [December 2015]
Jan Terje Faarlund: The Norwegian infinitive marker
Ulla Stroh-Wollin: Understanding the gradual development of definiteness marking: the case of Swedish
Martje Wijers: Forgotten factors in the development of dependent clauses in Swedish as a second language

96 [June 2016] ***Special Issue on Icelandic***
Jim Wood: How roots do and don’t constrain the interpretation of Voice
Anton Karl Ingason, Einar Freyr Sigurðsson & Jim Wood: Displacement and subject blocking in verbal idioms
Jim Wood, Matthew Barros & Einar Freyr Sigurðsson: Clausal ellipsis and case (mis)matching in Icelandic
Thórhallur Eythórsson & Sigríður Sæunn Sigurðardóttir: A brief history of Icelandic weather verbs
Ásgrímur Angantýsson & Dianne Jonas: On the syntax of adverbial clauses in Icelandic

97 [December 2016]
Hans-Martin Gärtner: A note on the Rich Agreement Hypothesis and varieties of “Embedded V2”
Verner Egerland & Dianne Jonas: *Enough already!* On directive modal particles in English and Swedish
Mayumi Hosono: Exceptional movement from/into the Criterial Position
Anton Karl Ingason, Iris Edda Nowenstein & Einar Freyr Sigurðsson: The Voice-adjunction theory of ‘by’-phrases and the Icelandic impersonal passive
Jóhannis Gísli Jónsson: Testing agreement with nominative objects

Issues 1–43, 45, 66, 67 are out of stock. It is still possible to get copies of 44, 46–65, 68–80 by sending an order to the editor. Beginning with issue 81 (June 2008), the articles published in WPSS are available online: http://projekt.ht.lu.se/grimm/working-papers-in-scandinavian-syntax/