1. INTRODUCTION: AIMS, METHOD AND MATERIAL

1.1. Introduction

The main topics in this thesis are the emergence of five Swedish conditional subordinators and the possible theoretical consequences of these language changes for some fundamental aspects of grammaticalization theory.

Swedish was not written to any extent until the 13th century. Since then a number of new conditional subordinators have emerged – some are still in use, and others have disappeared. The subordinators studied here (*utan*, *um*, *hvar*, *ifall* and *bara*) are exemplified below:

1. a. [...] böte bot mæþ hundræþæ markum ok fiurætighi.
utæn þæt se mæþ waþæ til komit. (UL)
pay-subj. fine with hundred marks and forty
unless it is-subj. with accident to come
'[...] pay fine of one hundred marks and forty,
unless it was done by accident'

b. [...] þa ægher han mista iorþ, goz ok liif **vm** han
fangin varþer a vppinbare gerning. (MEL)
then shall he lose land, property and life if he
caught is on open deed
'[...] then he shall lose his land, property and life,
if he is caught in the act'

c. [...] att han gierna hade warit ther iffrå, **hwar** han
thet hade kunnat ostadh kommit. (Swart)
that he gladly had been there away, if he
it had could PL come
'[...] that he gladly had been elsewhere, **if** he had been able to'

d. Håll stånd **i fall** du vågar! (SAOB, 1847)
hold PL in case you dare
'resist **if** you dare!'

e. Karo är glad **bara** han får mat.
Karo is happy only he gets food
'Karo is happy **as long as** he is fed'

A study of the diachronical development of these five subordinators is the main component of this work, but I will also attend to a theoretical matter: the explanatory and descriptive value of some of the fundamental aspects of grammaticalization theory. With the asserted changes of the subordinators examined here as a foothold, I will investigate whether acknowledged facets of grammaticalization theory (such as bleaching and source determination) may contribute to the understanding of these changes.

1.1.1. Background

Meillet (1912) introduced the term grammaticalization for "the shift of an independent word to the status of a grammatical element" (in the translation of McMahon 1994:160). All languages seem to offer examples of how words from the open lexical classes (like nouns, verbs and adjectives) in the course of language history may develop into pronouns, clitics, affixes and other such items. The study of such changes has eventually given rise to grammaticalization theory, a linguistic subdiscipline which is dedicated to the explanation of language changes of this type.

During the last decade a number of significant works (Heine et al 1991, Hopper & Traugott 1993, Heine 1993, Bybee et al 1994, Lehmann 1995, Ramat & Hopper 1998 etc.) within grammaticalization theory have been published. These works are mainly based on empirical facts from a number of languages (Bybee et al 1994, e. g, include 76 typologically stratified languages in their corpus.). Although this method of course provides the researcher with an abundance of facts concerning the

linguistic entity to be studied, there is no way the researcher can evaluate all the examples (Bybee et al 1994:32ff, Newmeyer 1998:326ff). In this respect a single language, well known by the linguist, will provide data that are more reliable – as in all other fields of science one has to consider reliability and validity when the method and the data for the study are chosen.

In this work, typological validity is of lesser concern than reliability. I have chosen to use my mother tongue, Swedish, for a diachronic investigation of conditional subordinators (however, since the study covers about 600 years, it is naturally a question of dispute whether it really is one and the same language I have been studying). In this way the problem of secondary data sources is avoided. The investigation is then used as a base for a theoretical discussion concerning generally acknowledged aspects of grammaticalization.

1.1.2. Why conditional subordinators?

An element that undergoes grammaticalization typically changes in a number of ways. In short, it often becomes phonetically reduced (i.e. shorter), it loses some, or all, of its lexical semantic content and it acquires a more grammatical function. Subordinators are generally short and they have a grammatical function but little or no lexical meaning; these properties accordingly suggest that they have undergone grammaticalization. Furthermore, conditional subordinators can not be connected to cognitive categories such as space or time, and are thus, according to the semantic scale presented by Heine et al (1991:48), even more grammaticalized than for example temporal subordinators. It is reasonable, I think, to assume that conditional subordinators are some of the most grammaticalized elements in any given language and as such suitable for a study of grammaticalization.

Another important factor that led me to choose conditional subordinators is that in Swedish a number of words have had this function during the last 800 years. And in this time span, their emergence can be traced in the written material (which however

is impossible with older forms like *æn* or *ef,* which I therefore have not included in the study).

The third, and final, reason for choosing conditional subordinators is that this area already has generated a lot of research; conditionals are described and discussed in many modern linguistic works, some of which are concerned with language change. The Swedish data will hopefully provide a useful addition to this internationally popular field of study.

In this investigation, only monomorphemic subordinators with a distinct conditional meaning that have emerged later than the early 13th century and that have been reasonably frequent are included: *utan*, *um*, *hvar*, *ifall* and *bara*. Hence the EOSw *æn* is excluded since it is clearly conditional as far back as we know, and the MSw *med mindre* (meaning 'unless') is excluded because it is infrequent and polymorphemic. The focus is on the paradigm of conditional subordinators, and syntagmatic aspects such as case, tense, mood relations and final/initial position of the conditional clause are virtually neglected.[1]

1.1.3. Aims

The overall aims of this work are threefold; first, my intention is to find an answer to the following questions: how and from which sources have conditional subordinators developed in Swedish? This is an empirical goal, the results of which may be added to the linguistic file of data.

Second, I intend to show that both semantic and syntactic factors ought to be taken into consideration when studying diachronic language change, since such an approach will provide a superior understanding of the entire path of change, in comparison with either semantic or syntactic studies. By using such a method throughout the empirical chapters, I demonstrate that this is both possible in practice and desirable in principle. This goal is thus methodological.

The third goal is theoretical, concerning the much debated status of

[1] Bergqvist (1884) is mainly a study of the syntagmatic aspects of EOSw conditional sentences.

grammaticalization and grammaticalization theory within the science of linguistics. According to grammaticalization theory, a majority of diachronic language change is neat and orderly, but with this and related studies as a foothold, I will argue that grammaticalization is no more than a quite chaotic empirical process of change. Consequently, synchronic facts may or may not reflect diachronic processes – only detailed empirical studies can provide the true story – and therefore the main application of grammaticalization theory, namely reconstruction of diachronic processes, is an inherently unreliable mode of procedure.

The parts of the thesis accordingly have different purposes: chapters 2 and 3 are essential introductory chapters, which lay the foundation for the further analyses and discussions. Chapters 4–8 consist of empirical investigations of the emergence of five Swedish conditional subordinators. The investigation and the asserted changes are then used in chapter 9 as a point of origin for theoretical discussions.

1.1.4. Some basic methodological considerations

When performing a linguistic diachronic study one may select a certain perspective beforehand; Falk (1993) for instance studies the history of non-referential subjects in Swedish from an exclusively generative perspective. By choosing this particular theoretical approach, Falk has however deprived herself of the possibility to include non-syntactic factors in her explanation of this change (at least in a systematic way). Likewise, Bybee et al (1994) choose to concentrate entirely on semantics in their typological study of grammaticalization; hence they are not able to decide whether syntactic factors in a predictable way affect the changes they discuss, not using any formal syntactic model.

A third alternative, which appears to me unsatisfactory, is to keep one's work out of reach of any contemporary theories, as in the case of Wijk-Andersson (1991), whose work on the features of *bara* is almost exclusively descriptive.

So, it seems as if sticking to a single theoretical approach entails that some types of

explanation become inaccessible. For anyone who is so ambitious as to seek the truth about diachronic language change, this is certainly unwanted. Hence I have chosen to try to remain theoretically agnostic when searching for the sources of the conditional subordinators, and I will consequently employ all possible models of explanation available to me. I will thus not rule out the possibility that some changes are gradual and some abrupt, e.g., or that some changes are driven by pragmatic factors and others by syntactic factors; Lehti-Eklund (1990:9) takes a similar stand:

> A natural point of departure for a diachronic study is in my view that the material and the investigated problem must decide which theories are utilized. The marriage between a strict theoretical frame and a material which is rich in variation is not a very successful solution for a diachronic study [...] (my translation).

However, this approach forces me to utilize several different theoretical frameworks: generative syntax (when formalizing syntactic relations), cognitive semantics (when formalizing underlying semantic relations) and of course Scandinavian philology. Since the topic of the study furthermore is conditional subordinators, it has been necessary to include a chapter on conditionals and conditionality (chapter 3), since I think that the emergence of conditional subordinators can be explained only if the significant features of such subordinators are first properly understood. Here I have turned to formal semantics, to be able to capture conditional sentence relations.

It is obvious to me that the account can not be as profound in all of the respective linguistic subdisciplines as if I had chosen to specialize in one of them, but this is a consequence of the eclectic approach and of the choice of conditional subordinators as my topic. My sincere hope is, however, that the results of the investigation will compensate for the generous opportunities for criticism that are offered.

1.1.5. The organization of the thesis

In the next chapter, chapter 2, I present the empirical phenomenon of grammaticalization and the basics of grammaticalization theory. I will concentrate on standard grammaticalization theory, namely Heine et al. (1991), Hopper & Traugott (1993) and Bybee et al. (1994). These works have laid the foundation of contemporary studies on grammaticalization, and their views of grammaticalization and their terminology are similar.[2] A formal approach to grammaticalization (Roberts & Roussou 1999, 2003) is however also introduced.

When studying the grammaticalization of conditional subordinators it is of course essential to understand the semantics of such subordinators. In chapter 3 the topic is conditional clauses and conditionality. After introducing the linguistic view (3.2) and the logic view (3.3) of conditionals, I present a model (the Reasoning Model, in section 3.4) which I think may improve our understanding of different types of conditional sentences. Chapter 3 continues with an overview of ways of expressing conditionality in MSw and in OSw (section 3.5).

Chapters 4–8 make up the most extensive part of the thesis, containing the descriptions of the development of each investigated conditional subordinator in diachronic order: *utan*, *om* (or the OSw form *um*), *hvar*, *ifall* and *bara*. These chapters all start with a short introduction and an account of the traditional etymology (if such an etymology exists), and they end with a concluding sketch of the asserted changes and an evaluation of the degree to which the changes agree with the process of grammaticalization as it is defined in grammaticalization theory.

In chapter 9, a compilation of the changes is presented, and the semantic as well as the morphosyntactic changes are discussed from several theoretical perspectives. In section (9.9), a model of diachronic language change is suggested, and some concluding remarks can be found in section (9.10). Chapter 10 is a short summary.

[2] The theoretical contributions of Lehmann (1995) are not included here, since in that work Lehmann is mainly interested in changes that result in affixes and other items with narrow structural scope. Therefore this otherwise highly interesting work is irrelevant for the changes that are studied here.

As a whole, this work thus consists of three main parts: the mainly introductory chapters 2 and 3, the empirical investigations in chapters 4–8 and the theoretical discussions in chapter 9. Chapters 2 and 3 might seem long, but they also function as general backgrounds to grammaticalization theory and research concerning conditionals. In both of these fields of research there is some terminological and taxonomical variation, and therefore it is necessary to establish firm platforms for the following account. Furthermore, in chapter 3 I propose some novel views of conditional sentences, and these suggestions must be seen in the light of earlier research.

1.2. Data sources

When studying Old Swedish, some standard works of reference (that are well known to Scandinavian linguists) must be consulted. These are presented briefly here. I also present the *Swedish Academy Grammar* (SAG), an exhaustive grammar of modern Swedish, as well as my primary data source (*Fornsvenska Textbanken*). First, however, a very brief sketch of the diachronic stages of Swedish is provided, as a general background.

1.2.1. The history of Swedish

Swedish is traditionally divided into five chronological periods:

800 –1225	runic Swedish	(RSw)
1225–1375	early Old Swedish	(EOSw)
1375–1526	late Old Swedish	(LOSw)
1526–1732	early Modern Swedish	(EMSw)
1732–	late Modern Swedish	(LMSw)

Table 1. *Temporal division of Swedish.*

From the first period, only runic inscriptions exist. These inscriptions are often short and formulaic, and there are virtually no conditional subordinators to be found in this material (Rosenkvist 1999). From the beginning of the 13th century, however, the Latin alphabet is used to write provincial laws (where conditional subordinators of course are very frequent), and in the 14th century some more genres appear (chronicles, legends etc.). It is during this century that the oldest changes (the emergence of conditional *utan* and *um*) that I have included in this study occur. Later other changes take place, and I have used texts from all periods but RSw in my search for relevant data.[3]

1.2.2. Standard works of reference

There is only one major lexicon of Old Swedish: the one compiled by Knut F. Söderwall. This lexicon was originally issued in two volumes (Söderwall 1884–1918 and Söderwall 1891–1915), but as more OSw texts became available, two supplementary volumes were published later (Söderwall 1925–1973 and Söderwall 1953–1973). In order to be able to refer to the proper page in the proper volume of this lexicon in a practical way, I have chosen to attribute numbers to the volumes, in the following fashion:

Söderwall (1884–1918)	=	Söderwall I
Söderwall (1891–1915)	=	Söderwall II
Söderwall (1925–1973)	=	Söderwall III
Söderwall (1953–1973)	=	Söderwall IV

Table 2. *References to Söderwall's lexicon.*

A reference like (Söderwall II:233) will thus mean that I have acquired the information from page 233 in the second volume of the first issue of the lexicon.[4]

[3] Bergman (1947) is a brief English introduction to the history of Swedish.

[4] The lexicon is available on the Internet: http://spraakdata.gu.se/sdw/

Another important source has been dealt with likewise; Elias Wessén's *Svensk Språkhistoria* (*History of the Swedish language*) consists of three volumes. It was republished in its entirety in 1992, and this eighth edition has been utilized here. A reference like (Wessén III:24) will thus mean that I refer to the 24th page of the third volume of the 1992 edition of Wessén's work.

During the period 1827–1877, the jurist and philologist C. Schlyter compiled and published the standard edition of EOSw laws. Schlyter also issued a lexicon (Schlyter 1877) of the language in the laws. Quite often, Schlyter's lexicon is more informative than Söderwall's when it concerns the vocabulary of the laws.

The first volume of *Svenska Akademiens Ordbok* (*The Lexicon of the Swedish Academy*; henceforth called SAOB) was published in 1899. It will cover all words used in Swedish from 1523 onwards, when it is finished. At present, the editors are occupied with the letter *t*. Thus, SAOB does not provide data from the OSw period, and the lexemes *hvar* (which since 1906 is spelled *var*) and *utan* are not yet covered by it. When using SAOB, I will either give the relevant letter and column, or, when quoting, just a year. A reference like (SAOB A:344) thus means that one has to look up column 344 in the volume, and (SAOB 1847) means that the quote is borrowed from a dated example in SAOB's article about the relevant word.[5]

Svenska Akademiens Grammatik (*The Grammar of the Swedish Academy*; or SAG) is, unlike SAOB, completed. It was published in 1999, and it consists of four volumes, in total containing about 2,700 pages of densely packaged data concerning the grammar of modern Swedish. I will refer to it as e.g. (SAG 2:121).

1.2.3. *Fornsvenska Textbanken*

During the last decade, Lars-Olof Delsing (at the Department of Scandinavian Languages, Lund University) has transferred OSw texts to a computer-based text file: *Fornsvenska Textbanken*. He has generously made this text file public, and

[5] Also SAOB can be used via the net: http://g3.spraakdata.gu.se/osa/head.shtml.

hence it is accessible for anyone who is interested in OSw texts.[6] At present, it consists of virtually all EOSw-texts and quite a few of the LOSw texts – in total, *Fornsvenska Textbanken* now (summer 2004) contains about 725,000 EOSw words and approximately 1,400,000 LOSw words. It also contains some MSw texts.

L-O Delsing and his assistants have proofread the texts in *Fornsvenska Textbanken*, but nevertheless warn potential users that the texts are not yet as trustworthy as the standard editions; all examples in the present work have therefore been verified in the standard editions. The cited texts are presented in appendix 2.[7]

1.3. Method

For OSw, the method I have found most effective for finding early instances of the relevant lexemes has been to make computer-based concordances (using the program *Concordance*, version 1.71) of the texts in *Fornsvenska Textbanken*. A short section of the KS concordance for *utan* is given below as an example:

25 Gudhi allan tima i reen liwe sino/ ok huxa änkte	**utan** gudhlik ok andelik thing. Thetta lefuerne hawär styrilse
29 diwra/ thet liwärneth hawär thet folk/ som änkte akta/	**utan** äta ok drikka/ leka ok sowa/ ok filghia allom sinom
94 the hafua alle ena acht ok en wilia/ oc ma ey wara	**utan** ens mans föreakt ok styrilse. Nu pröua the thet medh
126 gaghn/ ther wilia ok alle radha ok engin rätt göra	**utan** ivir armt folk/ Än bryta the rike/ ther ma engin vm tala
200 kunung thz wita ok hoxa/ at han är ey atenast man/	**utan** är ok mera än man ok minna än Gudh i thesse werld/
362 säghia tinom owinom: Tu hauer mik änkte skadt/	**utan** tu hafde vilia mik skadha ok genuärdo göra Ok ta tu see
758 ok liuer vtan godha gärninga. Sua är ok then	**utan** är skenfaghr som annat tee medh ordom ok annat i
869 ok mangfald ärande ok räkninga/ ther the magho ey	**utan** wara i styrilsom landa ok almogha: Ta är thet mykin
913 tyste ok wari/ i allom athäuom sinom/ Ok ey tala	**utan** the warden at nokro spurde. Ty at sua sighr Salomon

Table 3. *Section of* utan *concordance from KS.*

Due to the orthographic turmoil in OSw, it has been necessary to include all imaginable orthographic variants in the search algorithms; here Söderwall (I–IV) has been helpful in listing variants, but I have also tried various other combinations. The algorithm for *utan* is presented in (2.).

[6] The web-page is: http://www.nordlund.lu.se/Fornsvenska/Fsv%20Folder/index.html.

[7] For convenience, I have utilized the abbreviations found in *Fornsvenska Textbanken*; the Swedish philologist will notice that these differ from the ones in Söderwall I–IV, e.g.

2. *Search algorithm for* utan

utan vtan uthan vthan uþan vþan utæn vtæn uþæn vþæn wtan
wthan wthæn wþan wþæn

If an unexpected orthographic variant of the lexeme in question has been encountered among the samples, a new concordance has been made. It is of course conceivable that some odd instances of *utan*, e.g, have slipped through the net nevertheless, but I am quite convinced that the number of possible orthographic mavericks is very low.

The concordances offer samples of the relevant lexeme, with some textual context. In cases where this context has not been enough for an unequivocal semantic and/or syntactic analysis (which very often has been the case for EOSw), I have naturally turned to the entire text. For MSw, computer-based concordances have mainly served to verify the data given by SAOB, SAG etc.

Some examples of a similar line of research may be mentioned: Haskå's (1988) study of causal subordinators, Lehti-Eklund's (1990) dissertation, a study of six Swedish conjunctional sentence adverbs from a grammaticalization perspective, Skafte Jensen's (2000) dissertation about the emergence of eight Danish sentence adverbs, Norde (1999), who used some of the texts in *Fornsvenska Textbanken* in an investigation of how complex prepositions emerged in OSw, and, finally, Malmgren (2002), a study of some MSw speaker-oriented adverbs.

All examples are glossed and translated. When glossing, I neglect linguistic parameters such as case, tense etc, which are not really relevant for my purposes, and all moods except for the subjunctive, since subjunctive mood may signal a conditional relation (see section 3.5.3). Furthermore, the EOSw laws contain highly specific law terms that are virtually impossible to translate; in such cases, I provide a short explanation and leave the term untranslated. The same goes for monetary units and a few other problematic cases. Untranslatable verb particles are for instance just given the label *PL*.

2. GRAMMATICALIZATION AND GRAMMATICALIZATION THEORY

2.1. Introduction

Grammaticalization and grammaticalization theory are currently hot topics within the field of diachronic linguistics: "The concept of grammaticalization is arguably the most widely discussed concept of linguistic change" (Fischer & Rosenbach 2000:1). The main reason for the intensity with which grammaticalization is discussed may be that language change is a facet of linguistics which is in focus for both functionalists and formalists (cf. Newmeyer 1998:chapter 1), and thus it has become a theoretical and methodological battlefield where these two perspectives on language change clash.

However, recent research seems to suggest that formal and functional explanations need not exclude each other. For instance, Tabor & Traugott (1998) utilize formal descriptions in their account of scope-expanding grammaticalization, and van Kemenade (1999:998) points out that "while the approaches do not share too many background assumptions, they complement rather than contradict each other in important ways". In the present work, I will adhere to van Kemenade's insight and thus not exclude either formal or functional means of explanation in the search for the sources of conditional subordinators. This approach forces me to utilize a number of descriptive and explanatory tools, which are introduced and discussed in this chapter.

First, the actual empirical phenomenon of grammaticalization is introduced (section 2.2). In this section I also introduce and comment upon previous research that is directly relevant for the present work. Grammaticalization theory is then presented in section (2.3), as well as Hopper & Traugott's (1993) list of sources of conditional markers (2.3.7). The following section (2.4) provides an account of how generative grammar have been applied in diachronic linguistics, as well as criticisms

of grammaticalization theory. In section (2.5), I present a suggestion for how to view grammaticalization as interacting semantic and syntactic changes. The chapter is then summarized in section (2.6). The theoretical prerequisites for the remainder of the work are also specified there.

2.2. Grammaticalization: the empirical phenomenon

Meillet is generally considered to be the linguist who first studied grammaticalization (Meillet 1912), but linguists have for centuries been conducting research on language change and formulating hypotheses intended to explain why several types of changes very often coincide. Heine et al (1991:1–23), as well as Hopper & Traugott (1993:18–31), comprehensively present the history of grammaticalization, and Lehmann (1995:1–9) offers a survey of research within the field of grammaticalization, which starts in 1746 and ends in the 1970s.

The observation made by Meillet was that grammatical[8] items, i.e. affixes, clitics and words belonging to the closed lexical classes, almost without exception are derived from words belonging to the open lexical classes. Meillet called this diachronic process (lexical > grammatical) grammaticalization. The opposite development (a grammatical item turning into a lexical word) seems to be very rare or simply non-existent (cf. Haspelmath 1999, 2002). Kurylowicz (1965) observed that a grammatical item in turn often serve as a source for an even more grammatical item, and since then also a shift of the type grammatical > more grammatical is an acknowledged form of grammaticalization (see Campbell & Janda 2001 for a compilation of definitions of grammaticalization).

Grammaticalization involves changes of phonetic form, of syntactic function and of meaning, and in a grammaticalization process these changes typically seem to interact. An example of this type of grammaticalization is the development of the Scandinavian definiteness affix (Iversen 1955:119f, Harris & Campbell 1995:341):

[8] The term *grammatical* should be understood as 'belonging to the grammatical system', here and in the rest of the work.

1.	hestr inn	>	hestrinn	>	hästen (MSw)
	horse that		*horse-the*		*horse-the*
	'that horse'		'the horse'		'the horse'

As we can see, the development can be seen as a general process of loss, or shrinking: the semantic and syntactic independence of *inn* are lost, and the gram gradually becomes shorter and less (phonetically) prominent. All originally independent grams that end up as markers for grammatical meanings and functions[9] that are expressed by affixes (tense, number, different forms of agreement etc.) will of course go through such changes. This is the perspective on grammaticalization that has been predominant within grammaticalization theory (e.g. Lehmann 1995).

However, grammatical meaning and function may also be expressed by other grams than affixes; modal verbs, coordinators and, which is crucial for the present work, subordinators may all express grammatical meaning/function. Grams of this type are generally phonetically prominent, and they often add essential meaning to the clause or express clausal relations. Such grams do not follow the path of grammaticalization that was exemplified above, since they are syntactically independent, but they are nevertheless also derived from grams with lexical meaning, in general. In the present work it is such paths of change that will be examined. Grammaticalization that leads to wider syntactic scope was (to the best of my knowledge) first discussed by Tabor & Traugott (1998); later, Roberts & Roussou (1999, 2003) have developed a similar idea within the generative framework (cf. section 2.4.2.2).

The emergence of coordinators and subordinators within the Scandinavian languages has not been a very popular object of study, it seems, but there are two directly relevant studies that will be recaptured here: Bjerre (1935, 1938) and Braunmüller (1978). The latter is taken as a point of departure for Haskå (1988),

[9] The term *grammatical meaning* should be understood as 'non-lexical meaning', e.g. such meanings as number, tense, definiteness and case, but also causality and contrast, i.e. meanings that are properties of clauses or of speech acts. Grams that serve as markers for hierarchical or segmental relations in phrases or clauses have grammatical function (prepositions, subordinators, coordinators and infinitival markers like German *zu* or Swedish *att*).

who utilizes Braunmüller's concept of univerbation in a study of the emergence of Old Swedish causal subordinators.

2.2.1. Conditional interpretations of OSw temporal subordinators

Bjerre (1935, 1938) discusses all Old Swedish temporal subordinators, but he only classifies *mædhan*, *tha* and *nær* as being explicitly used as conditionals. Here I will add *thær*, which he calls conditional in passing (1935:89), to the group.

Thær ('there') is a locative adverb/subordinator, but in some contexts in OSw it could be interpreted as conditional (Bjerre 1935:89, Söderwall II:775). Bjerre assumes the following path of semantic change for *thær*:

2. 'in those places where' > 'in all places where' > 'everywhere where' >

'in all cases when' > 'whenever' > 'when, in case, if'

Bjerre points out that the meaning differences are not distinct; they overlap each other, and the number of clearly conditional OSw *thær* is low. The gram did not evolve into a true conditional subordinator.[10]

Mædhan ('while') was used as a temporal and causal subordinator in OSw. In certain contexts it could also be conditional. The relevant contexts were twofold, according to Bjerre (1935:160ff). First, we find *mædhan* as a translation of Latin *si* ('if') in some texts, in mainly irreal contexts (imperatives, modal clauses etc.). Second, *mædhan* is sometimes used in some OSw manuscripts (in similar contexts), in places where we find typical conditional subordinators (*æn*, *um*) in other manuscripts. As an explanation for this use, Bjerre (1935:166) proposes that in those cases when *mædhan* may be interpreted as conditional, there is no clear difference between causal and conditional meaning: "From the point of meaning, the relevant

[10] But it was used as a conditional subordinator in formal contexts for some time (cf. SAOB VII:2525).

OSw *mædhan*-clauses can therefore not be classified as causal or conditional. In fact, they belong to the borderland between conditional and causal meaning" (my translation). In other words, OSw *mædhan*-clauses sometimes seem to have been vague.

Extending Bjerre's argumentation, it seems as if the causal *mædhan* could be interpreted as conditional whenever an element of irrealis was present in the context. Assuming that the clauses in causal sentences are non-hypothetical, while the protasis and apodosis in conditional sentences are hypothetical (and that this is the main difference between these types of clauses), a conditional interpretation of causal *mædhan* in an irrealis context should therefore not be unexpected.

The grams *tha* ('then') och *nær* ('when') are bunched together by Bjerre (1935:178ff), and they can be interpreted as conditional in two particular circumstances: when the difference between temporal and conditional meaning is unclear (or when the context supports a conditional interpretation, e.g. via the presence of modal verbs such as *vill* ('will'), *kan* ('can'), *tör* ('may') etc.), and when they appear in interrogative clauses (mainly rhetorical questions, it seems), gliding between causal and conditional meaning. Comparing *nær* with conditional *om*, Bjerre (1935:279) asserts that "It is clear that the expression with *när* is more characterized by reality than the expression with *om*, which is purely hypothetical" (my translation).

Although none of the grams that Bjerre discusses developed into true conditionals, it seems as if temporal and causal subordinators in OSw, in the right context, could be interpreted as conditional. If this is correct, causal expressions should be added to Hopper & Traugott's (1993; cf. Traugott 1985:297) list of possible sources for conditionals (see below). Furthermore, the reinterpretation of *thær*, *tha* and *nær* seem to have required an intermediate irreal meaning ('whenever'). In section (9.4), the conditions for the emergence of conditional meaning will be discussed further.

2.2.2. Univerbation

Braunmüller (1978) presents four principles for the creation of new subordinators in Germanic languages. One of the priciples, derivation from clitic particles, is irrelevant, since it "was already lost to a great extent in most of the oldest Germanic dialects" (Braunmüller 1978:108). The three remaining principles are presented and exemplified below (the examples are contemporary, meaning that their etymological origins are not always visible):

3. *Sources for Germanic subordinators (Braunmüller 1978:104ff)*

1. Derivation from pronouns or other deictic items:	*wenn*	(Ger.)
	då	(Swe.)
	want	(Dut.)
	that/daß/att/að	
2. Derivation as above, plus other parts of speech:		
	ausserdem	(Ger.)
	indem	(Ger.)
	indessen	(Ger.)
	sedan	(Swe.)
	medan(s)	(Swe.)
	tills	(Swe.)
3. Derivation with *that* plus other predications:		
a. preposition/prepositional phrase + *that*:	*sedert*	(Dut.)
	because	(Eng.)
	för att	(Swe.)
b. participle + *that*	*während*	(Ger.)

c. noun/NP + *that*	*while*	(Eng.)
	falls	(Ger.)
	weil	(Ger.)
d. deictic NP + *that*	*indien*	(Dut.)
	indessen	(Ger.)
	ty	(Swe.)
	því að	(Ice.)
e. (pronominal) adverb + *that*	*so that*	(Eng.)
	zo dat	(Dut.)
	så att	(Swe.)
	svo að	(Ice.)

Not all Germanic subordinators in modern use have however been formed according to these principles; Braunmüller also recognizes an old layer of genuine proto-Germanic connectives, which are few, but frequent. These are *if*, *and*, *om* and *som*.[11] The list is similar to the list of basal Swedish subordinators in SAG (2:741): *att*, *som*, *om* and *än*.

Most of the subordinators in use in modern Germanic have been formed as in (3.), Braunmüller claims, and he calls this process univerbation. In modern linguistics this term has another meaning, unfortunately; Hopper & Traugott (1993:135) consider univerbation to be the final stage of morphologization, when an affix merges with its stem to form a new stem. It can also denote the change from independent word to affix (*clara mente* > *clairement*). In this work I will follow Braunmüller, though, and use the term for the entire process of Germanic subordinator-making.

Univerbation starts when a discourse deictic element, which might consist of a whole phrase, is used as a subordinator. Such complex subordinators can be found in any Germanic language; from Old Swedish, Haskå (1988) provides the causal

[11] Here Braunmüller (1978:104) considers Swedish *om* to be a genuine proto-Germanic subordinator, but that is probably incorrect (see section 5.3).

examples *for then skuld at* ('for the sake that'), *äptir thät at* ('after it that') and *thär widher at* ('there again that'). The next step in univerbation, Braunmüller argues, is when such a complex subordinator is phonetically contracted and/or successively loses its internal morphology – it is becoming lexicalized (in the definition of Moreno Cabrera 1998:214ff). In the third and final stage of univerbation, the subordinator becomes a single morpheme, either by deletion of *that* (or of other elements, I presume) or by merger. English *because*, originally a translation loan from Old French *par cause de* (ODEE 1966:83), is suitable as an example of the process of univerbation, as is *unless* (Traugott 1997):[12]

4. *Univerbation of* because *and* unless

stage 1:	*by cause that*	*on lesse than*
	by the cause that	*in lasse than*
	by the causes that	*of lasse than*
stage 2:	*because that*	*unless than*
stage 3:	*because*	*unless*

In (4.) it is the final gram that is deleted, and the examples of univerbation that Braunmüller provides actually all suggest that when a gram in a complex subordinator is deleted, it is always the final gram in the collocation. Haskå's examples (1988) seem to verify this. Only one subordinator that has gone through univerbation and deletion and kept the final gram throughout the process is known to me: English *lest* (this gram is discussed further in section 4.7.4). The tendency of last gram-deletion indeed seems to be quite strong.

The univerbation process is in parts consistent with grammaticalization theory, and since it explicitly deals with the emergence of subordinators, it is of course highly relevant here. The possibility that this process was active in the formation of

[12] The changes are greatly simplified, for illustrative reasons.

new conditional subordinators will be kept in mind throughout chapters 4–8, and in section (9.6) I discuss univerbation further.

2.3. Grammaticalization theory

During the 1980s and 1990s, historical linguistics was rejuvenated through the emergence of grammaticalization theory. In works such as Lehmann (1985), Sweetser (1988), Heine et al (1991), Heine (1993), Hopper & Traugott (1993), Bybee et al (1994), Lehmann (1995) and Ramat & Hopper (1998) various explanations and definitions of grammaticalization were presented. The main idea was that grammaticalization is a specific type of language change that can be separated from other types of language change, and that grammaticalization occurs in all living languages. As stated by Bybee et al (1994:4):[13]

> Reduced to its essentials, grammaticization theory begins with the observation that grammatical morphemes develop gradually out of lexical morphemes or combinations of lexical morphemes with lexical or grammatical morphemes. The process by which this occurs exhibits a number of characteristics that are regular over independent instances of grammaticization.

Grammaticalization theory is thus a data-driven attempt to find the unique properties of grammaticalization, and in the end to explain grammaticalization.

The works mentioned above are similar in several respects; they approach the diachronic developments from a synchronic typological perspective, and they concentrate on semantic changes. Furthermore, grammaticalization theory has its roots in functional linguistics; it is commonly assumed among grammaticalization theorists that grammaticalization is a process that is dependent upon language use in discourse and upon cognitive processes such as metonomy and metaphor, and that structural changes are secondary in grammaticalization. Two essential common

[13] Their term *grammaticization* is synonymous with *grammaticalization*.

views, that can partly be deduced from the functional approach, are that grammaticalization is considered to be unidirectional (Hopper & Traugott 1993:chapter 5, Bybee et al 1994:12ff, Haspelmath 1999, 2002) – lexical grams may become grammatical, but the reverse never happens – and that grammaticalization proceeds gradually, not in discrete steps (Hopper & Traugott 1993:35ff). A form X is not simply replaced by a form Y. Rather, X is slowly and gradually moulded in language use into Y during a prolonged diachronic process that may last for centuries.

In this section (2.3), some of the most basic aspects of grammaticalization theory are presented; throughout chapters 4–8 I will analyse the diachronical development of each conditional subordinator in terms of these specific components of grammaticalization theory. These basic aspects are summarized in section 2.3.6, after which a presentation of Hopper & Traugott's (1993) list of sources of conditional subordinators follows (in section 2.3.7).

2.3.1. Bleaching and preservation of image schematic meaning

A well-known property of grammaticalization is (semantic) bleaching (Sweetser 1988, Heine et al 1991:40f, Hopper & Traugott 1993:87ff). Semantic bleaching consists of a loss of specific lexical meaning[14] that occurs during a grammaticalization process. Sweetser (1988) discusses *go*, which as a verb of physical motion has rich lexical meaning, but which as a future verb only has temporal meaning. It thus seems as if a gram can not acquire new lexical meaning in a grammaticalization process, and that a grammaticalization hence will lead to a more abstract gram. This is natural, Sweetser remarks (1988:400f), since "meaning shifts involved in grammaticalization are necessarily shifts towards a relatively abstract and topological domain of meaning, since those are the meanings that we use in

[14] A gram with lexical meaning is referential; it denotes something. Grams without lexical meanings have no referential extension of their own: *possibly*, *not*, *because*, *-s* in *shoe-s*, *has* in *has spoken* etc. (Saeed 1997:25ff).

grammatical systems."

Sweetser furthermore assumes (1988:390ff) that grammatical meanings in general are topologically structured, and that they may be represented by image schemas. She proposes that the verb *go* has the following topological structure:

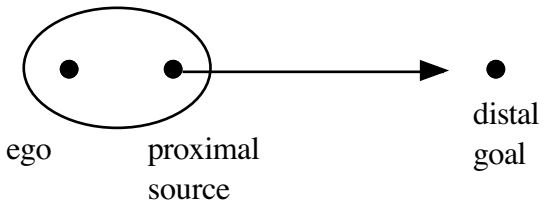

Fig. 2. *The image schema of* go.

As a lexical verb, *go* denotes a movement along a path from a source to a goal. Given that the semantic domain of time is often conceived of as a linear path, the future meaning of *go* can then be explained as a metaphorical mapping of the image schema from physical motion to futurity (Sweetser 1988:391f). In this process, the lexical meaning is lost, but a new temporal meaning emerges: "We thus can not be said to have merely 'lost' meaning; we have, rather, exchanged the embedding of this image-schema in a concrete, spatial domain of meaning for its embedding in a more abstract and possible more subjective domain" (Sweetser 1988:392). The underlying image-schematic meaning is thus unaltered, although the lexical meaning of *go* ('physical motion') has changed into the grammatical meaning 'future'.

Conditionality is a non-lexical grammatical meaning, and it should, according to Sweetser, hence be topologically structured. However, conditional meaning conveys both causality and hypotheticality (Comrie 1986; see section 3.2), and although causality may be illustrated in a force schema (Johnson 1987:47, Achard 1996), the feature of hypotheticality can (arguably) not be represented topologically. Therefore

I will not suggest any image schema for conditional meaning.[15] The semantic changes that are investigated in this work can accordingly only be analysed as image schematic retentions in so far as parts of the paths of change can be captured in this model. In chapters 4 (*utan*) and 5 (*om*) image schemas are used. These image schemas are modelled according to Langacker (1987) and Brugman & Lakoff (1988:481), consisting of an immobile landmark (LM) and a trajector (tr).

2.3.2. Abstraction

An elaboration of Sweetser's model is the proposed unidirectional sequence of metaphors presented by Heine et al (1991:48; cf. Sweetser 1988:392f, Lakoff & Johnson 1980). Heine et al assume (following Sweetser 1988) that cognitive metaphors are a driving force in grammaticalization and that a cognitive metaphor always leads to a more abstract semantic level. But they furthermore propose that successive metaphors may take a gram through one cognitive semantic domain after the other, and that there are six such linearily ordered domains. The domains proposed are:

5. PERSON > OBJECT > ACTIVITY > SPACE > TIME > QUALITY

The final domain, QUALITY, should be understood as a cover term for complex

[15] Another way of formalizing semantic relations is however offered by Jackendoff (1983, 1990). In conceptual semantics, the semantic building blocks are supposed to be conceptual constituents, which each belong to a narrow set of ontological categories (Thing, Event, State, Place etc.). The constituents are ordered linearly and hierarchically to yield various meanings (Jackendoff 1990:22ff). In this system, a typical conditional sentence might be seen as a State, since States are atemporal and therefore implicitly hypothetical:

If it rains, the picnic will be cancelled. [State CAUSE ([Event$_1$], [Event$_2$])]

A causal sentence could then be seen as an Event or Action, perhaps, being temporally bound and non-hypothetical. However, conceptual semantics has not been utilized in grammaticalization theory or in studies of conditional sentences, and the question whether it may contribute to the understanding of these matters can not be further discussed here.

semantic meanings such as conditionality, adversativity etc, as far as I understand. Even the authors themselves are not clear in this case: “The category QUALITY is the most fuzzy of all these entities. It is likely that future research will establish that it forms a kind of catchall for a number of quite divergent conceptualizations” (Heine et al 1991:49). Crucially, Heine et al (1991:50) furthermore point out that there are striking differences in how metaphors can be used at the lexical and the grammatical levels of language; as for grammatical material, only unidirectional metaphors are possible: “while development in grammatical morphemes is unidirectional, leading from ‘more concrete’ to ‘more abstract’ meanings [...], developments in the lexicon do not undergo such a constraint”. This means that a gram with lexical meaning may serve as a base for a metaphor that yields another gram with lexical meaning, whereas a gram with grammatical meaning (like SPACE) only allows for metaphors that result in an even more grammatical type of meaning (like TIME).

Assuming that conditional meaning is a QUALITY-type of meaning, it may be expected that the meaning changes that are investigated here will adhere to the linear order depicted in (5.). Other types of change will of course contradict the claims of Heine et al (1991).

2.3.3. Subjectification

Discussing the notion of bleaching, Hopper & Traugott (1993:87ff) point out that in the beginning of a grammaticalization process a gram goes through a shift of meaning rather than a loss. The abstract meanings of the gram tend to be strengthened at this stage of development. This observation was made already by Traugott (1980:51f, 1982), who assumes, following Halliday & Hasan (1976), that there are three major functional-semantic components of language. Traugott proposes that when a gram is grammaticalized, it changes functional-semantic category, in a certain order.

The first category is the propositional, which makes it possible for the language user to talk about entities, events etc. Here we find content words (nouns, verbs etc.) as well as grammatical categories such as tense and number. The next category is the textual one, which makes it possible to create coherent texts. Here we find anaphoric grams like pronouns and adverbs, and, crucial for the present work, connectives which adjoin propositions, such as *and*, *but* and *although*. The third category is the inter-personal, allowing speakers to express their attitudes to what is being said; epistemic modals, honorifics and pejorative expressions, for example, belong to this category. Having identified these three functional-semantic levels of language, Traugott (1980:54) formulates the hypothesis that "Propositional meanings of grammatical markers may give rise to textual ones and textual meanings may give rise to inter-personal ones, but not vice versa".[16] In subsequent works (Traugott 1989, Traugott 1995[17]), Traugott has called the final stages of this tendency of language change subjectification.[18] The Swedish *medan*, a cognate to PDE *while*, may exemplify how a gram can be used in these different meanings:

6. a. **mädhan** como römska herra sendebudha til vespasianum (Söderwall II:75)
at the same time came Roman lords' envoys to Vespasian
'at the same time came the Roman lords' envoys to Vespasian'

b. Vi kan sitta här **medan** det regnar.
we can sit here while it rains
'we can sit here **while** it is raining'

[16] Lehti-Eklund (1990:59ff) applies Traugott's model in her study of some Swedish adverbs, but adds a metatextual meaning, a subtype of textual meaning that does not develop into pragmatic meaning.
[17] In this article, Traugott refines her hypothesis considerably, partly because she finds the theoretical framework of Halliday & Hasan (1976) obsolete, but the basic assumptions remain unaltered. Also in Traugott & Dasher (2002:89ff) the concept of subjectification is essential: "we consider subjectification to be the major type of semantic change" (2002:97).
[18] Langacker (1990) uses the term subjectification in another sense; this is discussed by Traugott (1995:48f).

c. Han är lång, **medan** hon är mycket kort.
he is tall while she is very short
'he is tall, **whereas** she is very short'

The OSw *mädhan* in (6 a.) is a temporal adverb, but in (6 b.) *medan* not only expresses simultaneity, it also, being a subordinator, conjoins the main clause and the subordinate clause; it thus has a textual meaning as well. In (6 c.), the concessive *medan* (cf. SAG 2:737) clearly expresses the speaker's opinion that the reported state of affairs is unexpected or at least worth noting. Assuming that the original meaning of *medan* was close to the meaning in (6 a.), *medan* is thus an example of subjectification.

Subordinators express textual meaning by definition, and some subordinators (like concessives) also express inter-personal meaning. Ordinary conditional subordinators (like *if*), however, belong to the textual component of language. The grammaticalization of a lexical gram (expressing only propositional meaning) into a subordinator will hence of necessity include a shift of functional-semantic level, according to Traugott's model.

2.3.4. Source determination and semantic retention

When a gram undergoes grammaticalization, the path of grammaticalization seems to be in one way or another determined by the semantic features of the source construction – not every lexical gram may evolve into a temporal marker, for instance. Bybee et al (1994:9-12) formulate a hypothesis, in rather strong terms: "the source meaning uniquely determines the grammaticization path that the gram will travel in its semantic development". This aspect of grammaticalization theory is accordingly called source determination. The authors furthermore assume that a source can give rise to several grammatical meanings – note the plural forms in the following quote: "we find that the meaning present in the source construction bears a definable relation to the grammatical meanings that later arise and that these

earlier meanings prefigure the grammatical meaning" (Bybee et al 1994:12).

As a consequence of this, grams will always keep some of the meanings that were present in the original non-grammaticalized form (cf. Hopper & Traugott 1993:89). Bybee et al exemplify such semantic retention with the minute meaning differences between *will* and *shall*, which they claim depend on the respective origins of these future modals (Bybee et al 1994:15-17, Bybee & Pagliuca 1986:117).[19]

Furthermore, since the source determines the path of grammaticalization, semantically similar grams will follow similar paths of grammaticalization (Bybee et al 1994:14f), and, conversely, similar grammaticalized grams will have similar backgrounds. A stylized illustration of such a change is presented in fig. 3:

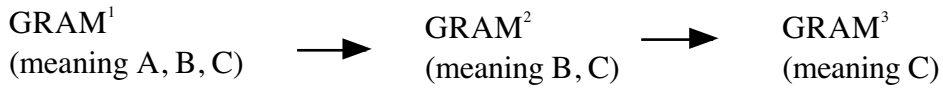

Fig. 3. *Source-determined grammaticalization in universal path.*

In figure 3, the grams have different grammatical meanings/functions, but they represent different degrees of grammaticality along the same cline; they have not been developed individually from the same source.

In this thesis, only grams that evolve into conditional subordinators are included, and therefore it will be possible to examine and compare the five paths of change both with each other and with Bybee et al's proposal of source determination/ semantic retention.

[19] Hopper (1991) assumes that persistence is one of the vital principles governing grammaticalization, but he also includes structural persistence in his definition: "The Principle of Persistence relates the meaning and function of a grammatical form to its history as a lexical morpheme" (1991:28).

2.3.5. Summary

Above the following approaches to the semantic changes that are involved in grammaticalization have been introduced:

7. *Semantic approaches to grammaticalization*

bleaching (Sweetser 1988)
image schema preservation (Sweetser 1988)
abstraction (Heine et al 1991)
subjectification (Traugott 1980, 1982)
source determination (Bybee et al 1994)
semantic retention (Bybee et al 1994)

These approaches are of course not independent of each other – a gram that goes through abstraction will for instance probably also be bleached. This is not necessary, however, since a meaning in the category PERSON may be as lexical as a meaning in the category ACTIVITY.

Throughout chapters 4–8, each of these approaches to grammaticalization, which are all essential aspects of grammaticalization theory, will be taken into consideration when the paths of change have been investigated and eventually laid down. My intention is thereby to evaluate the explanatory adequacy of these particular aspects of grammaticalization theory.

2.3.6. The origins of conditional subordinators

Hopper & Traugott (1993:179; the source is Traugott 1985) present a list of known sources for conditional connectives. However, the list is based on synchronic studies. This means that the diachronic changes exemplified here are reconstructions based on synchronic data and governed by the principles of grammaticalization theory. An actual diachronic change of the type 'if' > 'when' would accordingly be

represented in the list as a change of the opposite type. Therefore the list perhaps should be seen as examples of meanings that are related to each other, rather than examples of true diachronic changes. Their perspective is furthermore exclusively semantic. The list is reproduced below.

8. *Worldwide semantic sources of conditionals (Hopper & Traugott 1993:179)*

1. Forms for modality.	*suppose*		(Eng.)
	yáo	'wish'	(Man.)
	kò	'perhaps'	(Mia.)
2. Interrogatives.	*-ve*	'interrogative, topic'	(Hua)
	esli	'be whether'	(Rus.)
3. Copula constructions.	*i-ki-wa*	'it being that'	(Swa.)
	nara	'be'	(Jap.)
	(h)oo	'be'	(Chic.)
4. Durative temporals.	*i-ki-wa*	'it being that'	(Swa.)
	man	'when, potential'	(Hit.)
	(ka)pag(ka)	'then, while'	(Tag.)
	kung	'then, while'	(Tag.)
	djika	'when'	(Ind.)
	kalau	'when, as for'	(Ind.)
5. Forms for known/given.	*given that*		(Eng.)
	si		(Lat.)
	yád	'topic'	(San.)
	kalau	'as for'	(Ind.)

Looking closely at the list, we find that *i-ki-wa* and *kalau* appear in two groups. This is probably because subordinators in general can be highly polysemic, and the meanings that give rise to conditional meaning are vague. As for *i-ki-wa*, Hopper &

Traugott report that the element *ki* signals imperfect and *w* is a form of the copula. The inner structure of *kalau* is not presented.

The reasons why conditionals develop from these semantic sources is explained in the following quote:

> Conditionals raise possibilities and cast doubt on propositions; therefore the presence of modalities and interrogatives among the sources of conditionals seems naturally motivated by the function of conditionals. The fact that conditionals derive from durative temporal relationships and copulas can be seen to reflect the fact that conditionality presupposes an extant (durative) condition (Hopper & Traugott 1993:179).

Hopper & Traugott only list semantic point of origins for conditionals, and the morphosyntactic processes that may create new conditional subordinators are not commented on. But in a process of univerbation, a gram may, as a part of a phrase that is being lexicalized, inherit or borrow meaning from other grams that are eventually deleted. If so, a new conditional subordinator may be etymologically related to a form that does not express any meaning similar to those in the list, since the surviving gram in a univerbated subordinator is not necessarily the gram that initially conveyed conditional meaning or allowed a conditional interpretation. In chapter 5, I will argue that this is the case with Swedish *om*.

Another remark can be made regarding Hopper & Traugott's list: the sources they present have of course themselves gone through semantic change. Digging deeper into the etymology of, for instance, temporals, we are likely to find other meanings. The change from temporal to conditional may thus merely be the final link in a long chain of sequential changes.

2.4. Structural approaches to grammaticalization

In grammaticalization theory, semantic change is the main point of interest. During the 1990s, however, a number of structural approaches to grammaticalization have

appeared (often in combination with a critical discussion of the purported explanatory qualities and methodology of grammaticalization theory). The driving factor of language change is in the structural view syntactic reanalysis – in section (2.4.1). this type of language change is presented. The generative view of language change is the topic of section (2.4.2), where the structurally based criticism against grammaticalization theory is also recapitulated.

2.4.1. Reanalysis

There are a number of definitions of reanalysis, but most of them are descendants of Langacker's definition (1977:58), according to which reanalysis is a "change in the structure of an expression or class of expressions that does not involve any immediate or intrinsic modification of its surface manifestation". Reanalysis is thus a mechanism that mainly affects the structural (syntactic, morphosyntactic, phonologic) aspects of language, and although it is generally assumed that reanalysis is a major factor in diachronic language change, there is an ongoing debate as to whether grammaticalization must involve reanalysis or not.[20] This seems to be, in fact, one of the major divides that separate formalists and functionalists who work diachronically. The different opinions may at least partially be explained by the fact that some grammaticalization theorists state that grammaticalization and reanalysis are independent since reanalysis can occur without grammaticalization (cf. Hopper & Traugott 1993:49), while some formalists claim that reanalysis is a necessary part of grammaticalization, i.e. grammaticalization can not occur without reanalysis (cf. Newmeyer 1998:244). These views do actually not contradict each other, but at a deeper level, formalists and functionalists must handle reanalysis differently as a consequence of their divergent views of lexical categories and of grammar in general.

Langacker's definition of reanalysis is quite wide; it allows several types of

[20] In one of the basic works on grammaticalization, Bybee et al (1994), reanalysis is not an issue; their focus is entirely on semantic change.

reanalysis on several levels of language. Harris & Campbell (1995: chapter 4) offer a typology of possible variants of reanalysis, which is summarized and commented upon in Newmeyer (1998:241ff). Newmeyer assumes (thereby ignoring reanalysis affecting grammatical relations) three types of reanalysis: reanalysis of constituency and hierarchical structure, reanalysis of category label and reanalysis of degree of cohesion. The syntactic changes that are investigated in this thesis will be analysed according to Newmeyer's model. These three types of reanalysis are therefore further discussed and exemplified here, but with the less cumbersome terms hierarchical reanalysis, categorial reanalysis and segmental reanalysis. All of them can, supposedly, operate from the lowest structural levels (phonology) to the highest (clausal relations). In this work, the former are of minor interest (but see Gaeta 1998 for a discussion of low level reanalysis).

Hierarchical reanalysis leads to a new structure, where the scope relations have changed. An example is change from parataxis to hypotaxis,[21] which can be schematically illustrated in the following way:

9. hierarchical reanalysis: [[A] [B]] > [A [B]]

Another example of hierarchical reanalysis is the successive reanalysis of *anyway* (Tabor & Traugott 1998:259), which according to Tabor & Traugott's analysis has gone through two steps towards its present use:[22]

[21] Here I let hypotaxis equal subordination, although I am aware of the fact that subordination according to some definitions requires embedding, while hypotaxis does not (cf. Hopper & Traugott 1993:168ff). It may also be noted that parataxis is not allowed in recent versions of generative grammar, where the binary structures must be asymmetric.

[22] The E-node in (10.) is a position for expressive adjuncts, which Tabor & Traugott (1998:256) assume is the position for discourse markers such as the topic-resuming *anyway*.

10. [IP Sche [VP excusyth [NP hir] [PP **in any way**]]] >

[IP She [VP [VP excuses [NP herself]] **anyway**]] >

[E [IP She [VP excuses [NP herself]]] **anyway**]

The modern concessive *anyway* is thus a result of two successive scope-increasing reanalyses; the widening of scope is, in informal terms, shown by the decrease of the number of brackets around *anyway*. It should be noted that Tabor & Traugott do not assign any categorial label to the two latter instances of *anyway* and that their structural analysis is determined by the semantic scope of the gram; it is unclear how to capture final adverbs of this kind in a strict generative analysis (cf. Platzack 1998:161, 167ff; cf. also Cinque 2004 concerning adverb-related syntactic problems in general). The formalization in (10.) suggests that *anyway* is adjoined to the VP in the intermediate stage, and that it is adjoined to the IP in the final stage. In this work I will follow Tabor & Traugott (1998), letting the semantic scope of the investigated grams determine the structural representation. Semantic scope and structural scope (c-command) will thus be assumed to match each other.

Categorial reanalysis consists of a reanalysis that does not (initially) result in altered scope relations. Harris & Campbell (1995:63) use an example where a verb phrase is reanalysed as an prepositional phrase to illustrate this form of reanalysis:

11. categorial reanalysis: [VP V [NP]] > [PP P [NP]]

A similar reanalysis can be assumed to have happened in Germanic languages, where some prepositions (e.g. Swedish *till* 'to', related to the German *Ziel* 'goal') are derived from nouns.

However, a categorial reanalysis does not necessarily require a change of the gram's major lexical category. The change from verb, or noun, to preposition is an indisputable categorial reanalysis, but when it comes to internal changes in the

lexical category of adverbs, it does not seem unreasonable to assume that a change from manner adverb to an adverb expressing speaker attitude can be a categorial reanalysis (like *anyway*), provided that one recognizes several minor categories of adverbs. A linguist assuming a great number of categories will accordingly have to deal with reanalysis more often than a linguist assuming few categories; the nature and number of acknowledged categories of course depend on the analyst's theoretical stance. In this work, I will assume that all adverbs belong to the same general lexical category (adverbs), while they may of course appear as VP-adverbs, IP-adverbs or CP-adverbs (sentence adverbs).

Some functional categories are mainly defined via syntactic criteria (most notably prepositions, coordinators and subordinators); there are really no necessary semantic or morphological differences between a preposition which is complemented by a clause and a subordinator. Furthermore, a categorial reanalysis which leads to the entry of the gram into a syntactically determined lexical category by definition involves other changes. An adverb that is reanalysed as a subordinator, for instance, will always experience scope changes as well, and as subordinators generally do not express real lexical meaning one would also expect that the former adverb adapts to this pattern.

Segmental reanalysis[23] is a type of reanalysis where the boundaries of the constituents change. Segmental reanalysis can be formalized as below (cf. Heine et al 1991:216, Hopper & Traugott 1993:41):

12.	segmental reanalysis:	[[A B] C]]	>	[[A [B C]]
		[[A] [B C]]	>	[[A B] [C]]
		[[A] [B]]	>	[A B]

Frequently recited examples of segmental reanalysis are the modern English *for to-*

[23] For this phenomenon, Heine & Reh (1984:110) use the term *constituent internal reanalysis* and Langacker (1977:64) *boundary shift*.

construction or the German *um zu*-construction (Harris & Campbell 1995:62). Also the process that Hopper & Traugott (1993:40) call fusion is a form of segmental reanalysis (the bottom-most example in (12.) schematically illustrates fusion).

An interesting example of segmental reanalysis is the emergence of the Swedish personal pronun *ni* ('you', 2p pl.), which is derived from *I* (Hellquist 1980:397, Wessén I:219f, Campbell 2001:132). During the second half of the 17th century, constructions such as *veten I* ('know you') were reanalysed as *veten ni*. In modern Swedish, the original pronoun *I* has been replaced by *ni* and it is now extinct.

As I indicated above, the different types of reanalysis are not independent of each other, and although they initially are invisible on the linguistic surface, they will eventually cause visible side effects, such as changes in case assignment, deficient morphology or new word order possibilities. Such surface phenomena are of course our only clues in the search for structural reanalyses.

2.4.2. Generative grammar and language change

While most generative grammarians have been working with synchronic syntax, this view of language has been successfully used in historical syntactic studies as well. Just to mention two such diachronic generative studies, Roberts (1993) deals with diachronic change of verbs and Falk (1993) investigates the complex changes which eventually made the presence of an overt subject in Swedish compulsory. However, the front figure in generative diachronic linguistics is David Lightfoot, who has been studying language change from a generative perspective since the 1970s. Indeed, Lightfoot (1979) can be said to be the fundamental diachronic generative work.[24]

The underlying assumption in generative theory is that grammar is an intrinsic feature of the human brain, a language organ. This leads to a view of language change that is markedly different from the traditional one:

[24] Van Kemenade & Vincent (1997) present a survey of diachronic generative studies.

> So, when traditional historical linguists speak of language changing, somebody with a biological view of grammars takes a reductionist stance and thinks of individual grammars changing and the changes spreading through a population. When others ask why a language should have changed in some way, we ask why grammars should have changed, aiming to explain the complex by the simple. This shift in perspective makes a big difference (Lightfoot 1999:77).

In this section, a very short introduction to how diachronic language change can be explained in generative theory is provided, Lightfoot (1999) being the most prominent source. Also some points of critique against grammaticalization theory are introduced, mainly from Newmeyer (1998). First, however, I wish to clarify that the generative grammarians' focus on syntax is not a refutation of the importance of semantics, pragmatics etc, but just a choice of perspective made by the individual linguist. To the best of my knowledge, no generativist has ever proclaimed that other facets of language are irrelevant,[25] and I thus see no contradiction in using both formal syntax and functional theories, such as cognitive grammar, as explanatory tools in the present work.

2.4.2.1. The generative view of language change

An axiom of generative theory is that grammar is a mental capacity that is evolved by all (normal) children. With the help of triggering experiences (Lightfoot 1999:66), children construct their grammars, but at a certain age, this capacity disappears (and thus adults are not able to acquire native-like fluency in a foreign language). So, when a grammar changes, the change must take place during the child's acquisition of grammar. In the framework of Chomsky (1986, 1995), the

[25] Functionalist attacks on generative grammar are however not unheard of: "after first trivializing the notions of theory and explanation, transformational-generative linguistics proceeded to trivialize the notion of data beyond recognition. What followed was an orgy of empirical irresponsibility, with one formal model chasing another in rapid succession, with data-free arguments that hinged upon purely formal notions of 'economy' and 'simplicity', and with linguistics as a whole becoming a sad caricature of late medieval scholasticism" (Givón 1979:26).

child's acquisition of grammar is assumed to proceed through setting of certain parameters. Using the surrounding linguistic data, the child searches for clues how to set each parameter. In this process the child can make mistakes or be exposed to new linguistic data (phonetic, semantic, syntactic etc.), resulting in a setting of parameters, a grammar, that is in some respect different from the grammar of its data-providers: "Under certain conditions, if the linguistic environment is a little different, a child's brain may grow a grammar somewhat different from that of her mother" (Lightfoot 1999:74). So, searching for causes of language change is for the generative grammarian mainly a question of finding causes for children to develop grammars that are non-identical to those of their parents.

Phonetic reduction of morphological inflection might be one possible cause for the child to create a new grammar – Lightfoot (1999:chapter 5) argues that the loss of morphological case in Old English deprived the children of that time the input they needed to substain a case-rich grammar. Thus they constructed a grammar with no or little case, thereby causing other seemingly independent changes as well. Roberts (1993) likewise assumes that independent phonetic reduction of morphology caused the eventual reanalysis of the lexical category of verbs in Middle English.

Another probable cause of change is that the child only has access to a limited amount of linguistic data; as Andersen (1973) explains, the child must construct rules (or set parameters) using the data that is at hand, and when doing so, it is plausible that he or she proceeds through successive guessing (abducing), until a stage is reached when the rule fits the data, so to speak. Although the final rule may produce the desired data, it may also be slightly deviant from the previous generation's system of rules, even if this deviation is not immediately visible.

2.4.2.2. Syntactic simplification

Roberts & Roussou (1999, 2003; cf. Tabor & Traugott 1998) argue that children's syntactic reanalyses during language acquisition always constitute improvements,

i.e. structural simplifications, of the source grammar; the new grammar will be more economical than the old one (syntactically, that is), since the child strives for syntactic simplification. In their model, this means that reanalysis will always result in a gram that is merged higher up in the syntactic structure: "we have treated grammaticalization as an instance of upwards reanalysis, which gives rise to new functional material" (Roberts & Roussou 2003:205). They study 18 empirical cases, and reach the conclusion that all of these syntactic changes can be illustrated by a very simple model (Roberts & Roussou 2003:200):

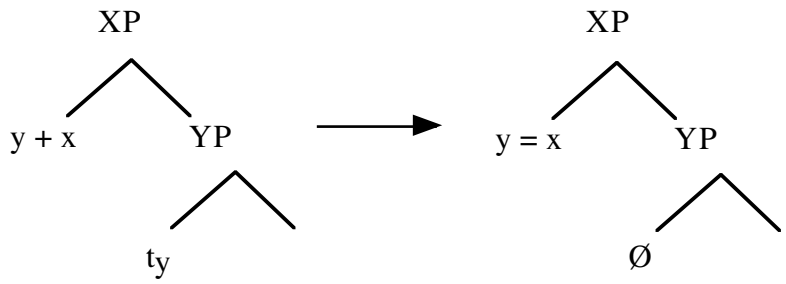

Fig. 4. *Grammaticalization according to Roberts & Roussou (1999, 2003).*

In the source construction, y has moved upwards to x, but the reanalysis yields a new structure where y is merged in x. No movement occurs, and the syntactic structure required by x has been reduced. YP need not be a direct complement of x, however – the idea is that upwards movement of an element is reanalysed as merger of that element in the higher position. The paths of change in chapters 4–8 will be analysed syntactically (in a CP-IP-VP-structure), and Roberts & Roussou's hypothesis of syntactic simplification will thereby be taken into consideration.

Tabor & Traugott (1998; cf. example 10) also assume that grammaticalization may lead to increased syntactic scope and possibly (but not necessarily) less complex syntactic structures. Unlike Roberts & Roussou (1999, 2003), they do not consider loss of movement to be a vital factor, and they assume that semantic/pragmatic factors cause these changes, not children's urge for simpler syntactic structures.

2.4.2.3. Criticism of grammaticalization theory

In his book on formal and functional grammar, Newmeyer (1998:chapter 5) spends an entire chapter discussing the notion of grammaticalization theory. As the chapter is titled "Deconstructing grammaticalization", the reader is given a hint of what to expect already when flipping through the list of contents. Grammaticalization and grammaticalization theory have actually been a target for criticism for quite a few formal linguists – some of the critical voices are collected in *Language Sciences* 23, an issue of the journal that is dedicated entirely to critical views of grammaticalization theory (Newmeyer's critique is reprinted there).

It is obvious that there are some basic linguistic issues regarding which grammaticalization theory and generative grammar are incompatible; Newmeyer (1998:chapter 5) mentions the divergent views of lexical categories, on modularity of grammar and on data sources. Given that generativists assume that there are clear-cut lexical categories and that language is modular, it follows that a process like grammaticalization, which is assumed to be gradual (in many respects) should be hard to capture in the generative framework. However, Newmeyer (1998:237ff) actually claims that the basic assumptions in grammaticalization theory are incorrect: grammaticalization is not a specific type of language change and grammaticalization theory is not a proper theory. Furthermore, he firmly rejects some of the applications of grammaticalization theory. These three points (which appear in most of the articles in *Language Sciences* 23) are discussed briefly below.

The status of grammaticalization as a distinct process of language change is of course essential for grammaticalization theory. But Newmeyer (1998:237ff) argues that grammaticalization is an epiphenomenon – that it is "nothing more than a label for the conjunction of independently occurring linguistic changes" (or in the words of Campbell (2001:113), that it "relies on other processes and mechanisms of linguistic change which exist independently of grammaticalization"). In short, processes such as sound change, semantic change and reanalysis are claimed to be

sufficient to explain grammaticalization. Furthermore, these types of change are clearly independent of each other. Phonetic reductions may for instance occur without semantic and/or syntatic changes.

If there is no distinct process of grammaticalization, there is no reason to formulate a theory of grammaticalization, of course. But apart from this, Newmeyer (1998:240) remarks that grammaticalization theory is not a proper scientific theory; rather, it is a set of assumptions or hypotheses that are intended to explain grammaticalization. Proper theories generate hypotheses, Newmeyer argues, and this is not the case with grammaticalization theory.

Some linguists have utilized the purported qualities of grammaticalization as a tool for reconstruction. If grammaticalization is unidirectional, then a gram that has two grammatical meaning or functions must have developed from less grammatical to more grammatical. The list of sources for conditional markers (see section 2.3.6) that is presented in Hopper & Traugott (1993:179) is an example of this method. In Swedish, for example, *om* is used both as an interrogative and as a conditional subordinator, and according to grammaticalization theory the former must have developed into the latter (but as I demonstrate in chapter 5, this is probably not the case – the investigated texts seem to suggest that conditional *om* actually appears first). However, most of the studies within the field of grammaticalization theory have been synchronic, and the paths of change have been reconstructed. This leads to a circular argumentation; the reconstructed changes strengthen the generalizations and thereby the asserted grammaticalization paths. Reconstructions based on grammaticalization theory are however invalid, not only because grammaticalization might be an epiphenomen, but also because other, irregular, processes (creative innovations, loans etc.) may have caused the change. Only careful diachronic studies can reveal the truth about diachronic linguistic changes, I think.

2.5. Unifying gradual and non-gradual changes

One of the basic tenets of grammaticalization theory is that the grammaticalization of any individual gram is gradual (e.g. Lichtenberk 1991, Heine et al 1991:220ff, Bybee et al 1994:24). The gradualness is e.g. reflected in the temporal length of the grammaticalization processes, in the non-categoriality of grammaticalization chains and in the gram's successive advance within the language, as it conquers more and more ground within its paradigm and eventually becomes obligatory (this process is called obligatorification by Lehmann 1995).

An important axiom underlying the proposed graduality is that there are no distinct syntactic categories, but that lexemes should be seen as clusters of grammatical features organized in prototype categories (cf. Croft 1993:chapter 6). This basic functional axiom is vehemently refuted by Newmeyer (1998:chapter 4), who discusses the diverging standpoints extensively and concludes that there indeed are distinct categories at work in language: "categories have discrete boundaries, are not organized around central 'best cases', and are not definable notionally" (Newmeyer 1998:208). Newmeyer's argumentation is convincing, and the existence of syntactic categories can not be denied, I think. Accepting this, however, does not entail that all language change is non-gradual; I find it quite plausible that semantic and pragmatic shifts do not involve clear-cut categorial change, since there are no distinct semantic categories (a standard assumption among functional linguists). I will therefore assume that grammaticalization may be both gradual and abrupt, and that the perspective of the observer to a large degree determines the possible graduality. It is likely, I think, that semantic changes are gradual, whereas syntactic changes are abrupt. Furthermore, since both semantic and syntactic changes are involved in grammaticalization, the grammaticalization of a gram could arguably be illustrated as in figure 5. below:

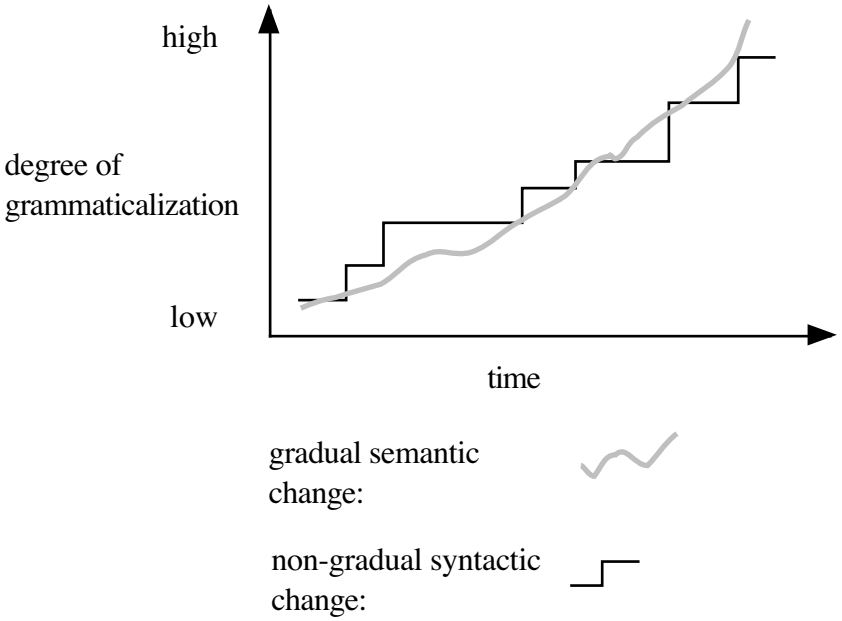

Fig. 5. *Gradual and non-gradual changes in grammaticalization.*

Figure 5. shows how abrupt and stepwise syntactic changes can interact with gradual semantic changes in a grammaticalization process, driving the gram into successively higher degrees of grammaticalization. This perspective of grammaticalization also allows, or even calls for, a combined semantic-syntactic approach. I elaborate this idea further in section (9.9).

2.6. Summary; theoretical point of departure

In the present chapter I have introduced the empirical phenomenon of grammaticalization and presented two studies that are directly relevant for this thesis. Bjerre (1935, 1938) has shown that some OSw temporal/causal subordinators could be interpreted as conditional subordinators in certain cases, namely when the temporal subordinators appear in irreal contexts. Braunmüller (1978) proposed that there is a Germanic process of creating subordinators – univerbation. In univerbation, a deictic item is changed into a subordinator or a phrase is reduced to

a single subordinator.

I have also introduced grammaticalization theory, and more specifically the basic aspects of grammaticalization theory (bleaching, image schema preservation, abstraction, subjectification, source determination and semantic retention) that will be discussed in detail throughout chapters 4–8. A relevant study of sources of conditional subordinators (based on grammaticalization theory) has also been recapitulated: the list presented in Hopper & Traugott (1993:179).

In section (2.4), the topic was structural approaches to grammaticalization – here the concept of reanalysis was introduced, and three types of reanalysis were specified: categorial, hierarchical and segmental. Then the generative perspective on language change was discussed, and the model of Roberts & Roussou (1999, 2003) was introduced. The criticism of grammaticalization theory that has been put forth by several formal grammarians was also summarized in this section.

In the second last section of the chapter (2.5), I presented a suggestion as to how to incorporate both gradual semantic changes and non-gradual syntactic changes in a perspective of diachronic language change (in the spirit of van Kemenade 1999).

Three different notions of grammaticalization have accordingly been discussed in this chapter: the empirical phenomenon of grammaticalization, grammaticalization according to grammaticalization theory (a specific type of unidirectional and gradual language change) and Roberts & Roussou's (1999, 2003) view of grammaticalization as syntactic simplification. All of these three notions will be of importance in the remainder of the thesis, and in certain places it will be necessary to specify which of them is discussed. Therefore, the terms below will be utilized when called for:

13. *Terms for different notions of grammaticalization*

grammaticalization, the empirical phenomenon (changes of the type lexical > grammatical or grammatical > more grammatical)	=	grammaticalization(E)
grammaticalization according to grammaticalization theory (gradual and unidirectional changes)	=	grammaticalization(T)
grammaticalization seen as syntactic simplification (changes of the type move > merge)	=	grammaticalization(S)

I consider the investigated paths of change as instances of grammaticalization(E), but it is not clear whether they also are cases of grammaticalization(T/S). One of the goals of the thesis is to discuss possible answers to this question.

From a theoretical perspective, this chapter is intended to highlight the fact that functional and formal linguists have diverging views of grammaticalization, but that it is not grammaticalization that is the actual source of the discord. Rather, grammaticalization happens to be a field of study that is a common ground for functionalists and formalists, and since both groups define grammaticalization according to their respective fundamental attitudes to language as a whole, which are incompatible, disagreement must arise. I am however convinced that grammaticalization(E) has both syntactic and semantic properties, and that a narrow perspective (be it semantic or syntactic) would obscure important facets of the paths of change that are studied in chapters 4–8. Both perspectives are therefore taken into consideration, and in chapter 9, I discuss the relations between syntactic and semantic changes further. There I also return to the question whether the paths of change indicate that grammaticalization is a specific type of language change, and whether grammaticalization theory may have any explanatory value.

3. CONDITIONALS AND CONDITIONALITY

3.1. Introduction

Conditional sentences have attracted attention from innumerable logicians and linguists (cf. Traugott et al 1986, Jackson 1987, Sweetser 1990, Athanasiadou & Dirven 1997a, Dancygier 1998, Declerck & Reed 2001, to mention a few recent contributions to the debate). In this chapter I present an overview of the generally accepted problems regarding conditional sentences and some commonly proposed solutions. There are two basic angles from which conditionals have been studied, reflecting the fact that conditionals are of importance in both logic and natural language: the linguistic view and the logical view. I have chosen to introduce these approaches separately, in sections (3.2) and (3.3).

In section (3.4), I present a model (the Reasoning Model) which is an attempt to bridge the gap between conditional sentences in natural language and implications in logic. The chapter also contains an introduction to the conditional structures in OSw and in MSw (section 3.5). In the final section (3.6), the chapter is summarized.

In line with Comrie (1986: see quote in 3.2.3) I will assume that it is necessary to distinguish between conditional meaning and conditional interpretation; the former is intrinsically inherent in the conditional subordinator, whereas the latter is dependent not on lexical semantics, but on the discourse context, the semantic content of the two clauses involved, tense and aspect relations and other such factors. In any lexicon, *if* is defined as a conditional subordinator, while *or* (which may be interpreted as conditional in the right circumstances)[26] is not. Establishing what conditional meaning is will hence also be a prerequisite for the understanding of which clauses can possibly be interpreted as conditional.

[26] Sweetser (1990:98) gives an example of an asymmetric speech act disjunction:

> Give me that book or I'll throw your cat into the lake.

This can be paraphrased as *If you do not give me that book, then I will...*

A conditional sentence can furthermore be divided into two parts: the clause that signifies the condition (or cause) and the clause that signifies the consequence (or effect). The former, the actual conditional clause (which in English would be an *if*-clause), is traditionally called the *protasis* and the latter the *apodosis*.

The present chapter is quite long (almost 40 pages), and my motivation for providing such a detailed account of conditional sentences is twofold: first, a deeper understanding of conditional sentences is a prerequisite both for the task of identifying conditional contexts in OSw as well as MSw text corpora, and for the task of linking the diachronic stages of the studied grams to each other. Second, I consider it necessary to specify the taxonomy of conditional sentences that is utilized in the thesis, and the basis for this taxonomy.

3.2. Linguistic views of conditionals

Conditional sentences have attracted attention from linguists working in the fields of typology, syntax, semantics, grammaticalization theory and pragmatics, and there are thus numerous definitions regarding the true nature of a conditional sentence. In this section I will review some of these proposals, mainly using an insightful article by Comrie (1986), Sweetser (1990) and Dancygier (1998) as sources.

There are two generally acknowledged tenets of conditionality (cf. Comrie 1986): the causal relation between the protasis and the apodosis and the hypothetical nature of both of these clauses. A typical conditional sentence will accordingly be causal and it will consist of two hypothetical clauses:[27]

1. If you give your dog a meatball, he will wag his tail.

Here I will follow Comrie's suggestion and assume that causality and

[27] Declerck & Reed (2001:14) dispose of the term *hypothetical*, because of the terminological confusion it has caused and because there are several types of hypotheticality. However, I think it is a convenient term and will thus make use of it. I will not assign any stipulated linguistic definition to it, though, but use it in the everyday sense 'possible, imaginary'.

hypotheticality are typical features of conditionals.

There is a third feature of conditional sentences that I will adopt as a typical feature; Dancygier (1998:14) notes that a speaker, when uttering a conditional, does not assert the content of either the protasis or the apodosis: "what is asserted is the causal connection between p and q, not the clauses themselves".[28] Another way of putting this would be that the speaker asserts that a certain state of affairs will cause another state of affairs, but that he/she does not express any beliefs regarding the truth values of either. The speaker puts forth a hypothetical world (the hypothetical world-hypothesis has been argued by, among others, Fauconnier 1985 and Werth 1997[29]) and claims that this will cause the existence of another hypothetical world. In formal logic, the nature of these hypothetical worlds is irrelevant (meaning that *If dogs are fish they can't swim* is as valid as any other conditional sentence), but in natural language the content of the protasis and the content of the apodosis naturally must be mutually relevant (otherwise, the speaker will appear to be a truly odd communicator).[30]

The three properties that have been mentioned here I will take as typical properties of conditionals, and a conditional sentence that displays all three will

[28] SAG (4:644) points out that the causal relation need not be asserted – it can also be questioned. In constructions such as *If I pay Jim more, will he work harder?* the speaker enquires whether the causal relation is valid or not, he/she does not assert it. In any case, it is the causal relation which is of importance for the speaker.

[29] A logically based argument against this hypothesis is presented by Jackson (1987:70ff), but since Jackson makes a radical difference between indicative and subjunctive conditionals, it can not be easily transferred to the theory presented here.

[30] Quite a few linguists suggest that conditionals need some form of common sense-relation between the protasis and the apodosis in order to function in natural language ("the common factor of all conditionals – and consequently also the main feature of conditionality – is the mutual dependency between the two propositions in the subclause and in the main clause of conditional sentences" (Athanasiadou & Dirven 1997b:62). It has therefore been claimed that such a connection should be included in a definition of conditional sentences. To me, however, a common sense-relation is necessary in all clausal relations in natural language. Logically, both *If two is an even number, Paris is the capital of France* and *Two is an even number and/or/but Paris is the capital of France* are true, but they are not likely to appear in natural conversation due to the oddity of the proposed clausal relations. This feature is thus not inherent to conditionals, I think, but rather a consequence of Gricean principles (Grice 1975:45ff). The principle *Be relevant* probably rules out this kind of linguistic strangeness.

accordingly be called a typical conditional sentence. Sentences that are seemingly conditional, although lacking one or more of these properties, will be categorized as atypical conditional sentences. The same label is used for such sentences that on the surface are non-conditional, but nevertheless often are interpreted as conditional.

3.2.1. Typical conditional sentences

A typical conditional sentence is both causal and hypothetical, but we will still find variation when it comes to the relation between the protasis and the apodosis:

2.	a.	**If** Calvin is sick, he stays in bed.	common cond.
	b.	**Only if** you walk the dog will I give you a pound.	biconditional
	c.	**Even if** you brush your teeth daily you may get caries.	concessive[31]
	d.	Sylvia will leave, **unless** Bill serves the cake now.	anticonditional

In the first example, it is clear that Calvin's illness forces him to stay in bed. But it is also possible that Calvin may stay in bed for other reasons (pure laziness, perhaps). The protasis here expresses a sufficient reason for the apodosis, but not a necessary one. I will call such conditional sentences common conditionals. In (2. b), however, the speaker states that the only possible reason for him/her to pay a pound is that the hearer walks the dog; he/she therefore explicitly formulates the protasis as a necessary reason for the apodosis. Such conditionals are sometimes called perfect conditionals (van der Auwera 1997); another term is biconditionals. Due to its brevity, and due to the fact that conditional perfection generally is used for the process of interpretating common conditionals as biconditionals, I prefer the latter term. In logic the term in use is equatives (see below).

[31] Here and in the rest of the thesis, the term *concessive* should be read as *concessive conditional* in the sense of König (1986:231). Thus, clauses headed by *although* or *even though* are not included in this thesis among concessive clauses. The same applies to the Swedish *fast* and *trots att*.

Turning to (2. c), the protasis seems to express an insufficient cause for the apodosis. As was shown by König (1986), it is hard to exclude these concessive conditional sentences from the group of proper conditionals. Concessive conditionals are discussed further in section (3.4.2). The final example shows what I call an anticonditional sentence; any clause may of course be negated, but unlike e.g. consecutive subordinators, some conditional subordinators are inherently negative. Below (in section 3.3.3), I will claim that in anticonditionals, the conditional relation itself is denied, meaning that a conditional sentence of the type *unless p, then q* should be paraphrased as *it is not the case that if p then q*.

There seems to be a typological universal for conditional subordinators (Comrie 1986): if a language has a single conditional subordinator it expresses a sufficient cause. Hence the other variants (necessary cause etc.) can be considered to be secondary, and from a grammaticalization perspective, one could therefore assume that when a gram is grammaticalized into a marker for conditionality, it will in the default case express a sufficient cause. In other cases, some other (semantic) factor must have interfered in the process. In this respect, the developments of the Swedish subordinators *utan* and *bara* are relevant, since these do not express default conditionality.

So, I assume that there is a limited number of basic conditional relations between the protasis and the apodosis, and, following Comrie (1986:77), that individual subordinators either may have a specific conditional meaning (like *unless*) or that they may have a general conditional meaning (like *if*). The latter type of conditional subordinator will serve as the default conditional in any language, outnumbering any other conditional subordinator.

As a definition of a typical conditional sentence, I suggest that a typical conditional sentence is an assertion about the causal relation between two hypothetical events.

3.2.2. Atypical conditional sentences

Apart from the typical conditional sentences mentioned above, there are sentences that seem to be conditional, although they are not hypothetical and/or not causal. These have attracted attention from several linguists in search of regularities concerning form (tense, mood, aspect, the relative position of protasis and apodosis, choice of subordinator), meaning and pragmatic function of such sentences, and their relation to typical conditionals. In this subsection I briefly discuss the following types of atypical conditional sentences:

3.	a.	**If** he had been well he would have won.	contrafactive
	b.	**If** today is Monday, Bill is working.	epistemic conditional
	c.	You look well, **if** I may say so.	speech act conditional

Wierzbicka (1997) claims that contrafactive clauses[32] constitute an unsolvable problem, since they are un-analysable semantic primitives, but Dahl (1997) is more optimistic. He investigates one of the most popular suggestions, the past as unreal-hypothesis,[33] but, as Dahl (1997:99ff) demonstrates, past tense can not on its own cause the contrafactivity. Dahl instead proposes, following Tedeschi (1981), that contrafactives should be explained in a branching future-model, where we evaluate and comment upon different possible worlds from a perspective in which these worlds all lie in the future.

However, if conditional sentences express relations between possible (non-factive) worlds, perhaps it would be sufficient to assume that a world in the past can not be

[32] Contrafactive (or counter-factual) sentences are a classic problem in philosophy. A groundbreaking paper was presented by Goodman (1947), who claimed that without an analysis of such clauses, there can be no valid theory of science. The paper has been reprinted repeatedly since it was first published.

[33] This hypothesis has been on the agenda for some time; Diderichsen (1939) discusses it critically, for instance. The first linguist to formulate it seems to have been Heyse (1908 [1900:541]).

hypothetical: "one should have greater certainty about past events than about future events, so that a past situation that is nonfactual will probably be counterfactual, whereas a future situation that is nonfactual is quite likely to be just left open" (Comrie 1986:90). An indication that this is the right way to analyse contrafactives, as an epiphenomenal effect of placing a hypothetical situation in the past, is that hypothetical sentences in general, and not only conditional sentences, seem to become contrafactive in the past. Compare the factive and assertive (4. a) and the hypothetical and contrafactive (4. b):

4. a. I know that Calvin had left when the party started.

b. I wish that Calvin had left when the party started.

Only future events may thus be truly hypothetical – all past events can be divided into factive events, which did occur, and contrafactive (or hypothetical), which did not, and accordingly we can very easily assign truth values to all such events and make assertions about them. A possible world in the past will accordingly always be contrafactive in the present.[34]

So called epistemic conditionals do not appear to be causal at first sight. Consider the following examples:

5. a. **If** she is an acrobat, then she is agile.

b. **If** Calvin stayed in bed all day he is probably ill.

c. **If** Bill bought a new car he must have won at the races.

In neither of these examples is the protasis the direct cause of the apodosis; the knowledge of the situation described in the protasis rather allows the speaker to

[34] This is a simplification – the relations between tense and contrafactivity are considerably more complex (cf. Sundqvist 1955:169ff and SAG 4:268ff).

draw to a conclusion in the apodosis.

Sweetser (1990) proposes, in an influential work (cf. Dancygier 1998), that conditional subordinators (as well as most other connectives) operate in three domains: the content domain, the epistemic domain and the speech act domain. The content domain is deontic, i.e. it is about the real world, and typical conditional sentences are accordingly called content conditionals by Sweetser. The epistemic domain, on the other hand, is concerned with beliefs, conclusions and other mental processes. As for epistemic conditionals "the knowledge [in the protasis] causes the conclusion [in the apodosis]" (Sweetser 1990:117). In this way, epistemic conditional sentences may be seen as causal. This explains the apparent paradox of conditionals where the protasis and the apodosis seem to have been switched:

6. a. **If** the cake is burned it turns black.

b. **If** the cake turns black it has been burned.

It may be hard to conceive that both of these examples can be causal, but assuming that (6. a) is a content conditional and (6. b) an epistemic conditional, light is shed on this issue. The assertion of the causal relation in epistemic conditionals reflects the speakers's understanding of the world (more so than content conditionals). (6. b) is probably, but not necessarily, true – one can imagine that the cake has been dipped in soot or tar, perhaps for jocular reasons. It is harder to imagine that the cake does not turn black when burned, this being a physical process that is independent of human reasoning. Furthermore, in epistemic conditionals an epistemic modal *must* (*If the cake turns black, it must have been burned*) is easily inserted in the apodosis (Dancygier 1998:88), clearly showing that the apodosis is a form of conclusion that is dependent on the speaker's view of the world. A deontic reading of *must* in epistemic conditionals is accordingly not possible.

The third domain that Sweetser (1990) recognizes is the speech act domain. Conditional clauses may sometimes represent speech acts (Thompson & Longacre

1985:203, van der Auwera 1986, Dancygier 1998:90ff, SAG 4:650f, Declerck & Reed 2001:chapter 10) of information or politeness:

7. a. **If** you want to read something, I recommend "War and Peace".

b. You seem to be irritated, **if** I may say so.

c. The broom is in the kitchen, **if** you need it.

Sweetser here sees the protasis as expressing a condition of relevance, although in an implicit way. (7. c) can according to this line of reasoning be paraphrased as *I hereby offer you the broom in the kitchen, if you need it.* As a definition, Sweetser suggests that speech act conditionals are conditionals "where the performance of the in-process speech act (the apodosis) is presented as being conditional on some factor in the protasis" (1990:120). Thus, speech act conditionals can be seen as causal in the speech act domain; the condition in the protasis causes the speaker to utter the sentence.

Trying to reverse speech act conditionals (in the way content conditionals can be reversed into epistemic conditionals) results in pure absurdity (cf. 7. c above):

8. ?You need the broom, **if** it is in the kitchen.

This is an indication that speech act conditionals really do operate at another level of discourse. Furthermore, unlike content conditionals, speech act conditionals often contain an asserted apodosis, as in (7. c).

3.2.3. Other forms of conditional relations

In any discussion about conditionals, or related constructions, the following point by Comrie should be kept in mind:

> I assume that a given construction is to be identified, in general, in terms of a prototype rather than in terms of necessary-and-sufficient conditions. Thus, I will not be surprised if some sentences having the form of prototypical conditionals in a given language do not in fact receive the interpretation of conditions [...], nor if sentences that do not have the form of prototypical conditionals nonetheless receive a conditional interpretation [...]. Furthermore, I distinguish strictly between the meaning of a construction and its interpretation, claiming that many aspects of interpretation that are traditionally assigned to the semantics of a construction or sentence are in fact conversational implicatures (in the Gricean sense) that are not part of the meaning of the sentence, and can in fact be cancelled in appropriate circumstances (Comrie 1986:77).

Levinson (1983) expresses a similar view: "Semantics [...] is concerned with the contex-independent, stable meanings of words and clauses, leaving to pragmatics those inferences that are special to certain contexts".[35]

This difference between lexically or syntactically determined meaning (an intrinsic feature of a lexeme or syntagm) and pragmatically determined interpretation (a context-bound occasional apprehension of a lexeme or syntagm) I will adhere to henceforth. One of the basic tenets of grammaticalization theory is that there is a flow from interpretation to meaning: a gram that is regularly interpreted as having a certain meaning may eventually acquire this meaning. For this reason, it is of importance to investigate constructions that may be assigned a conditional interpretation.

3.2.3.1. Conditional interpretation without conditional structure

Constructions other than conditional clauses may in some cases be interpreted as if they convey conditional meaning (cf. Sundqvist 1955:257ff, van der Auwera 1986,

[35] Visconti (1996:553) follows Levinson (1983) and uses the terms *semantic meaning* and *pragmatic meaning* in what I conclude to be the same sense as Comrie's meaning and interpretation, but Visconti approaches the issue from a formal logico-semantic perspective. She goes on into a very fine-grained analysis of different semantic aspects of conditionals (and connectives in general), but I think that in neglecting the non-formal semantic aspects of conditionals, some important generalizations may have eluded her.

Fillenbaum 1986). Questions (9. a), imperatives (9. b) and phrases expressing a possible cause or situation (9. c, d) followed by a possible effect can all be strongly reminiscent of conditional sentences.

9. a. Do you need a new car? Then call the Car King!

b. Take one more step and I'll call the police!

c. In case of emergency, pull the handle.

d. Whenever it rains, John covers the garden gnome.

The reason why these constructions can be interpreted as conditionals is, I propose, that they, like conditional sentences, consist of two hypothetical clauses, and therefore they too can be analysed as submissions of mutually connected hypothetical worlds. A significant feature of the examples in (9. a-c) is however that, unlike conditional sentences, they contain clauses that express explicit speech acts (cf. SAG 4:648). In chapter 6, free relatives of the type in (9. d)[36] are of relevance for my explanation of the emergence of conditional *hvar*.

3.2.3.2. Conditional structure without conditional interpretation

In certain cases, what appear to be conditional clauses must be analysed as arguments (Ekerot 1976; cf. also Sundqvist 1955:243f). Consider the following examples:

10. a. It would be nice **if** she came.

b. It will cause some serious debate **if** that building is demolished.

[36] Haspelmath & König (1998:577) classify such free relative clauses as *universal concessive clauses*.

As Ekerot (1976:80) concludes, this type of argumental conditional clauses is almost exclusively found in sentences with modal predicates, allowing the speaker to express his/her feelings concerning a hypothetical situation. Declerck & Reed classify such conditionals as *semi-nominal-P conditionals* (2001:396ff).

Further types of atypical conditional sentences are desiderative exclamations, given conditionals (Haiman 1978, Sweetser 1990:128ff) and generic conditionals:

11. a. **If** he only could stop singing!

b. **If** she is smart, he is a virtual Einstein.

c. **If** it is a planet, it has the shape of a sphere.

In sections (8.5, 9.4), I return to desiderativity, discussing the features of *bara*. As for given conditionals, like (11. b), Sweetser claims that they can only operate in the epistemic and speech act domains and that the protasis is a topic (cf. Haiman 1978). (11. c) is an example of a generic conditional sentence (such sentences are discussed by e.g. Langacker 1997) – it expresses a state, or an unbound event (cf. SAG 4:326ff) rather than a conditional relation (but it must be formalized as an implication – see section 9.5).

3.3. The logical view

One of the main approaches to conditional clauses is logical. From the ancient Greeks, with Aristotle as the leading character, the conditional relation (or *implication*) has been intensively discussed. Here I will use Allwood et al (1986) and Jackson (1987) as the main sources for the following account.

Special attention will be paid to regular implications and to the formalization of anticonditionals; the latter will be an essential part of my explanation of the emergence of conditional *utan* (section 4.2). Contrafactives and equatives are of

lesser importance for the discussions in the following chapters; they are introduced here, briefly, as illustrations of the complexity of conditionals. They are also natural parts of any overview of research pertaining to conditionals and implications.

3.3.1. Implications; the basic truth values

In propositional and predicate logic, which will be used in some of the sections in chapter 4 and in the concluding chapter 9, the truth values of different connectives are central. The sentential connectives that are traditionally used in logic are presented in table 1. below, with the symbols that will be used throughout this work. The symbols *p* and *q* are sentential variables, representing a clause each. As for conditional sentences, p will henceforth represent the protasis and q the apodosis.

connective	**symbol**	**example**	**formalization**
not (negation)	¬	It is **not** raining.	¬p
and (conjunction)	&	John is happy **and** Bill is sad.	p & q
or (disjunction)	∨	Susan is blond **or** Mary is tall.	p ∨ q
if (implication)	→	**If** Calvin is sick he stays in bed.	p → q
only if (equative)	↔	He leaves **only if** he must.	p ↔ q

Table 1. *Connectives in propositional logic.*

A conjunction is true when both of the sentential variables are true. This seems to be intuitively correct. The case of the implication is however harder to grasp, since an implication is assumed to be true either when p and q both are true or when p is false. The only case when implications are false is thus when p is true and q is false,

according to the logical tradition (Allwood et al 1986:37). The truth values for the implication *If Calvin is ill, he stays in bed* are depicted in table 2.

p	**q**	**situation**	**true/false?**
true	true	Calvin is ill and stays in bed.	true
true	false	Calvin is ill but goes to school.	false
false	true	Calvin feels well but stays in bed.	true
false	false	Calvin feels well and goes to school.	true

Table 2. *Truth values for implications.*

For some (or perhaps most) language users it may feel absurd to assume that the latter implications can be regarded as true[37] "since it seems pointless to say anything about the truth-value of the implication when the antecedent [protasis] is false" (Allwood et al 1986:39). Extending the consequence of the implication's truth values, clauses like *If honey is sweet, India is a democracy*, *If Valentino was an astronaut, mammals have four legs* and *If water is poisonous, the king of Sweden is called Nosferatu* must also be true. In logic, the probability of the causal relation that most often is essential in conditionals in natural language is completely irrelevant.

3.3.2. Equatives

Equatives, or biconditionals, (*only if* or *iff*) can be seen as a two-way or double implication, since their truth values equal the combined truth values of (p → q) and (q → p) (Allwood et al 1986:41), and consequently they are more complex than implications. While implications announce a sufficient condition, equatives signify a necessary condition. The truth values of *Only if Calvin is ill does he stay in bed* are

[37] The complex relation between material implication, a concept within logic, and indicative conditionals, which are natural language phenomena, is examined at length by Jackson (1987).

illustrated below:

p	**q**	**situation**	**true/false?**
true	true	Calvin is sick, and stays in bed.	true
true	false	Calvin is sick, but goes to school.	false
false	true	Calvin feels well, but stays in bed.	false
false	false	Calvin feels well, and goes to school.	true

Table 3. *Truth values for equatives.*

In ordinary language use, equatives are often final in the sentence, presumably since they function as a kind of afterthought.

In the recent linguistic literature, equative interpretations of implications are dealt with as *conditional perfection* (after a squib in LI by Geis & Zwicky 1971; cf. König 1986:236 and van der Auwera 1997) and the most common approach is to analyse them as some form of Gricean conversational implicatures. The idea is that an implication will very often be interpreted as an equative in discourse. If I say *If you stop smoking, I will buy you a car*, the hearer will probably interpret this as a necessary condition and not expect to be given a car if he/she does not stop smoking (which would be reasonable if the condition merely was sufficient).

3.3.3. Anticonditionals

One of the grams included in this study (chapter 4) is the OSw anticonditional *utan*. This gram is now extinct,[38] but the PDE *unless* and OE *but* seem to match the meaning of *utan* perfectly. Therefore the following discussion regarding *unless* is highly relevant for any account of the meaning of *utan*.

Geis (1973:231) noted that English *unless* and *if not* have different meanings.

[38] MSw and Danish *med mindre* ('with less') functions as an anticonditional subordinator, however (SAG 4:654). In MSw, it belongs to literary style, and like *unless*, it does not allow negative polarity items.

Unless specifies a unique hindering condition, whereas *if not* specifies one of many such conditions (12. a, b). Furthermore, *unless* disallows negative polarity items (like *at all*), whereas *if not* does not (12. c, d):

12. a. **Unless** it rains, Calvin will play golf tomorrow.

b. **If** it does **not** rain**,** Calvin will play golf tomorrow.

c. *__Unless__ you like cabbage at all you do not need to eat it.

d. **If** you do **not** like cabbage at all you do not need to eat it.

How these different negated conditionals should be formalized in propositional logic is unclear; Traugott (1997:145f) lists a number of linguistic suggestions concerning the understanding of the anticonditional *unless*, and *unless* is also extensively discussed by Dancygier (1998:167-178) and Declerck & Reed (2001:chapter 13). The ongoing debate seems to be centred around the questions whether *unless* is an equative or not, and whether p or q should be negated in a formalization of *unless*. Comrie (1986:79) is one of the advocates of an equative *unless*, with a negated protasis: (¬ p ↔ q). On the other hand, Dancygier (1998:167ff) assumes that *unless* negates the apodosis, and Declerck & Reed (2001:chapter 13) adheres to Geis's original proposal (1973), claiming that the apparent biconditionality of *unless* is a case of conditional perfection: "We can conclude that if the necessity implicature (=conditional perfection) is not blocked, '[+q] except if [+p]' is interpreted as '[+q] except iff [+p]' [...]" (Declerck & Reed 2001:449). Here I will concur with Declerck & Reed's view of *unless*, clinging to the fact that *unless* expresses "a unique or exceptional circumstance" (Dancygier 1998:169) and that there must be a reason for the confusion regarding which part to negate: p or q?

I will suggest that there are (at least) two basic ways of formalizing a negated conditional (see table 4 below). In the first case, the negation will take scope over

the entire formula (corresponding to the entire sentence in natural language), and in the second case, the negation only negates the sentence variable p (corresponding to the conditional clause in natural language). Of necessity, only the former formula is a true negated implication. The truth values of these different formalizations are quite different, as is shown in table 4 (the relevant truth values are in bold):

¬	(p	→	q)
f	t	t	t
t	t	f	f
f	f	t	t
f	f	t	f

negated implication

(¬	p	→	q)
f	t	**t**	t
f	t	**t**	f
t	f	**t**	t
t	f	**f**	f

negated protasis

Table 4. *Two possible formalizations for anticonditionals.*

As the truth values show, in the first case there is only one unique situation, specified by the protasis, which can make the implication true; using the example in (12. a), it means that the speaker asserts that Calvin will play golf under all circumstances, except if it rains. If it turns out that Calvin does not play golf, although the sun is shining, the assertion will be false. This meaning is very close to Geis' (1973) original suggestion concerning the meaning of *unless*: "except if p, q" (which Declerck & Reed 2001:449 also follow). The formalization also suggests that the connective *unless* is not a proper element of the protasis, which Declerck & Reed (2001:450) actually claim is the case with *unless*: "*unless* itself does not form part of the proposition P". The suggested formalization of *unless* can be paraphrased as *It is not the case that if it rains, then Calvin will play golf tomorrow*[39] – Guttenplan (1997:108) assumes a similar paraphrase of the connective *neither nor*, i.e. with an external negation: *It is not the case that either p or q*.

[39] Allwood et al (1986) do not suggest any formalization for *unless*, but Jens Allwood (p. c.) proposes that *unless* probably may be understood both as (¬p → q) and as ¬(p → q). Samuel Guttenplan (p. c.) suggests, however, that *unless* must be formalized as an exclusive disjunction, in line with the argumentation in Guttenplan (1997:110f). From a linguistic perspective, though, I find it unsatisfactory to equate *unless p then q* with *either p or q*.

In the second formalization, however, the negated protasis, the speaker's assertion is true in three possible worlds. Hence, we find that a negated implication signals one unique condition that may make the speaker's assertion felicitous, just as Geis (1973) observed was the case with *unless*, whereas a negated protasis in a regular implication will allow for three possibilities in which the formula will be true. The latter seems to be an appropriate description of *if not*.

From a linguistic perspective, we may consider a negated implication an instance where the negation takes scope over the entire sentence, while the negation can take scope either over the entire sentence or over only the subordinated clause in the *if not*-case (cf. Dancygier 1998:171). This might explain the dispute about whether p or q is negated in *unless*-clauses; if the negation takes scope over the entire conditional sentence, both the protasis and the apodosis are actually negated, although indirectly.

3.3.4. Some concluding remarks

The formal logical view of implications can not be directly transferred to conditionals in natural language,[40] but neither is the logical structure without relevance for the use and interpretation of conditionals: "In many cases [...], there is a quasi-regular association between the logical form of a sentence and the form of inference it invites" (Geis & Zwicky 1971:562). As for conditional meaning, I think that the logic formulations can be an effective tool for detecting underlying semantic similarities, and that such similarities may play a major role in the development of conditional subordinators.

I will make use of propositional logic when explaining the emergence of OSw conditional *utan* (chapter 4), and in section (9.5), where the topic is retention of formal meaning.

[40] Some linguists claim rather acquisitively that conditionals is a purely linguistic concept: "conditionals do not belong to the static domain of mathematical logic, but to the dynamic domain of discourse where individuals with different belief systems confront each other here and now" (Akatsuka 1986:333).

3.4. Conditional reasoning – a hypothesis regarding the link between conditionals in natural language and implications in logic

As we have seen, there is no simple one-to-one relation between conditionals in natural language and implications in logic. Here I will propose that there actually is a rather straightforward link connecting them, and that the mismatches are due to the human inclination of non-deductive reasoning and an implicit feature of contrast. A way to formalize the basic conditional relations will also be suggested (the Reasoning Model), but I would like to point out that this formalization should not be confused with the logical formulae in the previous section.

The argumentation in this section is relevant in my pursuit of the underlying semantic factors of conditional clauses and for a general understanding of how different types of conditional sentences are related to each other. It is also crucial for my explanation of the emergence of conditional *utan* (see chapter 4).

Jackson (1987:chapter 6) and Akatsuka (1997) discuss reasoning with conditionals in different perspectives. Their discussions are of great interest, but not directly pertaining to the idea presented here.

3.4.1. Deductive and abductive reasoning with conditionals

In logic, implications are essential when reaching conclusions through deduction. Such conclusions are unquestionable; if the premises are true, the conclusion is also true. From a general rule (*If you hit your thumb with a hammer, it will be painful*) and an actual event (*Hammerblow on the thumb*) we can reach a logically impeccable conclusion (*This will be painful!*). The interdependence of conditionals and deduction, and the problem of how speakers use deductive reasoning, is discussed by Legrenzi (1970), Johnson-Laird (1986) and, to some degree, Seiler (1997), who all show that a great majority of language users, but not all, understand and use deductions correctly when confronted with problems that require deductive

thinking. The deductive form of reasoning[41] can be formulated thus:

13.	DEDUCTION	rule:	If you hit your thumb with a hammer, it will be painful. (p → q)
		case:	You hit your thumb with a hammer.(p)
		conclusion:	It will be painful. (q)

Deduction is logically valid; the premise logically entails the conclusion. Another way of drawing conclusions, which was introduced into the linguistic debate by Andersen (1973), is abduction. Unlike deduction, abduction is not logically valid and reasoning like this often leads to the wrong conclusions. Nevertheless, as Andersen shows, this is a way of reasoning that speakers use in search of models of how their language is structured, and it may eventually lead to language change. From a philosophical viewpoint, Peirce (1931) claims that abduction is the basic human way of reasoning.

When abducing, the speaker identifies a case and, using experience about possible causes (the rule), guesses what has caused this case:

14.	ABDUCTION	rule:	If you hit your thumb with a hammer, it will be painful. (p → q)
		case:	It is painful. (q)
		conclusion:	Your thumb has been hit with a hammer. (p)

Now, let us assume that conditionals reflect the way a speaker is reasoning. A typical content conditional can then be seen as a mere report of a rule, an expected and natural possible causal relation that adheres to what we know about the world. To mark that we are dealing with speaker expectations, not logic formulations, I will use A and B for protasis and apodosis, respectively, in this model.

[41] All logically valid forms of reasoning are deductive (Allwood et al 1986:chapter 6). The variant in question here is called *modus ponens*. Conclusions reached with methods that do not logically entail the conclusion are inductive (*All swans that I have seen are white; therefore all swans are white*). Such conclusions may be more or less likely, but they are not necessarily true or false.

15.	DEDUCTIVE CONDITIONAL	expectation:	A → B
		possible case:	A
		possible case:	B
		result:	If you hit your thumb with a hammer, it will be painful.

In this perspective, a content conditional is an undramatic report of an expected causal relation – the speaker's assertion of this relation should be no surprise for the listener.

Turning to abductive reasoning, this may also be reflected in conditionals:

16.	ABDUCTIVE CONDITIONAL	expectation:	A → B
		possible case:	B
		possible case:	A
		result:	If it is painful, your thumb has been hit with a hammer.

As we see, the conditional that is the result of abductive reasoning actually turns out to be an epistemic conditional; the effect is presented in the protasis, the cause in the apodosis. This is not surprising, really, since abductive reasoning is driven by our knowledge about the world. Sweetser (1990:116f) points out that so are epistemic conditionals, claiming that it is necessary "to assume some connection between knowledge and conclusion" in order to properly understand epistemic conditionals.

The assertion made by the speaker when uttering an epistemic conditional thus reflects the speaker's comprehension of probable causal relations, and although epistemic conditionals are largely identical to content conditionals on the surface, this subjective feature may be explicitly expressed by the speaker with modal expressions such as *must*, *accordingly*, *hence* etc. Modal markers of that kind are rarely found in ordinary content conditionals (*If you hit your thumb with a hammer, (?hence) it (?must be) will be painful*).

3.4.2. Contrastive conditionals

According to SAG (1:151), an adversative relation is a binary relation in which it is remarkable or noteworthy that both of the items in the relation are valid simultanously. Sweetser (1990:100) is more dramatic when defining the basic semantics of *but*: "*But* presents two conjuncts that clash with each other in some way". So, when using the adversative *but*, for instance, the speaker implicitly suggests that in general, these two concepts do not occur together (in this respect, adversativity is a form of modality). But if the concepts can be expected to cooccur, the neutral *and* is used:

17.	a.	He is young **and** healthy.	(p & q)
	b.	He is young **but** not healthy.	(p & ¬q)

Formalizing these coordinators in the Reasoning Model, the unexpected circumstance must be seen as a violation of a rule (in this case, the rule that youth and health normally cooccur). Following Rudolph (1996), I will call such violations contrastive. In the model, I introduce the exclamation mark as an indication of such violations.

18.	COORDINATION	expectation:	A & B
		case:	A
		case:	B
		result:	He is young and healthy.
19.	CONTRASTIVE COORDINATION	expectation:	A & B
		case:	A
		case:	¬B!
		result:	He is young but unwell.

Turning to conditional clauses, a similar violation of the general rule can be formalized in much the same manner, continuing to use the same conditional sentence (*If you hit your thumb ...*) as an example:

22.	CONTRASTIVE CONDITIONAL	expectation:	A → B
		possible case:	A
		possible case:	¬B!
		result:	Even if you hit your thumb with a hammer, it is not painful.

As we see, a violation of the general rule, or contrastive reasoning, results in a concessive conditional. Traugott & König (1991:202f) discuss concessives in similar terms, and my suggestion is also clearly in line with basic definitions of concessives (cf. Sundqvist 1955:311, König 1986:234, Jackson 1987:91ff, Dancygier 1998:164, Declerck & Reed 2001:335, SAG 4:639ff). SAG (4:639) states that concessive conditionals "denote a failed expectation" (my translation) which I think captures the essence of concessives well.[42] Furthermore, it fits well with Longacre's concept

[42] The attempts to explain concessive conditionals within some form of logical model with multiple protases (like e.g. König 1986, Leuschner 1998, Haspelmath & König 1998:564ff) must of necessity remain inadequate, I think, since human reasoning in this case seems to be non-deductive. A formalization like "Whether p or ¬p, q" (König 1986:234) may be logically correct, but it does not capture the essential feature of concessives. Rudolph's definition of contrast is more to the point: "an unusual action, a behaviour contrary to social norms, an unexpected event, a restriction of what has been stated, a semantic opposition of two items" (1996:23). It is noteworthy that Haspelmath & König (1998) do not refer to the extensive work of Rudolph (1996).

Furthermore, it has been claimed that concessive conditionals "are clearly distinguished from normal conditionals by the fact that, as in concessives, the apodosis is asserted" (Leuschner 1998:162). Haspelmath & König (1998:567) use partially identical examples (see below) and claim that they are "semifactual". However, these examples are clearly speech act-type concessive conditionals:

> Even if you dislike ancient monuments, Warwick Castle is worth a visit.
> (Leuschner 1998:161; Haspelmath & König 1998:567)

Since conditionals in the speech act domain often contain asserted apodoses, there is really no reason to assume that an assertion of the apodosis is a feature that is typical of concessive conditionals (cf. examples 2. c and 22, which are content type-concessive conditionals).

of frustration (1987:249f), which he claims is a significant feature of both adversatives and concessives, and Rudolph's (1996) concept of contrast, which she takes to be the semantic feature that unites adversative and concessive clause markers.[43] From a typological perspective, some languages seem to possess grams which may convey both adversative and concessive meaning; Payne (1985:10ff) mentions Fijian and Russian.

Furthermore, it is a matter of fact (SAG 4:639) that adversative markers often occur in concessive clauses (*Calvin feels well, even if he nonetheless/still must remain in the hospital for a week*), an indication that adversative coordinators and concessive conditional subordinators actually are semantically similar.[44]

3.4.3. Combining the perspectives; conclusion

Now, if the processes that are responsible for epistemic and concessive conditionals are unrelated,[45] one would suspect that they could appear in combination in natural language. As the following example shows, they actually can:

21.	CONTRASTIVE	expectation:	A → B
	ABDUCTIVE	possible case:	B
	CONDITIONAL	possible case:	¬A!
		result:	Even if it is painful, you did not hit your thumb with a hammer.

[43] In her chapter 5, Rudolph (1996:208ff) gives an account of Pötter's (1992) proposal regarding how to understand Italian concessives. His formalization is similar to the idea presented here.

[44] Bjerre (1935:94, 273ff) does not really differentiate between adversative and concessive meaning.

[45] Sweetser 1990:102ff) discusses whether *but* has a content meaning or not, and she concludes: "I see no reason to conclude that *but* has a content-domain usage, and indeed I see some naturalness to the idea that it lacks such a usage". However, she then goes on to argue that *but* may only have epistemic and speech act usages; in the present model, there is a difference between epistemic (abductive) reasoning on the one hand, and contrastive reasoning, which explains concessives and the use of *but*, on the other. Abductive reasoning is a regular form of non-deductive reasoning, but contrastive reasoning is a violation of deductive (or abductive) reasoning. This division may be useful to adhere to, I think.

In other terms, the conditional in (21.) is an epistemic concessive conditional.

How to formalize the other types of typical conditionals (biconditionals and anticonditionals) in this model is not clear to me at the present stage, partly due to the fact that they seem to be dependent on interpretation to a higher degree than content and concessive conditionals.

The model presented here does, in my view, in an elegant and intuitively pleasing way explain the differences between common, epistemic and concessive conditional sentences. The rule involved always remain the same (A → B) but the mental process, the reasoning, is different; in the case of concessives, the unexpected result is lexically realized as a concessive subordinator (*even if*). However, it is not certain that speakers are aware of the differences between deduction and abduction (cf. Legrenzi 1970), and therefore the lack of a linguistic realization for epistemic conditionals is not unexpected.

Perhaps this mixture of formally correct reasoning and human tendencies to disregard logically valid lines of thought and to report beliefs about the world is the key to conditionals, which have been a notorious problem for both linguists and logicians since antiquity. The problems are certainly not solved, but the model is, I hope, a step in the right direction.

Furthermore, accepting the hypothesis that epistemic and concessive conditionals are secondary in relation to common conditionals, it is, I think, plausible to expect that emerging conditional subordinators will not appear in epistemic or concessive conditional sentences unless strong external factors influence the transition. Haspelmath & König (1998:620) assume that concessive meaning may develop from conditional meaning: "SCCs [scalar concessive conditionals] are derived from conditionals by adding something (a scalar focus particle) to conditionals, but the reverse never occurs; conditionals are never derived from SCCs". Similarly, Hopper & Traugott state that "Concessive meanings develop late in the history of specific clause linkage markers partly because the concessive is more abstract, partly because it is more complex logically" (1993:180).

3.5. Conditionals in Swedish

In this section I give an overview of how conditional meaning is reflected in the linguistic structure in Swedish. There is no major difference between how OSw and MSw behave in this aspect, and therefore the account of the conditional structures in section (3.5.1) is valid for both. Typologically, Swedish seems to be a standard Germanic language in this respect (cf. Comrie 1986). In section (3.5.2), the MSw conditional subordinators are presented, and the following section, (3.5.3), concerns some special features of conditional sentences in OSw which are no longer present in MSw. These have been essential in my search for conditional meaning and possible conditional interpretation in OSw, naturally.

My main sources here are SAG, Bergqvist (1884) and Wessén III (1992).

3.5.1. Expressing conditionality in Swedish

In both OSw and MSw, a conditional relation can be expressed in a number of ways: by an adverbial phrase, by a nominal expression, by a prepositional phrase or by an infinitival clause (SAG 4:272-275, 668ff, Jörgensen 1987:23ff). In the default case, however, a conditional sentence is used. Two basic types of protases can be found: question-formed conditional clauses (22. a, b) and conditional clauses with subordinators (22. c, d):

22. a. [protasis Kommer Kalle till festen i morgon] så blir Stina glad.
comes Kalle to party-the tomorrow so becomes Stina pleased
'if Kalle comes to the party tomorrow, then Stina will be pleased'

b. [protasis Værþær han goþær kunungær] þa lati guþ
han længi liwæ. (UL)
becomes he good king then let-subj. God him live long
'if he becomes a good king, then God may let him live long'

c. [protasis **Om** Kalle kommer till festen i morgon] så blir Stina glad.
if Kalle comes to party-the tomorrow so becomes Stina pleased
'**if** Kalle comes to the party tomorrow, then Stina will be pleased'

d. Nu [protasis **æn** siax uilia uæria ok siax fælla]
þa aghu þe uitzs orþ sum uæria uilia (ÖgL)
now if six want-to acquit and six convict
then have they vitsord[46] *that acquit want-to*
'now **if** six want to acquit and six convict, then they who
want to acquit shall decide'

Question-formed conditional clauses by definition do not contain any subordinators, and hence they are not a topic in the present work.[47] However, they are of importance when conditional clauses in OSw are studied, and they will therefore be introduced briefly here.

Question-formed conditionals are a very frequent type of conditional clause in the old Swedish laws; they are also common in Norse laws, and they have counterparts in German and English (*Had Calvin been there, then...*). Wessén (III:234) assumes that they are developed from main clauses with inverted word order. That type of word order eventually became obsolete in written language, except in two cases: "Inverted word order, with clause-initial predicates, eventually became less frequent in main clauses; it remained mainly in two cases: in direct questions and in the protasis of a conditional clause. Here it later was conceived of as a formal sign of the subordination of the clause" (Wessén III:234, my translation). In spoken Swedish, verb first word order in declarative clauses is still in common use (cf. Mörnsjö 2002).

In MSw, question-formed conditionals mostly belong to the written language. There are some grammatical restrictions that apply to them (due to the etymology of

[46] *Vitsord* is an OSw legal term that is hard to translate correctly. Söderwall (II:1008) gives the meaning "right or obligation to prove or deny with an oath" (my translation).

[47] The grammaticalization of question-formed conditionals is another type of process (grammaticalization of a syntactic construction) than the one I have chosen to study.

the construction) that are special for such conditionals in MSw (SAG 4:647f):

23. a. Regnar det så tar jag bilen.
rains it then take I car-the
'if is it raining, then I will take the car'

b. *Jag tar bilen regnar det.

c. Jag tror att Kalle kommer **om** det regnar.
I think that Kalle comes if it rains
'I think that Kalle will come **if** it is raining'

d. *Jag tror att Kalle kommer regnar det.

Question-formed conditionals almost always occur clause initially (23. a, d). Semantically, they appear to be regular common conditionals. They can also be used as epistemic or speech act conditionals.

In the apodosis, an initial *tha* or *þa* (OSw) or *då/så* (MSw) is often found, corresponding to PDE *then*.

3.5.2. MSw conditional subordinators

SAG (2:738) lists the conditional subordinators in use in modern Swedish. The list contains both simple and more complex subordinators. It is recapitulated below:

24. *Conditional subordinators in MSw (SAG 2:738)*

om	bara	(för)såvitt(som)	så sant (som)
blott	såvida	(ut)ifall (att)	såframt
därest	med mindre	på villkor att	i händelse (av) att
under förutsättning (av) att		förutsatt att	givet att

The group listed in (24.) is not a stable, unchanging category. Given the right

The group listed in (24.) is not a stable, unchanging category. Given the right circumstances, complex expressions such as *i den mån* ('to the extent') and *är det så att* ('is it so that') (Teleman 1974:243) may also be used as conditional subordinators; the group of simple conditional subordinators does however seem to be more or less fixed.

SAG (2:738) explicitly states that *om* is the default conditional subordinator in MSw, and that some of the other subordinators in the list have meanings that *om* does not have, and/or are restricted to a certain genre (SAG 4:653ff). The emergence of *om, ifall* and *bara* is scrutinized in this work (in chapters 6, 8 and 9), and in the following subsections I examine the uses of these subordinators in MSw.

3.5.2.1. The MSw uses of *om* and *ifall*

Om can occur in all of the types of conditional sentences, typical sentences as well as atypical. Also *ifall* can be used in most conditional sentences, but there are some types of conditional sentences in which *ifall* is slightly improper or even unacceptable – speaker intuitions seem to vary in these cases. (25. a, b) are concessive conditional sentences, (25. c) is a given conditional, (25. d) is an argumental conditional, (25. e) is a desiderative exclamation, and (25. f) is a generic conditional sentence:

25. a. **Om/*ifall** hon **så** ringer 50 gånger så svarar jag inte.
'**even if** she calls 50 times I will not answer'

b. Även **om/*ifall** hon ringer 50 gånger så svarar jag inte.

c. **Om/?ifall** hon är klok så är han ett geni.
'**if** she is smart then he is a genius'

d. Det vore trevligt **om/?ifall** hon bjöd på kaffe.
'it would be nice **if** she served coffee'

e. **Om/*ifall** hon bara kunde sluta sjunga!
‘**if** she just could stop singing!’

f. **Om/?ifall** det är en planet så är den sfärisk.
‘**if** it is a planet then it is spherical’

A natural question is of course whether there is any feature shared by these types of conditional sentences which may make the use of *ifall* problematic. The immediate answer is that all of the examples in (25.) are not directly causal: in concessives, the expected causal relation is denied by the speaker (according to the argumentation in section 3.4.2) and in the other cases there is no asserted causal relation.[48]

So, it seems that *ifall* is more dependent on a true causal relation than *om*, and it is hence probable that there are some lingering features of *ifall* that prevent it from occurring in non-causal contexts – I discuss this further in section 7.7.

3.5.2.2. The MSw uses of *bara* and *blott*

The subordinator *bara* (and the antiquated *blott*) has some idiosyncratic features. *Bara* signals an explicitly sufficient condition, that can be paraphrased as *no more than p is required in order to q* or *it is enough to have p for q* (SAG 4:653f). It is presumably this feature of *bara* that makes it highly peculiar in generic conditionals, (26. a) or in epistemic (26. b) and speech act conditionals (26. c). Furthermore, the condition in a *bara*-clause must be desired. (26. d) is, presumably due to this restriction, very strange, but not ungrammatical. The interpretation that comes to mind is that Kalle is a weakling, and that, being such a wimp, he must go to the hospital even for such a minor ailment as malaria. (26. e) is a given conditional sentence, and the final (26. f) is an argumental conditional sentence:

[48] It should be pointed out that *ifall* is possible in epistemic conditionals and in speech act conditionals, but these are, as Sweetser (1990) has shown (see section 3.2.2), causal, although in other domains of language.

26. a. ??**Bara** den är en planet så är den sfärisk.
only it is a planet then is it spherical
'**if** it **only** is a planet, then it has the shape of a sphere'

b. ??**Bara** Kalle stannar hemma så är han förmodligen sjuk.
only Kalle stays home then is he probably ill
'**if only** Kalle stays at home, then he probably is ill'

c. ??**Bara** du är törstig så finns det öl i kylen.
only you are thirsty then is there beer in fridge-the
'**if only** you are thirsty, there is some beer in the fridge'

d. ??**Bara** Kalle får malaria så måste han läggas in på sjukhus.
only Kalle gets malaria then must he lay-pass. in-PL on hospital
'**if only** Kalle gets malaria, then he must be hospitalized'

e. ??**Bara** Kalle är lång så är Lisa en jätte.
only Kalle is tall then is Lisa a giant
'**if only** Kalle is tall then Lisa is a giant'

f. ??Det kommer att orsaka en stor debatt **bara** det gamla huset rivs.
it comes to-cause a great debate only the old house-the is-demolished
'it will cause a great stir **if only** the old house is demolished'

Again, speakers have slightly different opinions considering the grammaticality of the sentences above; some speakers certainly consider all of the examples in (26) as directly ungrammatical.

Apart from the examples above, *bara* can not be used in concessive conditional sentences. There are accordingly six types of conditional sentences in which *bara* is inadequate: generic, epistemic, speech act, given, argumental[49] and concessive

[49] In a sentence such as *Det blir bra bara Kalle kommer* ('It will be fine if only Kalle comes') *bara* is fully acceptable. However, I do not think that *det* ('it') is a clause-anticipating subject here; this sentence is rather a typical conditional sentence. The sentence can be compared with the true argumental conditional sentence *??Det vore bra bara Kalle kom* ('It would be fine if only Kalle came'), which is quite unacceptable.

conditional sentences. What these six types of conditional sentences have in common is that they are either not straightforwardly causal (generic, given, argumental and concessive conditionals) or causal in non-content domains of language (epistemic and speech act conditionals). It is plausible to assume that it is some characteristics of *bara* that cause these restrictions, and in section (8.7.1.5), the question whether the idiosyncracies of *bara* can be linked to the gram's etymological background is discussed.

What has been said about *bara* here also applies to *blott*, but in addition to the characteristics that make *bara* interesting, *blott* belongs almost exclusively to written language. Most contemporary speakers do not use it at all, neither in speech nor in writing (cf. Wijk-Andersson 1991:175f).

3.5.2.3. MSw concessive conditional subordinators

The number of concessive (conditional) subordinators in MSw[50] is not very great (SAG 2:737); the most frequent is *även om*, but *om också* and *om än* are in use as well. It is also possible to express concessivity with a single *om* and an adversative adverbial (*så*, *också* or *än*) in the conditional clause (SAG 4:649):

27. a. **Även om/om än** Kalle gillar pizza så får han sill i kväll.
even if/if even Kalle likes pizza then gets he herring tonight
'**even if** Kalle likes pizza, he will get herring tonight'

b. **Om** han **också/så/än** skriver hundra brev så svarar jag inte honom!
if he too/so/even writes hundred letters then reply I not him
'**even if** he writes one hundred letters, I will not reply to him'

There is accordingly no morphologically simple concessive subordinator in Swedish.

[50] SAG (2:737) includes factive clauses among the concessive clauses, and thus counts the factive subordinators *fast* and *trots att* as concessive subordinators. In this work, only concessive conditional clauses are of relevance, however, and only concessive conditional subordinators.

Concessives can be used also "when the proposition in the subclause is presumed to be true" (SAG 4:642, my translation). The cases SAG presents are similar to (28.).

28. He liked the manuscript, **even if** he was convinced that it would never be published.

However, in Sweetser's terminology, this is a clear speech-act conditional; there is no content-type causal relation here (cf. section 3.2.2).

3.5.3. Signs of conditionality in OSw

There are a number of ways in which a conditional relation between two clauses can be revealed in OSw. Some of them have been vital in the search for emerging conditional subordinators, and these are employed, when relevant, in chapters 4–8.

As a background, I will first present typical ways of forming conditional sentences in OSw, and then some clues for conditional meaning in OSw.

3.5.3.1. Typical conditional sentences in OSw

The main sources for this subsection are Bergqvist (1884), Wessén III (1992:232-246) and Jörgensen (1987).

A basic Neogrammarian hypothesis was that parataxis diachronically precedes hypotaxis. Thus, it has been assumed that paratactic conditionals precede hypotactic conditionals in the history of Swedish, for the following reason:

> As long as man lingers in the lower stages of intellectual development, he articulates his thoughts in simple clauses, one after the other, not bothering to let the outer representations express the inner relations, or the reciprocal dependencies of these thoughts (Bergqvist 1884:7, my translation).

However it may be in this matter, a useful division of conditional sentences in OSw is in paratactic conditionals and hypotactic conditionals.

In the oldest Swedish provincial law, ÄVgL, the apparent protasis is not infrequently expressed in what seems to be a regular main clause:

28. [protasis Bondä son vil sär kono bydiä]. han skal hin skyldästä at hittä. (Wessén III:232)
farmers son want-to refl. woman propose he shall the nearest to find
'if a farmer's son wants to propose to a woman, then he shall go to her next of kin'

Here the conditional relation is entirely dependent on the reader's interpretation, since it is not syntactically marked in any way.[51] The "protasis" relates a situation, a state, and the "apodosis" must (in the law context) be seen as a prescribed consequence of this situation. The construction is most frequent in Ävgl and YVgL (Bergqvist 1884:9).

A similar way of expressing a conditional relation is to utilize an inverted clause for the protasis:

29. [protasis Dör bonde fran husfru sinni æru barn æptir]. raþi husfru fore
barni ok fæþærni til hun giptis atær. (UL)
dies farmer from wife his are children after decide-subj. wife for
child and inheritance until she marries again
'A farmer dies leaving his wife, and there are children left behind. The wife shall decide about the child and the inheritance until she is remarried'

In MSw, such clauses are of necessity interpreted as subordinate when they are juxtaposed with another clause (which then will be analysed as the matrix clause), but in OSw this was not the case. Wessén (III:234) states that "Also this form of clausal connection was originally paratactic" (my translation). Alving (1916) provides a detailed investigation of inversions in Swedish, and Pettersson

[51] Bergqvist (1884:8) assumes that the clausal dependencies were revealed by prosodic means in spoken language, in line with Neogrammarian tradition.

(1996:108f) gives an overview of possible functions of inverted clauses in OSw. It seems as if an inverted clause was but a regular way of expressing propositions in OSw; in a proper context it could however be conceived of as a condition for the following clause (the construction was eventually reanalysed as a syntactic expression of conditionality, resulting in the question-formed conditionals of MSw).

Yet another type of protasis-like clause in OSw is headed by *nu* ('now'):

30. [protasis **Nw** hawir barn döpilsi fangit]. þa skal þæt barn standa baþi arf oc wrf. (DL)
now has child christening got then
shall that child stand both inheritance and orv[52]
'**now** a child has been baptized. Then that child shall have right to inheritance'

Also this construction is paratactic. There are no signs of syntactic subordination, and the same circumstances as were mentioned above apply. *Nu*-protases are very frequent in most OSw laws (Wessén III:233).

Paratactic conditional sentences are however not the hub around which this work revolves. Turning to conditional subordinators, we find that quite a few such lexemes were in use in OSw.[53] In the very earliest texts[54] the default one was unquestionably *än* (or *æn*). Other acknowledged conditional subordinators are *um*, *num*, *utan* and *hvar*, but also some more complex constructions were used in this function (Bergqvist 1884:56, Wessén III:241):

[52] *Orv* is an untranslatable archaism, the presence of which is probably motivated by alliteration.

[53] But in the eastern Old Scandinavian laws, paratactic conditionals were more common than hypotactic (Jörgensen 1987:22f).

[54] The oldest conditional subordinator in Swedish might have been *ef*. However, it only appears in a single runic inscription (Ruthström 1990, Peterson 1994) and in one manuscript of the old Scanian law (AM 37, 4°), where we find five instances of conditional *ef* or *æf* (Schlyter 1859:XVI). In Old Danish, *ef* and *æn* were used in different dialects (Bergqvist 1884:27-30, Wessén III:238), and *ef* has survived in Icelandic (as has *if* in English).

31. *Some complex OSw conditional subordinators*

sva framt at/än/sum	('so long as', MSw *såframt*)
sva vist (sum)	(extinct in MSw)
sva vidha (sum)	('so far as', MSw *såvida*)
sva liuft (är/sum)	(extinct in MSw)
medh mindre	('with less', MSw *med mindre*)

The surviving subordinators *såvida*, *såframt* and *med mindre* (the origin of which is semantically similar to English *unless*) belong to literary style in MSw, and they have probably never been common in spoken language.

Apart from these subordinators, quite a few grams with other basic meanings can be found in what appear to be OSw conditional sentences; Bjerre (1935) mentions *mæþan* ('while'), *þa* ('then') and *nær* ('when'), but also *ok* ('and'), *at* ('that') and *eller* ('or') could be interpreted as conditional subordinators in some cases. However, none of these grams developed conditional meaning, and thus they are not included in the survey.

There are furthermore some features of the apodosis that are typical of OSw. First, we very often find an anaphorical *þa/tha* initial in the apodosis (32. a) – this of course corresponds to English *then*. Another typical feature is subjunctive mood, which may be expressed either via a modal auxiliary (32. b) or morphologically (32. c). Wessén (III:134) remarks that subjunctive mood is prevalent in OSw laws, especially in apodosis-clauses[55] (in MSw, on the other hand, morphologically marked subjunctive mood is used only marginally).

[55] But he also admits that the usage of subjunctive mood is only partially understood: "The use of the subjunctive in subordinate clauses is an exceedingly complicated component of the old Nordic languages' syntax, where tradition and the vivid need for expression clash against each other in a bewildering way, partly due to the decay and change of the inherited morphological system" (Wessén III:232, my translation).

32. a. Nw wil eig æghanden halda leghona, **tha** dömes
honom som legde [...] (MEStL)
now wants not owner-the keep agreement-the, then is-convicted-subj.
him who hired
'now the owner does not want to keep the agreement, **then**
the one who made the agreement shall receive [...]'

b. tu **matte** hämnas vm tu wilde. (KS)
you may-subj. revenge if you wanted
'you may take revenge if you want to'

c. kliwær man .j. træ fore kiætis skyld. faldær niþær. ok far
aff banæ. **liggi** o gildær. (UL)
climbs man in tree for fun's sake falls down and gets
from death lay-subj. unpaid
'if a man climbs a tree for fun, and falls down and dies
thereof, then his death shall not cause prosecution'

So, apart from pure semantic relations, there are a few clear signs of conditionality in OSw. None of them is however absolutely decisive.

3.5.3.2. Specific clues to conditional meaning

Until the late 13th century, *æn* is virtually the only conditional subordinator in use, but it is from this time slowly and successively being replaced by *um* (*æn* is quite rare in texts from the 17th century). A clear indication of the new meaning of *um* is when *æn* appears in an older manuscript of a certain text and *um* in a younger one, in the very same position. The provincial laws offer numerous examples of that kind. Hence, if a known conditional subordinator is used in an old manuscript, and a new gram in a younger, in the corresponding position, then this is a clear sign of emerging conditional meaning.

In some cases, we find two coordinated protases followed by a single apodosis. In

such cases, a well known conditional subordinator may appear alongside an emerging conditional subordinator, thereby indicating the new meaning of the latter.

A third clue is comparison of translations. If a foreign text is translated more than once, a conditional clause may be translated differently each time. However, this will also be discovered in a study of only OSw texts, and I have not searched foreign original manuscripts for sources of conditional subordinators.

3.6. Summary

In this chapter linguistic views of conditionals were introduced in section 3.2, and I divided conditional sentences into the categories typical and atypical. In the following section (3.3), the topic was the logic view of conditionality. Special attention was given to the formalization of anticonditional subordinators such as *unless*, since this will be of importance in the chapter about *utan* (chapter 4). Also the Reasoning Model, which was presented in section (3.4), is essential for my explanation of the emergence of conditional *utan*.

In section (3.5) the topic was how conditionality is expressed in Swedish. The uses of the MSw subordinators *om*, *ifall*, *bara* and *blott* were introduced, and I also presented the typical structure of OSw conditional sentences.

4. THE EMERGENCE OF CONDITIONAL *UTAN*

4.1. Introduction

The etymological origin of *utan* is clear: it consists of the stem *ut*, which in MSw is an adverb/verb particle, and the affix *-an*. The development into an anticonditional subordinator is however anything but clear. Bergqvist (1884:53) proposes that *utan* became conditional in syntactic analogy with the older *num*, which it later replaced, but this is obviously an insufficient explanation.

Utan is in two ways an exception in this thesis. It is the only assumed anticonditional ('unless') that is included in the survey, and it appears already in our earliest text, ÄVgL. Since my explicit intention (see the introductory chapter) is to investigate only those conditionals whose appearance can be firmly established and thus do not emerge before the middle of the 13th century, one could say that including *utan* is a violation of this principle. However, the basic etymology of *utan* is undisputed, and the rapidly increasing frequency of conditional *utan* during the 13th and 14th centuries implies that the few occurences in ÄVgL might be the first, or almost the first, cases of conditional *utan*. For these reasons I think it is safe to assume that there are no factors essential for this development that must remain unknown due to the lack of earlier texts, and thus I include *utan* in the thesis.[56]

As in the following empirical chapters, the etymology of *utan* will be presented, and the linguistic context (semantic and syntactic) which makes the appearance of the conditional *utan* possible will be clarified and discussed. Other relevant grams are also taken into consideration, like *æn*, *utom*, *num* and *nema*. Furthermore, Traugott (1997) discusses the origins of *unless* and Old English *but*, and her account of how these grams changed into anticonditionals is of course directly relevant for any theory about the emergence of *utan*. It will be presented and criticized in section (4.7.4) (where the etymological background to *but* is also presented). The chapter

[56] However, I must confess that I find *utan* to be a highly interesting gram; thus I also have a purely subjective reason for including it in the survey.

ends with a concluding discussion about how the changes of *utan* may be correlated with grammaticalization(T/S).

The development of *utan* is quite complex, and as an aid to the reader I therefore present the terms that I will use for the different functions and meanings of *utan* below. This terminology will be utilized throughout the work.

term	syntax	meaning	example
locative preposition	*utan* + NP	'outside'	**outside** London
excluding preposition	*utan* + NP	'without'	**without** shoes
clause internal exceptive coordinator	*utan* + XP/*CP	'but, except'	always **but** in June
clause internal contrastive coordinator	*utan* + XP/*CP	contrastive 'but'	young **but** unhappy
anticonditional *utan*	*utan* + IP	'unless'	**Unless** it rains the crop will fail.
contrastive coordinator	*utan* + CP	contrastive 'but'	She is rich, **but** he is not.
postsectional coordinator	*utan* + CP/XP	'rather, instead'	They are not dancing, **but** they are singing.

Table 1. *A terminology for the functions and meanings of* utan.

Furthermore, I will use the term sentential connective as a cover term for anticonditional *utan*, the postsectional coordinator *utan* and the contrastive coordinator *utan*.

It must also be pointed out at this stage that I have found no instances of a clause internal contrastive coordinator *utan* in the investigated EOSw texts (such a gram corresponds to the PDE *but* in *young but wise* or the MSw *men* in *ung men klok).* The same appears to be the case with OE *butan* (Varnhagen 1876:33ff, Mitchell 1985:§§1773, 3641ff). A possible explanation might be that if contrast is a feature

of speech acts, the contrastive feature must have been added to *utan* and *but* after their debut as sentence connectives (see section 4.7.3).

4.2. The etymology of *utan*

The stem *ut* is Indo-European (Varnhagen 1876:4f, Hellquist 1980:1289, Pfeifer 1989:97, Skeat 1953: 417f). In EOSw, it had two basic meanings; it could either add a sense of direction ('out of') to a verb of motion or to a static verb (1. a), or it had the terminative meaning 'to the end' or 'out' (as in *He had to sell his car when his money ran out*). The examples in (1.) are from Söderwall (II:866f):

1. a. fölgde honum genom thän portelin ther the ridha badha **wt** ok in
followed him through that gate-the where they ride both out and in
'followed him through the gate where they ride both **out** and in'

b. om en tw viilt liiffwa aarit **vth**
if you want-to live year-the out
'if you want to live **out** the year'

The affix *-an* was originally an ablative suffix ('from') – in Gothic it had the form *-ana* (Hellquist 1980:18). In OSw *-an* was a productive adverb-forming suffix that added the meaning 'source of movement', and *ut-an* could mean 'from without', roughly. The affix can be found in a number of MSw adverbs: *innan*, *ovan*, *västan*, *fjärran* etc. (the contemporary meanings of these adverbs are 'before', 'above', 'western wind' and 'far away', respectively). In many cases, the ablative meaning has been lost (*utan* can e.g. not mean 'from without' anymore) and speakers of MSw do not perceive of it as directional.

4.3. The basic semantics of OSw *utan*

Since *utan* is a derivation, it is beyond doubt that *ut* at first had a spatial meaning.[57] The suffix *-an* added a new sense of direction to the lexeme *ut*, which in OSw already had a directional meaning. In a way, the suffix turned this direction (from illative to ablative); *ut* denoted a movement out of a house, a village or an encompassed or otherwise confined space in general, whereas *utan* denoted a movement into such a space. The different meanings can be illustrated by a pair of image schemas, in which the trajector moves along a path into or out of a landmark:

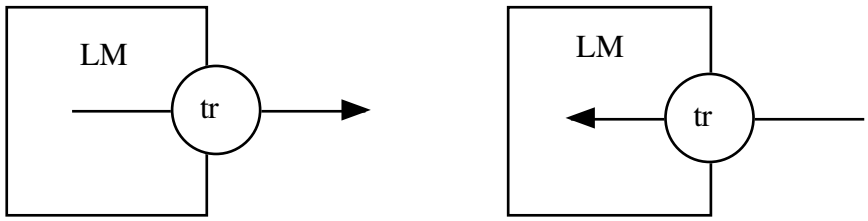

Fig. 2. *Image schemas for OSw* ut *and* utan.

I assume that this is the basic meaning of *utan*, and that the various different meanings that *utan* had in OSw are derived from it.

Utan furthermore had a stative locative meaning 'on the outside'. This reminds us of the stative meaning of English *over,* derived from a more basic motional meaning (Brugman & Lakoff 1988:487ff), or of Swedish *runt* 'around' (Ekberg 1996:33ff), which according to Ekberg has two basic meanings: a dynamic and a stative. In the case of *utan*, the non-directional meaning is focussed on the source of movement, the point outside the enclosed space (contra the hypothesis of end point focus for prepositions argued for in e.g. Lakoff 1987:423f; Ekberg 2001 however mentions MSw *utan* as one of the rare instances of source point focus).

[57] Assuming that an ablative suffix does not attach to non-locative stems.

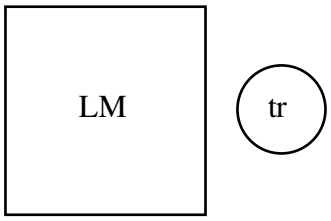

Fig. 3. *Image schema for non-directional* utan.

The path has been deleted from the image schema, then, and what remains is a regular locative ('outside'), or a non-containment schema. Below I will claim that it is this stative meaning that made the succeeding changes of *utan* possible.

The semantic starting point for conditional *utan* seems to be identical with the starting point for Old English conditional *but*, which has been developed from the locative construction *be utan* 'outside' (Traugott 1997:148; this proposal is discussed in section 4.7.4).

4.4. The syntax of OSw *utan*

Söderwall (II:869-871) recognizes three basic syntactic variants of *utan*: an adverbial (2. a; cf. Schlyter 1877:64), a prepositional (2. b, c) and a sentential connective. The latter may be either coordinating (contrastive in 2. d, postsectional in 2. e) or subordinating (2. f); in the latter case it has the meaning 'unless'. The coordinating *utan* may also be used as a clause internal exceptive coordinator (2. g).

2. a. ben brutit sar ær blat **utæn**. ok brutit innæn. (UL)
leg broken wound is black outside and broken inside
'a broken leg is black **outside** and broken inside'

b. barn scal brymsignæ firi **utan** kirkiu. dyr. (ÄVgL)
child shall pre-baptize before outside church door
'the child shall be pre-baptized before, **outside** the church door'

c. Dör man scriptælös præstir buð fangit oc ær **vtan** forfall [...] (DL)
dies man confession-less priest message recieved
and is without excuse
'if a man dies without confession, and the priest has been notified
and is **without** excuse [...]'

d. þa com iacobus ok sagþe. þy at þu bedes þik ænga siala (Leg Bu.)
hialp .i. minne kirkio. þy com þik þæssæ likama qual.
vtan guþ ær naþoghor. ok sænde mik at løsa þin
band: samu stund brusto iarnen.
then came Iacobus and said because that you asked you-refl. no soul
help in my church therefore came you these bodily pains
but God is merciful and sent me to loosen your
bonds same moment broke fetters-the
'then Jacob came and said: since you did not pray in
my church, these torments have fallen upon you. **But** God
is merciful, and he sent me to release you. In the same
moment the fetters came loose'

e. [...] ok þordhe eigh nalkas hænne : **utan** øpte tel hæna (Leg Bu.)
and dared not approach her but called to her
'[...] and [the devil] dared not come near her **but instead** called to her'

f. [...] þa ær þæt atta örtogho sak. **vtan**
skoghær se lagaþer i hæræz ræpst. (ÄVgL)
then is this eight örtug[58] *matter unless*
forest is-subj. put under county court
'[...] then the fine is eight örtugs, **unless**
the forest is under the jurisdiction of the county'

g. Nu ma han änkte af thesso fa **vtan** i samhälde flera manna (KS)
now may he nothing of this get except in company several men's
'now he will acquire none of these **except** in the company of several men'

[58] *Örtug* was an OSw monetary unit – it corresponded to a third of an *öre* (Söderwall II:1197).

Considering this wide range of syntactic functions, it is natural that *utan* in some cases occurs in ambiguous syntactic structures.

All of the syntactic functions of *utan* that were exemplified in (2.) can be found already in the earliest OSw texts. But, and this is crucial, in its function as an anticonditional subordinator *utan* competes with an older anticonditional, *num*, in ÄVgL (from around 1225). In this text we find about 30 instances of subordinating *num*, but only four subordinating *utan* (Bergqvist 1884:53, Wessén III:243). In YVgL (from around 1280) *num* is rarer, and in younger texts it has disappeared completely, seemingly being ousted by *utan* (cf. section 4.7.1). This chronological development indicates, I think, that conditional *utan* is a novelty in our earliest texts.

Also in its function as a contrastive coordinator (as in 2. d), *utan* had a rival: the default contrastive *æn*. In section 4.7.3, the contrastive *utan* (as well as the postsectional *utan*) will be discussed further.

4.5. The initial changes

The basic meaning of *utan* is 'outside' (3. a), but perhaps the most frequently occurring meaning of *utan* in EOSw is 'without' (3. b). A meaning 'except' can also be found (3. c). We also find an *utan* in use as a contrastive coordinator with the meaning 'but' (as in 2. d above), heading a clause. (3. d) is an example of an *utan* that takes a non-nominal phrase as a complement, i.e. a gram that is similar to *except* in *He had been everywhere except in Paris.*

3. a. [...] æn han steþer han **vtan** haraz (ÄVgL)
if he hires him outside county
'[...] if he hires him **outside** the county'

b. Gior man köp wiþir bondans husfru. **wtan** bondans witu [...] DL
makes man purchase with farmer's-the wife, without farmer's-the knowledge
'if a man does business with the farmers's wife **without**
the farmer's knowledge [...]'

c. engin kom liuande til lanz. **utan** apollinaris (Leg Bil.)
no one came alive to land except Apollinaris
'no one came ashore alive **except** Apollinaris'

d. Hawi ængin wizord at kæra til bondans. [...] **vtan**
wm sara mall. (DL)
have-subj. no one right to prosecute for farmer-the except
about wound cases
'noone may have the right to prosecute for the farmer, [...]
except in cases about wounds'

The meaning 'except' signals an exception, of course. In PDE, the meanings 'outside', 'without' and 'except' can be illustrated with the following examples:

4. a. Everyone went swimming **outside** the village.

b. Everyone went swimming **without** any delay.

c. Everyone went swimming **except** Peter.

d. Everyone always went swimming **except** in January.

Henceforth, I will call these meanings locative, excluding and exceptive, respectively. In EOSw, *utan* could be used in all of the meanings exemplified above, but I find it likely that the excluding meaning was developed from the locative, and that eventually the exceptive meaning was developed from the excluding. This is the proposal that is developed below.

Looking at contemporary German and English, we find that the English excluding

without originates from a locative expression meaning 'on the outside' (Skeat 1953:719, ODEE 1966:1010), and *but* has a very similar locative origin (Bosworth & Northcote Toller 1882:136, Skeat 1953:82, ODEE 1966:130, Traugott 1997). So has German *außer* (Grimm & Grimm 1854, Pfeifer 1989:99f). Indeed, *außer* has been used in German with both locative, excluding and exceptive meanings, matching the aforementioned meanings of *utan* perfectly. In modern German *außer* is mainly used as an exceptive gram (5. a and b are quoted from Grimm & Grimm 1854:1030):[59]

5. a. ich bin verschiedene tage **auszer** Leipzig gewesen
'I have been **outside** Leipzig different days'

b. so lange man jung und **auszer** verhältnissen ist, soll man reisen
'as long as one is young and **without** relations, one should travel'

c. Ich habe keinen Freund **außer** dich.
'I have no friend **but** you'

Being more venerable literary vehicles than Swedish, English and German provide etymological data concerning *but* and *außer* that seem to support the hypothesis that there is a diachronic meaning development of the kind locative > excluding > exceptive, as suggested here.[60] At least three Germanic grams (*utan*, *but* and *außer*) thus express (or have expressed) locative, excluding and exceptive meaning. Returning to the examples in (4.), I suggest that they should be analysed as below:

[59] In general, *außer* is followed by a dative complement, but in colloquial speech *außer* may govern accusative case, as in (5. c). *Außer* can also appear with genitive case (*Duden* 1984:366, 370).
[60] Grimm & Grimm (1854:1029) laconically state, however, that *auszer* is "eine partikel, deren geschichte schwierigkeiten hat"

6. a. [CP Everyone [IP went [VP swimming] [PP **outside** the village]]]

b. [CP Everyone [IP went [VP swimming] [PP **without** any delay]]]

c. [CP Everyone [IP went swimming] [CoordP **except** Peter]]

d. [CP Everyone always [IP went swimming] [CoordP **except** in January]]

The locative *outside* in (6. a) and the excluding *without* in (6. b) occupy structural positions where they can modify the event *went swimming*. In (6. c), however, the *except* signals a unique exception to the absolute statement *Everyone went swimming*. Accordingly, I think that the gram *utan* was understood as a locative preposition in contexts like (6. a), as an excluding preposition in contexts such as (6. b) and as a clause internal exceptive coordinator in contexts such as (6. c). Unlike a preposition, this latter gram appears with non-nominal complements (as in 3. d and 6. d) and in cases where the complement is nominal, the complement may be nominative (when it is coordinated with the subject of the clause):

7. a. æ huar barna goz hauer handa mællum, **vtan** faþer ællæ
moþer, han agher huart aar rækinskap af þy göræ för næsta frændum. (MEL)
whoever children's property has hands between, except father-NOM or mother-NOM, he must each year account of this make for next relatives
'whoever who is responsible for children's property, except the father or the mother, he must every year account for this to the closest relatives'

b. Ængin ma til sima iægha, **vtan** kununger (MEL)
noone may to net hunt, except king-NOM
'No one may make a battue, **except** the king'[61]

[61] The quote is from a section regulating wolf hunts. Holmbäck & Wessén (1962: 109, 139) give the background to the phrase *til sima iægha*; in those hunts, the wolves were driven to a net, where the shooters were waiting for them.

These circumstances suggest that the gram is not a mere preposition.[62] Söderwall (I:869ff) categorizes *utan* ('except') with oblique complements as a preposition, but when the gram appears with nominative and non-nominal complements it is categorized as a coordinator. However, this gram does not behave like a common coordinator, since it can not juxtapose two clauses – thus I label it a clause internal exceptive coordinator.

I furthermore suggest that these stages reflect a diachronic development of OSw *utan*, exemplified in (6. a–c). From the stage in (6. a), *utan* went through a metaphorical extension that involved loss of locative meaning, resulting in the excluding gram in (6. b). The excluding *utan* then acquired exceptive meaning, as in (6. c), in contexts where *utan* modified an item that contained an inherent negation (like *no one*) or a universal quantifier (like *everyone*). The emergence of the exceptive meaning furthermore coincided with a syntactic change (preposition > clause internal coordinator).[63] The change seems to be both semantic and syntactic, but, crucially, I think that the formal meaning of *utan* (see below) remains unaltered throughout the changes, and therefore I will consider this change to be nothing but a syntactic reanalysis, which I classify as categorial.

Although the Swedish data can not confirm the chronology of the meaning changes that have been discussed here, the etymologies of German *außer* and English *but* (Pfeifer 1989:99f; Varnhagen 1876, ODEE 1966:130) support the hypothesis that such a path of change is possible, and I will let this suggestion form the basis for the further account of the origin of anticonditional *utan*.

[62] In Swedish the corresponding gram is *utom* (see section 4.7.2). This gram is unique in Swedish: it can not coordinate clauses, and the complement may, if it is nominal, be nominative.

[63] An EOSw exceptive prepositional *utan* would constitute an intermediate stage of this development (from excluding preposition to exceptive coordinator). I have however not been able to find any such uses of *utan* in the investigated texts. In MSw some speakers use *utom* in this manner (see SAG 2:732) – clause internal coordinators constitute an atypical syntactic category, and speakers are, I think, prone to analyse them as either subordinators, coordinators or prepositions.

4.6. The emergence of anticonditional *utan*

The next step is to explain the anticonditional meaning of *utan*. To do so, I will make use of a simple logical formalization, since I think that the similarities in meaning are best illustrated thus, and since I have found that the similarities actually are quite hard to define properly in purely linguistic terms. Another vital part of the explanation is the syntactic freedom of OSw *utan*; as a sentence connective, *utan* could be analysed as either a subordinator or a coordinator depending on the semantic/pragmatic relation between the two clauses involved. The line of reasoning will be that when *utan* is used as a sentence connective, the underlying formal meaning of *utan* allows the gram to be interpreted as either anticonditional or postsectional and, eventually, also as contrastive (cf. 4.7.3).

4.6.1. The formal meaning of *utan*

Trying to formalize the exceptive meaning logically, in a simple manner, we first must realize that 'without', 'except' and 'rather, instead' all express binary relations (as the image schema in figure 3. suggests). Furthermore, the formalization probably must include a negation, and I will argue that the correct formalization of these meanings is:[64]

7. *Logical formalization of 'without', 'except' and 'rather, instead'*

$(p \& \neg q)$

Payne (1985:3) classifies this type of connective as a postsection, remarking that postsections in most languages are "treated analytically as a combination of conjunction and negation, but rarely they may be realized by a distinct synthetic

[64] I assume that the inherent negation in *utan* is cancelled by the negation in the preceding clause when *utan* is used as a postsectional coordinator ('rather, instead').

form". I find it plausible that *utan* is one of these rare grams that express the logical relation postsection (and so are the corresponding grams *but* and *außer*).

4.6.2. The ambiguous syntax of *utan*

Above I have argued that *utan* developed from an excluding preposition into a clause internal exceptive coordinator. One of the differences between prepositions and coordinators is that coordinators generally operate at the sentence level, defining semantic relations between clauses. In this respect coordinators are similar to subordinators, which share this syntactic feature (SAG I:227f): they relate clauses to each other, specifying their semantic relations. But coordinators relate independent clauses to each other, whereas subordinators by definition relate a dependent clause (a subclause) to an independent clause (a matrix clause). As is the case with prepositions and coordinators, the difference between coordinators and subordinators thus appears to be mainly syntactic. It also seems as if the suggested change from clause internal coordinator ('except') to anti-conditional subordinator ('unless') is complex, consisting of both semantic and syntactic transitions. But I will argue that this in fact is a singular syntactic change, which does not affect the underlying meaning of *utan*.

In EOSw, a clause headed by *utan* could be analysed as either a main clause or a subordinate clause, which the following examples illustrate (8. a, b are repeated from 2. d, e):

8. a. þa com iacobus ok sagþe. þy at þu bedes þik ænga siala
hialp .i. minne kirkio. þy com þik þæssæ likama qual. **vtan**
guþ ær naþoghor. ok sænde mik at løsa þin band. (Leg Bu.)

b. [...] ok thordhe eigh nalkas hænne : **utan** øpte tel hæna (Leg Bu.)

c. [...] böte bot mæþ hundræþæ markum ok fiurætighi.
utæn þæt se mæþ waþæ til komit. (UL)
pay-subj. fine with hundred marks and forty
unless it is-subj. with accident PL come
'[...] pay a fine of one hundred marks and forty, **unless**
it has been done by accident'

In (8. a), *utan* is analysed as a contrastive coordinator, in (8. b) as a postsectional coordinator and in the final example as an anticonditional subordinator. Now, considering that there are no distinctive syntactic signs of subordination in (8. c), how do we know that this *utan* is subordinating? The answer must be that the clausal semantic relation disallows a contrastive/postsectional interpretation and/or favours an anticonditional interpretation; the clause headed by *utan* in (8. c) is clearly an adverbial modification of the proposition in the other (matrix) clause. Therefore it is analysed as a subordinated clause: "A clause is considered subordinate if it depends on its occurrence on another" (Hengeveld 1998:335). In (8. a, b), on the other hand, the clausal relation supports a contrastive and a postsectional reading of *utan*, since no adverbial relation between the two clauses can be asserted. The syntactic analysis of *utan* and its complement thus depends on the syntagmatic semantics. Diderichsen (1941:124) formulates the same observation clearly: "It is characteristic for the preposition *utan* that it not only may bind a subordinate clause, but also often functions as a coordinating conjunction ('but', 'sondern'). Hereby the theoretically interesting situation emerges, that one is able with full certainty solely from a logical analysis to distinguish coordination from subordination with full certainty, when all 'outer' criteria fail [...]" (my translation).

In EOSw, there were no compulsory word order differences between main clauses and subordinate clauses (the first instances of the modern Swedish word order in subordinate clauses, where clause adverbials precede the finite verb, appear in the

final decades of the 15th century, cf. Platzack 1988).[65] Thus there were no visible or otherwise tangible signs of subordination in EOSw, except for the possible presence of a lexeme solely used as a subordinator or syntactic phenomena that exclusively belonged in subordinated clauses (stylistic fronting etc.). In those cases where semantic or pragmatic factors supported a hypotactic analysis, virtually any clause could therefore be analysed as a subordinate clause, but when the syntagmatic semantics clearly supported a paratactic analysis, the clause was likely to be analysed as a main clause. In other words, the syntactic analysis of a clause was more often than not a consequence of non-syntactic matters. This freedom of clausal analysis was, I propose, a necessary factor for the split of the clause internal exceptive coordinator *utan* into different types of sentence connectives.

4.6.3. Combining the perspectives: the rise of anticonditional *utan*

The truth values of the formalization that was suggested for both excluding and exceptive *utan* in (7.), i.e. the postsection, are illustrated schematically in table 2 below. In comparison, I also present a formalization for anticonditionals, and the truth values of such a formalization (how to formalize anticonditionals was discussed in section 3.3.3). The relevant truth values, which illustrate the truth values of the entire equations, are in bold:

[62] In contemporary Swedish, only when a clause adverbial is present can one determine the syntactic status of some clauses. For example, subject initial clauses headed by the multifunctional and polysemic *för* ('for' – a gram that signals a causal relation) can be classified at least by some speakers as either main clauses or as subordinate clauses, when no clause adverbial is present to decide the analysis.

postsection:				anticonditionals:			
(p	&	¬	q)	¬	(p	→	q)
t	**f**	f	t	**f**	t	t	t
t	**t**	t	f	**t**	t	f	f
f	**f**	f	t	**f**	f	t	t
f	**f**	t	f	**f**	f	t	f

Table 2. *Truth values for postsection and for anticonditionals.*

As we can see, the truth values for these equations are identical: they are true and false in exactly the same circumstances.[66] Thus, if we accept the formalizations, we also must accept that there is no underlying formal difference in meaning between postsectional grams and anticonditional subordinators. The differences we nevertheless experience must accordingly be caused by factors that do not emanate from the formal meaning: the internal semantics of the clauses (tense, mood, aspect etc.), pragmatic circumstances and syntactic analyses. Concentrating on the sentence connectives, it can be assumed that when these factors support a paratactic analysis, in which the conjoined clauses are independent, *utan* will be classified as a coordinator. But when a hypotactic analysis fits the context better, *utan* will be classified as an anticonditional subordinator. In this way, the emergence of the anticonditional subordinator *utan* must be seen as a result of nothing but a syntactic reanalysis.

So, I suggest that the clause internal exceptive coordinator *utan* was reanalysed as a proper sentence connective, and in cases where a dependent relation was postulated, *utan* was of necessity interpreted as an anticonditional subordinator, due to its underlying formal meaning. The same formal meaning is furthermore, I suggest, present in the postsectional *utan*. Postsectional and contrastive *utan* are further discussed in section 4.7.3.

[66] Geis's (1973) suggestion that *unless* should be paraphrased as "except if p, q" indirectly reveals the relation betweeen *unless* and *except*.

4.7. Other relevant circumstances

As was mentioned in the introduction to this section, anticonditional *utan* had a predecessor. In EOSw, we find the negative conditional *num* in some of the oldest texts, and Bergqvist (1884:53) claims that the appearance of *utan* is directly related to the decline of *num*. Anticonditional *num* and Bergqvist's proposal are the topics of section 4.7.1.

Another relevant gram is *utom*, a compound of *ut* and *om*. In MSw, it is an exceptive preposition/coordinator, and the development it has gone through (see section 4.7.2) is in some points similar to the development of *utan*.

As a postsectional coordinator, *utan* is still in use in Swedish, but only in negative contexts. The contrastive *utan* has been replaced by *men*. The relations between the two instances of *utan* and *men* are commented on briefly in section 4.7.3.

But could be conditional in OE, and since *utan* and *but* have virtually identical etymological backgrounds, their paths of change are similar. Traugott's (1997) hypotheses concerning the emergence of conditional *but* and the PDE anticonditional *unless* will therefore be presented and discussed (in section 4.7.4).

Finally, in section 4.7.6, a possible contra-argument to the hypothesis above will be mentioned and briefly disposed of.

4.7.1. The anticonditional subordinators *num* and *nema*

In the oldest Swedish text, ÄVgL, there are 35 instances of *num*. Three of these can be analysed as exceptive grams (meaning 'except'), but the other ones are clearly anticonditional subordinators (Bergqvist 1884:53f). In other EOSw texts *num* is very scarce, and it can not be found in any texts from the 14th century.

The origins of this gram are unclear. It may be derived from *nema* (see below) as Schlyter (1877:465) claims, but is also may belong to the Scandinavian group of conditional subordinators that *um* is traditionally supposed to be related to (*ef* and

the very rare *æm*), although with a negative prefix *ne-* (Wessén III:245). *Num* very often occurs in the scope of a negation (Wessén III:244); only four of the cases in ÄVgL do not. Wessén furthermore states that *num* (and *utan*) means 'if and only if' in combination with a negation, but otherwise its meaning appears to be 'if not' – however, Wessén does not seem to consider any possible semantic differences between 'if not' and 'unless'.

The descent of *num* coincides with the rise of anticonditional *utan*, more or less, and Bergqvist (1884:53) suggests that anticonditional *utan* filled the gap when *num* for some reason disappeared. But even if these events seem to be chronologically related, they need not be causally related. Anyone who claims that this is the case assumes that there was a need for an anticonditional subordinator in EOSw, and will accordingly be hard pressed to explain why *num* disappeared in the first place, especially since the emergence of conditional *um* (see the following chapter) would have resulted in a nice pair of opposing conditional subordinators: *num – um*. The exact reasons why *num* disappeared will remain unknown, I think.

Christoffersen (2003) discusses the Old Norse *nema*, a gram meaning 'if not', 'but' or 'except'. The etymology of the gram is disputed, but possibly it is composed of the negative particle/adverb *ne* and *efa* ('doubt'), a noun that through syncope eventually changes into *ef* (2003:18f). However, there is only one single token of *nefa* in all Old Scandinavian texts, it seems, and the change *nefa > nema* is of course as problematic as the supposed change *ef > æm*, which is discussed in the next chapter.

Christoffersen has studied *nema* in three ON texts, and she finds that *nema* may be used in some of the same functions and meanings as the EOSw *utan*. In the terminology that I utilize here, *nema* may be a contrastive coordinator (contrastive 'but'), an anticonditional subordinator ('unless')[67] and, finally, a clause internal exceptive coordinator ('except').

Interestingly, Christoffersen notes that *nema* in the latter meaning and function

[67] Christoffersen glosses *nema* as 'if not', but her examples clearly indicate that *nema* really means 'unless'.

does not affect the case of its complement: "When the constituent following *nema* is a constituent that must be inflected for case, then it appears with the same case as the constituent that it is coordinated with in the context" (Christoffersen 2003:21, my translation). She has thus found no prepositional *nema*. This is an indication that *nema* in the sense of 'except' really is a coordinator and not a preposition, even if it does not accept a clausal complement.[68] As for the development of *utan*, this means that there might be no intermediate stage between the excluding preposition ('without') and the clause internal exceptive coordinator ('except'), as was put forth in section (4.5).

Like *utan*, *nema* may also be used as an anticonditional subordinator and as a contrastive coordinator. These grams do not require any preceding negated items. Christoffersen does not suggest any specific diachronical development for *nema*, but proposes, tentatively, and referring to grammaticalization theory, that *nema* first was used as a subordinator (2003:25). She concludes that *nema* is problematic to categorize, and that in the end it must be "the text example and the semantic content that decide whether we are to classify *nema* as a coordinator or as a subordinator" (Christoffersen 2003:23, my translation).

In many respects, *num* and *nema* seem to be quite similar to OSw *utan*, and the analysis of *utan* that is suggested here may possibly be valid for these grams too.

4.7.2. The exceptive *utom*

In EOSw, the prepositional compound *ut-om* had the meaning 'around', 'out through' or 'past' (as in *He went past the station*) (Söderwall II:868). It was thus locative at that time, but in MSw it has the meaning 'except'. The semantic change is likely to have been triggered by a stative meaning of *utom* (which would be identical to the stative meaning of *utan* in an image schema, see figure 3.). In MSw, *utan* can no longer be used as an exceptive gram; *utom* has replaced *utan* in this

[68] Bergqvist (1884) classifies three instances of *num* ('except') in ÄVgL as prepositions, but I think that this gram too really is a clause internal coordinator.

function, and thus the multifunctionality of *utan* has been slightly reduced.

The categorial status of *utom* in MSw is unclear: SAG (1:290) classifies it as preposition *or* coordinator, partly because *utom* can be followed by a nominative noun phrase, unlike regular prepositions (SAG 2:726, 732). On the other hand, *utom* can not coordinate clauses. It hence seems to fit into the category of clause internal coordinators (according to my definition), just like the EOSw exceptive *utan*, ON *nema* and perhaps also OE *but*.[69]

The changes of *utom* are interesting since *utan* and *utom* seem to develop from the same origin (a preposition/adverb meaning 'outside') to a similar meaning/function: a clause internal exceptive coordinator. However, there are very few tokens of *utom* in the texts from the 16th and 17th centuries, which seems to be the crucial period. E.g, in both Horn (1657; about 40,500 words) and Columbus (1675, about 20,300 words) there is only one single *utom* (both are locative), and these single instances of *utom* of course do not reveal the possible spectrum of the gram's meanings and functions. As a matter of fact, *utom* is highly infrequent in all texts from the 17th century that are currently available at Fornsvenska Textbanken. But in Argus (1732-1734, about 213,000 words), there are no less than 43 instances of *utom*, and in this text all relevant meanings also occur: locative (9. a), excluding (9. b) and exceptive (9. c):

9. a. Innom huset sparsam, [...] **utom** huset ärbar och tystlåten.
inside house-the economical, outside house-the decent and silent
'inside the house economical, **outside** the house decent and silent'

b. som om hon aldrig skulle warit ett steg borta **utom** sin Mans Wettenskap
as if she never should been one step away without her husband's knowledge
'as if she never would have taken one step **without** her husband's knowledge'

[69] Varnhagen remarks (1876:7), discussing some examples of the AS *bûtan* ('except'), that "it seems almost impossible to decide in each case, whether 'bûtan' is to be regarded as preposition or as conjunction", and both Diderichsen (1941) and Christoffersen (2003) – both have been quoted above – comment on the similar difficulties in assigning a lexical category to *utan* and *nema*, respectively.

c. all Lycka i Wärlden är [...] blandad med Olycka **utom** förnöijsamheten
all happiness in world-the is mixed with misery except contentment-the
'all happiness in the world is [...] mixed with misery **except** contentment'

Thus, although nearly all tokens of *utom* from the 17th century are locative (there are some singular non-locative cases of *utom* in Runius and Hiärne), I am not able to assert a detailed diachronic change, since the two other meanings seemingly occur more or less abruptly at the beginning of the 18th century. But, although no diachronic development can be asserted, *utom* displays a meaning correlation that is identical to that of *utan*, which indicates that the excluding meaning may be a crucial intermediate step in the change from locative to exceptive meaning (also German *außer* and OE *but* provide the same type of indirect support for the proposed semantic development).

The syntactic changes of *utom* are likewise hard to observe, of course. Apart from the scarcity of *utom*, another problematic circumstance is that Swedish lost most of its case morphology before the relevant period. Pronouns, but not nouns, still display a nominative and an oblique form, however, and thus pronominal complements may reveal whether *utom* is used as a preposition (*utom* is followed by an oblique form) or as a coordinator (the case of the complement is decided by the first conjunct). The crucial cases are therefore contexts when a subject is followed by *utom*+pronominal complement. Considering the scarcity of *utom*, such revealing contexts are however virtually non-existent in the essential texts – out of the 43 *utom* in Argus, none displays the relevant syntactic context, as far as I can tell.

All in all, I conclude that more texts than are currently available at Fornsvenska Textbanken are required in order to enable a proper study of the development of the MSw exceptive *utom*. At the present stage, the changes of *utom* do not contradict the hypothesis regarding the development of *utan* that was presented above, but neither do they directly support it.

4.7.3. The contrastive coordinators *æn*, *men* and *utan*

The default contrastive coordinator in EOSw was *æn*. The gram had extremely many functions and was thus very frequent in EOSw; Söderwall (II:1111–1117) recognizes the following main functions of *æn*: adverbial, contrastive coordinator, comparative subordinator, interrogative subordinator and conditional subordinator. The etymology of *æn* is unknown (Wessén III:238; but see Kotcheva 2002:150 and Christoffersen 2003:14).

As we have seen, *utan* was also used as a contrastive coordinator (but not as frequent as *æn*), and in the middle of the 15th century yet another such coordinator, *men*, was borrowed from Low German (Söderwall II:81).[70] The old *æn* ceased to function as a contrastive coordinator eventually, and in modern Swedish the coordinating *utan* may only be used in negative contexts, unlike *men*:

10. a. Han har inte varit i Paris, **utan** han har varit i London.
'he has not been in Paris, **but** he has been in London'

b. *Han har varit i Paris, **utan** han har också varit i London.

c. Han har inte varit i Paris, **men** han har varit i London.
'he has not been in Paris, **but** he has been in London'

d. Han har varit i Paris, **men** han har också varit i London.
'he has been in Paris, **but** he has also been in London'

Now, comparing (10. a) and (10. c), is there a semantic difference? Since there is no situation in which (10. a) would be true and (10. c) false, there can be no formal differences in meaning. However, there is a clear contrast:

[70] Later, in EMSw (Hellquist 1980, I:201f), another originally German contrastive coordinator was developed: *fast*.

11. Han har inte varit i Paris, **utan/??men** han har varit sjuk.
'he has not been to Paris, **but** he has been ill'

SAG (2:730) states that *utan* is only used in negative contexts and only when "two alternatives in the given context exclude each other" or "when the speaker presupposes that in a certain situation two mutually excluding alternatives exist" SAG (4:934) (my translations). That is to say, *utan* signals a relation where it is expected that one of the items in the coordination must be untrue. Considering (11.), it is clear that you do not normally travel to Paris in a state of unhealth – the alternatives exclude each other. Therefore *utan* can be used here, but not *men*. *Men*, on the other hand, conveys a feature of contrast (cf. Rudolph 1996) and is accordingly used to mark an unexpected state of affairs: "what is said in one of the syntagms in some way contrasts with what is said in the other" (SAG 4:926, my translation). Also in German and Spanish this difference is manifested; von Klopp (1994:9)[71] offers an illustration of the situation:

12. *Contrastive and non-contrastive coordinators in four languages*

English	Spanish	German	Swedish	label
but	*pero*	*aber*	*men*	contrastive
but	*sin*	*sondern*	*utan*	non-contrastive

From a formal semantic perspective, MSw *utan* is an example of a postsectional coordinator (Payne 1985:3; see also above). In OSw, however, *utan* was also used as a contrastive coordinator (corresponding to MSw *men*), which was shown in (2. d). Although the question how these functions and meanings have emerged does not form part of the investigation proper, I will briefly present a possible explanation.

[71] Von Klopp's (1994) analysis of these two types of coordinators is based on covariation with negations; the problems that von Klopp addresses are however better illuminated by Rudolph (1996), I think, who suggests that the speaker-based feature of contrast is the key factor.

When *utan*, as a clause internal exceptive coordinator (as in 4. c, 6. c), was reanalysed into a sentence connective, I have claimed that *utan* was interpreted as 'unless' in cases when a dependent relation was established. However, when the two conjoined clauses were independent of each other, I think that *utan* was primarily understood as a non-contrastive postsectional coordinator. We have seen that negations and universal quantifiers triggered an interpretation of *utan* as a clause internal exceptive coordinator, and the MSw as well as the OSw postsectional coordinator *utan* requires a negation in the juxtaposed clause.[72] Therefore it is plausible to assume that the postsectional coordinator *utan* is the result of a syntactic reanalysis, where no actual semantic change has occurred (this change is of course not included in the investigation). Just like the clause internal exceptive coordinator, the postsectional coordinator signals an exception – the difference is that the latter gram signals an exception from a clause external circumstance.

As for the contrastive coordinator *utan,* I think that it was developed when hearers assumed that the negation present in the postsectional coordinator expressed a failed expectation, rather than a true negation of the second part of the coordination. It is quite easy to find contexts where both interpretations are possible:

13. Calvin has not washed the car, **but** he has cleaned his room.

The interpretation of (13.) is decided by which world Calvin lives in. Let us assume that Calvin's parents have told him that he must either wash the car or clean his room. Then, when Calvin's mother asks *Has Calvin washed the car?* and Calvin's father utters (13.), *but* must be interpreted as a postsectional coordinator. A

[72] A universal quantifier is not enough:

*Alla köper alltid allting, **utan** Kalle säljer böcker.
'everybody buys always everything, **but** Kalle sells books'

Universal quantifiers, unlike negations, probably do not affect the sentential semantics of the entire initial clause (clauses may be marked as negative, but not as universally quantifying) and thus the necessary matrix for the *utan*-clause is absent.

contrastive interpretation is on the other hand necessary if Calvin has been ordered to wash the car, but instead, to the astonishment of his parents, cleans his room. In the first case, the expectation is A (wash the car) or B (clean the room), and since A is unfulfilled, B is expected. Here MSw *utan* would be used. In the second case, the expectation is merely A, but instead of A, B unexpectedly turns out to be the case. In this case, MSw *men* must be used.

In this view, the feature of contrast that was present in OSw *utan* was a result of a reinterpretation that was triggered by discourse context, where a lexical semantic feature was understood as a reflex of the speaker's attitude to the utterance – in other words, a clear case of subjectification. On this note, Varnhagen remarks: "The transition from the exceptive to the adversative meaning is natural and easily explained inasmuch as an exception may well be contrary to the rule" (Varnhagen 1876:33).

Eventually, the contrastive *utan* could also be used as a clause internal contrastive coordinator. The emergence of this function remains to be investigated in detail. The same applies for the entire hypothesis concerning the diachronic relation between the two types of coordinators that have been presented in this section.[73]

4.7.4. Old English conditional *but* and *unless*

PDE *but* is derived from a locative *be utan* (Varnhagen 1876:1ff, Skeat 1953:82, Traugott 1997:148) and it was used as an anticonditional ('unless') in English from the middle ages to about 1600. Thus the etymology of *but* is highly relevant for any account of OSw *utan*; in this section Traugott's proposal (1997) regarding the origins of OE *butan* and PDE *unless*, another anticonditional subordinator, is criticized. First, however, the uses of *butan* in Anglo-Saxon are presented,

[73] Kotcheva (1999) suggests that the Swedish postsectional *utan* may have been kept partly as an anti-Danish marker; during the 16th century, Denmark and Sweden were political enemies and Kotcheva's idea is that an archaic postsectional *utan* was conciously used in the Swedish translation of the Bible (1541) as a contrast to the Danish *men*. Thereby it was guaranteed a continuous existence.

following Varnhagen (1876).

Butan was used as an adverb, a preposition and as a conjunction already in Anglo-Saxon (Varnhagen 1876:5ff), and Varnhagen finds the following meanings of AS *butan*: 'outside', 'without', 'except' and 'unless'. He assumes that the meanings have developed in this order (but it is not clear from his examples whether these meanings also appear in the texts in this diachronic order), and he furthermore claims that the anticonditional subordinator has been developed through univerbation (*butan that* > *butan*). Mitchell (1985:820) firmly rejects this proposal, however, and he argues, convincingly, that *butan that* did not evolve into a complex subordinator and that the relevant constructions accordingly are nothing but pure *that*-clauses governed by *butan*.

Varnhagen (1876:9ff) also discusses a type of sentence which he calls "the real exceptive sentence", in which *butan* appears to be used as a postsectional coordinator. However, Varnhagen neither glosses nor analyses the proffered examples, and I am not able to determine the exact syntactic structure or the exact meaning of the quoted AS sentences (cf. Mitchell 1985:822), but Traugott (1997) asserts that a postsectional *butan* was in use as early as the 9th century (see below). It is however certain that there was no contrastive *butan* in AS (Varnhagen 1876:33).

The meanings and functions of AS *butan* are strikingly similar to the meanings and functions of EOSw *utan*, and it is very plausible that these two grams have developed along the same paths, I think, given that their etymological origin (an adverb meaning 'outside') is identical. The entire development of these grams does not seem to be recoverable from the preserved medieval texts, unfortunately, and therefore the hypothesis concering the path of change that is presented here can not be backed by data. This circumstance is of course problematic for anyone who intends to explain the changes, and such explanations must accordingly be considered mainly from factors such as coherency and plausibility. Unlike the hypothesis I have put forth here, Traugott's (1997) proposal concerning the

development of *but* is, in my view, neither coherent nor plausible.

The fundament for Traugott's hypothesis is the negative construction *ne... butan* ('not... but'). According to Traugott (1997; it should be noted that Traugott does not refer to either Varnhagen 1876 or Mitchell 1985), *butan* could be used as a sentence connective as early as the 9th century, either with or without a preceding negation "although a negative context is often preferred" (Traugott 1997:150). It is frequently found without any negation in Old English, though, and Traugott suggests that such negation-less *butan* was made possible since "the connective introduces a clause and therefore a *ne* in the main clause with scope over *butan* could potentially create unwanted scope ambiguity" (1997:150). The result of this change was the anticonditional *butan*, Traugott proposes. However, there are no indications in Varnhagen (1876:9ff) that *butan* required a preceding *ne* in Anglo-Saxon, or even that *butan* mostly occurred in the scope of *ne* or any other negation. Therefore I see no justification for the assumption that *ne... butan* is the fundamental construction in this path of change. I also question the proposed cause of the change: the unwanted scope ambiguity. Here Traugott assumes that the speakers of OE actually removed an unwanted item from their language due to their preference for easy syntactic processing. This I find highly dubious, especially since negations express a very robust meaning, a meaning which may be transferred to another gram in a process of language change, but which probably never is simply omitted.

In my view, the explanation of the development of EOSw *utan* that has been presented here can also be applied in the case of *butan*. As an exceptive preposition, *butan* had the semantic features that were necessary for further syntactic change, and accordingly the negation may not have been a prerequisite for the change. I consider it reasonable that *butan* retained its inherent negative feature (contra Traugott 1997), just as *utan* did, and that it was analysed as an anticonditional subordinator and as a postsectional and contrastive coordinator in exactly the same contexts as *utan*. I have not found any counterevidence against this theory in the data that Traugott presents,

nor in the data presented by Mitchell (1985 II:818-831), nor in Varnhagen's (1876) extensive account of the meanings and functions of *but* throughout the history of English. Varnhagen (1876:8) actually claims that "the original meaning of this word is 'except', and [...] in almost all its uses the word may be explained from this meaning". So, unless contradictory data are presented, the theory that *but* changed in a similar fashion as *utan* should be preferred to a more complex explanation. Just like *utan*, *but* has survived as a postsectional coordinator in contemporary language,[74] but not as an anticonditional subordinator.

Another anticonditional subordinator, *unless*, is still in use in PDE.[75] Traugott (1997:154ff) presents several examples of the source construction *in/on/of lesse than*. As for the element of negation in *unless*, it is assumed that this is due to folk etymology, speakers having confused the *un* in *unless* with the negative derivative prefix *un-*.

Again I find Traugott's explanation only partially convincing. To me, it seems as if *unless* has evolved from the combination *on less than* through a regular process of univerbation (Braunmüller 1978). As for the negative element, I would assume that it is already present in the meaning of the source construction: *less than* equals *no more than*, and a formalization of *less than* would necessarily include a negation.[76]

English *lest* offers another example of how the gram *less* can contribute in the grammaticalization of subordinators. It originated in an OE *ðy læs ðe*, with the meaning 'for the reason less that' (Skeat 1953:337, ODEE 1966:524) and in a univerbation process the first item was dropped and *læs ðe* coalesced into one gram: *lest*. Interestingly, *lest* contains, just like *unless*, a negative feature. Skeat

[74] PDE *but* is used as a clause internal exceptive coordinator, as a non-contrastive postsectional coordinator and as a contrastive adversative coordinator. In MSw, these three functions/meanings are lexically realized as different grams: *utom*, *utan* and *men*, respectively. This circumstance facilitates an analysis of the semantic differences, and it also simplifies the interpretation of the OE data, I think.

[75] In OSw, some examples of an anticonditional *medh mindre* ('with less') can be found (Wessén III:245). This seems to be a direct counterpart to *on less than*. In MSw, *med mindre* is still used as an anticonditional subordinator, but it is infrequent and belongs to literary style; *med mindre* is however more common in Danish, it seems.

[76] The properties of PDE *unless* are discussed by Dancygier (1998:167-178) and Declerck & Reed (2000, 2001:447-460).

(1953:337) assigns it the meaning 'for fear that, that not' while ODEE (1966:524) offers the definition "(so) that .. not". Considering that the negative feature in *lest* can not be attributed to folk etymology (as Traugott claims is the case with *unless*), it must reasonably emanate from *less* (or *læs*) itself. This is an implicit argument for the hypothesis that the negative streak in *unless* is also due to *less*, and not to a re-etymologized *un-*.

4.7.5. Grams that express both exceptive and anticonditional meaning

Above I have argued that the exceptive and the anticonditional meanings are synonymous, from a formal semantic perspective. I have also given some examples of grams that, like OSw *utan*, may express both of these meanings. However, a quick survey[77] has shown that this meaning correlation can be found in a number of languages:

14. *Grams that express both the meaning 'except' and the meaning 'unless'*

Old English	*but*	Hebrew	*'hutz*
Middle English	*except*	Arabic	*'illa*
German	*außer (wenn)*	Latin	*nisi*
Old Swedish	*utan*	French	*sauf (que)*
Old Swedish	*num*	Spanish	*salvo (que)*
Old Norse	*nema*	Italian	*tranne (se)*

Of the grams above, at least *but*, *außer*, *utan* and *'hutz* are also related to a locative meaning ('outside'; the Hebrew word is *ahutza*). Here I have argued that the three former grams have acquired the meanings 'except' and 'unless' through a diachronic development. It remains to be investigated whether similar developments have produced the meaning correlation in the remaining cases, or whether it has

[77] I simply asked for such a meaning correlation on Funknet (funknet@mailman.rice.edu), an e-mail list for functional linguists. I thank all the contributing Funknetters!

been caused by other circumstances. In either case, the extensive list (which, I am certain, is far from complete) indicates that there really is some form of strong semantic relation between the relevant meanings.

4.7.6. A possible contra-argument

Conditional *om* is related to the preposition *om* (see the next chapter), and a natural assumption would be that *utan* has developed in a similar way, through univerbation. However, a necessary step towards the single conditional *om* is a two-word subordinator (*um æn*), but as for *utan*, no such combination is either frequent or conspicuous in the material. There are in fact very few combinations of *utan* plus a possible coordinator or subordinator in the texts. In KS, e.g, there are in total 87 *utan*, and only four of them occur together with a possible subordinator/coordinator. The other investigated texts display approximately the same numbers, and thus there is no evidence for a univerbational change from preposition to subordinator.

4.8. A sketch of the changes of *utan*

From a locative preposition, *utan* changes into an excluding preposition and into a clause internal exceptive coordinator. This item then gives rise to the anticonditional subordinator (and the contrastive and postsectional coordinators, not illustrated here). This chain of change consists of 3 steps, of which the initial is a pure semantic change (indicated by the circle in figure 5. below), whereas the following two changes are syntactic reanalyses (indicated by squares in figure 5.). In these reanalyses, the underlying formal meaning is unaltered, but the surface meaning is changed according to the new linguistic context (‘without’ > ‘except’ > ‘unless’).

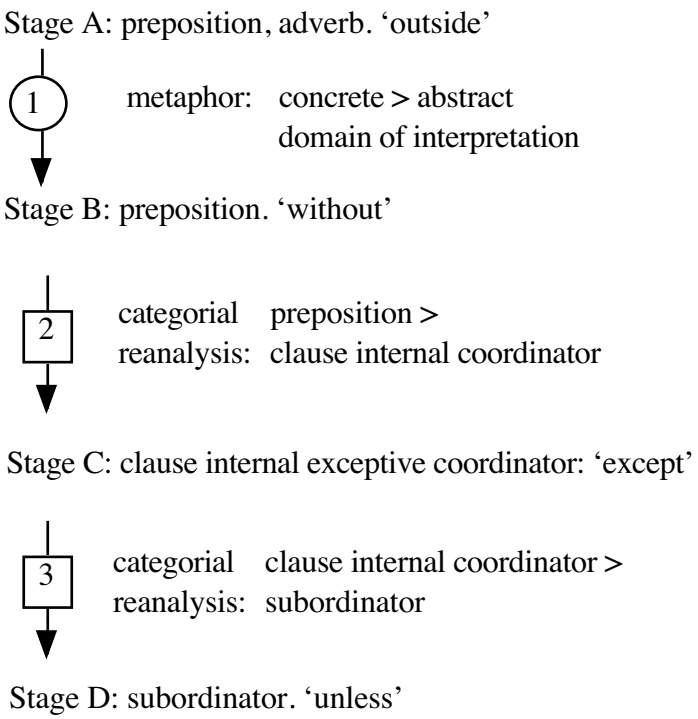

Fig. 5. *The changes of* utan.

Changes 2 and 3 are problematic, in several respects. First, both changes appear to be both semantic and syntactic – no intermediate stages, such as an exceptive preposition, have been found. On the other hand, the semantic change affects only the surface meaning of *utan*, whereas the formal meaning remains unaltered, according to my analysis. From a formal semantic perspective changes 2 and 3 are thus non-complex syntactic changes, i.e. categorial reanalyses. Second, I have categorized the syntactic reanalyses as categorial, although scope increase is also an effect of change 2. Given that prepositions, clause internal cooordinators and coordinators differ both categorially and with respect to syntactic scope, one could claim that it is virtually impossible to determine whether a reanalysis actually is categorial, in which case the scope increase is a side effect, or whether it is a hierarchical reanalysis that also yields a categorial change. In my analysis, I have therefore considered that these elements also accept different types of complements, and that prepositions issue case whereas coordinators do not. There are thus manifest

syntactic differences between them, differences that are not directly related to syntactic scope, and consequently I assume that changes 2 and 3 primarily are categorial changes.

In the following section, the suggested changes will be discussed from the perspective of grammaticalization theory (including Roberts & Roussou's 1999, 2003 view of grammaticalization).

4.9. Are the changes of *utan* a case of grammaticalization(T/S)?

In this section, the possibility to align the suggested changes of *utan* with the distinctive traits of grammaticalization(T/S) (as presented in sections 2.3 and 2.4.2.2) will be discussed. First the semantic aspects of the changes will be in focus (section 4.9.1), and then the morphosyntactic and syntactic aspects (section 4.9.2). The section ends with a conclusive illustration of in the degree to which the changes of *utan* can be seen as an instance of grammaticalization(T/S).

Utan is an exception in the present work, as was pointed out in the introduction to this chapter; the main parts of the diachronic development of each of the investigated grams have been traceable in the texts, except for the development of *utan*. Therefore one could argue that my assumption regarding *utan* is a mere reconstruction and accordingly that it can not be used in this evaluation – evaluating a reconstruction which itself is founded on a theory of language change is of course circular. However, *utan* has cognates in German (*außer*) and OE (*but*), and for these grams, data that appear to corroborate the assumed development are available (although the exact diachronic developments of both *außer* and *but* remain to be investigated in more detail). Given this, and the few diachronic clues that OSw nevertheless has to offer, I find it highly likely that *utan* has gone through exactly the stages that were proposed above. Hence, I will include the changes of *utan* here, letting them represent a path of change that also OE *but* followed.

From a more general perspective it may be pointed out that as long older texts are

unavailable, the written sources can not reveal the complete evolution of conditional *utan*. Therefore, as a historical linguist one must make a choice: either to use the available material and try to construct an etymology that is as coherent as possible, or to abstain from making any etymological attempts on the grounds that the source material is insufficient. In the case of *utan*, I have chosen the former path.

4.9.1. Semantic changes

The semantic changes of *utan* are summarized in (15.) below.

15. *The semantic development of* utan

‘outside’ > ‘without’ > ‘except’ > ‘unless’

For the following account, (15.) is a point of departure. The changes are discussed in depth below.

4.9.1.1. Bleaching

Bleaching signifies a loss of lexical meaning, and it has been a well-known ingredient of diachronic language change since the 19th century and onwards (cf. Sweetser 1988:389, Hopper & Traugott 1993:87).

From (15.), it seems as if *utan* has been semantically bleached. *Utan* had some lexical meaning as an adverb (‘outside’), as it specified the location of an activity (*He was smoking outside*), but this locative meaning was lost in the first change of meaning. So, *utan* was semantically bleached, but this was only the first step in the chain of semantic changes; the following steps are developments within the field of non-lexical meaning.

4.9.1.2. Abstraction

Heine et al (1991:48) suggest a cline of semantic levels which grammaticalizing grams may travel through, given that the semantic changes are due to metaphoric shifts of cognitive categories. It was illustrated in section (2.3.2), but is repeated here for convenience:

16. PERSON > OBJECT > ACTIVITY > SPACE > TIME > QUALITY

Utan was originally a locative adverb, and thus belonged to the cognitive category Space. As it acquired the meaning 'without', however, as a preposition, it did start to appear with an assortment of complements; according to Heine et al (1991:52), the placement of *with* in a cognitive category depends on the type of complement, and the same principle for categorization in cognitive categories must be valid for *utan*. Their examples can be transferred to *utan*:

17. a. Han kämpade **utan** John. (Person)
'he fought **without** John'

b. Han kämpade **utan** kniv. (Object)
'he fought **without** a knife'

c. Han kämpade **utan** skicklighet. (Quality)
'he fought **without** skill'

So, it seems as if *utan* does not follow the predicted sequence. As an excluding preposition ('without') it can appear in two categories (Person and Object) which actually are lower (in the proposed cline) than Space, the starting point.

On the other hand, it is the entire prepositional phrase rather than the single *utan* that should be assigned a categorial level, which is true also for *with*: "That the preposition 'with' refers to entirely different categories or experiental domains

appears to be a function of the differing contexts in which it is used rather than of its own conceptual characteristics" (Heine et al 1991:53). As adpositions by definition do not appear without complements, it is accordingly virtually impossible to place an isolated preposition in a certain cognitive category; this reveals an intrinsic weakness in Heine et al's model. The change of *utan* from 'outside' to 'without' is therefore only a possible contradiction to Heine et al's proposed sequence of cognitive categories – the model really can not be applied to explain the semantic changes of prepositions. Neither can the remaining semantic changes of *utan* be illuminated by this model, as they all occur within the category Quality.

4.9.1.3. The image schematic structure of *utan*

In section 4.3, I suggested that the basic meaning of *utan* ('outside') could be illustrated in a simple schema, which is repeated here:

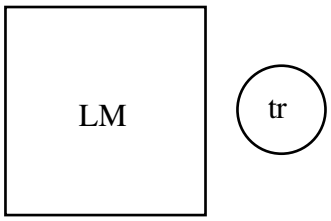

Fig. 6. *Image schema for non-directional* utan.

The examples of the different meanings of *utan* from section (4.5) are repeated below (in 18.):

18. a. Everyone went swimming **outside** the village.

b. Everyone went swimming **without** any delay.

c. Everyone went swimming **except** Peter

How the different meanings exemplified above may be captured in an image schema is illustrated in figure 7:

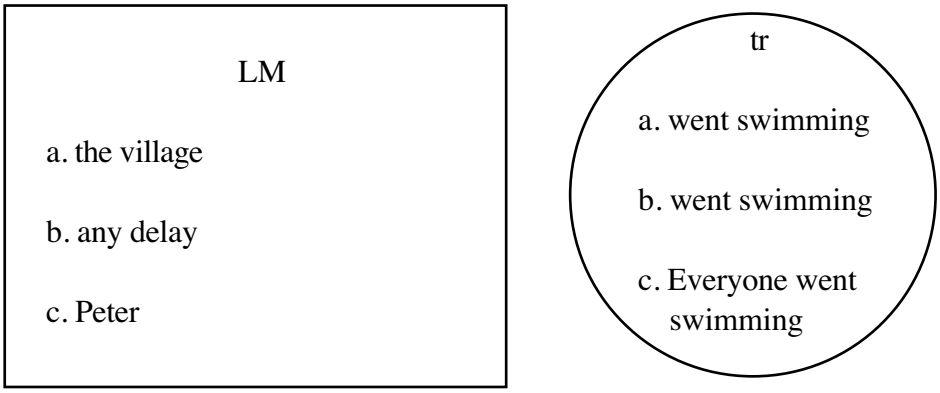

Fig. 7. *Denotations of landmark and trajector in different meanings of* utan.

In the locative meaning, *utan* ('outside') simply places an event outside a given location (a literal landmark), while the excluding *utan* ('without') denotes that the notion of delay does not belong to the event *went swimming* – a more illuminating example is perhaps *a cat without a tail*, where the cat (the trajector) obviously does not belong to the set of things with tails (the landmark). The clause internal coordinator *utan* ('except') may be seen as an item that operates with speech acts – above it signals an exception to the assertion *Everyone went swimming*.

On the other hand, the subordinating *utan* ('unless') did not operate with speech acts, given that an adverbial clause does not constitute a speech act of its own. Turning to the problem how to illustrate the anticonditional 'unless' and the contrastive 'but' in image schemas, the primary concern must be to try to include the new features of the subordinator and the coordinator in the schema. For the

anticonditional *utan*, these are causality and hypotheticality, while the adversative *utan* signifies contrast. Causality can be illustrated in a force schema, following Johnson (1987:47) or Achard (1996), but as for contrast and hypotheticality, I fail to see how these vital features could be adequately rendered in any image schematic structure, as they do not emanate from any lexical meaning that can be topologically structured (cf. section 2.3.1). Thus I will not suggest any image schemas for anticonditional or contrastive *utan*.

As contrast and hypotheticality probably are vital meaning components in the paradigms of coordinators and subordinators (cf. Payne 1985, Rudolph 1996, Hengeveld 1998), it follows that numerous such grams probably can not be assigned any image schematic structure.

An analytical alternative to the image schematic meaning may be the formal meaning; image schematic meaning is an underlying type of meaning that typically can be reflected in a number of surface meanings, and it is often not directly observable. The same applies to formal meaning. Another similarity is that not all linguistic items can be assigned an image schematic meaning, just as not all items contribute to the formal semantic structure and hence can not be assigned a formal meaning. Here I have proposed that *utan* actually can be formalized, and that the formal meaning is an inherent property of *utan* that is present throughout the path of change – there are hence grounds to ponder a principle of preservation of formal meaning in language change, a principle that in many respects would be similar to the concept of image schema preservation. Roberts & Roussou (2003:218ff) suggest that grammaticalization is accompanied by retention of formal meaning, and in section (9.5) I discuss this notion further.

4.9.1.4. Subjectification

In section (2.3.3), the process of functional-semantic change and subjectification was defined (in the lines of Traugott 1980, 1982) as the movement of a gram from

expressing propositional (lexical) meaning to textual meaning, or from expressing textual meaning to inter-personal meaning. In the later stages of this development, grams may start to express speaker opinions – hence the term subjectification. Conditionality must accordingly be categorized as a form of textual meaning, as a regular conditional sentence does not convey any distinct attitudes or beliefs on the part of the speaker.

Applying this view to the semantic changes depicted in (15), we find that the adverb *utan* ('outside'), the presumed starting point of the grammaticalization of conditional *utan*, did indeed belong to the propositional component of language. But as soon as it was used as a preposition, it also expressed a textual meaning, since a preposition and its complement invariably are linearly and hierarchically ordered. This is accordingly a case of functional-semantic shift that is reflected in the lexical categoriality of the gram in question.

Under the assumption that adversativity (or contrast) is a speaker-based meaning, *utan* also evolved into an element expressing inter-personal meaning, a contrastive adversative coordinator (this change is not included in the investigation, as it did not form part of the changes that led to the conditional subordinator). This shift also of necessity involves a change of the categorial status of *utan*, I think, since prepositions do not seem able to express contrastive meanings. This is in fact a widespread asserted difference between prepositions and coordinators (see Payne 1985, SAG:chapters 10 and 11). In her survey of contrastive connectives, Rudolph (1996:33) states that "Latin *sed*, English *but*, German *aber*, Spanish *pero*, Portuguese *mas* are grammatically classified as conjunctions", i.e. when these grams are contrastive they are categorized as coordinators, and not as prepositions. The classification of OSw *utan* in Söderwall (II:870) seems to follow this main pattern. So, the meaning of *utan* (and *but*) seems to be interrelated with its syntactic function and vice versa: as a preposition, *utan* can not be contrastive.

Utan also evolved into an anticonditional subordinator. Since *utan* as an anticonditional subordinator does not express speaker attitude, the shift from

'except' to 'unless' can not be seen as an instance of subjectification, unlike the shift from 'except' to the contrastive 'but'.[78]

4.9.1.5. Meaning retention and source determination

A fundamental assumption in my explanation of the meaning changes of *utan* is that it is the formal meaning of *utan* that governs the semantic changes. If this is the case, then the path of change is determined by the source, and the resulting anticonditional subordinator also displays retention of (formal) meaning.

4.9.2. Morphosyntactic changes

Utan originated as a VP-adverb/preposition ('outside'). According to the analysis presented in section (4.5), the phrase headed by *utan* went through an increase of structural scope during *utan*'s change into an anticonditional subordinator. The stages of interest are exemplifed in (19.) below, and syntactic analyses are suggested:

19. a. Han waknadhe wm sidhe **vtan** allan wærk (Leg Bil)
he awoke eventually without all pain
'he woke up eventually **without** any pain'

[CP [IP [VP] [PP **vtan** allan värk]]]

[78] Bybee et al (1994:11ff) claim that multiple grammatical meanings can not develop in parallel, and, consequently, that a gram that expresses several grammatical meanings is a piece of synchronic evidence for a chain of grammaticalization, where the meanings represent different stages of the change. This study is not suited for testing this hypothesis, since I am interested in a single line of change (from source to conditional subordinator), but the proposed change of *utan* suggests that the meanings 'unless' and contrastive 'but' both emerge from the common semantic source meaning 'except'. Such a change does not follow the strong claim of Bybee et al.

b. engin kom livande til lanz. **utan** apollinaris (Leg Bil.)
no one came alive to land except Apollinaris
'no one came ashore alive **except** Apolinaris'

[CP [IP] [CoordP **utan** apollinaris]]

c. Hawi ængin wizord at kæra til bondans. [...] **vtan**
wm sara mall. (DL)
have-subj. no one right to prosecute for farmer-the except
about wound case
'no one may have the right to prosecute for the farmer,
except in cases about wounds'

[CP [IP] [CoordP **vtan** wm sara mall]]

d. Hwar sum þæn dræpær. han ærwæ atti. han ær skildær
wiþ arff. [...] **utæn** þæt se mæþ waþæ til komit. (UL)
who rel. it kills he inherit may he is separated
from inheritance unless it is-subj. with accident PL happened
'whoever kills the one that he may inherit, he has forfeited
his inheritence, **unless** it was done by accident'

[CP [IP] [CP **utæn** thæt se mædh wadhæ til komit]]

In (19. a), the prepositional phrase functions as a pure VP-adverbial, whereas the *utan*-phrase in (19. b) restricts the proposition in the IP – a clear scope increase. The scope increase can be seen as a side effect of the categorial reanalysis, given that prepositions and coordinators by definition occupy different structural positions. The change appears to be fully in line with grammaticalization as defined by Tabor & Traugott (1998), but in this case, move is not replaced by merge, I think, and therefore it is not an instance of syntactic simplification as defined by Roberts & Roussou (1999, 2003; see section 9.8)

(19. c) is another example of *utan* as a clause internal coordinator, taking a non-

nominal phrase as a complement. In (19. d), finally, *utan* serves as an anticonditional subordinator in a clause that functions as an adverbial in the IP. According to my analysis, the latter changes do not affect the scope of the *utan*-constituent within the matrix clause, as the phrase/clause headed by *utan* remains an adjunct to the IP in (19. b–d).

In (19. c) *utan* is followed by a non-nominal complement, an overt syntactic sign of the change from preposition to coordinator and an intermediate stage (a clause internal exceptive coordinator, which corresponds to the MSw *utom*) between the preposition and the coordinating and subordinating *utan*. I claim that *utan* went through only one increase of structural scope, but, crucially, *utan*'s complements also become increasingly heavier or larger as the gram changes from preposition to clause internal coordinator and subordinator. This can be seen as another kind of scope increase, caused by the categorial reanalysis: a preposition in general only operates with nominal complements, whereas a coordinator conjoins items of various categories and a subordinator of course heads a full clause.

4.10. Conclusion

In this chapter, the development of *utan* from preposition/adverb to conditional subordinator has been described in detail, and I have found the entire chain of change to consist of three changes. In the final section these changes have been discussed from the perspective of grammaticalization theory. Most aspects of the changes fit well into the standard view of grammaticalization(T). Concerning image schema preservation, however, it is impossible to tell whether the final stages of the development follow the predictions or not, and it is likewise impossible to evaluate the development in terms of abstraction.

The relevant features of the changes of *utan* are summarized in the table below. A "yes" indicates that the development (or parts of it) follows the predictions of grammaticalization theory, a "no" that the actual development contradicts or does

not follow the expectations of grammaticalization theory, a "?" means that no evaluation can be made and a dash ("–") signifies that this aspect has not been relevant in the actual development.

20. *The changes of* utan

bleaching	yes
abstraction	?
subjectification	yes
source determination	yes
semantic retention	yes
image schema preservation	yes
structural simplification	no

In chapter 9, I will return to *utan*. There these findings will be further discussed, together with the changes of *om*, *hvar*, *ifall* and *bara*, in a search for generalizations concerning the development of conditional subordinators, patterns of change and the nature of grammaticalization.

5. THE EMERGENCE OF CONDITIONAL *UM*

5.1. Introduction

Om is the default conditional subordinator in MSw. The gram can also function as a preposition (spatial, temporal or textual), as a verb particle and as an interrogative subordinator.

The first occurrences of *om* as a conditional subordinator can be found in the headings of ÖgL, and in DL and YVgL.[79] At this time, *om* (or *um*, the OSw form which I will use henceforth) was already in use as a conditional subordinator in Danish, and it is possible that the emergence of conditional *um* in Swedish was influenced by Danish.

There are two mutually exclusive proposals regarding the etymology of *um*. The traditional etymology, found in both Swedish and Danish dictionaries, is that it is derived through sound change from *ef*, a conditional subordinator that most likely was common to all the Scandinavian languages in the Viking Age. This proposal was extensively argued for by the prominent Swedish Neogrammarian Kock (1886) and it is presented in all Swedish authoritative works of reference.

The alternative etymology stems from Leffler (1877); he assumes that the conditional *um* is identical to the preposition *um* and that it has become conditional through reanalysis of the two-word subordinator *um æn*. Leffler's etymology was refuted by Kock (and others), but I will nevertheless try to revive it, showing that some of the arguments against it were hollow, and that some of the arguments for Kock's hypothesis are not as strong as has been claimed.[80]

At the end of the chapter, further relevant linguistic circumstances concerning the

[79] Traditionally, ÖgL has been considered to be one of the oldest provincial laws, but recently it has become clear that it may not be older than DL or YVgL. All of these three laws were probably written after 1280, and in both DL and YVgL *um* is used as a conditional subordinator. So, the conditional *um* in the headings of ÖgL need not be the very first examples, as is claimed by Kock (1880) and Bergqvist (1884).

[80] Parts of this section have been published as Rosenkvist (1999).

development of conditional *um* and a sketch of the proposed grammaticalization are presented. The very final section contains a concluding discussion regarding the relation between the changes of *um* and grammaticalization theory.

5.2. *Um* in EOSw

In the earliest Swedish texts, *um* is a frequent word. It is most often used as a preposition, but a few instances of an adverbial *um* can also be found. As for the meanings, Söderwall (II:792ff) lists 19 different senses, which can be divided into spatial (1. a), temporal (1. b) and abstract textual (1. c):

1. a. allum þem ær iorþ æghu i by skal gangæ **um** akræ. (ÄVgL)
all those who land own in village shall walk around fields
'all those who own land in the village shall walk
around the fields'

b. æptir sanctæ stæphæns dagh. **um** iulæ timæ. (UL)
after saint Stephen's day around Christmas time
'after St. Stephen's Day, **around** Christmas'

c. Samu lagh æru **um** frændær æn æi æru barn til. (UL)
same laws are about relatives if not are children PL
'the same laws apply **to** relatives, if there are no children'

In the end of the 13th century, *um* starts to appear as an interrogative and conditional subordinator, slowly and successively replacing the older *æn*. Some of the first examples of conditional *um* occur, as was mentioned above, in headings in ÖgL (2. a). In (2. b), another early example, the older *æn* (in the form *en*) and *um* appear in what seems to be identical positions, clearly showing that *um* is conditional (here we also find two subjectless conditional clauses – see section 6.3.2). In Moses I have found the first interrogative *um* (2. c):

2. a. **Um** præster ælla kirkia dela um skötninga innan hæfþa. (ÖgL)
if priest or church quarrel about taxes before hæfþa[81]
'**if** priest or church quarrel about the taxes before legal
rights have been established'

b. Stiæl man minna en öri. þæt ær snattan hawi bondin
wald at sökia **en** sökia wil. giwa **wm** giwa wil. (DL)
steals man less than öre *that is pilfering have-subj. farmer-the*
power to prosecute, if Ø prosecute wants, pardon if Ø pardon wants
'if a man steals less than an öre, that is pilfering. The farmer
may prosecute, **if** he wants to prosecute, and pardon, **if** he wants to pardon'

c. Nw williom wi spøria **om** første man oc alle æpte honom
haffde wald hafft iffwir all dyur æn ey haffde syndin menat. (Moses)
now want we to-ask whether first man and all after him
had power had over all animals if Ø not had sin-the intended
'now we want to ask **whether** the first man and everybody after him would
have had power over all creatures if they had not intended the sin'

One could hence claim that the conditional function precedes the interrogative, but in law contexts, interrogatives are not very common.[82] Since laws are the only preserved Swedish texts that can be dated to the 13th century with certainty, the absence of interrogative *um* during the 13th century is therefore not really unexpected, and it can not be taken as definitive evidence for the assumption that there was no interrogative *um* at that time. However, neither is there any interrogative *um* in the mainly narrative texts Leg. Bu. or Leg. Bil, although we find a few instances of conditional *um* in these manuscripts. All in all, the sources, which admittedly are very scarce, suggest that conditional *um* is older than interrogative *um*.

[81] *Hæfþa* is an OSw legal term that is hard to translate properly (Schlyter 1877:299f, Holmbäck & Wessén 1933:119f).

[82] *Æn* was the default interrogative subordinator in EOSw. I have searched DL, a representative law text, for interrogative *æn*, and among the more than one hundred tokens of *æn* I have found only one single interrogative subordinator.

5.3. The traditional etymology – a critical review

The first Scandinavian linguist to present a theory concerning the origins of conditional *um* was Lyngby (1863). He claims that *um* is related to the common Germanic *ef*, one of the subordinators that Braunmüller (1978:104) includes in his list of genuine proto-Germanic subordinators,[83] which in turn is related to the noun *jef* ('doubt').[84] The form *um* has emerged through successive sound change, Lyngby postulates, in the following manner:

3. ef > æf > æn > æm > um

This hypothesis gained support from the Scandinavian linguistic community,[85] eventually, although Kock (1886) rejected the link *æn*, and claimed that *ef* turned into *æf* and then *æf* into *æm*.[86] This was to become the final word in this matter for a long time.

A necessary step in the traditional etymology is the form *æm*. The form *ef* is still in use in English (*if*) and Icelandic, but *æm* is not to be found in any modern language, which perhaps would be expected if it was a younger form. Furthermore, the examples of *æm* in Old Danish and Old Norwegian that Kock and others refer to are, I think, dubious. One of the sources for information about *æm* is Lund (1877). He claims that there are four tokens of conditional *æm* in the Old Danish laws, but this is incorrect (Rosenkvist 1999:210ff). Of these two should be read as *jæm* (an

[83] Strangely, Braunmüller also includes Scandinavian *om* in this list. This implies that he thinks that *om* is unrelated to *ef* and to the preposition *um*, as far as I understand, since these proto-Germanic coordinators "are *not* derived from lexical items of other categories or from phrases in Proto-Germanic" (Braunmüller 1978:104). Braunmüller's proposal seems to be that *um* functioned as a subordinator already in proto-Scandinavian and in proto-Germanic, but this is clearly untenable, I think.

[84] Falk & Torp reject this etymology: "Falsch ist die verknüpfung von anord. *ef*, ahd. *iba* mit dem subst. anord. *if* [...] 'zweifel' " (1960:791).

[85] Cf. Kock (1880), Rydqvist (1883), von Friesen (1904), Brøndum-Nielsen (1928), Nielsen (1966) and Wessén (III:239).

[86] Wessén (III:239) assumes that the starting point instead is the fricative [bh], i.e. the particle **ebh*.

unrelated word, meaning 'evenly'). The other two are however really conditional:[87]

4. a. Æn latær han thær uuær skrithæ allæ thru thing. tha ær hin atær
nærmær **æm** han wil kæræ annær thru thing.
(Brøndum-Nielsen & Jørgensen V, 1942:152)
but lets he there over pass all three sessions, then is the-one again
closer if he wants complain next three sessions
'But if he lets all three sessions pass, then the other one is closest, **if** he wants to make a complaint during the following three sessions'

b. Takir nokor man annar man. oc førir han til skiæla til bys
at han wil hawa tak fore æn tho æftir **æm** han mughi eigh fa tak
forin. at han leggir sielfflagha haft a sik. [...]
(Brøndum-Nielsen & Jørgensen VII, 1942:81)
takes some man another man and brings him to justice to village
that he wants have bail for and then after if he may not get bail
for-him that he put by-self arrest on himself
'If a man captures another man and, in order to reach a legal decision, brings him to a village to receive bail for him, and likewise, **if** he can not get bail, and the man puts himself under arrest [...]'

The three manuscripts in which *æm* occurs[88] are however not older than manuscripts with *um* in the corresponding positions, and thus there is no evidence for the hypothesis that *æm* is older than *um*.

Another source of information about *æm* is Feilberg's lexicon (Feilberg II, 1894-1904:741) of the dialect in Vendsyssel (a region in the northern parts of Jutland). According to the lexicon, the conditional subordinator could be pronounced *æm* in this dialect. Feilberg was however from the southern parts of Jutland (he had to flee the Prussian invasion in 1864) and he did not speak this particular dialect. He therefore hired the help of two school teachers to collect data from Vendsyssel,

[87] The translations are based on Kroman's MDa version of the laws (Kroman 1945a, b).
[88] I have been able to verify that there really are instances of conditional *æm* in two of the manuscripts (B 71, 4° and C 39, both in the Royal Library in Stockholm).

which he compiled with information from Hagerup (1867) and from some notes that the linguist Lyngby, his predecessor, had left behind. Interestingly, Hagerup says nothing about *æm*, and a later lexicon of the Vendsyssel dialect (Espegaard 1973), does not mention *æm* either, although some of Espegaard's informants were born as early as the 1880s. Nor can *æm* be found in any other lexicons of Scandinavian dialects.

Given that the older form *ef* is well documented, and is still in use, one would expect that also the supposedly younger *æm* should have left distinct traces in the manuscripts, or even that it was still in use in some remote dialect. But the evidence for *æm* is very scarce, and it can not be confirmed that it has ever been in use. For these reasons alone, the traditional etymology must be reconsidered.

An alternative explanation for the form *æm* is that *æm* is a contamination of *æn* and *um* (cf. Leffler 1877:240, 272; Diderichsen 1941:126ff). This I find highly probable, since both of these conditional subordinators are very frequent in the ODa laws, and they are used alternately. It would not be surprising if the scribe mixed up *um* and *æn* a few times, considering the frequency of these subordinators in the texts. The presence of the other possible contamination, *un*, would strengthen this hypothesis. However, a search for *un* probably requires a thorough investigation of the medieval manuscripts, since it is likely that the possible instances of *un* have been classified as pure errors by the editors of the published versions of the ODa laws, unlike *æm,* which at the time of publication was a predicted and therefore expected earlier possible form of *um*.

5.4. Leffler's (1877) hypothesis

Leffler (1877) notices that *um* can be found in combination with *æn* in EOSw, especially in the headings of ÖgL, where this combination occurs 92 times (as in *Um æn bonde dör ok huru længe lik skal inne halda,* meaning 'About if a farmer dies and how long to keep the corpse'). He goes on to suggest that the combination

of prepositional *um* and conditional *æn* with time developed into a two-word subordinator *um æn*, which in turn turned into single *um* since *æn* was superfluous in this position. In this way, the preposition *um* replaced the older conditional *æn*.

This proposal is supported by the fact that there are other subordinators in Swedish that have developed in a similar way. Leffler (1877:220f) provides the following examples:

5.	a.	tha/thaghar/sidhan er	>	tha/thaghar/sidhan
	b.	tha än	>	tha

In more recent times, this process of subordinator-making has been observed and accounted for by several linguists. Carkeet discusses it (1976) and Braunmüller (1978) gives it the label univerbation (cf. section 2.2.2). Mitchell (1985:286) provides a number of English examples, and as for Swedish, Haskå (1988) discusses univerbation extensively, making an inventory of Swedish causal subordinators and their etymologies. She gives at least one example (6. a.) that resembles the process suggested by Leffler, whereby a preposition (*efter* 'after') replaces a subordinator after having been used as one of the parts of a two-word subordinator. A further example might be the adverb *fast*,[89] which in MSw can be used in isolation as a (non-hypothetical) concessive subordinator.

6.	a.	efter at/thy/thät	>	efter				
	b.	fast... än	>	fast än	>	fastän	>	fast

So, the process of change that Leffler assumes has in recent times been recognized and accepted by the linguistic community.

Leffler's hypothesis did not gain any followers – Bergqvist (1884:35) supports it

[89] The adverb ('almost') was probably borrowed from German in the 16th century (Hellquist 1980:201), but there is also an indigenous adjectival *fast* in MSw, meaning 'firm'.

half-heartedly, for theoretical reasons, but he points out that *um* could also precede *æn* in cases where *æn* headed an interrogative clause, forming an *um æn*-combination. Such a combination might thus also be a starting point for the change that turns *um* into a conditional subordinator (I will return below to the question whether conditional and interrogative *um* developed in parallel, or whether the former developed from the latter). Wessén (III:239, 320) accepts Leffler's theory, but only as regards interrogative *um*; Wessén thus assumes that conditional *um* and interrogative *um* in EOSw are unrelated. Diderichsen (1941:126ff), on the other hand, firmly rejects the etymology that is based on sound laws, but is cautious not to assert any definitive solution.

Leffler's hypothesis was vigorously rejected in an influential article by the prominent grammarian Axel Kock (1886). Kock claims that it is not common that prepositions develop into subordinators (which is incorrect), that it is unlikely that Danish and Swedish *um* have emerged independent of each other (which is not necessarily true) and that headings in an EOSw law could not be so influential that they triggered a language change. The latter argument is the strongest, I think, but Lehmann (1991:503) and Hopper (1998:149ff) have shown that exactly this may happen; in German, the complex prepositions *im Wege*, *im Vorfeld* and *im Gefolge* first appear in very limited written genres, but they nevertheless spread and are now in use in all genres. Furthermore, the combination *um æn* did occur in other positions in EOSw; Söderwall (II:796) refers to 23 conditional *um æn* from different sources (most, but not all, of them from LOSw, however).

There are thus reasons to abandon the traditional etymology and to relaunch Leffler's, in a new theoretical framework.

5.5. The development of conditional *um*

The MSw preposition *om* has Indo-European roots, and the gram can be found in *amphibian* (Gr. *amphibion*) or *ambulance* (Lat. *ambulare*). Its original meaning

seems to have been ‘on both sides’ or ‘double’ (Björck 1953:63, ODEE 1966:30, 33; Hellquist 1980, Pfeifer 1989), but in EOSw the basic meaning is ‘around’, a meaning that can be illustrated in an image schema:

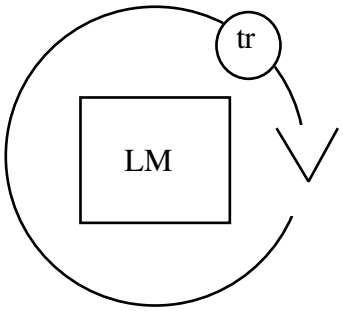

Fig. 1. *Image schematic meaning of* um *(‘around’).*

Out of 24 prepositional *um* in ÄVgL, 9 are spatial, whereas 3 have a temporal meaning and 12 are textual. The temporal and textual meanings (corresponding to *about* in *We were talking about the weather*) most likely arose through metaphoric transfers. In the temporal meaning, the landmark consists of a certain amount of time, and in the textual meaning it consists of a linguistic unit, a topic. When *um* is used in these abstract meanings, it is virtually devoid of lexical meaning – in fact, it is rather difficult to determine exactly what *om* means in *Vi talade om vädret* (*We were talking about the weather*). Similar developments may be exemplified with the prepositions *kring* and *runt* (cf. Ekberg 1996), which have the same basic spatial meaning as *om*. Both of these prepositions can be used as temporal or textual prepositions in MSw.

When the complement of the textual *um* was an interrogative or conditional clause, *um* and *æn* could be juxtaposed (at this time, *æn* was of course the default interrogative and conditional subordinator), giving the meaning: *We were wondering about if...* This, I think, led to a reanalysis and, eventually, to a deletion of *æn*, in the following manner:

7. [PP um [CP [C æn$_{cond./int.}$ ...]]] > [CP [C um æn$_{cond./int.}$ ...]] >

[CP [C um Ø$_{cond./int.}$ ...]]

In MSw, *om* still has these functions. Furthermore, prepositional *om* may take an interrogative clause as a complement, unless this clause contains the subordinator *om* (SAG IV:552):

8. Vi undrade [PP **om** [CP **ifall/huruvida/*om** Stenmark skulle vinna igen]].
*we wondered about in case/whether/*if Stenmark would win again*
'we wondered whether Stenmark would win again'

The combination *um æn* is also still present in MSw, in the form *om än*. It functions as a two-word concessive conditional subordinator, and assuming that concessive conditionals often arise from regular conditionals, as König (1986) argues (see section 3.2.1), this implies that the MSw concessive *um æn* may be derived from the OSw conditional *um æn*.

It is known that interrogative subordinators can develop into conditional subordinators (see section 2.3.6), and one could therefore suppose that interrogative *um* changed into conditional *um*. However, as was mentioned above, in the oldest Swedish narrative texts we find conditional *um*, but not interrogative *um*; in Leg. Bil. and Leg. Bu. the sole interrogative subordinator is *æn*, but both *æn* and *um* function as conditional subordinators. This is an argument against an independent development of interrogative *um* into conditional *um*.

5.6. Conditional *um* in ODa

As was mentioned in the introduction to this chapter (5.1), ODa conditional *um* appears earlier than its Swedish counterpart. Already in the oldest Danish texts, conditional *um* is present. In *Arvebog* in Valdemar's Seelandic Law (ca. 1200), it

varies with conditional *æn*, just as it does in Swedish about a century later. The standard Danish etymology (Brøndum-Nielsen 1928b:460) adheres to Kock's hypothesis. However, it is possible that the ODa conditional *um* was a result of univerbation too, since the conditions for change were the same in ODa as in OSw. *Om* is still interrogative in Danish, but *hvis* started to replace the conditional *om* in the 16th century (see section 6.3.3.).

Now, did Danish influence Swedish and ease the way for conditional *um* to appear? At this time, the 13th and 14th century, the languages were very close to each other typologically; they could in fact be considered to be mere dialects of one and the same language. Considering that Danish conditional *um* probably spread to Faroese (where it is still in use; another possibility is of course that *um* has become conditional in Faroese independent of Danish), such an influence must have been at least possible, even though Denmark and Sweden at times were political adversaries. To conclude, the presence of conditional *um* in ODa is at the very least not an argument against the univerbation hypothesis for conditional *um* in OSw.

5.7. A sketch of the changes of *um*

The change of *um*, from locative preposition to conditional subordinator, can be seen as successive changes that result in four different meanings and functions of *um*. The univerbation process is divided into two steps (changes 2–3).

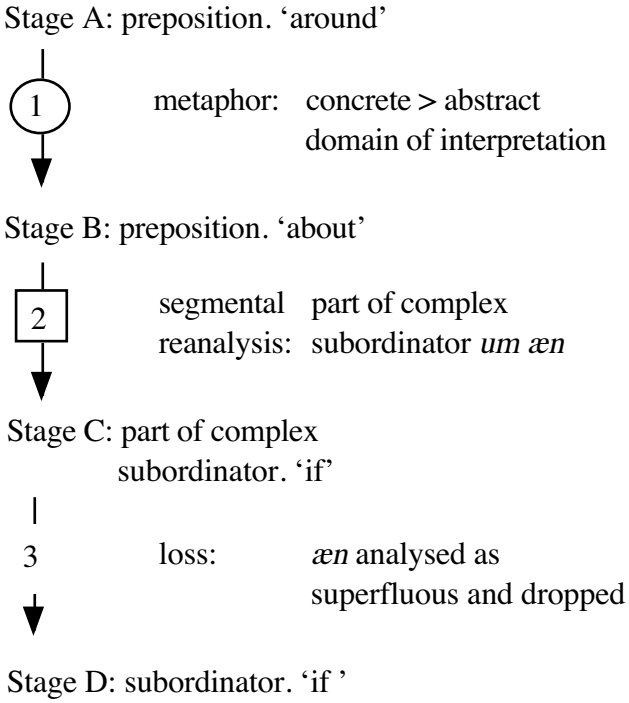

Fig. 2. *The changes of* um.

The first change is a case of well-known metaphoric extension from concrete to abstract meaning. However, the following changes, a reanalysis followed by a loss of *æn*, both fall in the frame of the process of univerbation. The final change, the loss/deletion of *æn*, is neither syntactic nor semantic, but phonetic.

5.8. Are the changes of *um* a case of grammaticalization(T/S)?

When *um* changed into a conditional subordinator, it did so through a process of univerbation. Consequently it was not only the original features of the remaining gram that influenced the development, but also the features of the other gram, *æn*, that once formed part of the complex subordinator that served as a source for the simple subordinator *om*. The older interrogative and conditional *æn* was hence crucial, as the meaning of *æn* was transferred to *um* in the univerbation process. So the original features of *um* only allowed it to reach a position where it could be fed

into the univerbation process – the rest of the change was entirely dependent on *æn*.

Um was initially a spatial preposition ('around'), and any attempt to try to find any semantic similarities between the senses 'around' and 'if' will be fruitless, I think. The original meaning of *um* only allowed it to develop the meaning 'about' and then reach a structural position where it could inherit conditional (and interrogative) meaning from the older *æn*.

So, I propose that *um* is not an example of a change from interrogative to conditional meaning, an otherwise known path of change (Haiman 1978, Traugott 1985),[90] as it acquires conditional meaning from another gram, *æn*. Hence it can be concluded that univerbation may violate source determination and semantic retention, these concepts being founded on an assumption that grams develop slowly and successively, gradually shifting semantic content and syntactic function. Through univerbation a gram may be overwhelmed by unexpected meanings and functions, emanating from a linear neighbour, whereby the sources for the gram may become completely obscure. Another relevant example of such a change may be the MSw causal coordinator *ty*, the origin of which is a pronoun meaning 'that/it' (Hellquist 1980:1254). In EOSw this gram appears in causal collocations such as *fyrir þy at* ('for it that') and *þy at*, but later, in LOSw, *þy* may on its own convey causality (Haskå 1988). Like *um*, it has acquired a new meaning through univerbation, but the source for the causal meaning was probably the preposition *for*, and the semantic sources of *ty* were, arguably, irrelevant in this semantic transfer.[91]

Interestingly, the first change of *um* (*um* 1) is partly in line with grammaticalization(T); the metaphorical transfer also results in bleaching, but not in subjectifiction, since both 'around' and 'about' are textual meanings. The rest of the

[90] Neither is it clear whether *om* as an interrogative fulfils the requirements for further change into a conditional that are suggested by Haiman (1978:570f) and Traugott (1985:294f). It can not function for instance in main clause polar questions: **Om Kalle kommer*? ('If Kalle comes?').

[91] However, it is also possible that *þy* actually was causal on its own from the start, being inflected in (instrumental) dative case (cf. Wessén III:1992:299ff). Example (4. a) in section (6.2) contains such a *þy*. I suspect that the development of the causal coordinator *þy* is quite complex, but leave this matter unsolved.

path of change may however be an anomaly for grammaticalization theory.

Um 2 is a segmental reanalysis, and although the result of the reanalysis is a pronounced loss of structure, the reanalysis is probably not an instance of move > merge, and hence not an example of syntactic simplification (Roberts & Roussou 1999, 2003; see the discussion in 9.8).

Um scores quite low as a candidate for grammaticalization(T/S), which, given the argumentation above, is not surprising. Just like *utan*, *um* is originally a preposition and therefore the notion of abstraction can not be applied, I think (see the discussion in 4.9.1.2).

9. *The changes of* um

bleaching	yes
abstraction	?
subjectification	no
source determination	no
semantic retention	no
image schema preservation	yes
structural simplification	no

In section (9.6), univerbation will be further discussed, and the changes of *um* will of course be in focus there (as will the changes of *ifall*).

6. THE EMERGENCE OF CONDITIONAL *HVAR*

6.1. Introduction

Hvar was used as a conditional subordinator in Swedish during the period 1300–1800, roughly. It is a very frequent word token in the earliest Swedish texts. Its frequency can partially be explained by the fact that it has several origins, which due to sound change probably fused into one phonetic form well before 1200. However, some of these roots also had similar meanings, and in some cases it is impossible to tell them apart even in Norse texts, before the sound changes.

In this chapter I review the traditional etymology of conditional *hvar*, and present the semantic and syntactic context in which it emerges in the 13th century, as well as the change that followed. I also present some arguments which point to another, complementary, source for this subordinator, and I will argue that conditional *hvar* in fact has two source constructions (an adverbial and a pronominal). Since the pronominal origin is a new hypothesis, this argumentation will be more thorough.

The result of this investigation is an image of the path of grammaticalization for conditional *hvar*, and an evaluation of the changes from the viewpoint of grammaticalization theory, which concludes the section.

6.2. The traditional etymology

In the traditional etymology (Söderwall I:527ff, Hellquist 1980)[92] it is assumed that the conditional *hvar* derives from a locative adverb meaning 'where'. In the earliest Swedish text, ÄVgL, this is the only sense that the locative adverb appears in. In later texts, we find that *hvar* has acquired a general meaning 'wherever', which in some constructions makes a conditional interpretation possible. The further change is presumed to be triggered by sentences with a free relative *hvar*, like:

[92] The great Swedish lexicon, SAOB, has not yet reached the letter *v*, which is the initial of conditional *hvar* since the spelling reform in 1906.

1. **hwar** man kiöpir iorþ aff andrum. J. hwilikum by þæt hælzt ær.
þa skal han kiöpæ [...] (UL)
where man buys land of other in which villlage that ever is
then shall he buy
'**wherever/if** a man buys land of another, in which ever village that may be, **then** he shall buy [...]'

In this example, *hvar* may mean either 'wherever' or 'if'. The apodosis is in this example initialized by a *tha*, which (as was stated in section 3.5.3) is an indication of a conditional clausal connection. Another sign of a change towards conditionality is that the final clause, in one and the same text, may begin with either a locative and anaphoric *ther* ('there') or an apodosis typical *tha* ('then'):

2. a. Seltis øla ok sulur. var iudha fødha **hwar** the kændu røk
aff elde **ther** brutu the dør [...] (Leg. Bil.)
belts and soles were Jews' food where they felt smoke
from fire there broke they door
'belts and soles was the Jews' food. **wherever** they smelled smoke, **there** they broke up the doors [...]'

b. Engin timberman gat thy sama thræ fanghit ræt lagh . vthan **hwar**
thz lagdhis **tha** var thz annatthiggia oflanght eller ofskamt. (Leg. Bil.)
no carpenter could that same wood put right position but where
it was-put then was it either short or long
'no carpenter could make that wood fit, but **wherever** it was put, **then** it was either too long or too short'

Yet another indication of conditionality is coordination with a clearly conditional clause. In (3.) below a clause with initial *hvar* is coordinated with what appears to be a question-formed conditional clause, and the apodosis, with a verb in the subjunctive, seems to be connected to and dependent on both of these clauses (the combination *æ hvar* is discussed below).

3. Æ **huar** þolik sak vitis manne, ok varþer ei laghlika til wnnin meþ asyna vitnum, dyli æfter þy sum sakin ær til sum for ær sakt. (MEL)
wherever such thing blamed-is man, and Ø is not legally PL bound with eyewitnesses, Ø deny after that which matter-the is about, as before is said
'**wherever** a man is accused of such a thing, and **if** he is not legally found guilty by eyewitnesses, he may deny according to the nature of the matter as was said before'

This change seems initially to be mainly a semantic process (assuming that a free relative and a subordinator occupy similar syntactic positions); the phrasal or clausal structures are not directly involved. What semantic property of *hvar* allows a conditional interpretation, then? As we have seen, the general meaning of *hvar* seems to arise before it becomes conditional, and it is this general meaning that must be held responsible for the semantic reinterpretation.

In EOSw we find a generalizing adverb *æ* or *e*, which roughly has the meaning 'always, in every case' (Söderwall II:1093ff). This adverb is sometimes found in combination with clause initial locative *hvar*, distinctly providing a general meaning.[93] The clause initial combination *æ hvar* ('wherever') is rather frequent in EOSw, and interestingly it is almost always followed by a clause that looks like an apodosis,[94] with a *tha* or a verb in the subjunctive, and not by a clause headed by a locative *ther*. The few examples I have found of *æ hvar* + *ther* are all clearly and unambiguously contextually locative:

[93] Since we never find this particle (*æ*) in combination with unambiguously conditional subordinators (like *um* or *æn*), I assume that *hvar* in these cases is locative, not conditional. This means that *æ hvar* 'wherever' favours a conditional interpretation, but *hvar* may not have conditional meaning in this collocation.

[94] UL is an exception; for some reason 22% of the *e hvar* are followed by a *ther* in this text. This may be compared with MEL, which is more typical: there the ratio is 7%.

4. a. Nu kan bro bort ganga meþ ouærflöþz vatne ællær eeld, ok ær þy oför, **æ huar** hon ligger hælzt, bolstaþa mællum, hæræz ællæ landa, **þer** agha þe færio ok flota halda þer til broin varþer gild. (MEL)
now may bridge away go with overflow water or fire, and is therefore impassible, wherever it lies ever, farms between, countys or provinces, there shall they ferries and rafts keep until bridge-the becomes whole
'a bridge may be destroyed by water or fire, and is it thus impassible, **wherever** it is situated, between farms, counties or provinces, **there** they shall provide ferries and rafts until the bridge is repaired'

b. **æ hwar** mæn hittæs sattir. ok skiliæs o sattir **þær** ær æi eþsöre brutit. (UL)
wherever men meet friendly and part unfriendly there is not oath broken
'**wherever** men meet as friends, and part as enemies, **there** the oath is not broken'

In these cases it is clear, I think, that the text provides a spatial context in which the locative meaning of *hvar* is considerably supported, and a conditional interpretation is thus not close at hand. For this reason a *ther* in the following clause is not unexpected. However, these cases are exceptions; the combination *æ hvar* seems to allow conditional interpretations at a far greater rate than simple *hvar* (a reason for this is of course that not all instances of *hvar* may be conceived of as 'wherever', whereas *æ hvar* necessarily has this meaning). It is therefore likely that it is the generalizing particle *æ* that facilitates this interpretation, and that a general meaning thus is necessary to establish the ambiguity which precedes the change, which, of course, is exactly what the traditional etymology states. A similar process of change is postulated by Visconti (2003) for the Italian *qualora* and English *whenever*; although this change goes from temporal to conditional, the essential semantic component appears to be the same: the general meaning.[95]

[95] The obsolete Swedish conditional subordinator *därest* probably also contains a generic element (Hellquist 1980:170, 1314). It is composed of the adverbial *där* ('there') and an affix *-est*. The affix in *därest* is probably analogical to the same affix in *varest* ('where-ever').

One could assume that the change into a conditional subordinator was triggered by the *æ hvar*-construction, i.e. that conditional *hvar* arose from this construction by the process of univerbation, but the data do not seem to support this hypothesis. Ambiguous *hvar* appears in the provincial laws (except for ÄVgL), which are the oldest Swedish texts that have been preserved, and so does *æ hvar*. No chronological development can thus be asserted with certainty.

Another possible hypothesis would be that the combination *hvar sum* (which is found with both the adverb and the pronoun *hvar* – see below) in one way or another effected the change; I have excluded this possibility from the discussion since I think that the relative particle *sum* strengthens the non-conditional interpretation of *hvar*. *Sum* needs an antecedent (cf. Stroh-Wollin 2002:43ff) and the speaker naturally assigns this function to *hvar*, since, in most clauses, there is simply no other proper candidate available. This prevents the necessary ambiguity from arising – an antecedent to *sum* can never be interpreted as conditional.

6.3. A possible pronominal source to conditional *hvar*

There is yet another *hvar* in OSw, a pronoun meaning 'who, whoever'. In the traditional view, this *hvar* is not assumed to take part in the emergence of conditional *hvar*. An argument against such a hypothesis (which I assume is the main argument for not including pronominal *hvar* in the traditional etymology, although it does not seem to be explicitly mentioned by anyone) is of course that pronouns are arguments, expressing essential and basic thematic roles, and for this reason a clause initial pronoun is presumably not accessible for reinterpretation in the same way as a non-argumental adverb might be. Pronouns are not included in the list of possible sources for conditionals in Hopper & Traugott (1993:179).

Still, when gathering data regarding *hvar* from OSw, one can not fail to notice that some constructions with pronominal *hvar* appear to present the same kind of ambiguity as similar constructions with adverbial *hvar*. This, I will tentatively

argue, is possible because it was not always ungrammatical to omit subjects in subordinate clauses in OSw. Even conditional clauses could lack subjects, and a clause with an initial pronominal *hvar* could accordingly be reinterpreted as a conditional subjectless clause. Furthermore, around this time the pronoun *hvar* was gradually being replaced by another pronoun (*ho*), which might have eased this process. A final argument for the possibility of this change is the development of Danish conditional *hvis*. In the end of this section, I return to these matters.

First, however, I present the sources for pronominal *hvar* in OSw, and the constructions that offered the ambiguity-enabling reinterpretation. With this as a background I will then move on to discuss the hypothesis mentioned above.[96]

6.3.1. Sources of pronominal *hvar*

In his book on Old Norse grammar, Iversen (1955:121ff) presents three Old Norse pronouns that later fused into the OSw pronominal *hvar*.

5. a. **hvær*. Interrogative pronoun ('who', 'what') related to the Gothic *hwas*.

   b. *hverr*. Interrogative (and according to Haugen 1995:101f also determinative) pronoun ('who out of many') related to the Gothic *hwarjis*. The pronoun has the form *hvarr* in Old Norwegian.

   c. *hvárr*. Interrogative pronoun ('who out of two') related to the Gothic *hwaþar*. The neut. sg *hvárt* is used as a question particle.

In Old Swedish, all of the words above had gone through phonetic changes and merged into one form: *hvar*. Since they furthermore were semantically similar, it is hard to determine the exact origin of the pronominal *hvar* in an Old Swedish text, as is pointed out by Söderwall: "Since the forms of the *hvar* which corresponds to Ice.

[96] This hypothesis has been presented as Rosenkvist (2002b); I thank among others Lars Heltoft and Muriel Norde for valuable comments.

hvárr, and the *hvar* which corresponds to *hvarr* frequently can not be separated, the originally independent words are here treated as one" (Söderwall I:530, my translation). Hellquist (1980:1311) makes a similar remark.

As a pronoun, *hvar* was inflected for case and person in OSw (the form *ho* is discussed below), in the following pattern (Wessén I:120):

		masc., fem.	**neut.**
sg.	n.	hva(r), ha(r), ho	hvat, hvadh
	g.	hvas, hväs	hvas, hväs
	d.	hvem	hvi
	a.	(hvan) hvem	hvat

Table 3. *Inflection of* hvar.

It has also subsumed all the meanings and uses of its three ancestors. Furthermore, it has developed a total meaning ('every, each') (6. a) and a general meaning ('whoever'). The free relative *hvar* (as in 6. b) is present in the oldest Swedish texts, and it is generally not considered to be a result of Latin influence: "In contrast to the situation for *hvar* (*sum*), the usage of *hvilikin* (*sum*) as a free relative marker can mainly be attributed to foreign influence" (Wessén III:321ff, my translation).

6. a. Nu aghær faþir ok moþer wald at giwæ barni sinu. til þriggiæ markæ.
æn swa mykit ær atær. at **hwar** son far þre markær [...] (UL)
now have father and mother right to give child theirs to third mark
if so much is left that each son gets three marks
'fathers and mothers have the right to give their child up to three marks,
if so much remains, that **each** son gets three marks'

b. **huar** þolikt gör, han ær kunungx fulder þiuuer, **huar** æpter þy sum þet ær vært til. (MEL)
who such does, he is king's full thief, who after that which it is worth PL
'**whoever** does such a thing, he is the king's true thief, **each** according to what it is worth'

In the latter example, *hvar* appears in both meanings.

6.3.2. Ambiguous and subjectless clauses with pronominal *hvar*

When the OSw pronominal *hvar* is used as a general pronoun 'whoever' it might be hard to separate from a conditional subordinator, and the presumptive apodosis may display a *tha* (7. a) or a verb in the subjunctive (7. b).

7. a. The äru fira dyghde ther mannen styre til at liua vislika [...].
Ok **huar** thöm göme/ **tha** göra the wälsidhoghan man. (KS)
they are four virtues that man-the control-subj. to live wisely
and who them keep-subj. then make they honourable man
'there are four virtues that guide a man to a wise life [...]
And **whoever** keeps them, **then** they make that man honourable'

b. **hwar** han wskiælika niþir fælli. **böti** þrea markir. (DL)
who it unfoundedly PL stops-subj. pay-subj. three marks
'**whoever** stops it without reason, **pay** three marks'

A pronominal *hvar* consequently seems to display at least some of the properties that ordinarily signify conditional subordinators.

In OSw there was an array of possible clause initial constructions involving pronominal *hvar*, and just as we find the adverb *hvar* preceded by an *æ*, one would assume that pronominal *hvar* could be juxtaposed with this particle. In line with the

assume that pronominal *hvar* could be juxtaposed with this particle. In line with the discussion above, pronominal *æ hvar,* which may only mean 'whoever', then ought to be complemented by apodosis-like clauses more often than clauses with simple pronominal *hvar*. This prediction is however hard to confirm, because the pronominal *æ hvar* is very rare in OSw texts. In 8 texts (MEL, Erik, Moses, DL, UL, Leg. Bu, Leg. Bil. and Järtecken) I have only found five instances of clause initial[97] pronominal *æ hvar* (to be compared with 36 adverbial *æ hvar* in the same sources), and thus the material is too scarce to allow any conclusion.

Even in an ambiguous clause with pronominal *hvar*, it is close at hand to assume that the argument role of the pronoun might hinder a reinterpretation. But considering that both main clauses and subordinated clauses could lack subjects in EOSw, especially if the subjects were non-referential (Falk 1993), a third-person pronoun (Larsson 1931:134) or a generally referring subject (Wessén III:191f), this circumstance becomes less problematic.[98] Even conditional clauses could sometimes lack overt subjects in EOSw, especially in those cases where one would expect a third-person anaphoric pronoun; Jörgensen (1987:29, 42) describes conditional clauses without subjects in the EOSw laws. Below some subjectless conditional clauses from ÄVgL (example 2 b. in the previous chapter displays two subjectless conditional clauses from DL) are presented, as examples of this phenomenon (the covert subjects are marked with Ø):

8. a. Skiutær man vp a lopt kombær nidh i. hovodh manni
far af. bana. böte firi niv markum. (ÄVgL)
shoots man up in air Ø comes down in head man's
gets Ø of death pay-subj. Ø for nine marks
'if a man shoots up in the air, and if it comes down in a man's
head, and he dies, then he shall pay a fine of nine marks for this'

[97] Only instances of free relative *æ hvar* are included in this figure.

[98] In Old Scanian too, empty subjects were common, as Heltoft (1995:139f, 2001) points out. Faarlund (1990:102ff) discusses null subjects in Old Norse.

b. Hængir klocka i. kyrkiu falder .i. hovod mannæ. böte sopn
firi. niv marchum kirkiudroten iardeghendi en bana far. (ÄVgL)
hangs bell in church Ø falls in head man's pay-subj. parish
for nine marks kirkiudroten iardeghendi[99] *if Ø death gets*
'if a bell hangs in a church, and it falls on a man's head, then
the parish shall pay nine marks if he dies'

c. Æn sæliæ uill iorþ sinæ þa skal [...] (ÄVgL)
if Ø sell wants land his then shall
'if someone wants to sell his land, then shall [...]'

d. Eig skal a flæt faræ num vili hvat þæt ær
maþær ællær konæ æn i bo sitær. (ÄVgL)
not shall Ø to bench go unless Ø want whether that is
man or woman if Ø in house sits
'one shall not be set aside unless one wants, be it a man or a
woman, if one lives in the house'[100]

It should be noted that in (8. b–d), the null subjects appear in regular conditional clauses with subordinators (*æn* and *num*), and that in (8. a) the three null subjects can not be co-indexed.

All of these subjectless clauses are probably in some parts syntactically identical. Looking at the CP-layer, we find that C in this type of clauses is occupied by either the finite verb or the subordinator. In the subject position, SpecIP, there is no overt subject but an empty one, a pro. The figure below illustrates the suggested syntax of the CP:

[99] The phrase *kirkiudroten iardeghendi* is probably an insertion by the copyist, the relevance of which is hard to understand. Holmbäck & Wessén (1946:15) say that it is "meaningless" and that it "disturbs the context" (my translation).

[100] *A flæt faræ* means 'be put on the bench' (Schlyter 1877:169, Holmbäck & Wessén 1946:144), i.e. be forced to leave the seat of honour and thereby step down from the position as the head of the household.

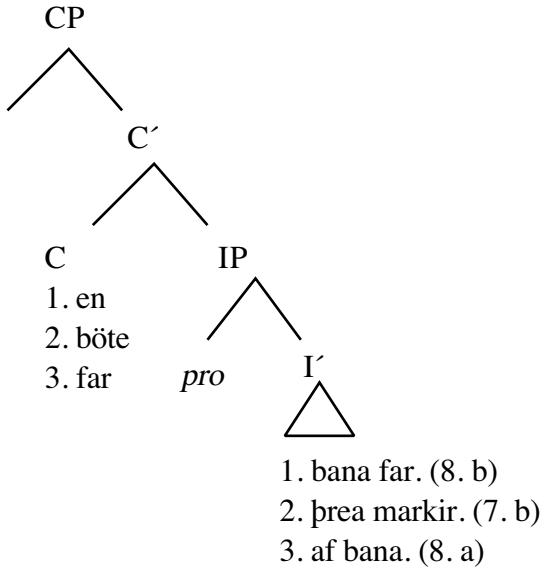

Fig. 1. *The syntactic structure of subjectless clauses in EOSw.*

Assuming that this was a viable syntactic structure in EOSw, it does not seem implausible that ambiguous clauses with pronominal *hvar*, of the type that were exemplified above, could be reanalysed. The idea is that the clause was conceived of as a conditional clause without an overt subject, but with a conditional *hvar*. The suggested change is illustrated in figure 2.

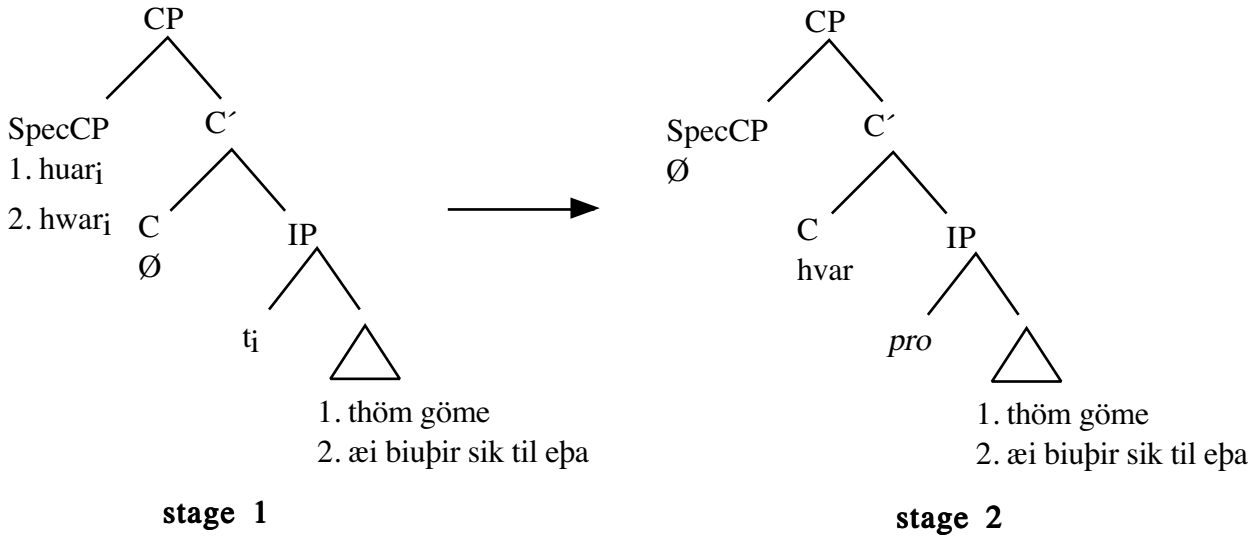

Fig. 2. *Syntactic reanalysis of pronominal* hvar.

The structure of the clause after the assumed change is thus identical to the structure of other subjectless clauses in EOSw (cf. fig. 1). The categorial reanalysis of *hvar* also results in a downward motion in the syntactic tree – *hvar* descends from SpecCP to C. I return to the theoretical implications of this type of reanalysis in the concluding section of this chapter.

6.3.3. Additional circumstances

The assumption that pronominal *hvar* may have contributed to the emergence of conditional *hvar* would be considerably strengthened if a similar change in another language was confirmed, and Danish actually provides an example of a similar development. Another factor that might be of relevance in this context is what happened in the OSw paradigm of interrogative pronouns. Here these unrelated events are recapitulated, in short.

In Danish the pronominal *hvis* (the genitive form of the Danish pronoun that corresponds to Swedish *hvar*) developed into a conditional subordinator in the 16th century (Brøndum-Nielsen 1928, Nielsen 1966, *Ordbog over det danske sprog* 1926:VIII 904).[101] The change first occurs in contexts where *hvis* is ambiguous and may be interpreted as meaning either 'whatever' or 'if': *Han tog, hvis han kunde* ('He took whatever/if he could'). It might be the case that this change is connected to the general downfall of Danish nominal case morphology, which in the central dialects occurs already in the 13th century. However, the change is very similar to the one proposed above, since the original *hvis*, just like *hvar*, is an argument:

[101] As Lars Heltoft (p. c.) has kindly pointed out to me, Skautrup (1968, II:60) assumes that *hvis* is a loan from Low German (*wes,* 'whatever'). The gram had at that time a general meaning, though, and "From this the conditional subordinator *hvis* was developed, in certain transitions" (my translation). The semantic development is thus the same, regardless of the ultimate origin of *hvis*.

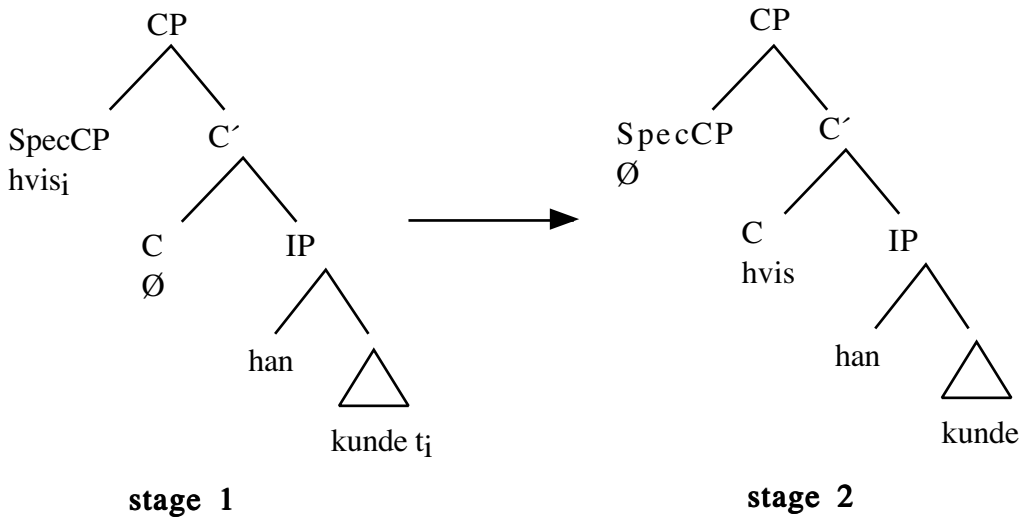

Fig. 3. *Syntactic reanalysis of Danish* hvis.

The change of *hvis* is admittedly easier to accept, since objects and non-subject-related thematic roles in general are less essential for the syntactic and/or semantic structure than subjects and subject-related thematic roles (in other words, clauses without objects are more frequent in the Old Scandinavian languages than clauses without subjects). In this example, the main verb *tog* (which is deleted in the subordinate clause) is not exclusively transitive; hence no object is necessary, and *hvis* is accessible for reinterpretation. The Danish *hvis* shows, although it is quite unlike *hvar* in several respects, that argumental pronouns indeed may serve as sources for conditional subordinators.

Pronominal *hvar* was gradually replaced by *ho* in OSw. According to Wessén (I:120) *ho* shows up in LOSw, but it does in fact appear in apparently earlier texts. Söderwall (I:527) presents the forms *hwo* in Erik (ca 1320). *Hwo* can also be found in two other EOSw texts: Fredrik (probably translated 1308) and Ivan (probably translated 1303).

9. a. [...] the thär **hwo** som weyt hwar oslo är (Erik)
they there who that know where Oslo is
'[...] those **who** know where Oslo is'

b. Wilin j withæ **hwo** then mon wæræ? (Fredrik)
want you know who that might be
'do you want to know **who** that might be?'

c. Thok wil iach gøræ som j mik rada och sighiæ **hwo**
wi æræ badhæ [...] (Ivan)
yet want I do as you me tell and say who
we are both
'yet I will do as you tell me and say **who** we both are [...]'

It must be pointed out, however, that no EOSw manuscripts of these texts have been preserved; *hwo* may have been inserted in the 15th-century manuscripts by the scribe. This is actually likely, since the manuscripts in which *ho* appears all seem to be connected with the literary activities of the office of King Karl Knutsson,[102] who resided in Stockholm in the middle of the 15th century.

The appearance of *ho* may however be caused by the emergence of conditional *hvar* nevertheless, even if it is more than a century younger than conditional *hvar*; using *hvar* as a pronoun, a subordinator and an adverb, all being reasonably frequent, must have caused substantial ambiguities, above all in written texts.

The sources of *ho* are not entirely clear. Kock (1898:46) assumes that it is developed from an older *hwa*, but Hellquist (1980), although supporting Kock, remarks that the origin of this *hwa* is unclear.[103] Söderwall (I:527, III:319) puts *ho*, *hoo* and *hwo* among the allomorphs of *hvar*. The emergence of *ho* is not the only change in the pronominal paradigm; the dative form *hvem* replaces the accusative *hvan* very early in EOSw, and later, in the 16th century, also the new nominative form *ho* is ousted by *hvem* (Wessén I:145).

[102] Thanks to L-O Delsing for informing me about this fact.
[103] As for English *who*, both Skeat (1953), ODEE (1966:1004) and OCDEE (1996:540) adopt Kock's hypothesis, recognizing an OE *hwa*.

6.4. A sketch of the changes of *hvar*

Accepting that conditional *hvar* is derived from both an adverb and a pronoun makes the path of change quite complex. The two sources have a semantic feature in common, but they differ in morphosyntactic respects.

The adverb *hvar* seems to undergo semantic changes ('where' > 'wherever' > 'if'), a lexical recategorization and a syntactic reanalysis. With a locative adverb as the source, it seems like the semantic change when the adverb becomes general is the starting point of the change.[104] When *hvar*, with the general meaning, was used as a free relative adverb initially in a subordinate clause (it could of course also be used as an ordinary adverb), the general meaning allowed a conditional interpretation and a syntactic reanalysis.

The free relative pronoun *hvar* could also express generality ('whoever'). It moreover appears clause initially, and there is accordingly a considerable number of (not only phonetic) features that it shares with the adverb. The main differences lie in its thematic role and its syntactic function, but in certain contexts these differences were non-crucial, I think, allowing a conditional interpretation nonetheless. The proposed changes were discussed above, and illustrated in figure 2, and will not be repeated here.

Combining the most important aspects of all of these changes, we end up with a sketch of the changes of conditional *hvar*. In figure 4. (below) I have tried to illustrate the main characteristics of this protracted process. A number of surrounding factors (e.g. the emergence of the nominal pronoun *ho*, the disappearence of *æn* and appearance of conditional *um*), which possibly influenced the changes, are not included in the illustration.

[104] Since interrogatives are a known source of conditionals (Traugott 1985, Hopper & Traugott 1993:179), it is important to point out that it is not an interrogative adverbial *hvar* that develops into a conditional.

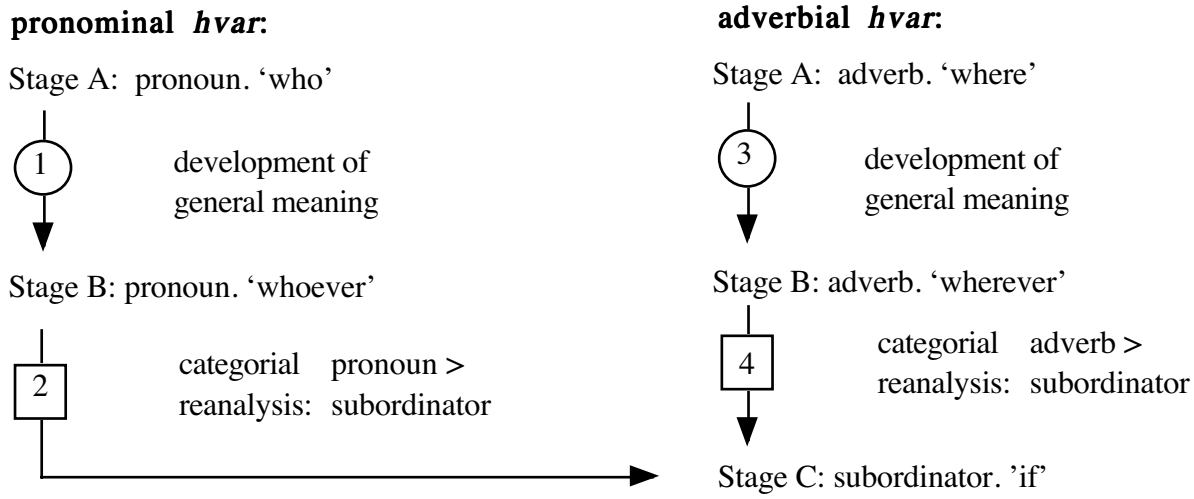

Fig. 4. *The changes of* hvar.

The initial changes, changes 1 and 3, are semantic. The changes that follow, changes 2 and 4, the result of which is the conditional subordinator *hvar*, are syntactic. As a result of the assumed reanalyses, the gram will, in its new role as a subordinator, express conditional meaning. In both of these latter cases, the changes are made possible by ambiguity (but see the discussion regarding ambiguity and vagueness in section 9.9). However, even though these changes were sequential, it is hard to ascertain the exact chronology, since ambiguity is the keystone in this process and since all forms existed in parallel for centuries. When the conditional *hvar* appears, its roots can accordingly not be firmly established and we can not say with any certainty which of the two possible sources it is derived from.

Concerning the possible pronominal source of conditional *hvar*, I wish to stress that the assumed development certainly is counterintuitive; the data do however seem to support the hypothesis, and the possibility of this change should not be neglected for mere intuitive reasons.

Worth noticing is the fact that all instances of *hvar* were in use during four or five centuries, creating opportunities for numerous interpretations of clauses with *hvar*.

6.5. Are the changes of *hvar* a case of grammaticalization(T/S)?

As in the previous chapters, the investigated changes are discussed here from the perspective of grammaticalization theory. The case of *hvar* is of course odd, since I assume that two source constructions have been involved in the changes.

6.5.1. Semantic changes

The following illustration gives an overview of the suggested semantic changes:

11. *The semantic development of* hvar

adv. *hvar*:	'where'	>	'wherever'	>	'if'
pron. *hvar*:	'who'	>	'whoever'	>	'if'

6.5.1.1 Bleaching

Both the pronominal and the adverbial *hvar* were deictic items, and needed support from their context to acquire proper reference (cf. Saeed 1997:173ff). Thus they did not express lexical meaning, and the semantic changes of *hvar* are accordingly not a matter of bleaching, given that the two instances of *hvar* probably did not have much lexical meaning to lose to begin with. Still, when the pronoun *hvar* and the spatial adverb *hvar* come to express a general meaning ('x-ever'), one might see this change either as a loss of specificity (in which case the original grams contained the semantic seeds of general meaning from the beginning) or as a later addition of a general meaning.

The argumentation of Visconti (2003) is relevant for this matter; she claims that both Italian *qualora* and PDE *whenever* can be interpreted as conditional subordinators because they initially are bimorphemic and thus semantically

compositional. Both grams contain a free-choice element (*qual-* and *-ever*) and a temporal element (*-ora* and *when-*). Visconti thus considers the further development ('whenever' to 'if') to be a form of semantic loss.

As was shown in section (6.2), in OSw the combination of the generalizing adverb *æ* and *hvar* indeed seems to have been interpreted as conditional more often than the simple *hvar* (adverbial or pronominal), in accordance with Visconti's hypothesis. However, even if *æ* may have been an active element in the semantic change,[105] it did not survive as a part of a complex conditional subordinator (*evar* is an archaic adverb meaning 'wherever' in MSw), and it also seems as if *hvar* could be interpreted as conditional on its own even in the earliest texts. Furthermore, the change of the Danish *hvis* did not require the presence of any generalizing element (cf. section 6.3.3), nor did the change of the German *wenn* (Pfeifer 1989:1938). So, it seems as if there are some arguments against Visconti's proposed requirement of a composition of two morphological elements (a free-choice item and a locative/temporal gram) for a gram of this type, a wh-element, to receive a general interpretation.

The traditional explanation regarding the origin of conditional *hvar* (which has been summarized above) is that *hvar,* when it was used as a free relative, in the right contexts could be interpreted as a conditional subordinator, and this assumption is given contemporary support by Haspelmath & König (1998:577f). In this view, *hvar* does not contain a general feature initially (unlike *whenever* and *qualora*), and the possibility to assign a conditional interpretation to a free relative clause arises in syntactic structures where the free relative clause is not an argument in the matrix clause. (11. a) can not be interpreted as a type of conditional sentence, whereas (11. b) can (these examples are quoted from Haspelmath & König 1998:577). An intermediate structure is (11. c), where the comma marks an intonational break, causing a non-argumental analysis of the relative clause – this matches the source

[105] *Æ* may be etymologically related to *ever*; both are possibly derived from a Gothic *aiw* (Hellquist 1980, Skeat 1953). However, ODEE (1966:332) and OCDEE (1996:158) state that *ever* is of unknown origin.

construction for Danish conditional *hvis* that was discussed above.

11. a. I'll buy whatever you are selling.

b. Whatever you are selling, I'll buy it.

c. I'll buy, whatever you are selling.

Considering that not only *wenn*, *hvis* (and possibly *hvar*) but also OSw temporal subordinators such as *mæþan* etc. (see section 3.7.3) have regularly been interpreted as conditional subordinators, seemingly without any other morpheme that might add general meaning being involved, the non-compositional explanation appears more plausible. Hence the semantic shift from 'where'/'who' to 'x-ever' is probably not a semantic loss, and not an instance of bleaching. Rather, general meaning is a common property of free relatives, and *hvar* accordingly acquired this meaning when it was used as a free relative.

6.5.1.2. Abstraction

The two instances of *hvar* start out in the categories Space/Person, and they change to the Quality-category. The changes are illustrated below:

12. *The semantic development of* hvar *in terms of cognitive categories*

adv. *hvar*:	Space ('where')	>	Space ('wherever')	>	Quality ('if')
pron. *hvar*:	Person ('who')	>	Person ('whoever')	>	Quality ('if')

Accordingly, both instances of *hvar* obey Heine et al's (1991) principle of abstraction.

6.5.1.3. Subjectification

The adverbial as well as the pronominal *hvar* originally expressed textual meaning, as did the resulting conditional subordinator. Both instances of *hvar* thus remain in the textual level during the changes.

6.5.1.4. Meaning retention and source determination

Above I claim that conditional *hvar* probably not did evolve through bleaching, and hence that there was no general meaning present in the source constructions ('who', 'where'). Instead, it seems as if the general meanings of *hvar* ('whoever, 'wherever') are results of discourse interpretations of *hvar*, and in the right contexts, also a causal relation may have been inferred, resulting in a conditional interpretation of the clause headed by *hvar*. *Hvar* has cognates in other languages (Italian *qualora*, German *wenn* and Danish *hvis*), and it appears that these grams are true conditional subordinators that are neither restricted by their lexical semantic origins, nor bear any distinct traces of it. Visconti (2003) states that *qualora* in Present Day Italian is exclusively found with the subjunctive mood and is purely conditional. The same applies to *hvis* and *wenn*; these grams no longer contain any traces of their semantic origins, but are used as default conditional subordinators in contemporary Danish and German. Hence it is probable that the conditional *hvar* did not express any semantic feature other than pure conditionality (Söderwall I:532 does not report any distinctive semantic qualities of conditional *hvar,* and nor can any such qualitites be discerned in the investigated texts, as far as I can tell).[106] A further argument for this hypothesis is that the free relatives that may serve as sources for conditional subordinators obviously can be of different types: locative (adverbial *hvar*), temporal (*qualora*, *wenn*) or argumental (pronominal *hvar*, *hvis*). So, the lexical meaning of the original pronoun or adverb may be irrelevant, not

[106] In Swart, e.g., *hvar* often appears in atypical conditional sentences. This is an indication that no specific semantic features restricted the usage of conditional *hvar*.

contributing to the conditional meaning at all, contra the hypothesis of source determination. To conclude, the source constructions do not seem to be decisive for the further development – it is rather the grams' ability to function as free relatives that enables a conditional interpretation.

6.5.2. Morphosyntactic changes

According to the traditional etymology, the adverbial *hvar* was reanalysed into a conditional subordinator, and above I have suggested that the pronominal *hvar* was reanalysed in precisely the same manner and hence participated in the formation of the conditional *hvar*. In both of the reanalyses, a movement to SpecCP was replaced with the merger of *hvar* in C. Danish *hvis*, a gram that is highly relevant in this argumentation, was also reanalysed in the same pattern. In the perspective of Roberts & Roussou (1999, 2003), this type of reanalysis is a typical syntactic simplification.

In this case, the categorial reanalysis yields a descent of *hvar* from SpecCP to C, which may be seen as a contradiction to Roberts & Roussou's view of grammaticalization as increase of syntactic scope. However, a lexical item that wh-moves can not occupy C, but must land in SpecCP. A reanalysis of the type Roberts & Roussou suggest (1999:1020ff), where a *move*-operation is replaced by a *merge*-operation, thus inevitably results in a phrase internal downward movement, since C is the position where clause initial functional heads, like subordinators, are merged. This type of change is accordingly fully in line with Roberts & Roussou's argumentation; the relevant base of comparison when it concerns change of scope is the original position of the adverb/pronoun and the final position of the subordinator.

6.6. Conclusion

Although I have assumed that conditional *hvar* had two source constructions, the paths of change seem to be practically identical, from the perspective of grammaticalization theory. The essential features of these paths of change are summarized below:

13. *The changes of* hvar

bleaching	no
abstraction	yes
subjectification	no
source determination	no
semantic retention	no
image schema preservation	–
structural simplification	yes

In chapter 9 I return to the changes of the two instances of *hvar*.

7. THE EMERGENCE OF CONDITIONAL *IFALL*

7.1. Introduction

The first cases of conditional *ifall*, which is still in use in MSw, appear in the middle of the 17th century. A corresponding subordinator is present in e.g. German (*im Fall, falls*) and in the other Scandinavian languages. It is clear that the subordinator is derived from the prepositional phrase *i fall*, in the sense of 'in case', but it is possible that German and/or Latin influence facilitated the development of the conditional meaning.

The descendants of Latin *casus* that are present in French (*en cas*) and English (*in case*) have presumably gone through a similar development.

In this chapter, the syntactic structures leading to MSw conditional *ifall* are presented and discussed, and the semantic development, which I will argue is common to several European languages, is scrutinized. In section (7.6), a concluding sketch of the assumed grammaticalization path is presented. It is followed (in section 7.7) by a theoretical discussion concerning the relation between the changes of *hvar* and grammaticalization(T/S). Since *fall* and *ifall* are covered by SAOB, and since the development of the conditional *ifall* takes place in the 17th century, SAOB has been my main source of information regarding *ifall*, but I have also done some research to confirm the data in SAOB.

7.2. *Fall* in OSw

Fall is a nominalization of the verb *falla*, 'to fall', and in OSw, it had a concrete meaning (1. a); it was also often used in the meaning 'fall of man' or just 'sin' (1. b). *Falla* could however also mean 'happen', 'occur' (Söderwall I:235) and consequently the nominalization could have the meaning 'event' or 'instance' (1. c) (Söderwall I:234).

1. a. hundraþa knæ **fal** gør han vm dagh. (Leg. Bu.)
hundred knee falls makes he a day
'he kneels a hundred times a day'

b. Han saghdhe til them Mine kæro brødher bidhin for mik oc waktin idher for mino **fal** (Tröst)
he said to them my dear brothers pray for me and guard yourselves for my fall
'he said to them: My dear brothers pray for me, and beware of my **sin**'

c. Ty at i töm **fallom**/ i bardagha kunno tima [...] (KS)
since that in those cases in battle may occur
'since in those **cases** that may occur in battle [...]'

In the latter example, *fall* occurs as a complement to the preposition *i* ('in'), forming a prepositional phrase. Prepositional phrases like these are the basis for the emergence of conditional *ifall*.

7.3. The semantic reinterpretation of *fall* and *casus*

Latin *casus* is the past participle of *cadere*, 'to fall', and *casus* could accordingly mean '(a) fall, accident', but also 'instance, case' (Skeat 1953:94; ODEE 1966:149). It was presumably the latter meaning that the translater (who might have been Varro) had in mind when using *casus* for the Greek grammatical term *ptôsis* (cf. Robins 1994:31ff, 55ff). Also *ptôsis* could originally mean '(a) fall' (ODEE 1966:149, Robins, ibid.),[107] and consequently we encounter three instances of a semantic shift from 'fall' to 'instance, case' in our investigation of the origins of conditional *ifall*: the Romance and English *cas/case*, the German and Scandinavian *Fall/fall* and the Greek *ptôsis*. It is reasonable to assume that the same semantic

[107] *Ptôsis* is a derivation of the verb *piptô* 'to fall'. It was used as a grammatical term for modifications in general by Aristotle, but it seems to have been the Stoics that assigned it the fixed meaning 'case'. (Jerker Blomqvist, p. c.).

process has been at work in these three cases.

The emergence of the meaning 'instance' from 'fall' is, I will argue, due to the fact that whenever anything falls, it will fall in one particular way or another (this does not apply to spheres or other perfectly symmetrical things, but such objects are rather scarce). The most apparent example is of course the game of dice, which has been known since ancient times; in Ur, Luxor and Jericho people played dice. One may also assume that as soon as King Gyges had invented the coin, his subjects started flipping it. In Swedish, the nominalization *utfall* (from the verb *falla ut*, which is equivalent with *fall out* in *We will see how his suggestions will fall out*) denotes results of random events, like the games just mentioned.

An image schema for *fall* must consist of at least two major variants – pure vertical falls (like falling apples) and falls from a standing position, where the trajector and the landmark are in constant contact (like falling trees).[108] However, in this case, I do not think that the image schematic structure can explain the semantic change in question, since such a schema can not capture the stocastic nature of falls in real life. Rather, it is our knowledge about the world (cf. Saeed 1997:183ff) that allows us to conclude that a fall ends with a state in which the fallen object assumes a new position, which can not be foreseen but nevertheless obeys some physical restrictions. Hence, one may assume that the 'instance' sense of *fall* may have emerged through metonymy; the restricted randomness at the end of the process of falling has in some circumstances been such a significant meaning component that it has ousted the other senses of *fall*, *casus* and *ptôsis*. The instance meaning is furthermore hypothetical – the final position of a falling item can not be predicted exactly, but only approximately. Therefore any such prediction will be a mere hypothesis about the future (and, as was argued in section 3.2.1, hypotheticality is a vital semantic component in conditional subordinators).

[108] Brugman & Lakoff (1988:495) use an image schema of this type to illustrate the meaning of *The fence fell over.*

7.4. The development of conditional *ifall*

In EMSw, we find some instances of the prepositional phrase *i fall*, where the complement *fall* takes a clausal attribute. In these cases, the subordinated clause that forms the complement is most often a clause headed by *att* ('that'), but there are some examples of clauses with *om* ('if') and *där* ('there') as well (the examples below are from SAOB I:103):

2. a. **Ifall** at Himmlen helsan min behagar, Förtröstar Jagh at han min resa lagar, Snart hijt igen. (SAOB, 1670)
in case that heaven-the health-the my pleases trust I that he my journey governs soon here again
'**if** heaven grants me health, I am convinced that he will bring me back here again soon'

b. **I fall** om Gudh skulle modheren innan dess medh döden hädankalla. (SAOB, 1675)
in case if God should mother-the before that with death-the call
'**if** God should call the mother before that'

c. Men **i fall** dher han Skulle komma i annat giffte och hans hustru lefde honom effter, då skall [...] (SAOB, 1676)
but in case where he should come in another marriage and his wife lived him after then shall
'but **if** he should remarry and his wife lived after him, then shall [...]'

As in the case with *om*, it is higly probable that *ifall* emerges as a single subordinator through the process of univerbation, as illustrated in (3.):

3. [PP P **i** [DP **fall** [CP C att/om/där [IP...]]]] >

[PP P **i fall** [CP C att/om/där [IP...]] >

[CP C **i fall** att/om/där [IP...]] > [CP C **ifall** Ø [IP...]]

In the process of change, *fall* loses its nominal features and can no longer be determined by quantifiers, for example.[109] The reanalysis also shows graphically in that the spelling *ifall* becomes increasingly frequent (in MSw, this is the recommended spelling).

A similar reanalysis has probably caused the rise of the MSw complex preposition *i fall av* (SAG 2:720), which, like *in case of*, may be classified as a conditional preposition (cf. SAG 2:712).

7.5. An unexpected circumstance

As we have seen, *ifall* develops from the conditional combination *ifall att/om/där*. This is thus no gradual semantic change, and there are no intermediate senses (as perhaps would be predicted by grammaticalization theory). Therefore it is unexpected to find examples of *ifall* used as an interrogative subordinator. This is nevertheless the case; in contemporary Swedish, *ifall* is used as both conditional and interrogative. The earliest example of this novel use in SAOB is from 1900, and another example from the same year can be found in Gustaf af Geijerstam's *Boken om Lille-Bror*:

[109] It is still possible to modify *fall* in MSw (*i många fall* 'in many cases', *i sådana fall* 'in such cases' etc.), but not when the gram is used as a conditional subordinator.

4. Och han brydde sig då aldrig om, **ifall** han avbröt leken och förargade de andra barnen. (af Geijerstam)
and he cared refl. then never PL whether he interrupted game-the and annoyed the other children-the
'and then he never cared about **whether** he interrupted the game and annoyed the other children'

The presence of the verb particle *om* (the particle verb *brydde sig om* means 'cared about') here is conspicuous; one reason for using *ifall* here might be that this is a way of avoiding reduplication of *om*. If this is the case, the conditional meaning of *ifall* must in some way have allowed the interrogative meaning to arise. To me it seems likely that *ifall* has acquired this new meaning by analogy with *om*, given that the speakers treated *ifall* and *om* as syntactic and semantic synonyms. In *Bonniers svenska ordbok* (1986:254) the only note about *ifall* reads: *om*. No more and no less. Given that this lexicon (incorrectly) treats *ifall* as the absolute synonym of *om*, it is possible that speakers in general have drawn the same conclusion.

It is also possible that the decline of the interrogative subordinator *huruvida*, which at this time acquired an increasingly narrower stylistic distribution, has affected the rise of interrogative *ifall*.

Another indication of analogy with *om* are the rare cases of concessive *ifall* that occur during the 17th century:

5. Doch är [... turken] them Spanskom icke så synnerligen förskräckeligh, ... effter tilförszlen til Siös för then fiendtlige armeen, **i fall** hon **skönt** posto fattat hade i Spaniens italienska besittningar, lätteligen kunde affskuren blifwa. (SAOB, 1680)
still is [... Turk-the] them Spanish not so verily frightful since transportation-the at sea for the hostile army-the, in case she even stand taken had in Spain's Italian provinces, easily could intercepted become
'still [... the Turks] are not very much feared by the Spaniards, since the transportation of supplies from the sea to the hostile army, **even if** it had been entrenched in Spain's Italian provinces, could.easily be intercepted'

There is no concessive *ifall* in MSw (cf. section 3.5.2.1).

The interrogative and concessive uses of *ifall* have probably emerged by analogy with *om*; the speakers have assumed that since *ifall* can be used as a conditional subordinator, it can also, just like the default conditional subordinator *om*, be used as an interrogative and concessive subordinator.

7.6. A sketch of the changes of *ifall*

The proposed chain of changes is depicted in figure 1.

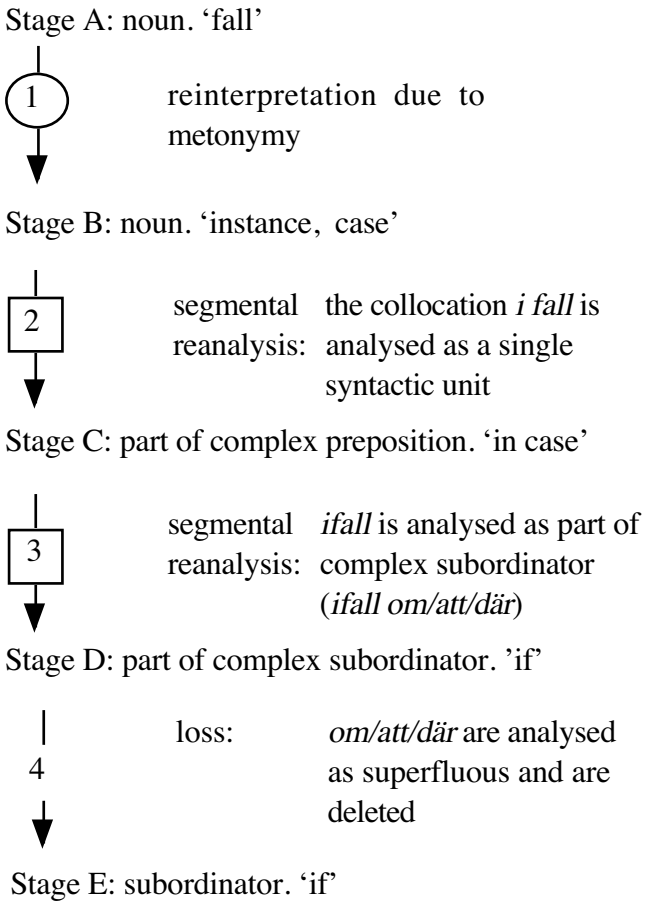

Fig. 1. *The changes of* ifall.

It must be emphasized that the preposition *ifall* has only been used with clausal complements (*att/om/där...*), and that it thus never has functioned as a regular preposition in Swedish.

7.7. Are the changes of *ifall* a case of grammaticalization(T/S)?

As was the case with *um*, *ifall* probably becomes conditional through univerbation. But unlike *um*, the initial semantic features are crucial for the development of the conditional subordinator, since the possibility of a conditional interpretation is a latent property of *fall*, one of the grams that merge to form *ifall*. This is shown by the MSw complex conditional preposition *i fall av*, e.g., and by similar grams in other languages (English *in case*, German *falls*, Spanish *en caso de que* etc.).

The semantic point of departure is thus, I presume, the nominalization *fall*. If so, then one of the semantic steps in the path of change is bleaching, since a change of meaning from 'fall' to 'instance, case' clearly constitutes a loss of lexical meaning.

Concerning abstraction, it is however not self-evident how the semantic changes shall be analysed. The initial meaning ('fall') is, arguably, an item that belongs to the category of Activity, given that a fall is a type of process (cf. Heine et al 1991: 55). The next meaning, 'instance, case', on the other hand, is harder to classify, but since it does not seem to fit in any other category (Person, Object, Space or Time) the solution must be that is belongs to the category Quality, and consequently the changes obey the principle of abstraction. But again one may conclude that the category Quality in Heine et al's (1991) model functions as a type of last resort for meanings that are hard to define in terms of cognitive categories.

The hypothetical meaning 'instance' is directly derived from the basic meaning 'fall', and hypotheticality is of course a vital feature of conditional subordinators. Hence the original meaning ('fall') has had a decisive effect on the further development, and the conditional subordinator *ifall* thus displays both source determination and semantic retention.

The use of *ifall* in MSw is somewhat restricted (see section 3.5.2.1) – unlike *om*, it can not be used in all types of conditional sentences. *Ifall* is almost only found in typical conditional sentences that are clearly causal and hypothetical (PDE *in case* seems to have kept more of its original meaning – cf. Declerck & Reed 2001:21ff). The cause of this restricted use is probably that *ifall* initially was neither multifunctional nor polysemic – from the 17th century until the beginning of the 20th century, it was only used as a conditional subordinator. Then an interrogative *ifall* appears, but no other functions have emerged since. Therefore I think that *ifall* is quite clearly defined by the language users as a conditional and interrogative subordinator, and nothing else, and thus it is not used in constructions that are non-conditional (or non-interrogative). Consequently, clearly atypical conditional sentences such as the ones discussed in section (3.2.3.2) might be excluded from the group of acceptable environments for conditional *ifall*. *Om*, on the other hand, is highly multifunctional and polysemic, and its multitude of meanings and functions can hardly suggest any specific restrictions of usage for the language users and language learners.

One may also, considering subjectification, conclude that *fall* changes from being an element expressing propositional meaning (a noun) to an element that expresses textual meaning (a subordinator). Initially, it seems as if *fall* did not change along these lines on its own merits – it was rather the merger with other elements (the preposition *i* and the subordinators *om*, *att* and *där)* that caused this change. However, a prerequisite for the merger between *i* and *fall* was that *fall* had acquired the meaning 'instance', and thus the ultimate cause of the change of syntactic category may still have been *fall*. The syntactic changes are illustrated below:

6. *The syntactic development of* ifall

PP	>	preposition	>	part of a complex subordinator	>	subordinator

This aspect of the changes highlights the problems that are encountered when a gram that has developed through univerbation is analysed in terms of grammaticalization(T); such a gram has in general inherited meanings and functions from other grams (by semantic and/or syntactic transfer). It may accordingly have several linguistic ancestors, and there is not just one path of change, but two, or even three.

The categorial reanalyses (illustrated in 3. above) successively reduce the syntactic complexity, eventuelly yielding a simple subordinator. The reanalysis is however not, I presume, an instance of move > merge, and hence it does not follow the hypothesis presented by Roberts & Roussou (1999, 2003; cf. section 9.8).

With these possible caveats in mind, I suggest that the changes that led to the MSw conditional subordinator *ifall* may be analysed as below:

7. *The changes of* ifall

bleaching	yes
abstraction	yes
subjectification	yes
source determination	yes
semantic retention	yes
image schema preservation	?
structural simplification	no

Ifall scores high as a candidate for grammaticalization(T), but each of the analyses is problematic, due to the fact that the conditional subordinator *ifall* emerged through univerbation, a process of change that in some respects may be an anomaly for grammaticalization theory. In section (9.6), the process of univerbation and its relation to grammaticalization is further discussed, and there the changes of *ifall* and *om* are central, of course.

8. THE EMERGENCE OF CONDITIONAL *BARA*

8.1. Introduction[110]

In MSw, *bara* is polysemous and multifunctional to a considerable degree. SAG provides two entries in the index (an adverb *bara* and a subordinator *bara*), but to study these two words, the reader is referred to no less than 42 paragraphs in 14 different chapters. As the extensive coverage of *bara* in SAG indicates, the situation in modern Swedish is strikingly complex. Recently, *bara* has for instance become a discourse particle in the shape of *ba* (cf. Eriksson 1997, Dryselius & Lundin 1999). The crucial period for the development of conditional *bara* is however 1500–1800, approximately, and at this time the semantic and syntactic features of *bara* are somewhat easier to grasp.

As a conditional subordinator, *bara* appears at the beginning of the 18th century. The first examples in SAOB (B 295) are from 1786, but it was actually used already in 1726, an example which SAOB refers to but does not quote (see 5. a), and in the stylistically innovative journal *Argus*, which was launched in 1732. It is still in use in this function, and in contrast to the default conditional *om* it can carry two distinct sub-meanings (SAG 4:§141); one of these is desire (as the PDE combination *if only,* cf. Declerck & Reed 2001:384f). The speaker may also use *bara* in order to underline that the condition in the protasis is sufficient cause for the event in the apodosis.[111] These semantic properties of conditional *bara* make the use of it restricted (Wijk-Andersson 1991:179) – it can not, as a rule, be used in atypical conditional clauses. The restrictions of *bara* were examined in section (3.5.2.2).

[110] The gist of this chapter has been presented at the Grammaticalization network in Copenhagen and at ICHL 16 (Rosenkvist 2003), and it will be published as Rosenkvist (in press). I thank all those who have kindly offered suggestions for improvements.

[111] The combination *bara om* indicates a necessary condition (like the PDE *only if*), but here *bara* is merely used as a focussing or restricting adverb, which is one of its main uses. There is thus no reason to include *bara om* in this discussion – in this combination, *bara* behaves just as it does in *bara när* (*only when*) or in *bara då* (*only when*). Cf. SAG (2:742) for a similar line of reasoning concerning *som om* ('as if').

The etymological origin of *bara* is quite clear. It was originally an adjective with the meaning 'naked, uncovered', and it is of course related to PDE *bare* (Hellquist 1980:51, Skeat 1953:48). The development of *bara,* from an adjective with distinct lexical meaning to conditional subordinator, is discussed and exemplified below. As the interesting changes occur during the 17th and 18th centuries, the development until then is only described briefly.

The similar conditionals *allena(st)* and *blott*, which may have affected the change of *bara*, and the pair *enbart* and *endast* will also be taken into consideration.

An important source for data about *bara* is, besides the standard works SAOB (the article about *bara* is however somewhat antiquated, as it was completed in 1899) and SAG, a recent, mainly descriptive, dissertation by Wijk-Andersson (1991), which I will refer to quite frequently in this section.

8.2. *Bara* until ca. 1500: etymology, functions and meanings

Bara was originally, according to SAOB (B 292), an inflected variant of the EOSw adjective *bar*, which had the meanings 'bare, naked, uncovered'; the affix *-a* is frequent in the nominal paradigms of inflection in OSw. The root is probably Indo-European (Hellquist 1980:51, Pfeifer 1989:122), and it consequently appears, with approximately the same basic meaning, in a number of languages that are closely related to Swedish. The inflected adjective is one possible source for the adverbial *bara*.

Another possible explanation for the adverbial *bara* might be that it has been developed from the adjective *bar* through derivation. In the old Nordic languages, a derivating suffix *-a* could be employed when adjectives were turned into adverbs (Hanssen et al 1975:86). Both *ill-a* ('badly') and *gärn-a* ('gladly') are examples of such derivation (cf. Wijk-Andersson 1991:52f). However, it seems as if this kind of suffixation was rather rare, and it is very unlikely that it was in use at the time when adverbial *bara* appears (SAOB's first examples are from the end of the 16th

century).

In EOSw, the adjective *bar* had already developed the meaning 'obvious, manifest' (Söderwall 1884–1918:78), which in MSw survives in the legal phrase *på bar gärning* ('in flagranti'). Later, in the 16th century, additional functions and meanings of *bar* and *bara* arose, and since then *bara* has continually been in a state of flux, both syntactically and semantically.

SAOB (B 281-295) classifies three lexical instances of *bara*: as an inflected form of the adjective *bar*, as an uninflectable adjective[112] and as an adverb and subordinator.[113] A number of various meanings are presented in SAOB, and I will suggest that these can be attributed to two different paths of semantic development. One of these, the meaning of 'obvious' and the related meanings, was a semantic cul-de-sac.

8.3. The initial semantic development of EMSw *bar* and *bara*

At the beginning of the 16th century, when the OSw period ends, the adjective *bar* may mean either 'naked, uncovered' (1. a) or 'obvious, manifest' (1. b).

1. a. oc the hwggo hiälmen aff honom oc bleff sedan **baar** oc owänkter [...] (Troja)
and they hacked helmet-the off him and became then bare and unprotected
'and they hacked off his helmet and he then became **bare** and unprotected [...]'

[112] SAOB must recognize such an adjective; even if its meaning strongly resembles 'only' and the form is identical with the adverb, the syntactic distribution is clearly that of an adjective: *Een baara Hutlare rätt ästu* 'you are a mere cheater' (SAOB, 1648). This *bara*-variant is clearly marginal, though (there are very few examples from just a short period), and it will not be included in this discussion.

[113] It is pointed out in SAOB (B 288, remark 3) that it is not easy to draw distinct lines between these different functions of *bar* and *bara*, or between the inflectable *bar* and the uninflectable *bara*. I can only concur.

b. Heluetet är **baart** för honom, och förderffuet haffuer intet offuerteckelse. (SAOB, 1541)
hell-the is obvious for him and perdition-the has no excuse
'Hell is **obvious** for him, and the perdition has no excuse'

At the end of the 16th century, an adverbial *bara* appears, with the meaning 'completely, fully' (2. a), and some decades later we find examples of an adjectival[114] *bar* with a very similar meaning (2. b).

2. a. [Han] leet [...] föra henne **bara** nakot vthi ett gemeene Skökiehws. (SAOB, 1591)
[he] let take her stark naked into a common whorehouse
'[he] had [...] her taken **stark** naked to a common whorehouse'

b. Sin Son then hon **baar** vng leffde effter sigh vthi Danmarck. (SAOB, 1620)
her son which she all young left after refl. in Denmark
'her son who she left behind **completely** young in Denmark'

It seems likely that this meaning ('completely') emanates from the earlier meaning 'obvious, manifest' (1. b). Another meaning that is probably related to this small semantic field is a sense related to money ('cash'), which we find as early as 1540 (SAOB:B 286). SAOB mentions the German constructions *bares geld*, *bar bezahlen* as a possible source of influence for the emergence of this meaning. In contemporary Swedish, none of these meanings are in use (except in the fossilized

[114] SAOB classifies this *baar* as an adjective probably since it seems to be inflected for person and number.

phrase *på bar gärning*, as was mentioned above).[115] The related meanings 'obvious', 'completely' and 'cash' consequently seem to have been dead ends, and they did not, I assume, take part in the rise of conditional *bara*.

In the early 17th century, we find a new meaning of the adjectival *bar*: 'only, merely' (3. a). At about the same time (the first example in SAOB is from 1620), an adverbial *bara* appears, with exactly the same meaning (3. b):

3. a. Uti Canalen och Gibraltar, ther man icke [...] tullar för **bara** passagen. (SAOB, 1640).
in channel-the and Gibraltar where you not pay for only passage-the
'in the Channel and Gibraltar, where you do not [...] pay duty **merely** for the passage'

b. En manade den andre ut til at fäckta **bara** för skryyt skull. (Columbus)
one urged the other PL to fence only for boast sake
'one urged the other to fence **only** for the sake of boasting'

It is plausible that this meaning ('only') has emerged from the basic meaning of *bar* ('naked, uncovered'), I think, since these meanings in a sense overlap; a naked sword is nothing but a sword, or only a sword. It is hence not surprising to find examples that may be interpreted in both ways:

4. Så stule de bort hans swälzbalia, at han danza mädh **bara** värian. (Horn)
so stole they away his scabbard that he danced with only rapier-the
'then they stole his scabbard, so that he danced with **only/the bare** rapier'

So, at the end of the 17th century, *bara* carries three specific meanings: 'naked', 'obvious' (which I will ignore from now, for reasons mentioned above) and the

[115] Wijk-Andersson (1991:108) includes this use of *bar* among the concrete 'naked'-meanings, which to me appears incorrect. *Gärning* ('deed') is not a concrete noun, and hence it arguably can not be modified by a concrete adjective.

exclusive (i.e., non-inclusive) meaning 'only', and it may function as an adjective or as an adverb, but not yet as a subordinator. The exclusive adverb *bara* is still in use, and SAG classifies it as a focussing adverb; by connecting it to a phrase or word, the phrase or word is put in focus (SAG 2:677f; SAG 4:152ff).

The initial meaning changes of *bara* are relatively unspectacular, and I think that the development can be assumed to be triggered by semantic vagueness – the basic meaning ('naked, uncovered') allows for other interpretations, which may be supported by the discourse context. From the meaning 'naked', it is easy to see that the meaning 'obvious' is a natural step (something that is naked or uncovered of course allows unhindered visual inspection), just as the meaning 'only' is. Both these semantic changes result in more abstract meanings. As for the syntactic development of *bara*, I assume that the adjective meaning 'only' was reanalysed as an adverb with the same sense, since the meaning 'only' is well suited for the modification of VPs as well as NPs.[116]

8.4. The development of conditional *bara*

According to SAOB (B:295), the very earliest example of a conditional *bara* (5. a) can be found in a protocol from the Swedish House of Knights, in an utterance of Count Lewenhaupt. SAOB refers to this example, but does not quote it, and Wijk-Andersson seems to have missed it. On the other hand, she might have neglected it on purpose, since the meaning of *bara* in (5. a) is not entirely clear, even if the entire text where it appears is studied. I have glossed it as *if just*, which I consider to be a close PDE equivalent (along with 'provided', 'as long as'; in some cases, it is difficult to provide an idiomatic English translation of *bara*). The example seems to suggest, however, that *bara* here is used in the meaning 'if and only if', but the fact that *bara* does not appear in this sense in any other texts from this period (to the best

[116] The adjectival and the adverbial *bara* meaning 'only' appear simultaneously, more or less, but the adjective 'only' is a necessary intermediate step between the adjective 'bare, uncovered' and the adverb, I think, since I find a change of the type adjective 'bare, uncovered' > adverb 'only' inexplicable.

of my knowledge) makes this very unlikely.

Another early example (5. c) comes from a spoken line in a comedy, and in the context, which otherwise is ridicously highbrow, it is clearly informal. Also the example from SAOB (5. d) is written as direct speech. In her samples from *Argus*, Wijk-Andersson (1991:77) finds eight instances of *bara*, four of which come from a chapter about the folly of servants.[117] She points out (1991:78, 83) that in the 18th century *bara* did indeed belong to contexts of ordinary life; it is at this time unceremonious and down-to-earth, a statement confirmed by SAOB (B 3476).

5. a. Gref Charl Emil Lewenhaupt: Vij skrida til vahlet, **bara** vij intet taga någon utom Riddarhuset. (SAOB, 1726)
count Charl Emil Lewenhaupt we go to election-the only we not take anyone outside House of Knights-the
'Count Charl Emil Lewenhaupt: we proceed to elections, **if** we **just** do not choose anyone outside the House of Lords'

b. Gerna, **bara** hon intet will wara olåtig: Hon skal kunna giöra god Ragout utan Champignon [...] (Argus, 1732)
gladly, only she not will be impractical she shall be-able make good ragout without mushroom
'with delight, **if only** she is not impractical. She must be able to make nice ragout without mushrooms [...]'

[117] As I said in the introduction to this section, some of the first examples (like 5. b) of conditional *bara* can be found in *Argus*, a journal that is considered to be a milestone in Swedish language history, marking the beginning of the period of late modern Swedish. The reason is that the style in the journal is remarkably informal and presumably quite close to the spoken language. These qualities make the presence of linguistic novelties in *Argus* unsurprising.

c. det bästa är at han bär hiertat tämeligen lågt i böxorne,
så at **bara** jag ser på mitt steke-spett här, så kusar
han som en hund. (Gyllenborg)[118]
the best is that he carries heart-the quite low in trousers-the
so that only I look at my skewer here then crouches
he like a dog
'the best thing is that he carries his heart quite low in
his trousers, so that **if** I **just** glance at my skewer here,
then he crouches like a dog'

d. Jag har så mycket [...] at berätta er, men **bara** jag får se er så
glömmer jag bort altihop. (SAOB, 1786)
I have so much to tell you but only I may see you then
forget I PL everything
'I have so much [...] to tell you, but **if** I **just** get to see you, then
I will forget everything'

In (5. c, d), *bara* appears with the properties of a typical conditional subordinator – it is clearly the initial word in the protasis, and the apodosis is headed by *så* (*then*).

There are a small number of examples where the subordinating *bara* appears with another subordinator (like in 6.), but these are certainly very few (I have only found a single one, also from *Argus*, in the examined texts):

6. Stor sak huru det går utwärtes, **bara at** man är frisk inwärtes. (Argus)
big thing how it goes outside only that you are healthy inside
'no matter what happens on the outside, **if only** one is healthy inside'

SAOB does not mention any combinations with *bara* and a subordinator, which it does in the case of *ifall*, for instance (see the previous chapter). Thus it does not seem likely that the subordinating *bara* is a result of any form of univerbation. From

[118] Wijk-Andersson (1991:75) dates this example to 1740, while SAOB gives the year 1737. The cause of the confusion is that the play *Swenska Sprätthöken* was staged in 1737, but printed in 1740 (Nordisk Familjebok 9:82).

a syntactic perspective, we hence must assume that the bare adverb *bara* is the source of the conditional, since there are just no other options.

Interestingly, from the same time as conditional *bara* appears, one finds examples of yet another novelty: a desiderative *bara*. (7. b) is an example from a Swedish-English-Latin dictionary, in which *bara* is used as a direct translation of *but*:

7. a. Lät **bara** min Sissa Cammar-Piga komma fram (Argus)
let only my Sissa chamber-maid come PL
'just let my chambermaid Sissa approach'

b. **Bara** lyd mig åt, Be but ruled (SAOB, 1741)
only obey me PL
'just obey me'

c. Gå dumma Höna – **bara** gå. (SAOB, 1793)
go stupid hen just go
'leave, stupid hen – just leave'

Here we find that the adverb *bara* has acquired a new, not strictly exclusive meaning, which may be called desiderative (cf. Trask 1996:80), since it underlines a wish or desire, just as *only* does in *If he only could leave now!* [119] Wijk-Andersson (1991:82) considers, according to her table 3.4.3.I, this use of *bara* to be modal, and

[119] The first example in SAOB is as early as 1670, but I fail to see that this must (or indeed should) be interpreted as anything other than an ordinary adverbial *bara* in the exclusive meaning (I thank Gösta Holm for his kind assistance in the interpretation of the sentence below):

> Allting syns wunnit och förskämt / Hwar gullet **barast** blifwer nämt. (SAOB, c. 1670).
> *everything seems lost and rotten wherever gold-the only is mentioned*
> 'everything appears to be spoiled, **if** the gold **just** is mentioned'

There are two reasons for not counting this as a desiderative *bara*; the clearly undesirable context does not allow a desiderative interpretation, I think, and it furthermore seems more reasonable to analyse *barast* as a modifier of the verb phrase *blifwer nämt*, in the sense 'it is enough to mention the gold'.

Barast was the superlative form of *bara*, but neither SAOB nor Wijk-Andersson report any idiosyncratic semantic or syntactic features of this form. It was in all respects synonymous with *bara*, it seems.

she asserts that this is a new meaning of *bara* that developed in the 18th century. SAG (4:161ff) states that in the exclusive meaning of *bara* a sense of negation ('nothing but', 'no more than') is incorporated, and that this element is "fairly clearly discernible" (my translation) also when *bara* is used in desiderative imperative clauses of the type in (7. a). SAG's idea (which is further discussed below) is that an imperative clause with *bara* (like the examples in 7.) represents a wish – *Just leave!* can be paraphrased as *I wish nothing but that you leave.*

In SAG's reformulation, *bara* clearly affects the interpretation of the entire clause. One of the main differences between exclusive and desiderative *bara* can therefore be assumed to be a matter of scope, I think. The adverb *bara* is a focussing adverb, but the scope of its focus varies. The focussed element is regularly marked by stress. The differences in scope can be illustrated by the following examples, in which the underlined segments represent the scope of the focussing *only* (cf. Wijk-Andersson 1991:117, 120, Abraham 2001:40f):

8. a. I can see **only** Calvin (and none else).

b. I can **only** see Calvin (and none else).

c. I can **only** see Calvin (I can not hear him).

d. I can **only** see Calvin (I can not hear Hobbes).

e. I can **only** see Calvin (but Mary can hear Hobbes)

f. If I **only** could see Calvin!

In (8. a), *only* functions as an adjective (it modifies an NP; cf 3. a), while it is adverbial in (8. b–f). No single part of the clause in (8. e) is stressed, an indication that it really is the entire clause that forms the focus of *only*. Similarly, the scope of *only* in (8. f) can be assumed to be the entire clause. The adverb *bara* appears to

acquire this function during the 17th century (Wijk-Andersson 1991:69ff, 82f, 170f) – it has accordingly been reanalysed into a sentence adverb (cf. Trask 1996:251; SAG 4:84). Hence, we have found a *bara* that is uninflectable and that affects the entire clause. It can furthermore be clause initial (as in 7. b, c). These properties are all typical and significant of subordinators. Another factor of importance is of course that imperatives and desiderative clauses due to their special semantic features are often interpreted as conditional (see section 3.2.3.1).

Regarding the semantic change from exclusive to desiderative, SAG (4:161ff) claims that in both the exclusive and the desiderative meaning a negative element is incorporated, as was mentioned above, and such an element can be said to have been present already in the original adjective, meaning 'uncovered'. The development of desiderative *bara* is then an extension of the exclusive meaning ('no more than') to a new unit, a desiderative clause. On the other hand, the desiderative context seems to obscure the streak of negativity in *bara*; SAOB (B 3478) defines the desiderative meaning of *bara* as: "without pronounced exclusive meaning, to emphasize more strongly a request, a condition, a wish or a statement" (my translation). Wijk-Andersson likewise defines the desiderative *bara* (which she calls modal) as non-exclusive (1991:171ff), and Abraham clearly states (regarding the German focus particles *bloß* and *nur*) that "What focus particles do, in general, is measuring out a local, direct scope of predicate properties much akin to deictic pronominal *das*" (Abraham 2001:42), and does not mention any negative features of such particles. The negation immanent in *bara* is probably hard to detect since it is no lexical negation, but a restriction of the focussed elements. So, the main meaning of desiderative *bara* is to distribute focus, to underline, but it also contains a sense of negation, as pointed out by SAG (4:161ff).

When the *bara*-variants appear in the exclusive sense, they form part of a statement, or a proposition, whereas the desiderative *bara* by definition can not appear in such a context; desiderativity presupposes irrealis/unreal modus, or hypotheticality. One can not wish a fact. Hence, when *bara* is used in desiderative

contexts, it is part of a hypothetical clause.

From a more general perspective, we know that adverbs are often recruited as subordinators (*after*, *before*, *since*), and we know that modal expressions may serve as sources for conditionals (Hopper & Traugott 1993:179). Indeed, the Mandarin *yào* can, according to Hopper & Traugott, convey several related meanings: 'wish, be necessary, if'. The semantic resemblance to desiderative *bara* is obvious. These circumstances all suggest that it must have been a small and perhaps natural step for the language user to start using *bara* as a conditional subordinator.

The chronology of the development of conditional *bara* is a bit unsatisfactory, from a language historian's point of view. When working with texts from such a late period, one would expect to find clear examples of all the relevant stages, neatly following each other and eventually leading to the goal, the conditional subordinator. In the case of *bara*, the really crucial stages and the goal nonetheless appear simultanously. But I still propose that there is a successive development, and I think that the reason why it is not observable is that *bara* belonged to a style that was not written to any extent until it was too late – the change had already taken place. Subordinating *bara* has furthermore never been frequent, as it has been competing with other conditional subordinators such as the default *om* and its more formal counterparts *allena* and *blott*. The scarcity of conditional *bara* makes the change even harder to observe.

8.5. Some similar grams: *allena(st)*, *blott* and *enbart/endast*

The topic of Wijk-Andersson's dissertation (1991) is *bara* and its equivalents *blott*, *enbart*, *endast*, *uteslutande* and *allena(st)*. The latter appears in two forms (*allena* and *allenast*), and SAOB (A 991–996) treats them as two separate words, although they clearly are very closely related. The reason for the separate treatment will be presented below. All these words have a similar basic meaning, but Wijk-Andersson presumes that when they are scrutinized, interesting semantic and syntactic variances

will emerge. In the diachronic part of her dissertation, she provides a detailed account of how new meanings and functions developed in this group of words.

Here, *allena(st)* and *blott* are our main interest, as they, like *bara*, were regularly used as conditional subordinators (*allena* is not used as a conditional in contemporary Swedish, but conditional *blott* may still appear in formal, poetic or archaic contexts). Conditional *allena(st)* predates conditional *bara*, while conditional *blott* seems to have developed at about the same time as, or shortly after, conditional *bara*. Also *endast* was used as conditional for a short period, and it will be studied in comparison with *enbart*, which did not evolve into a conditional. Consequently, I hope that a study of these words may tell us something about the changes that *bara* has gone through.

As *allena(st)*, *blott* and *endast/enbart* are discussed mainly in search of facts that may corroborate or falsify the hypothesis that desiderative *bara* was a necessary step in the evolution of conditional *bara*, I will concentrate on such features as can be supposed to be salient and relevant in this context, and I rely almost exclusively on the data provided by SAOB and Wijk-Andersson (1991).

8.5.1. *Allena(st)*

Allena can be found in EOSw, and like English *alone* it was originally a compound of the parts *all* and *ena* ('one'), meaning 'solo', like the German *allein*. But already in EOSw (Söderwall I:27), *allena* could, either as an adjective or an adverb, also mean 'only'.

Allenast is according to SAOB (A 995) the superlative form of *allena*, just as *enast* is the superlative form of *ena* (Söderwall I: 220f). It is hard to tell whether it was the adjective or the adverb *allena* that served as the base of the comparison, since both adjectives and adverbs were inflected in the comparative and superlative in OSw. Anyhow, *allenast* served only as an adverb in OSw, and it had the meaning 'only' (Söderwall I:27).

Now, since the forms *bara* and *barast* seem to have been synonomous in all relevant respects, one would perhaps expect that *allena* and *allenast* should follow this pattern. They do not, however. SAOB (A 994) does not report any instances of subordinating *allena*; instead, *allena* is used, rather rarely, as a contrastive coordinator:[120]

9. Alt thet som röres och leffuer, thet ware idher til maat ... **Allena** äter icke kött; thet än nu leffuer j sinom blodh. (SAOB, 1541)
all that which moves and lives that is-subj. you for food only eat not meat that still lives in its blood
'everything that moves and lives, that is for you to eat ... **But** do not eat meat that is still alive in its blood'

But the form *allenast* is used as a conditional subordinator, corresponding to *bara* or *if just/provided*, either in combination with *att* or on its own:

10. a. Giffte sigh hwem [dvs. med hvem] the wilia, **allenast** at the giffta sigh in j sina ätt och fadhers slechte. (SAOB, 1541)
marry-subj. refl. whoever they want only that they marry refl. into their family and father's dynasty
'may they marry whoever they want to, **provided** they marry into their family and their father's dynasty'

[120] Adhering to the same grammatical tradition, both SAOB and Wijk-Andersson (1991:98) treat coordinators and subordinators as one major lexical category, and they provide no deeper analysis. From the syntactic contexts of their examples and their sporadic but illuminating comments, however, it is often (but not always) easy to differentiate between coordinators and subordinators.

b. Om någon, för särdeles skiäl och Orsaker skull, wil i Fastan gifta sig, bör sådant icke wägras, **allenast** thet skeer i stillheet, och utan alt Brudebång. (SAOB, 1686)
if anyone for special reasons and causes sake want in Lent marry refl. should such not denied-be, only it happens in silence and without all bridenoise
'if anyone, for special reasons and causes, wants to marry during Lent, then that should not be denied, **provided** it occurs in silence and without any marital noise'

The pair *allena*/*allenast*, which have precisely the same etymological background, thus offers an interesting asymmetry. Wijk-Andersson (1991:47) finds distinct semantic disparities between the contrastive coordinator *allena* and the conditional subordinator *allenast*. *Allena* underlines the opposition, whereas *allenast* underlines the single condition, she claims. What lies behind these differences? The cause of the asymmetry can, I think, be found in these grams' adverbial semantics.

Allena can, as an adverb, in the 16th century mean exclusive 'only' and hardly anything else (11. a). SAOB (A 994) quotes one example of an *allena*, in the form *allen*, that can be interpreted as desiderative, but that appears to be a singular example (11. b), which is rather late:

11. a. Messe prester som icke predica vtan **aleena** leffua aff rento som the haffua for messor. (SAOB, 1527)
mass priests that not preach but only live of tithes which they have for masses
'mass priests who do not preach but **only** live from tithes that they receive for masses'

b. Ah! att mitt Höga Mod **allen** ... (det) kunde ljda! (SAOB, 1688)
ah that my high courage only ... (it) could suffer
'ah! If my pride **only** ... could suffer it!

But *allenast* could clearly have a desiderative meaning already in the first decades of the 16th century – it is the first sub-meaning of *allenast* that SAOB mentions (A 995) – and, as was seen in (10. a, b), *allenast* could also be used as a conditional subordinator at that time. In the examples below (both from the Bible), desiderative *allenast* appears in an wishful exclamation (12. a) and in what seems to be an embedded imperative clause (12. b). This is identical to the distribution of desiderative *bara*.

12. a. Motte iach **allenast** komma wedh hans clädhe. (SAOB, 1526)
may I only come PL his robe
'may I **only** get to touch his robe'

b. Iagh wil giffua som j begäre, giffuer migh **allenest** pighona til hustru. (SAOB, 1541)[121]
I will give as you require give me only maid-the for wife
'I will give as you require, give me **only** the maid for wife'

Looking at the adverbial meanings of *allena* and *allenast*, we hereby can establish a crucial difference: *allenast* is used in the desiderative meaning very early and apparently quite frequently, whereas there are only few and late occurrences of desiderative *allena*. Since they otherwise share the same semantic features, it is likely that it is the desiderative meaning that makes the difference, eventually allowing the use of *allenast* as a conditional subordinator. This strengthens the hypothesis that the desiderative meaning of *bara* was a prerequisite for the succeeding change into a conditional subordinator.

Regarding desiderative *allena*, it might be a case of influence from *allenast*; likewise, there are a few late instances of contrastive *allenast* (SAOB, B 996) which perhaps can be explained as influence in the opposite direction. It would actually be surprising, I think, if all language users could sustain the fine syntactic and semantic nuances of *allenast* and *allena* without ever mixing them up.

[121] In the most recent translation of the Bible, *allenast* has here been replaced by a conditional *bara*.

8.5.2. *Blott*

The adjective *blott* was borrowed from Low German in the Middle Ages (Hellquist 1980:81). In OSw it had meanings like 'naked' or 'defenceless' (Söderwall I:127), but in EMSw it could mean 'only, mere'. SAOBs first example of this new meaning of the inflecting adjective is from 1572 (13. a). Some decades later, an adverbial *blott* shows up, also in the sense of 'only' (13. b), and in the early 18th century, at the same time as conditional *bara* makes its first appearance, we find a conditional combination *blott att* (13. c). About half a century later, *blott* can be used as a bare conditional subordinator (13. d):

13. a. Aff sinne **blotta** nådh... (SAOB, 1572)
of his mere mercy
'of his **mere** mercy ...'

b. Stilleståndet hafwer han ... giordt .. **blott** fördhenskull,
thet han .. icke förmåtte något emoot oss at uthrätta. (SAOB, 1617).
armistice-the has he made only because
that he not could anything against us achieve
'he has brought about the armistice **only** because he
was not able to achieve anything against us'

c. Jag kan förlåta et Fruentimmer, at det talar i tid och i otid,
blott at det blir innom skrankorne af sin bur. (SAOB, 1733)
I can forgive a female that it speaks in time and untime
only that it stays within bars-the of its cage
'I can forgive a female that she speaks at all odd times
of the day, **provided** she stays within the bars of her cage'

d. Han är nögd, **blott** han får detta, Modo hoc obtineat
contentus est. (SAOB, 1773).
he is satisfied only he receives this
'he is satisfied, **if** he **just** receives this'/'just this is enough to satisfy him'

Wijk-Andersson (1991:72) gives a resumé of the progress of *blott* during the 18th century which closely follows SAOB.

The hypothesis that desiderative meaning somehow is necessary when adverbs belonging to this group of words change into conditional subordinators does not appear to be corroborated; the first examples in SAOB (and in Wijk-Andersson 1991) of adverbial desiderative *blott* are as late as 1795. Therefore desiderative *blott* can not have contributed to the rise of conditional *blott*, seemingly, since this is earlier. However, going back to Argus (from 1732) once again, one actually finds examples of both unambiguously desiderative (14. a) and conditional *blott* (14. b, c) which accordingly are older than the examples provided by SAOB:[122]

14. a. Om jag **blott** woro snäll, jag swär wid spis och stuga,
jag skull' til Stockholm dra och för Kung FREDRIC buga. (Argus)
if I only was-subj. clever I swear by stove and cottage
I would to Stockholm go and for king Fredric bow
'if **only** I were clever, I swear by stove and cottage, I would
go to Stockholm and bow for king Fredric'

b. Liksom det intet woro lika godt, hwad wägar man går, **blott**
man får det man will. (Argus)
as it not was-subj. equally good which roads you go only
you get what you want
'as if it did not matter which ways you go, **if**
you **just** get what you want'

c. Stor sak med hwad wårdzlöshet et Testamente skrifs, **blott**
det har något gott at innebära. (Argus)
big thing with which carelessness a will written-is only
it has something good to bring
'no matter if a will is written carelessly, **provided** it brings
about something good'

[122] During the early stages of work, the editors of SAOB did not pay as much attention to texts from the LMSw period as they did to older texts, and Argus was presumably not scrupulously examined in its entirety (Bo A. Wendt, p. c.; cf. also Hast 1983:176ff).

To construct a theory about conditional *blott*, it is natural to turn to the data in SAOB and to Wijk-Andersson's study of parts of Argus and one other text (1991:77–82). However, it seems as if some of the early crucial examples of *blott* have been overlooked by both SAOB and Wijk-Andersson; in Argus, we actually find both desiderative and conditional *blott*. In one decade, 1730–1740, the first examples of desiderative *blott* occur together with the first examples of both conditional *blott att* and conditional *bara*. As for my purposes, the change of *blott* actually does not contradict the hypothesis in consideration. Nor is the hypothesis strengthened, since the *blott*-variants can not be ordered chronologically. *Blott* and *bara* apparently go through their respective changes more or less simultaneously.

8.5.3. *Enbart* and *endast*

Enbart is, according to SAOB (E 583) the adverbial form of the adjective *enbar*. The adjective is, in turn, originally a compound of the numeral *en* ('one') and the adjective *bar*, which of course was also the origin of *bara*. Like the other grams in this group, the adjective *enbar* developed an exclusive meaning 'only' (15. a), and an adverbial, in the form *enbart*, was used in the same sense at the end of the 19th century (15. b):

15. a. [...] at de således aldrig Brödet **enbart** bekommit. (SAOB, 1739)
that they thus never bread-the only had
'[...] that they thus never had bread **alone**'

b. Det är väl troligt, att **enbart** förbittringen mot den mäktige gunstlingen hade vållat en fejd inom landet. (SAOB, 1876)
it is probably likely that only resentment-the against the powerful favourite-the had caused a feud in nation-the
'it is plausible that **only** the resentment against the powerful favourite would have caused a feud within the nation'

No other significant meanings of *enbart* have evolved (cf. SAG 4, §59), and the word has never been used as a subordinator.

Endast is likewise the offspring of an adjective, *ende* (SAOB, E 588), in the same pattern as *barast* and *allenast*. The original meaning of *ende* is probably 'alone', but as one of its sub-meanings *ende* meant 'only'. This was the basic sense of the adverb *endast* in the 18th century (16. a). But, in contrast to *enbart*, *endast* developed further and could later be used in exclamations and conditional clauses to strenghten the element of desire – it became a desiderative adverb (16. b, c). At the end of the 18th century, we finally find *endast* in use as a conditional subordinator (16. d):

16. a. The.. (vilja) nu blifwa Gudz lag frie, och **endast** slå sig
vppå werldzligheter. (SAOB, 1709).
they (want) now become God's law free and only engage refl.
in worldlinesses
'they now (want) to be free from God's law,
and **only** indulge in worldly matters'

b. De lemna Eders (Kungl. Höghet) gerna i skeps-brott, när
de **endast** kunna rädda sig sjelfva. (SAOB, 1754)
they leave your (royal highness) gladly in ship-wreck when
they only can save themselves
'they gladly leave your royal highness in a shipwreck,
when they **just** may rescue themselves'

c. At **endast** den grymme sit lif velat spara! (SAOB, 1788)
that only the cruel his life wanted to-spare
'that the cruel one had **just** wanted to spare his life!'

d. Vi hafve intet så ondt om Patrioter **endast** de hinna med
blifva kända. (SAOB, 1781)
we have not so PL PL patriots only they manage PL become known
'we have no shortage of patriots, **if** they **just** get time to become known'

Like the pair *allena/allenast*, *enbart* and *endast* display important semantic and syntactic differences, although their basic meanings were very similar; only *endast* developed into a desiderative adverb and eventually into a conditional subordinator. Hence the decisive factor again seems to be desiderative meaning, and the chronology of the changes furthermore support the idea that desiderative meaning predates, and maybe enables, conditional meaning. But *endast* could not have been a trigger for conditional *bara*, since this function of *endast* is about half a century younger than conditional *bara*. *Endast* is now defunct as a conditional subordinator (cf. SAG IV:655, note 1).

8.6. A sketch of the changes of *bara*

In the sketch below, the proposed development of conditional *bara* is illustrated:

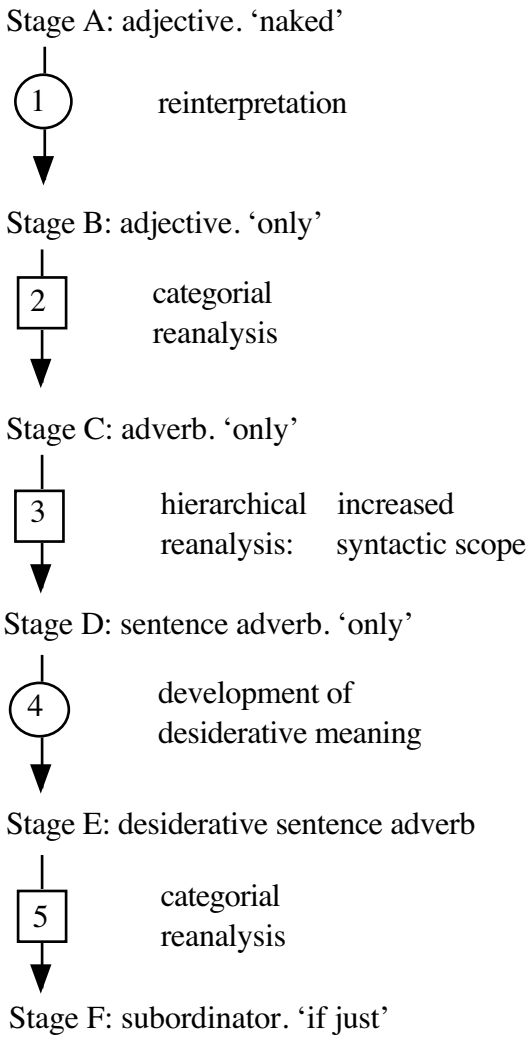

Fig. 1. *The changes of* bara.

The source of conditional *bara* is an adjectival *bar* meaning 'naked'. The adjective acquired the exclusive meaning 'only' (change 1), and formed the morphological base for the adverb *bara* (change 2). The adverb *bara* then is reanalysed into a sentence adverb (change 3). About a century later a desiderative adverbial *bara* and a conditional subordinating *bara* appear simultanously. The desiderative adverb is, I argue, the result of a reinterpretation of exclusive *bara* (change 4). The

reinterpretation was made possible by the use of exclusive *bara* as a sentence adverb in desiderative clauses. Then desiderative *bara* in turn gave rise to conditional *bara* (change 5). The hypothesis that desiderativity, which entails hypotheticality, is a necessary step in the change process is strengthened when semantically similar conditionals such as *allenast*, *blott* and *endast* are studied; these grams had, I think, all developed into desiderative adverbs before they turned into conditionals, whereas *allena* and *enbart* became neither desiderative nor conditional. Desiderative *bara* may furthermore occur in conditional clauses, but also in other types of clauses that often are interpreted as conditional: imperatives and exclamatives.

8.7. Are the changes of *bara* a case of grammaticalization(T/S)?

In this section the changes of *bara* are evaluated from the perspective of grammaticalization theory. First the semantic aspects of the proposed path of change is discussed, and then the morphosyntatic aspects.

8.7.1. Semantic changes

The semantic changes of *bara* are illustrated below:

17. 'naked' > 'only' (focus) > 'only' (desiderative) > 'if just'

This illustration is to be seen as a background for the following discussion.

As for the image schema preservation, I have not been able to construct an image schema for *bara*, and thus this particular aspect of grammaticalization theory will not be discussed below.

8.7.1.1. Bleaching

It seems as if *bara* indeed has been semantically bleached. *Bara* expressed clear lexical meaning initially (its extension was all naked or uncovered things, or the feature nudity), and the semantic shift from 'naked' to 'only' constitutes a loss of this lexical meaning.

8.7.1.2. Abstraction

As an adjective *bara* modified nouns, and thus belonged to the categories Person and/or Object, while as an adverb, *bara* modifies events. Thus the reanalysis from adjective to adverb entails a shift of semantic level, from Person/Object to Activity. The following reanalysis, from adverb to sentence adverb, also involved a change of semantic level, since the sentence adverb *bara* does not modify events but rather expresses speaker attitudes. Both the sentence adverb and the resulting subordinator belong to the category Quality, and thus the changes of *bara* adheres to Heine et al's (1991) model of sequential cognitive metaphors.

8.7.1.3. Subjectification

As regards subjectification too, the changes of *bara* seem to fit well into the frame. As an adjective, *bara* expressed propositional content (meaning 'naked, uncovered'), whereas the focussing *bara* also has a textual meaning, given that it highlights a certain segment of the clause (but see Eriksson 1997:23ff for another analysis). Finally, as *bara* acquires the feature of desiderativity, it expresses interpersonal meaning. Since the subordinator has retained this meaning, the conditional subordinator *bara* must still be categorized as a gram with interpersonal meaning.

8.7.1.4. Meaning retention and source determination

Bara originated as an adjective meaning 'naked, uncovered', and then acquired the exclusive and desiderative meanings 'only', and finally turned into a conditional subordinator explicitly expressing a sufficient and desired condition. As was argued above, *bara* keeps a sense of negativity throughout the process of change, but the negation is in the later stages (excluding, desiderative and conditional *bara*) non-lexical, restricting a set of elements. It can then be paraphrased as 'no more than'.

Conditionality is, as has been argued in chapter 3, a composition of hypotheticality and causality. As an adjective, *bara* was neither hypothetical nor causal, but as a sentence adverb the gram was used in desiderative clauses, which by definition are hypothetical. This use may have allowed *bara* to be interpreted as hypothetical. Hypotheticality was thus acquired in the desiderative context, and in discourse the desiderative *bara* was interpreted as causal, which all resulted in the MSw conditional *bara*. As the negative streak from the source is still present, restricting the set of conditions to one and thereby making the protasis in conditional *bara*-clauses explicitly sufficient, there are thus four discernible layers of meaning in MSw conditional *bara*: desiderativity, hypotheticality, causality and negativity. Hypotheticality, causality and desiderativity were added to *bara* through context, but the sense of negativity is a residue from the origin, the adjectival *bara*. Accordingly, MSw conditional *bara* displays semantic retention, and, since this semantic component still affects the meaning of *bara*, the changes of *bara* also involve source determination.

As was shown in section (3.5.2.2), the usage of MSw conditional *bara* is restricted, compared with the default conditional subordinator *om*. I suggest that it is the explicit sufficiency of *bara* that is the reason why *bara* is disallowed in generic, epistemic, speech act, given and argumental conditional sentences. In these types of conditional sentences, the protasis expresses a state of affairs that is not directly causally related to the apodosis, but rather invites the listener to assume

some form of non-specified relation between the two clauses. Such a loose bond between the protasis and the apodosis is not a proper context for *bara*, a subordinator that is exclusively used to specify a minimal condition for the fullfilment of what is expressed in the apodosis. The feature of explicit sufficiency is ultimately derived from the sense of negation present in the adjectival *bara*, and thus the restricted use of the conditional subordinator *bara* in MSw is a direct consequence of the gram's etymological origin.

Bara is furthermore not possible in concessive constructions. I argued in section (3.4.2) that concessive conditional sentences express contrast. It is possible that it is *bara*'s feature of desiderativity that prohibits this usage – contrast and desiderativity may hardly occur simultanously – but also the explicit sufficient feature of *bara* may be an impeding factor, since 'if just' is clearly incompatible with 'even if'.

8.7.2. Morphosyntactic changes

As *bara* changes from adjective to adverb, from adverb to sentence adverb, and then from sentence adverb to subordinator, the syntactic scope of *bara* is widened step by step. An adjective modifies nouns, an adverb modifies verb phrases and a sentence adverb modifies clauses. The syntactic scope of a subordinator is also a clause (but the function is different – a subordinator is not a modifying item).

The shifts of lexical category are results of reanalyses. The first reanalysis, from adjective to VP-adverb, is probably a categorial reanalysis, in which the number of constituents and their respective relations are kept unaltered:

18. [DP *bara* [NP]] > [IP *bara* [VP]]

If one assumes that VP-adverbs and sentence adverbs belong to the same general category, then the second reanalysis (adverb > sentence adverb) is a hierarchical reanalysis. But when the sentence adverb then shifts into a subordinator, movement (to SpecCP) is replaced by merge (directly into the head C). Thus the last reanalysis

results in a categorial shift, and in a simpler syntactic structure.

8.8. Conclusion

In almost every aspect, *bara* behaves as a typical grammaticalizing gram as it changes from adjective to subordinator. The only facet of grammaticalization(T) that is missing in the path of change is image schema preservation – it is, arguably, not possible to construct an image schema of the source construction, the adjectival *bara*.

Accordingly, the score for *bara* as a candidate for grammaticalization(T/S) is high:

19. *The changes of* bara

bleaching	yes
abstraction	yes
subjectification	yes
source determination	yes
semantic retention	yes
image schema preservation	–
structural simplification	yes

The theoretical consequences of the changes of the investigated grams are the main topic of the following chapter.

9. PATTERNS OF CHANGE

9.1. Introduction

In this chapter, the empirical results from chapters 4–8 are brought together and discussed from several perspectives. In section (9.2), the focus is on the semantic changes, and then the basic aspects of grammaticalization theory are discussed in section (9.3). Next, in section (9.4), the issue is possible regularities in the development of conditional meaning. Section (9.5) contains reflections concerning retention of formal meaning.

The properties of univerbation are dealt with in section (9.6), and in section (9.7) an overview of the morphosyntactic changes is presented. It is followed by a discussion of syntactic simplification, in section (9.8), and a presentation of a model of interdependent semantic/syntactic change (9.9). The final section (9.10) is the forum for concluding remarks.

Throughout this chapter, the actual changes that were asserted in chapters 4–8 will be an important topic. They are illustrated below:

	utan	*om*	*hvar*	*ifall*	*bara*
Semantic change:					
metaphor	1	1	–	–	–
metonymy	–	–	–	1	–
reinterpretation	–	–	1	–	1, 4
Syntactic reanalysis:					
categorial	2, 3	–	2	–	2, 5
segmental	–	2	–	2, 3	
hierarchical	–	–	–	–	3
Loss:	–	3	–	4	–

Table 1. *The discrete steps in types and orders.*

The numbers in table 1 indicate the ordering of the changes. For example, *utan* 3 was a categorial reanalysis that was the third of the changes in this particular path of grammaticalization.

Some interesting observations can readily be made from the data in table 1: all of the initial changes are semantic, the second changes are all syntactic, and it has only been necessary to assume one single semantic change in four of the chains of change, *bara* being an exception.

9.2. The semantic changes – an overview

The semantic changes of the investigated grams are summarized below. In table 2, only meanings along the path source > conditional subordinator are included, although some other relevant meanings have been discussed in chapters 4–8. The interrogative meanings ('whether') of *om* and *ifall* are for instance not steps towards conditionality, I assume, but have developed simultanously with the conditional meaning (in the case of *om*) or later than the conditional meaning (in the case of *ifall*). Nor did the post-sectional and contrastive meanings of *utan* participate in the emergence of the anticonditional *utan*, but represent a parallel track of grammaticalization.

utan:	'outside'	>	'without'	>	'except'	>	'unless'
om:	'around'	>	'about'			>	'if'
adv. *hvar*:	'where'	>	'wherever'			>	'if'
pron. *hvar*:	'who'	>	'whoever'			>	'if'
ifall:	'in case'					>	'if'
bara:	'naked'	>	'only' (focus)	>	'only' (desiderative)	>	'if just'

Table 2. *The semantic development of the investigated grams.*

It is apparent that there are several paths to conditionality – although the present study includes only five grams, these grams develop in quite different patterns. It is also noteworthy that some of the changes, like 'except' > 'unless', 'about' > 'if' and 'only' > 'if just', require quite a wide analytical view . The change 'except' > 'unless' can, I think, only be explained from a formal semantic perspective, and the two other changes require an analysis that includes the specific syntactic and pragmatic contexts from which the conditional subordinators eventually emerge. In the case of *om*, the complex subordinator *um æn* is the key structure and in the case of *bara*, it is the function as an adverbial in desiderative exclamations. There is thus no obvious semantic link between these stages of development (as for *om*, the change is, I think, caused by semantic transfer from *æn*). Accordingly, the adverbial *bara* and the subordinator *bara* are treated as homonymous items in Swedish lexicons (e.g. *Norstedts Svenska Ordbok* 2003:65), although they are diachronically related, and OSw *utan* is classified as three unrelated lexemes by Söderwall (II:869ff): a conjunction, a preposition and an adverb; also PDE *but* is often categorized as three different lexemes.

Quite a few of the meaning changes coincide with syntactic reanalyses. There are two basic ways in which meanings interact with syntax in this study; first, an underlying type of meaning (i.e., formal or image schematic) may surface as different lexical meanings depending on the syntactic context. I have argued that the formal meaning of *utan* is preserved throughout the path of change, for instance, but that it is realized as 'without' when *utan* is used as a preposition and as 'except' when *utan* is used as a clause internal coordinator. Since the underlying meaning is unaltered, I have considered the changes of *utan* to primarily consist of syntactic reanalyses, and the lexical semantic changes are thus consequences of these reanalyses. Second, some lexical meanings are closely connected to specific syntactic categories. Conditionality is e.g. almost exclusively expressed by subordinators in MSw, and hence a clause initial gram that appears to be conditional can not be categorized as anything other than a subordinator. This infers that when

hvar, for instance, appears in clause initial position, it will be analysed as an adverb when it seems to mean 'where' and as a subordinator when it seems to mean 'if'. In the intermediate stage, *hvar* is vague and means 'wherever', but may be interpreted as 'if'. The final change of *hvar* is categorized as a syntactic reanalysis (adverb > subordinator), since in this change the extant interpretation is merely transformed into a true meaning – no actual addition or reduction of the semantic features of *hvar* occurs.

It can be concluded that the establishment of the immanent meaning correspondencies in the studied paths of change requires several analytical instruments. In one case ('about' > 'if), the semantic change is actually misleading, since the essential meaning component was inherited from *æn*, according to my analysis. Any reconstruction of the path of change that is solely based on the MSw meanings of *om* will therefore be erroneous.

9.3. The basic aspects of grammaticalization theory

In section (2.3), I presented the basics of grammaticalization theory, and special attention was given to the regularities in semantic change that have been proposed to signify grammaticalization. Each of the studied paths of change has been analysed in terms of these types of semantic change, and a summary of the findings is found below. It is urgent to point out that a "yes" here only indicates that the relevant type of change has been found to be operative at one stage of development – it does not mean that the entire chain of change can be seen as an example of this type of semantic change. A "no" either means that the path of change actually contradicts the expectations, or that the path of change at no point follows the predicted development. A dash ("–") signifies that it is not meaningful to analyse the changes of the relevant gram in terms of this specific type of change; the source meanings of *hvar* and *bara* can not be attributed a topological structure, I think, and therefore it makes no sense to analyse the changes of these grams in terms of image schema

preservation.

In the remainder of this section, the types of semantic change are further discussed.

	utan	*om*	*hvar*	*ifall*	*bara*
bleaching	yes	yes	no	yes	yes
abstraction	?	?	yes	yes	yes
subjectification	yes	no	no	yes	yes
source determination	yes	no	no	yes	yes
semantic retention	yes	no	no	yes	yes
image schema preservation	yes	yes	–	?	–

Table 3. *The basic aspects of grammaticalization theory – the scores.*

9.3.1 Bleaching

Bleaching consists of loss of lexical meaning. Consequently, a gram that is grammaticalized may only be bleached if the source construction expresses lexical meaning. The two instances of *hvar* were originally non-lexical grams, and hence they could not be bleached. In other words, the notion of bleaching has no bearing on a shift from grammatical to more grammatical meaning, which since Kurylowicz (1965) has been an acknowledged form of grammaticalization.

9.3.2. Abstraction

Abstraction, as formulated by Heine et al (1991:48), is an elaboration of the concept of bleaching. Throughout chapters 4–8 it has however become apparent that the analysis of the semantic development as shifts of cognitive categories is either

problematic (like the shift of *utan* from 'outside' to 'without') or, I think, trivial; quite a lot of the crucial changes take place in the fuzzy Quality-category. To conclude, Heine et al's model is hardly applicable in these cases – its explanatory value is very limited. The reason for this is probably that the developments do not consist of serial cognitive metaphors, but it is also obvious that the sequence of categories is, just like bleaching, best suited for illustrating the grammaticalization of lexical items (such as nouns, adjectives and verbs) into more grammatical items (cf. Heine et al 1991:53f). But also changes of grammatical items to even more grammatical items is generally considered to be an essential part of grammaticalization, and a major part of the semantic developments of interest here falls in this latter category. Hence, Bybee et al's (1994:25, 284) assumption that cognitive metaphors are at work only in the lexical end of grammaticalization processes seems to be correct, at least as regards the development of Swedish conditional subordinators.

9.3.3. Subjectification

Subjectification involves functional-semantic meaning shifts (Traugott 1980, 1982), from propositional to textual to inter-personal type of meaning. Conditional subordinators are, like all subordinators, textual elements. Of the studied grams two (*utan* and *ifall*) develop from propositional to textual, whereas *bara* also acquires interpersonal meaning, thereby neatly following the predicted development from propositional ('naked') to textual (focussing *bara*) and further to the inter-personal type of meaning (desiderative and conditional *bara*).[123] *Hvar* is initially a textual gram, and it remains in this functional-semantic category throughout the changes. Thus it appears that subjectification is a quite blunt tool for the explanation of these paths of change.

[123] The recent developments of *bara* (in the form of *ba*) seem to indicate that a development from inter-personal to textual is also possible (Eriksson 1997; cf. the discussion in Traugott & Dasher 2002:94ff).

A possible problem with subjectification is that the placement of the investigated grams in the textual component of language is not only a consequence of shifts of meaning, but also of syntactic reanalyses. A subordinator or a preposition is a textual element, irrespective of which meaning it conveys. Traugott & Dasher (2002:95f) appear to consider connectivity and "connective function" (2002:96) as the defining criteria for elements with textual meaning, and accordingly some facets of the concept of textual meaning seems to equal syntactic function. This might be an unwarranted feature of a semantic-pragmatic hypothesis such as subjectification.

9.3.4. Source determination and semantic retention

Source determination and semantic retention are two sides of the same coin (cf. Bybee et al 1994:9ff), and the studied paths of change suggest that these facets of semantic change indeed are mutually dependent. The types of meaning that are kept and that continuously affect the respective grams are on the other hand quite different from each other. I have argued that the changes of *utan* display source determination and semantic retention, but in this case it is the formal meaning of *utan* that is of relevance. The noun *fall* developed hypothetical meaning through metonomy, and this meaning eventually enabled the phrase *i fall* to transform into a conditional subordinator. As an adjective, *bara* expressed the lexical meaning 'naked', and I have argued that this meaning contains a sense of negation that is present in all later stages of development. In these three cases, the source meanings certainly play a vital role for the subsequent meanings, but the links from one stage of development to another are quite opaque – they all require detailed analyses to come into the light.

Bybee et al (1994:chapter 1) do not specify which type of meaning is supposed to be central in source determination and semantic retention. I have included formal and image schematic meanings among the meanings that may be retained and/or determine further changes, and it is possible that my evaluations of the relevant

changes therefore are too generous – a narrower view of which type of meaning is central in source determination and semantic retention would of course have resulted in fewer instances of source determination and semantic retention in my evaluations of the paths of change.

9.3.5. Image schema preservation

Only two of the grams in this survey (*utan* and *om*) have a source meaning that is possible to represent topologically. In these cases, I have argued that the image schematic meaning of *utan* was kept during the changes 'outside' > 'without' > 'except', and during the changes 'around' > 'about', in the case of *om*. In both of these paths of grammaticalization, the starting point is a locative preposition. As for the other three grams (*hvar*, *ifall* and *bara*) I have not suggested any image schematic structure, since I fail to see how the relevant meanings ('who'/'where', 'in case' and 'naked', respectively) should be rendered in a topological structure. Neither have I been able to construct an image schema for conditional meaning.

The notion of preservation of image schematic meaning is based on the hypotheses that grammatical meaning is topologically structured, and that grammaticalization proceeds through metaphorical shifts from lexical to grammatical domains of meaning (Sweetser 1988). However, when it comes to the paths of grammaticalization that are in focus here, the grammatical meanings do not appear to be topologically structured, and cognitive metaphors play a minor role. The image schematic approach is hence more or less irrelevant in this particular case.

Heine et al (1991:161ff) mention some other problems with the concept of preservation of image schematic meaning. They find that prepositions such as *for* and *from,* which have different image schematic meanings, nevertheless both develop causal meaning – a quite unexpected circumstance if one claims that the basic image schema determines the possible grammatical meaning. Furthermore,

Bybee et al (1994:285ff) point out that even if the image schema seems to be kept in a grammaticalization process, the mechanism of change may not be a cognitive metaphor, but an inference.

It can be concluded that preservation of image schematic meaning has proved to be an insufficient analytical instrument for the explanation of the five paths of grammaticalization in this thesis.

9.3.6. A concluding discussion

The basic aspects of grammaticalization theory are, in sum, not entirely adequate for the changes that are studied in the present work. A possible cause may be that grammaticalization theory mostly is concerned with changes of the type lexical > grammatical, whereas the majority of the analysed changes are of the type grammatical > more grammatical. Another reason is that the notions of bleaching, abstraction, source determination, retention of meaning and image schema preservation all presuppose that the semantic development in one way or another is determined by the source gram, while quite a few of the changes ensue not from the source meanings, but from syntactic and/or semantic circumstances that are present in certain discourse contexts. If essential meanings are added in discourse, the source meanings will become increasingly irrelevant for the further development, of course.

The regularities of semantic change that have been discussed above have served as cornerstones for the construction of grammaticalization theory. The line of thought has been the following. First, it has been observed that certain words and morphemes in a number of languages display similar meaning correspondencies. To account for these meaning correspondencies, different mechanisms of change have been invoked: cognitive metaphors (e.g. Sweetser 1988, Heine et al 1991, Heine 1993) or pragmatic inferencing (e.g. Hopper & Traugott 1993, Bybee et al 1994). The next step has been to assert that these mechanisms of change are active in all

languages (since they depend on human universals), and that they accordingly may explain semantic change in all languages. From this assumption it is a short step to propose that grammaticalization can be predicted (cf. Heine 1993:106, 124), and, naturally, if grammaticalization is a universal regular process that can be predicted, then it also can be reconstructed:

> Just as full and reduced phonetic forms of individual lexemes of grams constitute a synchronic record of earlier history, patterns of multiple uses encapsulate part of the semantic history of a grammatical marker, with older versions surviving even as reduction proceeds in vanguard environments and contexts of use. It is thus possible to recover and reconstruct not simply information about the source lexical constructions of grams, but also the stages along their developmental pathways (Bybee et al 1994:18f).

A notable example of this methodology is Heine & Kuteva (2002), who recognize a vast number of purported universal grammaticalization paths. They acknowledge that "Most of the over 400 grammaticalization paths discussed in this book are based on fairly reliable [sic!] reconstruction work" (2002:6), a statement that in my eyes reveals a lack of methodological stringency.

In the present thesis, the paths of grammaticalization have however been shown to be idiosyncratic and quirky. Indeed, I find it highly implausible that the synchronic data of MSw (or of OSw) would allow a successful reconstruction of the grammaticalization paths of the investigated grams. In two cases, *om* and *ifall*, their uses both as interrogative and conditional subordinators constitute, I think, a mere illusory support for the hypothesis that the former type of meaning develops into the latter (cf. Hopper & Traugott 1993:179), and a reconstruction based on grammaticalization theory would accordingly lead to a false path of change.

Reconstructions based on grammaticalization theory are inadequate in general, I think, because grammaticalization theory does not encompass all types of language change, and from a synchronic perspective, one can never tell which types of language change have been operative during a grammaticalization. Skafte Jensen

(2000:188) points out that "All levels of linguistic analysis influence the development of the meaning and syntactic status of a word" (my translation), and hence all relevant levels of analysis must be accounted for when a path of grammaticalization is established.

To conclude, the changes of *utan*, *om*, *hvar*, *ifall* and *bara*, which I consider to be instances of grammaticalization(E), do not support the claim that the empirical phenomenon of grammaticalization is a regular and therefore predictable type of semantic change. These changes thus call the foundations of grammaticalization theory into question, especially its explanatory qualities (cf. Campbell 2001:151ff).

9.4. The development of conditional meaning

The subordinators in this inquiry have developed from quite different sources: *utan* and *om* were originally locative prepositions, *fall* was a noun and *bara* originated from an ordinary attributive adjective. *Hvar* was an adverb and/or pronoun. From these beginnings, each gram has changed into a conditional subordinator, thereby acquiring conditional meaning, and as was claimed in chapter 3, conditional meaning arises when the semantic components causality and hypotheticality are mixed. So, in the change processes, it has been necessary for the grams to acquire both of these meaning components, since none of the included grams initially conveyed either causality or hypotheticality.

The change of *utan* into an anticonditional subordinator does not seem to include any individual steps in which either causality or hypotheticality take part. It is clear that the gram *utan* actually is both non-hypothetical and non-causal until it turns into an anticonditional subordinator. The change seems to be abrupt, in other words, and the explanation that was offered in section (4.6.3) is that *utan* as a sentence connective could be interpreted either as a post-sectional coordinator or as an anticonditional subordinator, depending on whether a dependent or an independent clausal relation was asserted, since these two relations in a way are equal. Hence, in

the case of *utan*, none of the essential meaning components was developed individually. They are rather inescapable side effects of the interpretation of an *utan*-clause as dependent. In this interpretation, the formal meaning of *utan* is lexically realized as anticonditionality.

Om inherited conditional meaning from the older *æn* in the process of univerbation. Thus *om* did not change on its own merits – there were no semantic features in the source construction, the locative preposition, that were operative in this change.

Hvar, *ifall* and *bara* clearly develop hypothetical meaning before causal meaning. As a free relative, *hvar* ('wherever/whoever') heads a non-asserted clause (Harris & Campbell 1995:304). From the statement *Whenever John comes, we celebrate* we can not decide whether John has arrived or not. John's arrival is hypothetical. *Ifall* inherits hypotheticality from the nominalization *fall*, which could denote not only a concrete fall, but also a possible event, and *bara* acquires hypotheticality as it becomes desiderative. These three grams thus become hypothetical first, but they acquire this semantic component in idiosyncratic ways.

In contrast to the hypothetical components, the causal components in the conditional subordinators *hvar*, *ifall* and *bara* seem to develop similarly. The hypothetical grams can all occur clause initially, and when the clauses headed by *hvar*, *ifall* and *bara* function as the initial segment of another clause, causality arises through pragmatic inferencing. Linear sequence is often interpreted in discourse as temporal sequence, and temporal sequence is in turn often interpreted as a cause-effect relation: "Among the stereotypical inferences we may include the inferences of causality from temporal sequence [...], characterized as *post hoc ergo propter hoc*" (Hopper & Traugott 1993:75).

So, the three grams (*hvar*, *ifall* and *bara*) develop hypotheticality individually, as separate grams, whereas causality in each case is inferred in contexts where two clauses are ordered linearly. Haskå (1988) investigates the paradigm of causal subordinators in OSw, and her data seem to suggest that also those grams have

acquired causal meaning in the same way. The sources of causal subordinators were however non-hypothetical. A generalization may therefore be proposed: a non-hypothetical gram that is interpreted in discourse as causal will in the right circumstances evolve into a causal subordinator, while a hypothetical gram that is interpreted as causal will evolve into a conditional subordinator.[124]

9.5. Retention of formal meaning

In their study of the formal aspects of grammaticalization, Roberts & Roussou (2003) also explore the semantic changes that accompany the syntactic changes. They suggest (2003:218ff) that syntactic functional heads (like C, D, Q etc.) are associated with logical meaning. When a gram is reanalysed as a realization of a functional head, it follows that it then may express only logical meaning – thus the lexical meaning is lost. The semantic consequences of a reanalysis are not the same for all lexical categories, however: "For verbs, this entails the loss of argument structure; for nouns, the loss of descriptive content; for adjectives, the loss of descriptive content [...]; for prepositions, the loss of content relating to spatial relations" (Roberts & Roussou 2003:222).

Conditionality has an acknowledged formal representation (the implication), and since the studied grams all end up as markers for conditionality, it is of relevance to study the paths of change from a formal semantic perspective as well. From where comes the formal meaning of *utan*, *hvar*, *ifall* and *bara*? (I exclude *om* from this discussion since it just inherited conditionality from *æn*.)

The changes of *utan* are, as I argue in chapter 4, impossible to explain without taking the formal meaning of *utan* into consideration, and the path of change seems to be a good example of retention of formal meaning. The locative meaning of the preposition ('outside') is lost, and what remains is a quantificational type of

[124] The subordinator *fast än*, which in MSw often appears as *fast* (see section 5.4), was used both as a hypothetical ('even if') and non-hypothetical ('although') gram during the period 1600–1900 (Sundqvist 1955:325ff). From my point of view this is unexpected; I suspect that the semantic development of *fast än* is quite interesting.

meaning ('except') which is formally synonymous with anticonditionality. An interesting question (which I do not intend to try to answer here) is whether the formal meaning of *utan* was present already in the locative preposition, or whether it was constructed from the lexical meaning by the language users. In the latter case, this would imply that if a gram may acquire formal meaning it also may enter a chain of grammaticalization. Otherwise, only grams of which formal meaning is an intrinsic semantic property may grammaticalize.

The pronoun *hvar* and the adverb *hvar* acquire an element of generality ('whoever', 'wherever') when they are used in free relative clauses. These meanings then gives rise to conditionality, and accordingly there should be a formal meaning of implication in embryo in the general meanings.

The general meanings of *hvar* contain a free-choice element, of which a universal quantifier is probably the formal counterpart (cf. Visconti 2003). A sentence such as *Wherever you go, I will follow* can be reformulated as *In every world where you go to a certain location, I will follow you* (cf. the discussion in Haspelmath & König 1998). The proper formalization (it is important to point out that the formalization is not synonymous with (p & q), a formalization in which the speaker asserts the content of both p and q) would then be:

1. *The formal meaning of general* hvar-*clauses*

Wherever you go, I will follow you. $\forall x(GOTOax) \& FOLLOWba$ (a = you, b = I)

The speaker thus asserts that the event *You go to location x* will always be accompanied by the event *I follow you*. In other words, the speaker claims that there is no world such that the first event will appear without the second event. The universal quantifier thereby triggers an interpretation of the first event as "an extant (durative) condition" (Hopper & Traugott 1993:179) for the second event, i.e. a conditional relation (and the logic representation is simplified accordingly, into a

simple implication).[125]

Likewise, a universal quantifier was probably also active when *ifall* ('in case') emerged as a conditional subordinator. When uttering a sentence such as *Ifall du går så följer jag efter* ('If you leave I will follow'), a speaker asserts that there is no possible world in which the first event will not occur without the second event. Therefore I propose that *Ifall du går...* also shall be formalized as in (1.), and that the conditional reading appeared in the same manner.

Bara was originally an adjective, but it lost its descriptive content ('naked') and changed into an excluding adverb ('only'). In chapter 8, I claimed that *bara* as an excluding adverb contains a sense of negation (it can be paraphrased as 'no more than'), following SAG (4:161ff). One of the meanings Sher (1996:521) considers to be logical is 'more than', and naturally also the meaning of 'no more than' must then be logical.

I thus assume that *bara* ('only') is a quantifier. *No more than* is assigned the symbol (≤) by Keenan & Westerståhl (1997), and thus *bara* may, arguably, be represented by the same symbol.[126] Initially, it was a DP-element (as in 2 a.),[127] but eventually it developed into a quantifier also for VPs (2. b) and clauses (2. c). In the formalizations, *eat* is considered a two-place predicate with the arguments *Kalle* and *herring* in (2 a, c), but in (2. b) *eat herring* is a one place predicate:

2.	a.	Bara Kalle äter sill.	EAT (≤Kalle, herring)
		only Kalle eats herring	
		'no one but Kalle eats herring'	

[125] A generic conditional sentence (such as *If it is a planet, it has the shape of a sphere*) also contains a universal quantifier: ∀x(PLANETx → SPHERICALx). The same is true for all generic sentences. In other words, the sentence *Planets are spherical* must be formalized in the same manner (cf. Guttenplan 1997:219f).

[126] Guttenplan (1997:223) states that "The word 'only' operates as a universal quantifier", but also notes that "Context plays an important role in understanding 'only'" (1997:421). (2. a) would in Guttenplan's formalization come out as: ∀x(EATxb → x = a), where a = Kalle and b = herring. Hodges (1977:308), on the other hand, formalizes *Only Sir Henry is allowed to use that bath* as ∀x(x = a ↔ a is allowed to use that bath), i.e. as an equative relation.

[127] According to Sher (1996:521) individuals are "semantically, atomic elements". This entails that (≤Kalle) will denote just one specific individual.

b. Kalle bara äter sill. ≤EATherring (Kalle)
Kalle only eats herring
'Kalle does nothing but eat herring'

c. Bara Kalle äter sill! ≤(EAT (Kalle, herring))
only Kalle eats herring
'If Kalle just eats herring!'

As a conditional subordinator, *bara* is explicitly sufficient. The reason is, I think, that the conditional subordinator has kept the formal qualities of the source gram, and hence a conditional sentence with *bara* may be formalized as below:

3. Bara Kalle äter sill så blir mamma nöjd. (≤EATKalle, herring) → (HAPPYmother)
only Kalle eats herring then becomes mother happy
'As long as Kalle eats herring then mother is happy'

Thus, *utan*, *hvar*, *ifall* and *bara* all display retention of a formal semantic meaning, which Roberts & Roussou (2003:221) equate with "quantification over possible worlds". In the case of these conditional subordinators, the developments are in complete accord with their proposal. It can be concluded that the formal meanings of the investigated grams indeed appear to have been retained throughout the changes, and that the formal meanings have affected the paths of change.

9.6. Deconstructing univerbation: the changes of *om* and *ifall*

A prerequisite for univerbation is that the grams involved are juxtaposed. A gram that is about to become a subordinator must thus appear as a linear neighbour to an existing subordinator that can act as a host, or a parent. The most common such gram is *that* (and corresponding grams in other languages), according to Braunmüller (1978:107). So, the initial condition for the process of univerbation is linear.

In generative terms, a subordinator is situated in C, and a plausible landing site for a gram that is about to be univerbated is accordingly SpecCP. Braunmüller recognizes five types of grams that can turn into subordinators through univerbation: prepositions, participles, nouns, deictic noun phrases and pronominal adverbs. The latter three groups of grams are phrasal, and can thus be expected to move to SpecCP, but neither prepositions nor participles are phrases – they are syntactic heads. For this reason, it is not likely that the starting position of these grams is SpecCP. Concentrating on prepositions (the only example of a participle that has developed into a subordinator that Braunmüller provides is *während*), I will claim that when a preposition changes into a subordinator, SpecCP is not a necessary landing site. Instead, there are two possible initial structures:

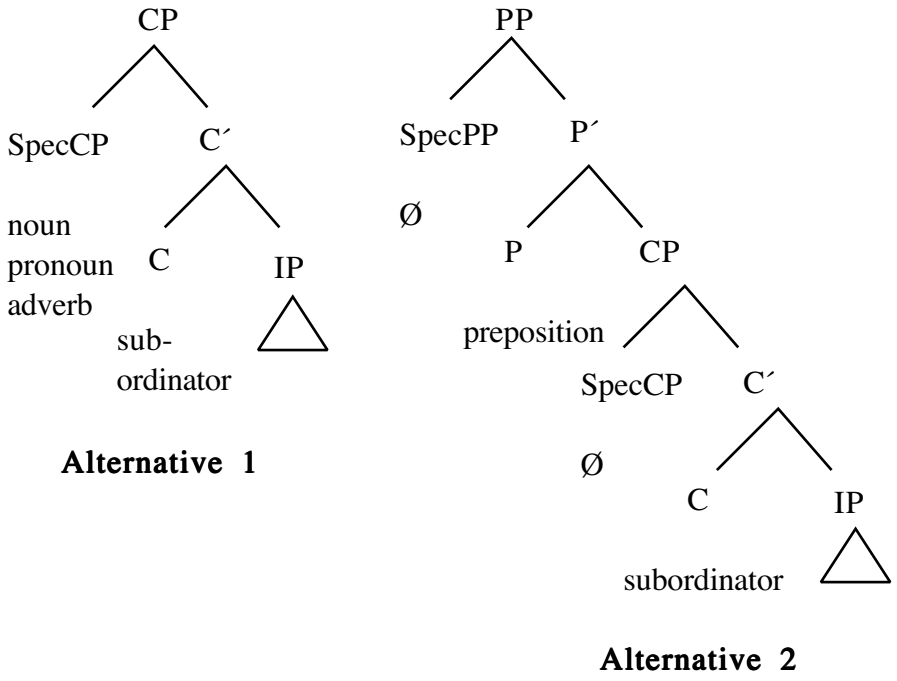

Fig. 1. *Two structures allowing initiation of univerbation.*

I have claimed that the prepositions *om* (chapter 5) and *ifall* (chapter 7) have developed into subordinators according to alternative 2 in the figure above (in the case of *om*, the adjacent subordinator was *æn*, but *ifall* occurred with at least three subordinators: *att*, *om* and *där*). The MSw complex causal subordinator *för att* ('for

that') may represent an ongoing head-to-head univerbation, being composed of *för*, originally a preposition, and the subordinator *att* (cf. Haskå 1988). This is a different kind of change than the one suggested by Roberts & Roussou (1999, 2003), who consider structural grammaticalization mainly to consist of loss of movement, in favour of merging; from alternative 2 above, no moved item is renalysed as a merged item. Rather, this structure gives rise to a categorial reanalysis, in which the PP is reanalysed as a CP. The result is a pronounced loss of structure, a radical syntactic simplification.

From the starting points in fig. 1, the grammaticalizing gram next forms a unit with the original subordinator in C, supposedly, being lexicalized into a complex subordinator. Since the linear order of the involved grams will remain the same, it is not possible to observe this change, but it may reveal itself by phonetic contractions, loss of prosodic independence, loss of inflection and loss of semantic substance, and eventually it may show up in writing. In a diachronic perspective, the only telltale sign of such a change will however be loss of morphological inflection, initially, and as prepositions are not inflected, there is thus no way to find concrete examples of an ongoing change of the type that *om* and *ifall* have gone through. Nor can it be decisively determined whether the loss of semantic substance follows or precedes the syntactic change, as far as I understand.

It is also clear that not all instances of the structures of the two types illustrated in fig. 1 result in univerbation. A prerequisite for the change seems to be that one of the grams in the collocation has a vacuous or underspecified meaning. In the EOSw combination *um æn*, the latter element was highly multifunctional and polysemic – a subordinate clause headed by *æn* could be comparative, interrogative, conditional or concessive conditional (Söderwall II:1115-1117). It is thus plausible that quite a few *æn*-clauses were vague, and therefore the language users probably assumed that when *æn* appeared in a construction with a specific meaning, this meaning emanated from another gram. *Ifall* occurred with the subordinators *att*, *om* and *där*, neither of which seem to have contributed with any distinct meaning in the collocation *ifall*

att/om/där. Rather, they were merely syntactic markers for subordination, and their eventual elimination did not constitute any loss of meaning. In section (9.9), semantic vagueness is incorporated in a proposal regarding a possible mechanism of language change.

When the grams have been analysed as one unit, the further development (deletion/contraction) can possibly be explained by the assumption that subordinators are syntactic primitives (Roberts & Roussou 1999:1036) and therefore often monosyllabic. Also from a semantic point of view some subordinators (chiefly *that*-type subordinators) can arguably be seen as primitives. So, one explanation for the univerbation process might be iconicity: a syntactic/semantic primitive, like a subordinator, would then often be monosyllabic, whereas items with richer meaning and/or more complex syntactic functions would be polysyllabic, in line with functional linguistic tradition (cf. Haiman 1985, Heine et al 1991:214, Croft 1993:164ff; iconicity is discussed in depth by Newmeyer 1998:114ff).

9.7. The morphosyntactic changes – an overview

In this thesis, the predetermined syntactic goal of the changes is the function as a subordinator. Accordingly, the paths of syntactic change are all of the type source > subordinator. An intermediate stage in the development of *utan* is a clause internal coordinator; this is an unconventional categorial label, which I have argued is necessary (in section 4.5) to capture the morphosyntactic status of an element that is neither a preposition nor a common coordinator. The categorial developments are summarized below:

utan:	preposition	>	clause internal coordinator	>	subordinator	
om:	preposition	>	part of a complex subordinator	>	subordinator	
adv. *hvar*:	adverb			>	subordinator	
pron. *hvar*:	pronoun			>	subordinator	
ifall:	PP	>	preposition	>	part of a complex subordinator	> subordinator
bara:	adjective	>	adverb	>	sentence adverb	> subordinator

Table 4. *The categorial development of the investigated grams.*

In only one case (*bara*) is the primary source of the subordinator a true lexical gram. In the latter stages of development, the direct source of the subordinators is another non-lexical gram, a gram with both grammatical meaning and grammatical function. These stages of the changes are thus instances of a change grammatical > more grammatical.

The categorial changes proceed through reanalyses, and of the 17 changes that have been attested in the present work (counting *hvar* as one gram), no less than 9 are reanalyses. The reanalyses are further analysed in the categories categorial, segmental and hierarchical reanalyses, and all three types have occurred in the change processes that are included in the present investigation. Each of the reanalyses is illustrated below:

categorial reanalyses:

utan 2	[CP [IP [VP] [PP **utan**]]]	>	[CP [IP] [CoordP **utan**]]
utan 3	[CP [IP] [CoordP **utan**]]	>	[CP [IP] [CP C **utan**]]
hvar 2	[CP **hvar$_i$** C [IP t_i]]	>	[CP C **hvar** [IP]]
bara 2	[DP **bara** [NP]]	>	[IP **bara** [VP]]
bara 5	[CP **bara$_i$** [C] t_i [IP]]	>	[CP C **bara** [IP]]

segmental reanalyses:

om 2	[PP P **um** [CP [C æn]]]	>	[CP C **um** æn]
ifall 2	[PP P **i** [DP **fall** [CP C att]]]	>	[PP P **ifall** [CP C att]]
ifall 3	[PP P **ifall** [CP C att]]	>	[CP C **ifall** att]

hierarchical reanalyses:

bara 3	[IP [I] **bara** [VP]]	>	[CP [C] **bara** [IP]]

Table 5. *The attested reanalyses.*

My classifications of the reanalyses are based on the assumption that the shift from IP-adverb to CP-adverb (*bara* 3) does not result in a change of lexical category, since I assume that all adverbs belong to the same general category.[128] This change is thus classified as a hierarchical reanalysis. Also when *utan* shifts from preposition to clause internal coordinator (*utan* 2), the hierarchical relations are affected, but since I consider prepositions and coordinators to be categorially separate, this reanalysis is categorized as a categorial reanalysis. This approach entails that a categorial

[128] However, items with adverbial function are notoriously problematic to analyse, especially when working with older texts, and I wish to point out that this is a pitfall that has been prevalent in my mind throughout the syntactic analyses of *utan* and *bara*.

reanalysis may comprise a hierarchical reanalysis, but not vice versa. The segmental reanalyses, in turn, involve both categorial and hierarchical changes. Crucially, the segmental reanalyses that are illustrated in table 5 have all occurred in specific well-defined contexts – it is not the case that the change *ifall* 3 is a categorial shift preposition > subordinator, for instance, but this change is brought about by a particular syntactic structure, in which the subordinator *att* (or, alternatively, *om* or *där*) is a vital factor.

For all of the reanalyses (with one possible exception – see below), structural ambiguity seems to have been the basis for reanalysis, i.e. the source construction allowed more than one analysis. This is fully in line with the view of the causes of reanalysis presented by Harris & Campbell (1995):

> To summarize, the conditions necessary for reanalysis to take place are that a subset of the tokens of a particular constructional type must be open to the possibility of multiple structural analyses, where one potential analysis is the old one (applicable to all tokens) and the other potential analysis is the new one (applicable to a subset) (Harris & Campbell 1995:72).

It may furthermore be pointed out that the during the reanalyses, the semantic qualities of the reanalysed gram seem to be virtually unaffected. However, a context-bound interpretation may become a meaning, as when *bara* shifts from desiderative sentence adverb to subordinator (*bara* 5).

The possible exception is *utan* 3. There do not seem to be any OSw sentences in which the complement of *utan* may be analysed as either a phrase or as a full clause (it is however quite possible that the speakers of OSw had other analytical options than those that I construct from the preserved texts). If so, the shift from clause internal coordinator to subordinator did not proceed through structural ambiguity of the type that was discussed above. Instead, it was perhaps the status of *utan* as a clause internal coordinator that brought about the change; clause internal coordinators are atypical elements, syntactically, and it is probable that language

users eventually start using such grams as either prepositions or subordinators/ coordinators, these syntactic categories being more salient. Such a change is also a reanalysis, I think, but it is not a reanalysis that is triggered by certain syntactic contexts, but by speakers' (or language acquirers') aversion against irregular elements.

9.8. Syntactic simplification

In table 5 above, the reanalyses were illustrated. According to Roberts & Roussou (1999, 2003), reanalyses in a grammaticalization process will result in structures where movement is replaced by merger, yielding a simpler syntactic structure. It is apparent that at least two of the changes are of this type: *hvar* 2 and *bara* 5. Also *bara* 3 may be an instance of move > merge, if it is assumed that adverbs may move to the CP-level and in that position be analysed as sentence adverbs:

4. *bara* 3 (alternative) [CP [C] **bara$_i$** [IP [I] **t$_i$** [VP]] > [CP [C] **bara** [IP [VP]]

The remaining categorial reanalyses (*utan* 2, *utan* 3 and *bara* 2) could possibly be analysed along the same lines, but the argumentation in Roberts & Roussou (2003) indicates that in these cases, the grams are rather merged directly in the different positions. Concerning French *de* and Italian *di*, they point out that "These so-called prepositions can surface as C-elements when they take a clausal complement, but akin to a D element when they take a nominal complement" (2003:110), and discussing the dual nature of *that* (pronoun/complementizer), they similarly claim that "the differences between C and D *that* can be accounted for primarily as a consequence of the fact that they take different complements. This allows us to maintain that in essence we are dealing with one and the same lexical item, which

can surface as either D or C depending on the syntactic context" (2003:115).[129] In this view, *utan* would, for instance, be analysed as a preposition when the syntactic context favours such an analysis, and as a clause internal coordinator or subordinator in other cases. Given that the type of complement decides the syntactic status of a gram such as *utan*, it is not necessary to assume that *utan* moves upwards in the structure to assume new functions. Hence it seems reasonable to maintain that movement was not involved in *utan* 2 and *utan* 3, or for that matter in *bara* 5.

As for the segmental reanalyses, they do not seem to be possible to align with syntactic simplification of the type move > merge, since no item has moved in the source constructions. An alternative analysis would be to assume upward head-to-head movement of the subordinator as an intermediate stage of development, i.e.:

5. *om* 2 (alternative) [PP P **um** [CP [C æn]]] > [PP P **um** æn$_i$ [CP [C t$_i$]]]

The result of such a change would however be a new preposition, not a new subordinator. The linear order of the grams is also unexpected – one would assume that the moved item should precede the target item. This is why *ifall* 2 is not an instance of move > merge.

The three segmental reanalyses and some of the categorial reanalyses thus appear to confute Roberts & Roussou's (1999, 2003) proposal that grammaticalization is a process where movement is replaced by merger. Interestingly, two of the segmental reanalyses take place during univerbation (the third, *ifall* 2, does not result in a subordinator and is thus strictly speaking not a case of univerbation), and above I have emphasized that univerbation also from the perspective of grammaticalization theory constitutes a problematic type of language change.

[129] Roberts & Roussou (2003:110ff) provide an account of the grammaticalization of *that* (pronoun > complementizer) that is not unequivocal. They invoke several possible explanations of this change, but they do not take any final stand. Therefore I think that their concluding illustration of the change (2003:196) is ill-founded, and, accordingly, that the basis for their discussion of theoretical consequences is not flawless.

9.9. A semantic/syntactic model of change

In the present work I have assumed that grammaticalization has both semantic and syntactic aspects, and in the most recent accounts of grammaticalization, such as Traugott & Dasher (2002:84) and Roberts & Roussou (2003), it is acknowledged that grammaticalization(E) is indeed a phenomenon that operates across these linguistic fields. But in contrast to the works mentioned above, my intention has been to devote an equal amount of attention to these two types of changes, and I have also aimed at finding the ways in which they interact with each other. In this section, I compound the insights that the various paths of grammaticalization have tendered into a more coherent picture.

In section (2.5), I proposed that there are distinct syntactic categories, whereas the semantic categorial borders may be "fluid, gradient and variable" (Bybee 2003). From a syntactic viewpoint a grammaticalization process will consequently proceed in distinct steps, whereas it will be gradual from the semantic perspective.

Above (9.7), it was demonstrated that a prerequisite for all of the syntactic changes but one is the existence of a structurally ambiguous string of words, which allows two distinctly different analyses. As for the semantic changes, however, it seems that polysemy has been an essential requirement for change. Tuggy (1993) equates polysemy with vagueness, and following Tuggy, I suggest that structural ambiguity and semantic vagueness may be schematically illustrated as below:

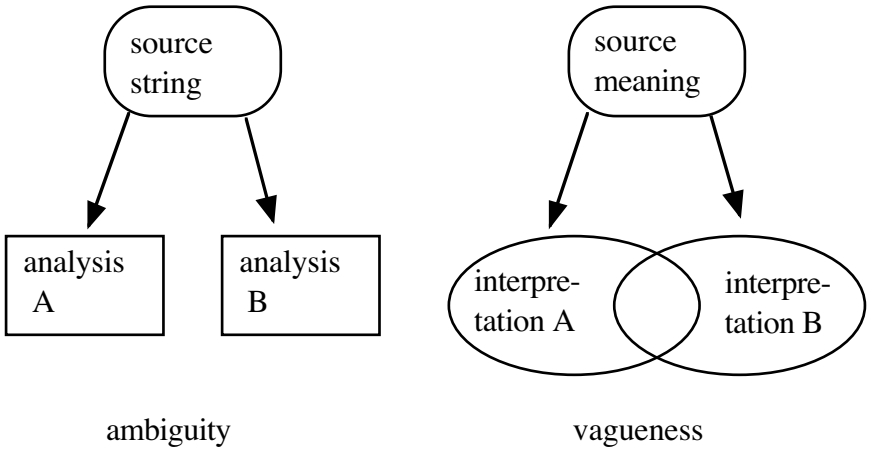

Fig. 2. *Structural ambiguity and semantic vagueness.*

An ambiguous string allows for two (or more) distinctly different analyses, whereas a vague meaning invites two (or more) interpretations that are overlapping and not easy to distinguish from each other (cf. Traugott & Dasher 2003:11ff). So, both ambiguous and vague items offer options for a listener/reader. Crucially, the ambiguity/vagueness may not be intended by the speaker/writer, but arises in the discourse context. For the further argumentation, I turn to a model presented by Traugott & Dasher (2002).

Traugott & Dasher (2002:14) suggest that lexemes are tripartite, consisting of features specifying meaning, morphosyntactic function and phonological form:

6. L = [meaning: M]
[function: S]
[form: P]

A polysemous/vague gram will in their model have two or more meanings, but only one function and one form. As an example, they utilize *as long as* (2002:36ff), a phrase which has developed from spatial to temporal to conditional meaning. The meaning changes can be illustrated as below:

7. [spatial] > [spatial, (temporal)] > [temporal] > [temporal, (conditional)] > [conditional]

Throughout these changes, the syntactic function (subordinator) and the phonological form remain unaltered. The meaning changes are caused by successive invited inferences – in certain contexts, the spatial meaning allowed or even called for a temporal interpretation, and temporal meaning is in turn often interpreted as conditional meaning. These semantic shifts are identical to the shifts of OSw *thær,* as shown by Bjerre (1935:89; cf. section 2.2.1), and the adverbial *hvar* developed in a similar fashion.

So, when the spatial *as long as* was used in certain contexts, an optional temporal interpretation was possible. A listener that makes this interpretation will then perhaps construct sentences in which *as long as* is exclusively temporal, and thus not vague, and if this novelty spreads among the speaker community, *as long as* has acquired a new temporal meaning. This is, in extreme brevity, the process of semantic change that is the main point of discussion in Traugott & Dasher (2002; the Invited Inference Theory of Semantic Change). Traugott & Dasher (2002) concentrate on the semantic aspects of language change, but I will propose that just as the discourse context may enable listeners to construct semantic options, also syntactic (and phonetic) options may arise in context.

Consider the changes of *bara*. Originally, the gram was an adjective with the meaning 'naked, uncovered', but in some contexts it could also be interpreted as meaning 'only'. As I argued in section (8.3), these meanings overlap, and in some instances they can not be kept apart – *bara* was vague. This change can be illustrated as below:

8.	[M 'naked, uncovered'] >	[M 'naked, uncovered'~'only'] >	[M 'only']
	[S adjective]	[S adjective]	[S adjective]
	[P /bɑːra/]	[P /bɑːra/]	[P / bɑːra/]

In the following change, *bara* was reanalysed as an adverb – the new meaning

allowed the language users to use *bara* as a modifier of events. In this change, only the syntactic function was affected:

9.	[M 'only']	>	[M 'only']	>	[M 'only']
	[S adjective]		[S adjective/adverb]		[S adverb]
	[P /bɑːra/]		[P /bɑːra/]		[P /bɑːra/]

The ambiguous intermediate stage can be exemplified with a sentence such as *Kalle äter bara sill* ('Kalle only eats herring' or 'Kalle eats only herring') – in MSw the verb moves to C in main clauses, and *bara* may in this linear position accordingly modify either the verb phrase or the object.

In the next change, *bara* turned into a sentence adverb:

10.	[M 'only']	>	[M 'only']	>	[M 'only']
	[S adverb]		[S adverb/sentence adverb]		[S sentence adverb]
	[P /bɑːra/]		[P /bɑːra/]		[P /bɑːra/]

The reanalysis was caused by the fact that a sentence such as *Jag kan bara se Calvin*, corresponding to *I can only see Calvin* (cf. section 8.4), is structurally ambiguous. The linear position of *bara* allows for several analyses, one in which *bara* has clausal scope. Again, I think that the meaning 'only' was unaffected – it was only the scope of the gram that changed, not its meaning.

When *bara* was used as a sentence adverb, it occurred in imperatives and desiderative exclamations, originally to underline the speaker's request. This usage allowed the listeners to interpret *bara* as desiderative, assuming that the desiderativity emanated from the sentence adverb.

11.	[M 'only']	>	[M 'only'~ desiderative 'only']	>	[M desiderative 'only']
	[S sentence adverb]		[S sentence adverb]		[S sentence adverb]
	[P /bɑːra/]		[P /bɑːra/]		[P /bɑːra/]

An initial sentence adverb may (if it occurs in a clause which is followed by a possible apodosis) be interpreted as a conditional gram – again this is a question of vagueness, I think, since the semantic difference between a conditional clausal relation and a sequential/temporal clausal relation in many cases is hard to capture accurately.

12.	[M desiderative 'only']	>	[M desiderative 'only'~'if just']	>	[M 'if just']
	[S sentence adverb]		[S sentence adverb]		[S sentence adverb]
	[P /bɑːra/]		[P /bɑːra/]		[P /bɑːra/]

In the final change, the sentence adverb was reanalysed as a conditional subordinator, a reanalysis that was triggered by the conditional interpretation of the *bara*-clause.

13.	[M 'if just']	>	[M 'if just']	>	[M 'if just']
	[S sentence adverb]		[S sentence adverb/subordinator]		[S subordinator]
	[P /bɑːra/]		[P /bɑːra/]		[P /bɑːra/]

So, this entire chain of grammaticalization may be seen as changes from stages that are either ambiguous or vague. Ambiguity and vagueness continually arise when a new syntactic function offers new interpretational options, or when a new meaning stimulates a syntactic reanalysis. The diachronic stages of *bara* are illustrated below (cf. Rosenkvist in press):

diachronic stage	ambiguous	vague
adjectival *bara* ('uncovered, only')	no	yes
adverbial *bara* ('only')	yes	no
sent. adverbial *bara* (desiderative 'only')	no	yes
subordinating *bara* ('if just')	no	no

Table 6. *The diachronic stages of* bara.

It must be emphasized that as soon as the adjectival *bara* has acquired the meaning 'only', it may also be ambiguous, but the vagueness of *bara* is a prerequisite for the subsequent ambiguity; the following changes progress likewise, mutatis mutandis. One may furthermore conclude that by utilizing this perspective on the changes, it is possible to study each step of change in isolation, be it semantic or syntactic (or phonetic).

The evolution of *bara* (and of the rest of the investigated grams) suggests that it is indeed possible to view grammaticalization(E) as a kind of language change that proceeds stepwise. Every step is either semantic or syntactic – it follows that in a syntactic change, the meaning of the gram will be unaffected, and vice versa. A reanalysis may on the other hand eventually provide new possibilities of interpretation, just as a reinterpretation may cause the gram to appear in an ambiguous sentence, where it may be subject to reanalysis. Two other consequences of this perspective are that ambiguity, vagueness and allophony (which have not been on the agenda here) provoke change, and, consequently, that a non-vague gram that does not appear in ambiguous contexts and that has no allophonic variants is not likely to change.

9.10. Concluding remarks

9.10.1. The empirical results

Interestingly, there seem to be two distinct periods for the emergence of new conditional subordinators in Swedish; three of the studied grams (*utan*, *om* and *hvar*) first appear as subordinators during the period 1250–1350, approximately, and the remaining two (*ifall* and *bara*) show up between 1650 and 1750. It is unlikely that this is caused exclusively by language-internal factors.

During the first period, Swedish was written with the Latin alphabet to any extent for the first time. Furthermore, it was predominantly provincial laws that were written during the 13th century, and the number of conditional clauses in laws is of course abundant. So, as a Swedish literary culture which seems to be fascinated by laws is successively established in the 13th century, it can be expected that some linguistic novelties will ensue.

The second period encompasses the traditional boundary between EMSw and LMSw, 1732. The reason for this division is that more colloquial Swedish was first rendered in the journal *Argus*, which was originally published in this year. However, it is possible that the strict stylistic rules for written Swedish were somewhat loosened before that, allowing for some influences from spoken language. If so, one would expect to find some new uses in the texts of well-known grams during this period, like conditional *ifall* and *bara*. Interestingly, Lehti-Eklund (1990:253) likewise finds the same period to be quite turbulent: “The period 1650-1750 seems to be especially important with respect to the changes” (my translation).

9.10.2. The methodology

Studies on diachronic language change are generally occupied either with semantic change or with syntactic change. In this work, I have combined these approaches,

intending to demonstrate that neither perspective excludes the other, and that a combined semantic/syntactic perspective actually provides a fuller understanding of diachronic language change. The reader must decide whether this goal has been fulfilled or not, but in my view several instances of change can only be explained if both these facets of language are reckoned with. For example, the reanalysis of *utan* from preposition to clause internal coordinator (*utan* 2) also yields a semantic change ('without' > 'except'). Crucially, the underlying (formal/image schematic) meaning remains unaffected, but the new syntactic context makes it appear in a different guise. In this case, the semantic and the syntactic changes are actually interdependent, a fact which would not protrude in an exclusively syntactic or exlusively semantic analysis.

Furthermore, the combined approach has allowed me to capture the individual steps of change in the paths of grammaticalization, or, as in the example just mentioned, to isolate the changes in which both meaning and function seem to change at the same time.

I conclude that a combined semantic/syntactic perspective is not only possible, but also desirable; what may be lost in analytic depth is compensated by the gains of a wider analysis.

9.10. 3. Final reflections on grammaticalization and grammaticalization theory

The studied paths of change are all examples of grammaticalization, given that grammaticalization is defined as an empirical phenomenon that consists of shifts of the type lexical > grammatical or grammatical > more grammatical. The present study does not support the hypothesis that grammaticalization is anything more than this, since I have found no characteristics of language change that may be specific for grammaticalization. Having reached the same conclusion, Campbell (2001) notes:

> This raises the question of whether grammaticalization has any value on its own. I suggest that it does have, but only heuristic value – not theoretical or explanatory – in that it focuses attention on an interesting range of phenomena. That is, while the phenomenon of grammaticalization is interesting and not really in question, there are serious problems with so called "grammaticalization theory" (Campbell 2001:133f).

The problems with grammaticalization theory are, I think, that grammaticalization is considered a specific type of regular and predictable language change, and that it hence is used for reconstruction of diachronic change. But grammaticalization (the empirical phenomenon) is often irregular and unpredictable, and it does not allow for trustworthy reconstructions. Several types of irregular processes may have caused a gram to develop grammatical meaning and/or function, such as analogy (as when *ifall* acquired interrogative meaning, on a par with *om*) or meaning transfer (as when the meanings of *æn* rubbed off on OSw *um*). Accordingly, the true background of a gram can only be revealed through careful diachronic investigations – a fact that is often mentioned in the concluding sections of studies of diachronic language change (cf. Norde 1999:55f, Skafte Jensen 2000:188).

The structural model of grammaticalization proposed by Roberts & Roussou (1999, 2003) fails to capture the segmental reanalysis that occurred in the changes of *om* and *ifall*, which confirms that grammaticalization (the empirical phenomenon) is a multifarious process that is not easily captured by a theoretical model.

One may conclude that a strict definition of grammaticalization will transform the diachronic studies performed according to this particular definition into excercises in which language changes are divided into the categories of grammaticalization (adapting to the definitional properties of grammaticalization) and non-grammaticalization. The results of such studies will be quite uninteresting figures concerning the ratio of grammaticalization in the studied material – nothing new about grammaticalization will emerge, since it is defined beforehand. But if grammaticalization is considered an empirical phenomenon, as is advocated here, all

aspects of change will be of importance for the establishment of the empirical properties of grammaticalization. This must certainly be a more fruitful and instructive strategy (given the current stage of research).

10. SUMMARY

The chapters in this thesis have different purposes and may be divided into the introductory chapters 1–3, the empirical chapters 4–8 and the concluding chapter 9, a forum for theoretical discussions.

In chapter 1, a general background to this study is provided. Grammaticalization and grammaticalization theory are intensively discussed by diachronic linguists, and one of my intentions is to make a contribution to this discussion. By first establishing the empirical paths of change of five Swedish conditional subordinators, I will then be able to compare the asserted paths of change with the predictions of grammaticalization theory. This mode of procedure also provides a platform for a theoretical discussion concerning grammaticalization and grammaticalization theory.

My primary data source is *Fornsvenska Textbanken*, and data-based concordances of the texts in this database constitute the basis for the empirical studies in chapters 4–6. In chapters 7–8, I have mainly used SAOB.

Chapter 2 is an introduction to grammaticalization and grammaticalization theory. I distinguish between the empirical process of grammaticalization (changes of the type lexical > grammatical or grammatical > more grammatical), grammaticalization as defined by grammaticalization theory (a specific unidirectional and gradual type of language change), and a generative view of grammaticalization (Roberts & Roussou 1999, 2003) which equates grammaticalization with a type of syntactic simplification in which movement is replaced by merger. These three notions of grammaticalization are termed grammaticalization(E), grammaticalization(T) and grammaticalization(S).

First grammaticalization(E) is introduced, and two relevant studies are summarized. Bjerre (1935, 1938) showed that OSw temporal subordinators may be interpreted as conditional in certain contexts, and Braunmüller (1978) introduced univerbation, a common Germanic process for the creation of new subordinators.

The next topic in chapter 2 is grammaticalization theory, and especially those features of diachronic language change that are suggested to signify grammaticalization(T): bleaching, preservation of image schematic meaning, abstraction, subjectification, source determination and semantic retention. Also some known origins of conditional subordinators (Hopper & Traugott 1993:179) are presented, although I question the methodology utilized.

Chapter 2 continues with an introduction of structural approaches to grammaticalization, and special attention is given to reanalysis. I recognize three different types of reanalysis, mainly following Newmeyer (1998): categorial, segmental and hierarchical. In the subsequent sections the generative view of language change is introduced, as well as grammaticalization(S), and the basic aspects of the structurally based critique of grammaticalization theory are recapitulated. Then a proposal on how to possibly unify gradual and non-gradual diachronic language change is presented; I suggest that semantic/pragmatic changes generally are gradual whereas syntactic changes are non-gradual (because syntax is organized in discrete categories). The chapter ends with a summary and a note on the theoretical point of departure.

The topics in chapter 3 are conditionality and conditional subordinators. First, the linguistic view of conditional sentences is discussed, and I suggest that a typical conditional sentence is an assertion about the causal relation between two hypothetical events. I include common, concessive, biconditional and anticonditional sentences among the typical conditional sentences, whereas some other types of conditional sentences are classified as atypical, e.g.: contrafactives, epistemic conditionals, speech act conditionals and given conditionals.

A presentation of the logical approach to conditionality is presented in the following section, and I suggest that the proper formalization of anticonditionals (*unless it rains...*) is: $\neg (p \rightarrow q)$. The formalization can be paraphrased as *it is not the case that if p then q*. Next a hypothesis concerning the relation between implications in logic and conditional sentences in natural language is presented (the

Reasoning Model). In this model, a common conditional sentence is a mere report of an expected causal relationship, whereas a concessive conditional sentence expresses a failed expectation, and an epistemic conditional sentence is an instance of abductive reasoning.

In the final sections of chapter 3 conditional subordinators in MSw are discussed (especially *om*, *ifall*, *bara* and *blott*), and some specific signs of conditionality in OSw are presented. The chapter ends with a summary.

In chapters 4–8, the emergence of the conditional subordinators *utan*, *um*, *hvar*, *ifall* and *bara* is investigated and discussed. In each chapter, the traditional etymology is presented (if such an etymology is available) and the development from source to conditional subordinator is exemplified and analysed from a semantic as well as a syntactic perspective. These chapters all end with a sketch of the assumed changes, and an evaluation of the suggested path of change in terms of grammaticalization(T/S).

Utan was used as an anticonditional subordinator (like PDE *unless*) already in EOSw. I propose that *utan* developed from a locative adverb/preposition ('outside') to an excluding preposition ('without') and then to a clause internal exceptive coordinator ('except'). The common feature for these instances of *utan* is, I think, the formal meaning: (p & ¬ q). From a formal semantic perspective, this formalization is synonymous with the meaning of an anticonditional subordinator, and I suggest that in EOSw *utan* could be interpreted as 'unless' whenever it appeared in initial position in a clause that was analysed as subordinate, due to semantic/pragmatic factors in the discourse context. In other cases, the *utan*-clause was analysed as a main clause, and *utan* was then understood as a post-sectional coordinator (corresponding to German *sondern a*nd Spanish *sin*).

Um was initially a locative preposition ('around'), which through metaphorical extension developed the meaning 'about'. This meaning in turn allowed *um* to appear with a conditional clause as a complement, and in such constructions *um* and *æn* (*æn* was the default conditional subordinator in EOSw, but it also had a number

of other meanings and functions) were juxtaposed. In a process of univerbation, conditional meaning was transferred from *æn* to *um*, and eventually *æn* was deleted. This explanation is not compatible with the traditional etymology, which is based on sound laws. I argue that the evidence for the essential (for the traditional etymology, that is) source form *æm* is very weak, and that the suggested sound change *æf* > *æm* > *um* is quite problematic.

The traditional explanation for conditional *hvar* is that it developed from an adverb with the meaning 'where, wherever'. But a complementary source is, I think, a pronominal *hvar*, meaning 'whoever'. Clauses with an initial pronominal *hvar* could be analysed as conditional clauses with a null subject in certain contexts, and several regular OSw conditional clauses with null subjects illustrate that such clauses were indeed allowed in OSw. A similar change in Danish also supports this proposal – there the pronoun *hvis* ('whatever') developed into a conditional subordinator.

Like *um*, the conditional subordinator *ifall* emerged through univerbation. The source construction was the prepositional phrase *i fall*. The noun *fall* originally meant 'a fall', but a metonymical fixation of the restricted randomness of the final position in natural falls resulted in the hypothetical meaning 'case'. The phrase *i fall* accordingly had the meaning 'in case', and I argue that this phrase merged into a preposition (*ifall*). This preposition only appeared with clausal complements, however, and eventually the preposition and the following subordinators (*att*, *om*, *där*) was analysed as a complex subordinator, which led to the deletion of the original subordinators. Later, *ifall* has also developed into an interrogative subordinator, probably by analogy with *om*.

Bara was originally an adjective ('bare, uncovered'). It acquired the meaning 'only' and changed into an adverb, which eventually was interpreted as desiderative in certain contexts (such as imperatives and desiderative exclamations). Such clauses are often followed by a clause where the desired goal is expressed – this was the context that stimulated a causal interpretation and a reanalysis of *bara* (desiderative

sentence adverb > subordinator).

In the final chapter 9, the suggested paths of change constitute the basis for evaluations of grammaticalization (T/S). Development of conditional meaning, univerbation and retention of formal meaning are also discussed, and a proposal regarding semantic/syntactic change is presented.

In the first sections, the topic is semantic change, and especially the notions of bleaching, abstraction, subjectification, source determination and semantic retention, and, finally, image schema preservation. I argue that, for most of the investigated changes, none of these notions is directly relevant. These concepts of semantic change have been the cornerstones in the construction of grammaticalization theory; it follows that this study does not support the existence of grammaticalization(T) and that the explanatory force of grammaticalization theory accordingly is close to zero (at least for the changes studied in this thesis).

Conditional meaning requires both a causal and a hypothetical feature, and the investigated paths of change suggest that while causality in general is developed through pragmatic inferencing, hypoteticality is acquired in idiosyncratic ways. Another observation is that the studied grams are hypothetical before they become causal.

In the development of *utan*, I argue that the formal semantic meaning was kept throughout the entire path of change, but also the changes of *hvar*, *ifall* and *bara* display retention of formal meaning (but not *um*, since this gram just inherited conditional meaning from *æn*). As for *hvar* and *ifall*, I think that a universal quantifier was involved in the changes, while the 'no more than' meaning of *bara* emanates from a specific quantifier (≤).

In both the univerbation processes (*om* and *ifall*), a preposition and a subordinator were fused through segmental reanalysis. Both these items were syntactic heads, heading their respective phrases (PP and CP), but as they were joined the PP simply disappeared. This can be seen as a type of radical syntactic simplification in which movement is not replaced by merger; rather, the result is a pronounced loss of

structure. Segmental reanalysis may accordingly result in simpler syntactic structures without a shift move > merge, and the same can be said about some of the categorial reanalyses. It thus seems that the studied paths of change require other analytical instruments than grammaticalization(S).

In the last but one section of chapter 9, I suggest that grammaticalization(E) may be seen as interacting reinterpretations and reanalyses, and that key factors are semantic vagueness and syntactic amibiguity. The idea is that vagueness may be dissolved by reanalysis and that ambiguity in turn may be resolved by reinterpretation.

The final section of the thesis contains some concluding remarks. It is argued that a combined semantic/syntactic approach to diachronic language change provides a deeper understanding of the studied changes and superior means of explanation, compared with a narrow approach. These advantages, I believe, compensate for the loss of depth in the analyses. Furthermore, the studied paths of change suggest that grammaticalization theory does not allow for dependable reconstructions – only detailed diachronic studies can provide reliable data concerning grammaticalization.

REFERENCES

Abraham, W. 2001. How far does semantic bleaching go: About grammaticalization that does not terminate in functional categories. *Grammatical relations in change*, 15–64. Ed. J. T. Faarlund. John Benjamins, Amsterdam/Philadelphia.

Achard, M. 1996. Two causation/perception constructions in French. *Cognitive Lingustics* 7-4, 315–357.

Akatsuka, N. 1986. Conditionals are discourse-bound. *On conditionals*, 333–351. Ed. E. Traugott et al. CUP, Cambridge etc.

Akatsuka, N. 1997. Negative conditionality, subjectification, and conditional reasoning. *On conditionals again*, 323–354. Ed. A. Athanasiadou & R. Dirven. John Benjamins, Amsterdam/Philadelphia.

Allwood, J; Andersson, L-G & Dahl, Ö. 1986. *Logic in linguistics*. CUP, Cambridge.

Alving, H. 1916. *Det grammatiska subjektets plats i den narrativa satsen i svenskan: en språkhistorisk undersökning*. Uppsala.

Andersen, H. 1973. Abductive and deductive change. *Language* 49, 4:765–793.

Athanasiadou, A. & Dirven, R. 1997a. (ed.). *On conditionals again*. John Benjamins, Amsterdam/Philadelphia.

Athanasiadou, A. & Dirven, R. 1997b. Conditionality, hypotheticality, counter-factuality. *On conditionals again*, 61–96. Ed. A. Athanasiadou & R. Dirven. John Benjamins, Amsterdam/Philadelphia.

van der Auwera, J. 1986. Conditionals and speech acts. *On conditionals*, 197–214. Ed. E. Traugott et al. CUP, Cambridge.

van der Auwera, J. 1997. Conditional perfection. *On conditionals again*, 169–190. Ed. A. Athanasiadou & R. Dirven. John Benjamins, Amsterdam/Philadelphia.

Bergman, G. 1947. *A short history of the Swedish language*. The Swedish Institute for Cultural Relations, Stockholm.

Bergqvist, B. Jakobsson. 1884. *Den konditionala satsfogningen i fornsvenskan*. Berlings. Lund.

Bjerre, B. 1935. *Nordiska konjunktionsbildningar med temporal innebörd* I. C.W.K. Gleerup, Lund.

Bjerre, B. 1938. *Nordiska konjunktionsbildningar med temporal innebörd* II. C.W.K. Gleerup, Lund; Otto Harrasowitz, Leipzig.

Björck, G. 1953. *Djäknar och helikoptrar. Grekiska lånord i svenskan*. Gleerups, Lund.

Bonniers Svenska Ordbok (*Bonnier's Swedish Lexicon*). 1986. Ed. S. Malmström, I. Györki & P. Sjögren.

Bosworth, J. & Northcote Toller, T. 1882–1898. *An Anglo-Saxon Dictionary*. The Clarendon Press, Oxford.

Braunmüller, K. 1978. Remarks on the formation of conjunctions in Germanic languages. *Nordic Journal of Linguistics* 1, 99–120.

Brøndum-Nielsen, J. 1928. *Gammeldansk grammatik i sproghistorisk framstilling* I. Copenhagen.

Brøndum-Nielsen, J. 1928b. *Ordbog øver det danske sprog* XV.

Brøndum-Nielsen, J. & Jørgensen, P-J. 1942. *Danmarks gamle landskapslove med kirkelovene,* V + VII. Nordisk forlag, Copenhagen.

Brugman, C & Lakoff, G. 1988. Cognitive typology and lexical networks. *Lexical ambiguity resolution*, 477–508. San Mateo.

Bugge, S.E. 1877. Runeindskriften paa Ringen i Forsa kirke. *Festskrift til det Kgl. Universitet i Upsala*. Christiania.

Bybee, J. & Pagliuca W. 1986. The evolution of future meaning. *Papers from the Seventh International Conference on Historical Linguistics*, 108–122. Ed. A. Ramat et al. John Benjamins, Amsterdam.

Bybee, J., Perkins, R. & Pagliuca, W. 1994. *The evolution of grammar*. The U. of Chicago Press, Chicago/London.

Bybee, J. 2003. The development of the category of auxiliary in English. Talk presented at ICHL 16, Copenhagen.

Campbell, L. 1998. *Historical Linguistics. An Introduction*. Edinburgh U. Press, Edinburgh.

Campbell, L. 2001. What's wrong with grammaticalization? *Language Sciences* 23:113–161.

Campbell, L. & Janda, R. 2001. Introduction: conceptions of grammaticalization and their problems. *Language Sciences* 23:93–112.

Carkeet 1976. Old English Correlatives: An Exercise in Internal Syntactic Reconstruction. *Glossa* 10, 44–63.

Chomsky, N. 1986. *Barriers*. The MIT Press, Cambridge, Mass.

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

Christoffersen, M. 2003. Noe om bindeord i eldre norsk, særlig om *ok*, *en* og *nema*. *Språk i endring*, 13–28. Ed. J. T. Faarlund. Novus Forlag, Olso.

Cinque, G. 2004. Issues in adverbial syntax. *Lingua* 114:683–710.

Comrie, B. 1986. Conditionals: a typology. *On conditionals,* 77–102. Ed. E. Traugott et al. CUP, Cambridge etc.

Croft, W. 1993. *Typology and universals*. CUP, Cambridge.

Dahl, Ö. 1997. Past time reference and counterfactuality. *On conditionals again*, 97–114. Ed. A. Athanasiadou & R. Dirven. John Benjamins, Amsterdam/Philadelphia.

Dancygier, B. 1998. *Conditionals and predication*. CUP, Cambridge.

Declerck, R. & Reed, S. 2000. The semantics and pragmatics of *unless*. *English Language and Linguistics* 4:205–241.

Declerck, R. & Reed, S. 2001. *Conditionals. A comprehensive empirical analysis*. Mouton de Gruyter, Berlin/New York.

Diderichsen, P. 1939. Realitet som grammatisk Kategori. *Nysvenska Studier* 19, 69–91.

Diderichsen, P. 1941. *Sætningsbygningen i Skaanske Lov*. Ejnar Munksgaard, Copenhagen.

Dryselius, V. & Lundin, K. 1999. Med ungdomligt språk i bagaget. *Språk & Stil* 9:155–176.

Duden. Grammatik der deutsche Gegenwartssprache 4. 1984. Meyers Lexikonverlag, Mannheim/Wien/Zürich.

Ekberg, L. 1993. Slutpunktsfokus i svenskan. *Svenskans beskrivning* 20, 118–130.

Ekberg, L. 1996. Image schemas and lexical polysemy: the case of Swedish *'runt'* around'. *Working Papers in Linguistics* 25, 23–42. University of Trondheim.

Ekberg, L. 2001. Transformations on the Path-schema and a minimal lexicon. *Studia Linguistica* 55, 301–324.

Ekerot, L-J. 1976. Villkorssatser och *att*-satser. Om villkorssatser som verbkomplement. *Lundastudier i nordisk språkvetenskap* D 10, 52–84.

Eriksson, M. 1997. "Ja ba he hej så hära pinsamt hörru". Några utvecklingstendenser i ungdomars vardagliga berättande. *Ut med språket! En bok om språkutveckling och pedagogisk praktik*, 45–67. Ed. B. Garme. *Svensklärarföreningens årsskrift* 1997.

Espegaard, A. 1973. *Vendsysselsk ordbog*. Vendsyssel Tidendes forlag, Hjørring.

Faarlund, J. T. 1990. *Syntactic change. Toward a theory of historical syntax*. Mouton de Gruyter, Berlin/New York.

Falk, C. 1993. *Non-referential subjects in the history of Swedish*. Dept. of Scandinavian Languages, Lund University.

Falk, H. & Torp, A. 1960. *Norwegisch-Dänisches etymologisches Wörterbuch*. Oslo.

Fauconnier, G. 1985. *Mental spaces*. The MIT Press, Cambridge, MA.

Feilberg, H.F. 1894–1904. *Bidrag til en ordbog over jyske almuesmål*. Thieles bogtrykkeri, Copenhagen.

Fillenbaum, S. 1986. The use of conditionals in inducements and deterrents. *On conditionals*, 179–196. Ed. E. Traugott et al. CUP, Cambridge etc.

Fischer, O. & Rosenbach, A. 2000. Introduction. *Pathways of change: grammaticalization in English*, 1–37. Ed. O. Fischer, A. Rosenbach & D. Stein. John Benjamins, Amsterdam/Philadelphia.

von Friesen, Otto. 1904. *Vår älsta handskrift på fornsvänska*. Almqvist & Wiksell, Uppsala.

Gaeta, L 1998. Some remarks on analogy, reanalysis and grammaticalization. *The limits of grammaticalization*, 89–106. Ed. A. Ramat & P. Hopper. John Benjamins, Amsterdam/Philadelphia.

Geis, M. & Zwicky, A. 1971. On invited inferences. *Linguistic Inquiry* 2:561–566.

Geis, M. 1973. *If* and *unless*. *Issues in Linguistics: Papers in Honor of Henry and Renée Kahane*, 231–253. Ed. B. Kachru et al. University of Illinois Press, Urbana.

Givón, T. 1979. *On understanding grammar*. Academic Press, New York/San Francisco/London.

Goodman, N. 1947. The problem of counter-factual conditionals. *Journal of Philosophy* 44:113 – 120. Lancaster Press, Lancaster, PA.

Grice, H. 1975. Logic and conversation. *Speech acts*, 41–58. Ed. P. Cole & J. Morgan. Academic Press, New York.

Grimm, J. & Grimm, W. 1854. *Deutsches Wörterbuch* I. Verlag von S. Horzel, Leipzig.

Guttenplan, S. 1997. *The languages of logic. An introduction to formal logic.* Blackwell, Oxford.

Hagerup, E. 1867. *Om det danske sprog i Angel*. Copenhagen.

Haiman, J. 1978. Conditionals are topics. *Languag*e 54:564–589.

Haiman, J. 1985. *Natural syntax*. CUP, Cambridge.

Halliday, M. & Hasan, R. 1976. *Cohesion in English*. Routledge, London.

Hanssen, E; Mundal, E. & Skadberg, K. 1975. *Norrøn grammatik*. Universitetsforlaget, Oslo/Bergen/Tromsø.

Harris, A. & Campbell, L. 1995. *Historical syntax in cross-linguistic perspective*. CUP, Cambridge.

Haskå, I. 1988. Standardisering inom fornsvenskans bestånd av kausalmarkörer.*Studier i svensk språkhistoria*, 86–103. Ed. G. Pettersson. Lund U. Press, Lund.

Haspelmath, M. & König, E. 1998. Concessive conditionals in the languages of Europe. *Adverbial constructions in the Languages of Europe*, 563–640. Ed. J. van der Auwera. Mouton de Gruyter, Berlin/New York.

Haspelmath, M. 1999. Why is grammaticalization irreversible? *Linguistics* 37, 1043–1068.

Haspelmath, M. 2002. On directionality in language change, with particular reference to unidirectionality in grammaticalization. Talk held at *New Reflections on Grammaticalization* 2, Amsterdam.

Hast, S. 1983. Om SAOB:s material. *Nysvenska studier* 63:159–192.

Haugen, O. 1995. *Grunnbok i norrønt språk*. Ad Notam Gyldendal, Oslo.

Heine, B. & Reh, M. 1984. *Grammaticalization and reanalysis in African languages*. Helmut Buske, Hamburg.

Heine, B; Claudi, U. & Hünnemeyer, F. 1991. *Grammaticalization. A conceptual framework*. The U. of Chicago Press, Chicago/London.

Heine, B. 1993. *Auxiliaries. Cognitive forces and grammaticalization*. OUP, Oxford/New York.

Heine, B. & Kuteva, T. 2002. *World Lexicon of Grammaticalization*. CUP, Cambridge etc.

Hellquist, E. 1980. *Svensk etymologisk ordbok*. Liber, Lund.

Heltoft, L. 1995. Grammatikaliseringsprocesser i dansk syntakshistorie. *Sproghistorie i 90erne*, 124–168. Ed. B. Holmberg. Selskab for Nordisk Filologi, Copenhagen.

Hengeveld, K. 1998. Adverbial clauses in the languages of Europe. *Adverbial constructions in the Languages of Europe*, 335–420. Ed. J. van der Auwera. Mouton de Gruyter, Berlin/New York.

Heyse, J. 1908. *Deutsche grammatik oder Lehrbuch der deutschen Sprache*. 27th edition. Hahn, Hannover/Leipzig.

Hodges, W. 1977. *Logic*. Penguin Books, Middlesex.

Holmbäck, Å. & Wessén, E. 1933. *Svenska landskapslagar tolkade och förklarade för nutidens svenskar* 1. Hugo Gebers förlag, Stockholm.

Holmbäck, Å. & Wessén, E. 1946. *Svenska landskapslagar tolkade och förklarade för nutidens svenskar* 5. Hugo Gebers förlag, Stockholm.

Holmbäck, Å. & Wessén, E. 1962. *Magnus Erikssons landslag i nusvensk tolkning*. Nord. bokh, Stockholm.

Hopper, P. 1991. On some principles of grammaticalization. *Approaches to grammaticalization* I, 17–35. Ed. E. Traugott & B. Heine. John Benjamins, Amsterdam/Philadelphia.

Hopper, P. 1998. The paradigm at the end of the universe. *The limits of grammaticalization*, 147–158. Ed. A. Ramat & P. Hopper. John Benjamins, Amsterdam/Philadelphia.

Hopper, P. & Traugott, E. 1993. *Grammaticalization*. CUP, Cambridge.

Iversen, R. 1955. *Norrøn grammatikk*. Aschehoug & Co, Oslo.

Jackendoff, R. 1983. *Semantics and cognition*. MIT Press, Cambridge, Mass.

Jackendoff, R. 1990. *Semantic structures*. MIT Press, Cambridge, Mass.

Jackson, F. 1987. *Conditionals*. Basil Blackwell, Oxford.

Johnson, M. 1987. *The Body in the Mind: the bodily basis of meaning, imagination, and reason*. U. of Chicago Press, Chicago.

Johnson-Laird, P. 1986. Conditionals and mental models. *On conditionals*, 55–76. Ed. E. Traugott et al. CUP, Cambridge etc.

Jörgensen, N. 1987. *Studier över syntax och textstruktur i nordiska medeltidslagar*. SFSS 256, BD 76. Sandby Grafiska, Lund.

Joseph, B. 2001. Is there such a thing as "grammaticalization"? *Language Sciences* 23:163–186.

Keenan, E. L. & Westerståhl, D. 1997. Generalized quantifiers. *Handbook of logic and language*, 837–893. Ed. J. van Benthem & A. ter Meulen. Elsevier, Amsterdam/MIT Press, Cambridge, MA.

Kemenade, van, A. 1999. Functional categories, morphosyntactic change, grammaticalization. *Linguistics* 37, 997–1010.

Kemenade, van, A. & Vincent, N. 1997. Parameters and morphosyntactic change. *Parameters of morphosyntactic change*, 1–25. CUP, Cambridge.

Klopp, von, A. 1994. BUT and Negation. *Nordic Journal of Linguistics* 17, 1–34.

Kock, A. 1880. Förklaring till fornsvenska lagord. *Bidrag till svensk etymologi 16.* Lund.

Kock, A. 1886. Förklaring af några nordiska ord. *Arkiv för Nordisk Filologi* III.

Kock, A. 1898. Pron. *ho* samt frågan om övergång av å-ljud ock öppet o-ljud till slutet o-ljud. *Svenska Landsmål* XV,V:45–49.

König, E. 1986. Conditionals, concessive conditionals and concessives: areas of contrast, overlap and neutralization. *On conditionals,* 229–246. Ed. E. Traugott et al. CUP, Cambridge etc.

Kortmann, B. 1998. Adverbial subordinators in the languages of Europe. *Adverbial constructions in the Languages of Europe*, 457–562. Ed. J. van der Auwera. Mouton de Gruyter, Berlin/New York.

Kotcheva, K. 1999. Nusvenska konjunktioner och deras utveckling. *Nordiska språk – synkront och diakront*, 20–27. Kleine Schriften des Nordeuropa-Instituts 17. Ed. J. Kusmenko & S. Lange. Humboldt-Universität, Berlin.

Kotcheva, K. 2002. Om konjunktionerna *ok* och *än* i fornsvenska. *Folkmålsstudier* 41, 145–156. Ed. G. Harling-Kranck & H. Lehti-Eklund. Helsingfors.

Kroman, E. 1945a. *Danmarks gamle love paa nutidsdansk* I. Skaanske lov, Valdemars sjællandske lov. Copenhagen.

Kroman, E. 1945b. *Danmarks gamle love paa nutidsdansk* II. Eriks sjællandske lov, Jyske lov, Skaanske og sjællandske kirkelov. Copenhagen.

Kurylowicz, J. 1965. The evolution of grammatical categories. *Diogenes* 51:55–71.

Lakoff, R. 1971. If's, and's, and but's about conjunction. *Studies in linguistic semantics*, 114–149. Ed. C. Fillmore & T. Langendoen. Holt, Rhinehart and Winston, New York.

Lakoff, G. & Johnson, M. 1980. *Metaphors we live by*. The U. of Chicago Press, Chicago/London.

Lakoff, G. 1987. *Women, fire and dangerous things: what categories reveal about the mind.* University of Chicago Press, Chicago.

Langacker, R. 1977. Syntactic reanalysis. *Mechanisms of syntactic change*, 57–139. Ed. C. Li. Austin, U. of Texas Press.

Langacker, R. 1987. *Foundations of cognitive grammar.* Stanford U. Press, Stanford.

Langacker, R. 1990. Subjectification. *Cognitive Linguistics* 1: 5–38.

Langacker, R. 1997. Generics and habituals. *On conditionals again*, 191–222. Ed. A. Athanasiadou & R. Dirven. John Benjamins, Amsterdam/Philadelphia.

Larsson, C. 1931. *Ordföljdsstudier över det finita verbet i de nordiska forn-språken*. Lundequistska Bokhandeln, Uppsala.

Leffler, F. 1877. Bidrag till svensk språkhistoria, kap. 1. *Antiqvarisk tidskrift för Sverige*, V. Haeggströms, Stockholm.

Legrenzi, P. 1970. Relations between language and reasoning about deductive rules. *Advances in psycholinguistics*:233–333. Ed. G. Flores d'Arcais & W. Levelt. North Holland, Amsterdam/London.

Lehmann, C. 1985. Grammaticalization: synchronic variation and diachronic change. *Lingua e stile* 20:303–318.

Lehmann, C. 1991. Grammaticalization and related changes in contemporary German. *Approaches to Grammaticalization* II, 493–535. Ed. E. Traugott & B. Heine. John Benjamins, Amsterdam/Philadelphia.

Lehmann, C. 1992. Word order change by grammaticalization. *Internal and external factors in syntactic change*, 395–416. Ed. M. Gerritsen & D. Stein. Mouton de Gruyter, Berlin/New York.

Lehmann, C. 1995. *Thoughts on grammaticalization*. Lincom Europa, München/Newcastle.

Lehti-Eklund, H. 1990. *Från adverb till markör i text*. Svenska litteratursällskapet i Finland, Helsinki.

Leuschner, T. 1998. At the boundaries of grammaticalization: What interrogatives are doing in concessive conditionals. *The limits of grammaticalization*, 159–188. Ed. A. Ramat & P. Hopper. John Benjamins, Amsterdam/ Philadelphia.

Levinson, S. 1983. *Pragmatics*. CUP, Cambridge.

Lichtenberk, F. 1991. On the gradualness of grammaticalization. *Approaches to grammaticalization* I:37–80. Ed. E. Traugott & B. Heine. John Benjamins, Amsterdam/Philadelphia.

Lightfoot, D. 1979. *Principles of Diachronic Syntax*. CUP, Cambridge.

Lightfoot, D. 1999. *The development of language*. Blackwells, Malden, MA.

Longacre, R. 1987. Sentences as combinations of clauses. *Language typology and syntactic description* II, 235–284. Ed. T. Shopen. CUP, Cambridge.

Longman's Dictionary of Contemporary English. 1988.

Lund, G.F.V. 1877. O*rdbog til de gamle danske landskabslove, de sønderjyske stadsretter samt øvrige samtidige sprogmindesmærker*. C.A. Reitzels Forlag, Copenhagen.

Lyngby, L. J. 1863. *Udsagsordenes böjning i jyske lov og i den jyske sprogart*. Copenhagen.

Malmgren, S-G. 2002. *Faktiskt*, *förstås* och många andra. Om förändringar i det svenska formordssystemet under 1800- och 1900-talet. *Språk & Stil* 12:97–146.

McMahon, A. 1994. *Understanding language change*. CUP, Cambridge.

Meillet, A. 1912. *Linguistique historique et linguistique générale*. Paris.

Mitchell, B. 1985. *Old English syntax* I–II. Clarendon Press, Oxford.

Moreno Cabrera, J. 1998. On the relationship betweeen grammaticalization and lexicalization. *The limits of grammaticalization*, 211–228. Ed. A. Ramat & P. Hopper. John Benjamins, Amsterdam/Philadelphia.

Mörnsjö, M. 2002. *V1 Declaratives in Spoken Swedish*. The Dept. of Scandinavian Languages, Lund University.

Newmeyer, F. 1998. *Language form and language function*. The MIT Press. Cambridge, MA.

Nielsen, N-Å. 1966. *Dansk etymologisk ordbog*. Copenhagen.

Norde, M. 1999. Förlust av kasus och sekundära adpositioner i fornsvenskan. *TijdSchrift voor Skandinavistiek* 20:2, 25–64.

Nordisk Familjebok 9. 1943. Nordisk Familjebok AB, Malmö.

Norstedts Svenska Ordbok. 2003. Språkdata, the Dept. of Swedish, Gothenburg University.

OCDEE (*the Oxford Concise Dictionary of English Etymology*). 1996. Ed. T. Hoad. OUP, Oxford/New York.

ODEE (*the Oxford Dictionary of English Etymology*). 1966. Ed. C. T. Onions. Clarendon Press, Oxford.

Ordbog over det Danske Sprog, I–XXVII. 1919–1954. Nordisk Forlag, Copenhagen.

Payne, J. 1985. Complex phrases and complex sentences. *Language typology and syntactic description* II, 3–41. Ed. T. Shopen. CUP, Cambridge.

Peirce, C. 1931. *Collected papers*. Ed. C. Hartshorne & P Weiss. Harvard U. Press, Cambridge, MA.

Peterson, L. 1994. Svenskt runordsregister. *Runrön* 2. Dept. of Scandinavian Languages, Uppsala University.

Pettersson, G. 1996. *Svenska språket under sjuhundra år*. Studentlitteratur, Lund.

Pfeifer, W. 1989. *Etymologisches Wörterbuch des Deutschen*, I–III. Akademie-Verlag, Berlin.

Platzack, C. 1988. The Emergence of a Word Order Difference in Scandinavian Subordinate Clauses. *McGill Working Papers in Linguistics, Special Issue on Comparative Germanic Syntax*, 215–238.

Platzack, C. 1998. *Svenskans inre grammatik: det minimalistiska programmet*. Studentlitteratur, Lund.

Pötters, W. 1992. *Negierte Implikationen im Italienischen*. Niemeyer, Tübingen.

Ramat, A. & Hopper, P. (ed.). 1998. *The limits of grammaticalization*. John Benjamins, Amsterdam/Philadelphia.

Roberts, I. 1993. *Verbs and diachronic syntax*. Kluwer, Dordrecht.

Roberts, I. & Roussou, A. 1999. A formal approach to "grammaticalization". *Linguistics* 37, 1011–1042.

Roberts, I. & Roussou, A. 2003. *Syntactic Change. A Minimalist Approach to Grammaticalization.* CUP, Cambridge.

Robins, R. 1994. *A short history of linguistics.* Longman, London/New York.

Rosenkvist, H. 1999. Teorier om *om. Alla tiders språk*, 208–216. Ed. I. Haskå & C. Sandqvist. The Dept. of Scandinavian Languages, Lund University.

Rosenkvist, H. 2002a. Etymologisk teori och konditionalt *om. Studier i svensk språkhistoria* 6, 213–222. Ed. G. Harling-Kranck & H. Lehti-Eklund. Universitetstryckeriet, Helsinki.

Rosenkvist, H. 2002b. Early Old Swedish conditional *hvar* and multiple sources of grammaticalization. Talk held at *New Reflections on Grammaticalization* 2, Amsterdam.

Rosenkvist, H. 2002c. Framväxten av konditionalt *utan* i äldre fornsvenska. Talk held at *Svenska språkets historia* 7, Tartu.

Rosenkvist, H. 2003. MSw *bara* – from adjective to conditional subordinator. Talk held at *ICHL* 16, Copenhagen.

Rosenkvist, H. In press. MSw *bara* – from adjective to conditional subordinator. *Historical Linguistics 2003. Selected papers from the 16th International Conference on Historical Linguistics, Copenhagen, 11–15 August 2003* (= Current Issues in Linguistic Theory; 257) Ed. M. Fortescue, E. Skafte Jensen, J. E. Mogensen & L. Schøsler. John Benjamins, Amsterdam/Philadelphia.

Rudolph, E. 1996. *Contrast. Adversative and concessive expressions on sentence and text level.* De Gruyter, Berlin.

Ruthström, B. 1990. Forsa-ristningen – vikingatida vi-rätt? *Arkiv för nordisk filologi* 105, 41–56.

Rydqvist, J.E. 1883. *Svenska språkets lagar. Kritisk afhandling.* I–VI. Lund.

Saeed, J. 1997. *Semantics.* Blackwells, Oxford/Malden.

SAG (*Svenska Akademiens Grammatik*), I–IV. 1999. U. Teleman, S. Hellberg, E. Andersson. Svenska Akademien, Stockholm.

SAOB (*Svenska Akademiens Ordbok*). 1873–. Svenska Akademien, Lund.

Schlyter, C. 1859. *Skåne-lagen.* Berlingska boktryckeriet, Lund.

Schlyter, C. 1877. *Ordbok till samlingen af Sveriges gamla lagar.* Lund.

Seiler, H. 1997. Conditionality in dimensional perspective. *On conditionals again*, 307–322. Ed. A. Athanasiadou & R. Dirven. John Benjamins, Amsterdam/Philadelphia.

Sher, G. 1996. Semantics and logic. *The Handbook of Contemporary Semantic Theory*, 511–537. Ed. S. Lappin. Blackwell, Oxford.

Skafte-Jensen, E. 2000. *Danske sætningsadverbialer og topologi i diakron belysning*. Institut for Nordisk Filologi, Copenhagen University.

Skautrup, P. 1968. *Det danske sprogs historie*, I–IV. Nordisk Forlag, Copenhagen.

Skeat, W. 1953. *An etymological dictionary of the English language*. Clarendon Press, Oxford.

Söderwall, K. 1884–1973. *Ordbok över svenska medeltidsspråket*, I–IV.

Stroh-Wollin, U. 2002. *Som-satser med och utan* som. The Dep. of Scandinavian Languages, Uppsala University.

Sundqvist, A. 1955. *Studier i svensk moduslära*. Lundastudier i nordisk språkvetenskap 12. CWK Gleerup, Lund.

Sweetser, E. 1988. Grammaticalization and semantic bleaching. *Berkeley Linguistic Society* 14:389–405.

Sweetser, E. 1990. *From etymology to pragmatics*. CUP, Cambridge etc.

Söderwall, K. 1884–1973. *Ordbok över svenska medeltidsspråket*, I–IV.

Tabor, W. & Traugott, E. 1998. Structural scope expansion and grammaticalization. *The limits of grammaticalization*, 229–272. Ed. A. Ramat & P. Hopper. John Benjamins, Amsterdam/Philadelphia.

Tedeschi, P. 1981. Some evidence for a branching-future semantic model. *Syntax and semantics* 14, 239–270. Ed. P. Tedeschi & A. Zaenen. Academic Press, New York.

Teleman, U. 1974. *Manual för grammatisk beskrivning av talad och skriven svenska*. Studentlitteratur, Lund.

Thompson, S. & Longacre, R. 1985. Adverbial clauses. *Language typology and syntactic description* II, 171–234. Ed. T. Shopen. CUP, Cambridge etc.

Trask, R. 1996. *A dictionary of grammatical terms in linguistics*. Routledge, New York.

Traugott, E. 1980. Meaning-change in the development of grammatical markers. *Language Sciences* 2, 44–61.

Traugott, E. 1982. From propositional to textual and expressive meanings: some semantic-pragmatic aspects of grammaticalization. *Perspectives on Historical Linguistics*, 245–271. Ed. W. Lehmann & Y. Malkel. John Benjamins, Amsterdam.

Traugott, E. 1985. Conditional markers. *Iconicity in syntax*, 289–307. Ed. J. Haiman. Benjamins, Amsterdam.

Traugott, E., ter Meulen, A., Reilly, J. & Ferguson, C. 1986. (ed.). *On conditionals*. CUP, Cambridge.

Traugott, E. 1989. On the rise of epistemic meanings in English: an example of subjectification in semantic change. *Language* 65, 289–307.

Traugott, E. & König, E. 1991. The semantics-pragmatics of grammaticalization revisited. *Approaches to grammaticalization* I, 189–218. Ed. E. Traugott & B. Heine. John Benjamins, Amsterdam/Philadelphia.

Traugott, E. & Heine, B. (ed.). 1991. *Approaches to grammaticalization* I. John Benjamins, Amsterdam/Philadelphia.

Traugott, E. 1995. Subjectification in grammaticalization. *Subjectivity and subjectivisation*, 31–54. Ed. D. Stein & S. Wright. CUP, Cambridge.

Traugott, E. 1997. *Unless* and *but* conditionals: a historical perspective. *On conditionals again*, 145–168. Ed. A. Athanasiadou & R. Dirven. John Benjamins, Amsterdam/Philadelphia.

Traugott, E, & Dasher, R. 2002. *Regularity in semantic change*. CUP, Cambridge.

Tuggy, D. 1993. Ambiguity, polysemy and vagueness. *Cognitive Linguistics* 4–3, 273–290.

Varnhagen, H. 1876. *An inquiry into the origin and different meanings of the English particle 'but'*. Rostock.

Visconti, J. 1996. On English and Italian complex conditional connectives: matching features and implicatures in defining semanto-pragmatic equivalence. *Language Sciences* 18, 549–573.

Visconti, J. 2003. From temporal to conditional: Italian *qualora* vs English *whenever*. *Meaning through Language Contact*, 23–50. Ed. K. Jaszczolt & K. Turner. John Benjamins, Amsterdam/Philadephia.

Werth, P. 1997. Conditionality as cognitive distance. *On conditionals again*, 243–272. Ed. A. Athanasiadou & R. Dirven. John Benjamins, Amsterdam/Philadelphia.

Wessén, E. 1992. *Svensk språkhistoria* I–III. Akademitryck, Edsbruk.

Wierzbicka, A. 1997. Conditionals and counterfactuals: conceptual primitives and linguistic universals. *On conditionals again*, 15–60. Ed. A. Athanasiadou & R. Dirven. John Benjamins, Amsterdam/Philadelphia.

Wijk-Andersson, E. 1991. Bara *i fokus*. The Dept. of Scandinavian Languages, Uppsala University.

APPENDIX I: abbreviations

AS	Anglo-Saxon
ÄVgL	Äldre Västgötalagen
DL	Dalalagen
EMSw	Early Modern Swedish (1526–1732)
EOSw	Early Old Swedish (1225–1375)
Erik	Erikskrönikan
Flores	Flores och Blanzaflor
Fredrik	Fredrik av Normandie
Ivan	Ivan Lejonriddaren
KS	Konungastyrelsen
Leg. Bil.	Codex Bildstenianus
Leg. Bu.	Codex Bureanus
LMSw	Late Modern Swedish (1732–)
LOSw	Late Old Swedish (1375–1526)
MDa	Modern Danish
MEL	Magnus Eriksssons landslag
MEStL	Magnus Erikssons stadslag
Moses	Pentateukparafrasen
MSw	Modern Swedish (1526–)
OCDEE	Oxford Concise Dictionary of English Etymology
ODa	Old Danish
ODEE	Oxford Dictionary of English Etymology
ÖgL	Östgötalagen
OIce	Old Icelandic
ON	Old Norse
ONo	Old Norwegian
OSw	Old Swedish (1225–1526)
PDE	Present Day English
SAG	Svenska Akademiens Grammatik
SAOB	Svenska Akademiens Ordbok
SSFS	Svenska Fornskriftssällskapets samlingar
SSGL	Samling af Sveriges Gamla Lagar
Tröst	Själens tröst
UL	Upplandslagen
YVgL	Yngre Västgötalagen

APPENDIX II: the texts

The OSw texts that I have based my investigations upon have been drawn from *Fornsvenska Textbanken*, and the same applies to the data about the texts that are presented here. The website is updated continuously, being in a state of development, and I have utilized the September 2002 version. The URL is: http://www.nordlund.lu.se/Fornsvenska/Fsv%20Folder/index.html.

Fornsvenska Textbanken also provides some MSw texts, of which I have used a few. These texts have originally been digitalized by projects in Uppsala or Göteborg – see the website mentioned just above for more detailed information regarding these projects.

The quotes from OSw that are cited in this work have been verified in the standard editions, which are presented among the data about the texts below.

EOSw texts (1225–1375)

DL (Dalalagen). From 1280–1290. Approx. 15,900 words. Manuscript: Holm B 56 (1318–1335?). Edition: SSGL 5. This law is also called Äldre Västmannalagen.

Erik (Erikskrönikan). From 1330–1340. Approx. 28,300 words. Manuscript: Holm D 2 (1470–1480). Edition: SFSS 68.

Fredrik (Fredrik av Normandie). From 1307–1308. Approx. 19,000 words. Manuscript: Holm D 4a (1457). Edition: SFSS 49.

Ivan (Ivan Lejonriddaren). From ca. 1303. Approx. 41,300 words. Manuscript: Holm D 4 (1400–1425). Edition SFSS 50.

KS (Konungastyrelsen). From 1330–1340 (?). Approx. 21,000 words. Sources: KS-Bu (an edition from 1632 of a lost manuscript) plus Holm B 219, a fragment from the mid 15th century. Edition: SFSS 69:1.

Leg. Bil. From 1276–1307. Approx. 88,500 words. Manuscript: Ups. C 528 (Codex Bildstenianus) (1400–1450). Edition: SFSS 7:1–2. This manuscript contains a complete collection of legends (Leg. Bu. contains the first third).

Leg. Bu. From 1276–1307. Approx. 36,200 words. Manuscript: Holm A 34 (Codex Bureanus) (ca. 1350). Edition: SFSS 7:1–2. This manuscript contains the first third of a collection of legends (Leg. Bil. is complete).

MEL (Magnus Erikssons landslag). From ca. 1350. Approx. 45,200 words. Manuscript: AM 51 (ca. 1350). Edition: SSGL 10.

MEStL (Magnus Erikssons stadslag). From 1350–1360. Approx. 21,000 words. Manuscript: Holm B 154 (1400–1450). Edition: SSGL 11.

Moses (Pentateuchparafrasen). From 1330–1340. Approx. 143,400 words. Manuscript: Holm A 1 (1526). Edition: SSFS 60. This text is a paraphrase of the Pentateuch.

UL (Upplandslagen). From 1296–1297. Approx. 24,300 words. Manuscript: Ups B 12 (mid 14th century). Edition SSGL 3.

YVgL (Yngre Västgötalagen). From 1280–1300. Approx. 26,700 words. Manuscript: Holm B 58 (ca. 1350). Edition: SSGL 1.

ÄVgL (Äldre Västgötalagen). From 1220–1230. Approx. 15,000 words. Manuscript: Holm B 59 (1280–1290). Edition: SSGL 1.

ÖgL (Östgötalagen). From 1280–1290. Approx. 24,900 words. Manuscript: Holm B 50 (mid 14th century). Edition: SSGL 2.

LOSw texts (1375–1526)

Järtecken (Järteckensboken). Ca. 1385. Approx. 28,900 words. Manuscript: Holm A 110 (Codex Oxenstiernianus) (ca. 1385). Edition: SFSS 22.

Troja (Historia Trojana). From 1529. Approx. 44,000 words. Manuscript: Holm D 3a 1529). Edition: SFSS 29. Only the first half of the original text, which in total contains almost 100 000 words, has been available. In spite of the late date, this text is traditionally categorized as belonging to OSw, due to the archaic style.

Tröst (Själens Tröst). From 1420–1430. Approx. 145,300 words. Manuscript: Holm A 108 (1420–1430). Edition: SFSS 59.

EMSw texts (1526–1732)

Columbus (Samuel Columbus' *Mål-Roo eller Roo-Mål*). 1675. Approx. 20,300 words.

Hiärne. (Urban Hiärne's *Stratonice*). 1665. Approx. 11,300 words.

Horn (Agneta Horn's *Beskrifningh öfwer min älända och myket wederwärtiga wandringestidh*). 1657. Approx. 40,500 words.

Runius (Johan Runius's *Prosastycken på svenska*). 1710. Approx. 30,000 words.

Swart (Peder Swart's chronicle about king Gustavus I). Ca. 1560. Approx. 52,000 words.

LMSw texts (1732–)

Argus (Olof von Dalin's *Then Swänska Argus*). 1732–1734. Approx. 213,000 words.

af Geijerstam (Gustaf af Geijerstam's *Boken om Lille-Bror*). 1900. Approx. 48,800 words.

Gyllenborg (Carl Gyllenborg's *Swenska Sprätthöken*). 1737. Approx. 28,500 words.