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The Emergence and Development of the Danish Modal Particle Paradigm

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The Emergence and Development of the Danish Modal Particle Paradigm

The Emergence and Development of the Danish Modal Particle Paradigm

Lennart Westergaard

LUND
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Abstract

This dissertation investigates the development of the main Danish modal particles *jo, sgu, skam, nu, da, vel, nok* and *vist*. In Modern Danish, these particles express contextualization instructions, that is, they express how the utterance relates to the interactive context. In addition to this common content core, they also share several expression features: they cannot be placed in the pre-field, they occupy the left-most adverbial position in the middle field, they are obligatorily stressless, and they cannot constitute an answer alone. Finally, the modal particles are structured in subparadigms whose members share a common semantic core and have the same topological position relative to other modal particles.

The aim of this dissertation is to trace the development of these modal particles. When do the modal particles emerge, what meanings constitute their source meanings, and how can the transitions to the new meanings be explained? In addition to this, I examine how the semantic changes correlate with topological changes and with grammaticalization. Furthermore, I investigate the emergence of the modal particle paradigm as a whole and present a mechanism for the paradigmatic integration of new modal particles. I argue that already existing modal particles facilitate the emergence of new modal particles based on analogy. This contributes to their semantic and formal alignment resulting in the emergence of the paradigmatic structure.

My analysis of the development of the modal particles primarily follows a qualitative approach: I identify contexts that indicate the conventional status of new meanings by ruling out older meanings or meanings already reckoned with. Additionally, I reconstruct the meaning of the modal particle etymons based on information from historical dictionaries, translations and language comparison.

The results of the dissertation indicate that *jo* is the oldest modal particle, which begins to occur in the 16th century. This modal particle emerges based on a temporal meaning ‘always’ in argumentative bridging contexts as well as language contact with Middle Low German and Early New High German as a case of contact-induced grammaticalization. I argue that this modal particle constitutes the proto-modal particle, and that it facilitates the emergence of other modal particles by analogy. For the remaining modal particles, similar argumentative bridging contexts can be identified, and language contact appears to play a role a recurring role.

I argue that the development of the Danish modal particles can only be understood in an analysis that combines the perspective of the individual modal particle with that of the emerging paradigm as a whole.

Key words modal particles, Danish, paradigms, paradigmatic integration, historical linguistics, semantics, pragmatics, bridging context, reanalysis, analogy, grammaticalization, contact induced grammaticalization

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List of abbreviations

1	first person
2	second person
3	third person
A	position for adverbials in the post-field
ACC	accusative
ADJ	adjective
ANIM	animate
ASP	aspect
C1	noun classifier
COMP	comparative
CONJ	conjecture
DIST.PAST.	distant past
FA	position for free adverbials
focus	position for focus operators
FUT	future
gzn	grammaticalization
INF	infinitive
INFR	inferred
INTER	interrogative
MEngl.	Middle English
MIT	mitigator
MP	position for modal particles
N	position for objects and predicates
n.p.	no page in source text

nf	non-feminine
NCL	noun class
NP	noun phrase
OBJ	object
OEngl	Old English
PST	simple past
REC.P	recent past
REF	reflexive
S	position for subjects
SA	position for sentence adverbials
SG	singular
SIM	similarity
SS	same subject
SUBJ	subjunctive
PRES	present tense
PROX	proximative
V_{fin}	position for finite verbs
V_{inf}	position for infinite verbs

1 Introduction

The aim of this chapter is to give a first broad introduction to the category of modal particles and the aims and structure of this dissertation. In Section 1.1, I briefly present the modal particles in Modern Danish. In Section 1.2, I introduce the aims of the book. In Section 1.3, I briefly discuss the periodization of Danish. In Section 1.4, I present the structure of the dissertation. In Section 1.5, I suggest how this dissertation can be read if one is only interested in one or two modal particles rather than all modal particles investigated here.

1.1 The Danish modal particles in a nutshell

The aim of this section is to provide a very brief introduction to the topic of this study: the Danish modal particles. I will not engage in a detailed discussion with existing literature at this point. Instead, I will save such discussions for later chapters.

In Modern Danish, modal particles form a paradigm, sharing both content and expression characteristics. As regards the latter, modal particles cannot be stressed, cannot constitute an utterance alone and cannot appear in the pre-field, that is (roughly put), the initial position of a sentence. Furthermore, in Modern Danish, modal particles have a designated position within the middle field (the modal particle position), namely, with some exceptions the first adverbial position within the middle field. The following examples illustrate that a modal particle like *jo* precedes other sentence adverbials such as *heldigvis* 'fortunately' (1.1), and that it cannot be placed in the pre-field (1.2):[1]

[1] Modal particles can be challenging to translate and most often lack good translation equivalents in a language like English. Therefore, I will refrain from translating the modal particles but render them in small caps in the glosses and translations. When an example serves to illustrate points pertaining to the expression of modal particles such as their word order as in (1.1), I will provide a word-by-word gloss. Many examples only serve to illustrate semantic aspects of the analysis. In those cases, I will only provide an idiomatic translation. These idiomatic translations include the modal particle in small caps in the English idiomatic translation in a corresponding position. The modal particles under discussion will be highlighted with bold type.

(1.1) Vi mennesker er **jo** heldigvis forskellige.
we humans are **JO** fortunately different

'Fortunately, we humans are **JO** different from each other.'

(internet)

(1.2) ***Jo** er vi mennesker heldigvis forskellige.
JO are we humans fortunately different

Modal particles convey meanings that index different aspects of the context of the utterance and typically express the speaker's preconceptions about the addressee's beliefs or how the addressee is expected to react. For instance, the modal particle *jo* indicates that the speaker expects the addressee to agree and not to contradict, while *skam* indicates that the speaker expects agreement even though the addressee might doubt the proposition (Hansen & Heltoft, 2011: 1050):

(1.3) Selv om de er rare at have, er penge **jo** ikke alt her i livet.

'Even though it's nice to have, money is **JO** not everything in life.'

(DDO, s.v. *jo*[2])

(1.4) De spurgte hende, om hun følte sig dårlig, men hun rystede ivrigt på hovedet. Hun fejlede ikke noget, hun havde det **skam** udmærket.

'They asked her if she felt unwell, but she shook her head fervently. There was nothing wrong with her. She was **SKAM** feeling fine.'

(DDO, s.v. *skam*[2])

There are several subparadigms within the modal particle paradigm. In declarative clauses, Hansen & Heltoft (2011: 1049–62) distinguish between 'phatic', 'proximal', 'evidential' and 'argumentative' modal particles. Each of these subparadigms shares a common semantic core. Phatic modal particles (e.g., *jo*, *sgu* and *skam*) express how the addressee is expected to react, proximal modal particles (*nu* and *da*) express identifiability and conflict with a contextually available proposition, argumentative modal particles (e.g., *også*, *altså* and *ellers*) indicate that the utterance is to count as an argument for or against another proposition, and the evidential modal particles (e.g., *nok* and *vist*) specify the information source for the proposition (cf. Hansen & Heltoft 2011: 1049–62 and in particular 1062).

These semantic categories correlate with distributional subcategories. Modal particles that appear in the same position have similar meanings. As argued in Hansen & Heltoft (2011: 1062–64), in general, the modal particles have the following relative word order:

Table 1.1
The relative order of modal particles

phatic modal particles	proximal modal particles	argumentative modal particles	evidential modal particles
jo, sgu, skam	*nu, da*	*altså, ellers, også*	*vel, nok, vist*

1.2 Aims

The main aim of the dissertation is to trace the historical development of the most important modal particles in Danish: *jo*, *sgu*, *skam*, *nu*, *da*, *nok*, *vel*, and *vist*. The argumentative modal particles have been left out due to considerations of space and time (but see Jensen 2000: 62–143). The historical analysis is guided by the following questions:

1. What meanings did each modal particle convey over time?
2. How are these meanings related diachronically?
3. What factors contributed to the emergence of these meanings?

A secondary aim is to investigate how the modal particles developed into a paradigm with several distinct subparadigms. The main question is whether and, if so, how the individual modal particles influence the development of other modal particles. This implies a number of related questions concerning the paradigmatic integration of modal particles:

4. How did the paradigmatic structure of the modal particles develop?
5. How did the paradigmatic structure of the modal particle subparadigms develop?

1.3 Periodization

Throughout the dissertation, I will refer to the following language periods: Middle Danish (until 1500), Early Modern Danish (1500–1700) and Modern Danish (1700–today) (cf. e.g., Skautrup 1944–68). However, this is primarily for practical ease of reference, and I do not ascribe any weight to these periods in the analysis. Therefore, I will also refrain from a discussion of whether Early Modern Danish begins in the year 1500, 1525 or 1550, for instance.

Where more precision is needed, I will refer to centuries or speak of early or later Early Modern Danish, for instance, respectively for the 16th or 17th century, and, if needed, also more precisely as early or late 16th century, for instance.

1.4 The structure of this dissertation

In Chapter 2 and 3, I establish the theoretical backbone of this dissertation. Chapter 2 introduces the social turn in cognitive linguistics and discusses general aspects of linguistic structure, including the content and expression of linguistic constructions. Additionally, I discuss the layered structure of the clause and present the research field of topology, which is concerned with the analysis of word order. Finally, I discuss how I conceive of paradigms.

In Chapter 3, I discuss the theoretical foundations for the historical analysis. I first briefly address the concept of conventionalization and how it differs from related notions such as propagation and entrenchment. Afterwards, I discuss mechanisms of change such as reanalysis, contextual enrichment and analogy. Next, I discuss grammaticalization. Given the well-known significant historical language contact between Danish and different varieties of German, I close this chapter with a brief discussion of relevant theories of language contact.

In Chapter 4, I provide a thorough introduction to the Modern Danish modal particles. I first discuss aspects of word order in Modern Danish that are of relevance to the expression analysis of modal particles. I then define the expression side and content side of the modal particle paradigm and subparadigms. Afterwards, I review research concerned with the diachrony of modal particles.

Chapter 5 addresses the sociolinguistic context of Late Middle Danish and Early Modern Danish as a language contact situation.

In Chapter 6, I outline the methodology employed in the historical analysis. I discuss why I opted for a qualitative approach. Afterwards, I present my choice of material and argue for my use of a digitalized convenience sample. I close this chapter with a presentation of my excerption principles and search strings and present an overview of how many occurrences of the individual modal particles and their etymons constitute the basis for the analysis.

Chapter 7–9 present the historical analyses of the individual modal particles. These are not primarily ordered chronologically, i.e. according to when the constructions give rise to modal particles; rather, they are structured based on the subparadigms of Modern Danish. Chapter 7 presents my historical analysis of the phatic modal particles *jo, sgu* and *skam*. Chapter 8 presents my historical analysis of the proximal modal particles *nu* and *da*. Chapter 9 present my historical analysis of the evidential modal particles *nok, vel* and *vist*.

Chapter 10 shifts the perspective, exploring the emergence of the Danish modal particles as a paradigm. Here, I discuss how the paradigm develops its distinctive expression structure, that is, its word order peculiarities, and argue that analogy-driven system pressure influences the development of the content and expression of

the modal particles. Furthermore, I discuss word order as a facilitating factor for grammaticalization of the modal particles.

In Chapter 11, I provide a brief conclusion of the study.

1.5 Note for readers with a focus on individual modal particles

There will be readers who are only interested in the development of one or a subgroup of the investigated modal particles. The analyses of the individual modal particles in Chapter 7–9 can be read more or less independently of each other. Readers can therefore skip the analyses of modal particles other than those they are interested in.

However, one key argument of this study is that the paradigmatic context is essential to fully understanding the development of paradigmatically structured constructions such as modal particles. Therefore, Chapter 10 is recommended even for those readers focusing on a single modal particle, as it provides critical insights into the broader system that shapes these constructions.

2 Foundations

The aim of the present chapter is to lay down the theoretical foundation of the dissertation. I first introduce the social turn and outline Harder's (2010) socio-cognitive ontology, which provides the framework for addressing language change from a socio-cognitive perspective in later chapters. The socio-cognitive ontology sets the stage for the discussion of linguistic constructions and their meaning and expression in the following sections. In Section 2.2, I discuss what is meant by a linguistic construction. In Section 2.3–2.6, I discuss different aspects of the meaning of constructions. Section 2.7 offers an introduction to topology, that is the analysis of word order phenomena. In Section 2.8, I discuss the notion of paradigm.

2.1 The social turn: social vs. cognitive aspects of language

During the past c. 20–30 years, there has been a renewed interest in social aspects of language in functional and cognitive oriented linguistics (e.g., Harder 2003; 2010; Schmid 2020; Geeraerts 2016; Croft 2009; Keller 1998; Dor 2015; Langacker 1997; 2016). This renewed interest has been termed the "social turn in Cognitive Linguistics" (Geeraerts 2016: 527). What unites these approaches is the aim to bridge the gap between language as a subjective, cognitive and individual phenomenon and language as a social phenomenon.

One of the hallmarks of cognitive linguistics is the cognitive commitment. Ideally based on convergent evidence, the linguistic description should be in accordance with what we know about cognition in general (Evans 2012: 130). Geeraerts (2016) adds to this a socio-semiotic commitment, which is a "commitment to make one's account of human language accord with the status of language as a social semiotic, i.e., as an intersubjective, historically and socially variable tool" (Geeraerts 2016: 537). In other words, the socio-semiotic commitment addresses the requisite that an account of language cannot only consider cognitive aspects of language, but must also take into account the intersubjective and societal aspects of it. The two commitments can be related to two distinct ontological levels that language exists on: language as a social entity and language as a cognitive entity.

Harder (2010) sheds light on this distinction. In a three-dimensional socio-cognitive ontology, he operates with "language as a flow of activity, as a feature of the sociocultural niche, and in individual minds" (Harder 2010: 173).[2] I will discuss Harder's three levels in turn.

The flow roughly corresponds to traditional concepts such as *parole, performance, usage*, etc. Simply put, it is language as an interactive activity and continuous process (Harder 2010: 173). In Clark's (1996: 3) terms, language use in the flow is a "joint action", that is, it involves the coordination of individual actions. Crucially, a joint action requires mutual recognition of acting together. In linguistic interaction, this implies that interlocutors must cooperate and align their actions in order to communicate successfully.

Importantly, linguistic usage events in the flow are fully contextualized and represent unique, one-time instances. As discussed extensively by Clark (1996: in particular Chapter 1–5), language use as joint actions does not happen in a vacuum, but there are numerous factors that contribute to it. These involve among others joint salience (Clark 1996: 77), the interlocutors' individual and joint goals (p. 36), common ground (p. 92), that is, a common knowledge base between interlocutors including world knowledge, knowledge about the co- and context (for further discussion, see Section 2.5), as well as a common set of conventions, including a common language.

Participating in the flow is only possible because concrete, existing speakers have knowledge of a common language. However, before I discuss this cognitive level, I will first present the social level in Harder's (2010) ontology, as a good understanding of the social aspects of language makes it clear what exactly the role of the individuals' cognition is.

As argued by Harder (2010: 173), language as a common set of conventions exists in what he calls the sociocultural niche. The sociocultural niche is the environment that individuals live in and have to adapt to. For language, the relevant aspect of the sociocultural niche is the speech community (Harder 2010: 148). Just as animals adapt to the environment they live in, humans need to adapt to their speech community, which offers certain *affordances*, that is, possibilities and restrictions.

Language as an aspect of the sociocultural niche corresponds to Saussure's conception of *langue* (Harder 2010: 173), that is, language conceived of as a social entity. However, Harder gives the concept of *langue* several twists. First and foremost, *langue* is not self-contained but only exists through the assignment of status function and the real-world causalities that this implies: linguistic units have

[2] This is similar to Popperian ontologies of language as presented in, e.g., Geeraerts (2016) and Itkonen (2016).

a particular function because we collectively agree that they do (Harder 2003: 55; Harder 2010: 165–67 with reference to Searle 1995).

Harder (2010: 166) illustrates this with a simple construction such as *hello*. The fact that *hello* can be used as a greeting depends on the fact that there is a community of speakers who collectively agree that the sound string *hello* has this function. This principle does not only account for interactive meanings, but the same is true of all meanings or functions that can be expressed, be it by nouns like *house* or by grammatical expressions like the determiner *the*. If an individual has divergent form-meaning associations, she cannot communicate effectively, as her linguistic units are not grounded in collective agreement. A parallel can be drawn with the fact that it is impossible to buy a house with homemade money. Without collective agreement, the transaction cannot take place.

In continuation of this, Harder (2010: 228) argues that *langue* is not a monolithic system, but rather inherently variable. Indeed, he argues that structure and variation are interdependent. Variants presuppose a variable. They need something to be variants *of*. At the same time, structure cannot exist without its substratum; structure is a property of linguistic units, not external to them (Harder 2010: 270). Speakers may have idiolectal idiosyncrasies, and different subgroups within a society may have different ways of speaking with differing meaning nuances. However, Harder argues that the fact that different linguistic units can be variants of each other only corroborates this point. They are instantiations of the same variable, the same structure (cf. the criterion of identity in Keller 1998: 93–94).

Finally, Harder (2010: 302) emphasizes that *langue* should not be equated with any individual instance of language use and not even a set of "attested regularities", but rather a *potential* for future actions. In other words, linguistic units as social entities of the niche are not a collection of uses that a construction *has had*, but a potential that a linguistic unit *can have*, which however, is distilled out of that collection of attestations it has had. I will discuss this distillation process extensively in Chapter 3. A comparison with the status function of money, again, suffices to illustrate what is meant at this point. The value of money is not the same as what was bought with it previously, it is rather a potential. It corresponds to what the user can buy with it *now*, that is, it is always a not-yet realized value.

In sum, language as a part of the sociocultural niche is an abstraction of those linguistic social causal forces that are active in a community and that exist because a community agrees they do. Therefore, it is first and foremost an intersubjective structure. As such, language is a structured set of potentials and restrictions of the units constituting a language. The individuals in a speech community need to adapt to this set of potentials and restrictions.

The third level in Harder's (2010) ontology is constituted by the adapting individual minds. Going directly from the flow to the sociocultural niche in my expose of Harder's ontology skips a precondition of the existence of both of these ontological

levels. Linguistic units can only exist in the *niche* because they have some kind of representation "in" the individuals that live in the sociocultural niche.[3] Language as it exists "in" the participant is termed *competency* by Harder (2010: 174), that is, competency is the individuals' cognitive representation of *langue*. For Harder (2010: 174), competency makes it possible for individuals to take part in the linguistic practices of their speech community. In other words, it is an individual cognitive knowledge structure, and as such, competency is in the domain of traditional cognitive linguistics.

To sum up: our *knowledge* of a language (*competency*) is not the same as that *language* (*langue*). This is in line with common parlance such as *knowing a language*, which presupposes a distinction between the knowledge structure and the object of this knowledge. A language is a community phenomenon, not an individual mental representation of a language or concrete usage situations where these languages are used.

This distinction has analytical and descriptive consequences. Just as an ecologist and a chemist may focus on different aspects of the same organism, linguists may focus on different aspects of language depending on the ontological level of interest (cf. Harder 2010: 177–78; Itkonen 2008: 298). As will be discussed more thoroughly in the following section, in competency, meaning is assumed to be stored to partly individual levels of schematicity, which are entrenched to different degrees based on the frequency of different exemplars that an individual experiences (Bybee 2010 Chapter 2; Langacker 1987). However, as argued by Harder (2010: 270), when a linguist is interested in *langue*, she is interested in emic categories where redundancy is (ideally) kept to a minimum. Harder (2010: 250) illustrates this with an utterance like (2.1):

(2.1) Be a good girl and go to sleep!

Because a child may hear this unit often, the child may begin processing the whole unit without analysing its parts. However, as Harder (2010: 250) points out, "from the point of view of the speech community, it is a complex instantiation of several different constructions rather than simply 'a construction'". In other words, mental linguistic structure and societal linguistic structure do not always correspond neatly, and even though an analysis of (2.1) as an unanalysable unit might be a valid

[3] Similar points have been made by various authors. For instance, Coseriu (1974[1958]: 36) criticizes social facts and a Saussurean conception of *langue* as external to individuals. Social causality, and hence *langue,* is '*inter*individual', he argues. Similarly, Keller (1998: 119) argues that methodological individualism ("explanations from the bottom up" Keller 1994: 104) and language as a collective phenomenon do not preclude each other but presuppose each other.

description of the competency of some speakers, when describing the structure of a language as a societal entity, we should abstract away from such redundancies.

In this section, I have discussed Harder's (2010) ontology, which is supposed to lay the foundation for the rest of this dissertation. According to this ontology, language is a complex entity that one can look at from three perspectives: 1. the flow, i.e., language as fully contextualized utterances produced by concrete speakers, 2. the competency of speakers, i.e., mental structures that enable individuals to speak, and 3. language as *langue*, i.e., a social entity that offers individuals in a speech community certain possibilities and restrictions for communication.

2.2 Constructions

In this section, I first present the mainstream account of constructions in cognitive linguistics. Afterwards, I discuss how this can be related to the socio-cognitive ontology just introduced.

2.2.1 Constructions in cognitive linguistics

One of the major assumptions that set cognitive and functional linguistics apart from generative linguistics is the recognition that the fundamental unit of linguistic description is the sign, and that the linguistic sign consists of a semantic structure paired with a phonological structure (or schematic patterns), where the phonological structure cannot be zero except under certain restricted situations. This unit combining content and expression can be called a *construction* (cf. Langacker 1987: 58; Croft 2001: 18; Goldberg 2006: 5). Goldberg (2006: 5) defines constructions as:

> learned pairings of form with semantic or discourse function (…). Any linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognized to exist. In addition, patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency

These constructions are assumed to be organized in the so-called constructicon (Goldberg 2006: 64). The constructicon is a structured entity where the individual constructions enter various relations with each other. For the present study, so-called sister nodes are of particular importance. These will be discussed extensively in Section 2.8 as far as they correspond to paradigmatic relations and paradigms.

Constructions are typically illustrated graphically in the vein of Figure 2.1 and 2.2:

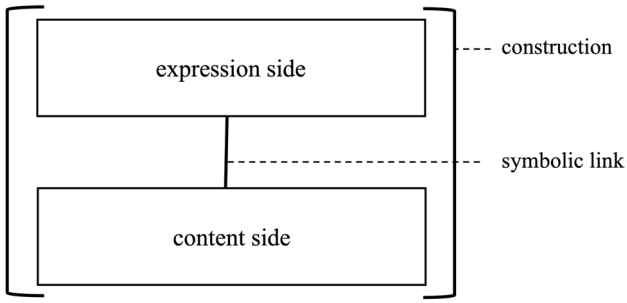

Figure 2.1
Graphical representation of a construction

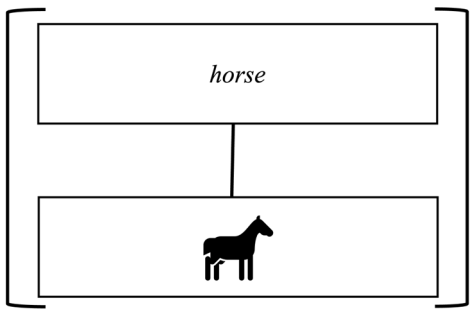

Figure 2.2
Graphical representation of the construction *horse*

The emergence of a new construction is called its constructionalization (Traugott & Trousdale 2013).

The phonological structure does not have to consist of phonemes but may consist of schematic information as well, as long as the construction can be recognized in some way by the addressee. One example of a schematic construction is word order templates. These will be discussed in Section 2.7. An important restriction is that no purely formal structure or an expression without content may be posited. Langacker (1987: 53) speaks of a "content requirement". This requirement has a correspondence that is invoked less often (Harder 1996: 200; Keller 1998: 93–94): not only is the recognition of expression elements dependent on content elements, but *vice versa*, no content structure should be postulated without a corresponding expression.

In Section 2.3, I will discuss the content pole of constructions further, and in Section 2.7, I will discuss one aspect of the expression pole of constructions, namely word order templates, but first, a note is due on the relation between constructions and the socio-cognitive ontology presented in the previous section.

2.2.2 Constructions in a socio-cognitive ontology

Goldberg's definition, cited in the preceding section, is problematic in that it is imprecise as to the ontological status of constructions. It conflates structural aspects with the mental representation and leaves constructions as units of usage out of the picture. Based on the ontology introduced in Section 2.1, we can distinguish between three types of constructions. Constructions as they exist in the niche, mental constructions and the construction tokens of the flow. I have presented the same argument in Westergaard (2022).

Much of this distinction has already been discussed in the previous section. Constructions in the flow are fully contextualized utterances. They are "usage events", which Langacker (1987: 66) defines as:

> a symbolic expression assembled by a speaker in a particular set of circumstances for a particular purpose. This symbolic relationship holds between a detailed, context-dependent conceptualization and some type of phonological structure (in the case of speech, it is the actual vocalization).

In other words, such usage events are fully contextualized units with all the idiosyncrasies the context offers. From a synchronic systemic point of view, this level is what needs to be abstracted away in an analysis. However, from a diachronic perspective, this level is of utmost importance, as all innovations ultimately stem from these tokens. This will be discussed thoroughly in combination with bridging contexts in Section 3.2.1. Furthermore, the only empirically attestable constructions (at least in historical linguistics) are constructions as usage events. The other levels must be reconstructed based on these.

Constructions as mental entities correspond to cognitive structures and are part and parcel of what Harder calls the linguistic competency of the individual speaker. This aspect of constructions is partly captured by Goldberg's addition: "patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency" (see above). They enable the speaker to cope with the linguistic niche, that is, produce linguistic output and understand the linguistic output of others.

As has been argued in the cognitive literature (e.g., Bybee 2010: Chapter 2), the mental representation of constructions is enormously rich and allows for redundant storage. One of the crucial aspects of constructions as mental entities is *entrenchment* (Langacker 1987: 59–60), that is, the degree to which a given structure is established within the cognitive structure of an individual, and the primary mechanism determining the mental structure of constructions is frequency (see Diessel 2007 for an overview of various frequency effects concerning language acquisition and processing). As argued by Bybee (2010: 18), the presence of frequency effects implies that even a single usage event will leave a trace in the memory of the speaker, because for a construction to be recognized as frequent,

individual instances must leave some kind of trace, as there would be nothing that could accumulate otherwise.

Because constructions as part of the flow ultimately are unique events, a mechanism is needed to structure the individual's experiences and identify similarities within an endless sequence of specific instances to form generalization for future use. This is typically modelled through exemplar models, where individual usage events are categorized or grouped into so-called exemplar clusters (cf. Bybee 2010: Chapter 2). These categorizations are based on the perception of similarities across fully contextualized constructions, that is, usage events. In such exemplar representations, it is assumed that traces of individual usage events exist alongside more general features of the emerging categories. All salient features of a construction occurring in the flow can in principle be stored as part of the mental structure. This concerns both aspects of the content of a construction and aspects of its expression (Bybee 2010: 19). The relevant mechanism for structuring such exemplar clusters and for generating categories is analogy. I will discuss this further in Section 3.2.2.

Constructions, as they exist in the niche, are conventional units. As already pointed out, these are collectively agreed upon. They have status function (Searle 1995: 41) and are involved in social causalities (Harder 2010: 165), and, crucially, because we can assume that the representation of such structures varies from individual to individual, they are not identical with any individuals' representations or knowledge of such constructions. Therefore, it should be clear that frequency counts, arguments of psychological reality and similar notions are of secondary relevance to constructions as units of the niche. Rather, analyses that can account for the social causalities in a linguistic society in the simplest and most elegant way are to be preferred.

When we speak of language change, we are referring to a change in constructions of this type rather than to a change in the representation of any particular individual. At this level, we can speak of the conventionalization of a construction (to be discussed in Section 3.1), not its entrenchment. This does not mean, however, that the mental representation of units or their realization as usage events, i.e. of tokens in the flow, are of no interest. Quite to the contrary, as I will discuss in Chapter 3, we need the other levels to explain language change.

In principle, the structure of an individual's mental representation (competency) does not need to align perfectly with any social structure. As long as the competency of the individual enables her to cope with the social structure, it serves its purpose. This is nicely illustrated by Schmid (2020: 254–55), who shows that individuals have different preferences as to the adjective in the evaluating construction *that's* ADJ. For instance, some speakers prefer the adjective *nice,* while others prefer *good* or *alright.* This means these speakers must have different mental representations of

that construction. However, even though these competencies differ, we would not say these speakers spoke different languages.

A recurring controversy in cognitive linguistics and in particular in construction grammar is the question of which level of generality and schematicity one should settle for (e.g., Norde & Trousdale 2023). This question concerns both content and expression. Based on the above discussion, it should be clear that the answer to this question relies on the perspective. Everything else being equal, if we are interested in an analysis of language in the niche we should aim for as general descriptions as possible. However, when we wish to explain a given development, we should opt for much more substantial and less general structures, as it is out of these more substantial utterance tokens that innovations emerge.

In sum, we can reckon with three types of constructions: 1. fully contextualized utterance tokens of the flow as they appear in texts and interactions, 2. constructions as mental representations (these can be representations of fully contextualized utterance tokens as well as generalizations made over such tokens), and 3. the social intersubjective constructions that we can have knowledge of, that is, the structure that sets the boundaries for the use of constructions in the flow.

2.3 Linguistic meaning

The previous section has already touched upon the nature of meaning by presenting the argument, espoused by European structuralists and cognitive linguists alike, that linguistic content cannot exist independently of an associated expression and *vice-versa*. This and the following section build upon that foundation by exploring in greater depth the nature of the content of linguistic constructions and how this can be analysed and described.

As long as one has no clear understanding of what one means by the word *meaning*, any discussion of meaning change (be it theoretical or empirical) is vacuous (Keller 1998: vii). Obviously, the present discussion cannot provide a full answer to this question. Rather, I will try to provide a working conception of meaning that will guide the semantic analyses in the rest of the dissertation.

To approach the question of what meaning is, Keller (1998: 47) asks what such a concept should achieve. His answer should be uncontroversial: “the concept of meaning should explain the interpretability of signs”. Based on a Wittgensteinian conception of meaning as use, Keller (1998: 51) then argues that “the meaning of a word in a language, L, consists of the rules of its use in L”. Crucially, Keller (1998: 50) argues that such a framework rules out conceptions of meaning that fail to differentiate between contextual and non-contextual meanings, as the former is derived from the latter:

> If meaning is supposed to help the understanding of what a person intends by an utterance in any given situation, it cannot be conceptualized as dependent on the situation or the speaker's intentions. If I must have understood the speaker in order to know the meaning of her words, meaning cannot be something that aids in understanding. That which Wittgenstein understands to be *meaning* is meant to be the basis of understanding, not its result. [emphasis in original]

In line with Keller, Harder (1996: 113–14; 2009; 2010: 197) distinguishes between linguistic input and output meaning. Output meaning is the meaning pertaining to the utterance as a usage event. Input meaning is what "the speaker knows between utterances" and what triggers different interpretations and likewise constrains language use (Harder 2010: 197).

The input consists of the linguistic code. Based on pragmatic and cognitive mechanisms (as described, e.g., in Harder 1996: 136–38; Sperber & Wilson 1995 and Evans 2009), interlocutors arrive at a contextualized output meaning in a particular utterance through joint actions. While traces of the output meaning can be stored in the competency of speakers, only the input meaning is part of *langue.*

This approach to meaning and semiosis can be illustrated with the following figure:

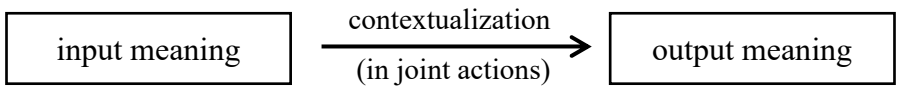

Figure 2.3
Input and output meaning

According to Harder, input meaning can thus be characterized as "potential meaning" (2009: 19); it is a potential contribution, rather than an actual meaning in a particular utterance. While meaning construction is thus dynamic, the basis for it is stable (though not static, because it can change).

Regarding the nature of input meaning, Harder conceives of it as instructions[4]. He argues that "words can usefully be understood as designed to prod, or prompt, the addressee to carry out interpretive activities of specifiable kinds" (Harder 2009: 15). In other words, the input meaning guides the addressee in constructing the output meaning. Importantly, the term "instruction" makes it clear that this conception of meaning is not restricted to conceptual or referential meaning but includes all kinds of content. For instance, the instructions of agreement markers to establish indexical links is no less meaning that the content of a fully referential phrase like *bear*.

[4] Cf., e.g., the argumentative semantics of Ducrot (e.g., 1972); similarly in, e.g., Sperber & Wilson (1995), Keller's (1998: 90; 95) "hints" and "potentialities" and the prompting purport of Croft & Cruse (2004: 100; cf. Evans 2009; Dor 2015).

A note on terminology: throughout this dissertation, I will refer to both types of meaning simply as *meaning*. This choice reflects the difficulty in distinguishing between input meaning and contextualized output meaning. When the analysis pertains specifically to the output meaning, I will use the term *contextual meaning*. Conversely, when I wish to emphasize the input meaning, I will refer to it as *conventional meaning* as I expect that contextual and conventional meaning are more common terms than input and output meaning. The notion of conventionality will be discussed in Section 3.1. The distinction between these meanings will be exemplified and illustrated in Section 3.2 and 6.2.

2.4 Analysing the structure of meaning potentials

In this section, I discuss how meaning potentials can be analysed and described. As noted by Riemer (2005: 18–20), the fundamental difficulty in semantic analysis is that semantics is a branch of linguistics with the peculiarity that the object of investigation, that is, the meaning of linguistic units, is not observable as such. As opposed to sound waves, the order of words, etc., there is nothing observable that can be taken as given prior to the investigation. This implies that the linguist must provide an argument for why a meaning analysis is valid or at the very least an interesting generalization. This means that we need criteria for individuating senses and for generalizations (Riemer 2005: 118; cf. Sandra 1998: 370–71).

In what follows, I first discuss some of the traditional tests or criteria for sense individuation. Afterwards, I discuss the so-called definitional test in more detail.

2.4.1 Traditional tests for sense individuation

Among the best-known criteria or tests for sense individuation are the following (cf. Geeraerts 1993; Tuggy 1993; Riemer 2005: 138–56):

1. the truth conditional test: if a sentence can be true and false at the same time due to two different readings/senses of a construction, the construction is polysemous.
2. the anaphora/Zeugma test: two readings of a construction constitute one sense if they can be referred to with an anaphora without a Zeugma effect, that is, creating a feeling of surprise due to the combination of two distinct senses.
3. the syntactic test: if a construction has different syntactic distributions, such as different valency and complement patterns, it has different senses.
4. the definitional test: if two paraphrases cannot be subsumed under one more general paraphrase, the construction has at least these two senses. If it is

possible to subsume two alleged senses under one broader meaning, only that single meaning should be recognized.

There are several problems with such tests. A fundamental problem is that they presuppose that the semanticist knows the possible senses of the construction to be analysed beforehand (cf. Geeraerts 1993: 236). In other words, the criteria do not offer any help in arriving at a particular meaning description. They only offer a way to decide between distinct meaning analyses. Given that, in historical analyses, we lack glosses or translations for most texts, this is problematic.

Additionally, combining these tests leads to inconclusive results. Often the tests lack agreement with each other and lead to implausible sense individuations (for illustration see Geeraerts 1993 and Riemer 2005: 138–156).

It is particularly problematic for a historical analysis that most of these tests are based on intuitions (Riemer 2005: 148–49) and rely on extremely rare utterances. For instance, the truth-conditional test relies on utterances like (2.2) from Geeraerts (1993: 226):

(2.2) Sandeman is a port (in a bottle), but not a port (with ships).

It is doubtful whether such an utterance would ever appear in historical texts. Relevant clauses can probably only be generated and evaluated based on intuitions. For obvious reasons, this is impossible in historical analyses. Here, the underlying meanings need to be reconstructed based on the surviving textual record.

There are several problems with the syntactic test (cf. Riemer 2005: 143–44). Firstly, it presupposes that the semantic contribution of each construction that the construction under investigation interacts with is clear. Secondly, it is not always clear what exactly constitutes a syntactic difference. Thirdly, there are numerous examples where a syntactic difference does not imply a semantic difference. Among Riemer's (2005: 144) examples is the difference of the prepositions the adjective *angry* combines with: *at* vs. *with*. According to Riemer, there is hardly any semantic difference between the two.

2.4.2 The definitional test

Riemer (2005: 150–57) argues that, despite its shortcomings, the definitional test is the most apt test or criterion for semantic analysis, because it addresses the semantic structure of the constructions in question, that is, their conventional or input meaning, rather than contextualized uses (cf. Geeraerts 1993: 236–37). Given that the other tests furthermore are problematic when working with historical material, my semantic analysis will be based on the definitional test. However, I will give it

an instructional semantic twist (cf. Geeraerts 1993: 255) with the following two heuristics:

1. If two output meanings can be generated or accounted for by one general input meaning in combination with pragmatic mechanisms and cognitive mechanisms of categorization, only one, more general, input meaning should be reckoned with.
2. The postulated input meaning(s) should generate all and only the possible utterances. In other words, the analysis should in principle be able to explain why certain utterances are impossible.

Other factors such as collocations can restrict the use of linguistic units, and the ill-formedness of some utterances is therefore not necessarily due to the input meaning of the linguistic unit.

As pointed out by Geeraerts (1993: 235–36), the definitional test thus specifies an upper as well as a lower bound. There should be neither more nor fewer meanings than necessary to explain all occurrences of a construction.

The definitional test has a synchronic as well as a diachronic perspective. On the one hand, it allows one to decide about the synchronic semantic structure of a language. On the other hand, it gives criteria for when to reckon with a new meaning. This should only be done when a given construction appears in contexts where its occurrence cannot be explained based on an older meaning. This has been the common practice of many historical linguists at least since Paul (1995[1880]:77; cf. Heine's 2002 typology of contexts, cf. Section 3.2.1 and 6.2).

Riemer (2005: 176) argues that the analysis should have "compatibility with evidence, explanatory elegance, simplicity, and aesthetic appeal". Thus, if two analyses seem to be equally adequate as regards their empirical foundation, only such highly subjective notions as elegance, etc., can be drawn on. This in turn means that sometimes it will not be possible to decide which of several analyses is better.

As pointed out by Geeraerts (1993: 236; 252), one of the thorny problems with the definitional test is that it presupposes that the definiens is unambiguous. Hence, the definitional test introduces a circular aspect in the analysis, because it cannot be determined based on independent grounds whether the definiens actually is unambiguous. Unfortunately, I see no way around this problem.

In conclusion, based on the definitional test, the only way to deem an analysis good or bad is empirical adequacy, intuitive plausibility and such subjective notions as aesthetic appeal. However, while a clear-cut objective method for semantic analysis is not available, the definitional test does after all allow for intersubjective assessment. This in turn implies a problem for constructions with meanings where different generalizations can be made (Riemer 2005: 152–55). The problem can be exemplified with a temporal adverb like *always*. This adverb can have at least two

meanings depending on whether it combines with a static or a non-static predicate. *Always* expresses meanings that can be glossed as, e.g., 'continuously' (2.3) and as 'on every occasion' (2.4) (paraphrases and examples from *dictionary.com*):

(2.3) There is **always** pollution in the air.

(2.4) He **always** works on Saturday.

While these two meanings are analysed as two distinct meanings in the *dictionary.com*, the Google dictionary conflates these meanings. The point is that, in cases like these, it is impossible to decide which analysis is more adequate. One analysis can only be deemed better based on such subjective notions as elegance or simplicity.

Riemer illustrates the same problem with the Warlpiri verb *pakarni*. It has glosses like 'run into' as well as 'hit, strike, crash into, kick'. These can be grouped together to form a more general meaning 'produce concussion on surface of y, by some entity coming into contact with y'. Riemer argues that the glosses can also be grouped in other ways, however. The gloss 'run into' can be grouped with other glosses such as 'have a cold' giving rise to the sense 'produce harmful effect on y (=human), by coming into contact with y'. As long as both analyses are empirically adequate, only (inter)subjective assessment can decide which analysis is more appropriate.

In sum, it is ultimately the individual researcher who may recognize similarities and determine whether to group certain glosses as representing a single meaning or not. As a result, this process is inherently subjective. Multiple analyses may be equally valid, and in some cases, it may be impossible to choose one over another.

Finally, it is important to emphasize that the heuristics are designed to account for meanings as part of *langue*, that is, these heuristics aim to guide the analysis of the social causalities at work within a speech community, which speakers must adapt to, rather than focusing on the individual linguistic competency of any individual speaker. While I expect that speakers may often form generalizations corresponding to analyses based on these heuristics, the following considerations should be noted:

1. A linguistic unit does not need to be represented mentally exclusively as either a general representation or as a list of contextualized instantiations (see Langacker 1987: 29 on the "rule/list fallacy"). Based on exemplar models, it is conceivable that semantic knowledge exists both as fully contextualized exemplars of encountered utterances and as more generalized input meanings.
2. Indeed, while some degree of generalization is needed, speakers need not have maximally general structures. As long as an individual's competency allows effective participation in the speech community, the speaker's competency is sufficient, and no further generalizations are strictly required.

3. While speakers do not need to possess maximally schematic meanings in their competency, they must retain redundant semantic representations. As Bybee (2010: 18) points out, frequency effects require such redundancy because even fully redundant utterances must have a representation (possibly only in short-term memory), because otherwise, nothing could accumulate and result in frequency effects.
4. Competencies may and most probably do differ concerning what generalizations are made (cf. Schmid 2020: 254–55 on the *that's* ADJ construction).

To illustrate these points: it might very well be the case that some Warlpiri speakers have a meaning generalization for the verb *pakarni* paraphrasable as 'produce concussion on surface of y, by some entity coming into contact with y' in their semantic memory, while others have a representation paraphrasable as 'produce harmful effect on y (=human), by coming into contact with y' and still others might have less schematic representations such as 'hit' and 'strike', 'crash into' and 'kick'. As long as the structure of the competency of individual speakers does its job, the speakers will have no reason to change this. Furthermore, speakers might have several cross-cutting generalizations in their competency. It might very well be the case that one and the same Warlpiri speaker has both generalizations mentioned by Riemer (cf. Tuggy's 1993: 283–84 analysis of *paint*). In relation to the socio-cognitive ontology espoused here and the idea of language as a *niche* phenomenon, however, such redundancy is irrelevant in a structural perspective and should be abstracted away.

In sum, based on Harder's instruction semantics, I will regard meaning as input meanings that constitute the use potential of constructions. The input meaning can be conceived of as instructions to the hearer that aid in deriving a contextualized meaning of the utterance. I have argued that the analysis should generate those meanings that can explain all occurrences of a construction. Based on Riemer (2005) and others, I have argued that there are no valid criteria for individuating senses and delimiting meanings at the current stage of semantic theory that can be regarded as objective. In the case of competing analyses with equal empirical adequacy, the researcher should opt for the simplest and most general analysis. Crucially, this part of the analysis introduces a subjective element that can only be deemed as valid intersubjectively by other linguists.

2.5 Intersubjectivity and coordination of common ground

As pointed out in Section 2.1, communication, that is, linguistic interaction at the level of the flow, is a type of highly coordinative action that Clark (1996: 3) calls *joint actions*. Because humans do not have direct access to each other's minds, coordination can be difficult. One crucial skill for this coordination is the ability to attend to something together, so-called *joint attention* (Tomasello 1999: 61). Joint attention involves not only focusing on the same object or state-of-affairs, but also sharing an awareness that this focus is a mutual experience.

In what follows, I first present Verhagen's (2005) model of the intersubjective ground. Afterwards, I discuss the common ground which makes inter-subjectivity possible.

2.5.1 Intersubjective construal

In order to model intersubjectivity, Verhagen (2005) elaborates on Langacker's (1987: 128–29; 1997: 242) "construal relationship" and "viewing arrangement": According to Langacker's model, in every act of conceptualization, there is an inherent relation between the "conceptualizer" and the "object of conceptualization". Utterances do not simply mirror the world, but a given situation is always construed in a particular way by a particular individual.

In this way every utterance is subjective in the sense that it is an interpretation of the situation described by the speaker. However, the speaker as conceptualizer can become part of the situation described, that is, she can be "put onstage" (Langacker 1987: 130), for instance through deictic expressions. Furthermore, the speaker can put other elements of the speech situation, the "ground" in Langacker's terminology (p. 489), onstage.

Langacker (1997: 242; cf. Franck 1980: 37) states that an inevitable part of the ground and part of every act of conceptualization is an acknowledgment and a construal of others construing that same situation. Verhagen elaborates on this intersubjective aspect of the construal relationship, arguing that the construal relationship should include a separate representation of the addressee because communication presupposes an addressee who needs to decode the utterance and construe the world in a similar way as the speaker does (Verhagen 2005: 6–7).

In Verhagen's updated model, the construal relationship includes 1. the intersubjective ground (speaker and hearer as conceptualizing entities) and 2. the object of conceptualization. Every aspect of this intersubjective ground can be put onstage. This makes it possible to describe aspects of linguistic units that do not

pertain to the object described, but that relate to the way the conceptualizers construe the object and construe each other's construal of the object.

Verhagen gives Langacker's construal relationship another twist. In line with Ducrot (e.g., 1973) and Anscombre & Ducrot (e.g., 1983), Verhagen (2005: 9–10) argues that communication is not primarily informative, that is, about the object of description, but rather argumentative. Utterances are produced in order to influence the interlocutor in some way, and many expressions indicate aspects of the relation between speaker and hearer (Verhagen 2005: 10).

Verhagen (2005: 22) argues that his conception of the construal relationship provides a motivation for the process of "(inter)subjectification", that is, the strong tendency for linguistic expressions to develop subjective and intersubjective meanings – meanings related to the (inter)subjective ground (Traugott & Dasher 2002: 22; 29–30). Verhagen argues that:

> Even if no aspect of the Ground is explicitly marked in an utterance, its actual use is always taken as an argument for some conclusion, to influence an addressee's cognitive system, so that it functions at level S [the ground, LW] as well. Whenever the use of some expression that is not conventionally subjective leads to successful cognitive coordination (i.e., at the level S) there is a chance that the speaker/writer or addressee will reproduce the same expression for a similar goal— even without the objective conditions for its use being fully satisfied—and so the expression may get started on a path towards conventionalization of subjectivity. (Verhagen 2005: 22)

The grammatical coding of the management of the intersubjective ground has recently been termed *engagement* (cf. e.g., Evans et al. 2018a; 2018b; Bergqvist 2020; Bergqvist & Kittilä 2020). This conventionalization process will be discussed in Chapter 3 and illustrated in Chapter 7–9.

Part of the intersubjective ground of interlocutors is the so-called *common ground*. I will discuss it in the following section.

2.5.2 Common ground

The *common ground* is "the sum of [the interlocutors', LW] mutual, common, or joint knowledge, beliefs, and suppositions" (Clark 1996: 93). To coordinate their interaction, interlocutors rely on this shared base. This common ground is not static, but dynamic, that is, it is constantly updated in interaction.

Sperber & Wilson (1995) also reckon with a common ground. However, they argue that saying the common ground is known, believed or supposed might be too strong. Instead, they propose the notion of *manifestness*:

> A fact is *manifest* to an individual at a given time if and only if he is capable at that time of representing it mentally and accepting its representation as true or probably

> true (…) To be manifest, then, is to be perceptible or inferable. (Sperber & Wilson 1995: 39)

To claim that a fact is manifest rather than known or assumed is thus a weaker notion than knowledge, belief or assumption. As exemplified by Sperber & Wilson, the fact that Noam Chomsky and Julius Caesar never had breakfast together cannot reasonably be said to be known or assumed in most common grounds. However, it can be expected to be inferable and made known if relevant. The common ground is thus constituted by those parts of the context that are manifest to all interlocutors.

Importantly, the common ground does not simply consist of a set of propositions that the interlocutors agree on, but also includes propositions interlocutors might have diverging attitudes towards. As pointed out by Wiltschko (2021: 89), common awareness of such propositions and disagreements is necessary in order to coordinate disagreement:

> Disagreement is not detrimental to establishing a common ground, but it necessitates recording individual interlocutors' attitudes toward the proposition. (…) It serves to synchronize our knowledge states, but synchronization does not imply agreement. It just means that we know what our conversational partners believe.

We constantly need to coordinate our common ground. The coordinative aspect, creating a shared understanding of the context, is thus fundamental to language use, and as Verhagen puts it, "it is not surprising that this coordination leaves traces in the language system, that is, repercussions for the *content* that is systematically coded in linguistic symbols (words and constructions)" (Verhagen 2005: 4). One such trace is the topic of the present dissertation: modal particles.

In sum, in this section, I have discussed the notions of intersubjectivity and common ground. Based on Verhagen (2005), I have argued that intersubjectivity and the anticipation of a decoding addressee is part of every construal, and hence, intersubjectivity is part of all interaction. This is made possible by the common ground. For information to be part of the common ground, it must be manifest to all interlocutors. Crucially, however, this does not mean that information in the common ground must be agreed upon, but disagreement can be part of the common ground as well.

2.6 The layered structure of the clause and some operator types

This final general section about meaning is supposed to introduce the notion of 'content syntax', that is, the organization of content in clauses. One speciality of European functional linguistics is the account of the structure of the clause or

content as layered (e.g., Boye 2012; Dik 1997; Engberg-Pedersen et al. 2019; Harder 1996; 2009; 2010; Hengeveld 1989; Hengeveld & Mackenzie 2008; Sørensen & Boye 2017).

The principles behind the layered clause model are what Harder (2010: 252) calls "functional upgrading" and operator-operand relations. Functional upgrading is defined as:

> the type of mechanism whereby one meaning-bearing item 'operates on' another to bring about a complex whole with enhanced properties. (Harder 2010: 252)

In other words, a basic principle of syntax is that some element (an operator) scopes over another element (the operand). Together, these elements create a more complex whole.

Harder distinguishes between the content side and the expression side of syntax:

> The expression side of syntax encodes constraints on scope relations, specifying what operator-operand relations are possible among content elements. (Harder 1996: 211; cf. 2010: 252–54)

Operator-operand relations are purely content syntactic relations. In the remainder of this section, I will discuss this. In Section 2.7, I will discuss one aspect of the expression side of clause structure, namely word order.

In Harder's model (1996: 211–12; 2010: 255; Engberg-Pedersen et al. 2019: 120; cf. Hengeveld 1989; Dik 1997), the clause is said to consist of four main layers. The "higher" layers emerge through functional upgrading based on the instructions of the scoping elements, the operators.

These layers are illustrated in (2.5) – (2.8) and will be discussed immediately below. The underlined constructions illustrate the layers:

(2.5)	Illocution:	<u>I bought coffee</u>.
(2.6)	Proposition:	I forgot <u>that I bought coffee</u>.
(2.7)	State-of-affairs:	I forgot <u>to buy coffee</u>.
(2.8)	Term:	I forgot <u>the coffee</u>.

(cf. Harder 1996: 212; Engberg-Pedersen et al. 2019: 121)

At the lowest level, we find terms or entities[5], typically expressed through NPs. In combination with predicates, these form states-of-affairs. They are representations of situations (Engberg-Pedersen et al. 2019: 120–21).

According to Boye (2012: 281), the difference between a state-of-affairs and a proposition is that, in a proposition, the state-of-affairs is construed as having a truth value and hence as referring, that is, the content of the utterance is construed in such a way that the state-of-affairs relates to some situation in the world (through 'grounding' in Langacker's 1987: 126–28 words). As argued by Boye (2012: 291), the truth value of a proposition depends upon this construal as referring, and therefore, he argues, only propositions can be epistemically modified (cf. Hengeveld 1989: 154; Harder 2005: 106–7).

This can be illustrated with (2.6) and (2.7). In (2.6), the speaker forgot a proposition, that is, forgot that a description of a state-of-affairs is true. In (2.7), however, the state-of-affairs is not construed as referring, that is, the speaker forgot to bring about the state-of-affairs.

While all clauses must contain some kind of state-of-affairs (they must relate to some kind of situation), not all clauses contain propositions. Commands such as (2.9), for instance, as argued by Boye (2012: 195, cf. Hengeveld 1989), do not convey propositions:

(2.9) Buy coffee!

What is asked for is the realization of a state-of-affairs. A proposition having a truth-value cannot be realized.

The model provides a frame for the categorization of operators. Different operators (grammatical as well as lexical) can be distinguished according to where in the hierarchical structure they apply. Epistemics, for instance, apply to propositions, as they can only apply to something that is capable of having a truth value, while state-of-affairs operators like manner adverbials pertain to lower levels; they describe how, when, where, etc. a state-of-affairs is realized. Compare the following example adapted from Harder (2005: 108):

(2.10) Furthermore, probably Maria sang beautifully yesterday.

furthermore (decl (probably (pret (yesterday (beautifully (sing (Maria)))))))

[5] In Engberg-Pedersen et al. (2019: 120; cf. Hengeveld 1989), the predicate is said to be the lowest layer. However, as it is not of relevance to the study at hand, I will not discuss it.

Each bracket marks a layer, and it should be read in such a way that the operator at each layer operates on the whole complex layer. For instance, 'yesterday' operates on '(beautifully (sing (Maria))', while the epistemic evaluation of 'probably' evaluates this whole complex including the lower-level operator 'yesterday'.

There are two types of operators that are particularly relevant for the present study: epistemic operators at the propositional layer and contextualization instructions, which can be regarded as illocution operators. These will be discussed in turn. I close this section with a discussion of diagrammatic iconicity, namely those cases of diagrammatic iconicity where the scope hierarchy motivates word order phenomena.

2.6.1 Proposition operators and epistemicity: epistemic modality and evidentiality

In defining epistemic meanings, Boye (2012: 16) takes his point of departure in the "standard analysis" of knowledge as a "justified, true belief":

1. somebody believes a proposition,
2. this proposition is true, and
3. the belief is justified.

According to Boye, epistemic expressions target different aspects of this structure. With epistemic expression, the speaker indicates what kind of justification she has, how certain she is, and who else might believe that the proposition is true. Because such meanings thus relate to the truth value of propositions, they are classified as proposition operators. Epistemicity comprises two subnotions: epistemic modality and evidentiality. Boye (2012: 2) also speaks of epistemic support and epistemic justification, respectively, to capture the common semantic denominator of these meanings.

Evidential meanings specify on what grounds the truth of the proposition is assessed, that is, they specify aspects of the information source (cf. e.g., Willett 1988; Bybee et al. 1994: 95; Aikhenvald 2004, Nuyts 2006: 10; Boye 2012: 20). For instance, evidential expressions can indicate whether the speaker has direct or indirect evidence for claiming the truth of a proposition, or they can express more specific types of information source such as hearsay, inference, visual perception, etc.

Epistemic modality or support, on the other hand, concerns the degree of certainty (cf. e.g., epistemic mood in Bybee et al. 1994: 320; van de Auwera & Plungian 1998: 80; Nuyts 2006: 6; Boye 2012: 20–21). Boye (2012: 20–21) conceives of the degree of epistemic support as a scale ranging from *full support* (corresponding to glosses like '(full, emphasized) certainty') over *partial support* (pertaining to the

expression of doubt as well as probability) to *neutral support*. *Full support* can thus be seen as a degree of certainty where no doubt whatsoever is allowed or implied, while *partial support* always implies some degree of doubt. According to Boye (2012: 24–25), *neutral support* covers those "meanings that, on the one hand, do not represent any positive degree of epistemic support for a proposition, but, on the other hand, do not represent any degree of support for the negative counterpart of the proposition either".

For the historical chapters, the following epistemic notions from Boye (2012) are of particular importance:

1. Full epistemic support, covering meanings indicating that the speaker assumes with full certainty that the proposition is true. The speaker leaves no room for doubt, e.g., *certainly.*
2. Partial epistemic support, covering meanings indicating that the speaker assumes that the proposition could be true but has some doubt about this, e.g., *likely*.
3. Strong epistemic support, covering meanings indicating that the speaker is either fully certain or allows for some doubt. This notion has conceptual overlap with full as well as partial epistemic support. It can be used in contexts where the speaker is fully certain as well as contexts where the speaker might allow for some doubt, e.g., *surely*.

The evidential system of the evidential modal particles does not correspond to any of the cross-linguistic generalizations. I will discuss it in detail when discussing the evidential modal particles.

2.6.2 Illocution operators and contextualization instructions

At the illocutionary layer, we find operators of a more interactive nature. Operators at this level modify the illocution in various ways. Hengeveld (1989: 138) points out that, "[w]ithout affecting the basic illocution expressed by the abstract illocutionary frame, illocution operators specify strategic modifications of this basic illocution". In other words, such operators specify aspects of the speech act.

Hengeveld (1989: 140) highlights the effect of certain illocution operators to mitigate or reinforce the speech act. One of Hengeveld's (1989: 140) examples is the Mandarin Chinese mitigator *a/ya*, which is said to reduce "the forcefulness of the speech act":

(2.11) Wo bing mei zuo-cuo **a/ya**
I on.the.contrary not do-wrong **MIT**
'On the contrary, I didn't do wrong.'

Similarly, Engberg-Pedersen et al. (2019: 207) hold that illocution operators specify how the illocution is performed. They illustrate this with expressions that are used to emphasize the speaker's trustworthiness or sincerity:

(2.12) [talking about a girl who was beat up]
Så sagde jeg så synes jeg **ærligt talt** det har hun fortjent.
'Then I said I **honestly** think she deserved it.'
(BySoc[6])

In an example like this, the speaker expresses her sincerity.

In the remainder of this section, I will suggest the existence of a different type of illocutionary operator. In her analysis of modal particles in German, Franck (1980, cf. Harder 1975: 107) introduces the notion 'contextualization instructions' ("Kontextualisierungsanweisung"). These are indexical cues to the hearer, directing their attention to specific features of the context (Franck 1980: 80). In other words, such contextualization instructions index certain aspects of the common ground and instruct the addressee to take these into account when analysing the illocution and the utterance. In the words of Verhagen's (2005) intersubjective construal relationship discussed in Section 2.5, they put the intersubjective ground on stage.

Franck's (1980) book concerns modal particles as such contextualization instructions. The analyses in Chapter 4 and 7–10 will provide ample illustration of contextualization instructions. At this point, one example will suffice:

(2.13) A: Nu havde hun jo mig selvfølgelig men…
B: Nå men det er **da** rart at være flere
'A: Well, she had JO me, of course, but…
B: Well, but it is **DA** nice to be more than one.'
(Bysoc)

[6] The Bysoc corpus is a corpus of spoken language. For readability, I have adapted the examples slightly.

In this utterance, the speaker addresses an implication of the previous speaker, who seems to think that her company is not worth mentioning. Furthermore, it indicates that the speaker assumes that the proposition expressed ('it's nice not to be alone') is mutually manifest (cf. Section 8.1).

2.6.3 Hierarchical structure and diagrammatic iconicity

As argued by researchers such as Engberg-Pedersen (1996), there seems to be a tendency for the expression side (e.g., word order) to mirror content relations across many languages (cf. Hengeveld 1989: 141; Dik's "Principle of Iconic Ordering" 1997: 399), and this is also true of adverbials in Danish. The order of adverbials mirrors the scope hierarchy of these adverbials to some degree (e.g., Harder 2005: 107; Diderichsen [1943]1966: 57; Christensen 2001: 70). This is a kind of functional motivation of expression referred to as diagrammatic iconicity, which is based on analogy (cf. Engberg-Pedersen 1996: 464).

In a language like Danish, adverbials tend to precede other adverbials that they scope over (cf. Harder 2005: 107; Diderichsen [1943]1966: 57; Christensen 2001). For instance, as discussed in the previous section, epistemic sentence adverbials relate to propositions, while temporal adverbials are state-of-affairs operators. Mirroring their scope properties, epistemic adverbials precede temporal adverbials which again are closer to the main verb, which they scope over directly. This is illustrated in Figure 2.4[7]:

DECLARATIVE(probably(already(eat(she))))

(2.14) Hun har sikkert allerede spist.

'She has probably already eaten.'

Figure 2.4
Illustration of diagrammatic motivation

The figure illustrates that, to some degree, the word order of the clause is structured iconically. Obviously, iconicity does not determine word order fully, and there are many aspects that are not conditioned by iconicity, such as the fact that finite verbs occupy the second position within the clause in Danish declarative clauses.

[7] Tense is not represented in the figure.

2.7 Topology

Section 2.3–2.6 mostly concerned the content side of constructions. In this section, I turn to one expression system of particular importance to the present study, namely topology, that is, word order systems.

In line with Diderichsen (e.g., [1943]1966) and Heltoft (e.g. 1992; 2019c), I regard word order templates as semiotic systems that can serve as the expression side of constructions. As is well-known, on the one hand, a construction may rely on word order alone for expressing its content, for instance in the distinction between subject-verb and verb-subject constructions in English, roughly speaking, coding the difference between declarative and interrogative illocution:

(2.15) He has eaten.

(2.16) Has he eaten?

On the other hand, word order can also be part of the expression side of a construction alongside other means of expression. This aspect will be much more relevant to the present purposes. For instance, most modal particles have heterosemes (Lichtenberk 1991; Autenrieth 2002), that is, historically related constructions that belong to distinct syntactic categories. For instance, Danish *nu* exists as an adverb as well as a modal particle:

(2.17) **Nu** kommer fuglene igen.
Now come the birds again
'The birds are returning **now**.'
(internet)

(2.18) Fuglene kommer **nu** igen.
the birds come **NU** again
'The birds are **NU** returning.'

Only the temporal adverb can be placed in the pre-field (2.17), that is, the position immediately preceding the finite verb (cf. Section 4.1 below). The modal particle cannot appear in the pre-field. Hence, only (2.18) allows for a modal particle reading. This means that the modal particle *nu* has a topological restriction that the adverb lacks. Arguably, this topological restriction combined with the fact that both particles express distinct meanings suffices for analysing the two particles as distinct

constructions, and not as one construction with two meanings, let alone one construction with one meaning.[8]

My analysis of topological systems is based on the following methodological principles (cf. Diderichsen [1943]1966: 55; for an introduction in English see Heltoft 1992: 21–24). The topological analysis begins with an analysis of the sentence constituents. This is typically based on syntactic categories, but may also rely on information structural categories, phonological or semantic features or other relevant properties. Based on this analysis, the order of constructions can be analysed, that is, by examining a sample of sentences, the linguist can generalize a template for the relative order of the constructions of the chosen categories.

Importantly, the templates resulting from this topological analysis must account for all sentences, regardless of their number of constituents. This means that more complex clauses must be describable based on the same structure as simpler clauses. Conversely, in the case of simpler clauses, we must reckon with empty positions. To achieve this objective, the topological analysis must take its point of departure in maximally complex clauses. The following illustrates a simplified version of the topological system of Modern Danish (cf. Section 4.1 for details and abbreviations):

Table 2.1
Sentence frame with empty positions

(2.19)

X	V_{fin}	S	SA	FA	V_{inf}	N	A
derfor	vil	Bo	sikkert		bage	en kage	i morgen
therefore	will	Bo	probably		bake	a cake	tomorrow

'Therefore, Bo will probably bake a cake tomorrow.'

(2.20)

X	V_{fin}	S	SA	FA	V_{inf}	N	A
Bo	bager					en kage	
Bo	bakes					a cake	

'Bo bakes a cake.'

As illustrated in the table, the fact that *Bo* and *sikkert* 'probably' intervene between *bager* 'bake' and *en kage* 'a cake' in example (2.19) but not in (2.20) does not change the schematic analysis. Both clauses are still instantiations of the same topological template. In the less complex clause (2.20), certain positions like the position for subjects (S) and for sentence adverbials (SA) are simply not filled or empty.

While the linguist working with her native language can construct maximally complex clauses in order to investigate the topology of the language, the historical linguist is forced to make do with the surviving record of texts. As these seldom

[8] There are other expression differences between the adverb and the modal particle. These will be discussed in Section 4.2.

contain such ideal maximally complex clauses, at least for the oldest language stages, the linguist can reconstruct word order templates in the absence of maximally complex clauses through an assumption of transitivity. Even though construction X and construction Z might not be found in one clause, it is still possible to decide on their relative order. If construction X always precedes construction Y, and construction Y always precedes construction Z, it is reasonable to assume the order X Y Z. This can be schematized as follows: if (2.21) and (2.22) are attested, we can assume the order (2.23):

(2.21) X before Y

(2.22) Y before Z

(2.23) X before Y before Z

Closing this section, it should be emphasized that the topological analysis is concerned with structural aspects of *langue*, not necessarily the structure of any individual's competency (cf. Section 2.1 and 2.2). It may certainly be the case that speakers and hearers do not process sentences based on such abstract topological schemas. Indeed, Christiansen & Chater (2016) speak of a "Now-or-Never-bottleneck" in syntactic processing, arguing that most sentence processing involves recognition of chunks. From the perspective of *langue*, this is secondary, however. The sentence frame does not necessarily correspond to a similarly structured cognitive representation but is intended as an abstraction over many such mental representations and attested usage events. It is a description of the social forces at play.

2.8 Paradigms

The preceding sections discussed the internal structure of constructions, that is, aspects of the content and the expression of constructions. The aim of this final introductory Section is to discuss one way in which constructions can be related to each other, namely paradigms.

Nørgård-Sørensen et al. (2011: 5–6; 72) conceive of paradigms as constructions and argue that they are "in principle *closed*" and obligatory. They point out that "it is in principle possible to specify the *domain* of the paradigm", that is, the syntagmatic context of the paradigm. Paradigms have a *frame*, that is, a common semantic feature, and they are asymmetric, consisting of semantically marked and unmarked members.

A similar conception of paradigms is presented in Diewald (2020: 281; 304–5; cf. Diewald 2009; Diewald & Smirnova 2012: 129). She argues that a paradigm is a "hyper-construction", meaning "a construction formed by constructions" (Diewald 2020: 303). The expression of a paradigm includes "the abstract formal characteristic of the members of the category", while the content of a paradigm is "the common semantic feature constituting the general meaning/function of the whole paradigm" (Diewald 2020: 305). She thus seems to have a broader understanding of that aspect of paradigms that Nørgård-Sørensen et al. (2011) call domain. In her account, a paradigm is characterized by correlating a common content feature with a "formal characteristic". This can include the syntagmatic context where the paradigm applies (that is, what Nørgård-Sørensen et al. refer to as the domain), but formal idiosyncrasies of other types are possible as well.

Furthermore, like Nørgård-Sørensen et al. (2011), Diewald (2020: 303) argues that paradigms are closed sets with obligatory choices and that the constructions constituting paradigms are connected by indexical links of two types:

1. "Anchoring", that is, a construction contrasts with another construction constituting an unmarked cell in the paradigm (similar to Nørgård-Sørensen et al.'s claim that all paradigms are asymmetrically organized).
2. "Distinctive links", that is, symmetric links between constructions that index differences between individual constructions.

In sum, independently of each other, both Nørgård-Sørensen et al. (2011) and Diewald (2009; 2020; Diewald & Smirnova 2012) have argued that paradigms are constructions. Therefore, they have an expression as well as a content side. The authors furthermore hold that paradigms are in principle closed. Finally, the authors argue that choices within paradigms constitute obligatory choices and that the paradigmatic relations are necessarily asymmetric. In the remainder of this section, I will argue that these two last points are problematic as definitional features.

Firstly, obligatoriness is a notoriously difficult notion. In Nørgård-Sørensen et al. (2011: 5), it is defined relative to the domain of the paradigm, that is, the syntactic context in which the paradigmatic choice is relevant. The authors argue that "speakers cannot avoid picking one or the other when they produce an utterance activating the domain and thus the frame of the paradigm". Even if this might be a feasible definition of obligatoriness, the feature seems intuitively unsatisfactory, because there are constructions that should be regarded as paradigmatically organized even though they lack obligatoriness.

For instance, Danish modal verbs form a paradigm. The Danish modal verbs govern bare infinitives that are not part of an AcI-construction, and all modal verbs express modality, that is, meanings pertaining to the contrast between possibility and necessity (cf. Brandt 1999: 22; 25; Boye 2001; van der Auwera & Plungian 1998).

In other words, they have a common expression feature and a common semantic core. However, modal verbs are never used obligatorily.

Similarly, some inflectional evidentiality paradigms are facultative, as discussed in Aikhenvald (2018: 10) and Mélac (2022: 337), and further examples can be found in Lehmann (2015[1982]: 148–49). For instance, he points out that number marking, articles and pronouns are obligatory in some languages, while they are not in others or in older historical stages of those same languages. However, arguably, this does not mean that those sets of constructions that are facultative are not paradigms. For instance, even though the Italian personal pronouns are facultative, it seems counterintuitive to doubt their status as a paradigm.[9] Therefore, I will not assume obligatoriness as a definitional feature of paradigms.

The second problematic point is the claim that paradigms are necessarily asymmetric. Both Nørgård-Sørensen et al. (2011) and Diewald (2020) assume that, in all paradigms, one member is marked while the other is not, that is, one has a more specific intension than the other. Nørgård-Sørensen et al. (2011) refer extensively to Andersen (2001), who in turn elaborates on the traditional structural notion of markedness. According to Hjelmslev (e.g., 1939), all paradigms are asymmetric and participative, that is, one member in an opposition will be unmarked (expressing the whole common semantic frame), while the other is marked, that is, more specific in its meaning. The opposition between *duck* and *drake* exemplifies this (cf. Jensen 2012: 149–50). Because *duck* has a broader meaning potential than *drake* (it lacks a sexus feature), it can designate any individual of the genus. *Drake* is more specific in its intension (it includes a semantic sexus specification [male]) and can therefore only refer to male individuals.

While there might be paradigms that are structured asymmetrically, it is problematic to assume that this is true for all opposition, and I will consequently regard markedness as a language-particular phenomenon. This can again be illustrated with the Danish modal verbs. As pointed out, these share a common expression feature and are clearly semantically related. However, the contrast relations between any of these modal verbs is not in any obvious way asymmetric. For instance, a modal verb like *kunne* 'can, be able' contrasts with *måtte* 'must, have to'; however, this contrast is not asymmetrical in any way, as *kunne*, expressing possibility, cannot refer to the same situations that *måtte*, expressing necessity, can, nor vice-versa. I will therefore not conceive of paradigms as necessarily asymmetric (for a more detailed critical assessment of markedness, see Haspelmath 2006).

[9] The case of (subject) pronouns illustrates a different problem with obligatoriness: Comparing Italian with French, it is probably not so much the question whether pronouns are obligatory, but rather whether or not the language in question has obligatory subjects. If this is correct, the question then arises of how one should assess the paradigmatic structure of (subject) pronouns, as their obligatoriness or facultativity is decided elsewhere in the language system, namely a more encompassing syntactic rule.

That being said, there is obviously some kind of asymmetric relation between the content of the paradigm or the hyper-construction, namely the common semantic feature of all paradigmatic cells, and the content of the individual construction filling a cell in that paradigm. However, this does not seem to be the way Nørgård-Sørensen et al. (2011) or Diewald (2020) conceive of these markedness relations. They argue that the asymmetric relation holds between the constructions constituting the paradigm. Furthermore, the fact that the semantic relation between the content of the paradigm and the content of the constituting constructions is asymmetric is true *a priori* and hence less interesting. It follows from the definition of paradigms as having a common semantic feature shared by all their participating constructions.

While I do not believe any conception of markedness should be incorporated into a definition of paradigms, it is necessary to include a content contrast between the paradigmatic cells as a defining feature of paradigms. This corresponds to Diewald's "distinctive links" discussed above. If constructions of a paradigm do not contrast, paradigmatic relations are indistinguishable from allomorphy. Allomorphs often have a common structural expression feature. However, they share all their content and consequently do not involve a content contrast.

In conclusion, in this dissertation, I will subscribe to a simple definition of paradigms as constructions with a content side and an expression side. The constructions within a paradigm contrast semantically with each other. The expression side can be any kind of common structural feature, be it a common morphological or clausal position, governing behaviour or something else.

Needless to say, because paradigms are historical entities and hence subject to change, category boundaries of paradigms can be fuzzy. Constructions in a paradigm can have secondary meanings different from the common semantic feature of the paradigm, and constructions constituting a paradigm can have heterosemes, that is, homophonous constructions belonging to different syntactic categories (Lichtenberk 1991). Nevertheless, as long as some form-meaning association patterns with other constructions paradigmatically, one should consider whether the constructions constitute a paradigm.

Finally, as pointed out, Diewald (2020: 278) argues that a paradigm is a type of construction with a corresponding mental representation, that is, paradigms are not simply assumed to be the linguist's construct but are part of the competency of speakers. It follows from this that paradigms can have diachronic effects leading to paradigmatic integration or paradigmaticalization. This will be discussed in Section 3.2.2 in connection with analogy.

3 Language change

The aim of the present chapter is to introduce the diachronic theoretical foundations underlying the rest of the dissertation. In Section 2.1, I discussed the theoretical foundation with reference to Harder's (2010) ontology. As an introduction to this chapter, I briefly point out how this ontology is of relevance to a proper understanding of historical analyses and which methodological consequences this has. Afterwards, I present an overview of the chapter.

Arguably, in order to understand language change, we need to take into account all three ontological levels: niche, competency and flow. When we speak of language change, *language* is language as a social phenomenon. As already discussed, frequency and the individual's mental representation of language are secondary. A change in the competency of a speaker does not constitute language change, nor does a simple frequency rise in usage (in principle, every usage event slightly changes our knowledge structure, cf. Bybee 2010: Chapter 2). Rather, it is change in the social affordances that a language offers that is the primary object of interest, that is, changes pertaining to *langue*.

On the other hand, in order to account for the changes in language structure, that is, changes of these affordances, we need the competency level and the flow, as the abstract structure cannot change on its own. This fact was already clearly seen by Paul (1995[1880]: 24), who points out that there is no direct causal link between distinct linguistic structures. With his usage-based approach, Paul argues that it is through interaction and the mental structures resulting from such interactions that languages change.

This results in a somewhat paradoxical situation. While language change is change of a complex social system (*langue*), we cannot look for any explanations at this level. Rather, explanations must be sought at the level of usage (*flow*), encompassing fully contextualized utterances, and the mental representations (*competency*) that generate these utterances and result from these fully contextualized utterances. In other words, explaining language change rests on an analytical and methodological division of labour, where a structural analysis must work out *what* changes, while a cognitively and interactively grounded analysis must explain these changes.

The chapter is organized as follows. In Section 3.1, I briefly present how I understand conventionalization. In Section 3.2, I discuss reanalysis, context-induced change and analogy. In Section 3.3, I discuss grammaticalization and argue that it should be conceived of as the conventionalization of background status. I close the chapter with a brief discussion of language-external factors in language change, namely language contact, with a focus on contact-induced grammaticalization.

3.1 Conventionalization vs. propagation and entrenchment

Only if innovations are conventionalized can we speak of language change. In this section, I briefly discuss conventionalization. This lays the foundation for how an investigation of conventionalization can be operationalized in Chapter 6.

There is a tendency not to distinguish clearly between conventionalization and related notions such as propagation and entrenchment when discussing linguistic change. For instance, Paradis (2011: 8) uses conventionalization synonymously with what she calls "intersubjective entrenchment". Croft (2000: 162) seems to use conventionalization and propagation at least partly synonymously when he argues that the term *grammaticization* is a "half-convention" (p. 175), as only half of the linguistic community uses *grammaticization* (according to Croft 2000). Similar probabilistic understandings of conventionality are offered in Goldberg (2006) and Schmid (2020). For instance, Schmid (2020: 89) argues that "the form *run* is more conventionally connected to the meaning 'fast pedestrian motion' (as in *she ran home*) than the meaning 'function' (as in *the car will run forever* (…))",[10] and Goldberg (2006: 13) argues that *I like lima beans* is more conventional than *lima beans please me*. Arguably, this is to confuse conventionality with propagation, entrenchment or idiomaticity.

I conceive of conventionalization as a change that primarily concerns the semiotic status of a construction. This is in line with Koch (2016: 27), who points out that

> The term propagation focuses on the social aspect of this process [language change, LW], the term entrenchment on the psycholinguistic aspect (cf. Langacker 1987; Croft 2000: 231–236; Schmid 2007) while the term conventionalization highlights the semiotic tension between discourse and system.

[10] Incidentally, according to Murphy (2003: 23), the locomotive meaning is actually not necessarily the most frequent meaning of *run*.

The "semiotic tension between discourse and system" involved in conventionalization corresponds to a change from utterance token meaning to coded meaning (cf. Levinson 1995; Traugott & Dasher 2002: 16–17; 38), that is, from fully contextualized output meaning to conventional input meaning. In other words, as soon as a meaning is conventionalized, it is part of the meaning potential of a construction and can be invoked by the expression to trigger a contextualized meaning without relying on some other input meaning or contextual enrichment. Consequently, it does not primarily concern the spread of this association in a speech community, nor its entrenchment in a group of speakers. This means that even though, for instance, *lima beans please me* might be much rarer than *I like lima beans*, the former is no less conventional than the latter, because the form-meaning association is stable across utterances and not bound to individual usage events.

3.2 Reanalysis

Languages mostly change through abduction (Andersen 1973). As discussed by Itkonen (2005: 25–35), abduction is a complex notion involving induction as well as deduction in that it combines the inference or evocation of a law (induction) and the explanation of a case (deduction):

> Therefore abduction means (a) *inferring* a theoretical law such that (b) the data may be *deduced* from it (plus antecedent conditions) (Itkonen 2005: 28)

In this process, two or more phenomena are categorized as similar based on the assumption of an analogical structure connecting them. In other words, the individual is confronted with linguistic output and has to make guesses as to what rules or structures generate such output, that is, what the community grammar or grammar of the *niche* looks like. These assumed structures are then applied and verified in the speech production of the individual.

One way for innovative structures to emerge in this process is through reanalysis, a term originally coined by Langacker (1977; cf. e.g., Harris & Campbell 1995: Chapter 4; Hopper & Traugott 2003: Chapter 3; Hansen 2021; "neoanalysis" in Traugott & Trousdale 2013: 21). In reanalysis, a construction is interpreted as having a structure that it did not have before. This may concern the content or the expression of the construction or both. Based on the reanalysis, the construction can be extended to new contexts, that is, the change can be actualized (Timberlake 1977; Himmelmann 2004; De Smet 2012).

Innovative structures can emerge based on the syntagmatic axis as well as the paradigmatic axis (cf. Fischer 2003: 317). The rest of this section is structured according to this distinction. I will discuss two causes of reanalysis that are of particular importance for my analysis and the discussion presented in Chapter 7–10:

1. context-induced reanalysis (syntagmatically conditioned) and 2. reanalysis due to analogy (paradigmatically conditioned).[11]

3.2.1 Context-induced reanalysis

It has been known since at least Bréal (1897: Chapter 21) that the meanings of linguistic constructions can be enriched by contextual meanings. Bréal speaks of *contagion*, a process that Croft terms hypoanalysis:

> In HYPOANALYSIS, the listener reanalyzes a contextual semantic/functional property as an inherent property of the syntactic unit. (Croft 2000: 126)

In other words, it designates the process whereby a contextually available meaning is attributed to a construction in that same context.

One kind of hypoanalysis that has received particular attention is semantic change due to pragmatic inferences and implicatures (cf. Paul 1995[1880]: 84; Traugott & König 1991; Heine et al. 1991: 70; Traugott & Dasher 2002; Hansen 2021). In this kind of process, a contextually available meaning generated based on pragmatic mechanisms is reanalysed as a conventional meaning feature of a given construction.

In this kind of change, it is the syntagmatic axis that drives the change, and hence this type of reanalysis only happens in the context of particular linguistic constructions (Bybee et al. 1994: 11; Himmelmann 2004: 31). Heine (2002; building on Evans & Wilkins 1998) proposes a typology of context or construction types that is associated with this kind of semantic change, and Diewald (2002)[12] develops a similar model focusing on formal aspects of the change as well. In both models, it is explicitly stated that what is dealt with is semantic change occurring in tandem with grammaticalization (grammaticalization will be discussed below in Section 3.3). However, at least Heine's model works for non-grammatical changes as well. Because his model, as opposed to Diewald's model, works as a framework for types of change that do not necessarily involve a change of the expression side of constructions, I will focus on Heine's model.

The point of departure for the account of contextually induced change is the idea that constructions can become associated with contextually available meanings that arise in what Evans & Wilkins (1998: 5) term "bridging contexts". In these contexts,

[11] Note that reanalysis is often restricted to syntagmatically conditioned change (e.g., in Fischer 2003: 317). However, if the concept pertains to the attribution of a novel structure to a construction, there is no compelling reason to limit its scope to the syntagmatic axis.

[12] Similarly in Diewald (1999; Diewald 2006; 2009; 2020; Diewald & Smirnova 2012).

a construction gives rise to a contextual meaning in addition to its conventional meaning based on pragmatic inferences.

This situation can be illustrated using Traugott & König's (1991: 194–95) analysis of English *since*. In an example like (3.1), *since* can be analysed as a temporal and a causal subordinator, and the latter can be derived from the former and a *post hoc* fallacy according to which temporal succession implies causality. Something that happens after something else might be caused by it:

(3.1) **Since** Susan has left him, John has been very miserable.

If the association becomes strong enough, the new contextual meaning can be conventionalized, that is, it can be triggered by the construction in all contexts.

In terms of the instruction semantic approach adopted in this dissertation (cf. Section 2.3), this kind of reanalysis can be conceived of as a reanalysis where the hearer assumes a new conventional input meaning based on a contextualized output meaning.

It should be noted that my interpretation of bridging contexts differs a bit from the way Heine uses the notion himself. Heine (2003: 590) argues that a Swahili clause like (3.2) is a bridging context for the verb *taka* from a volitive meaning 'want' to a future meaning:

(3.2)

A-	na-	taka	ku-	fa
C1-	PRES-	want/PROX	INF-	die

i 'He wants to die.'

ii 'He is about to die.'

This is so, he argues, because in contexts like (3.2) "a human subject referent cannot really be assumed to 'want' what is described" (Heine 2003: 590). This then causes the speaker to search for an alternative interpretation (cf. a similar account in Traugott & Dasher 2002 and others in terms of invited inferences). However, there is something intuitively implausible about this account. If the subject referent does not want what is described, why should a speaker use the verb *taka* 'want' in the first place in an utterance like (3.2). For a speaker to deem *taka* appropriate in a context like this, there must have been some prior semantic reanalysis allowing it to appear in such contexts.

I follow Hansen (2021: 14), who argues that: "it is sufficient that both [the old and the new meaning, LW] be possible in the context (…). It follows that the inference to the innovative interpretation does not need to be invited by the speaker". In

support of this, Hansen (2021: 14) argues that the new meaning in a folk etymology such as Danish *forfordele* ‘give someone less than their fair share’ > ‘give someone more than their fair share’ cannot be intended.

Hence in a bridging context, it should be possible to derive the old meaning based on the structure of the source construction and contextual enrichment. In other words, the new meaning must be inferable in some way. This has methodological consequences. It is not enough simply to identify a context where old and new meaning are plausible, but the analysis must also make it clear how the two meanings are related. In other words, arguably, a context only qualifies as a bridging context if the *bridge* can be identified.

To illustrate this, we can revisit Heine’s analysis of *taka*. I assume that the bridging context for Swahili future *taka* is not an utterance like (3.2), but rather an utterance like (3.3), which Heine identifies as the pre-bridging context stage:

(3.3)

A-	na-	taka	ku-	ni-	ita
C1-	PRES-	want	INF-	me-	call

‘He wants to call me.’

(Heine 2003: 590)

Because intended actions are actions that have not yet been realized but actions that will most probably be realized at some later point of time, the temporal or aspectual meaning is inferable. The proximative meaning can then be associated with the verb, which in turn licenses its occurrence in a context like (3.2).

In Heine’s model, new meanings can spread from bridging contexts to so-called switch contexts. In these, the former contextually induced meaning no longer depends on the source meaning, as the source meaning is impossible in the switch context. This is a sign of incipient conventionalization.

According to Heine (2002: 85), full conventionalization is only a subsequent stage, and he argues that unlike “conventional meanings, meanings appearing in switch contexts have to be supported by a specific context (or cluster of contexts)”. However, the distinction between switch contexts and contexts indicative of full conventionalization is not completely clear. For instance, Heine (2002: 91) argues that, in the development from ‘volition’ to ‘proximative’, the emerging proximative marker appears in switch contexts where “[r]ather than a human participant, [the subject, LW] is inanimate; an interpretation of ‘want’ as denoting volition does not make sense”, and Heine notes that “[v]olition [is] backgrounded”. At the stage of conventionalization, the “proximative can cooccur with human subjects”. Here, Heine notes that only the proximative meaning is possible. However, it is not clear why the volition meaning is only backgrounded and not fully ruled out in the switch context, as volition and inanimate subjects are incompatible.

Similarly, as regards the development of concessives based on temporal connectives, Heine (2002: 93) argues that German *dabei* cannot express its temporal source meaning in an utterance like (3.4), but only a concessive meaning:

(3.4) Karl geht schlafen; **dabei** geht er um diese Zeit nie schlafen.
'Karl goes to bed; **although** he never goes to bed at this time.'

Yet, at the same time, the temporal meaning is only said to be "backgrounded" in this context and not impossible, as opposed to what is the case with contexts indicative of conventionalization (p. 94). Thus, the analysis is self-contradictory.

Therefore, I will conceive of switch contexts as indicative of conventionalization. Everything happening at later stages, I will regard as further changes. The fact that such contexts are indicative of conventionalization was already pointed out by Paul (1995[1880]: 77; cf. Section 6.2).

In sum, in this section, I have argued that reanalyses can be driven by bridging contexts. In working with historical material, such contexts must be identified, and the relevant inferences must be motivated and explained.

3.2.2 Reanalysis due to analogy

Language change is influenced not only by the syntagmatic axis but also by the paradigmatic axis. Regarding paradigmatically conditioned language change, it is first and foremost analogy that drives these changes. Analogy has played a prominent role in accounts of language change at least since Paul (1995[1880]: Chapter 5). Recently, the notion has gained renewed interest (e.g., Anttila 2003; Itkonen 2005; Fischer 2003; 2007; Bybee 2010: Chapter 4; De Smet 2012; De Smet & Fischer 2017; De Smet et al. 2018). In this section, I discuss analogy and its effect on language change.

Anttila (2003: 425) renders the cognitive basis of analogy as an analogical grid consisting of two axes: a similarity axis and a contiguity axis (corresponding to the rhetorical notions metaphor and metonymy, or the semiotic notions iconicity and indexicality, respectively):

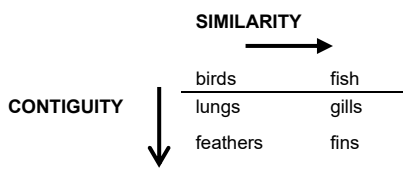

Figure 3.1
Analogy between birds and fish based on Anttila (2033: 425)

In Anttila's example, the relation between the lungs and feathers of birds is contiguous, as is the relation between the gills and fins of fish. On the other hand, the relation between lungs and gills is similarity based, as is the relation between fins and feathers as well as the relation between the two contiguous relations as such, that is, birds and fish. As argued by Itkonen (2005: 1–2), this similarity is function-based. It is the function of gills and lungs that generates the similarity of the two structures, not a similarity of the material.

Analogical reasoning is an abductive process. First, generalizations are inferred. These generalizations, in turn, allow us to deduce similarities between different observations and their parts (Itkonen 2005: 25–35). This can be illustrated in the following schematic figure:

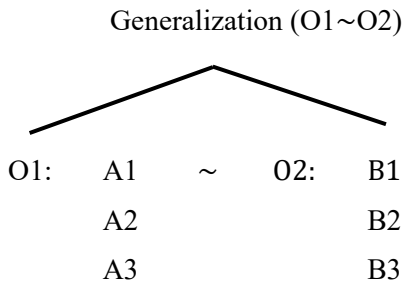

Figure 3.2
Schema for analogy

After the generalization O1~O2, the elements of O1 and O2 are perceived as similar. The internal structure of the observations is not pregiven, and as Itkonen (2005: 62) notes, this means that there are always several possible analogical links. This in turn implies that analogical structures are constantly susceptible to change.

Roughly put, analogical reasoning is a process whereby some perceived similarity creates more similarity. At the bare minimum, an analogy involves four elements: three knowns and one unknown:

Table 3.1
Schema for simple analogy

A1	B1
A2	?

? = B2

This schematic example illustrates how the entity "?" is assumed to be similar to A2 based on 1. similarity between A1 and B1, 2. contiguity between A1 and A2, and 3. the assumption of a similar contiguity relation between B1 and the cell "?" based on the similarity between A1 and B1 and contiguity between A1 and A2. This can be

illustrated with the regularization of the once irregular verb *fare* 'to rush' in Danish, which in analogy with regular verbs such as *vare* 'last' is undergoing regularization:

Table 3.2
Regularization of the Danish verb *fare*

	regular verbs, e.g., *vare* 'last'	***fare* 'rush'**
Present tense	*var-er*	*far-er*
Past tense	*var-ede*	?

? = *far-ede* (< *for*)

Such a schematization is a simplification, primarily because it is probably not a single verb that constitutes the analogical model in cases like the regularization of formerly irregular verbs, but rather clusters or categories of verbs. Evidence for this stems from frequency effects. It is often the most frequent conjugation class that acts as the analogical model, although frequency is not the only predictor (Bybee 2010: 61–64; 75).

Kiparsky (1974: 259) argues that analogy is too powerful a mechanism, because it would predict the well-formedness of analogies like *ear* : *hear* :: *eye* : ? with "?" being the ill-formed verb **heye*. However, as pointed out by Itkonen (2005: 73), the argument presupposes that each possible analogy will be made by speakers and result in new language structures. However, analogies only create potential patterns; they do not necessitate any linguistic change.

Furthermore, as pointed out by for instance Fischer (2003: 322), we also need to take into account the linguistic system in general, which includes competing constructions. Analogical reasoning obviously does not take place in a vacuum. If there already exists a well-entrenched construction, there must be a good reason to coin a new construction. Grondelaers & Geeraerts (2003: 74–75) speak of a "onomasiological cue validity" as the strength with which a given concepts calls for a particular expression. In the case of 'see', the probability of this concept activating the expression *see* in an appropriate context is probably too strong and hence it blocks coinage of the new lexeme **heye*, explaining its ill-formedness despite the potential for that analogy.

As argued by Anttila (2003: 426; cf. Paul 1995[1880]: §75; Itkonen 2005: Chapter 2; Fischer 2011: 38–39; De Smet & Fischer 2017: 241), both the expression side and the content side of linguistic units can form part of the analogical grid. In other words, analogy can give rise to an increase in similarity of content and an increase in similarity of expression. This mean that it provides the cognitive basis for the existence of paradigmatic relations on the content level as well as on the expression level of linguistic structure. These will be discussed in turn.

3.2.2.1 Analogies creating similarity of expression

One example of formal change based on analogy has already been provided with the regularization of Danish *fare*. As pointed out by Bybee (2010: 69–71), such analogical levelling is not restricted to the morphological level, but can affect all types of paradigmatically related constructions. She argues that, over time, negation with *not* ousts older forms of negation, for instance with *no*, as illustrated in (3.5) and (3.6) (both from Bybee 2010: 69):

(3.5) …by the time they got to summer, there wasn't any more work to do.

(3.6) …by the time they got to summer, there was no more work to do

According to Bybee, this regularization is due to analogy with constructions where the negation *not* was already established.

Arguably, such expression analogies drive the paradigmatic integration of constructions. To illustrate this, take the paradigmatic integration of modal verbs. Throughout the history of Danish, new modal verbs analogically acquire new syntactic behaviour through paradigmatic integration. Modal verbs in Danish govern bare infinitives, which are not part of an AcI construction and express modal semantics (Brandt 1999: 22; 25; Boye 2001), that is, meanings relating to the meaning domain of necessity and possibility (Auwera & Plungian 1998) similar to other modal verbs like *kunne* ('can, be possible') and *skulle* ('must, be necessary').

Consequently, through paradigmatic integration, new modal verbs stop governing infinitives constructed with the infinitive marker *at* and begin governing bare infinitives instead. For instance, the verb *burde* 'ought to' has only recently been recategorized as a modal verb. In Early Modern Danish, *burde* combined with *at*-infinitives similar to non-modal verbs:

(3.7)

som	mig	well	**burde**	**att**	giør
as	me	VEL	**ought**	**to**	do

'as I **ought to** do'

(1587 GøjLet 396)

In Modern Danish, *burde* is recategorized as a modal verb. Consequently, it starts governing bare infinitives like other modal verbs:

(3.8)

Staten	**bør**	derfor	yde	et	bloktilskud.
the state	**ought**	therefore	provide	a	block grant

'The state **should** therefore provide a block grant.'

(KorpusDK)

Similarly, the verb *behøve* 'need' is about to be paradigmatically integrated in Modern Danish, where it exhibits variation as regards its governing behaviour. It can be combined with bare infinitives as well as infinitives with *at* (cf. Hansen & Heltoft 2011: 779):

(3.9)

Behøver	jeg	virkelig	(**at**)	tage	med	på	den	tur?
need	I	really	(**to**)	take	with	on	that	trip

'Do I really **need to** go with you on that trip?'

In these cases, *burde* as well as *behøve* express meanings relating to necessity similar to other modal verbs like *skulle* 'shall, must'. Based on this similarity, they are paradigmatically integrated and formally treated like other modal verbs.

3.2.2.2 Analogies creating similarity of content

The fact that there are cases clearly involving paradigm pressure on the expression side should cause us to expect something similar on the content side. Nevertheless, cases of analogies that create a similarity of content have received relatively little attention and are probably more controversial than their expression counterpart. This is likely so because there is most often a semantic-pragmatic motivation, which might explain the emerging new meaning feature as well. This is opposed to corresponding cases of expression convergence such as the ones just discussed. Given that the paradigmatic structure often is the only factor that motivates the emergence of such expression features, it is much less problematic to assume an analogical influence.

For instance, analogy and paradigmatic integration seem to be the only (or at least the most plausible) factors that can explain why new modal verbs begin to appear with bare infinitives as other modal verbs do, as discussed in the preceding section. It is more difficult to prove the role of analogy and paradigmatic integration when we consider that these same verbs also develop epistemic meanings (3.10) like other modal verbs, as this development can also be explained with reference to universal pathways of modal meanings (Bybee et al. 1994; van der Auwera & Plungian 1998):

(3.10) Det **behøver** ikke have noget at gøre med den nuværende retssag ved den engelske højesteret.

'It does not **need** to have anything to do with the current case at the English Supreme Court.'

(internet)

Because related constructions might undergo similar changes independently of each other as cases of convergent evolution, it is difficult to prove a decisive role of analogy and paradigms for semantic change. In other words, it might always be the case that similar source meanings and similar functional pressure lead to similar pathways.

The problem of assessing whether two changes correlate is also raised by Goldstein (2022: 660), who argues that this can be determined in a typological phylogenetic perspective where a correlation can be assessed statistically: "if the occurrence of one change impacts the rate at which a second change occurs, that is evidence for correlation". Goldstein's case study concerns the emergence of indefinite articles. It is well-known that the development of definite and indefinite articles is asymmetric: languages tend to develop definite articles before indefinite articles (cf. de Mulder & Carlier 2012: 524). Indeed, in his sample of 94 Indo-European languages, only 5 languages had only indefinite articles and no definite articles. Based on a Bayesian phylogenetic analysis of the development of articles, Goldstein (2022) provides evidence that the presence of definite articles significantly increases the probability and speed of indefinite articles emerging.

Similarly, De Smet et al. (2018) argue for a pervasive role of analogy for changes of the content of constructions. They argue that constructions sharing some similarity of expression tend to become more similar as regards their content, and they call this "attraction" (cf. Aaron 2016). De Smet et al. (2018: 207–211) illustrate attraction with the development of the constructions *begin* + V-*ing* and *begin* + *to*-infinitive. Originally, *begin* + V-*ing* implied agentivity. In contrast, the construction *begin* + *to*-infinitive is typically analysed as a raising construction and hence did originally not imply agentivity. Based on a historical corpus study, De Smet et al. (2018: 209) argue that the number of contexts in which *begin* + V-*ing* appears with non-agentive subjects increases due to analogy with *begin* + *to*-infinitive. Conversely, the authors argue that, throughout its development, the raising construction *begin* + *to*-infinitive becomes more strongly associated with agentive subjects. In other words, the two constructions become more and more similar.

In this dissertation, the main argument for analogies at the content pole will be a temporal one. If semantic changes are not paradigmatically related, we should expect changes to occur at random points of time. If changes are paradigmatically related, we might expect that they coincide temporally, or that the development of later developments can proceed faster than the earlier developments, as new

constructions can rely on analogy, which their predecessors could not. Of course, in this context 'fast' is a somewhat vague concept that is difficult to operationalize.

The development of the Dutch modal verbs illustrates this. Nuyts et al. (2022: 258) speak of a "a semantic 'unification' process" whereby the Dutch modal verbs develop a common modal semantics (Nuyts et al. 2022: 256). While one might still argue that this might be due to converging evolutions or possibly language contact (as has been pointed out to me by Sune Gregersen, p. c.), the case of *hoeven* 'need' is of particular interest in this connection. Nuyts et al. (2022: 257) argue that "the evolution happens helter-skelter: all modal and related meanings emerge more or less simultaneously, at the moment when the form arises as an auxiliary". Such an observation is difficult to explain based on universal pathways, because in such pathways, the meanings develop one after the other. If we allow for analogy and paradigm pressure to play a significant role, such an observation would be expectable, as reanalyses of the modal might be facilitated by analogy.

In addition to this, constructions developing into a paradigm develop similar meanings (cf. Section 2.8). This follows from the definition of paradigms as having a common semantic core. Nevertheless, it is peculiar, and it calls for an explanation. It can only be explained to a certain degree based on common source meanings and universal pathways. Rather, it is not unreasonable to assume that when one construction in such an (emerging) paradigm is reanalysed, it often drags other constructions with it, thus creating or maintaining a common semantic core. For instance, Nørgård-Sørensen et al. (2011: 14–15; cf. Nørgård-Sørensen 2006: 300–304) argue that the Modern Russian aspect suffix *-iva-* was originally part of an Old Russian paradigm, which contrasted an iterative *-iva-* with a non-iterative -Ø. This paradigm was reanalysed and changed into the Modern Russian verbal aspect paradigm, as illustrated in Table 3.3:

Table 3.3
Development of Old Russian iterativity paradigm to Modern Russian verbal aspect paradigm (based on Nørgård-Sørensen et al. 2011: 14–15)

Domain: V **Frame:** iterativity			**Domain:** V **Frame:** verbal aspect	
Expression	**Content**		**Expression**	**Content**
-Ø-	non-iterative		*-Ø-*	perfective
-iva-	iterative	>	*-iva-*	imperfective

The absence of *-iva-* no longer expresses non-iterativity, but expresses perfective aspect in analogy with and in contrast to the imperfective meaning of *-iva-*. The example illustrates that the semantic core of a paradigm can remain stable despite change, and that constructions in a paradigm can change in tandem.

3.2.3 Summary of reanalysis

In this section, I have discussed reanalysis. I have presented a syntagmatic and a paradigmatic mechanism for reanalyses: 1. contextually induced reanalysis where, over time, contextual features become associated with a construction and 2. analogy where the perception of some similarity between two or more constructions leads to the assumption of further similarities. Finally, I argued that analogy is the main mechanism driving paradigmatic integration and that this affects the content and the expression of constructions.

As a closing remark, it should be pointed out that the syntagmatic and the paradigmatic aspects of reanalysis are probably never quite as separated as the present discussion might have made them look. Arguably, a certain change might rather be either primarily based on one or the other. A reanalysis of a construction based on contextually induced meanings probably does not occur based on a single utterance token alone. Rather, it rests on pattern matching of a number of similar occurrences of a construction in similar contexts. In other words, such contextually induced change involves generalizations and hence analogy.

On the other hand, analogies are probably only very rarely based on the changing constructions alone. Instead, the basis for analogies are constructions in context. For instance, De Smet (2012) illustrates how the analogies that facilitate the process of actualization, that is, the spread of a reanalysed construction to new contexts, is based on the broader context of the actualized construction. For instance, De Smet (2012: 623) argues that the noun *key* was reanalysed as an adjective in contexts such as (3.11):

(3.11) The proposed wording of the possible agreement was given to Dr. Adenauer with certain **key** phrases.

Only gradually did the new adjective get rid of its contextual restrictions stemming from its nominal origin. Preadjectival use as in (3.12) bears more resemblance to the syntagmatic context of reanalysis as in (3.11), and therefore it occurs before predicative uses illustrated in (3.13) also from De Smet (2012: 623):

(3.12) He alienated a lot of very **key** political players in this town.

(3.13) Her confirmation was **key** because symptoms like the kind I had can be caused by other factors, too.

Thus, when I speak of analogically or contextually induced change in this dissertation, it should be kept in mind that this concerns only the primary cause of the reanalysis at hand and always involves other aspects as well.

3.3 Grammatical status and grammaticalization

This section discusses the notion of grammatical status and grammaticalization, focusing on the usage-based and functional approach proposed by Boye & Harder (2012) and Boye (2023).

The term 'grammaticalization' is usually attributed to Meillet (1921[1912]: 131), who uses it to describe "l'attribution du caractère grammatical á un mot jadis autonome". Since Meillet, grammaticalization has been connected to the idea of a loss of autonomy. The most prominent representative of this line of thought is Lehmann (2015[1982]: 130), who states that "the autonomy of a sign is converse to its grammaticality", meaning that the more grammatical a construction becomes, the less freedom the speaker has when using it (cf. Heine et al. 1991: 214).

Lehmann (2015[1982]: 132) argues that grammaticalization can be seen as "a complex phenomenon which is constituted by [six parameters] and has no existence independently of them". These six parameters can be seen as different aspects of the loss of autonomy. The parameters operate on the paradigmatic as well as the syntagmatic axis and concern whether a construction is obligatory, whether it has a fixed position, how much phonological and semantic weight it has, its scope and its bondedness with other constructions.[13]

Furthermore, it is generally assumed that grammaticalization is unidirectional (e.g., Lehmann 2015[1982]: 18; Heine et al. 1991: 4; Bybee et al. 1994: 12; Haspelmath 1999; Hopper & Traugott 2003: 99). This means that the change specified by Lehmann's parameters is assumed to progress only in one direction: no construction, once on its way to becoming a grammatical item, can regain autonomy. While there might be counterexamples (cf. e.g., the list in Campbell 2001: 127–28), these are rare, and unidirectionality remains valid as a strong tendency (Traugott & Dasher 2002: 87).

The traditional approach to grammaticalization, as represented by Lehmann (2015[1982]), has been criticized by Campbell (2001), who argues that the fundamental problem with seeing grammaticalization as a process *sui generis* is that all subprocesses characterizing it, that is, Lehmann's parameters, are also attested outside of grammaticalization. Lehmann's parameters or "criteria" (Lehmann 2015[1982]: 132) are neither sufficient nor necessary to define grammaticalization. Because these processes also characterize linguistic changes other than

[13] Since Lehmann (2015), several researchers have suggested that related and partly overlapping aspects are defining features of grammaticalization (cf. e.g., Heine et al. 1991; Hopper 1991; Bybee et al. 1994; Himmelmann 2004; Diewald 2002; 2020; Hopper & Traugott 2003; Nørgård-Sørensen et al. 2011; Traugott & Trousdale 2013). I will not discuss these in detail here.

grammaticalization, grammaticalization as conceived of by Lehmann, cannot be seen as a phenomenon in its own right.

3.3.1 Grammaticalization according to Boye & Harder (2012) and Boye (2023)

Boye & Harder (2012) express the same critique of traditional definitions of grammaticalization as Campbell does. Nevertheless, they hold that grammaticalization is a process *sui generis*. The main argument proposed by Boye & Harder (2012: 7) is as follows: all grammatical elements have one thing in common, namely conventional background status, also referred to as discourse-secondary and ancillary status. This is opposed to lexical expressions, which have the potential to constitute foreground or discourse primary information. Based on this synchronic assessment of what it means for a construction to be grammatical, Boye (2023) then argues that what constitutes grammaticalization is the conventionalization of background status. Because this feature is unique to grammatical elements, grammaticalization can be regarded as a process *sui generis*. In the remainder of this section, I first discuss grammatical status from a synchronic perspective based on Boye & Harder (2012). Afterwards, I discuss grammaticalization based on Boye (2023).

3.3.1.1 Grammatical status as conventional background status

As Boye & Harder (2012: 9) see it, attention is a universal cognitive phenomenon. Incoming information (be it linguistic or non-linguistic) always needs to be prioritized in terms of what deserves attention and what does not. Just as other conceptual domains can be structured in particular ways in languages (cf. time vs. tense), so can attention. Grammatical status is then seen as conventional background status of the meaning of a construction (Boye & Harder 2012: 7). It instructs the addressee that the meaning of a construction is ancillary relative to its syntagmatic context. This means that the distinction between lexical and grammatical expressions pertains to a difference of what can*not* be prominent; it does not specify what construction will be prominent. This can be illustrated with (3.14):

(3.14) John is gonna call her.

John, call and *her* are lexical; they can form the main point of the utterance, for instance, if the question under discussion is who is calling whom, or what John did. On the other hand, the auxiliaries *is* and *gonna* are grammatical and are therefore necessarily backgrounded. They only provide ancillary information. Therefore, the

utterance cannot provide a felicitous answer to a question addressing when John will call someone, even though this is part of the meaning of the auxiliary.

Based on the feature of conventional background status of grammatical expressions, the authors develop diagnostics or criteria for the identification of grammatical elements. Because grammatical expressions are conventional background, and because focalizability and addressability presuppose prominence, grammatical constructions cannot be focused or addressed in subsequent discourse. A construction cannot be conventionally backgrounded information and at the same time be foregrounded by, for instance, focus constructions.

Boye & Harder (2012: 15–16) illustrate these diagnostics with the English auxiliary *gonna* and the verb *kill*. Examples (3.15) and (3.16) demonstrate that the grammatical *gonna* cannot be focused, as opposed to the lexical *kill* (3.18) and (3.19), and (3.17) illustrates that *gonna* cannot be addressed, as opposed to the lexical *kill* (3.20). Fully capitalized words represent stress:

(3.15) *How Jones is calling her tomorrow is gonna.

(3.16) Jones is GONNA call her tomorrow.

(3.17) Jones is gonna call her tomorrow. – *how (gonna)?

(3.18) I'll KILL anyone who insults my mother

(3.19) What I want is to kill him.

(3.20) I am fully prepared to kill. – how?

(all examples from Boye & Harder 2012: 15–16)

Neither example (3.16) nor (3.17) is necessarily ungrammatical. However, as pointed out by Boye & Harder (2012: 15), *gonna* in (3.16) can only be read as bearing contrastive stress. A contrastive context does not mark the linguistic unit as foreground in relation to its syntagmatic context but instead highlights the linguistic choice in a paradigmatic context. Similarly, *how* in (3.17) cannot address the grammatical *gonna* but only the lexical verb *call.* Therefore, the grammaticality of these utterances under specific circumstances does not constitute an exception, Boye & Harder (2012: 17) argue.

Messerschmidt et al. (2018: 92–93) add a third diagnostic, arguing that modification presupposes attention. Therefore, non-modifiability is assumed to be indicative of grammatical status. This can be illustrated using the focus marker *secretly*, which can modify and scope over a lexical verb like *kill* (3.21), but not a grammatical verb like *gonna* (3.22):

(3.21) I am secretly prepared to kill him.

(3.22) I am secretly gonna call her tomorrow.

In (3.22), *secretly* cannot be analysed as modifying *gonna*. As pointed out by Boye (2023: 6), modification of the future meaning with *secretly* might also be impossible due to semantic incompatibility. However, the point is, he argues, that modification is never possible for structural reasons. Whether or not this argument is convincing, this observation highlights another problem: the modifiability test depends on semantically adequate modifiers, which for meanings typical of grammatical constructions are not always readily available.[14]

Finally, Boye (in prep.) adds another criterion, namely "the dependency criterion" according to which grammatical constructions cannot constitute an utterance on their own. It is motivated by the fact that it would be infelicitous to employ a construction alone if part of the meaning of that construction is its ancillary status relative to another construction. However, he points out that this criterion is weaker than the others, as there also exist lexical constructions that cannot form an utterance on their own.

There are further empirical or methodological challenges with the tests. For instance, Boye & Harder (2012: 16) point out that there are structural factors, unrelated to grammatical or lexical status, which may render the results of the tests unacceptable. For instance, in a language like English, focus constructions cannot operate on affixes.[15] Boye (in prep.) therefore suggests that a positive result for one of the tests suffices to qualify the construction at hand as lexical whereas a negative result does not necessarily lead to the opposite conclusion.

Even more serious for a historical analysis, that is, an analysis based on the surviving textual record, is the fact that it is particularly difficult to apply the diagnostics to historical material (cf. Traugott & Trousdale 2013: 105; Petré & Van de Velde 2018: 871). This has to do with the fact that all of Boye & Harder's (2012) diagnostics are negative tests. Assessing grammatical status is based on judgements of unacceptability, which, in principle, requires native speaker intuitions. A corpus cannot provide negative evidence the way intuitions can. Even if we disregard the theoretical problem of negative evidence and assume that absence in a well-balanced corpus equates with unacceptability (cf. Stefanowitsch 2006), the problem remains acute in historical corpora because these are typically highly skewed and often contain only a few instances of a given construction. It is thus difficult to

[14] However, the fact that languages do not develop such modifiers of grammatical constructions can be explained based on Boye & Harder's account. There is no functional motivation for such modifiers to develop, as these constructions cannot be modified in the first place.

[15] As was the case with unavailability of modifiers for grammatical expression, the absence of focus constructions for affixes can be motivated by the fact that affixes are grammatical or at least tend to be so.

pinpoint the historical point of grammaticalization and thereby investigate how other changes relate to this transition. This is of course not a problem with the theory as such, but it is rather methodological in nature.

Nevertheless, while the approach of Boye & Harder (2012) has its challenges, there are at least two major arguments for it:

1. The criteria for determining whether a linguistic unit has grammatical status are clear, targeting only grammatical constructions, rather than also targeting lexical constructions that might have undergone changes typical of grammatical constructions such as univerbation.
2. The validity of these criteria has been corroborated by psycho- and clinical linguistic evidence (e.g., Ishkhanyan et al. 2017; Messerschmidt et al. 2018; Boye et al. 2019; Boye et al. 2023).

Finally, it is worth mentioning that grammatical status, as defined in Boye & Harder, does not discriminate between construction types. It implies that every type of construction capable of acquiring conventional discourse-secondary status can be classified as grammatical. This encompasses both substantial and schematic constructions such as word order templates (Boye & Harder 2012: 18).

3.3.1.2 Grammaticalization as conventionalization of background status

Based on the synchronic distinction between grammatical and lexical constructions proposed by Boye & Harder (2012), Boye (2023) defines grammaticalization as the conventionalization of a meaning with background status.

Unlike most mainstream approaches that see grammaticalization as a gradual process encompassing many subprocesses (e.g., Lehmann's parameters), grammaticalization in this approach becomes only a subprocess of a more encompassing language change. Boye (2023: 12) illustrates this with the following summary of the development of *gonna*:

Stage n: *go* – *I am going.*

Step 1: > + purposive INF – *I am going (in order) to buy some apples.*

Emergence of discursively secondary 'future' inference

Stage n+1: *going to* + INF – *I am (soon) going to buy some apples.*

Step 2: > Conventionalization of discursively secondary 'future' meaning

Stage n+2: *going to* + INF – *It's going *(in order) to rain.*

Step 3: > Phonological reduction

Stage n+3: *gonna* + INF – *It's gonna rain.*

Figure 3.3
Grammaticalization of *gonna* with related changes (Boye 2023: 12)

Importantly, there are often preceding changes of content or expression associated with a construction that eventually is grammaticalized. In the case of *gonna*, this includes a new collocation pattern with purposive infinitives, which gives rise to contextual future or proximative meanings. The crucial point is that, as long as these preceding changes do not involve the conventionalization of background status, no grammaticalization is involved. We can speak of grammaticalization only at a later stage (Step 2 in Figure 3.3) when the discourse-secondary meaning becomes conventionalized. Grammaticalization thus conceived does not include any subsequent changes that the construction might undergo either, such as the phonological reduction to *gonna*.

Boye & Harder (2012: 23) argue that the driving mechanism in grammaticalization is "the competition for discourse prominence". In every utterance, only some units can have discourse prominence. When a linguistic unit continuously is processed as background information, the contextual background status may eventually be reanalysed as an inherent, conventional, aspect of the expression. This makes grammaticalization a case of hypoanalysis in Croft's (2000: 126, cf. Section 3.2.1) words, where a contextual feature is reanalysed as a conventional feature.

Grammaticalization can be studied in an analysis of the lexical or grammatical status of a construction across time. If it can be shown that a construction was lexical at one point in time and later became grammatical, we must assume that the change at hand involves grammaticalization. This can be demonstrated using the diagnostics to show that a construction exhibited behaviour such as modifiability at one stage but not at a later stage (cf. Boye 2024: 597–601).

Closing on a terminological note: since most grammaticalization literature (e.g., Lehmann 2015[1982]; Heine et al. 1991; Hopper & Traugott 2003; Heine & Kuteva 2003; 2008) refers to grammaticalization as a change that includes changes preceding and following the conventionalization of grammatical status, I will occasionally use *grammaticalization in its broad sense* to refer to this line of thought.

3.3.2 Constructional background slots and their role for grammaticalization

Boye & Harder (2021) argue that certain constructional slots can develop in a language that indicate that the material placed there is background information. Importantly, the filler constructions placed in such constructional slots are not necessarily themselves grammatical elements. Rather, it is the constructional slot that instructs the addressee that the element placed there must be processed as background information despite the construction occupying the position potentially being lexical. Such background slots can thus be seen as the converse of focus constructions. I first discuss this from a synchronic point of view and afterwards discuss a diachronic effect of such constructional slots.

An example of such constructional background slots in English is the sentence medial position for sentence adverbials. Boye & Harder (2021: 19–11) argue that sentence adverbials like *probably* are not necessarily grammatical. However, they become marked as background when they are placed in a background slot (the position between subject and finite verb or the first post-verbal position). The following illustrates that they cannot be addressed in subsequent discourse:

(3.23) A: He **probably** went away.
B: Really? (*'really, probably?')

(Boye & Harder 2021: 10)

Boye & Harder argue that the fact that the sentence adverbials are discourse secondary in these utterances is solely due to the constructional slot rather than to features of the sentence adverbials themselves. The sentence adverbials can be modified (3.24) and constitute an utterance on their own (3.25), which, as just discussed, are typical features of lexical status:

(3.24) very **probably**

(Boye & Harder 2021: 11)

(3.25) A: Did he go away?

B: **Probably**.

(Boye & Harder 2021: 11)

One might consider whether their analysis makes an erroneous prediction regarding the modifiability of constructions in such constructional background slots. Even when placed in such a slot, a sentence adverbial like *probably* can be modified:

(3.26) He **very probably** would not be able to leave and have the time to go there as this comes to a head.

(internet)

If modifiability is regarded as a diagnostic of lexical status, one might not expect that a construction placed in a constructional background slot or position should be modifiable. However, in that case, it is probably the whole construction of modifier and sentence adverbial that is marked as background. In other words, the instruction that what is placed in the constructional background slot is background information could be said to apply after modification.

Boye & Harder (2021: 11) suggest a model where such constructional slots for backgrounded material can give rise to the grammaticalization of material that is often placed there. Over time, the association between a filler construction and the meaning contribution of the constructional background slot can be reanalysed as a conventional part of the filler construction, resulting in its grammaticalization.

Boye & Harder (2021: 8–10) illustrate this with complement-taking predicates. These can be used parenthetically and be placed in the same background field as sentence adverbials. While such parentheticals need not be conventionalized or grammaticalized, this can be the outcome of an association of the construction with the background meaning of the constructional slot. Boye & Harder (2021: 4) argue that this process led to the German epistemic adverb *glaub* from a parenthetically used matrix clause *glaube ich* 'I think'.

3.3.3 Summary of grammaticalization

In sum, in this section, I have discussed grammaticalization. As a representative of the mainstream stance on grammaticalization, I have briefly discussed Lehmann (2015[1982]) and his parameters of grammaticalization. As pointed out by Campbell (2001), such traditional accounts of grammaticalization have brought interesting correlations to light, but grammaticalization cannot be considered a process *sui generis* if it is only understood relative to such parameters.

I have then presented an alternative account of grammaticalization, namely the one proposed by Boye & Harder (2012) and Boye (2023). According to Boye (2023), grammaticalization is the conventionalization of discourse-secondary or background status. This means that grammaticalization is only a subprocess of a bigger line of development. I have pointed out that the theory faces empirical challenges in a historical account. Nevertheless, I will base my assessment of the development of the modal particles as regards their lexical or grammatical status and grammaticalization on Boye & Harder's theory.

Finally, I discussed constructional background slots based on Boye & Harder (2021). These are positions within a clause or construction that indicate that the filler constructions placed there convey background information. Thereby, they can facilitate grammaticalization of the filler construction. In Section 4.1, I will argue that Danish has had such a constructional background slot throughout its history, and in Section 10.4, I will argue that it may have played a decisive role in the development and grammaticalization of the modal particle paradigm.

3.4 Language contact, borrowing and contact-induced grammaticalization

When explaining linguistic changes, it is common to distinguish between external factors such as language contact and internal factors such as the pragmatically and analogically conditioned reanalyses discussed in Section 3.2. In this section, I first briefly discuss some general aspects of language contact, and afterwards, I discuss contact-induced grammaticalization.

3.4.1 Borrowing and pivot matching

When speakers of different languages or language varieties are in contact with each other, a situation of language contact emerges. One of the outcomes of such situations are linguistic *borrowings*. Haugen (1950: 213; cf. Haspeltmath 2009: 36) defines borrowing in the following way:

> The attempted reproduction in one language of patterns previously found in another.

Some construction types seem to be more easily borrowed than others. For instance, syntactically weakly integrated discourse markers are much more prone to being borrowed than word order templates (cf. e.g., Matras 2007). Nevertheless, all construction types are in principle borrowable (cf. Campbell 1993: 104; Harris & Campbell 1995: 149).

As regards the borrowed material, a fundamental distinction has been made between *matter* and *pattern replication* (e.g., Matras & Jakel 2007: 829–30; *material* and *structural borrowing* in Haspelmath 2009: 38, *borrowing* and *replica* in Heine & Kuteva 2008: 59). The former covers the borrowing of substantial constructions (e.g., loanwords) while the latter refers to the transfer of other patterns such as polysemy patterns (or calques), word order templates or other structures.

Pattern replication happens through so-called *pivot matching* (Matras & Sakel 2007: 830). Matras & Sakel argue that, in pivot matching, speakers identify a common structure of similar constructions of the languages that are in contact. This is called a pivot. Based on this common feature, other features are integrated.

Thus conceived, pivot matching can be understood as an inter-language analogy. Speakers (consciously or not) identify a structure in the model language and replicate an analogical structure in the recipient language. Based on the relation between x and y in a model language M and based on the similarity between x in the model and the recipient language R, y in the model language is analogically extended to the recipient language. Schematically, this can be illustrated as follows:

Table 3.4
Analogical pattern underlying pivot matching

M(x)	R(x)
M(y)	R(?)
	? = y

The feature x corresponds to the pivot in Matras & Sakel's terms.

Matras & Sakel (2007: 835) illustrate pivot matching using Macedonian Turkish, where an infinitive complement of modal verbs is substituted with a finite clause similar to the pattern in the other Balkan languages:

(3.27) istiyor git-sin
want.3SG go-3SG.SUBJ
'He wants to go.'

(example and translation from Matras & Sakel 2007: 835)

Matras & Sakel argue that the change is as follows: in the Balkan languages, the so-called modal clauses are finite and introduced by a modal complementizer. In Standard Turkish, they are non-finite. Through pivot matching with the Balkan languages, the Macedonian Turkish subjunctive is extended to modal clauses. This extension is made possible by the identification of one or more pivot features. In the present case, the Turkish subjunctive is finite, which makes it similar to the modal clauses of the Balkan languages. Furthermore, there is semantic contiguity between

the subjunctive and the context of the modal clause (semantic dependence upon the matrix clause), which makes it similar to the content of the modal clauses of the Balkan languages.

3.4.2 Contact-induced grammaticalization

Heine & Kuteva (2003: 556; 2008) argue that so-called contact-induced grammaticalization follows the same (internal) mechanisms as other cases of grammaticalization in the traditional broad sense. However, this change is triggered by a foreign model. In other words, this framework breaks down the dichotomy between internal and external factors in explanations of language change (see also Fischer 2007: 30–37).

While Heine & Kuteva (2003: 556–61) recognize that some cases where grammatical structure is replicated in a recipient language probably can be accounted for as grammatical calquing, that is, the reproduction of a foreign polysemy structure, they argue that the calquing approach often falls short for the following reasons:

1. The polysemy structure is often not copied perfectly. For instance, while the Basque numeral 'one' *bat* has developed into an indefinite article under the influence of the Roman indefinite article *un(e)*, the Basque indefinite article is not identical to the Roman indefinite article but more restricted in its usage.
2. There are intermediary stages that are typical of grammaticalization chains.
3. In accordance with typical cases of grammaticalization, the new grammatical element in the recipient language undergoes reduction of its expression vis-à-vis its lexical counterpart within the recipient language, as for instance, some future tense markers in the Balkan languages.
4. Like other grammaticalization processes, contact-induced grammaticalization tends to be unidirectional, that is, lexical elements develop grammatical meanings under the influence of a foreign model, but typically not *vice-versa*.

While I think that the general idea behind Heine & Kuteva's account is very plausible, the wording of the mechanism implies teleology as in the following characterization of the "ordinary contact-induced grammaticalization" (2003: 533):

a. Speakers of language R notice that in language M there is a grammatical category Mx.

b. They develop an equivalent category Rx, using material available in their own language (R).

c. To this end, they draw on universal strategies of grammaticalization, using construction Ry in order to develop Rx.

d. They grammaticalize construction Ry to Rx.

In what Heine & Kuteva (2003: 539) call "replica grammaticalization", this is even more pronounced, differing from the ordinary type only in c.:

c. To this end, they replicate a grammaticalization process they assume to have taken place in language M, using an analogical formula of the kind [My > Mx] = [Ry > Rx].

Despite the unfortunate wording (e.g., "to this end", "they assume to have taken place"), it should be noted that Heine & Kuteva (2003: 533) point out that no consciousness needs to be active and that the changes can take several generations.

I expect that foreign material might be taken as the basis for analogical reasoning in much the same way as native language material can (cf. Section 3.1.2) as soon as it is part of speakers' competency. Foreign material might thus facilitate analogy-based reanalysis and in that way initiate semantic changes and grammaticalization in the broad sense.[16] Because conscious decisions are not a necessary feature of analogies, but analogies can happen spontaneously and involuntary, no teleology is implied.

[16] Note that, in the definition of grammaticalization provided in Section 3.3, the introduction of a foreign grammatical construction still counts as grammaticalization as it involves the conventionalization of a meaning with background status (Boye 2023: 11).

4 Modal particles

The purpose of this chapter is to provide an overview of the structure of modal particles in Modern Danish and to review previous analyses of the development of modal particles. I first discuss the Danish modal particles from a synchronic perspective. To do so, I need to introduce some general aspects of Danish word order. I focus on the middle field, as this constitutes the encompassing structure for modal particles. This will be done in Section 4.1. In Section 4.2, I discuss the modal particle paradigm and its internal structure in Modern Danish. In Section 4.3, I review the literature on the development of modal particles. Because relatively little research has been done on the development of Danish modal particles, this section will draw from research on the development of the German modal particles.

4.1 Aspects of the topology of Modern Danish

This section deals with some of the aspects of Modern Danish word order that are of relevance to modal particles. Obviously, this section can only give a superficial introduction. Where details are less important, I provide simplified accounts. I focus on the Modern Danish structure because this can also account for most clauses in Early Modern Danish where the first modal particles emerge. Below I will discuss in what ways the older stages of Danish topologically differ from Modern Danish.

In Modern Danish, there are three major sentence frames (cf. Hansen & Heltoft 2011: 1563–80): a declarative, a non-declarative and a neutral sentence frame. The first two of these share the same word order template and express illocutions, while the third is seen as neutral as regards the illocution of the clause. The neutral sentence frame is governed by subordinators and subjective particles.

Focusing only on the most important aspects for now, the word order of declarative clauses can be characterized as follows: the element in the first position serves a text-structuring function and is referred to as the pre-field. There are only few construction types that are disallowed in the pre-field, among them the finite verb, negation and modal particles. Next, the finite verb (V_{fin}) appears, which is followed by the subject (S), then sentence adverbials (SA), including modal particles. These are followed by free adverbials (FA), that is, adverbials of time, place and manner, which are not governed. The positions following the finite verb constitute the middle

field. This is followed by the infinite verb (V_{inf}) and the post-field, which includes a position for nominals such as direct and indirect objects as well as predicates (N) and a position for adverbials (A):[17]

Table 4.1
Declarative word order (simplified)

(4.1)

pre-field		middle field				post-field	
X	**V_{fin}**	**S**	**SA**	**FA**	**V_{inf}**	**N**	**A**
Derfor	har	Bo	desværre	allerede	sendt	brevet	hjem.
therefore	has	Bo	unfortunately	already	sent	the letter	home

'Therefore, Bo has unfortunately already sent the letter home.'

This word order template is also used in the non-declarative sentence frame. If the position preceding the finite verb is left empty, the clause expresses non-declarative clauses and can be used for interrogatives and imperatives:[18]

Table 4.2
Non-declarative word order (simplified): interrogative clause

(4.2)

pre-field		middle field				post-field	
X	**V_{fin}**	**S**	**SA**	**FA**	**V_{inf}**	**N**	**A**
	Har	Bo	måske	allerede	sendt	brevet	hjem.
	has	Bo	perhaps	already	sent	the letter	home

'Did Bo perhaps send the letter home already?'

Table 4.3
Declarative word order (simplified): imperative clause

(4.3)

Pre-field		middle field				post-field	
X	**V_{fin}**	**S**	**SA**	**FA**	**V_{inf}**	**N**	**A**
	Send					brevet	Hjem.
	send					the letter	home

'Send the letter home!'

Such clauses can be preceded as well as followed by interjectionals like *for fanden* 'damn it'. These are placed in the position for interjectionals in the left and right periphery of the clause (cf. Hansen & Heltoft 2011: 1621):

[17] These positions can be grouped into fields in various ways, for instance based on semantic or syntactic grounds (cf. Diderichsen 1966: 57 and Hansen & Heltoft 201: 1582). I only refer to these fields for ease of reference.

[18] According to Hansen & Heltoft (2011: 1578), the sentence frame for imperatives is only superficially similar to the interrogative sentence frame, as a finite verb in the imperative never allows for any sentence constituent in the position preceding the finite verb except for a couple of adverbials like *bare* 'just': **bare** løb! '**just** run'. However, the details of this analysis are not relevant for present purposes.

(4.4)

For fanden,	Bo	har	allerede	sendt	brevet	hjem.
for the devil	Bo	has	already	sent	the letter	home

'**Damn it**, Bo has already sent the letter home.'

(4.5)

Bo	har	allerede	sendt	brevet	hjem	**for fanden**.
Bo	has	already	sent	the letter	home	**for the devil**

'**Damn it**, Bo has already sent the letter home.'

(4.6)

For fanden,	har	Bo	allerede	sendt	brevet	hjem?
for the devil	has	Bo	already	sent	the letter	home

'**Damn it**, did Bo send the letter home already?'

The neutral sentence frame is structurally very similar. In the neutral frame, the finite and infinite verbs are placed together. The other constituents have the same relative order as they do in declaratives and interrogatives. As finite and infinite verbs are adjacent, the neutral template consists of only two fields, a middle field and post-field:

Table 4.4
Neutral word order (simplified)

(4.7)

	middle field					post-field	
	S	**SA**	**FA**	**V_{fin}**	**V_{inf}**	**N**	**A**
[Han siger at]	Bo	desværre	allerede	har	sendt	brevet	hjem
[he says that]	Bo	unfortunately	already	has	sent	the letter	home

'He says that Bo unfortunately already has sent the letter home.'

Both sentence frames can be preceded by conjunctions such as *at* 'that' in (4.7).

In the remainder of this section, I will discuss the relative order of constituents in the middle field in more detail. The first position in the middle field is the position for subjects. In declarative and non-declarative clauses that do not contain an infinite verb, a group of light pronouns and adverbs can appear adjacent to the subject (cf. Hansen & Heltoft 2011: 1637–41). In the following example, two object pronouns and the light locative adverb *der* follow the subject *han* 'he' and precede the sentence adverb (and modal particle) *jo*:

(4.8)

Derfor	gav	han	**hende**	**den**	**der**	jo	ikke.
therefore	gave	he	**her**	**it**	**there**	JO	not.

'Therefore, he did JO not give **it to her there**.'

The category of light pronouns and light adverbs is not productive (Hansen & Heltoft 2011: 1641). Other adverbs than *her* 'here' and *der* 'there' cannot be placed in the position for light adverbs even though they might be as phonologically light as these.

Jørgensen (2014: 108; 2019: 368–69) argues that focused adverbials can precede other adverbials including modal particles. This position is adjacent to the position for light pronouns and adverbs. He cites examples like the following where the adverbial *af den grund* 'for that reason' precedes the modal particle *jo*:

(4.9)

Og	der	bliver	**af**	**den**	**grund**	jo	i	disse
and	there	become	**for**	**that**	**reason**	JO	in	these
år	uddelt		både	lussinger		og	mavepumper	
years	handed out		both	slaps		and	belly punches	
til	klubberne.							
to	the clubs							

'And **for that reason**, both slaps and belly punches are JO being handed out to the clubs these days.'

(Jørgensen 2014: 108)

It is probably more adequate to speak of the information structural function of this position as foregrounding rather than focus, as the latter term would imply that constructions appearing in this position could be in the scope of focus operators like negation. However, proposition operators like the epistemic *naturligvis* 'of course' cannot be focused. Nevertheless, they occur in this position:

(4.10)

Nu	taler	jeg	**naturligvis**	jo	ikke	om	at
now	speak	I	**of course**	JO	not	about	to
straffe	nogen	som helst,		der	ikke	har	
punish	anyone	at all		who	not	has	
gjort	sig	skyldig	i	nogen	form	for	lovovertrædelse
made	self	guilty	in	any	form	of	offense

'**Of course**, I am JO not talking about punishing anyone who has not committed any kind of offense.'

(internet)

After this foregrounding position, sentence adverbials occur (e.g., *jo* in (4.10)). Within the position for sentence adverbials, modal particles precede other sentence

adverbials. For instance, the modal particle *jo* precedes the sentence adverbial *desværre* 'unfortunately':

(4.11) Det tager **jo** desværre kun 24 minutter at gennemføre en komplet træning
It takes **JO** unfortunately just 24 minutes to complete a complete workout

'Unfortunately, it **JO** only takes 24 minutes to complete a full workout.'

(internet)

Following sentence adverbials, we find a position for free adverbials, negation and other focus operators. Their internal position is determined by information structure. As pointed out by Heltoft (2003: 64–66; Hansen & Heltoft 2011: 1748–56), free adverbials can both precede and follow the negation. When they precede the negation, they are marked as backgrounded information:

(4.12) Man har **på nuværende tidspunkt** ikke ønsket at afhøre departementschefen.
one has **at current point of time** not wished to interrogate the head of department

'**At this point in time**, there has been no wish to interrogate the head of department.'

(Hansen & Heltoft 2011: 1749)

If free adverbials follow negation, they are marked as focus and in the scope of the negation:

(4.13) De får ikke **på denne side af jul** gjort det mindste ved sagen.
they get not **on this side of Christmas** done the smallest at the case

'They will not do a thing about the case **before Christmas**.'

(Hansen & Heltoft 2011: 1750)

The relative order of middle-field constituents in Modern Danish can be summarized as follows:

Table 4.5
Modern Danish middle field

middle field							
subj	**light pron. and adv.**	**fore-grounded adverbials**	**modal particles**	**sentence adverbials**	**back-grounded free adverbials**	**neg. and other focus operators**	**focused free adverbials**

There are some exceptions to this generalization. For instance, Jørgensen (2014: 96; 1996) argues that subjects can follow modal particles (especially in narrative texts):

(4.14)

I	byerne	har	jo	**alle**	**husene**	hver	sin	lille
in	the towns	have	JO	**all**	**the houses**	each	their	little

have.
garden

'In the towns, **all the houses** have JO their own little garden.'

(Jørgensen 2014: 96)

According to Heltoft (1992: 49–50; 2003: 62; Hansen & Heltoft 2011: 1746–47), this construction is a way to make the subject rhematic or focusable, similar to what is the case with free adverbials. Indeed, Heltoft (2003) argues that the relative order of free adverbials vis-à-vis negation is a remnant of an older structure in Middle Danish, where the order of constituents within the middle field was determined by their information structural status rather than by their syntactic functions (cf. Westergaard 2024 for a discussion). I will close this section with a brief discussion of this predecessor structure.

The Middle Danish middle field was structured around negation as a pivot. Whatever preceded negation was marked as backgrounded information and everything following it as focus. Thus, according to Heltoft (2019c: 162), in (4.15), the subject *eld* 'fire' is focused because it follows negation. In (4.16) *bondanum* 'landowner' is coded as background, while the direct object *mera schatha* 'greater harm' is focused (examples and translations from Heltoft 2019c: 162):

Table 4.6
Middle Danish word order

(4.15)

pre-field	**V_{fin}**	**middle field**			**V_{inf}**	**post-field**
		background	**negation**	**focus**		
thænnæ steen	ma		æi	eld	skathæ	
this stone	can		not	fire	harm	

'Not even fire can harm this gemstone.'

(4.16)

pre-field	V_{fin}	middle field			V_{inf}	post-field
		background	negation	focus		
han	giorthe	bondanum	æy	mera schatha		j thy af hoggi
he	did	the landowner-OBJ	not	greater harm		in that cut

'He did not cause a greater loss to the landowner in this cut.'

As I will argue in Chapter 7–9, the oldest modal particles begin to emerge in the 16th century. To my knowledge, there is no comprehensive account of the topology of this period. According to Heltoft (2014: 109; 2019a: 139–142), there are still remnants of the old middle field structure in the 16th and 17th centuries, and texts from this period exhibit variation. However, in this period, the modern structure seems to become dominant.

Finally, as discussed in Section 3.3, certain positions can develop into constructional background slots, which indicates that the constructions placed there convey background information. Like Boye & Harder (2015: 50; 2021), I regard Heltoft's background field as such a constructional background slot, that is, with the exception of the position for foregrounded adverbials, everything preceding negation is topologically marked as background.

4.2 The Danish Modal Particles

This section discusses the structure of the modal particle paradigm in Modern Danish. In Section 4.2.1, I give an overview of previous research on the Danish modal particles. In Section 4.2.2 and 4.2.3, I present a characterization of the expression features of the Danish modal particles. In Section 4.2.4, I discuss the modal particle subparadigms.

4.2.1 Overview of previous studies

The aim of the present section is to provide an overview of previous research on the Danish modal particles. Several studies have analysed individual modal particles or aspects of their grammar (Harder 1975; Togeby 1979, Andersen 1982; Laureys 1982; Jacobsen 1992; Davidsen-Nielsen 1993; 1996; Jørgensen 1996; 2014; 2019, Jensen 2000; Durst-Andersen 1995; Therkelsen 2001; 2004; Heltoft 2005a; Krylova 2005; 2006; 2007; Mortensen 2006; 2008; Christensen 2007: Chapter 6 and 7; 2012; Engberg-Pedersen 2009; Engberg-Pedersen et al. 2019: 93–97; Hansen & Heltoft 2011; Theilgaard 2015; Panov 2020; Vies & Petersen 2022; Westergaard 2023a). Where relevant, these papers will be included in the following sections and chapters.

In addition, some of the modal particles have been analysed historically by Heltoft (2005b; 2019b), Jensen (2000), Westergaard (2021; 2023b; in press) and Westergaard & Boye (in press). These will be reviewed in Section 4.3.1.

The Danish modal particles have also been analysed in a translation perspective in relation to German (Wesemann 1980; 1981; Baunebjerg & Wesemann 1983; Voller 2002; Asmussen 2018), French (Sneskov 2008) and Japanese (Obe & Haberland 2019). In some studies, modal particles are discussed indirectly to shed light on other aspects of grammar, cognition, culture or similar (Durst-Andersen 2007; Christensen 2008; 2009ab; Mortensen & Mortensen 2012; Mortensen 2012b; Engberg-Pedersen & Boeg Thomsen 2016; Boeg Thomsen 2015; 2017; Krylova 2016). Additionally, a number of studies deal with modal particles using a conversation or discourse analytical approach or similar (Heinemann 2009; Heinemann et al. 2011; Scheuer 2012; Mortensen 2012a). Of these, only those studies that are of direct relevance to the present study will be referred to in what follows.

4.2.2 Expression features of the modal particle paradigm

The Danish modal particles are typically defined based on a number of expression features:

1. They are obligatorily unstressed.
2. They cannot be placed in the pre-field.
3. They can be placed in the position for modal particles.
4. They cannot constitute an answer on their own.

(e.g., Harder 1975: 106; Laureys 1982: 106; Davidsen-Nielsen 1996: 283–84, Mortensen 2006: 160–62; 2008: 134; Christensen 2007: 132–33; 143; Hansen & Heltoft 2011: 1062)

Even though several modal particles like *altså* and *ellers* are polysyllabic, the fact that modal particles tend to be monosyllabic is sometimes also mentioned as a feature of modal particles (cf. Davidsen-Nielsen 1996: 284).

The following examples illustrate these features. In (4.17), *jo* precedes the sentence adverbial *desværre* 'unfortunately'. In (4.18), *jo* is placed in the pre-field, in (4.19), *jo* is stressed (rendered with capitals), and in (4.20), *jo* constitutes an utterance on its own. The last three features make the clause ungrammatical:

(4.17)

Det	tager	**jo**	desværre	kun	24	minutter	at
it	takes	**JO**	unfortunately	just	24	minutes	to

gennemføre	en	komplet	træning.
complete	a	complete	workout

'**Unfortunately**, it only takes 24 minutes to complete a full workout.'

(internet)

(4.18)

***Jo**	tager	det	desværre	kun	24	minutter	at
JO	takes	it	unfortunately	just	24	minutes	to

gennemføre	en	komplet	træning.
complete	a	complete	workout

(4.19)

*Det	tager	**JO**	desværre	kun	24	minutter	at
it	takes	**JO**	unfortunately	just	24	minutes	to

gennemføre	en	komplet	træning.
complete	a	complete	workout

(4.20)

A	Det	tager	desværre	kun	24	minutter	at
	it	takes	unfortunately	just	24	minutes	to

gennemføre	en	komplet	træning.
complete	a	complete	workout

B ***Jo!**
JO

Example (4.20) is only ungrammatical if *jo* is interpreted as a modal particle. *Jo* has a homographic interjection that is not ungrammatical in this context.

These features distinguish modal particles from similar construction types. For instance, the negation *ikke* cannot be placed in the pre-field (4.21). However, as opposed to modal particles, negation necessarily follows sentence adverbials and can be stressed (4.22):

(4.21)

***Ikke**	tager	det	desværre	kun	24	minutter	at
not	takes	it	unfortunately	just	24	minutes	to

gennemføre	en	komplet	træning.
complete	a	complete	workout

(4.22) Det tager jo desværre **IKKE** 24 minutter at
it takes JO unfortunately **NOT** 24 minutes to

gennemføre en komplet træning.
complete a complete workout

'Unfortunately, it does **NOT** take 24 minutes to complete a full workout.'

Similarly, the pre-field criterion distinguishes modal particles from their non-modal particle heterosemes. For instance, the adverb *nu* can be placed in the pre-field when it expresses temporal meanings, but not when it is used as a modal particle:

(4.23) **Nu** kommer hun igen.
now comes she again

'**Now** she is back.'

(internet)

Researchers like Davidsen-Nielsen (1996: 284) and Hansen & Heltoft (2011: 1094) analyse *nok* as a modal particle also for those meanings where it can be stressed. For instance, in the following example, *nok* can be stressed:

(4.24) Vi to skal **nok** tilbringe et par hyggelige dage sammen.

'The two of us will **NOK** spend a couple of nice days together.'

(Hansen & Heltoft 2011: 1094)

However, there is a systematic difference between a *nok* that can be stressed and that expresses opposition as in (4.24) and the modal particle that expresses evidential meanings and cannot be stressed. I will only reckon with it as a modal particle for meanings where it is obligatorily unstressed. I will discuss this in more detail in Section 9.3.

Christensen (2007: 143) and Hansen & Heltoft (2011: 1063) argue that the relative order of modal particles is fixed. The relative order will be discussed in connection with the analysis of the modal particle subparadigms in Section 4.2.3, because content and word order interact.

As pointed out by Theilgaard (2015: 265), modal particles can appear with narrow scope and in that case form a constituent below clause level:

(4.25) [**Vel** i respekt for retsbevidstheden og skatteydernes
VEL in respect for sense of justice and taxpayers

tegnebog] har kommunen derfor sendt en regning
wallet has the municipality therefore sent a bill

til de unge mennesker.
to the young people

'[**VEL** out of respect for a sense of fairness and the wallets of taxpayers] the municipality has therefore sent a bill to the young people.'

(Theilgaard 2015: 265, bracketing in original)

It seems that such fronting and combination of modal particles and other constituents seems to be restricted to the combination of a modal particle with an adverbial, e.g., a PP. Other combinations such as modal particle and nominals like a subject or an object can apparently not form such fronted constituents:

(4.26) ***Vel** Per slår Bo.
VEL Per hit Bo

'**VEL** Per is hitting Bo.'

Because modal particles here appear at a lower level than the clause level, this is of less interest for the present purposes. Furthermore, the definitional criteria are unaffected by this, and I will therefore not discuss it any further.

Based on the discussed criteria, the Modern Danish modal particle inventory includes at least the following constructions (cf. Hansen & Heltoft 1146–1108):

(4.27) jo, sgu, skam, nu, så, da, nok, vel, vist, mon velnok, vistnok, altså, ellers, også, dog

Hansen & Heltoft (2011: 1070–72) include the particles *lige, bare, blot, gerne, endelig* and *kun*. However, apparently, these cannot appear in the modal particle position preceding sentence adverbials like *derfor* 'therefore':

(4.28) ?*tag **lige / bare / blot / gerne / endelig / kun** derfor en
take **LIGE BARE BLOT GERNE ENDELIG KUN** therefore a

kage til!
cookie to

'Just take another cookie!'

Consequently, they cannot be classified as modal particles. Arguably, they are focus particles (syntactically at least), which have the same distributional properties as negation (cf. Hansen & Heltoft 2011: 1048). Hence, I will not discuss them any further here.

Of the modal particles in (4.27), the following will be delt with in depth in this study:

(4.29) jo, sgu, skam, nu, da, nok, vel, vist

Arguably, these include the most central as well as the oldest modal particles or at least most of them. This is important, because one of the aims of the present study is to investigate the emergence of the modal particle paradigm as a whole.

4.2.3 Right periphery position for some modal particles

Mikkelsen (1975[1911]: §243), Hansen & Heltoft (2011: 1149), Jørgensen (2014: 110–11) and Engberg-Pedersen et al. (2019: 94) point out that a number of modal particles can be placed in the right periphery of the clause:

(4.30) jeg ser ikke noget galt i øre folder dyret er lige
I see not some wrong in ear folds the animal is equal

meget værd og smuk af den grund **jo**
much worth and beautiful for that reason **JO**

'I do not see anything wrong in the ear folds. The animal is just as valuable and beautiful for that reason **JO**.'

(Jørgensen 2014: 110)

(4.31) Så kom med **da**!
Then come along **DA**

'Come along **DA**!'

(Mikkelsen 1975[1911]: §243)

(4.32) Og så lå der i æsken 5 diamantlignende sten og
and then lay there in the box 5 diamond-like stones and

et gavekort på 5 diamanter, som jeg skal have puttet
a gift card for 5 diamonds that I shall have put

i ringen I MORGEN **sgu**!
in the ring tomorrow **SGU**

'And then in the box, there were 5 diamond-like stones and a gift card for 5 diamonds, which I am going to have put in the ring TOMORROW, **SGU**!'

(internet)

(4.33) Er han sløj, **mon**?
is he sick **MON**

'Is he sick **MON**?'

(Hansen & Heltoft 2011: 1149)

(4.34) Det har jeg prøvet mange gange før **skam**
that have I tried many times before **SKAM**

'I have tried that many times before **SKAM**.'

(Hansen & Heltoft 2011: 1149)

The following example illustrates the right periphery position for the modal particle *vel*:

(4.35) A: Jeg er også rigtig tilfreds, selvom jeg gruede lidt for at sy i voksdug.

B: Men det er ikke så svært **vel**....
But it is not so difficult **VEL**

jeg har syet hagesmækker af voksdug og synes det var helt ligetil

'A: I am really satisfied with it, even though I was nervous about sewing oilcloth.

B: But it is not that hard, **VEL**. I have sewn bibs with oilcloth and found it totally straightforward.'

(internet)

As I will discuss in Section 9.4.4, *vel* gives rise to a tag in negative clauses that is also placed in the right periphery. While it is difficult to rule out this meaning, in a

context such as (4.35), it is at best marginal. The context does not suggest that the speaker is seeking confirmation. Furthermore, the writer does not use a question mark or a comma to indicate phonological disintegration and interrogative intonation, which otherwise are typical for the tag *vel*.

This position does not seem to have spread to the whole paradigm. For instance, it is questionable whether the modal particles *nu*, *vist* and *nok* can occupy this position. At least, finding authentic examples of these modal particles being placed in this position is not easy:

(4.36)	?dyret	er	lige	meget	værd	og	smuk
	the animal	is	equal	much	worth	and	beautiful
	af den	grund	**nu/vist/nok**				
	for that	reason	**NU/VIST/NOK**				

The fact that some modal particles can be placed in the right periphery does not affect the definition of modal particles discussed in the previous section. I will offer a diachronic explanation of this position in Chapter 10.

4.2.4 The content of the modal particle paradigm and its subparadigms

In this section, I discuss the content of the Danish modal particle paradigm and its subdivision into subparadigms. There seems to be agreement about the general meaning contribution of modal particles. Harder (1975: 107) argues that modal particles express 'accompanying instructions' for how the proposition should be interpreted in relation to the communicative situation. Similarly, Andersen (1982) argues that the function of modal particles is to express how the proposition must be viewed in relation to the preceding utterance (Andersen 1982: 86; 93–94). Davidsen-Nielsen (1996: 285; similarly, Heltoft 2005a; Hansen & Heltoft 2011: 1037–38; Christensen 2007: 133–41) characterizes the function of the modal particles as 'interactive' pertaining to the production and comprehension process in communication and as relating to the point of view of the speaker and the hearer. The characterization as contextualization instructions in Section 2.6.2 aligns with these descriptions.[19]

[19] Similar characterizations of modal particles can be found in the German literature (Coseriu 1980: 205; Franck 1980: 252; Hentschel 1986: 31; Thurmair 1989: 94–95; Jacobs 1991: 141; Burkhardt 1994: 133; Ickler 1994: 404; Diewald 1997: 77; 2006: 417; Autenrieth 2002: 23; Waltereit 2006: 25).

The Danish modal particles have been subdivided in different ways. Davidsen-Nielsen (1996: 285–86) places them in two subcategories: 1. hearer-oriented modal particles (*jo, da, nu* and *skam*), which "reflect the speaker's reaction to what he believes is the hearer's conception of the state of affairs described in the proposition" (Davidsen-Nielsen 1996: 285), and 2. speaker-oriented modal particles (*nok, vel* and *vist*), which "reflect the speaker's conception of, or attitude to, his own knowledge of the state of affairs referred to" (ibid. 286). *Sgu* and *dog* are said to be neutral in their orientation. Similarly, Engberg-Pedersen et al. (2019: 95) subdivide the modal particles into those that express more than one point of view (*jo,* expressing agreement, and *da, nu, dog* and *skam*, expressing some kind of disagreement) and those expressing only one (*nok*, *vist*, *vel* and *sgu*).

Hansen & Heltoft (2011: 1046–64, cf. Christensen 2007: 143) correlate their semantic analysis with topological and other distributional facts. I will adopt their classification because it makes it clear that the individual modal particles can be divided into subparadigms with distinct expression features. Hansen & Heltoft (2011: 1049–62) reckon with four subparadigms, which are defined formally based on their position. They distinguish between 'phatic', 'proximal', 'evidential' and 'argumentative' modal particles. Phatic modal particles (*jo*, *sgu* and *skam*) express how the addressee is expected to react[20], proximal modal particles (*nu* and *da*) express identifiability and conflict with a contextually available proposition, argumentative modal particles (e.g., *ellers*, *også* and *altså*) indicate that the utterance is to count as an argument for or against another proposition or similar, and the evidential modal particles (*nok*, *vel* and *vist*) specify the information source (cf. Hansen & Heltoft 2011: 1049–62; in particular 1062). I will discuss the semantic aspects of this analysis in Chapter 7–9 and focus on their relative order here.

With rare and negligible exceptions (cf. Jørgensen 2014; 2019), the relative order of the Danish modal particles is as follows:

Table 4.7
The relative order of modal particles

modal particle position			
phatic modal particles	**proximal modal particles**	**argumentative modal particles**	**evidential modal particles**
jo, sgu, skam	*nu, da*	*altså, ellers, også*	*vel, nok, vist*

(cf. Hansen & Heltoft 2011: 1063; Jørgensen 2014; 2019)

The following examples illustrate this word order:

[20] This characterization only weakly fits *sgu*, which expresses emphasis or insistence (cf. Section 7.1).

(4.37) Og det er **jo da nok** rigtigt.
and that is **JO DA NOK** right

'And that is **JO DA NOK** true.'

(KorpusDK)

(4.38) Der røg **sgu da vist** en – en tyver.
there smoked **SGU DA VIST** a a tventy

'There went **SGU DA VIST** a – a twenty coin.'

(KorpusDK)

(4.39) Der er **nu altså nok** for lidt.
there is **NU ALTSÅ NOK** too little

'There is **NU ALTSÅ NOK** not enough.'

(Hansen& Heltoft 2011: 1063)

According to Christensen (2007: 143), the evidential modal particles appear before the argumentative modal particles. This possibility is also recognized by Hansen & Heltoft (2011: 1063–64), who illustrate that an evidential like *vistnok* and an argumentative modal particle like *ellers* can appear in any order:

(4.40) Han må **nu ellers vistnok** gerne være med.
he may **NU ELLERS VISTNOK** gladly be with

'He is **NU ELLERS VISTNOK** allowed to join.'

(4.41) Han må **nu vistnok ellers** gerne være med.
he may **NU VISTNOK ELLERS** gladly be with

'He is **NU VISTNOK ELLERS** allowed to join.'

In Section 10.3.2, I will provide a historical explanation for this variation.

Christensen (2007: 143, citing an unpublished manuscript by Lars Heltoft) also reckons with a fifth subparadigm including *bare* and *blot*, which she tentatively analyses as expressing 'simplicity'. According to Christensen (2007: 145), the meaning of these particles can be paraphrased as 'without difficulty' or 'without reservation':

(4.42) Man tænder **blot** for computeren og surfer ud på
one turn on **simply** for the computer and surf out on
Internet.
internet
'You **simply** turn on the computer and surf the Internet.'

Bare can occur in this context as well with the same meaning as *blot*.

Like the modal particles, *bare* and *blot* cannot be placed in the pre-field as illustrated for *blot*:

(4.43) ***Blot** tænder man for computeren
Simply turn on one for the computer

However, as already argued in Section 4.2.2, *bare* and *blot* are in fact not modal particles, but focus particles.

4.3 Development of modal particles

The aim of the present section is briefly to review prior research on the development of modal particles. In Section 4.3.1, I present the Danish research tradition on the development of modal particles. In Section 4.3.2, I review general hypotheses about the development of modal particles primarily stemming from the German research tradition. I close this chapter with a brief remark on the expected borrowability of modal particles in Section 4.3.3.

4.3.1 Prior investigations of the development of the Danish modal particles

The development of the Danish modal particles has not received much attention. Jensen (2000) investigates the development of a number of sentence adverbials and among these a number of modal particles, namely *dog*, the evidential modal particles *nok* and *vist*, and the argumentative modal particles *ellers* and *altså*, which indicate the argumentative status of the utterance. However, she does not distinguish between modal particles and other sentence adverbials, and it is the development of sentence adverbials in relation to their position in the middle field that is her main interest.

Jensen (2000: especially p. 188–99) analyses the development of the sentence adverbials including the modal particles based on the subjectification framework (cf. Traugott 1989: 34–35; Traugott & Dasher 2002). She discusses how the modal particles develop from having concrete to having more abstract meanings and from propositional to suprapropositional or non-propositional meanings, from textual to interpersonal meanings, and from objective to subjective meanings. Furthermore, she argues that these semantic changes correlate with topological and syntactic changes whereby adjectives are recategorized as adverbials and in turn as sentence adverbials and further as interjections.

The details of Jensen's (2000: 144–86) analysis of the development of the evidential modal particles *nok* and *vist* will be discussed in connection with my own analysis of these particles in Chapter 9. Here, I will only briefly review her analysis of *dog* and the argumentative modal particles *altså* and *ellers*.

According to Jensen (2000: 124), the modal particle *dog* marks the utterance as an exclamative or as a subjective speech act. This meaning is already attested in Early Modern Danish (oldest example from 1618, as cited in Jensen 2000: 124):

(4.44) Sijg mig **dog** Sandhed om din Bedrøffuelsis Aarsag

'Tell me **DOG** the truth about the cause of your sorrow!'

Jensen (2000: 68) argues that the modal particle *altså* indicates the speaker's evaluation of her argument as weighty, important, etc. Furthermore, it can be used to express exclamatives. Hansen & Heltoft (2011: 1079; cf. Andersen 1982: 91) argue that *altså* expresses that the utterance conflicts with the interests or wishes of the addressee.

Jensen (2000: 71) does not find the argumentative and exclamative meaning prior to Modern Danish (oldest example from 1973):

(4.45) Så kunne jeg gøre ved dem, hvad jeg ville. Men det kunne jeg **altså** ikke med.

'Then I could do with them whatever I wanted. But I could **ALTSÅ** not do it.'

According to Jensen (2000: 68), this meaning emerges based on a concluding usage of *altså* that typically constitutes a weighty contribution.

The modal particle *ellers* indicates the speaker's attempt to change the addressee's mind with the argument expressed in the utterance (oldest example from 1973, Jensen 2000: 101–2):

(4.46) Interviewer: Ja, men det var når I skulle i marken, så fik I –

Informant: Men det har jeg **ellers** fortalt om

'Interview: Yes, but that was when you had to go to the field, then you got –

Informant: But I have **ELLERS** talked about that.'

According to Jensen (2000: 104), this development can be seen as a transposition of an older textual cohesive meaning to the interactive domain. However, no details are provided for how such a transposition could have occurred. Like the other modal particles discussed here, *ellers* can be used to express exclamatives.

One of the particularly interesting aspects of her analysis is the role Jensen (2000: 194) ascribes to word order. She argues that the position for sentence adverbials is a 'position for abstraction', where certain features of the position become associated with the material that is placed there. She argues that constructions that are placed here will be given a more abstract interpretation. Non-abstract adverbials are placed in the position for sentence adverbials where they receive various abstract meanings.

There are some problems with her account. It is not completely clear what enables non-abstract adverbials to be placed in the sentence-adverbial position in the first place if they are not yet abstract sentence adverbials. Furthermore, Jensen (2000: 197) is inconclusive as to whether the position somehow is associated with subjective meanings, which attracts sentence adverbials about to be subjectified, or whether the position is associated with subjective meanings because subjective sentence adverbials are placed there for some other reason. In Section 10.2.2, I will suggest a mechanism for paradigmatic integration that avoids these shortcomings.

In addition to Jensen (2000) and disregarding the etymological comments in Heltoft (2005b) and Hansen & Heltoft (2011), only Heltoft (2019b) and I have dealt with the development of modal particles. Heltoft (2019b) argues that the modal particle paradigm did not emerge in Danish before the 19th century. As will become apparent in the historical chapters, however, the Danish modal particles are much older, dating back to the 16th or 17th century (cf. Chapter 7–9).

I have worked on the development of modal particles in Westergaard (2021; 2023b; in press) and Westergaard & Boye (in press). Most of these papers are based on material analysed for the present study. The analyses that will be presented in the historical chapters include more details than provided in earlier publications.

4.3.2 Different pathways and possible preconditions for the emergence of modal particles

In this section, I review some of the main findings from research on the development of the German modal particles. Based on a comparison of German and Ancient Greek, Coseriu (1980) argues for the existence of a special language type where the development of modal particles, verb prefixation and noun compounding are related to each other. However, the sample is so small that the hypothesis appears extremely speculative, as also pointed out by Burkhardt (1994: 140), who instead correlates the emergence of modal particles with the development of a more analytic language type. However, this suggestion is rather speculative itself.

In her seminal analysis of the development of the German modal particles *ja, doch, eben* and *halt*, Hentschel (1986) argues that modal particles express what she calls '(meta)communicative deixis', that is, they are indexical of the communicative situation (cf. Section 2.6.2), and she argues that all modal particles in her investigation go back to indexical elements.

Building on Hentschel's (1986) analysis, Abraham (1990; 1991; cf. Diewald 1997; Molnar 2002) proposes to analyse the modal particles in terms of grammaticalization (based on Lehmann's 2015[1982] parameters, cf. Section 3.3), highlighting their decrease in syntagmatic variability, that is, the emergence of their topological restrictions, and their loss of referential meaning. He argues that modal particles follow the semantic pathway below:

(4.47) local > temporal > logical-modal-illocutionary-textual meaning

(Abraham 1990: 128)

What he terms logical-modal-illocutionary-textual meaning corresponds to Hentschel's metacommunicative deixis. In Abraham (1991: 373), he proposes the following, more specific, pathway:

(4.48) localistic > temporal > logical > illocutive/discourse functional

As opposed to Abraham (1990), Abraham (1991) thus argues that the development of modal particles presupposes a stage where they express "logical" meanings such as causality.

The pathway in (4.48) is problematic, however, as many modal particles exhibit developments that do not fit this model. For instance, it is difficult to see how the development of the modal particle *ruhig* (4.49) relates to this pathway. This modal particle originates in an adjective meaning 'quiet, calm' and expresses that the

speaker expects that the addressee thinks she cannot realize the state-of-affairs but suggests that she do so anyway:

(4.49) Gehen Sie **ruhig** auf und ab, wenn Sie Lust haben!
'Walk **RUHIG** back and forth if you feel like it!'

(Burkhardt 1994: 146)

The breadth of source meanings and functions of modal particles is illustrated by Burkhardt (1994: 141), who proposes a more heterogenous source domain for the development of modal particles. His overview includes formal as well as semantic aspects of the source constructions of modal particles, which include conjunctions (e.g., adversative particles like *doch* and *aber* 'however'), temporal adverbs (like *je/ja* 'always'), sentence adverbs (like the epistemic *vielleicht* 'maybe'), what he calls 'true' adverbs (like *einfach* 'easily), predicates (such as *ruhig* 'quiet, calm') and scalar particles (like *nur* 'only'). None of these developments will be discussed in detail here. However, it clearly illustrates the heterogeneity of the source meanings of modal particles.

A different approach is outlined by Diewald (1997; 2006). Like Jensen (2000), Diewald (e.g., 2006: 411–12) argues that the development of modal particles follows the general tendencies of semantic change identified by Traugott (e.g., 1989: 34–35), and like Abraham, she analyses the development of modal particles as cases of grammaticalization. Furthermore, like Hentschel, she argues that modal particles have etymons with 'relational semantics' (Diewald 1997: 79–80). In the development of modal particles, she argues, the relational schema is transposed to the interactive level. They go from indexing textual relations to pragmatic or communicative relations, that is, they express how the utterance relates to what Diewald (1997: 77) calls the 'pragmatic pretext'.

While researchers suggesting the approaches discussed thus far are particularly interested in the properties and meanings of the source constructions, Waltereit & Detges (2007) are interested in whether there are particular context types that favour a reanalysis of modal particles (see also Waltereit 2006; 2007; Detges 2008; Schwenter & Waltereit 2010). They argue that the source constructions of modal particles are typically reanalysed in contexts where they are used argumentatively. The argumentative strategies for which these constructions are used are then conventionalized. Their meanings must therefore be able to give rise to certain argumentative implications.

Finally, Burkhardt (1994: 147) points out that the development of modal particles happens in waves ("Schubweise"). However, to my knowledge this observation has not been given a theoretical interpretation. In Chapter 10, I will argue that the same

is true of the development of the Danish modal particles, and that this has to do with analogy and paradigm pressure.

In sum, there have been different proposals concerning the general pathways of modal particles including common semantic source meanings. However, as illustrated by Burkhardt (1994), under the right circumstances, constructions with a very broad range of meanings seem to be able to develop into modal particles. Based on Waltereit & Detges (2007), we can assume that all it takes for a construction to give rise to the meaning of a modal particle is that it can be used in a way that gives rise to argumentative inferences.

4.3.3 Expected borrowability of modal particles

Certain categories are more prone to being borrowed than others (cf. Matras 2007). However, to my knowledge, there is almost no study which has discussed the general borrowability of modal particles as such.

Panov (2020: 29; 31–36) argues that several of the modal particles that express uncontroversiality (ENIMITIVE in his words, e.g., *jo*) seem to have spread across most of Central, North and Eastern Europe, indicating that this is a highly borrowable meaning. Interestingly, he argues that this borrowability might extend beyond the meaning of the particles and can even include the topological distribution of the constructions associated with this meaning.

Furthermore, Matras (2007: 57; 2020: 209–13) argues that discourse markers are particularly prone to being borrowed. According to Matras (2007: 67), this can be explained in relation to cognition. In monolingual contexts, speakers tend to suppress other languages. This is assumed to come at a processing cost. Furthermore, he assumes that discourse markers place a particularly high burden on processing load. This can then lead to mistakes in the suppression of foreign discourse markers in otherwise monolingual interaction, which in turn leads to a higher degree of borrowability.

Because modal particles are very similar to discourse markers as regards their meaning, and because these are attested to be easily borrowable, we would expect a high degree of borrowability of modal particles as well.

5 The sociolinguistic context of Middle and Early Modern Danish

In this section, I briefly discuss two aspects of the sociolinguistic context of late Middle Danish and Early Modern Danish. In Section 5.1, I examine the relation between Middle Low German and Early New High German, on the one hand, and between Middle Danish and Early Modern Danish, on the other, as a case of language contact. In Section 5.2, I briefly address the standardization of Danish and its dialectal variation throughout its history.

5.1 Language contact with Middle Low German and Early Modern High German

Language change never occurs in a vacuum. Rather, the sociolinguistic situation plays a decisive role in whether any kind of borrowing or similar can occur (cf. Section 3.4). In this section, I briefly discuss Middle Danish and Early Modern Danish in the context of language contact.

The influence of Middle Low German on Middle Danish and, during the Reformation, Early New High German on Early Modern Danish was substantial (cf. Braunmüller 2004; Winge 2018; 2021). As regards the number of Middle Low and Early New High German loan words in Modern Danish, estimates range from 30% up to 70%, while Braunmüller (2004: 1) estimates that 1.5% of the central lexicon and 28% of the peripheral lexicon stems from Middle Low and Early New High German. Although Middle Danish and Early Modern Danish primarily introduced nouns and verbs, all word classes are represented, and even some derivational affixes were introduced (Winge 2018: 401).

Braunmüller (2004: 3–8; Winge 2018: 401) suggests that several factors made a heavy language contact situation possible. According to Braunmüller (2004: 3), Middle Low German was the prestige language in Scandinavia during the late Hanseatic period, and Winge (2021: 223) argues that it was used as a lingua franca

in Northern Europe. Furthermore, genetically and typologically, Middle Danish and Middle Low German were similar. These similarities pertain to phonology as well as morphosyntax. According to Braunmüller (2004: 5), the relation between Middle Low German and Middle Danish (as well as the other Scandinavian languages) can even be seen as a dialect continuum. Additionally, because speakers were accustomed to adapting to different varieties, Braunmüller (2004: 5–6) argues that "accommodation", that is, adapting one's speech to the linguistic background of one's interlocutors, was probably the rule when speakers of Danish and German varieties interacted. Therefore, he argues that people could communicate while each spoke their own language. Corroborating this, Winge (2021: 227) points out that the plays of Holberg in the early 18th century still contained passages in Low German, which she takes to indicate that Low German was understood at least by people who went to the theatre.

Be that as it may, Pedersen (2019: 349–50) points out that such bi- or multilingualism was probably not the norm across the whole population. Rather, she assumes that it was stratified by social class: while urban citizens, clergy and nobility in general understood and possibly even spoken some variety of German, Pedersen assumes that the rural population was monolingual, speaking only a local dialect.

During the Reformation, Early New High German becomes the new main contact language, which in turn makes Middle Low German a "Low-Variety" (Braunmüller 2004: 4; Winge 2021: 224–25; Skautrup 1947: 162–75). Braunmüller (2004: 21–25) describes this shift as a continuous process. Due to the Middle Low German influence, Early Modern Danish had become more like West Germanic languages, which, in turn, facilitates the transfer of structures from Early New High German. Furthermore, Braunmüller argues that knowledge of Middle Low German could have made it easier to learn Early New High German.

5.2 A note on standardization and dialectal variation

During the reformation and with the advent of the printing press in the 16th century, Danish begins to undergo standardization based on the Copenhagen variety (Skautrup 1947: 175–176; Brink 2019: 238). At first, this standardization only affects the written norm. Brink (2019: 238) argues that it accelerates in the major cities around 1700, where he assumes that standardization also begins to affect the spoken language.

However, as Sune Gregersen has reminded me, the great majority of speakers spoke regional varieties of Danish until at least the 19th century. Skautrup (1953: 213–21; cf. Pedersen 2019: 229; Pedersen 2019: 352) estimates that, even in 1870, at most 10% of the population spoke Standard Danish, that is, a spoken variety close to the

written language. Furthermore, at the latest around the 18th century, there appears to be an emerging sociolectal variation within the cities or at least in Copenhagen (Pedersen 2019: 352).

This means that the entity I call *Danish* throughout this dissertation is to some degree a hypostatization that glosses over considerable variation that is only represented in my material to some degree. I will discuss dialectal issues pertaining to my sample in Section 6.3.

6 Method and material

In this chapter, I discuss the methodology applied in this study as well as my choice of material. In Section 6.1 and 6.2, I discuss the choice of method as regards qualitative and quantitative approaches. In Section 6.3, I consider issues pertaining to the text sample. In Section 6.4, I discuss how I searched for relevant constructions and present an overview of the number of tokens that I have analysed.

6.1 A quantitative approach?

There is a long tradition of quantitative methods within historical linguistics, and a quantitative approach has many advantages. For instance, it can aid the linguist in finding patterns that are not perceivable with the bare eye. Nevertheless, a quantitative approach also has several shortcomings and problems, both theoretically and methodologically.

The primary theoretical problem stems from the fact that conventional status can only indirectly be related to frequency. As pointed out, I regard conventionalization primarily as a semiotic shift, which is distinct from propagation, that is, the spread of such a semiotic shift within the linguistic community (cf. Section 3.1). What one typically measures when measuring the rise in frequency of a given meaning, distribution or similar is first and foremost the propagation of this new feature. While this certainly is an interesting and important aspect of a given language change, the aim of the following chapters is to work out what innovations are conventionalized, when this happens, and how the conventionalized meanings can be related diachronically.

There are some more methodological issues with the quantitative approach. There are basically two ways that semantic analyses can be quantified:

1. The linguist can directly quantify over the readings she finds most plausible for each utterance. One obvious disadvantage of this approach is the lack of robustness relative to subjectivity.
2. The linguist can also quantify over an easily detectable reflex or diagnostic of a meaning. The advantage is that when taking a feature that is easily

analysable, the reproducibility and thereby objectivity or intersubjectivity of the analysis is increased.

As an example of the latter, one might analyse the frequency of formal subjects when interested in the development of meanings that allow for raising (e.g., epistemic modal verbs). A rise in the frequency of such associated features could then be taken as an indication of the rise of a new meaning and as a sign of conventionalization (presupposing that conventionalization and propagation coincide). Of course, these approaches can be combined.

Both of these approaches are, however, difficult to employ on my material, because the meanings of modal particles and the various source meanings are very difficult to disentangle in most cases. For instance, as I will argue in Section 7.2.1, in Early Modern Danish, *jo* expresses a temporal meaning 'always', a necessity meaning (cf. Section 7.2.2) and its modal particle meaning, namely the speaker's expectation not to be contradicted (cf. Section 7.1.1 and 7.2.4). These are clearly delimited meanings, but examples like the following illustrate the difficulty in keeping these meanings apart in the analysis of individual utterances:

(6.1) Om sognedegnens embede oc befalninge.

Eders sognedegn skall iche alleniste ringe oc siunge hos eder, thi en god almue bør **jo** at siunge met degnen, derfor skall hand ocsaa gaa ned møt paa gulffuet til eder naar i siunge de almindelige viβer och psalmer;

(a) 'About the parish clerk's office and duties.

Your parish clerk shall not only ring the bells and sing for you, for good people should **always** sing along with the clerk. Therefore, he shall also step down to you to the middle of the floor when you sing the common tunes and psalms.'

(b) 'for good people should **necessarily** sing along with the clerk.'

(c) 'for **I expect you will agree** that good people should sing along with the clerk.'

(1543 PalArg V 84)

One might opt for only counting unequivocal cases. However, given that ambiguity is pervasive in the material, this is not feasible, because there would be almost nothing left to count. It is not easier to identify contextual features to quantify.

I have only discussed problems of quantifiability as regards semantic aspects of the analysis. There are obviously expression features that are easier to quantify, such as the word order properties of modal particles. However, these are only of interest if they can be related to a corresponding content structure.

On a side note, a general issue, in addition to the ones already mentioned, is the highly unbalanced nature of the textual record, which casts doubt on any comparison of counts, particularly of linguistic expressions whose occurrence seems to be highly genre sensitive (cf. Section 6.3). While in later stages, the genres that form part of my material are comparable (I have letters, plays and novels in all periods from the 17th century onwards), comparison is difficult for older stages due to the unavailability of comparable text types or genres. One might control for this with careful sampling ensuring diachronic comparability, but this would come at the cost of synchronic representativity and reduce the amount of material that can be covered. This will be discussed in detail below in Section 6.3.

In conclusion, while there certainly are advantages of a quantitative analysis, I will analyse my material qualitatively.

6.2 The qualitative approach: what counts as evidence?

The primary aim of the analysis to be presented in the analytic chapters is to work out a chronology of when the modal particle etymons develop new meanings. This in turn constitutes the basis for the discussion of how the modal particle paradigm as a whole emerges and develops.

Reconstructing the semantics of earlier language stages is not a straightforward task, especially not when working with highly abstract interpersonal meanings like those expressed by modal particles. Furthermore, the fact that a meaning is possible in a given context does not suffice as evidence that this meaning is conventionalized. Rather, the meaning might be possible due to contextual enrichment (cf. Section 2.3 and 3.2.1). In other words, the fundamental problem is that it is difficult to keep conventional and contextual meanings apart. Therefore, in this section, I will discuss four different types of evidence for the conventional status of a meaning.

6.2.1 Unambiguous contexts

As mentioned in Section 3.2.1, one way to decide whether or not a meaning is conventional is already discussed by Paul (1995[1880]: 77), who argues that a new meaning is conventionalized if it can be understood 'without reliance on the source meaning, that is, without the source meaning being invoked by the speaker or the listener'. Such psychological phrasing is typically operationalized through context types (e.g., Heine 2002: 85, cf. Section 3.2.1). For a putative new meaning to count as a conventional meaning, the construction must appear in contexts where older meanings are no longer possible. In such contexts, we can assume that the new

meaning is associated independently with the construction, as the older meaning cannot be invoked to give rise to the new meaning as a contextual meaning.

Ideally, we should be able to find contexts indicative of conventional status in different texts by different authors to avoid misclassifying cases of once-formations or idiolectal idiosyncrasies as conventionalization (Traugott 2016: 31).

The context analysis can be illustrated with the analysis of *since* provided by Traugott & König (1991: 194–95), from which the following examples are taken. As already discussed in Section 3.2.1, an example like (6.2) is a bridging context because *since* can be analysed as a temporal and a causal subordinator. Furthermore, the former implies the latter in a *post hoc* fallacy, where temporal succession implies causality:

(6.2) **Since** Susan has left him, John has been very miserable.

While such an example can explain the emergence of causal meanings, it is not possible to say whether the causal meaning can be understood without reliance on the temporal meaning, that is, whether it is conventionalized.

In contrast, an example like (6.3) is indicative of conventional status. The temporal meaning is not available because the subordinator logically combines two abstract propositions rather than temporally ordered events or situations:

(6.3) **Since** you are not coming with me, I will have to go alone.

This approach can be seen as a diachronic version of the heuristics for semantic analysis proposed in Section 2.4.2.

Needless to say, it is possible that a meaning was conventionalized before we find unambiguous contexts. The method is therefore conservative in its assessment of the timing of the changes.

While this method in general is well-tried, this conservatism has its shortcomings as well. As already discussed in connection with the quantitative approaches, some of the relevant meanings show almost no difference in context types. Therefore, it is often difficult to find contexts that are indicative of conventional status. However, in principle a handful of relevant examples suffices for constructing an argument for the conventionalization of a given meaning. Hence, it is a smaller problem in this qualitative approach.

However, the method is particularly difficult to apply when a construction develops a meaning that has a narrower intension and hence broader extension than an older

meaning, that is, in cases of specialization. For instance, the development of the English noun *hound* constitutes a case of a specialization:

(6.4) OEngl *hund* 'quadruped of the genus Canis'
> MEngl. *hund* 'quadruped of the genus *Canis* kept or used for the chase'

(Koch 2016: 31)

Due to the broader intension of the old meaning, it will be almost impossible to find contexts where only the new meaning is possible to the exclusion of the old one.

Because meaning change in general follows the schema in (6.5) (cf. Hopper & Traugott 2003: 49; Koch 2016: 24–26), this turns out to be a thorny problem:

(6.5) A > A/B (> B)

The schema illustrates that the emergence of a new meaning almost always involves a stage of polysemy where meaning A and B are available. Furthermore, the stage where only the new meaning B is available may never be reached. If the old meaning A is never lost, it becomes very difficult, if not impossible, to detect the specialization of meaning B solely based on the method of context types, as there would be no or almost no difference in contexts between stage A and stage A/B.

This situation can be illustrated with the development of Danish *dyr* (cognate with English *deer*). Originally, it meant 'animal' and still does. However, at some point, it also developed the more specialized meaning 'wild animal for hunting' and in particular 'deer' similar to English *deer*. This can be seen in contrastive contexts such as the following:

(6.6) *(sælge)* Hunde og Katte, for **Dyr** og Harer.
'(sell) dogs and cats, for **deer** and hares.'

(ODS, s.v. *dyr*)

In such contexts, it is obvious that *dyr* is used with its more specific meaning because the broader meaning would be odd in this context. However, such contexts

are extremely rare.[21] This makes it difficult to argue for new meanings solely based on context types in cases of specialization.

In addition to the analysis of context types, there are other resources and approaches that can aid in assessing the semantic structure of earlier stages that complement the analysis based on context types.

6.2.2 Historical dictionaries

The semantic structure of earlier stages can be assessed based on historical dictionaries. These can either constitute secondary or primary sources. The former are dictionaries written by lexicographers not living at the time the language of interest was spoken. The latter are dictionaries written about languages spoken at the time the dictionary was compiled. Both have advantages and shortcomings, which I will discuss in what follows.

Dictionaries as secondary sources have the advantage of having a broad coverage. However, they have the shortcoming of being based on the analysis of individuals who in most cases do not have native speaker intuitions for the relevant linguistic periods. However, even though it is probably impossible to acquire nativelike competency of older language stages, it should not be unreasonable to assume that historical linguists develop second language intuitions of older language stages not unlike learners in other language learning settings through immersion in the usage of an older language.

Two dictionaries are of particular importance: 1. *Ordbog over det danske Sprog* (ODS, 'Dictionary of the Danish Language'), which covers the Danish language from c. 1700 till 1950 and 2. Otto Kalkar's *Ordbog til det ældre Sprog* (KO 'Dictionary of the Older Language'), which covers Danish from c. 1300 to c. 1700. There are other dictionaries that provide valuable information. The references contain a list of the employed dictionaries.

Historical dictionaries can also constitute primary sources. For these dictionaries, the strengths and weaknesses are reversed with respect to dictionaries as secondary sources. The semantic analyses are made by native speakers, giving them a high degree of trustworthiness. However, they have the disadvantage that most of them have a narrow coverage. This has the unfortunate consequence that we cannot simply conclude that if a given meaning is not present in a historical dictionary, it must have been absent in the language in general. Additionally, as Boeck (2019: 304) points out, with the ambition to cover as much of the Danish language as possible, some dictionaries even include words that may not have been used, but

[21] While lexical constructions can be contrasted in contexts like (6.6), similar types of contexts are ruled out for grammatical constructions, such as modal particles, because they cannot be contrasted outside of metalinguistic contexts (cf. Section 3.3).

that are made up by the lexicographer. Furthermore, most of these dictionaries have a poor definitional practice and mostly consist of bilingual glossaries.

There is one dictionary that deserves mentioning, namely Moth's dictionary from c. 1700 (MO). It is the first comprehensive dictionary of Danish and has very broad coverage. In his dictionary, Moth pays attention to the vernacular and daily language as well as to dialectal differences (cf. Troelsgård & Nielsen 2016: 622–24). Furthermore, offering paraphrases as well as examples, it has a considerably better descriptive practice than its contemporaries. Furthermore, the examples are translated using equivalent clauses from the classical Latin literature.

6.2.3 Translations

Another valuable source for a historical semantic analysis is translations. The first whole translation of the Bible from 1550 is particularly important for this dissertation. The language in the Bible is said to be good or genuine Early Modern Danish (Nielsen 2017). Furthermore, we must assume that the Danish Bible translation is close to its source text due to the importance of the exact wording for exegesis. Additionally, the source text for the Danish Bible is Luther's translation. As part of his ambition to write in a language that is as close to the vernacular as possible, the Early New High German source text and consequently its Early Modern Danish translation include modal particles.

While translations can provide insights into the semantics of earlier stages of a language, it is often difficult to decide whether a given construction might be the result of a translation interference, that is, the translator may be influenced by the source text (cf. Fischer 2007: 25–30 for discussion and illustration). Therefore, it is important to be able to rule out such influences. The primary condition for this is that a correspondence between a construction in a source text and in the translated text does not involve cognate constructions or constructions with similar meanings other than the meanings of interest.

Furthermore, translation equivalents can only say something about the contextualized meanings of the corresponding constructions. This means that even if two constructions are translatable, they do not necessarily have identical semantic structures. We can only assume that they have similar or comparable semantics as regards the context in question. This is particularly important because semantic structures are never perfectly equivalent, as is well-known from translation studies, and this is also true for modal particles (cf. Asmussen 2018). Therefore, one must be cautious when using translations to reconstruct older meaning structures.

I will briefly illustrate how translations can provide insight for the historical semantic analysis. In Section 7.2.2.2, I will argue that, in Early Modern Danish, *jo* was used as an emphasizer of wishes. Example (6.7) illustrates this meaning.

Example (6.8) is the corresponding passage in the source text (Luther's Bible translation):

(6.7) Den gamle Mand sagde / Fred vere met dig / alt huad som dig fattis det skalt du finde hoss mig / bliff **io** icke i nat paa gaden.

'The old man said: Peace be with you. Everything you need, you shall receive from me. **Just** do not stay on the street all night!'

(1550 Bib Judges 19:20)

(6.8) Der alte Man sprach / Friede sey mit dir / Alles was dir mangelt findestu bey mir / bleib **nur** nicht vber nacht auff der gassen.

(1545 LutBib Judges 19:20)

Comparing the text passage with the source text shows that *jo* is used here as a translation of German *nur*, which can be used to emphasize wishes in Early Modern German (FNHDW, s.v. *nur*). Because *jo* and *nur* are not cognates, the translation indicates that part of *jo*'s meaning in Early Modern Danish was similar to part of the meaning of *nur* in Early Modern High German. Presumably, both emphasized wishes.

6.2.4 Language comparison

Finally, an indirect piece of evidence can be derived from language comparison. This can be done in two ways: 1. comparing cognates and 2. comparing similar distributions. Comparing cognates should be an uncontroversial way of reconstructing earlier meaning structures. Cognate structures might preserve older meanings that went out of use in one language but not in another.

However, reconstructing semantic structure based on language comparison can also take its point of departure in comparing distributionally similar constructions, even if they are etymologically unrelated. If a construction A has a distribution similar to that of another (possibly etymologically unrelated) construction B expressing meaning X, and if both constructions have a common source meaning, then this might indicate that construction A also had meaning X at some point of its history.

This approach is taken by Detges (2008) in his analysis of Old French *or* 'now'. He first argues that Modern German *jetzt* 'now' is a modal particle and then compares the distribution of Modern German *jetzt* and Old French *or*, which he shows are very similar. Because both lexemes originate in an adverb meaning 'now', he argues that *or* had a modal particle meaning similar to that *jetzt* has in Modern German. His analysis will be discussed more extensively in Section 8.3.3.1.

While such evidence is uncertain, and the approach is a type of "squinting grammar" (Jespersen 1933: 345), it can provide converging evidence (though weak) for a given analysis.

6.2.5 Summary of the qualitative approach

The present approach is qualitative and integrates several types of evidence. The primary method for determining whether a meaning has become conventionalized is by examining the contexts in which a construction occurs over time. Ideally, meanings should only be considered conventional when a construction appears in contexts that preclude older meanings. In various cases, there may be reasons that make it difficult to identify such contexts. I have discussed alternative sources for evidence. These include historical dictionaries, translations and cross-linguistic comparison.

6.3 The text sample

Unfortunately, there is no readily available diachronic corpus for Danish. Therefore, I had to compile my text sample myself. In what follows, I discuss some considerations regarding this compilation.

As pointed out by Fischer (2007: 12), every historical analysis involves a comparison of at least two linguistic systems at distinct points of time, and such comparison presupposes comparability. Texts should ideally be comparable as to genre, dialect, medium, gender, social class, etc. However, this demand for diachronic comparability is far from always possible to live up to (perfectly at least).

To complicate matters, Fischer (2007: 13) points out that even within the same genre, the conventions pertaining to that genre can change, which in turn casts doubt on the comparability of the texts even of the same genre. For instance, Danish renaissance plays are mainly written in verse, while 19th century naturalistic plays aim for a realistic style of speaking. Despite both being plays, they are highly incomparable on various points.

A variation of this problem is mentioned by Davidse & De Smet (2020: 216), who write that certain text types go out of fashion (e.g., epic poems), while others are invented (e.g., newspapers). In other words, strict diachronic comparability of genre types can be impossible for historical reasons.

Fischer (2007: 14) points out that the solution to the problem of imperfect diachronic comparability is methodological reflection and awareness. One needs to be aware of what texts are included and more importantly which types of texts are not

available and, consequently, reflect upon whether the absence of certain text types might explain one's results.

One problem related to the question of diachronic comparability is briefly discussed by Davidse & De Smet (2020: 216), who point out that diachronic comparability often clashes with synchronic representativity. The representativity of a corpus is "the extent to which a sample includes the full range of variability in a population" (Biber 1993: 243). *Population* refers to the entire body of texts from which a sample is drawn. The sample needs both to be similar to the population as regards qualitative as well as quantitative aspects and to mirror the population as regards linguistic and contextual features (e.g., text types and geographical distribution). In other words, representativity can be seen as the degree to which a corpus mirrors the linguistic system and usage of the linguistic community one wants to make inferences about based on one's sample.

In the extreme case where synchronic representativity is prioritized, one can include all texts available for a given period and compare those with all texts available for another period (cf. Davidse & De Smet 2020: 217). In this case, synchronic representativity is as good as the surviving textual record allows, while diachronic comparability most probably will be compromised. Davidse & De Smet (2020: 217) argue that one can also compile a diachronic genre corpus that consists of highly similar texts across a short time period, that is, prioritizing diachronic comparability over synchronic representativity (for the language as a whole that is) and time depth.

Davidse & De Smet (2020: 217) argue that corpora at both extremes are valid options. Which of these one should choose can only be decided based on which other methodological choices one opts for and the research questions being addressed. Arguably, if a researcher is interested in whether a construction becomes more frequent, she should ensure a considerable degree of diachronic comparability, as confounding factors that might predict changes in frequency should preferably be held constant. However, if a researcher is interested in whether or not a construction exists at all at one stage of a language, diachronic comparability of the corpus might be sacrificed to some degree.

In line with considerations of the latter type, I have included all texts available to me in digitalized and orthographically searchable form.[22] The choice of such a convenience sample is based on the following considerations:

1. Because my approach is mostly qualitative, it is less of a problem if the relative frequency of one text type, genre, dialect, etc. is higher than that of another at another point in time. Such skewedness would be problematic if I were planning, for instance, to calculate modal particle vs. non-modal particle

[22] However, I have not included verse texts in my sample due to the suspicion that stressless monosyllabic constructions may be used *metri causa*, that is, their distribution in verse texts might not correspond to their actual distribution in the everyday language.

ratios for the individual constructions for each period. Because I am not planning to do so, I can prioritize other aspects if these offer an advantage for the qualitative analysis.

2. The more material I cover, the better my understanding of the linguistic system. Hence, if possible, automatic extraction is preferable to manual extraction, as it enables me to cover much more material at the same time.

3. Many modal particles are text-type sensitive presupposing that the speaker knows how a potential addressee might react, be it fictive or real. Text types that have such a configuration include letters, argumentative texts, narratives and plays (as opposed to, e.g., laws at the other extreme). In the historical record, these text types are not evenly distributed. For some centuries, I managed to gather great compilations of letters, while there are other centuries where I managed to gather narratives but no plays or letters. If I opted for only comparing similar genres, I would not be able to achieve any time depth.

At the latest from the 15th century onward, my sample for each century includes at least one text type where modal particles would be expected (e.g., narrative texts, argumentative texts, letters or plays). Therefore, I expect modal particles to surface in my material if they are present at that language stage. However, in the 15th century, there are still rather few of such texts that invite the use of modal particles.

Finally, the text sample suffers from two availability biases. The first arises from the incomplete and unrepresentative nature of the surviving textual record (cf. Davidse & De Smet 2020: 214–15). Roughly put, texts written by upper-class males from the capital area are highly overrepresented. This is particularly problematic in that most speakers spoke regional varieties of Danish until at least the 19th century (cf. Section 5.2). In other words, the results may strictly speaking only reflect a local variety. To address this concern, the introduction to each of the following chapters includes a discussion of the dialectal distribution of the modal particles in various Danish dialects. However, it should be noted that the aims of this dissertation do not concern questions pertaining to the propagation of the modal particles, but rather their functional and structural evolution. Hence this may prove to be a minor problem.

In addition to this bias, I have introduced a second availability bias. I have only included texts that are digitalized and searchable. Arguably, the sheer number of examples this approach allows me to take into account outweighs its shortcomings.

Due to the large number of texts, I am unable to discuss each text in detail. However, where genre, dialect or other aspects are relevant to the individual analyses, they will be addressed in the historical chapters. The text sample is rendered in the references, and the number of analysed tokens is given in Section 6.4. below.

To sum up, in this section, I have discussed my text sampling, and I have argued that, due to the nature of the modal particles and the aims and the methodological choices of the present study, my choice of a digital convenience sample is reasonable.

6.4 Excerption and distribution of results

I used the software *AntConc* (Anthony 2022) for analysing the material. The software enables searches for orthographic strings, random extraction of the material and exporting the material as concordances arranged by frequency patterns based on the distribution of the graphemes.

None of the texts are lemmatized, and for the oldest texts, the spelling is not standardized. Therefore, I had to search for various orthographic variants. The search strings are based on the orthographic variation represented in the historical dictionaries *Ordbog over det danske Sprog* (ODS) and Otto Kalkar's *Ordbog til det ældre Sprog* (KO). Additionally, I included search strings that I expected might have been used based on my experience with the orthographic variation from previous analyses. The following illustrates the search strings I used for the individual modal particles. The asterisk * functions as a wildcard; it represents one or more otherwise unspecified graphemes as well as the absence of a grapheme:

jo:	jo, io, ju, iu, jw, iw, joo, ioo, joh, ioh, jor, ior
sgu:	gu* (up to and including the 15th century), sa* * * Gud (only in the 16th, 17th and 18th century) s'gu, sgu, sku, sagu, saagu, så gu, så gu, saa gu, saa gud, ski, sgi, sagi, saa gi, saagi, så gi, sgutte, sgitte, sgunte, sginte
skam:	skam*, scam*
nu:	nu, nv, nw
da:	da, daa, tha, thaa, dha, dhaa, after 1700 only: da
vel:	vel, vell, wel, well, væl, væll, wæl, wæll, val, vall, wal, wall
vist:	v*i*s*, v*j*s*, v*y*s*, wis*, wys*, wes*, ves*, *uis*, *ues*, *uys*, after 1700 only: vist
nok:	nok, nook, nock, nog, noch, nogh, noksom

While electronic text extraction comes with the advantage of extracting a considerable amount of data quickly, it has some shortcomings. These shortcomings are however negligible. Some of the texts in my sample have been automatically OCR-scanned and have not been proofread. This might imply that the automatic extraction involves a considerable number of false negatives, that is, relevant examples the corpus engine did not detect, as well as false positives. However, the

problem with false negatives is heavily outweighed by the number of examples the machine extraction allowed me to analyse. As the distribution of false negatives can be expected to be random, it should not pose a major problem. Because all examples are analysed manually, false positives are no problem either.

My findings are distributed across the centuries as follows:

Table 6.1
Number of examples analysed (excluding false positives)

modal particle	14th c. or older	15th c.	16th c.	17th c.	18th c.	19th and early 20th c.	**total**
jo	0	21	812	73	234	2507	3647
sgu	280[23]	380	39	9	1	530	1239
skam	10	11	156	18	58	348	601
nu	80	119	1998	369	2028	1999	6593
da	302	1090	1958	898	1916	1989	8153
vel	133	132	2884	478	1653	1993	7273
vist	11	37	684	100	283	961	2075
nok	0	10	661	114	779	1974	3538
							33119
words in total	189296	181473	2476796	143739	612815	2860161	6464280

In total, the corpus includes 6,464,280 words, and I have analysed 33,119 instances of modal particles or their predecessors. I want to emphasize that this table is only supposed to illustrate the empirical foundation of the present study. It cannot be used for quantitative calculations.

There is considerable variation in the amount of available data across different centuries. This variation could mean that early instances of some of the modal particles might have gone unnoticed. However, the century for which I had the smallest amount of data, namely the 17th century, is actually a century in which several modal particles are attested for the first time. Hence, I assume that the uneven distribution is not a major problem.

After familiarizing myself with the text sample and the search engine, I have changed the research design slightly along the way. I do not expect that these changes had a negative impact on the results. At first, I analysed all occurrences that my search strings yielded. After familiarizing myself with the material, I decided at some point that 2,000 occurrences of each particle per century should be sufficient, and I chose it as a cut-off point for the number of analysed examples (including false positives) for the remaining modal particles.

[23] The numbers for *sgu* in the 14th and 15th century include simple occurrences of the noun *gud*. These are classified as false positives in later centuries.

Due to my initial unfamiliarity with *AntConc*'s extraction functions, I was not aware of the possibility to extract a randomized subset when I analysed *da* in Middle Danish and *nu* and *da* in Early Modern Danish. Therefore, I have manually compiled a subsample for the analysis of these modal particles. Due to text type sensitivity of the modal particles, my subsampling focused on texts that might invite the use of modal particles if these are present in the language, but I included other text types as well, such as instructive texts. For *da* in Middle Danish, the subsample includes the following texts: SL (1300), Luc (1350), RydEdv (1400), HarKog (1350), GestaC67 (1400), SjT (1425), Læg (1450), RydNks (1450), ChrisLeg (1480), KMK (1480). The analysis of *nu* and *da* in the 16th century is based on KviRos (1513), TausPos (1539), the four gospels from the Bible (1550), the first half of GylLet (16th century), the first half of GøjLet (16th century), JesuBarn (1508), *Svar paa den Bog som Borgemestere Og Raad I Malmø lod udgaa om Reformationen i Deres By* in HelArg III (1530), the first half of Palladius' *Visitatsbog* in PalArg V (1543), ArreLet (16th century) and PalLet I (16th century). See the list of primary sources for abbreviations.

Because the subsamples include text types that invite the use of modal particles, and because the material is analysed qualitatively, I do not expect that this selection has influenced the results. For the remaining centuries, I randomly extracted examples from the concordances in *AntConc* if the number of occurrences exceeded 2,000.

Finally, one writer is overrepresented in the 18th century texts that were available to me, namely Holberg. When I analysed *da*, I included all of the texts written by this author. However, after analysing *da*, I decided that a subset of these texts should be enough. For the remaining modal particle, I only included the texts *Barselstuen*, *Den politiske Kandestøber*, *Det lykkelige Skibbrud*, Holberg's letters and the text *Af Dannemarks og Norges Beskrivelse.*

7 The phatic modal particles *jo*, *sgu* and *skam*

In this chapter, I present an analysis of the development of the phatic modal particles *jo, sgu* and *skam*. In Section 7.1, I first present an analysis of the phatic modal particles in Modern Danish. In Section 7.2, I present my analysis of the historical development of *jo*, in Section 7.3, I present my analysis of the historical development of *sgu*, and in Section 7.4, I present my analysis of the development of *skam*. In Section 7.5, I summarize the development of the phatic modal particles.

7.1 The phatic modal particle in Modern Danish

The phatic modal particles *jo, sgu* and *skam* appear in the first position within the modal particle position, preceding all other modal particles (Christensen 2007: 143; Hansen & Heltoft 2011: 1062, cf. Section 4.2.3). According to Hansen & Heltoft (2011: 1051), the phatic modal particles also include *vel* and *mon.* I regard *vel* and *mon* as evidential modal particles. I will provide arguments for this classification in Chapter 9. In what follows, I first present an analysis of *jo* in Modern Danish in Section 7.1.1, then of *sgu* in Section 7.1.2, and lastly of *skam* in Section 7.1.3. In Section 7.1.4., I discuss the phatic modal particles as a paradigm.

7.1.1 The modal particle *jo*: expected agreement

To my knowledge, Harder (1975: 107) is the first to analyse *jo*. He describes *jo*'s meaning as an expression of the speaker's expectation that the proposition is 'known' or 'given'. Furthermore, he argues that it expresses the speaker's expectation that the proposition should neither provoke disagreement nor need argumentation. Additionally, the proposition of the *jo*-clause typically is to count as an argument for some other proposition. According to this analysis, *jo* in (7.1) expresses that the speaker expects that the proposition 'cats have always had a relaxed attitude towards ownership' should be given and consequently not provoke disagreement:

(7.1) Men nu har katte **jo** altid haft et afslappet forhold til det med ejerskab, og derfor er USA's medie-eksperter i mangel på mere presserende gøremål begyndt at spørge, om en kat nu er et passende kæledyr til Det Hvide Hus.

'But cats have **JO** always had a relaxed attitude towards ownership, and therefore, U.S. media experts have begun, in the absence of more pressing tasks, to question whether a cat is a suitable pet for the White House.'

(KorpusDK)

While there is general agreement about such intuitions, Harder's analysis represents two more or less distinct lines of thought in the analysis of *jo* and its modal particle cognates: 1. according to some analyses, *jo* expresses that the proposition of the *jo* clause is 'known', 'given', 'obvious', 'old', 'mutually manifest' or similar, and 2. according to other, more interaction-oriented analyses, *jo* expresses that the speaker does not expect to be contradicted or expects agreement. I will discuss these analyses in turn in what follows.

The analysis of *jo* as marking propositions as 'known' has gone out of fashion by now (but cf. Hansen 1967: 285; Harder 1975: 107; Laureys 1982: 100; for a similar analysis of Modern German *ja* cf. Weydt 1969: 36; Franck 1980: 232; Hentschel 1986: 163; Thurmair 1989: 104; Autenrieth 2002: 16). However, in a relevance theoretical framework, Berthelin & Borthen (2019: 17–18, 23, cf. Blass 2000 for German *ja*) revive this line of thought in an analysis of Norwegian *jo*, which I regard as synonymous with its Danish cognate. They argue that *jo* indicates that the proposition does not need to be known, but that it is marked as mutually manifest (cf. Section 2.5). Berthelin & Borthen (2019: 17–18) argue that mutual manifestness is preferrable to meaning analyses like 'givenness', 'mutual knowledge' or similar, in that it can handle cases where the proposition is not known or given but inferable based on the common ground.

In a similar line of thought, Waltereit (2006: 48–49) analyses the Modern German modal particle *ja*, which also has a meaning potential similar to Danish *jo*. Like Berthelin & Borthen, he argues that *ja* indicates that the proposition is obvious. However, he gives this an interactive twist and argues that *ja* thereby addresses the felicity conditions of assertions. According to Searle (1969: 66), the preparatory conditions of assertion include that the asserted proposition should not be obvious. Waltereit then argues that *ja* annuls this. Thereby, the speaker can assert obvious propositions without violating the preparatory conditions of assertions (Waltereit 2006: 49).

Several researchers have focused on the interactive effect of *jo* and argued that this, rather than obviousness or mutual manifestness of the proposition, is the conventional meaning of *jo*. Using *jo*, the speaker indicates that she expects the

addressee to agree and not to contradict (Harder 1975: 107; Davidsen-Nielsen 1996: 285; 290; Heltoft 2005b: 44; Engberg-Pedersen 2009: 226; Hansen & Heltoft 2011: 1050; Boeg Thomsen 2015: 142–43; Engberg-Pedersen et al. 2019: 95; Jørgensen 2019: 364; Panov 2020: 12)[24]. For instance, in (7.1), *jo* does not necessarily express that the proposition 'cats have always had a relaxed attitude towards ownership' is known, mutually manifest or similar, but rather it expresses a particular way the speaker expects the addressee to react, namely, with agreement. Thereby, the meaning relates directly to the interactional or illocutionary layer.

In many contexts, the difference between the two analyses is negligible. However, there are some advantages associated with the interaction-oriented approach. While most *jo*-clauses probably express mutually manifest (Berthelin & Borthen 2019) or obvious (Waltereit 2006) propositions, and these notions are preferrable over such notions as 'known' or 'given', there are still at least two problems with these analyses:

1. The modal particle *jo* appears in contexts where the proposition cannot reasonably be said to be mutually manifest or obvious. The following authentic and illustrative example is cited in Christensen (2007: 150). I have adapted it for readability:

(7.2) Men vi har **jo** også oplevet alt det der med at natmanden er kommen for vi havde **jo** en tante og onkel der havde have på A***, og der var vi **jo** tit ude. Da vi så kom hjem om aftenen, så skulle vi **jo** spise lidt. Så sad vi ude i køkkenet, og så kom han **jo** med denne her tønde på nakken og igennem køkkenet og ud igen og ok, men man peb ikke over sådan noget. Det var vi **jo** bare vant til.

'But we have **JO** also experienced all that with the night man coming because we had **JO** an aunt and uncle who had an allotment on A***, and we were **JO** out there often. When we got home in the evening, we would **JO** have a little something to eat. We would sit out in the kitchen, and then he would **JO** come with this barrel on his back, through the kitchen and out again. And oh, but you did not complain about things like that. It was just something we were **JO** used to.'

This example stems from a sociolinguistic interview. In such a context, the speaker cannot assume that the addressee knows about the childhood of the speaker. However, the speaker can expect not to be contradicted, as the speaker clearly has epistemic authority.

[24] Similarly, in his analysis of Swedish *ju*, Bergqvist (2020: 470) argues that the speaker expresses that she has epistemic authority with *ju*.

2. If *jo* marks the proposition as mutually manifest, combinations with the evidential modal particle *nok* would be self-contradictory. The modal particle *nok* indexes a subjective information source, that is, the speaker's evaluation of the truth of the proposition is based on subjective grounds (cf. Section 9.1). Therefore, it would be odd if the speaker at the same time would express that she expects the proposition to be mutually manifest. However, the combination appears to be common:

(7.3) J. K. Hansen sagde i den samme optagelse, at vi skal ikke have nogen fast forbindelse over Østersøen. Men også det vil **jo** nok vise sig at være en spådom, som ikke holder.

'J. K. Hansen said in the same recording that we should not have a permanent connection across the Baltic Sea. But that, too, will **JO** NOK turn out to be a prediction that does not hold.'

(KorpusDK)

These observations speak for the interactive analysis.

One final analysis needs to be mentioned. Therkelsen (2004: 92) suggests an analysis of *jo* as the 'negation of negation', that is, *jo* is assumed to negate a contrary belief. She does not distinguish between the modal particle *jo* and the interjection *jo*, which is used to address a negative expectation (similar to German *doch*). This monosemic analysis is problematic because there are formal differences between the interjection *jo* and the modal particle, which indicates that the two constructions should not be conflated. The interjection can be placed in the left position for interjectionals, it can constitute an utterance alone and has a different phonological realization [ˈjɔwˀ], [ˈjɔw] or [ˈjoˀ], as opposed to the modal particle, which never includes more phonologically substance than [jo].

Therkelsen argues that the interjection as well as the modal particle *jo* express the 'negation of negation', that is, the opposite point of view has been considered but rejected. According to Therkelsen, then, the expected agreement meaning feature is a pragmatic enrichment. However, the adverb *godt* is also analysed as the negation of negation by Hansen (2000: 82) and Jensen (2009). If *godt* and *jo* express the same meaning, we would expect *godt* to give rise to a similar contextual meaning. This is not the case, however:

(7.4) Så jeg vil **godt** trække min ansøgning.

'So, I would like to withdraw my application.'

(Bysoc)

It is therefore unclear why *jo*, using the analysis provided by Therkelsen, should give rise to this meaning contextually. Hence, the analysis is problematic on formal as well as semantic grounds.

As pointed out by Davidsen-Nielsen (1996: 293) and Engberg-Pedersen (2009), *jo* can be used to express mirativity, that is, that the proposition is "new or unexpected to the speaker" (DeLancey 2001: 369–70):

(7.5) [The experimenter places a picture in front of the child:]

Forsøgsleder: se så kommer der et billede her som du skal kigge godt på

Barn: det er **jo** Anders And

Forsøgsleder: det er det jo

'Experimenter: Look, here comes a picture that you need to look at carefully.

Child: That is **JO** Donald Duck?

Experimenter: It is JO.'

(Engberg-Pedersen 2009: 227)

This meaning can probably be derived contextually, that is, it does not constitute a distinct meaning. As regards the pragmatic link, Engberg-Pedersen (2009: 227–8) argues that *jo* is used in an attempt to convince 'oneself to accept that something is known or obvious even though it obviously is new or unexpected'. A similar approach is chosen for explaining the mirative function of the Norwegian *jo* by Berthelin & Borthen (2019: 25–26) and Blass (2000: 43) for German *ja*.

I think another pragmatic link is more plausible. If a proposition is surprising, the speaker might want to state it even though it is obvious, and the assertion therefore might conflict with the preparatory conditions of assertions as described by Searle (1966: 66). As pointed out by Waltereit (2006: 49), this is exactly what a construction like *jo* allows the speaker to do. In other words, *jo* is not used to convince anyone, but rather, *jo* is used because it allows the speaker to state a proposition and express her surprise without violating the preparatory conditions of assertions.

In sum, Modern Danish *jo* has been analysed as an expression that marks the proposition as known, given, obvious or similar. Other researchers focus on the interactive aspects and argue that *jo* expresses that the speaker expects agreement from the addressee or does not expect to be contradicted. While these analyses are very similar, I have provided some arguments for the latter analysis. Furthermore, *jo* can be used to express mirativity.

7.1.2 The modal particle *sgu*: emphasis or insistence

The modal particle *sgu* expresses emphasis or insistence (Harder 1975: 107; cf. Hansen & Heltoft 2011: 1050; Westergaard & Boye in press). It emphasizes the trustworthiness or sincerity of the speaker in assertions or her insistence that the proposition is true:

(7.6) Vi klarer den **sgu** ikke.
'We will **SGU** not make it.'
(KorpusDK)

Davidsen-Nielsen (1996: 286) agrees, rendering the semantics of *sgu* as 'emphatic certainty' (p. 296). Additionally, he claims that *sgu* is "signaling an inference from external evidence" (p. 286). However, this analysis is solely based on introspection and no arguments in favour of it are provided. It is not endorsed by any subsequent researchers, and I do not see any arguments that speak for it. I will therefore disregard it.

Davidsen-Nielsen (1996: 292) and Engberg-Pedersen et al. (2019: 96) point out that *sgu* expresses mirativity similar to *jo*:

(7.7) Det er **sgu** Anders And!
'It is **SGU** Donald Duck!'

This mirative meaning can probably be derived pragmatically based on the emphasis meaning. Other emphasizers have the same effect in this context:

(7.8) Det er **fandme** Anders And!
'**Damn it**, it is Donald Duck!'

7.1.3 The modal particle *skam*: reassuring and expected agreement

Harder (1975: 107) argues that *skam*, like *jo*, expresses that the proposition is regarded as given by the speaker. Additionally, he argues that *skam* is 'reassuring' or 'correcting'.

Similarly, Davidsen-Nielsen (1996: 285; cf. Engberg-Pedersen et al. 2019: 95–96) argues that "*skam* is characteristically used to eliminate the doubts the hearer apparently has towards the truth of the proposition" and that *skam* expresses that someone holds a conflicting point of view but that the addressee is expected to agree

with the speaker's point of view (Davidsen-Nielsen 1996: 290; cf. Hansen & Heltoft 2011: 1050). This captures the same intuitions that Harder captures with the glosses 'reassuring' or 'correcting': Reassuring and correcting speech acts presuppose that the hearer does not believe the proposition before hearing the utterance of the speaker but is expected to do so afterwards.

In the following example, *skam* is used to address the supposed belief of the addressee that the speaker is not shaving and reassures him that he in fact does so:

(7.9) Han forsikrer ironisk, at han **skam** trods alt barberer sig hver morgen og endda sommetider vasker op, selv om han generelt finder det "alt for kedeligt".

'He ironically reassures that he does **SKAM**, after all, shave every morning and even sometimes does the dishes, even though he generally finds it "far too boring".'

(KorpusDK)

Possibly, *skam* might also express mirative meanings:

(7.10) Længes hjem! En gift Kone gaa og længes hjem. Det var **skam** en net Historie. Var da hendes Hjem ikke hos hendes Mand for Fanden!

'Longing for home! A married woman longing for home. That is **SKAM** a fine story. Was her home not with her husband, for heaven's sake!'

(internet)

However, it is difficult to say whether *skam* expresses mirativity in such examples.

7.1.4 The phatic modal particles and sentence type

While *sgu* is possibly marginally acceptable in imperatives, in general, the phatic modal particles *jo*, *sgu* and *skam* cannot appear in interrogatives or in imperatives:

(7.11) *Er det **jo/sgu/skam** Anders And?

'Is it **JO/SGU/SKAM** Donald Duck?'

(7.12) *Kom **jo/sgu/skam**!

'Come **JO/SGU/SKAM**!'

This distribution can be explained on conceptual grounds. The meanings of these modal particles are intrinsically connected with assertions. Interestingly, in combination with *da*, *sgu* is unproblematic in imperatives:

(7.13) Så kom **sgu da** i gang AaB!

'Then get **SGU DA** started, AaB!'

(internet)

As this seems to be an idiosyncrasy of the combination of *sgu* and *da*, I regard *sgu da* as some kind of complex modal particle.

7.1.5 The phatic modal particle paradigm in Modern Danish

As pointed out by Hansen & Heltoft (2011: 1049–51), the modal particles *jo, sgu* and *skam* form a paradigm, and they argue that the semantic core of these modal particles is to express how the addressee is expected to react. Both *jo* and *skam* express that the speaker expects the addressee to agree with her after hearing the utterance, while *skam* additionally specifies that there exists doubt about the expressed proposition. According to Hansen & Heltoft (2011: 1053), the modal particle *sgu* is a neutral element in this paradigm, that is, it does not specify how the addressee is expected to react. While it is easy to see how *jo* and *skam* are paradigmatically related, this is not completely clear with *sgu*.

However, be that as it may, *sgu* is clearly a member of the paradigm because it is placed in the same position as *jo* and *skam* (the position for phatic modal particles, cf. Section 4.2.4). Furthermore, some semantic affinity between *sgu* and a phatic modal particle like *skam*, which also emphasizes the trustworthiness of the speaker in some way, is obvious. Additionally, while it may not be a part of the conventional meaning of *sgu* that the speaker expects that the addressee will react in a particular way, expected agreement is often implied based on the insistence or emphasis meaning:

(7.14) Når man er ansat inden for militæret så bliver man **sgu** pacifist efterhånden når man ser de milliardbeløb som bliver brugt.

'When you work in the military, you become **SGU** a pacifist over time when you see those billions being spent.'

(Bysoc)

The following table summarizes the phatic modal particle paradigm:

Table 7.1
The phatic modal particle paradigm in Modern Danish

Expression: phatic modal particle position and modal particle features **Content:** speaker's expectation about the addressee's reaction	
jo	expected agreement
skam	expected agreement and insistence despite doubt about the proposition expressed
sgu	emphasis or insistence

The expression features of this paradigm were discussed in Section 4.2.

7.1.6 The dialectal distribution of the phatic modal particles

The modal particle *jo* expressing expected agreement seems to be attested in all dialect dictionaries. Feilberg (FeilO, s.v. *jo*) discusses it as 'rejecting doubt' but also as 'haughty':

(7.15) A vẹð ət **jo** gåt.
'I do **JO** know it.'

(c. 1900 Western Jutland FeilO, s.v. *jo*)

In JO (s.v. *jo*^{2}), *jo* is glossed with 'of course, as is known' and it is said to express that the speaker expects that what is said will be 'accepted by the interlocutors':

(7.16) Vi ha· **jo** ˈeŋən musˈkantər, ˈså måst vi **jo** ˈkveæ ˈsjæłə.
'We had **JO** no musicians, so we had **JO** to sing ourselves.'

(1931–1935 Southern Jutland JO, s.v. *jo*^{2})

Similar glosses are provided for Bornholmian (BO, s.v. *jo*), where *jo* is said to express obvious information and is used as justification for other propositions. The following utterance illustrates this:

(7.17) Dêd hâr jâ **ju** sajt daj.
'I have **JO** told you that.'

(1923–1931 Bornholm BO, s.v. *jo*)

According to the ØMO (s.v. *jo* I), *jo* is also generally attested in the remaining Danish island dialects. In sum, *jo* seems to be present in all dialects.

The JO (s.vv. *skam* and *såskam*) has an entry for the noun *skam* 'shame' and for the oath *såskam*, which is the predecessor of the modal particle (cf. Section 7.4.3). As regards the former, it is simply stated that *skam* corresponds to Standard Danish usage. Whether this includes modal particle uses of *skam* is unclear. Feilberg (JAO, s.v. *skam*) does not mention an adverbial use of *skam* either, but he provides examples that might correspond to the Standard Danish modal particle:

(7.18) De wè a **skam** enc.

'I do **SKAM** not know that.'

(c. 1900 Northern Jutland JAO, s.v. *skam*)

Similarly, the BO (s.v. *skamm* II) mentions that *skam* is used as 'a common exclamation or assurance' in Bornholmian:

(7.19) Ded vedd ja **skamm** ijkkje!

'I do **SKAM** not know that.'

(1840–60 Bornholm BO, s.v. *skamm* II)

It is impossible to say anything about the exact meaning of *skam* in examples like these, but it might be indicative of the meaning of the Standard Danish modal particle. In sum, it seems as if *skam* is used as some kind of emphasizer in eastern as well as western dialects, though not necessarily with its Standard Danish meaning.

In JO (s.v. *sgu*) as well as JAO (s.v. *sgu*), Jutlandic *sgu* is said to be similar to Standard Danish. Specifically, the JAO claims that *sgu* is a 'common oath':

(7.20) A ska **sti**[25] dan dæ!

'I am **SGU** going to teach you!'

(c. 1900 Northern Jutland JAO, s.v. *sgu*)

This might indicate that *sgu* corresponds to the Standard Danish modal particle.

While Bornholmian (BO, s.v. *god*) has an older version of the oath namely *så-gu* (cf. Section 7.3.2), the fully contracted form *sgu* is not attested:

[25] The form *sti* is a minced version of *sgu* typical for Jutlandic (cf. Section 7.3.2).

(7.21) Naj **se gu** åm jâ gjårr!

'No **SÅ-GU** I am not doing it!'

(1923–31 Bornholm BO, s.v. *god*)

It is difficult to say whether this means that the modal particle is absent in eastern dialects.

In sum, at least the phatic modal particles *jo* and *skam* are attested in eastern as well as western dialects. Whether *skam* expresses a meaning corresponding to the Standard Danish modal particle is unclear. *Sgu* is attested in the western dialects, and its presence in the eastern dialects can be contested.

7.2 The development of *jo*

In this section, I present an analysis of the development of *jo.* In line with the ODS (s.v. *jo*), I argue that *jo* is a Middle Low German loan word. In Middle Danish, *jo* expresses a temporal meaning as well as necessity. Based on the temporal meaning and possibly based on language contact, it develops the modal particle meaning in Early Modern Danish. Furthermore, I illustrate that *jo* expresses a number of meanings in Early Modern Danish that go out of use in the transition to Modern Danish.

Parts of the analysis have already been presented in Westergaard (2023b).

7.2.1 Temporality

Jo does not appear in any of my material prior to the 15th century. In older texts, I only find *e* 'always', *jo*'s Middle Danish cognate, which is still in use in the 15th century when *jo* is introduced:

(7.22) The stridhæ offtæ Och **ee** wan swen sigh*e*r.

'They often fought each other, and Swen **always** won.'

(1400 GestaC67 n.p.)

When *jo* is introduced in late Middle Danish, it appears as a temporal adverb meaning 'always, at all times, continuously'. The same meaning is also mentioned in the historical dictionaries of Middle Low German (MNDW, s.v. *io*) and Early New High German (FNHDW, s.v. *je*):

(7.23) hwart som han com tha møtte honum **jo** the samo swaren:

'Wherever he came, people **always** answered him the same.'

(1425 SjT 90)

In this example, the most reasonable reading of *jo* is that it expresses the temporal meaning 'always'. This is corroborated by the unspecific local adverb *hwart* 'wherever' in the subordinate clause.

Temporal *jo* can modify an adjective in the comparative where it imposes a temporal construal on the comparative and the property expressed with the adjective; consequently, it expresses a meaning like 'ever, still more':

(7.24) æn alexander drogh **jw** nærmer oc van alla the stæthir oc fæste som han til com.

'But Alexander came **ever** closer and captured all the cities and castles he came upon.'

(1425 SjT 121)

7.2.1.1 Topology of temporal *jo*

In this section, I only discuss the topology of *jo* when it is used as a sentence constituent. Unfortunately, it is difficult to keep the temporal meaning apart from the expected agreement meaning, which emerges in the 16th century. This makes firm conclusions about its topological distribution difficult.

As a sentence constituent, temporal *jo* only appears in the middle field in my material. It appears in the focus position (after negation) (7.25) and possibly in the background field (preceding negation) (7.26):

(7.25)

kunde	vi	ey	**jo**	høre	det	paa	danskemaall,	
can	we	not	**ever**	hear	it	on	Danish	

huad det er at faste ret.

'Can we not **ever** hear it in Danish what it means to fast correctly?'

(1543 PalArg V 118)

(7.26)

meen	ther som	thett	**jo**	ickij	andet	skee	kand,
but	while	it	**always**	not	else	happen	can

ennd hand wille threthe mitt ether och oss aelle, thaa siønis mig beest att (…)

'But while nothing **ever** can happen, other than him wanting to fight with you and all of us, I think it best to (…)'

(1562 GylLet II 190)

However, in (7.26), *jo* might also be an instance of the expected agreement meaning.

In at least one example, temporal *jo* follows another adverbial, the textual *end* 'however, after all':

(7.27)

man	kand	end	**jo**	siden	finde	iblant	det
one	can	after all	**always**	later	find	among	the

gammel	tømmer	noget	som	kand	due	til
old	timber	something	that	can	be of use	for

den	nye	huß.
the	new	house

'One can, after all, **always** find something among the old timber that can be used in the new house.'

(1543 PalArg V 101)

In one example, it seems as if *jo* is placed in the post field:

(7.28)

Der faare paamindis wi her aluerlige/

at	wi	skulle	imodstaa	Paffuens	verstygelige	lerdom/	
that	we	should	oppose	the	Pope's	abominable	doctrine,

oc	predicke	vor	Herre	Christum/	oc	bliffue	**io**
and	preach	our	Lord	Christ	and	remain	**always**

der	hart	ved/	Amen.
there	hard	with	Amen

'Therefore, we are seriously reminded here that we should resist the Pope's abominable doctrine and preach our Lord Jesus Christ and remain steadfast in doing so for **ever**. Amen.'

(1555 PalArg III 229)

In the example, it might look as if *jo* is placed after an infinite verb (*blive* 'remain') and hence in the post-field. However, post-field position of *jo* is not unambiguously clear even in this one example. The infinite verb could be analysed as a finite verb and coordinated with the preceding finite verb *skulle* 'should'.

In sum, it seems as if temporal *jo* only was placed in the middle field where it occurred in the background field as well as in the focus field. It is difficult to say whether *jo* in general was disallowed in the pre-field and post-field and thereby was an adverb with topological idiosyncrasies or whether the absence of such examples is due to coincidence. Furthermore, the analysis is hampered by the fact that, in many cases, it is impossible to say whether *jo* expresses its temporal meaning or the expected agreement meaning that emerges in the 16th century.

7.2.1.2 Grammatical vs. lexical status of temporal *jo*

The temporal adverb *jo* seems to be negatable:

(7.29)

kunde	vi	ey	**jo**	høre	det	paa	danskemaall,
can	we	not	**always**	hear	it	on	Danish

huad det er at faste ret.

'Can we not **ever** hear it in Danish what it means to fast?'

(1543 PalArg V 118)

In this passage, the writer is agitating against the catholic practice of the fast. One point of criticism is that it is unclear what exactly it means to fast. In this light, I interpret this passage as a rhetorical question with an emphasis on the temporal meaning element 'ever'. Therefore, I will analyse temporal *jo* as a lexical construction.

Note that this example also illustrates that temporal *jo* could occur in interrogatives contrary to its modal particle successor.

7.2.1.3 The comparative correlative construction

In Early Modern Danish, temporal *jo* modifying adjectives as in (7.24) gives rise to the comparative correlative construction: *jo* ADJ-COMP *jo* ADJ-COMP with the meaning 'the more X the more Y', which has survived until Modern Danish:

(7.30) Men **io** mere hand forbød/ **io** mere kundgiorde de det

'But the more he forbade it, the more they proclaimed it.'

(1556 PalArg III 443)

This is hardly relevant to the development of the modal particle, and I will therefore not discuss it any further.

7.2.2 Necessity and emphasis

In Middle Danish and Early Modern Danish, *jo* develops a necessity meaning. The development of this meaning seems to proceed in at least two stages. When *jo* is introduced into Middle Danish, it already expresses necessity. However, this meaning only cooccurs with modal verbs that express necessity themselves, with one possible exception. In Early Modern Danish, *jo* also begins to emphasize the speaker's wish in requests.

As I will argue below in Section 7.2.4, in the 16th century, the expected agreement meaning begins to appear as well. As these meanings seem to behave similarly topologically, I will analyse their topology collectively in Section 7.2.4.2.

7.2.2.1 Stage I: modal necessity

In my Middle Danish material, there are examples such as (7.31) – (7.33) where *jo* most likely expresses some kind of modal necessity. All of these are from the same text (*Sjælens trøst*). Especially in (7.31), a temporal meaning seems to be excluded, because the clause refers to an individual punctual event in the future (the death of the leper), which clashes with the durative temporal aspect of the meaning 'always':

(7.31) Tha swarathe thæn spitalske brodherin at han vilde hældir døø. keysaren saghdhe at han skulde thæt **jo** ændeliga giøra.

'Then the leprous brother answered that he rather wanted to die. The emperor replied that he **necessarily** will do so.'

(1425 SjT 72)

(7.32) vilin i **jo** ændeliga alexandrum hafva. Iac lafvar idhir iac vil idhir honum hiit før

'As you **necessarily** want to have Alexander, I promise I will bring him here.'

(1425 SjT 127)

(7.33) Iac maa ey annat æn iac skal **jw** fara hem til mina hustru oc min børn.

'I cannot do anything else but I must **necessarily** go home to my wife and children.'

(1425 SjT 93)

In (7.31), *jo* expresses dynamic necessity, that is, necessity that has what Bech (1951: 7) calls a 'causal modal factor', meaning that there are real-world factors (in this case leprosy) that necessitate the realization of the state-of-affairs (the leper's death). In (7.32), *jo* expresses volitive or deontic necessity, that is, a necessity that stems from someone's will (the addressee in this case). In (7.33), *jo* likewise expresses deontic necessity: 'morals oblige me to return to my family'.

In some of these examples, a reading of *jo* as expressing expected agreement is plausible. However, there are some arguments for not analysing these examples as early instances of the modern modal particle:

1. *Jo* is restricted in its distribution, only appearing together with modal verbs in this text: 5x *skulle*, 2x *ville*, 1x *måtte*. All of these modal verbs themselves express necessity in the relevant period (cf. Obe 2013: 88; 112; Obe 2023). Furthermore, in five out of these eight instances of this meaning in Middle Danish, it cooccurs with *ændeliga* expressing necessity itself.

   Such collocation patterns pose a methodological problem, as it cannot be ruled out that the necessity meaning is only contributed by the modal verbs and *ændeliga*, while *jo* might contribute a different meaning. However, in all examples, the necessity meaning fits the context very well. Furthermore, such a collocation pattern is common for innovative modal meanings. These tend to cooccur with other expressions with similar meanings before they become more independent (cf. Traugott 1989: 42, Fritz 1991: 40–41; 47; Gamon 1993: 149).

2. At least in (7.32), a reading of *jo* as expressing the modern modal particle meaning is dispreferred. In (7.32), it appears in a premise (*vilin i jo ændeliga alexandrum hafva* 'if you necessarily want to have Alexander'). A similar context is impossible for the modal particle *jo* in Modern Danish:

(7.34) *Hvis du **jo** vil have ham, skal jeg nok hente ham.

'If you **JO** will have him, I shall bring him.'

3. In Middle Low German, which arguably is the source language for *jo*, there is a similar necessity meaning. For instance, Schiller & Lübben (MNDW, s.v.

io) describe the meaning of *io* as 'expressing assurance, definitely, in any case, certainly':

(7.35) Schole wy striven, zo sterve wy **io** an eren.

'If we are to die, we are **certainly** dying in honour.'

(MNDW, s.v. *io*)

In Middle Danish, necessity *jo* almost only occurs in the text *Sjælens Trøst*, and *jo* could be interpreted as expressing modal necessity in only one additional text. This example is from the end of the Middle Danish period. Here, Roland, a Christian knight of Charlemagne, and the Saracen giant Ferakude discuss the trinity doctrine. Ferakude then argues:

(7.36) om jeg kaller gud fader Ok gud søn ok gud ok then helghæ andh thet ær **jo** iij gude

'If I call the father God, his son God and the Holy Ghost God then they **must** be three Gods.'

(1480 KMK 210)

In this example, *jo* could be interpreted as expressing epistemic necessity or possibly alethic or some kind of objective epistemic modality, that is, the conclusion follows by logical necessity. However, it could also be an early example of the modern modal particle meaning (only a few decades later unambiguous examples of this begin to appear, cf. Section 7.2.4): 'even though you argue that there is only one God existing in three persona, if I call the father God, his son God and the Holy Spirit God then they are (I expect you to agree) three Gods'.

The fact that this *jo* in Middle Danish nearly only appears in *Sjælens Trøst* (1425) might pose a problem. This might indicate that it is an idiosyncrasy of the translator or a translation interference. *Sjælens Trøst* is an Old Scanian[26] translation from Old Swedish and known for considerable translation interferences (Skautrup 1947: 25; 39–40).

However, the following examples illustrate that this meaning is also present in Early Modern Danish. The necessity meaning of *jo* is particularly clear in combination with the modal verb *ville* and in non-factive premises:

[26] Old Scanian is considered a dialect of Middle Danish.

(7.37) Vill i **io** gierne gaa till helligdom, da gaar til saadanne och till hospitaler, och huorsom i finde de siuge och sorgfuld,

'If you **necessarily** want to go to sanctuaries, then go to those and to hospitals, and wherever you find the sick and sorrowful.'

(1543 PalArg V 134)

However, this meaning seems to have been short-lived. I still find examples of it in the 16th century, but already in the Bible from 1550, it seems to be disappearing. At least some of Luther's instances of necessity *ja* are not translated with Early Modern Danish *jo*. For instance, in the Danish translation (7.39) of the German source text (7.38), the translator chose to translate with *endelige* 'necessarily' instead of *jo*:

(7.38) Mus es denn **ja** also sein / so thuts.

'Is it **necessary**, then do it'

(1545 LutBib Gen 43:11)

(7.39) Skal det da saa **endelige** vere / da gører det.

(1550 Bib Gen 43:11)

The fact that *ja* is not translated with *jo* here could indicate that the translators did not deem such meanings to be within the meaning potential of Danish *jo* and therefore opted for *endelige*. If *jo* would have the relevant meaning, it should be the obvious choice, being formally nearly identical with its ENHG cognate. From the 17th century onwards, I only find very few plausible instances of this meaning.

7.2.2.2 Stage II: emphasis

In Early Modern Danish, the necessity meaning of *jo* seems to be generalized and it begins to express emphasis in combination with requests. There are two distributional arguments for reckoning with a directive emphasizing *jo*:

1. A non-temporal *jo* tends to be embedded under matrix predicates expressing wishes and related meanings.
2. A non-temporal *jo* appears in imperatives.

As further support for the emphasis analysis, I will provide dialectal evidence and evidence from translations.

In Early Modern Danish, a non-temporal *jo* tends to occur in subordinate clauses embedded under matrix clauses expressing a wish, hope, prayer or similar such as *mynn flitig bønn* 'my eager prayer' in (7.40) and *forhoffuis* 'hope' in (7.41):

(7.40) Therfor, kierre her Monnss, er mynn flitig bønn tiil etther, y wilie wel giøre och fli thet saa, at thenne betaling matte **jo** wiis komme tiil stede for winterenn.

'Therefore, dear Mr. Mons, it is my eager prayer to you that you will do good and make it possible that this payment will **JO** safely arrive before winter.'

(1565 GylLet II 248)

(7.41) Och forhoffuis miig, att Chrestofer och du **jo** fortøffuer enn tiidt lanngh her wdj lannditt

'And I hope that Christopher and you are **JO** going to stay here in this land for some time.'

(1571 GøjLet 181)

In all of these examples, temporal readings are ruled out due to the punctual predicate or to the presence of another incompatible temporal adverb (*enn tiidt lanngh* 'for a while') expressing a narrow time interval that is not harmonic with the temporal unboundedness of the meaning 'always'. Furthermore, the expected agreement meaning, which also emerges in the 16th century (cf. Section 7.2.4), can be ruled out because of the non-factuality of the subordinate clauses. Rather *jo* emphasizes the speaker's wish.

It seems that *jo* has the same effect in imperatives:

(7.42) Den gamle Mand sagde / Fred vere met dig / alt huad som dig fattis det skalt du finde hoss mig / bliff **io** icke i nat paa gaden.

'The old man said: Peace be with you. Everything you need, you shall receive from me. Do **JO** not stay on the street all night!'

(1550 Bib Judge 19:20)

(7.43) Tencker **io** icke / at ieg vil vere den Tyran lydig her vdi

'Do **JO** not think that I am going to be obedient to that tyrant in this matter!'

(1550 Bib 2. Makk 7)

(7.44) lad oss **io** ald tiid bliffue i dyn tilsagte naade

'Let us **JO** always stay in your promised mercy!'

(1540 TausSS 279)

Even though the temporal meaning cannot be ruled out with certainty in these examples, *jo* seems to emphasize the speaker's wish, similar to (7.40) and (7.41).

The proposed semantic analysis is corroborated by two comparative arguments:

1. In utterances like (7.42) and (7.43), *jo* translates the Early New High German *nur*, which according to the FNHDW (s.v. *nur*) expresses 'just, please, at least, used to express a wish'. Compare the two Bible passages from the Early New High German source text in (7.45) and (7.46) with the Early Modern Danish translation in (7.42) and (7.43):

(7.45) Der alte Man sprach / Friede sey mit dir / Alles was dir mangelt findestu bey mir / bleib **nur** nicht vber nacht auff der gassen.

'The old man said: Peace be with you. Everything you need, you shall receive from me. Do **NUR** not stay on the street all night!'

(1545 LutBib Judge 19:20)

(7.46) Gedenckt **nur** nicht / das ich dem Tyrannen hierin gehorsam sein wil

'Do **NUR** not think that I am going to be obedient to that tyrant in this matter!'

(1545 LutBib 2. Makk 7)

Because *jo* here translates a modal particle with a distinct phonological form, the presence of *jo* in this example cannot be due to a translation interference.

2. The analysis is corroborated based on dialectal evidence: While *jo* no longer can emphasize requests in Modern Standard Danish, the same or a similar meaning does exist in (at least) some of the Jutlandic dialects:

(7.47) Kom ˈ**juə** iˈjæn

'Come **JO** back!'

(1931–35 Southern Jutland JO, s.v. *jo*[1] adv)

(7.48) Håws **jo**ˈ, å sæt e Pråp o ə Fla·sk, æjsən fådoftər æ Sprit

'Remember **JO** to put the cork on the bottle! Otherwise, the alcohol will evaporate.'

(speaker born in 1859 Southern Jutland JO, s.v. *jo*[1] adv)

In sum, as soon as *jo* is introduced into Danish, it expresses necessity meanings. At first, these only occur in combination with other markers of necessity. However, in

the transition to Early Modern Danish, this emphasizing *jo* is also used to emphasize the speaker's wish.

7.2.2.3 Diachronic matters

According to the ODS (s.vv. *jo* and *i*, adv), temporal *jo* is a Middle Low German loan, and as Middle Low German *io* has the necessity meaning as well (MNDW, s.v. *io*), this meaning may have been borrowed when *jo* was introduced into Middle Danish. Speaking for such a contact scenario is the fact that the temporal and modal necessity meaning are available as soon as *jo* is introduced into Danish.

The modal necessity meaning need not be the result of language contact, however. In this section, I show how the modal necessity and the emphasis meaning might have developed in Danish on independent grounds. I first discuss the development of the modal necessity meaning.

The meaning 'always' very easily shades into necessity meanings and especially so when it is combined with a necessity modal verb. When a state-of-affairs is described as needing to be realized at all times, the temporal meaning emphasizes the necessity expressed by the modal verb:

(7.49) Haffuer then krancke pestilentze, pocker, krefftt, spijdalsche, eller huess andre besmijttelige oc wederstyggelige siwgdomme, som mange ere till, tha scall **iw** presthen wære till stæde

'If the sick person has the plague, pox, cancer, leprosy or any other contagious and abominable diseases, of which so many exist, the priest must **always** be present.'

(1530 HelArg III 207)

In such a context, the meaning 'always' is redundant. If the speaker expresses that it is necessary that the priest be there, a default reading is that the priest must always be there. Consequently, the fact that the speaker points out that 'the priest must always be present' might be interpreted as an emphasis of the modal necessity expressed: 'the priest must necessarily be present'. Such redundancy together with the pragmatic enrichment makes a context like this a fertile ground for a hypoanalysis (cf. Croft 2000: 126–30; cf. Section 3.2.1).[27]

The emphasis meaning of requests could have developed in at least two ways: 1. as a generalization of the necessity meaning and 2. as a development of the meaning

[27] Even though this transition from the temporal to the necessity meaning seems like a very probable pathway, it is not mentioned in Bybee et al. (1994), van der Auwera & Plungian's (1998) semantic map of modality or in Kuteva et al. (2019).

'always'. A generalization from necessity to emphasis can be facilitated by a context as the following:

(7.50) Men effterdi at Gud Fader saa hiertelige befaler oss/ at wi skulle **io** høre hans Søn/ da er det for alle ting nytteligt at vide huad Sønnens Lærdom er/

'But since God the Father so heartily commands us that we should **always/necessarily** listen to his Son, it is above all things useful to know what the Son's teaching is.'

(1555 PalArg III 242)

In such a context, *jo* can be interpreted as expressing the necessity (or temporal) meaning. However, at the same time it is highly redundant and hence prone to being reanalysed, as necessity already is expressed by the modal verb. Instead of expressing modal necessity in the narrow sense, *jo* can be associated with the contextually available directive meaning (from the matrix predicate) and hence come to emphasize the wish of the speaker.

The emphasis meaning may also have developed independently based on the temporal meaning. If a request needs to be realized at all times, this implies that the realization of the state-of-affairs is important, as in the following memento mori:

(7.51) thæt ær alt væl giort af thek. thænk **jo** thin ænda oc thin dødh.

'That is well done by you. **Always** remember your end and your death!'

(1425 SjT 122)

The fact that the speaker emphasizes that the addressee should think about death at all times implies that the speaker must think it is of utmost importance that the addressee do so and hence emphasizes his wish.

In sum, because Middle Low German *io* has a necessity meaning similar to the one of *jo* in late Middle Danish, it is reasonable to assume that this meaning is introduced as a loan. Be that as it may, I outlined several scenarios illustrating how the temporal meaning may have given rise to the necessity and emphasis meaning. The language-internal and -external scenario need not exclude each other. Rather, the German model might have facilitated a reanalysis in Danish as an analogical model.

7.2.2.4 Grammatical vs. lexical status of necessity and emphasis *jo*

When *jo* expresses necessity or emphasis in my material, it is never focused or modified. However, according to the JO (s.v. *jo*[1] adv), the emphasis marker *jo* is

obligatorily stressed.[28] Because stress is typical for lexical elements and untypical for grammatical elements, this might indicate lexical status of the adverb.

Furthermore, while necessity or emphasis *jo* is never focused by a focus operator, in an utterance like the following, *jo* might very well contribute the most important information. Consequently, in the English translation, the construction corresponding to *jo* can be highlighted with stress, emphasizing that the argument is compelling:

(7.52) om jeg kaller gud fader Ok gud søn ok gud ok then helghæ andh thet ær **jo** iij gude

'If I call the father God, his son God and the Holy Ghost God then they **MUST** be three Gods.'

(1480 KMK 210)

Therefore, I assume that necessity and emphasis *jo* was lexical.

7.2.3 Positive polarity marker

In Early Modern Danish, *jo* also develops a meaning that can be described as a positive polarity marker, that is, a marker expressing that the proposition it modifies is true despite its appearance in a negative polarity context:

(7.53) dagen ehr aldrig saa lang, at afftenen **io** kommer paa

'The day is never so long, that the evening should **not** come.'

(1543 PalArg V 39)

One might want to describe this *jo* as a negation (cf. e.g., Kalkar, s.v. *jo*). This might seem like an appropriate description, because *jo* has the same effect as negation in combination with a negated matrix clause (see my English translation). However, *jo* never negates a proposition on its own. Therefore, I rather analyse it as expressing positive polarity in negative contexts.

As pointed out by Mikkelsen (1975[1911]: 330), the positive polarity marker alternates between two types of construction, one where *jo* expresses the positive polarity alone (7.53), and one where it cooccurs with a negation (7.54):

[28] I am grateful to Sune Gregersen for bringing this to my attention.

(7.54) Af Husene i Kannikestræde var der næsten intet, som **jo** ikke var mærket af Ild.

'Of the houses in Kannikestræde, there was hardly any that was **not** marked by fire.'

(Mikkelsen 1975[1911]: 330)

To avoid misunderstanding, I must emphasize that, while I speak of positive polarity, this positive polarity *marker* is a negative polarity *item* (it only appears in negative polarity contexts).

Because I do not assume that the positive polarity marker plays a decisive role for the emerging modal particle, I will not discuss it any further.

7.2.4 The expected agreement meaning

Until now, I have argued that *jo* in the 16th century at least expresses temporal meanings, necessity and emphasis as well as positive polarity in negative polarity contexts. In this section, I argue that also the expected agreement meaning emerges in the 16th century. In the following example, the speaker reminds his interlocutors of recent witch burnings:

(7.55) Du maat iche thie met nogen troldqvinde, di faae nu deris rette løn, (…)

De brende **jo** en hob tilforne aff dem udj Malmøe, udj Kiøge, och anderstedze, och hører vi thill at der sidder atther en hob greben i Malmøe och schulle brendes.

'You are not allowed to hide witches. Now, they get what they deserve. (…)

They burned **JO** a group of them some time ago in Malmø, Køge and other places. And we also hear that there is another group in custody taken in Malmø which is supposed to be burned.'

(1543 PalArg V 110)

Other meanings reckoned with already are implausible. For instance, the witch burnings are specific, individual events, which excludes the temporal meaning of *jo*.

In the following example from the Bible, which is embedded in a passage about Ephraim's idolatry, God reminds the Jews of their covenant, which they agreed upon in their exodus from Egypt. This is a single event and neither God nor the Jews can

be assumed to be uncertain about this event. As it is an uncontroversial fact, the expected agreement is the most plausible meaning:

(7.56) Men ieg er HERREN din Gud aff Egypti land / Oc du skulde io ingen anden Gud kende vden mig / oc ingen Frelsere / vden mig alene. Jeg tog mig dig **io** til i Ørcken vdi det tørre Land.

'But I am the Lord your God from the land of Egypt, and you must JO know no other God but me, and no saviour besides me alone. I took **JO** care of you in the desert in the dry land.'

(1550 Bib Hos 13)

The fact that the passage includes several instances of *jo* also indicates that *jo* expresses expected agreement, as the modal particle *jo* is extremely frequent in Modern Danish (Christensen 2012: 12).

At the latest in the 17th century, unambiguous examples of temporal and necessity *jo* disappear. This has a methodological advantage. As soon as these meanings are no longer attested in the language, they need not be ruled out in order to assess whether the expected agreement meaning was conventionalized (cf. Section 6.2.1). Consequently, it becomes easier to illustrate the expected agreement meaning. In the following examples, *jo* occurs in utterances with propositions the speaker regards as uncontroversial. Hence, we can assume that the speaker uses *jo* to express expected agreement. In the following example, the speaker indicates that she expects that the addressee will not contradict her in the assessment that the addressee is going to swear loyalty to the prince if the addressee loses the king's favour:

(7.57) "mens naar Kongen falder Eder fra, saa sværer I **jo** Prinsen paany." "Ja," svarte Posse

'"But when the king abandons you, then you swear **JO** allegiance to the prince again." "Yes," replied Posse.'

(1659 LeoCon 88)

In the following example, the speaker's husband is accused of treason for offering the kingdom of Denmark to a foreign power. The speaker then argues that her husband could not have given something away that was not in his power to give away. The modal particle *jo* here expresses a fact she expects her interlocutors will not contradict, as she regards it as uncontroversial:

(7.58) Nu er let att tencke, att ingen Forstandig Mand, ded skulle vdbyde, som icke stoed i hands Mact, oc hand icke for Raade; Hand er **io** vdi ingen Charge, haffuer ingen Myndighed eller Midler; huor skulle hand were saa daarlig, saadan Tilbud att giøre, oc huad for en Herre skulle wille tage der imod?

'Now it is easy to think that no reasonable man would offer something that was not within his power. He holds **JO** no position, has no authority or means; how could he be so foolish to make such an offer, and what kind of man would want to accept it?'

(1674 LeoJamI 124)

In the following example, the king refuses to take some kind of drug that will allegedly make him feel better. He points out that he does not need anything, a fact he regards as obvious and, hence, expects the addressee not to contradict:

(7.59) wille E: M: bruge ded pulffuer, da skulle E: M: befinde sig hel uel derepther. Huortil uy suarede: huad tussind syger skulle uy bruge ded skaarn, Oss skader **io**, gud uerre loffuid, inted.

'Would Your Majesty use this powder, then Your Majesty would find themselves very well afterward. To which we replied: What in a thousand sicknesses would you use that stuff for? We do **JO**, thank God, not need anything at all.'

(1641 ChrisIV V 59)

In the following example, the character Skovsgaard first claims that he and the duke are related. The duke rejects this whereupon Skovsgaard reminds the duke that the duke and Skovsgaard's father are cousins:

(7.60) **Greven**. Fættre? Fættre? I forabuserer Eder.

Skovsgaard. Greven og min Fader er **jo** Sødskendebørn.

'The Count: Cousins? Cousins? You are mistaken.

Skovsgaard: The Count and my father are **JO** cousins.'

(1680 GFKom 26)

Similarly, in the following utterance, *jo* indicates that the utterance is a reminder:

(7.61) Hand spurte hworledis Piigen skulle komme til att bede for hannem? Ieg sagde, ded er **io** eders Festemøe?

'He asked how the girl should come to pray for him? I said, she is **JO** your fiancée?'

(1693 LeoJamII 163)

At the latest in the 18th and 19th century, *jo* also appears in clauses expressing the speaker's surprise:

(7.62) **Lise.** (…) Dragen havde (reverenter talt) en Svantz hen ved 3 Alen lang. (…)

Øllegård. Det var **jo** et forskrækkelig Syn!

'Lise. (…) Frankly, the dragon had a tail about 3 alen long. (…)

Øllegård. That is **JO** a terrifying sight!'

(1723 HolPla IV 44)

Having been in an enchanted place, in the following example, the speaker is clearly surprised at the fact that it is already autumn:

(7.63) »Gud! hvor jeg har sinket mig!« sagde den lille Gerda: »Det er **jo** blevet Efteraar! saa tør jeg ikke hvile!«

'"God! How I have delayed myself!" said little Gerda. "It is **JO** autumn! I cannot rest now!"'

(1844 AndEve II 61)

In sum, in this section, I have argued that *jo* develops the agreement expecting meaning in the 16th century. In the 18th and 19th century, I find examples where this meaning is used to express mirative meanings.

7.2.4.1 Diachrony of agreement expecting *jo*

In this section, I argue that two factors contribute to the development of the agreement expecting meaning:

1. the presence of a German model modal particle *jo*/*je*/*ja* and
2. the temporal meaning in argumentative contexts

I will discuss these in turn.

Middle Low German (*jo*) and Early New High German (*je*/*ja*) had a modal particle that is very similar to *jo* as regards its content as well as its expression. As was the case with the other meanings of *jo*, language contact thus most likely played a role in the development of this new meaning. Speakers who were aware of the German particle might have copied its meaning potential to the already borrowed adverb *jo*.

However, the expected agreement meaning may also have emerged in bridging contexts. Waltereit & Detges (2007: 74–76) suggest that constructions develop argumentative meanings in contexts where common ground is under discussion. In such contexts, non-argumentative constructions can express argumentative meanings contextually. These can then be conventionalized.

The German modal particle *ja* is generally assumed to have a temporal origin (*je*, 'always', DW, s.v. *ja*, Burkhardt 1994: 144, Waltereit 2006: 73; Panov 2020: 19). Waltereit (2006: 73) and the DW (s.v. *ja*) argue that if something always is the case, this can be assumed to be an uncontroversial proposition. Therefore, the temporal meaning has an argumentative potential that can be exploited in argumentative contexts. The following example illustrates a possible bridging context for *jo*:

(7.64) [Joseph's brothers are plotting to kill Joseph. Ruben, the oldest brother, then says]

Ney vi vilum honum ikkie dræba. oc ey hans blodh mæth swærdh vtgiyda. Han ær **jo** vor kiøtlige brodhir.

'No, we must not kill him and shed his blood with the sword. He will **always** be our brother by blood.'

(1425 SjT 41)

In this argumentative context, *jo* expressing the meaning 'always' can be taken to imply that the speaker expects agreement, as it emphasizes the uncontroversiality of the proposition by highlighting its constancy. Under normal circumstances, one does not stop being someone's brother. Therefore, this fact is obvious and uncontroversial. Additionally, *jo* is heavily redundant in combination with a static predicate like 'be someone's brother', because it can be regarded as temporally unbounded also without the temporal adverb. Based on this redundancy, the meaning of *jo* can then be reanalysed as expressing uncontroversiality, that is, expected agreement.

Some of the researchers working with German *ja* (e.g., Molnar 2002: 102; Waltereit 2006: 72, Panov 2020: 19) argue that the interjection *ja* 'yes' may have played a role in the development of the German modal particle *ja.* One might consider whether also the Danish interjection *jo* 'yes' may have played a role in the development of the agreement expecting meaning in Danish (cf. Therkelsen 2004 discussed above). However, converging evidence from Dutch suggests that such a

merger is not necessary to account for the semantic development of a particle like *ja*/*jo*. The Dutch modal particle *immer(s)* (WNT s.vv. *immer* and *immers*, cf. Panov 2020: 19) seems to originate in an adverb with the meaning 'always' and expresses that the speaker does not expect to be contradicted ("om aan te geven, dat men tegen den inhoud geen tegenspraak (…) acht" WNT, s.v. *immer*). There are no examples in the WNT where *immer(s)* is used as an interjection on its own. In other words, the expected agreement meaning can develop solely based on the temporal meaning. However, an influence of the interjection of a more subtle nature can obviously not be ruled out.

The similarity of the meaning of the modal particle *jo* and its cognate constructions supports a contact scenario, while the fact that *jo* does not immediately occur with this meaning is indicative of an internally motivated change. However, these two scenarios do not rule each other out. Arguably, the development of *jo* can be conceived of as a case of contact-induced grammaticalization (cf. Section 3.5), where the Middle Low German *jo* and/or the Early New High German *ja* acted as an analogical model facilitating the development of a similar meaning in *jo* in bridging contexts like (7.64). I will discuss other aspects of this change in Chapter 10.

7.2.4.2 Topology of necessity, emphasis and agreement expecting *jo*

In this section, I discuss the topology of *jo* expressing necessity, emphasis and expected agreement collectively, as these meanings do not appear to be treated as topologically distinct in my material. However, I do not wish to suggest that these meanings can be regarded as contextual variants of one underlying meaning.

When *jo* expresses one of these meanings, it always appears in the middle field:

(7.65)

Mæthan	thw	vil	**jo**	ændeliga	vida.	Tha	vil	iac	thek
Since	you	will	**JO**	necessarily	know	then	will	I	you
thæt	sigha.								
it	say								

'Since you will **JO** necessarily know, I will tell you.'

(1425 SjT 84)

It is almost never the case that other adverbials precede *jo* expressing necessity, emphasis or expected agreement. The preceding example already illustrates that the adverbial *ændeliga* 'necessarily' follows *jo.* In the following examples, *jo* precedes the manner adverbial *trolige* 'faithfully' (7.66), the temporal adverbial *altid* 'always' (7.67), the affirmative marker *gerne* (cf. Section 9.3.2.1) (7.68), the focus operator *enten* 'either' (7.69), the modal adverbial *ffor endelyg* 'necessarily' (7.70),

the textual adverbial *ocsaa* ‘also’ (7.71) and the epistemic adverbial *visselige* ‘certainly’ (7.72):

(7.66)

at	effterdi	wi	haffue	**io**	trolige	befalet	dig	vor	Liffs
that	because	we	have	**JO**	faithfully	entrusted	you	our	live’s

fruct
fruit

‘because we have **JO** faithfully entrusted to you the fruit of our live’

(1577 StB II 146)

(7.67)

at	der	**jo**	altid	rinder	nogit	aff	Vrten	fra
that	there	**JO**	always	runs	some	of	the wort	of

‘because there **JO** always runs some of the wort of’

(1616 Kog 12)

(7.68)

at	jeg	**jo**	gierne	hoss	oc	met	thennom	ville
because	I	**JO**	gladly	with	also	with	them	would

haffue	besøgtt	same	herredage
have	visited	same	counsel

‘because I **JO** gladly with them would have visited the same counsel’

(1541 GylLet I 61)

(7.69)

att	thet	**jo**	entthen	war	forpantthet	eller	forloffuitt
because	it	**JO**	either	was	pledged	or	given away

met	liiffs	breff
with	live’s	letter

‘because it **JO** either was pledged or given away for the duration of a life’

(1563 GylLet II 232)

(7.70)

ad	ther	**jo**	ffor endelyg	skulle	leggis	naagen
that	there	**JO**	necessarily	should	be placed	some

ffolck	och	heste	jnd j	Helne	kyrke
people	and	horses	into	Helne	Church

'that some people and horses **JO** necessarily had to be placed in Helne Church'

(1563 GylLet II 258)

(7.71)

hand	er	**jo**	ocsaa	mectig	til,	at	samle
he	is	**JO**	also	mighty	to	to	gather

Mennisken	lemmer	tilhobe	aff	Iorden
humans	limbs	together	from	the earth

'He is **JO** also mighty enough to gather the limbs of humans together from the earth.'

(1571 VedFri 100)

(7.72)

Thi	det	er	**io**	visselige	sant
For	it	is	**JO**	certainly	true

'For it is **JO** certainly true.'

(1550 Bib 1 Tim 1:15)

As the following examples illustrate, agreement expecting *jo* always appears before other modal particle etymons like *wel* 'well', *nu* 'now' and *vist* 'certainly':

(7.73) Nu tøckis migh efftir minn ringe forstanndtt,

att	mandtt	**jo**	wel	kunde	giøre	thennom	affbreck
that	one	**JO**	well	could	do	them	harm

'Now it seems to me, according to my humble mind, that one could **JO** well do them harm.'

(1565 GylLet II 724)

(7.74)

Saa	kende	i	**io**	nu /	At (…)
so	know	you	**JO**	now	that

'So you **JO** now know that (…)'

(1550 Bib Gal 3)

(7.75) Thj er mynn gantz wennlliig bønn till tig,

attw	wiilde	**jo**	wiist	were	hos	mig	same	tid.
that=you	would	**JO**	certainly	be	with	me	same	time

'For it is my very friendly request to you that you would **JO** certainly be with me at the same time.'

(1572 GøjLet 195)

In one example, *jo* appears after *dog*, which speaks against the generalization that *jo* occurs in the left periphery of the middle field:

(7.76) Der er dog **io** ingen iblant Hedningenis Affguder / som kand giffue Regn

'There are DOG **JO** none among the idols of the heathens who can give rain.'

(1550 Bib Jer 14:22)

This is a translation of Luther's *doch ja.* Interestingly, in all other occurrences of *doch ja* in Luther's Bible translation, the phrase *doch ja* is simply translated with *dog* (e.g., Jeremiah 14:9 and Isaiah 66:8). The order *dog jo* is thus most probably the result of an instantaneous translation interference.

In those rare cases where *jo* is preceded by another adverbial, the preceding adverbial seems to be foregrounded:

(7.77)

thi	Legemet	kan,	trods	Sjælens	Higen	opad,
because	the body	can	despite	the soul	striving	upwards

jo	ikke	komme	bort	fra	Jorden,
JO	not	come	away	from	the earth

før Døden bryder Baandet mellem dem

'Because the body, even though the soul is striving upwards, can **JO** not break free from the earth before death breaks the bond between them.'

(1876 SchanSto I 44)

I take this to indicate that *jo* expressing necessity, emphasis or expected agreement occupies the left-most position within the position for adverbials in the middle field.

In the early 20th century, I find the first instances where *jo* occurs in the right periphery:

(7.78)

De	to	var	Grækere,	**jo**,
the	two	were	Greeks	**JO**

Joán havde hørt det, at de talte Hr. Christopulos' Sprog.

'The two were Greeks, **JO**, Joán had heard it, that they spoke Mr. Christopulos' language.'

(1906 BanNov V 276)

Based on the dialectal dictionaries, this position seems to be quite common in the early 20th century:

(7.79)

jâ	hadde	fâd	ed	grân	fâr	huzed,	**ju**
I	had	got	a	bit	for	the house	**JO**

'I received some money for the house **JO.**'

(1923–31 Bornholm BO, s.v. *jo*)

In Chapter 10, I will suggest a historical explanation for it.

In sum, in this section, I have argued that, already in Early Modern Danish, *jo* expressing necessity, emphasis and its modern agreement expecting meaning had the topological distribution it has today, occupying the left-most adverbial position in the middle field. The right periphery position seems to be a more recent change.

7.2.4.3 Grammatical vs. lexical status of agreement expecting *jo*

There are no indications in my historical material that *jo* was lexical, and at least in Modern Danish, the agreement expecting meaning cannot be focused with stress (7.80), modified (7.81) or constitute an utterance alone (7.82):

(7.80) *Der kommer **JO** ikke mere forurening af den grund!

'There will **JO** not be more pollution for that reason!'

(7.81) *Der kommer så **jo** ikke mere forurening af den grund!

'There will **JO** not be more pollution for that reason!'

(7.82) A: Der kommer ikke mere forurening af den grund!

B: **Jo**!

'A: There will not be more pollution for that reason!

B: **JO**!'

In (7.82), B's answer is only felicitous if *jo* is an instance of the interjection *jo*. This indicates that agreement expecting *jo* is grammatical throughout its history.

7.2.5 Summing up the development of *jo*

In this section, I have presented an account of the development of *jo*. In Middle Danish, the adverb *jo* is borrowed from Middle Low German. At first, *jo* expresses the temporal meanings 'always, ever' as well as a necessity meaning. I have argued that *jo* in Early Modern Danish develops several new meanings. It expresses emphasis, positive polarity and expected agreement. At the same time, a number of meanings disappear during Early Modern Danish, such as the temporal and the necessity meaning. In the 18th century, *jo* seems to be used to express mirative meanings.

As regards the topological distribution of *jo,* it seems to have had idiosyncrasies throughout its history. Apart from cases where *jo* narrowly modifies another construction, *jo* exclusively appears in the middle field in my material. Hence, if pre- or post-field positions were available at all, they were marginal.

I have argued that the temporal meaning as well as the necessity and emphasis meaning were lexical while the expected agreement meaning is grammatical throughout its history. In other words, the development of the expected agreement meaning involves grammaticalization.

The following figure summarizes the chronology of the major meanings of *jo* and their suggested relations. Dashed lines represent analogical influence:

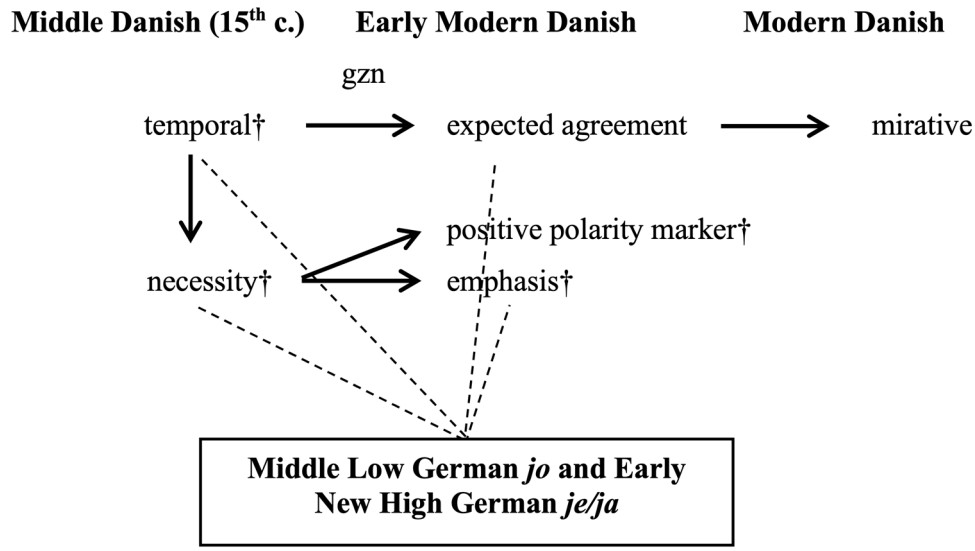

Figure 7.1
Summary of the development of *jo*

7.3 The development of *sgu*

In this section, I present my analysis of the development of the phatic modal particle *sgu*, arguing that this construction can be traced back to a pre-Christian oath (cf. ODS s.vv. *sgu, saa-gu*; Hansen & Heltoft 2011: 1099). This oath was constructionalized, univerbated and in turn phonologically reduced to *sgu*. The reduced form first behaved like a thetical oath, then as a sentence adverbial and only in the transition to the 20th century was it reanalysed as a modal particle.

The main results of this section have already been presented in Westergaard & Boye (in press).

7.3.1 The point of departure: 'so (true) help me God'

In Middle Danish, the noun *gud* means 'god' (7.83) and in particular 'the Christian God' (7.84), as it still does today:

(7.83) Daniel saghdhe, gif mek laaf. iac vil dræba idhar **gudh**.
'Daniel said, give me permission. Then I will kill your **god**.'
(1425 SjT 14)

(7.84) iech skal hedre himmerigis **Gudh** oc hans søn Jhesum Cristum oc then helluger andh.

'I must praise the heavenly **God** and his son Jesus Christ and the Holy Spirit.'

(1480 ChrisLeg 42)

Already in Middle Danish, the noun *gud* appears in an oath where someone needs to ask for the help of God:

(7.85) Swo sculæ næfning swæræ. **Swo hiælpæ mik guth** oc thennæ hællægh book iæk haldæ a. at thæn man ræntæ annæn at thæt fæ thær han wrth sæctæth for.

'This is how jurors shall swear: **So help me God** and this holy book, which I hold, that this man stole another's property, for which he is sued.'

(1325 JL §42)

Given that I only find the construction in the laws, it might have been restricted to such legal settings at first.[29] Indeed, according to Grimm (1828: 50; 895), this oath goes back to pre-Christian times, and he assumes that the oath was used when facing a possible trial by ordeal where the speaker prays for the help of God when, for instance, carrying a scorching iron to prove her innocence:

(7.86) hialpi mer svâ Freyr

'So help me Freyr.'

(1300 Grimm 1828: 50)

In Early Modern Danish, *sandt* 'true' and *sandelige* 'truly' begin to occur in the construction *så sandt/sandelig hjælpe mig Gud* (lit: 'so true/truly help me God'). Furthermore, similar constructions like *så sandelige som Gud lever* (lit: 'as truly as God lives') begin to appear. These oaths are used to emphasize the sincerity or trustworthiness of the speaker or to express insistence similar to Modern Danish *sgu*:

[29] This restriction to laws might also be due to the overrepresentation of legal texts in the corpus for the oldest period.

(7.87) nu kand, **saa santh hielpe meg Gud,** icke begiffue myn lelygheth seg saa,

‘**By God**, now my situation does not allow it.’

(1548 GylLet I 154)

(7.88) Achab begærede Nabotz wingord, till kiøbs eller schiffte. Naboth soor oc sagde, **saa sandelige som Gud han leffwer**, tha schaltu icke faa thet arff ther mine forældre haffue mig lath effther seg.

‘Achab requested to buy Naboth’s vineyard or trade it. But Naboth swore and said, **as surely as God lives,** you shall not get the inheritance that my parents have left me.’

(1527 HelArg II 83)

In general, the oath is infrequent in my Early Modern Danish material, be it including *sandt*, *sandelige* or without the adjective or adverb. However, the constructions including *sandt* and *sandelige* are mentioned in the dictionaries by Colding in 1626 (CO s.vv. *Saa sandelig* and *Saa sant hielpe mig Gud*) and Moth in 1700 (MO, s.v. *Sâ sandt*). Constructions like (7.85) without *sandt* or *sandelige* are not mentioned in these dictionaries. This suggests that the construction including *sandt* or *sandelige* was more frequent than the one without it and therefore more likely the predecessor of *sgu*.

The fact that these constructions are mentioned in the dictionaries suggests that they were constructionalized and perceived as a unit. This assumption is further corroborated by the fact that the construction has fossilized an old subjunctive form (*hjælp-e* ‘help-SUBJ’) originally used to mark the utterance as an optative speech act (a prayer).

In Early Modern Danish, the noun *Gud* appears in some other constructions involving *så* ‘so’:

(7.89)

saa	Gud	haffue	loff
so	God	have	praise

(1553 GylLet I 218)

(7.90)

saa	gud	schall	wide
so	God	shall	know

(1590 GøjLet 416)

(7.91) Saa gud werre loffuett
so God be praised

(1587 GøjLet 382)

(7.92) saa Gud straffe ham
so God punish him

(1626 CO, s.v. *Saa Gud straffe ham*)

All of these seem to be used to emphasize the utterance they appear in and might have influenced the development of *sgu*. However, they are extremely rare in the material, which makes it improbable that they played a major role in the development of the modal particle *sgu*.

In sum, in Early Modern Danish, a number of related oaths exist. All of these include *så* and *Gud*, and the function of these oaths seems to be to emphasize the utterance. It is probably impossible to decide which exact construction constitutes the source construction for the phatic modal particle *sgu*, but it is most probably *så sandt som Gud lever* or similar, because it is the only construction occurring with some frequency in my material.

7.3.1.1 Constructionalization of the oath as an emphasis marker

In this section, I discuss how the emphasis meaning emerged. There are at least two plausible sources:

1. the taboo against taking God's name in vain and
2. a full epistemic support meaning.

I will discuss these in turn.

According to, e.g., Napoli & Hoeksema (2009: 619–20), taboo words often give rise to expressions of emphasis, and they argue that taboo words often originate in religious terms. Because the Ten Commandments forbid the misuse of God's name, using it in oaths for everyday matters may explain how the emphasis meaning of the oath emerges.

Furthermore, the construction *så sandt hjælpe mig Gud* includes an epistemic expression as the head of the construction, namely *sandt* 'true', and this epistemic meaning might have facilitated the emergence of the emphasis meaning. As a parallel case take an adverb like *truly*:

(7.93) Well, that was **truly** nice.

(internet)

Rather than simply evaluating the utterance as to its degree of certainty, here the full epistemic support marker *truly* also emphasizes the speaker's engagement in his statement similarly to Modern Danish *sgu*.

Finally, the development of the oath might also have involved language contact: The oath *så (sandt) hjælpe mig Gud* might be borrowed from Middle Low and Early Modern High German, which has a similar construction *so wahr mir Gott helfe* (DWb s.vv. *Gott* and *wahr*). Of course, the scenarios are not mutually exclusive. Rather, the German phrase might have acted as an analogical model, thus facilitating the language internal reanalysis.

7.3.1.2 Topology of the oath

As the following examples illustrate, the oath can appear in the middle field (7.94) as well as in the left (7.95) and the right position for interjectionals (7.96):

(7.94)

oc	ieg	kand,	**saa**	**sant**	**helpe**	**meg**	**Gud,**	icke	faa	en
and	I	can	**so**	**true**	**help**	**me**	**God**	not	get	a

tynne	aff	hanom
barrel	from	him

'And **by God**, I cannot get a barrel from him.'

(1564 GylLet II 282)

(7.95)

saa	**sant**	**hielpe**	**mig**	**Gud**,	ieg	haffuer	icke	lontt
so	**true**	**help**	**me**	**God**	I	have	not	borrowed

x	daler
10	daler

'**By God**, I have not borrowed 10 daler.'

(1564 GylLet II 294)

(7.96)

saa	maa	y	vide,	**saa**	**santt**	**hielpe**	**mig**	**Gud**,
then	must	you	know	**so**	**true**	**help**	**me**	**God**

att ieg haffuer icke sett hanom siden juffll,

'**By God**, then you must know that I have not seen him since Christmas.'

(1561 GylLet II 166)

In examples like (7.96), the oath might also be interpreted as being placed in the post-field. However, the following arguments speak against such an analysis:

1. The post-field is not typically used for constructions with meanings with scope over propositions or above (at least not in Modern Danish, cf. Diderichsen [1943]1966: 57; Christensen 2001: 70).
2. The oath appears after other adverbials in all examples where it is placed in the right periphery.
3. The oath unambiguously appears in the left position for interjections in clauses like (7.95).

Therefore, it is reasonable to assume that the oath is placed in the position for interjectionals when it is placed in the right periphery.

Within the middle field, the oath precedes negation (cf. (7.94) above). In only one example, the oath cooccurs with other adverbials than negation in the middle field:

(7.97) menn der som ieg hade wist det nogit tilfornn,

daa schulle y **saa sant helpe mig gud** gernne haffue
then should you **so true help me God** gladly have

bekomit det,
received it

'But if I had known it a bit earlier, then, **by God**, you should gladly have received it.'

(1581 GøjLet 193)

Based on my historical material, it is difficult to say whether or not the oath occurred in the pre-field and what exact positions the oath could occupy within the middle field. However, it is possible to reconstruct its topology based on the topological distribution of the oath in Modern Danish. In Westergaard & Boye (in press), we argue that the oath is a thetical, that is, a syntactically disintegrated construction (Kaltenböck et al. 2011: 853; Boye & Harder 2021) and we suggest that, at least in Modern Danish, theticals have a particular topological distribution characterized by several restrictions. One of these restrictions is that they cannot straightforwardly be placed in the pre-field:

(7.98) Det kan **for pokker** da ikke passe.
It can **for devil** DA not be true

'**Damn it**, that cannot be true.'

(internet)

(7.99) *?**For pokker** kan det da ikke passe.
for devil can it DA not be true

(7.100) Du må hellere – **tro mig!** – komme hjem nu.
You must rather **believe me** come home now

'**Believe me**, you better come home now!'

(7.101) ***tro mig!** må du hellere komme hjem nu.
believe me must you rather come home now

Some oaths might marginally be able to occur in the pre-field. However, in that case, we argue that this might be due to a reanalysis of the oath that turns it into an adverb. Unambiguously thetical material like *tro mig* in (7.101) cannot be placed in the pre-field at least.

Such a behaviour is expectable. Because theticals are syntactically disintegrated (Kaltenböck et al. 2011: 853), they cannot occupy a topological position. This means that in an utterance such as (7.101), there is no material in the pre-field. Therefore, the utterance can only be understood as an interrogative. This is incompatible with the meaning of the thetical, which explains why the clause is odd. In this light, the absence of examples with the oath in the pre-field can be explained based on its status as a thetical.

Furthermore, oaths exhibit an interesting behaviour in the middle field. As the following illustrates, in Modern Danish, the related oath *Gud hjælpe mig* can precede as well as succeed modal particles:

(7.102) Det er **gud hjælpe mig** da sørgeligt.
It is **God help me** DA sad

'**By God,** this is DA sad.'

(internet)

(7.103) Her står der da **gud- hjælpe-mig** ikke Eksterne links
here stands there DA **God help me** not external links

'**By God,** it does DA not say external links here.'

(internet)

Arguably, this is also due to the thetical origin of the oath. At least in Modern Danish, oaths can precede and follow all types of modal particles. The following illustrates this with the oath *fandme* (examples from Westergaard & Boye in press):

(7.104) 12 øre det var **fandme** sgu ikke meget.
12 øre that was **damn it** SGU not much

'12 øre, **damn it**, that was SGU not a lot.'

(internet)

(7.105) Jeg er sgu **fandme** da et menneske.
I am SGU **damn it** DA a human

'**Damn it**, I am SGU DA a human.'

(internet)

(7.106) Nu må I da **fandme** styre jer!
Now must you DA **damn it** steer you

'**Damn it**, now you must DA get a grip on yourself.'

(internet)

(7.107) Hun sidder der vist **fandme** 24/7.
she sits there VIST **damn it** 24/7

'**Damn it**, she is VIST sitting there all the time.'

(internet)

As illustrated in the following examples, other theticals, such as *synes jeg* 'I think', can be placed in the same positions:

(7.108) 12 øre det var, **synes jeg,** sgu ikke meget.
12 øre that was **think I** SGU not much

'**I think** that was SGU not a lot.'

(7.109) Jeg er sgu, **synes jeg,** da et menneske.
I am SGU **think I** DA a human

'**I think** I am SGU DA a human.'

(7.110) Nu må I da, **synes jeg**, styre jer!
Now must you DA **think I** steer you

'**I think** now you must DA get a grip on yourself.'

(7.111)

Hun	sidder	der	vist,	**synes jeg,**	24/7.
she	sits	there	VIST	**think I**	24/7

'**I think** she is VIST sitting there all the time.'

It is not unreasonable to assume that the oath *så sandt hjælpe mig Gud* also had the topological potential of theticals in Early Modern Danish preceding and occurring between modal particles.

In sum, in this section, I have discussed the topological distribution of the oath *så sandt hjælpe mig Gud*. I argued that the oath is a thetical and that this explains why it is placed in the left and right position for interjectionals, why it apparently is not placed in the pre-field and its topological distritbution in the middle field.

7.3.1.3 Grammatical vs. lexical status of *gud* and the oath

As is clear from a noun phrase like *himmerigis Gudh* 'heavenly God' in example (7.84), the noun *gud* can be modified, which is indicative of lexical status. Indeed, it should be uncontroversial to regard the noun *gud* as lexical.

The oath giving rise to the modern modal particle was most probably not grammatical either, as parts of the construction can be modified. This indicates the lexical status of theticals, according to Boye & Harder (2021: 6–7). In the following, *Gud* is modified by *almectigste* 'almighty':

(7.112)

Det	giør	mig	ondt	aff	mit	ganske	hierte,	**saa**	**sandt**
It	does	me	pain	of	my	whole	heart	**so**	**true**

hielpe	**meg**	**gud**	**almectigste**,	att	i	haffue	saa
help	**me**	**God**	**almighty**	that	you	have	so

lenge	hafft	en	ret	wlff	for	bisp,
long	had	a	true	wolf	as	bishop

'It pains me deeply, **so help me Almighty God**, that you have had a real wolf for a bishop for so long.'

(1551 PalLet I 256)

7.3.2 The reduced oath and phatic modal particle

In this section, I discuss the emergence of reduced forms of the oath and its recategorization as a phatic modal particle. In the transition from Early Modern Danish to Modern Danish, the oath *så (sandt) hjælpe mig Gud* is reduced to *så Gud* or *så-gu* (at the latest c. 1700) and later to its Modern Danish form *sgu* (at the latest

c. 1800). Arguably, this reduction in phonological substance is made possible by univerbation of the parts of the construction, that is, its constructionalization. At the latest around 1900, *sgu* is reanalysed as a modal particle.

It seems that *sgu* as well as its less reduced predecessors express the same meaning before and after recategorization. If there are semantic differences, these are too subtle to be noticeable based on the historical material at least, and I have not found indications in any of the dictionaries that suggest semantic differences. Therefore, I will focus on formal aspects leading to the phatic modal particle. I first discuss the reduction of the oath. Afterwards, I discuss the reanalysis of the oath as a modal particle.

7.3.2.1 Phonological reduction of the oath

The first occurrences of a contracted form of the oath appear in Moth's dictionary from 1700 (MO s.vv. *Sâ sandt*, *Sâ gûd*, *Sâ-gi*):

(7.113)

Sâ	sandt.	Sâ	gûd
so	true	so	God
Certè.		per	deum.
certainly (…)		by	God

(1700 MO, s.v. *Sâ sandt*)

(7.114) Sâ-gi En jydsk sverge mâde, når mand ei vil nefne gûd.

'Sâ-gi. A Jutlandic way of swearing when one does not want to name God.'

per	deum.
by	God

(1700 MO, s.v. *Sâ-gi*)

First of all, it can be noticed that there appears to be variation pertaining to the expression side of the oath. In Early Modern Danish, there are contracted forms including *sandt* as well as contracted forms that are closer to the Modern Danish phatic modal particles: *så Gud* and the minced oath *så-gi*, which according to Moth is a Jutlandic variant.[30]

Secondly, it can be noticed that none of these constructions are compositional, and while *gûd* 'god' in *Sâ gûd* is still recognizable, this is certainly not the case with *sâ-*

[30] Corroborating Moth's dialectal specification, I only find the form *sgi* in one text, which is written in a Jutlandic dialect (*E Bindstouw*, Blicher, 1842).

gi. As is clear from the comment made by Moth, the vowel in the minced oath is changed to avoid the taboo word.[31]

It is only from around 1800 (that is c. 100 years after the compilation of Moth's dictionary) that I begin to find the first instances of contracted forms of the oath in my material, varying in the degree of contraction. In all of these examples, the oath expresses emphasis, and I assume that the meaning of the oath corresponds to the meaning of Modern Danish *sgu*:

(7.115) Det er **saagu** et vakkert Pigebarn.
'It is **SÅ-GU** a beautiful girl.'
(1836 HeiPla II 159)

(7.116) Jeg lod Jer **sku** gjerne løbe - sagde Bødlen - hvis jeg turde
'I would **SGU** gladly let you go, said the executioner, if I dared.'
(1820 IngEve 29)

The reduction of the oath is unequivocal evidence that the oath has been constructionalized. This can be analysed as a case of coalescence (Lehmann 2020: 209), which describes a process whereby juxtaposed words begin to collocate. This collocation pattern is then univerbated, that is, processed as a whole (cf. chunking in Bybee 2010: Chapter 3; Gobet et al. 2001), and at last fused.

These stages are clear in the case of *sgu*. At first constructionalization occurs in the transition to Early Modern Danish, which results in the collocation of *så (sandt) hjælpe mig Gud* being associated with the emphasis meaning. The collocation is at first still syntactically transparent and compositional, which can be seen in the fact that its elements can be modified. However, the collocation likely leads to univerbation, whereby the oath loses its internal structure. In this process, the emphasis meaning becomes associated with the whole rather than its parts. As soon as this process has occurred, the stage is set for phonological reduction.

Finally, as pointed out, the oath gives rise to minced variants, respectively *så-gi* and *sgi*. The former is already present in Early Modern Danish, while the latter begins to appear in the 19th century. The following figure summarizes this development:

[31] Such small changes in the phonological structure are common for emphasizer constructions that originate in taboo words (cf. *shit* > *shoot*, *fuck* > *fudge, God* > *golly*, Napoli & Hoeksema 2009: 621).

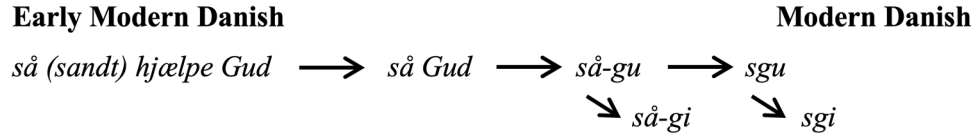

Figure 7.2
Constructionalization and fusion of the oath

As pointed out in Westergaard & Boye (in press), the univerbation of the oath makes the phonological reduction possible. However, it cannot explain it. Rather, the phonological reduction is most probably due to the grammaticalization of the oath to be discussed below.

In what follows, I argue that the reduced oath was not recategorized as a modal particle right away but only reanalysed as such in the transition to the 20th century. Moreover, I argue that only the fully reduced form *sgu* became grammatical.

7.3.2.2 Topology of *så-gu* and *sgu*

The topology of the oath changes in the transition to Modern Danish. This development proceeds in two stages, which possibly correlate with the phonological reduction of *så-gu* to *sgu*:

Stage 0: the thetical oath
The oath has the topological distribution of other oaths (cf. Section 7.3.1.2).

Stage I (c. 1700): sentence adverb *så-gu*
The thetical oath gives rise to the sentence adverb *så-gu*. This adverb appears in the pre-field, but has thetical remnants regarding its topological distribution in the middle field.

Stage II (at the latest c. 1900): modal particle *sgu*
The sentence adverb is reanalysed as a modal particle that cannot appear in the pre-field and occurs in the phatic modal particle position when placed in the middle field.

It should be mentioned that Modern Danish also has the related emphasizer *gu*:

(7.117) **gu** gør jeg ej
God do I not

'**By God**, I do not.'

(internet)

However, as it only occurs in the pre-field, it probably played a marginal, if any, role in the development of the modal particle *sgu*. Likely, it is an independent development in which *så-gu* is reduced (cf. Jespersen 1911: 37). I will therefore not make reference to *gu* in the following discussion.

In Modern Danish, all stages are still attested. In what follows, I will discuss stage I and II in detail.

Stage I: sentence adverb *så-gu*

The adverb *så-gu* has the topological distribution of other sentence adverbials. It occurs in the pre-field (7.118) and in the middle field (7.119):

(7.118) **Saagu'** kan han det
SÅ-GU can he that

'**SÅ-GU** he can do that.'

(1882 SchanSto I 296)

(7.119) Jeg vil **saagu** see det Stykke.
I will **SÅ-GU** see that play

'I want **SÅ-GU** to see the play.'

(1844 MynLet 42)

I have no examples where *så-gu* is placed in one of the positions for interjectionals, but the ODS cites examples like the following:

(7.120) Hør mig! hør mig!

nu kommer det bedste **sågu**.
now comes the best **SÅ-GU**

'Listen, listen! Now comes the best part **SÅ-GU**!'

(1872 ODS, s.v. *saa-gu*)

The following examples illustrate that *så-gu* can precede modal particles like *også* and *dog*[32]:

(7.121) **Frue.** Hvad for noget? det er jo de unge Gjæster, Herløv og Ejbæk.

Krans. Hvad siger du? –

Ja	det	er	det	**saagu**	ogsaa.
Yes	it	is	it	**SÅ-GU**	OGSÅ

'**Lady.** What? It is JO the young guests, Herløv and Ejbæk.

Krans. What are you saying? –Yes, it is **SÅ-GU** OGSÅ.'

(1847 HosPla 309)

(7.122)

De	er	**saagu**	dog	en	charmant	ung	Mand.
You	are	**SÅ-GU**	DOG	a	charming	young	man

'You are **SÅ-GU** DOG a charming young man.'

(1857 GolHje 239)

This might look as if *så-gu* always behaved like a phatic modal particle when placed in the middle field. However, recall from section 7.3.1.2 that the oath *så sandt hjælpe mig Gud* probably could be placed between modal particles due to its thetical status. Similarly, in Modern Danish, *så-gu* can precede as well as follow modal particles such as the modal particle *da*:

(7.123)

Min	krop,	er	**så gu**	da	ik´	til	salg
my	body	is	**SÅ-GU**	DA	not	to	sale

'My body is **SÅ-GU** DA not for sale.'

(internet)

(7.124)

Det	ka'	jeg	da	**så gu'**	godt	forstå
that	can	I	DA	**SÅ-GU**	well	understand

'I understand DA **SÅ-GU** very well.'

(internet)

Arguably, *så-gu* thus still exhibits traces of its thetical origin as regards its middle-field positions and is not placed in the position for phatic modal particles.

[32] The modal particle status of *dog* in this example might not be fully unambiguous.

In conclusion, throughout its history, *så-gu* is a sentence adverb. This explains its occurrence in the pre-field. Like other sentence adverbs originating in oaths, *så-gu* still exhibits traces of its thetical origin as regards its position in the middle field, where it can precede as well as follow modal particles.

Stage II: modal particle *sgu*

As pointed out, already in the 19th century, *sgu* appears with a phonological form corresponding to the Modern Danish modal particle. In my material, this more reduced form only occurs in the middle field:

(7.125)

Nej,	nu	maa	du	**sgu**	komme	hit	med	et	Pant
No,	now	must	you	**SGU**	come	here	with	a	deposit

'No, now you must **SGU** come here with a deposit.'

(1844 HosSan 73)

Furthermore, as the thetical oath, the fully reduced *sgu* can appear in the right position for interjectionals. I do not have any examples of this position in my material, but the ODS includes the following example:

(7.126)

ham	skulde	man	nok	vare	sig	for
him	should	one	NOK	be wary	oneself	for

en	anden	Gang,	**sgu**!
an	other	time	**SGU**

'One should indeed be wary of him another time **SGU**.'

(1921 ODS, s.v. *sgu*)

Furthermore, *sgu* can be placed in this position in present-day Danish (cf. Section 4.2.3):

(7.127)

Så	er	det	i morgen	**sgu**!
so	is	it	tomorow	**SGU**

'So, it is tomorrow **SGU**.'

(internet)

In the following examples from the ODS, *sgu* occurs in the left position for interjectionals:

(7.128) Hvordan var det? det har jeg ikke hørt. –

Sku,	da	skal	jeg	fortælle	dig	det.
SGU	then	shall	I	tell	you	it

How was it? I have not heard it. – **SGU** then, I am going to tell you.

(1784 ODS, s.v. *sgu*)

This position is not possible in Modern Danish, and I do not find it in my material. The ODS only has this one example. Arguably, this position was at best marginal.

In my material, the reduced form *sgu* never occurs in the pre-field. However, based on the ODS (s.v. *sgu*), this seems to have been possible:

(7.129) Lader den (dvs.: kærligheden) sig ikke tvinge? …

Jo	**sgu**	lader	den	sig	tvinge.
yes	**SGU**	let	it	oneself	force

'Can you force it (that is, love)? … Yes, **SGU** it can be forced.'

(1841 ODS, s.v. *sgu*)

(7.130) "Du (dvs.: faderen) billiger altsaa Partiet?" –

"**Sgu**	gjør	jeg	ei	nei!"
SGU	do	I	not	no

'"So, you (that is, the father) accept the match?" –

"**SGU** I do not, no!"'

(1848 ODS, s.v. *sgu*)

This might indicate that the reduced form *sgu* in the early 19th century had a topological potential similar to that of the form *så-gu* occurring in the pre-field. If this is correct, this means that there was no constructional difference between *sgu* and *så-gu* but that pragmatic factors influenced the degree of contraction of one and the same construction.[33] However, the fact that the form *sgu* never appears in the pre-field in my material indicates that the pre-field position at least was marginal for the more reduced form *sgu*.

[33] Vies & Petersen (2022) analyse *altså* in Modern Danish and illustrate how different factors contribute to the degree of contraction (among these whether *altså* is used as a discourse marker or a modal particle) without these factors determining the phonological form fully. Something similar may have been the case with *så-gu*/*sgu.*

Be that as it may, in the early 20th century, Jespersen (1911: 37) notes that *sgu* cannot be placed in the pre-field. In other words, at the latest in the transition to the 20th century, *sgu* is undergoing a constructional split and reanalysed as a modal particle.

As regards the exact position of *sgu* in the middle field, it seems that it corresponds to the distribution of the phatic modal particles in Modern Danish. In all examples in my material, *sgu* precedes other modal particles like *også* in (7.131), *ellers* in (7.132), *dog* in (7.133) and *da* in (7.134) corresponding to its Modern Danish position:

(7.131) Jeg er Theodor Høberg.

– Ja,	det	er	De	**sgu**	ogsaa
Yes	that	are	you	**SGU**	OGSÅ

'I am Theodor Høberg.

– Yes, you are **SGU** OGSÅ.'

(1879 SchanSto I 260)

(7.132) – Hvor skulde jeg kunne huske ham, Mogens Lassen? Jeg har jo kun været et Par Maaneder her i Byen.

– Ja,	da	var	Niels	Tvers	**sgu**	ellers	godt	kendt
Yes	then	was	Niels	Tvers	**SGU**	ELLERS	well	known

'– How should I be able to remember him, Mogens Lassen? I have JO only been here in the city for a couple of months.

– Yes, at that point of time, Niels Tvers was **SGU** ELLERS well connected.'

(1876 SchanSto I 76)

(7.133)

jeg	véd	**sgu**	dog	inte
I	know	**SGU**	DOG	not

'I do **SGU** DOG not know.'

(1885 SchanSto II 159)

(7.134)

det	kan	vi	**sgu**	da	ikke.
that	can	we	**SGU**	DA	not

'We can **SGU** DA not do that.'

(1876 SchanSto I 76)

Finally, the following illustrates that *sgu* can precede other oaths:

(7.135)

det	er	jeg	**sku**	fanden gale mig	ikke	tjent	med
that	am	I	**SGU**	damn it	not	served	with

'Damn it, that does **SGU** not benefit me.'

(1847/48 ODS, s.v. *sgu*)

Because this position corresponds to Modern Danish *sgu*, and there is no evidence of *sgu* having behaved differently at another time, it should be reasonable to assume that *sgu* here occurs in the position for phatic modal particles.

The reanalysis as a phatic modal particle was probably at least partially facilitated by topological ambiguity or vagueness. When *sgu* occurred with modal particles other than *jo*, it was possible to interpret *sgu* as placed in the position for phatic modal particles:

Table 7.2
Topological ambiguity facilitating the reanalysis of *sgu*

(7.136)

…	phatic particles	theticals	proximal	…
Det kan vi		**sgu**	da	ikke
that can we		**SGU**	DA	not

'We can **SGU** DA not do that'

Arguably, this topological ambiguity in combination with the meaning similarity as well as the phonological similarity (being stressless monosyllabic particles expressing insistence on the speaker's point of view or similar) contributed to the reanalysis of *sgu* as a phatic modal particle. In Chapter 10, I discuss this mechanism in more detail.

In sum, in this section, I have argued that the development of the topology of the emerging modal particle proceeds through two stages. In the first stage, the thetical oath is reanalysed as a sentence adverb (*så-gu*). Based on this reanalysis, it begins to appear in the pre-field. However, it still shows remnants of its thetical origin as regards its middle-field positions exhibiting more topological freedom than Modern Danish *sgu* vis-à-vis other modal particles.

In the 19th century and at least around 1900, the modal particle *sgu* emerges. The sentence adverbial *så-gu* is reanalysed as a phatic modal particle and changes its topological potential accordingly. It can no longer be placed in the pre-field, and when placed in the middle field, it is restricted to the position for phatic modal particles.

7.3.2.3 Grammatical vs. lexical status of *så-gu* and *sgu*

As discussed in the previous section, *så-gu* appears in the pre-field as in the following example:

(7.137) »Du er altsaa fuldstændig lykkelig?« spurgte Stephan for, ja det er vanskelig at angive authentisk, hvilken Gang.

»Ja,	**saagu'**	er	jeg	lykkelig«
Yes	**SÅ-GU**	am	I	happy

'"So you are completely happy?" asked Stephen for, well, it is difficult to say how often with certainty. Yes, **SÅ-GU**, I am happy.'

(1879 TopDap I 85)

The pre-field in such an example seems to put the oath in the foreground. Furthermore, the only new textual element is the emphasis meaning provided by *så-gu*. As the rest of the proposition is given information, the emphasis meaning can be regarded as discourse primary, which indicates lexical status of *så-gu*.[34]

Furthermore, in Modern Danish, the oath *så-gu* can receive stress in an utterance as in the following, corroborating this assessment:

(7.138) Ja **så gu**' hjælper det noget!

'Yes, **SÅ-GU**, it helps!'

(internet)

As opposed to this, at least in Modern Danish, *sgu* shows all signs of grammatical status. It cannot be modified (7.139), focused (7.140) or constitute an utterance on its own (7.141):

(7.139)

*Det	er	så	**sgu**	rigtigt.
it	is	so	**SGU**	right

(7.140)

*Det	er	**SGU**	rigtigt.
it	is	**SGU**	right

[34] This argument is weak, however, because most modal particles can be the only new information in an utterance. The following utterance could constitute an answer to that same question:

Ja,	jeg	er	**da**	lykkelig.
Yes	I	am	**DA**	happy

(7.141) A: Kommer du?

B: ***Sgu**!

'A: Do Are you coming?'

B: **SGU**!'

This indicates that the conventionalization of *sgu* from earlier *så-gu* involved grammaticalization.

7.3.3 Summary of the development of *sgu*

In this section, I have presented an account of the development resulting in the phatic modal particle *sgu*. Arguably, due to its origin as a construction involving a taboo, it is difficult to find early instances of its predecessor. Nevertheless, in line with the ODS, Hansen & Heltoft (2011: 1099) and others, I have argued that *sgu* originates in an oath. This oath was used to emphasize the trustworthiness of the speaker. This meaning is then conventionalized, and the oath is univerbated and in turn reduced. Only in the transition to the 20th century is *sgu* reanalysed as a modal particle and integrated into the paradigm of phatic modal particles.

While the noun *gud*, the oath and the sentence adverb *så-gu* are lexical, I have argued that the modal particle *sgu* is grammatical, making its emergence a case of grammaticalization.

The following summarizes the development of *sgu*:

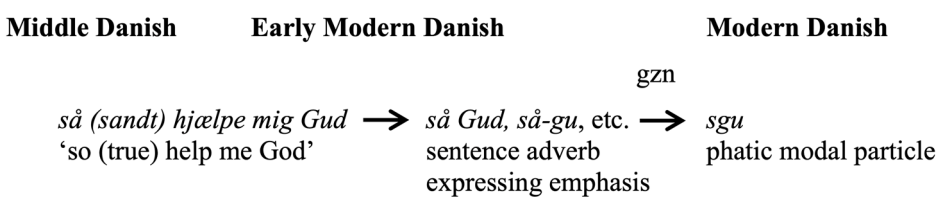

Figure 7.3
Summary of the development of *sgu*

7.4 The development of *skam*

In this section, I present my analysis of the development of the modal particle *skam*. In line with the ODS (s.v. *skam*) and Hansen & Heltoft (2011: 1101), I assume that *skam* originates in a noun meaning 'shame' and later 'devil'. Similar to the noun

gud in the development of *sgu*, *skam* is used in an oath, which in turn gives rise to the phatic modal particle.

In the following sections, I only discuss the topology of the source constructions of the modal particle when they are used adverbially or thetically. Hence, I will not discuss the topology of the noun predecessors of *skam*.

7.4.1 The point of departure: 'shame'

In the oldest texts, *skam* expresses the same meaning as its Modern English cognate, namely 'shame', 'disgrace' and similar, as it still does today:

(7.142) Primet sier man ihesus christus till loff for then meglæ **skam** han toldhæ then tymæ

'One says the morning mass to praise Jesus Christ for the great **shame** he endured at that hour.'

(1350 Luc 35)

7.4.1.1 Grammatical vs. lexical status of the noun *skam*

The noun *skam* meaning 'shame' can be modified and focused and constitute an utterance alone:

(7.143) Gamel synd gør ny **skam**

'Old sin brings new **shame.'**

(1506 PLO n.p.)

(7.144) oc maa iac swa for idhra skyld faa badhe **skam** oc skatha.

'And may I thus, for your sake, suffer both **shame** and harm.'

(1425 SjT 7)

(7.145) A: Hvad følte du?

B: **Skam**.

'A: What did you feel?

B: **Shame**.'

All of this clearly indicates the lexical status of the noun *skam*.

7.4.2 'devil'

At the latest in the 16th century, *skam* appears with the meaning 'devil' (cf. KO, s.v. *skam* and ODS, s.v. *skam*):

(7.146) Schriuerne ere wrede som **skam**, for the schulle saa duplere the breue.

'The writers are angry as the **devil** because they then had to copy the letters.'

(1565 GylLet II 565)

7.4.2.1 Emergence of the meaning 'devil'

The meaning 'devil' most probably emerged as an avoidance strategy for mentioning the devil (cf. ODS, s.v. *skam*). A construction with the meaning 'shame' can be extended to the meaning 'devil' through a metonymy: a property for the thing that is associated with it (according to Hansen & Heltoft 2011: 1101 a litotes). There is an abundance of similar metonymic extensions where a property or function of the devil is used to refer to the devil such as *devil* (< 'accuser, slanderer' OED, s.v. *devil*) or *fiend* (< 'enemy'), *the tempter* and *the evil one*. Similarly in Danish, in such metonymic extension as *fanden* (< probably 'tempter' according to the ODS, s.v. *fanden*) and *pokker* (< 'smallpox'), where the metonymic link is of the type of effect for cause (in a society where disease is believed to stem from the devil).

Munthe (1901: 93; cf. ODS, s.v. *skam*) argues that a corresponding reanalysis in Swedish is conditioned by the ambiguity in constructions including *få skam* 'get shame' as the following from Early Modern Danish:

(7.147)

skam	faa	den	gamle	Narr
shame	get	the	old	fool

'May the old fool get shame' or

'May the devil get the old fool!'

(1692 LeoJamII 110)

In such a context, the syntactic roles of subject and object are ambiguous, and it is not clear whether *skam* 'shame/devil' or *den gamle Narr* 'the old fool' is the subject or the object. While such a context certainly might have facilitated the reanalysis, it is by no means necessary, as the abundance of parallel metonymic extensions illustrates where such ambiguous context was probably not available.

7.4.2.2 Grammatical vs. lexical status of the meaning 'devil'

The meaning 'devil' is most probably lexical. For instance, in (7.146) discussed above, *skam* is highly foregrounded as it is part of a comparison.

7.4.3 The emergence of the emphasizer and modal particle

The development of the modern modal particle meaning seems to consist of two stages:

> **Stage I: simple emphasis**
> *Skam* emphasizes the speaker's trustworthiness, sincerity or insistence similar to *sgu* (cf. Section 7.1.2).
>
> **Stage II: complex emphasis (phatic modal particle meaning)**
> *Skam* expresses that there is a contrasting proposition available, but that the addressee is expected not to contradict the speaker after hearing the proposition of the speaker (cf. Section 7.1.3).

Hansen & Heltoft (2011: 1101) hypothesize the same stages in their etymological sketch. In what follows, I will discuss each stage in turn.

7.4.3.1 Stage I: simple emphasis (sentence adverbial)

The emphasizer *skam* is most probably a contracted form of *så skam* 'so devil'. This assessment is corroborated by the VSO dictionary from 1848 (s.v. *saa skam*), where *skam* is only mentioned in combination with *så* (cf. ODS, s.v. *skam*). Similarly, at least in the Jutlandic varieties as well as Bornholmian, *skam* had and in some varieties still has an alternative form including *så* (JO, s.v. *såskam*, BO, s.v. *skamm*). The following example illustrates *så skam* in 19th century Danish:

(7.148) Ja den Herr Simon veed **so Skam** nok hvad han ger;
'Yes, Lord Simon knows **SÅ SKAM** NOK what he does.'
(1826 HeiPla 29)

The following Jutlandic example illustrates *skam* without *så*:

(7.149) men A ska wal hyt mæ, A kommer ett saa nær te ham, faa no ved A, hwa han bestoer aa.

Den aahn Gaang A wa dæhr ud o de Comeddetøw, da kam **Skam** e Møllerswen igjen,

'But I will be careful, I will not get too close to him, because now I know what he is made of.

The second time I was out there at that theatre, the miller's apprentice came **SKAM** again.'

(1842 BliBin IV 274)

Recall from Section 7.1.3 that Modern Danish *skam* does not simply express emphasis but indicates that the speaker expects that the addressee or someone else has doubts about the proposition expressed, and similarly to *jo* that the speaker does not expect to be contradicted. This meaning is also possible in the cited examples. It is difficult to say whether *skam* in the 19th century was a simpler emphasizer (similar to *sgu*), or whether it expressed its modern modal particle meaning right away. However, there are at least three arguments for reckoning with a less specific meaning stage, where *skam* expresses emphasis or insistence similar to *sgu* and other oaths:

1. The ODS points out that *skam* (in some dialects) could appear in combination with *wh*/*hv*-words. They offer an example as the following:

(7.150) Hvor **skam** mon dette foregaaer?

'Where **SKAM** MON does this happen?'

(1842 ODS, s.v. *skam*)

Such a usage is suggestive of a simpler emphasizing meaning, as it mirrors the usage of other oaths in constructions like *hvad fanden* and *hvad pokker* (both originally 'what the devil'):

(7.151) **Hva fanden** var det for en idiot?

'Who **the devil** was that idiot?'

(KorpusDK)

(7.152) **Hva' pokker** skal man sige.

'What **the devil** is one supposed to say.'

(KorpusDK)

In Modern Danish, *skam* can no longer appear in this context because it no longer expresses simple emphasis. However, throughout the history of *skam*, this use seems to be rare.

2. The article in the ODS (s.v. *skam*) written in 1940 still mentions no reassuring meaning or anything else reminiscent of the meaning of the phatic modal particle. If *skam* already at this point expressed a meaning similar to its meaning in Modern Danish, we would expect it to be mentioned in the dictionary.
3. As a weak argument, it can be mentioned that reckoning with a simple emphasizer meaning makes it possible to account for the development of the modern modal particle meaning with small steps (cf. Section 7.4.3.2 and 7.4.3.4).

Therefore, I reckon with a simple emphasizer prior to the emergence of the phatic modal particle.

7.4.3.2 Diachrony of the simple emphasizer

As already pointed out in Section 7.3.1.1, markers of emphasis often originate in taboo words. Because religion is a semantic domain giving rise to many taboo words (Napoli & Hoeksema 2009), we can assume that it is the meaning 'devil' that has given rise to emphasis meaning (cf. ODS, s.v. *skam*, Hansen & Heltoft 2011: 1101).

Skam is most probably a shortened form of the construction *så skam* (ODS, s.v. *skam* Hansen & Heltoft 2011: 1101). This construction could have emerged in at least two ways:

1. *så skam* might originate in a more elaborated oath, and
2. *så skam* might have been constructed in analogy with *så Gud*.

I will discuss these in turn.

Firstly, the form *så skam* might be a shortened form of a longer more transparent construction, e.g., *så skam tage/få mig* 'so the devil take/get me'. This construction could then have constructionalized and in turn been shortened to *så skam* after conventionalization of the emphasizer meaning (cf. the analysis of a parallel development of *sgu* in Section 7.3). While there are instances of a thetical oath like *skam faa mig* 'may the devil get me' (7.153) and instances of a construction including *så* and *skam* (7.154), there are no instances in my material or in the ODS where an oath including *så* and *skam* is used thetically. The lack of such examples speaks against such a scenario.

(7.153) Hvad Pokker vil I *(tilskuere)* her? (…) **Skam faae mig**, er Pjecen to Mark værd

'What the devil do you (audience) want here? **May the devil get me** if the play is worth two marks.'

(1791 ODS, s.v. *skam*)

(7.154) **saa skam** tae den der vil vide meer af jer at sige.

'Then may **the devil** take the one who thinks he has more to say about you.'

(1722-30 ODS, s.v. *skam*)

Secondly, the form *så skam* might have emerged in analogy to *så-gu(d)* (cf. Section 7.3.2) or its wider constructional network. At the latest in the 19th century, *så-gu(d)* and *sgu* exist alongside a number of related emphasizer constructions, including *saamænd*/*saamanne* 'so men' (both originating in a more elaborate construction meaning 'so the holy men'), *saa min Troe* 'so my belief', *saa min Siel* 'so my soul', *saa min sant* 'so my truth', *saa min Ro* 'so my rest' and *saa Marie* 'so Mary' all mentioned in the VSO from 1848 (s.v. *saa*).

This constructional network may have given rise to a more general semi-schematic construction:

(7.155) *så* + RELIGIOUS NOUN

'emphasis'

This construction or constructional network might then have facilitated the development of *så skam*.

It is not uncommon for taboo words to emerge by analogy in this way. An illustrative example is *the hell* in a context such as the following (from Hoeksema & Napoli 2008: 372):

(7.156) I wonder what **the hell** brings us here again?

As pointed out by Hoeksema & Napoli (2008: 372), in constructions like these, *hell* appears with a definite article, which it usually does not do (cf. (**the*) *hell is a hot place*). The authors suggest that this is due to a semantic analogy between *devil* and *hell* leading to the two alternating constructions *what the devil* and *what the hell* (later extended to constructions such as *what the fuck* with a similarly odd definite article).

Either way, as soon as the oath *så skam* appears it can be reduced to *skam*, as described for the development leading to *sgu* in Section 7.3.2. This seems to happen in the transition to the 19th century.

In sum, there are two possible scenarios leading to the oath *så skam* expressing emphasis. It might have originated in a more elaborated oath like *så skam få mig* 'so may the devil get me' or it might have emerged in analogy with *så Gud* or related constructions. An argument for the latter scenario is the absence of a more elaborated thetical construction including *så skam*. However, such an absence might be due to such constructions being avoided in writing due to their religious taboo.

7.4.3.3 Stage II: complex emphasis (phatic modal particle)

Emphasis markers are typically used in contexts where a listener might doubt the proposition. The modern modal particle meaning can therefore be regarded as a more specific meaning than the emphasis meaning. Consequently, it is difficult to pinpoint the timing of the emergence of the meaning of the phatic modal particle (cf. the discussion in Section 6.2.1 on specialization).

Already in the 19th century, there are utterances where *skam* can be analysed in terms of its modern modal particle meaning:

(7.157) [the narrator tries to convince the addressee to let him be part of the theatre. At first, the addressee is reluctant to do so.]

– Men De sætter jo selv Pris paa, at unge Mennesker morer sig paa en saa køn Maade, Hr. Konsul, sagde jeg (Konsulen kløede sig ivrig bag Øret og sad urolig paa Stolen) og –

– Hør, afbrød han mig; jeg vilde **Skam** gerne have Dem paa vor Scene, men for Deres Faders Skyld (…)

'– But you yourself appreciate that young people have fun in such a lovely way, Mr. Consul, I said (the consul scratched himself vigorously behind the ear and sat restlessly in his chair), and

– Listen, he interrupted me, I would **SKAM** like to have you on our stage, but for your father's sake (…)'

(1882 SchanSto I 351)

Skam here addresses the belief that the consul does not want the narrator to be part of the theatre. As only the consul can know whether he wants him to be part of the theatre, he can expect not to be contradicted. In other words, in such an example, *skam* is part of an utterance expressing a reassurance similar to Modern Danish *skam*.

Also in the following example, *skam* appears in a context where the speaker contradicts the belief of the addressee and expects not to be contradicted:

(7.158) [Two academics discussing another academic. They have differing opinions about the novelty of his work]

– Jeg kan ikke lide det Smaahakkeri paa Rektor, som De altid driver, sagde Filologen. Han er en rigtig gennemdannet Mand, og, hvad han siger, er altid klart…

… Og altid det samme. Jeg kan, **Skam**, hans Filosofi og Æsthetik udenad.

'– I do not like the nitpicking about the principal that you are always doing, said the philologist. He is a truly learned man, and what he says is always clear...
... And always the same. I know **SKAM** his philosophy and aesthetics by heart.'

(1883 SchanEmb III 36)

However, as the simple emphasis meaning is probably impossible to rule out in any occurrence where the modern modal particle meaning is possible, such occurrences only indicate that it is possible that *skam* in the 19th century might have been used to express the modern modal particle meaning, but they do not constitute compelling evidence for its conventional status.

Be that as it may, the important point of this section and Section 7.4.3.1 is that there are indications that *skam* seems to develop a simple emphasizer meaning before it develops its modern more complex modal particle meaning. While pin-pointing the exact timing of the emergence of the phatic modal particle meaning is difficult, it should be reasonable to assume such a two-stage scenario.

7.4.3.4 The diachrony of the meaning of the phatic modal particle *skam*

As argued by Waltereit & Detges (2007: 74–76), argumentative meanings emerge in argumentative contexts where common ground is under discussion. Arguably, the simple emphasizer *skam*, which already had an argumentative meaning (emphasis), was used to reject a counter-belief and express the speaker's expectation that the addressee will agree. Because the emphasis meaning already contributed a meaning element of insistence, it is a perfect attractor for such contextual argumentative meanings. An example like (7.159) is a plausible bridging context:

(7.159) Degaang te e Møllerswen saa væhn sæ, aa vil ta hans Flask, saa war en hæn. (…) »Hwa ka de nøtt,« saah A, »te I sier o mæ? A haa **Skam** ett tawn je Flask«

‘Back then, when the miller’s apprentice turned around and wanted to grab his bottle, it was gone. (…) “What is the point”, I said, “in staring at me? I did **SKAM** not take your bottle.”’

(1842 BliBin IV 276)

In such a context, *skam* can be analysed as expressing the simple emphasis meaning ‘Damn it, I have not taken your bottle’, and this meaning can contextually give rise to the more complex meaning. The speaker emphasizes his utterance because a contrary belief is at stake: ‘as opposed to what you think, I have not taken your bottle, and I expect you not to contradict me now’.

In sum, *skam* is reanalysed as an expression of emphasis based on the taboo associated with the meaning ‘devil’. In that way, the development of *skam* is similar to that of *sgu*, only differing in what taboo is invoked to generate the emphasis. The emphasis meaning is then used in argumentative contexts of reassurance where the addressee seems to doubt the proposition expressed, but where the speaker insists and does not expect to be contradicted. This contextual meaning can then be conventionalized, leading to the meaning of the phatic modal particle.

7.4.3.5 Topology and recategorization of *skam*

As already illustrated in the previous sections, in the 19th century, *skam* can occur in the pre-field and in the middle field:

(7.160) **Søren Rosin** (*nyfigen*). Fik han den [sin hoppe, LW] solgt, hi, hi?

Degnen.	**Skam**	gjorde	han	saa	ja.
the deacon	**SKAM**	did	he	so	yes

‘**Søren Rosin** (*curious*). Did he sell it [his mare, LW], hi, hi?

The deacon. Yes, **SKAM**, he did.’

(1897 WiePla V 208)

(7.161)

Du	maa	**skam**	ikke	blive	prosaisk,	min	lille
you	may	**SKAM**	not	become	prosaic	my	little

Paradisfugl!
paradise bird

'You should **SKAM** not become prosaic, my little paradise bird!'

(1885 SchanApo IV 182)

In present-day Danish, *skam* can no longer be placed in the pre-field due to its status as a modal particle. As discussed in combination with *sgu* in Section 7.3.2.2, this suggests that *skam* was first reanalysed as a sentence adverbial before it was reanalysed as a modal particle, because neither real theticals nor modal particles can occur in the pre-field (cf. Sections 4.2 and 7.3.1.2).

In all occurrences of *skam* expressing emphasis or the meaning of the phatic modal particle, it has the left-most position in the middle field. It precedes negation in (7.162), affirmative markers (cf. Section 9.3.3.1) (7.163) and (7.164), other modal particles like *også* (7.165) and other oaths or swear words such as *pokker* (7.166):

(7.162)

De	maa	**Skam**	ikke	se	surt	til	ham
you	must	**SKAM**	not	look	angry	to	him

'You must **SKAM** not look angrily at him.'

(1882 SchanSto I 331)

(7.163)

Mikkelsen	kan	**skam**	nok	synge	rent
Mikkelsen	can	**SKAM**	NOK	sing	in tune

'Mikkelsen can **SKAM** NOK sing in tune.'

(1903 HjoFol 114)

(7.164)

Det	kan	**skam**	godt	være
it	can	**SKAM**	well	be

'It might **SKAM** very well be true.'

(1882 SchanSto I 296)

(7.165) **Mimi** (…). Du har vist glemt at ta' dine blaa Briller af ...

Valdemar (*forundret*). Har jeg det! (*Føler efter*.)

Ja,	det	har	jeg	**Skam**	ogsaa!
Yes	that	have	I	**SKAM**	OGSÅ

'**Mimi** (…). You must have forgotten to take off your blue glasses...

Valdemar (*puzzled*). Have I? (*checks*) Yes, I have **SKAM** OGSÅ!'

(1900 WiePla V 265)

(7.166)

det	er	**skam**	Pokker	ikke	naivt
it	is	**SKAM**	damn it	not	naïve

'Damn it, it is **SKAM** not naïve.'

(1896 LarIx 128)

All of these examples might indicate that *skam* is placed in the position for phatic modal particles. However, none of these provide unequivocal evidence for this position, as other theticals can be placed in that position as well (cf. Section 7.3.1.2). In other words, it is impossible to say whether *skam* here is placed in the position for theticals or in the position for phatic modal particles.

At least the non-reduced form *så skam* can occur in the left position for interjectionals:

(7.167)

Men	Trofast	svared	igjen:	**saa**	**Skam**, |	Mig	synes
But	Trofast	answered	again	**so**	**SKAM**	me	seems

du	ligner	et	Paaskelam.
you	resemble	a	easter lamb

'But Trofast answered again, **SKAM** I think you look like an easter lamb.'

(1845 ODS, s.v. skam)

This position may be due to *skam*'s origin as a thetical construction. However, I only find *skam* in this position in one example from the ODS (none in my material), and as this example is from a verse text, where *skam* rhymes with *Paaskelam*, the position might be *metri causa*. In Modern Danish, *skam* is at best marginally possible in the left position for interjectionals:

(7.168)

?**Skam**,	jeg	synes	du	ligner	et Paaskelam.
SKAM	I	think	you	resemble	an easter lamb

There are no unambiguous examples of *skam* occurring in the right position, but at least in Modern Danish, the modal particle *skam* can appear in this position (cf. Section 4.2.2). Hence, it might be due to coincidence that *skam* does not occur in the right position for interjectionals in my material.

In sum, what my analysis should have made clear is the following:

1. *skam* behaves like a sentence adverbial before it is recategorized as a phatic modal particle.
2. *skam* preceded all other adverbials in the middle field with which it is attested to cooccur.

Arguably, then, the development of *(så) skam* mirrors the development of *sgu* (cf. Section 7.3.2.2).

It is difficult to relate the present analysis to the semantic development discussed in Section 7.3.2.1–4. It is tempting to assume that the recategorization of the oath as a modal particle correlates with the semantic reanalysis of *skam* resulting in the meaning of the phatic modal particle. However, based on the textual record alone, it is impossible to say whether these two changes actually cooccur temporally. In other words, while it is reasonable to assume a correlation between these two changes, there is no unequivocal evidence for such an assumption, because it is impossible to pinpoint the exact timing of the conventionalization of the new meaning and the recategorization of *skam* as a modal particle.

7.4.3.6 Grammatical vs. lexical status of the oath and the modal particle

Superficially, *så* might be regarded as a modifier of *skam*, which might indicate that *skam* is modifiable and hence lexical. However, the construction is not transparent or compositional, and hence, *så* can hardly be regarded as a modifier of *skam*. Furthermore, the emphasizer meaning seems to be associated with the whole construction regardless of whether *skam* or *så skam* is used, as there are no examples where *skam* is modified with any other material (e.g., *så den onde skam* 'so the evil devil'). This might indicate grammatical status of the construction.

However, as was the case with *så-gu*, in the 19th and still in the early 20th century, *skam* appears in the pre-field in contexts where the expressed proposition is given and hence most probably discourse secondary. In other words, in utterances such as (7.169), *skam* might be the main point of the utterance, that is, lexical:

(7.169) “Hvad er det, er det alligevel Rankely,” sagde han monotont. “Ja **skam** er det Rankely.”

‘“What is it, is it Rankely after all?” he said monotonously. “Yes, **SKAM** it is Rankely.”’

(1933 ODS, s.v. *skam*)

At least in Modern Danish, the modal particle *skam* is grammatical. It cannot be focused with stress (7.170), modified (7.171), or constitute an utterance alone (7.172):

(7.170)	*Han	kommer	**SKAM**	i morgen.	
	He	comes	**SKAM**	tomorrow.	
(7.171)	*Han	kommer	meget	**skam**	i morgen.
	He	comes	very	**SKAM**	tomorrow.

(7.172) A: Kommer han?

B: ***Skam**!

‘A: Is he coming?

B: **SKAM!**’

This suggests that the emergence of the phatic modal particle correlates with grammaticalization.

7.4.4 Summary of the development of *skam*

The modal particle *skam* originates in a noun meaning ‘shame’. Metonymically, this meaning is extended to the meaning ‘devil’ in the 16th century. I have argued that *skam*, meaning ‘devil’, in turn gives rise to an emphasizer similar to other taboo words. This emphasizer probably originates in a longer form *så skam*. I have suggested two pathways for its emergence. Either *så skam* originates in a longer form like *så skam få mig* ‘so the devil get me’ or similar, or it might have originated in an analogical extension based on *så Gud* or a similar construction.

This emphasizer gives rise to the phatic modal particle *skam*, which expresses that someone might doubt the proposition expressed, and that the speaker expects the addressee not to contradict. I have argued that this meaning extension is due to an argumentative use of the emphasizer in contexts where the speaker has exactly these

expectations. Finally, I argued that the phatic modal particle is grammatical, that is, its emergence involves grammaticalization.

The following figure summarizes this development:

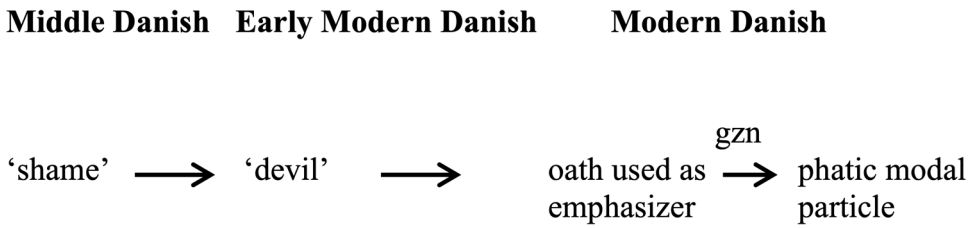

Figure 7.4
Summary of the development of *skam*

7.5 The emergence of the phatic modal particle paradigm

In this closing section, I summarize the findings of the present chapter. I save a more thorough discussion of these findings to Chapter 10.

In Section 7.1, I discussed the phatic modal particles *jo*, *sgu* and *skam* in Modern Danish. In line with Hansen & Heltoft (2011), I regard these modal particles as constituting a paradigm that has common expression and content features. These modal particles are placed in the position for phatic modal particles and have the general features of modal particles discussed in Section 4.2. The phatic modal particles express the speaker's expectation about the addressee's possible reactions. Even though it is not completely obvious how *sgu* relates to this meaning semantically, I adopted Hansen & Heltoft's analysis and included it in the phatic modal particle paradigm.

I then discussed the historical development of these particles. In the 15th century, the adverb *jo* was introduced as a loan from Middle Low German. Initially, this adverb did not express the meaning of the modern modal particle but conveyed temporal and necessity meanings. While this adverb is not attested in the pre-field or in the post-field, it can be focused and succeed negation. In other words, it does not yet correspond to the modern modal particle formally or semantically.

Only in the 16th century did the temporal meaning of *jo* give rise to the modern modal particle meaning where *jo*, among other meanings, expresses the speaker's expectation that the addressee will not contradict the speaker. With this meaning, *jo*

is never preceded by other modal particles (or their etymons), nor by any other sentence adverbials. In other words, it behaves like the modern phatic modal particle. In Chapter 10, I will therefore speak of *jo* as the proto-modal particle, and I will argue that *jo* constitutes an analogical model for the whole emerging paradigm.

Only some centuries later, and after the emergence of the proximal modal particles (cf. Chapter 8) and evidential modal particle (cf. Chapter 9), the other phatic modal particles *sgu* and *skam* emerge. The emergence of these two modal particles seems to coincide temporally, and both originate in taboo words. When these constructions are reanalysed as modal particles, they are paradigmatically integrated with *jo*.

8 The proximal particles *nu* and *da*

In this chapter, I discuss the historical development of the proximal modal particles *nu* and *da*. In Section 8.1, I discuss the meaning of the proximal modal particles in Modern Danish. In Section 8.2, I offer an analysis of the historical development of *da*, and in Section 8.3, an analysis of the development of *nu*. In Section 8.4, I summarize this chapter.

8.1 The proximal modal particles *nu* and *da* in Modern Danish

The proximal modal particles include *nu* and *da* and possibly *så* (Hansen & Heltoft 2011: 1053–58; 1062; Westergaard 2023a). Harder (1975: 107) is the first to discuss one of these particles and argues that *da* expresses that 'the speaker has reason to assume the proposition'. In his grammar, Hansen (1967: 285) briefly mentions *da* and assumes a similar meaning.

Andersen (1982: 90) formalizes the meaning of *da* as (8.1), where *p* stands for the proposition of the preceding utterance or a presupposition or implication thereof and *q* for the proposition of the utterance where *da* occurs. A represents the addressee:

(8.1) $q \wedge (q \Rightarrow \neg p) \wedge$ (A knows that q)

(Andersen 1982: 90)

Da expresses the second and third part of the conjunct, that is, the speaker expresses that the addressee should know what the speaker asserts, and that the speaker's proposition implies that a proposition that the addressee believes to be true is not true. The addressee does not necessarily know the second conjunct, that is, that the speaker's proposition implies the negation of the prior proposition (similarly in Laureys 1982: 99–100; cf. Hentschel 1986: 148 on German *doch*). Andersen exemplifies this with the following exchange:

(8.2) A: Jeg er nødt til at tage af sted.

B: Du kan **da** vente til tirsdag.

'A: I have to leave.

B: You can **DA** wait until Tuesday.'

(Andersen 1982: 89)

Da expresses that the preceding proposition is not true and an expectation that the addressee should know the proposition that the speaker states.

According to Andersen (1982: 90), *nu* expresses a similar argumentative meaning, but the addressee is not expected to know *q* prior to the utterance. He provides the following example:

(8.3) A: Birgit kommer hjem.

B: Jeg er **nu** nødt til at tage afsted.

'A: Birgit is coming home.

B: I have **NU** to leave.'

(Andersen 1982: 90)

In this example, the speaker addresses an implication of the preceding utterance. The utterance implies that B wants and is able to stay home, but this is rejected with *nu*. The speaker does not express that she expects the addressee to know this proposition when using *nu*.

There is general agreement regarding the intuitions that Andersen's formalism seeks to capture. Later analyses only modify small aspects of this analysis or reframe it based on other theoretical frameworks while preserving the core of the analysis.

Davidsen-Nielsen (1996: 290) analyses the proximal modal particles in polyphony-theoretical terms. He argues that *nu* and *da* reject an opposing point of view (*p* in Andersen's formalism). He illustrates this with the following example:

(8.4) John er **nu**/**da** i London.

'John is **NU**/**DA** in London.'

(Davidsen-Nielsen 1996: 290)

In an utterance like this, *nu* and *da* index a contrasting point of view, namely that John should be elsewhere.

Additionally, Davidsen-Nielsen (1996: 285) claims that there is a difference in strength between *da* and *nu*, with the latter being "objectively corrective" and therefore stronger. However, no arguments are brought forth to support this, and to my knowledge nobody else adopts this part of the analysis. I will not adopt it either.

Hansen & Heltoft (2011: 1054–1058) revise this analysis. They argue that the point of view of the speaker (*q* in (8.1)) is identifiable rather than known in the case of *da*, while it is unidentifiable in the case of *nu*. I assume that identifiability corresponds to mutual manifestness (Sperber & Wilson 1995: 39; cf. Section 2.5.), meaning that the addressee can deduce the point of view of the speaker based on the common ground. This does not apply to *nu*, which introduces new propositions. For instance, in (8.2), the addressee does not appear to know that she can wait until Tuesday. It contradicts her prior utterance, after all. However, the speaker expects that the addressee can make this fact known.

Furthermore, Hansen & Heltoft (2011: 1055) emphasize that the proximal modal particles do not specify the source of the contrasting point of view. The addressee may be the source of the contrasting point of view, but this is not necessarily the case. For instance, in the following example, the speaker probably does not attribute the contrasting point of view to the addressee. Rather, the source of the contrasting point of view is underspecified. A plausible reading is one where the contrasting point of view is the speaker's own fear:

(8.5) Vi skal **da** have en juleaften, som vi plejer, ikke mor.

'We are **DA** going to have a Christmas Eve like we usually do, right, mom?'

(Hansen & Heltoft 2011: 1058)

I think there is a minor flaw in the analysis by Hansen & Heltoft (2011). According to Hansen & Heltoft (2011: 1055), '*nu* and *da* signal that the speaker addresses a point of view that is in opposition to a constative speech act'. Consequently, their analysis only covers *nu* and *da* in declarative clauses. However, as also pointed out by Hansen & Heltoft (2011: 1070–3, cf. Davidsen-Nielsen 1996: 291), the modal particle *nu* and *da* also occur in imperatives.

When they occur in imperatives, Hansen & Heltoft (2011: 1070–3) assume that these modal particles convey a different meaning (cf. Durst-Andersen 1995: 636–41). Specifically, *nu* is said to narrow down the meaning potential of the imperative to that of a command (8.6), while *da* is said to express the speaker's acceptance[35], signalling that the addressee is free to realize the state-of-affairs expressed (8.7):

[35] According to Durst-Andersen (1995: 641), *da* expresses suggestions in imperatives.

(8.6) Kom **nu** videre med opgaven!

'Get **NU** on with the task!'

(8.7) Tag **da** en kage til!

'Take **DA** another cookie!'

In other words, Hansen & Heltoft seem to assume two distinct meanings for these modal particles depending on the illocutionary context.

In Westergaard (2023a), I suggest that the proximal modal particles express conflict moves, that is, they index a conflicting proposition, wish or similar. This can be a distinct point of view, but it may also indicate reluctance on the part of the addressee or similar. Thereby, one and the same meaning can account for the meaning of the proximal modal particles in different illocutionary contexts. For instance, in (8.6) and (8.7) and in the following utterances from Westergaard (2023a: 263), *nu* and *da* index the addressee's reluctance to perform the invited or suggested state-of-affairs:

(8.8) Jeg mistede tålmodigheden, så min invitation blev anderledes, end jeg havde planlagt. "Kom **nu** bare med indenfor," plaprede jeg.

'I lost my patience, so my invitation turned out differently than I had planned. "Just come **NU** in," I blabbered.'

(8.9) I sidste uge har vi pakket mange varer ud fra Ib Laursen - det er interiør i alle afskygninger - puder, krukker, lysestager, snor, lys osv. kom **da** bare ind og se det

'Last week, we unpacked many items from Ib Laursen – it is home decor in all forms – cushions, jars, candlesticks, string, candles, etc. Just come **DA** in and have a look.'

Hansen & Heltoft (2011: 1070) argue that *bare* narrows down the meaning potential of the imperative to permissive speech acts. If this is true, it is difficult to see how *nu* at the same time can restrict the meaning potential of the imperative to that of, for instance, commands in examples like (8.8). However, an utterance in which the speaker grants permission can still function as a conflict move, for instance, when the speaker earlier refused to realize the permitted state-of-affairs, perhaps for reasons of politeness (cf. Westergaard 2023a: 262–63). It is difficult to say whether *nu* and *da* also express (un)identifiability in imperatives.

This analysis also allows for generalizing over occurrences of the proximal modal particles in interrogatives. For instance, *nu* can occur in interrogatives where it adds an element of doubt or surprise, or more generally, where it expresses that the question is motivated by a conflict of hypotheses (cf. Detges 2008 on the German modal particle *jetzt*):

(8.10) Overkirurgen Harder Toff falder død om midt under en operation (…) Men er han **nu** også så stendød, som myndighederne og præsten vil have de forvirrede efterladte til at tro?

'The chief surgeon, Harder Toff, drops dead in the middle of an operation (…) But is he **NU** really as stone-dead as the authorities and the priest want the confused bereaved to believe?'

(KorpusDK, cf. Westergaard 2021: 181)

When *da* occurs in interrogatives it expresses that the question is contextually motivated (cf. Diewald 1997: 88; Haselow 2011: 3614 for similar analyses of *da*'s cognates in English and German). This motivation is most often due to someone else stating something that conflicts with the preconception of the speaker. For instance, the following example comes from a forum where users most often express a desire to become pregnant. Here, *da* indicates that the question ('Do you not want to be pregnant?') is motivated by the preceding utterance where the addressee expresses her hope not to be pregnant, which conflicts with the preconception of the speaker:

(8.11) A: Håber virkelig min mens når at komme inden..

B: Vil du **da** ikke være gravid siden du håber på mens eller er du bange for endnu et svar om at du ikke er det ??

'A: I really hope my period arrives before…

B: Do you **DA** not want to be pregnant since you are hoping for your period, or are you afraid of getting another result that tells you that you are not??'

(internet)

I discuss the use of the modal particles *nu* and *da* in interrogatives and imperatives in more detail below in Section 8.2.4.1 and 8.3.3.1.

8.1.1 Summary of the proximal modal particles in Modern Danish

Summarizing the discussion of the preceding section, there is broad agreement that *nu* and *da* express that the content of the utterance conflicts with a contextually available proposition, point of view, wish or similar notion. Furthermore, *nu* and *da* express identifiability. While *da* expresses that the content of the clause is identifiable, *nu* expresses unidentifiability, meaning, its content is introduced as new. The following table summarizes the discussion from the preceding section:

Table 8.1
The proximal modal particle paradigm in Modern Danish

Expression: proximal modal particle position and modal particle features	**Content:** conflict semantics and identifiability	
da	conflict move: the content of the utterance conflicts with a contextually available proposition, point of view, wish or similar	identifiability
nu		unidentifiability

The expression features of this paradigm are discussed in Section 4.2.

In Hansen & Heltoft (2011: 1062), *så* is included in the proximal modal particle paradigm but not analysed as such a particle. I analyse it thoroughly in Westergaard (2023a), arguing that *så* is not a modal particle but only on the verge of becoming one. While it meets the formal criteria for modal particle status, it can only express a meaning similar to other modal particles in restricted contexts, namely in combination with other expressions of contrast such as focus operators. Due to space considerations, I will not discuss it any further here (but see Westergaard 2023a).

8.1.2 The proximal modal particles in the dialects

According to Feilberg (JAO, s.v. *nu*), in Jutlandic dialects *nu* corresponds to Modern Danish *nu*. However, he only discusses temporal meanings of *nu*. The JO (s.v. *nu*) similarly points out that the meaning of *nu* in the Jutlandic dialects corresponds to Standard Danish, but no examples are provided. Apparently, the meaning is not present in the eastern dialects either. At least, it is not mentioned in any of the dictionaries included in the BO (s.v. *nu*) covering Bornholmian. This might indicate that proximal *nu* is a central Danish phenomenon.

However, in Section 8.3.3.3, I cite examples of this modal particle produced by speakers from various regions in the 18th and 19th century. These include L. Engelstoft (Jutland), H. C. Andersen (Funen) and J. H. Wessel (Eastern Norway). It should be noted however that all of them eventually moved to Copenhagen.

The proximal modal particle *da*, on the other hand, seems to be present in the dialect dictionaries for eastern as well as western varieties. Feilberg (JAO, s.v. *da*) does not

reckon with a meaning that corresponds fully to the analysis of the Standard Danish modal particle *da* in Jutlandic dialects, but he provides argumentative glosses like *altså* and *dog*. These are polysemous and difficult to translate into English. However, both express argumentative meanings, which might suggest that Feilberg had the proximal meaning in mind. An example like the following illustrates this meaning:

(8.12) Komer do? – Ja, a ğör **da**!

Do you come? – Yes, I am **DA**!

(c. 1900 Western Jutland JAO, s.v. *da*)

The same is true for the JO (s.v. *da*), which also covers Jutlandic dialects. While no meaning entry in this dictionary fits the characterization of *da* perfectly, some meanings are mentioned that indicate that *da* expresses a meaning in the western varieties that is similar to the standard Danish meaning. For instance, *da* is described as expressing obviousness or uncontroversiality as well as adversative meanings:

(8.13) A ha no aaller hajlt mæ ham, men a tentj, dær skal **da** jej gaang væ dej føst.

'I never was on his side, but I thought there had **DA** to be a first time.'

(c. 1900 Northern Jutland JO, s.v. *da*[1])

(8.14) A hå[ʔ]r **da** dawseŋs kom· å go[ʔ].

'I have **DA** enough to get by.'

(1953–58 Eastern Jutland JO, s.v. *da*[1])

Furthermore, *da* is said to be used in conceding and emphasizing utterances like the following:

(8.15) Æ kå it sæj, æ hæ yŋə ən… mæn æ æ hæl̥ə it blöwn bəˈlastə mæ·n **da**

'I ca not say I have liked it [porridge], but I certainly have not been burdened with it either **DA**.'

(1936–1972 Southern Jutland JO, s.v. *da*[1])

I take this to correspond to the identifiability meaning and conflict semantics identified for Standard Danish *da*.

Similarly to the western dialects, Bornholmian (BO, s.v. *då*) seems to have the proximal modal particle. One of the meanings of *da* is described as 'most often with more or less reduced stress, with a certain connection to something preceding', as corresponding to Standard Danish *da* and *dog*, and as a marker of emphasis. This is illustrated with the following examples:

(8.16) De kajn **då** gott sje, a hajn går hæn å gjefter sai ijænn.
'They can **DA** see that he is going to be married again.'
(1940–60 Bornholm BO, s.v. *då*)

(8.17) Hajn læwer **då** væl inu?
'He is **DA** VEL still alive?'
(1940–60 Bornholm BO, s.v. *då*)

In the ØMO (s.v. *da* adv), *da* is described as a construction that indicates that something is obvious, evident or probable and that the speaker personally vouches for the proposition (glossed with 'at least'). I take this to indicate that the proximal modal particle *da* also is attested in the central and eastern dialects.

In sum, while the modal particle *da* seems to be attested in western and eastern dialects, the modal particle *nu* is not recorded in the dictionaries covering either. This may suggest that *nu* is a central Danish phenomenon. However, the absence of a meaning in a dictionary does not necessarily imply that it is absent from the language. This is particularly true of meanings like those of modal particles.

8.2 The development of *da*

In this section, I present an analysis of the historical development of *da* leading to the modern modal particle. In Middle Danish, *da* expresses temporal as well as cohesive meanings. Based on the cohesive meanings, the proximal modal particle emerges in late Early Modern Danish. I argue that it first occurs in interrogatives and imperatives before it spreads to declarative clauses.

8.2.1 A temporal adverb

The etymological basic meaning of *da* is temporal, dating back to a Proto-Indo-European pronominal stem **te-*, **to-* and possibly a feminine noun meaning 'time' (EWD, s.v. *da*). Throughout its history, the temporal adverb *da* has two related uses: a temporal connective 'afterwards, next', that is, indicating succession of events

(8.18), and ‘at that point in time’ (8.19) (cf. the same semantics of Modern English temporal *then*):

(8.18) sydhen fynghæ thee hanum eth røør i hans handh och spottædhæ hanum skamælighæ sydhen leddhæ the hanum vth til thet mannæ modh ther **tha** war safneth

‘Later they gave him [Jesus] a cane and mocked him. Later they led him out to the crowd, which had gathered **at that point of time**.’

(1350 Luc 35v)

(8.19) **Tha** war grom hin ænskæ hans søn konung. Han mistæ england. och stirthæ danmark och stradøthe **Tha** war harald hans søn konung

‘**Then** his son Grom the English was king. He lost England and ruled Denmark and had a straw death [died in his bead]. **Then** Harald his son was king.’

(1400 GestaC67 n.p.)

8.2.1.1 Topology of temporal *da*

In Middle Danish, *da* generally behaves like other temporal adverbs. It can be placed in the pre-field (8.20), the middle field (8.21) and the post-field (8.22):

(8.20)

Tha	war	harald	hans	søn	konung
then	was	Harald	his	son	king

‘**Then** Harald, his son, became king.’

(1400 GestaC67 n.p.)

(8.21)

forti	at	solæn	skal	**tha**	idælegæ	stondæ	meth
because	that	the sun	shall	**then**	continuously	stand	with

i	medagz	stæt
in	noon	place

‘because the sun shall **then** continuously stand in its noon position’

(1350 Luc 71v)

(8.22)

the	æræ	vdæ	luktæ	**tha**	fran	gutz	aminælsæ
they	are	out	closed	**then**	from	God's	memory

e	for	vdhen	ændæ
always	for	without	end

'They are expelled from God's memory **then** always without end.'

(1350 Luc 67r)

When *da* is placed in the middle field, it can be placed in the left periphery. I lack examples from Middle Danish where *da* cooccurs with sentence adverbials in the middle field, but (8.23) from Early Modern Danish illustrates this distribution. In this example, *da* precedes the cohesive *oc*:

(8.23) Vdi H. Emmeke Norbyes stæd, bleff Slotz-Præst H. Iohan Adolf en meget Skickelig oc lærd Mand,

Som	**da**	oc	bleff	min	Skriffte-Fader
who	**then**	also	became	my	confessor

'In the place of H. Emmeke Norbye, H. Johan Adolf became the Priest of the Castle, a very skilled and learned man, who **then** also became my spiritual father.'

(1696 LeoJamIII 206)

In Section 8.3.1.1, I will argue that also *nu* appears in the left periphery of the middle field even when it cooccurs with sentence adverbials, and I will argue that this might be due to an older structure where light material preceded heavier material.

The following example illustrates that *da* can also appear in the focus field following negation:

(8.24)

i	vildin	ey	**tha**	lydha	mino	raath.
you	wanted	not	**then**	listen	my	advice

'You did not want to listen to my advice **then**.'

(1425 SjT 48)

In sum, temporal *da* behaves as we would expect from a temporal adverb. Additionally, it can be placed in the left periphery in the middle field. However, further analysis of its middle-field position is hampered by the low number of instances in which temporal *da* occurs in the middle field together with other relevant constructions.

8.2.1.2 Grammatical vs. lexical status of temporal *da*

In (8.24) in the preceding section, temporal *da* is negated. Furthermore, *da* can be modified by an adverb like *genstan* 'immediately' as in (8.25):

(8.25) tha giordhe hon cors for sek oc bath gudh vara sin hiælpara.

genstan	**tha**	wordh	diæfvlsins	const	til	inkte
immediately	**then**	became	the devil's	trick	to	nothing

'Then she made the sign of the cross over herself and prayed to God to be her helper. Immediately **at that moment**, the devil's trick was rendered useless.'

(1425 SjT 33)

This indicates that *da* can constitute foreground information and hence is lexical.

8.2.2 Cohesion

Throughout its history, *da* expresses various cohesive meanings. Already in Middle Danish, *da* expresses conditionality. Furthermore, it functions as an anaphor, a topic marker or a foregrounder. In Early Modern Danish, the meaning of *da* is generalized, and it expresses a more general consecutive meaning.

In Section 8.2.2.1, I first discuss the meaning of the cohesive *da* in Middle Danish. In Section 8.2.2.2, I briefly present the anaphor, topic marker or foregrounder. In Section 8.2.2.3, I discuss the more general consecutive meaning. In Section 8.2.2.4, I offer an analysis of the development of these meanings. In Section 8.2.2.5, I discuss the topology of the cohesive adverb, and in Section 8.2.2.6 whether it was grammatical or lexical.

8.2.2.1 Conditional adverb

In Middle Danish, cohesive *da* expresses conditional meanings and can be paraphrased as 'in that case':

(8.26) Konungen saghdh vil thv mek troskap oc thiænisto lafva. **tha** vil iac thek rigan giøra.

'The king said that if you will swear fealty to me, **in that case** I am going to make you rich.'

(1425 SjT 20)

It typically appears in the apodosis of conditional sentences, but as (8.27) and (8.28) illustrates, this is not necessarily so:

(8.27) Nw hafvir iac bathe lafvat oc sworit at iac skal thæt vt gifwa: **tha** halt thina tro.

'Now, I have both promised and sworn that I shall give it away. **In that case**, keep your promise.'

(1425 SjT 102)

(8.28) Thy min kiære vin opfostra thin børn til gudz hedhir **tha** fare the ey swa illa som nw ær af sakt.

'Therefore, my dear friend, raise your children to the glory of God. **In that case** they will not fare as badly as now is said.'

(1425 SjT 34)

In (8.27), the prior utterance is treated like a protasis, while in (8.28), there is no conditional structure, and the only element expressing conditionality is *da.*

8.2.2.2 Anaphor, topic marker or foregrounder

In Middle Danish, *da* also appears as an anaphor referring to a preceding construction as in (8.29):

(8.29)

Til	eet	fult	thrældoms	theghæn.	**tha**	giørdæ	han	
to	a	evil	servitude's	sign	**DA**	did	he	
een	hund	til	kuning	i	danmarch.			
a	dog	to	king	in	Denmark			

'As an evil sign of their servitude, he made a dog king of Denmark.'

(1400 RedEdv3 n.p.)

In utterances like these, *da* seems to serve the function of marking V2 structure while another constituent is topicalized or highlighted in some way. This is particularly clear in an example like (8.30) from Early Modern Danish, where the preceding phrase includes another topicalizer (*hvad X angår* 'as for X'):

(8.30)

Hvad	Friherrer	angaar,	**da**	er	der	vel	ingen,
what	barons	concerns	**DA**	is	there	VEL	nobody

der	jo	véd,	hvad	fri	er.
who	JO	knows	what	free	is

'As for barons, no one knows what free is.'

(1680 GFKom 27)

As this meaning hardly is relevant to the development of the modal particle, I will not discuss it any further.

8.2.2.3 Consecutive adverb

Throughout Early Modern Danish, *da* develops a more general consecutive meaning. Like the conditional meaning 'in that case', this meaning is anaphoric referring to prior textual elements. It expresses that the utterance in some way follows from the indexed textual element (cf. Hansen & Heltoft 2011: 1054 on Modern Danish *da* and Haselow 2011; 2012: 158 on English *then* for a similar characterization).

It is very difficult to pinpoint the timing of when this meaning is conventionalized, as at least the earliest plausible examples of this meaning are particularly difficult to distinguish from the conditional meaning 'in that case'. For instance, in the following, *da* can be considered an instance of the consecutive meaning:

(8.31) **Friherinden** (…) Det Fri-her-inde, det herinde, det ville vi have, Søster.

Grevinden Nu da, Friherinde, velkommen! Men hvad skal **da** Ridderfruer hedde?

'**The Baroness** (…) The Bar-o-ness, we must insist on this title, sister [in the original a pun on the Danish title for a baroness, LW].

The Countess Well then, baroness, welcome! But what should the ladies of the knight be called **then**?'

(1680 GFKom 9)

In a context like (8.31), the consecutive link is conditional in nature. However, as opposed to earlier examples, *da* does not express a conditional relation on the propositional level, but rather, the conditional relation is on the speech act or metalinguistic level (cf. Dancygier & Sweetser 2000: 115). It can be paraphrased as follows: 'If you are called Friherrinde, I want to ask what Ridderfruer should be called.'

In (8.32), *da* relates its utterance to a preceding contrasting or alternative proposition:

(8.32) huor drengens Moder icke wiste hworledis hun skulle tittulere Skolemesteren; kalte ham Her Willas; hand sagde ieg er icke Herre; Mester **da** sagde quinden;

'When the boy's mother did not know how she should address the schoolmaster, she called him Sir Willas. He replied, I am not a sir. Master, **then**, the woman said.'

(1692 LeoJamII 148)

This meaning is particularly clear in questions:

(8.33) Hand sagde, ieg meener icke Eders Welbyrdighed; Ieg spurte hwem meener Eders Ædle Streenghed **da**?

'He said, I do not mean Your Grace; I asked, who does Your Noble Lordship mean, **then**?'

(1696 LeoJamIII 193–94)

In these utterances, the consecutive meaning is used to express an implied conditional structure that can be paraphrased as 'if not X then Y' at the metalinguistic level. Given that another proposition does not hold (the premise), another proposition is claimed or asked about (the conclusion). However, as opposed to what is the case with the conditional meaning, the realization of the state-of-affairs expressed in the clause is not construed as dependent on another state-of-affairs.

Still further away from the original conditional meaning are the following instances of *da.* In (8.34), *da* indicates that the current proposition is derivable from the preceding ones:

(8.34) Thi den, som siger en Circul, nægter at den er Qvadrat; og den, som siger en Qvadrat, negter, at det er en Circul. Heraf sees **da**, at de vildfare

'For he who calls it a circle denies that it is a square; and he who calls it a square denies that it is a circle. From this, it is clear **then** that they are mistaken.'

(1748–54 HolLet I 38)

In example (8.35), *da* similarly express a textual link to the preceding proposition:

(8.35) Hvorved da ey Reflectéres paa dem, der hen ved Sneese Aar Gratis har betient Retten; Hvad haab kand **da** vel en, der nys indkommer, giøre sig

'Hereby, nobody thinks about those who for many years have served the court without pay. What hope can **then** one who has just arrived have?'

(1738 RanLet 94)

The consecutive meaning often occurs in combination with *så* 'so', which itself expresses consecutive meanings:

(8.36) **Pernille.** Udi den Eqvipage vi kommer udi, vil ingen kiende os. Man maa ellers vove noget for at redde sig af en stor Ulykke.

Leerbeutel. Det er sandt; hvis jeg ikke faaer Penge paa en eller anden Maade, er jeg om en Hals.

Pernille. Saa vover Herren **da** intet, men jeg alleene.

'**Pernille.** In the outfit we are arriving in, no one will recognize us. Yet, one must take some risks to save oneself from great misfortune.

Leerbeutel. It is true; if I do not get money in one way or another, I will lose my head.

Pernille. So, the lord does not risk anything **then**, but I alone do.'

(1726 HolPla VI 20)

The following examples illustrate that the consecutive meaning also occurred in imperatives:

(8.37) **KIRSTEN**, *løbende efter ham*. Hei! veed han som en Krigsmand ikke dette, at en Fæstning ikke overgiver sig ved første Canon-Skud? Vær **da** ikke saa hastig, men hav lidt Taalmodighed;

'**KIRSTEN**, *running after him*. Hey! Does he, a soldier, not know this that a fortress does not surrender at the first cannon shot? **Thus**, do not be so hasty, but have some patience!'

(1753 HolPla VII 164)

In sum, throughout Early Modern Danish, *da* develops a consecutive meaning that, at the latest in the 18th century, is fully established. This consecutive meaning is

highly general, and it indicates that the current proposition in some way follows from a proposition in the preceding discourse.

8.2.2.4 Diachrony of the cohesive meanings

In this section, I discuss the emergence of the cohesive meaning. I argue that the temporal meaning gives rise to the conditional meaning. This meaning in turn gives rise to the consecutive meaning.

The emergence of the conditional meaning likely occurs in predictions. As Dancygier & Sweetser (2000: 122) argue, in so-called predictive conditionals, a future state-of-affairs is construed as dependent on the realization of another state-of-affairs. Therefore, in such conditional predictions, conditionality and prediction are conceptually contiguous. This can be illustrated with the following example (cf. (8.26)), where temporal *da* expresses conditionality:

(8.38) When you pledge loyalty and service, **then** I will make you rich.

In such utterances, *da* appears in a conditional prediction with future time reference. The prediction of the speaker making the addressee rich in the future is construed as temporally coinciding with another state-of-affairs, namely, the pledge by the addressee. Thereby, the clause implies that the former state-of-affairs is conditioned by the latter. In such a context, *da* can then be associated with the conditional meaning.

Based on this meaning, the consecutive meaning can emerge in Early Modern Danish through a generalization. The first stage seems to be the metalinguistic conditional or the conditional of alternatives, which can be paraphrased as 'if not X, then Y', discussed in the preceding section. In an example like (8.32) here repeated as (8.39), the conditionality is not propositional in nature, but metalinguistic:

(8.39) huor drengens Moder icke wiste hworledis hun skulle tittulere Skolemesteren; kalte ham Her Willas; hand sagde ieg er icke Herre; Mester **da** sagde quinden;

'When the boy's mother did not know how she should address the schoolmaster, she called him Sir Willas. He replied, I am not a sir. Master, **then**, the woman said.'

(1692 LeoJamII 148)

These uses are only minimally different from the original conditional meaning and are possibly even fully licensed by this meaning. Instead of establishing a conditional link at the propositional level, the conditionality is on the speech act or

metalinguistic level ('in that case I need to ask…', or 'if we cannot call you lord, I can call you master', cf. Dancygier & Sweetser 2000 for a discussion of similar extensions of English conditional *if*). The conditionality is thus not located at the propositional layer but rather establishes textual links of a more general nature, that is, a consecutive meaning.

The generalization of the conditional meaning to the consecutive meaning might also have happened in an example like the following:

(8.40) **Baronen**. (…) Jeg vil ingen Jomfru have, det er altfor lidet for mig. Der skal være stor Beskaffenhed hos den, jeg vil have.

Jomfruen. **Da** faar Baronen intet tage mig, for jeg er Jomfru.

'**Baronen**. (...) I do not want a maiden, that is far too little for me. There must be great qualities in the one I choose.

Jomfruen. **Then** the Baron must not take me, for I am a maiden.'

(1680 GFKom 18)

In such an utterance, the meaning 'in that case' establishes a conditional link between two propositions, and as conditionality implies that the consequence can be deduced based on the premise (cf. Dancygier & Sweetser 2000: 111), *da* can be reanalysed as expressing such a more general textual link.

English *then* went through a development similar to that of Danish *da.* Haselow (2012: 158) argues that the consecutive meaning of English *then*, which he calls a textual sequencing meaning, originates in a reanalysis where temporal succession is understood as textual progression and cohesion. Unfortunately, he does not provide a bridging context or any other details showing how such an abstraction could have happened. My scenario is similar, but a bit more complex. The development also takes its point of departure in the temporal meaning. This is the source meaning of the conditional meaning, which in turn gives rise to the consecutive meaning. Furthermore, I argued that it is not the sequencing meaning of *da* that gives rise to the conditional meaning, but its usage in predictions.

8.2.2.5 Topology of cohesive *da*

Cohesive *da* exhibits the same topological distribution as temporal *da*. It occurs in the pre-field (8.41), the middle field (8.42) and the post-field (8.43):

(8.41)

oc	**tha**	skall	iach	engen	man	rætis.
and	**in that case**	shall	I	no	man	fear

'And **in that case**, I shall fear no man.'

(1480 ChrisLeg 41)

(8.42) Methen gudh ær allæ stæthæ meth syn nathæ

Hwi	døør	**thaa**	soo	manghæ	i	dødælik	syndh
why	die	**in that case**	so	many	in	deadly	sin

'If God is everywhere with his mercy, why **then** do so many people die in deadly sin?'

(1350 Luc 48r)

(8.43) **Skovsgaard**. Hvordan finder jeg Eder?

Jomfruen. Eders, som jeg altid har været.

Skovsgaard. Hvad	forhindrer	min	Lykke	**da**?	
Skovsgaard	what prevents	my	happiness	**DA**	

'**Skovsgaard**. How do I find you?

The Maiden. Yours, as I have always been.

Skovsgaard. What prevents my happiness **then**?'

(1680 GFKom 22)

In the following examples, cohesive *da* precedes various adverbials like negation (8.44), affirmative *vel* (8.45) and sentence adverbials like epistemic *maaske* 'maybe' (8.46) and textual *ligavæl* 'anyways' (8.47):

(8.44) **Leerbeutel.** Det er sandt; hvis jeg ikke faaer Penge paa en eller anden Maade, er jeg om en Hals.

Pernille.	Saa	vover	Herren	**da**	intet,	men
Pernille	then	risks	the lord	**DA**	nothing	but

jeg	alleene.
I	alone

'**Leerbeutel**. It is true. If I do not get money in one way or another, I will lose my head.

Pernille. So, the lord does not risk anything **then**, but I alone do.'

(1726 HolPla VI 20)

(8.45) **Pernille**. Det er et underligt Spørsmaal. Monsieur maa vist ingen Almanak have.

Leander. Jo min Troe har jeg saa.

Pernille.	Saa	veed	han	**da**	vel,	at	vi	skriver
Pernille	then	knows	he	**DA**	VEL	that	we	write

den	11te	Junii	i Dag?
the	11th	June	today

'**Pernille**. That's a strange question. Monsieur probably does not have an almanac.

Leander. Yes, by my faith, I do.

Pernille. **Then** surely you know that today is the 11th of June?'

(1726 HolPla VI 11)

(8.46) **Leerbeutel.** Ney min Herre! Gid han var noget vild og flygtig; thi jeg holder saadant for et got Tegn hos unge Mennesker.

1. Raadsherre.	Saa	inclinerer	han	**da**,	maaskee,
1st Councilman.	then	inclines	he	**DA**	maybe

til	Melancholie?
to	melancholy'

'**Leerbeutel**. No, Sir! I wish he were a bit wild and impulsive, for I consider that a good sign in young people.

1st Councilman. So perhaps he is inclined toward melancholy **then**?'

(1726 HolPla VI 32)

(8.47)

tha	ær	han	plictoghir	gozit	betala	oc	**tha**
then	is	he	obliged	the gods	pay	and	**in that case**

ligavæl	giøra	sina	boot.
anyways	do	his	penalty

'**In that case**, he must pay for the goods and anyway pay his penalty.'

(1425 SjT 61)

This indicates that cohesive *da* could also appear in the left periphery of the middle field, similarly to temporal *da*.

8.2.2.6 Grammatical vs. lexical status of cohesive *da*

At least the conditional meaning of *da* is lexical. In the following example from Early Modern Danish, *da* is modified with *i sønderlighed* 'in particular':

(8.48)

I	sønderlighed	**da**	achter	uy
in	particular	**in that case**	intend	we

att søge uorris vdlagde Penning huos fru Ellen

'In particular **in that case**, we intend to seek our missing money from Lady Ellen.'

(1641 ChrisIV V 82)

Similarly, in the following example from Modern Danish, conditional *da* is focused by the focus operators *selv* 'even' and *især* 'especially':

(8.49) Sund hårbund er lig sund vækst. Hvis ikke der ligger sygdom, hormonforandringer til grund for et hårtab.

Men	selv	**da** –	eller	måske	især	**da** –	er	det
But	even	**then**	or	maybe	especially	**then**	is	it

at	bevare	sund	funktion	i	hårsækkene	vigtigt.
to	maintaine	healthy	function	in	hair follicles	important

'A healthy scalp equals healthy growth, if the hair loss is not caused by illness or hormonal changes. But even **in such cases** – or maybe especially **then** – maintaining the healthy function of the hair follicles is crucial.'

(internet)

While the more general consecutive meanings of *da* cannot be modified, at least in Modern Danish, it can be focused with stress as in an utterance like the following:

(8.50) Ney! Hosbond skal høre hvad hun læste videre: Ja han er ligesom de Træer, der bær ingen Frugt, men tiener kun til Skygge. Havde jeg **da** ikke Aarsag at ærgre mig paa Hosbonds Vegne?

'No! My lord must hear what she read next: Yes, he is like those trees that bear no fruit but only serve for shadow. Did I **THEN** not have reason to be upset on my lord's behalf?'

(1728 HolPla IV 17)

I will therefore assume that the cohesive meaning was lexical.

8.2.3 Subordinating heterosemes of *da*

The adverb *da* has a subordinating heteroseme. This subordinator has a temporal meaning 'when' (8.51), a causal meaning 'because' (8.52) and a conditional meaning 'if' (8.53):

(8.51) han thogh æn wildbiørn och bant meth sin heldæ **tha** han war barn

'He took a wild bear and tied it up with his fetters **when** he was a child.'

(1400 GestaC67 n.p.)

(8.52) **tha** the icke samnes kunne hwilken mech/tigh bliffue skuldhe Tha striddhe the melløm them ther om

'**Because** they could not agree who should become powerful, they fought each other about it.'

(1450 RydNKS n.p.)

(8.53) æn **tha** thw mek drabir, tha hafvir æn alexander bathe fromare oc visare riddara i gien æn iac ær

'But **if** you kill me, Alexander has still braver and wiser knights than I.'

(1425 SjT 127)

In Modern Danish, *da* can no longer function as a conditional subordinator, but the other meanings remain.

I will neither discuss the topology of this subordinator nor whether it has grammatical or lexical status.

8.2.4 Emergence of the modal particle

In the 16th or 17th century, I find the first instances of *da* as a modal particle. However, it does not appear with its modern modal particle meaning right away. Rather, *da* seems to develop the modal particle meaning in at least two stages:

Stage I (from the 16th or 17th century): contextual motivation in interrogatives and imperatives
At the first stage, the modal particle *da* only appears in interrogatives and imperatives where it expresses that the question or request is motivated by the preceding context. As opposed to what is the case with the consecutive meaning, this does not need to be an explicit textual element.

Cognate constructions of *da* have developed similar meanings, such as the Early Modern and Modern High German *denn* (e.g., Ickler 1994: 383; Diewald 1997: 88; Molnar 2002: 54; FNHDW *dan*[2]), Norwegian final *da* (Borthen 2014: 272–74; Borthen & Karagjosova 2021: 393) and Modern English final *then* (Haselow 2011: 3614).

Stage II (from the 18th century): conflict moves
At the second stage, *da* expresses its Modern Danish conflict semantics also in declaratives.

These stages will be discussed in turn.

8.2.4.1 Stage I: contextual motivation in interrogatives and imperatives

In the 16th century, I begin to find the first instance of *da* as a modal particle in interrogatives and imperatives, where it expresses contextual motivation. In interrogatives, it is used to indicate that the question is motivated based on the preceding context. Most often, this motivation stems from a conflict of hypotheses, that is, the speaker previously believed a different proposition than what now appears to be the case. Consequently, such questions typically reflect a doubting or sceptical speaker. However, as I will argue below, this conflict feature was not necessarily a conventional meaning feature, though it might have been.

Interestingly, in the 16th century, unambiguous examples of this modal particle appear exclusively in the Bible, where it translates Luther's *denn.* In the following passage from the Bible, Jesus returns after praying alone in the Garden of Gethsemane only to find his followers asleep. This sight causes him to ask the question of whether his followers could not even stay awake for one hour:

(8.54) Oc hand kom til sine Disciple / oc fant dem soffuendis / oc sagde til Peder. Kunde i **da** icke vaage en time met mig?

'And he came to his disciples and found them sleeping, and he said to Peter: Could you **DA** not watch with me for one hour?'

(1550 Bib Matt 26:40)

The modal particle indicates that the question is motivated by the context that has given rise to a conflict of hypotheses. In this example, Jesus would have expected more self-discipline and devotion from his followers, which conflicts with reality. The conflict between an expected state-of-affairs and the actual state-of-affairs causes him to ask for verification that what he sees is indeed true.

The modal particle has a similar effect in the following examples:

(8.55) Men Jhesus suarede / oc sagde til dem / Giffue i dem at æde. Oc de sagde til hannem / Skulle wi **da** gaa bort / oc købe Brød for thu hundrede Pendinge / oc giffue dem at æde?

'But Jesus answered and said to them: Give them something to eat. And they said to him: Shall we **DA** go and buy bread for two hundred pennies and give it to them to eat?'

(1550 Bib Mark 6:37)

(8.56) Der hand saa nu mange Phariseer oc Saduceer komme til sin Daab / sagde hand til dem / J Øgle slect / Huo visde **da** eder / at i skulde vndfly den tilkommende Vrede?

'As he saw many Pharisees and Sadducees coming to his baptism, he said to them: You brood of vipers, who mislead you **DA** to believe you shall flee from the coming wrath?'

(1550 Bib Matt 3:7)

According to the FNHDW (s.v. *dan*[1]), the Early Modern High German cognate of *da* could express 'surprise' and 'doubt' in questions (cf. Diewald 1997: 88–90; Molnar 2002: 53). This suggests that these early instances were not genuine Danish, but translation interferences.

Be that as it may, from the late 17th century, *da* is no longer confined to the Bible but is used by a variety of authors. In the following example, no temporal meaning, nor a conditional meaning can be assumed. Rather, *da* indicates that the question is based on the preceding discussion. Skovsgaard and his girlfriend are forced to leave each other but refuse to do so. The considerably more prosaic Mette believes that there is nothing to do, and therefore, she interrupts and asks what they intend to do. Their reluctance to leave each other conflicts with what she considers possible:

(8.57) **Skovsgaard**. Skal jeg forlade den, mig saa højt elsker.

Mette. Mens hvad vil I **da** gjøre?

'**Skovsgaard.** Should I leave the one who loves me so much?

Mette. But what will you **DA** do?'

(1680 GFKom 23)

In other words, the conflict between Skovgaard having to leave and his reluctance to do so makes Mette ask the question. In this example, *da* contributes a meaning nuance of scepticism.

Similarly, in the following example, *da* indicates that the question is motivated by the preceding context. The Countess and the Baroness are angry about something but are reluctant to specify what it is. The modal particle *da* then indexes the tension between stating that there is a problem and not specifying what that problem is:

(8.58) **Grevinden**. O, Skam skal de faa! (…)

Friherinden. De Fantaster!

Grevinden. De haardnakkede!

Friherinden. De dumdristige!

Greven. Hvad nyt er **da** paa Færde?

'**Countess**. Oh, shame on them! (…)

Baroness. Those dreamers!

Countess. Those stubborns!

Baroness. Those foolhardy!

Count. What news do you **DA** bring?'

(1680 GFKom 15)

This analysis is corroborated by Moth's dictionary (1700, MO, s.v. *da*), who glosses *da* with *tandem* 'finally', which expresses impatience or indignation in questions (OLD, s.v. *tandem*):

(8.59) Hvorfor **da**?

'Why **DA**?'

quam ob rem **tandem**.

'For what reason **TANDEM**?'

The following examples illustrate this meaning for the 18th century:

(8.60) **Studenstrup** Aa bitte Faer! kand I ikke sige mig Vejen til Vester Port?

Niels Christensen Er I **da** saa fremmed her i Byen?

'**Studenstrup** Oh, dear father, could you not tell me the way to Vester Port?

Niels Christensen Are you **DA** so unfamiliar here in the city?

(1724 HolPla III 391)

(8.61) **Den usynlige**. Hvad Ord vil I da at jeg skal sige?

Harleqvin. Allene at I vil kalde mig jer søde Engel, eller sige: Giv dig tilfreds min Snut, det skal blive got!

Den usynlige. Ach Himmel, hvad hører jeg! mit hele Legem skielver, og jeg er færdig at falde af Afmagt. Ach, gid min Terne var ved Haanden, der kunde ledsage mig bort!

Harleqvin. Ach steenhiertede Deylighed! har I **da** ingen Samvittighed at myrde et uskyldigt Menneske og een som tilbeder jer som en Gudinde?

'**The invisible one.** What words would you DA have me say?

Harleqvin. Only that you will call me your sweet angel or say: Be content, my dear, it shall be well!

The invisible one. Ah, heaven, what do I hear! My whole body trembles, and I am about to faint from weakness. Ah, if only my maid were at hand to lead me away!

Harleqvin. Ah, stone-hearted beauty! Have you **DA** no conscience in murdering an innocent man and one who worships you like a goddess?'

(1731 HolPla VI 285)

In most cases, the question is due to a conflict of hypotheses (similarly to the meaning of the modal particle *nu* in interrogatives, to be discussed in Section 8.3.3.1). However, the occurrence of *da* in non-polar questions where the meaning is used to elicit supplementary information as in (8.62) speaks against the codified status of this conflict meaning:

(8.62) **Pernille**. Jeg er ikke vel, Jomfrue.

Leonora. Hvad fattes dig **da**?

'**Pernille**. I am not feeling well, Maiden.

Leonora. What is wrong with you **DA**?'

(1753 HolPla VII 152)

In such a context, *da* indicates that the question is related to the preceding context, which is contextualized as a request for supplementary information, and there does not appear to be any conflict.

Still, analyses of modal particle cognates of *da* typically mention meanings like 'surprise', 'doubt' or 'conflict' (e.g., FNHDW, s.v. *dan*[2] for German *dan*/*denn*, Haselow 2011: 3603–4 for Modern English final *then,* Borthen 2014: 272 for Modern Norwegian *da*). This suggests that such conflict meanings at least are typical or even default inferences in many contexts.

One might object that there is a possibility for a generalization between what I treat as a modal particle in this section and the consecutive marker discussed in Section 8.2.2.3. Such a more general meaning could be rendered as the instruction 'find a link with the preceding context'. This seems to be what is suggested by Hansen & Heltoft (2011: 1054) for Modern Danish, Borthen (2014: 272–74) and Borthen & Karagjosova (2021: 393) for Norwegian *da* and Haselow (2012a: 160) for English *then*.

However, at least in Modern Danish, the content distinction between the two meanings seems to be paralleled by a distinction pertaining to their expression side. Consecutive *da* can be stressed, while the modal particle *da*, at least in Modern Danish, like other modal particles, cannot. As soon as it is stressed, the modal particle is interpreted as one of its cohesive meanings, that is, *da* would index an explicit proposition in the preceding discourse. Therefore, in the context of (8.61), the following clause would be odd:

(8.63) *Ach steenhiertede Deylighed! har I **DA** ingen Samvittighed at myrde et uskyldigt Menneske

‘Oh, stone-hearted beauty! Have you **DA** no conscience to murder an innocent person?’

The same applies to all other examples discussed in this section.

The content distinction might be difficult to grasp. However, readers with Modern Danish intuitions can verify it by translating with either *da* or *så*. As opposed to all examples of the consecutive meaning discussed in Section 8.2.5, none of the examples discussed in this section can be paraphrased with *så*, but all need the Modern Danish modal particle *da*.

At the latest in the 18th century, the modal particle also begins to appear in imperatives where it similarly expresses contextual motivation. In these utterances, the contextual motivation typically results from a conflict with reality, the wishes of the addressee or similar. In (8.64), the speaker Jeronismus indicates that his request conflicts with the prior utterance, where Magdelone points out that she does not understand French:

(8.64) **Magdelone**. Jeg er ikke saa lykkelig at jeg forstaaer Fransk min Herre!

Jeronimus. Ej, still dig **da** ikke saa taabelig an. Kand du ikke svare et lidet korn? kand du i det ringeste ikke sige: O vis Monsieur?

‘**Magdelone**. I am not so fortunate as to understand French, sir!

Jeronimus. Oh, do not act **DA** so foolishly. Can you not answer at all? Can you not at the very least say: Oh, certainly, Monsieur?’

(1747 HolPla VI 441)

In the following example, *da* is used to emphasize the conflict between the request of the brother (to take pity) and the intentions of Colombine (not to do so):

(8.65) **Harleqvin**. Lad mig allerunderdanigst kysse Enden af dine allernaadigste Tøfler.

Colombine. Hverken een eller anden Ende. (…)

Harleqvin. Jeg er alt død.

Den usynliges broder. Tag ham **da** til Naade igien Mademoiselle!

'**Harleqvin**. Let me most humbly kiss the end of your most gracious slippers.

Colombine. Neither one nor the other end. (…)

Harleqvin. I am wholly dead.

The brother of the invisible. Take **DA** pity on him again, Mademoiselle!'

(1731 HolPla VI 310)

This semantic analysis is corroborated by Moth's dictionary from 1700 (MO, s.v. *da*). Moth offers the following examples with corresponding Latin glosses:

(8.66) sîg **da** hvad det er.

quin dic quid est.

both:

'Why do you not tell me what it is?'

or: 'Tell me **DA** what it is!'

(8.67) sîg mig det **da**.

Memora **dum** mihi.

both:

'Tell me **DA**!'

In these examples, *da* is translated with the adverbs *quin* 'why not' and *dum* (an emphasizer of imperatives). These translations suggest that *da* was used to emphasize imperatives or express suggestions. Neither of these corresponds exactly to my analysis of the modal particle *da*. However, they correspond to typical contextualized meanings of the conflict meaning in imperatives in Modern Danish discussed in Section 8.1. For instance, Durst-Andersen (1995: 641) analyses Modern Danish *da* as a particle that narrows down the meaning potential of imperatives to suggestions. A suggestion can be related to conflicts in the way that

the speaker acknowledges that there might be good reasons for not doing what is suggested.[36] The emphasizing use can be related to the conflict meaning more straightforwardly. In explicitly acknowledging that the state-of-affairs is not yet realized, the speaker emphasizes her request or insists on a previously made request.

8.2.4.2 The diachrony of the early modal particle

In this section, I discuss how the modal particle may have developed in interrogatives. There are at least two scenarios through which the interrogative modal particle might have emerged. It might have developed:

1. based on one of its cohesive meanings or
2. as a calque based on the ENHG *dan.*

Of course, the scenarios do not preclude each other but might have interacted as a case of contact-induced grammaticalization (cf. Section 3.5.). The scenarios will be dealt with in turn.

According to the first scenario, the emergence of the interrogative modal particle can be conceived of as an extension of an anaphoric meaning to a deictic meaning. Such an extension is possible in contexts where *da* indexes a proposition in the preceding turn of the interlocutor:

(8.68) **Leander.** (…) I en heel Maaned, som jeg har giort Amour, har jeg ikke kundet formaae hende til at tage Masqven af, for at beskue hendes Skiønhed.

Harleqvin. Men hvordan Pokker kand Herren **da** være bleven forliebt i hende?

'**Leander.** (...) In a whole month, during which I have been courting her, I have not been able to get her to take off the mask, so I can see her beauty.

Harleqvin. But how the devil could you **DA** have fallen in love with her?'

(1731 HolPla VI 265)

In an utterance like this, *da* expresses that a preceding textual element is to count as a premise for the question (cf. Haselow 2011: 3608; 2012a: 160 on English *then*, cf.

[36] Note also that suggestions can be expressed with the construction *why don't you …?* in English, containing a negative element presumably serving the same function as the conflict meaning of *da*.

Borthen & Karagjosova 2021: 403 on Norwegian *da*). The following paraphrase illustrates this:

(8.69) Men hvordan Pokker kand Herren være bleven forliebt i hende, naar han I en heel Maaned har giort Amour og ikke har kundet formaae hende til at tage Masqven af?

'But how the devil could you have fallen in love with her, when you have courted her for a whole month and have not been able to get her to take off the mask?'

It is the premise that *da* indexes that makes the speaker's question relevant to ask in the first place, as it generates a conflict of hypothesis. This is illustrated in the following figure:

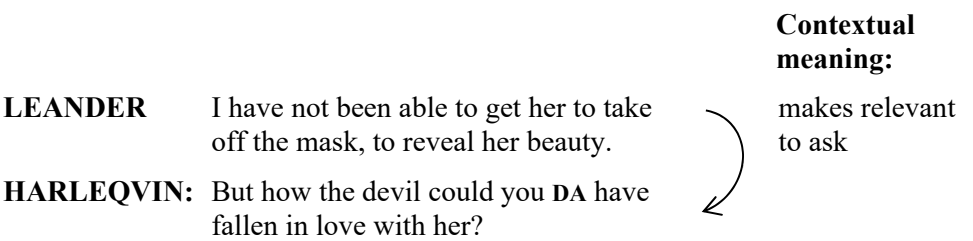

Figure 8.1
Bridging context for the modal particle *da* in interrogatives

This contextual meaning can then be conventionalized.

Highlighting the interactive potential of conditional *then* ('in that case') in talk, Haselow (2011: 3619–20: 2012: 165–66) argues for a similar scenario for English *then*. Diewald (1997: 89) assumes a similar development for German *denn*, though she is less explicit as regards the suggested interactive nature of the bridging context.

According to Molnar (2002: 54), the corresponding modal particle meaning for German *denn* develops based on a causal conjunction. However, she does not provide a bridging context for the reanalysis of a conjunction as a modal particle. I will discuss a possible bridging context for this scenario in section 10.2.3.2.

Wegener (2002: 386–87) argues that the modal particle *denn* in German develops based on the temporal meaning:

> The original temporal meaning "E2 follows E1" (E = event) is epistimified [sic] to "My utterance follows an utterance U1 (even of a non-linguistic kind) in the context."

However, she does not provide any bridging contexts, nor does she explain how such an epistemification could have happened.

The modal particle might also have emerged based on language contact. As already pointed out, the Early New High German cognate *dan/denn* expresses a meaning similar to Early Modern Danish *da.* This modal particle might have acted as an analogical model for the emerging Danish modal particle, that is, its grammaticalization might have been contact-induced. The loan interferences in the Bible might have had a channelling function for such a transfer.

8.2.4.3 Topology of the early modal particle

When *da* expresses contextual motivation, it appears in the middle field:

(8.70) »Ah, jo, sætter Eder«, begyndte atter Barselkonen. »Det er fortrædeligt at sidde«, sagde de andre.

»Vil	**da**	slet	intet	sidde?«
Will	**DA**	at all	nothing	sit

sagde nu end en Gang Fruen.

'"Ah, yes, do sit," the new mother began again." "It is bothersome to sit", the others said. "Will **DA** nobody sit?", the lady said once more now.'

(1680 GFKom 16)

Because the sentence frame of interrogatives and imperatives does not have a (filled) pre-field, it is impossible (or irrelevant) to ask whether *da* could or could not be placed in the pre-field.

Within the middle field, *da* precedes negation:

(8.71)

Kunde	i	**da**	icke	vaage	en	time	met	mig?
could	you	**DA**	not	watch	an	hour	with	me

'Could you **DA** not watch with me for one hour?'

(1550 Bib Matt 26:40)

Unfortunately, when *da* expresses the modal particle meaning in interrogatives or imperatives in my material, it does not cooccur with sentence adverbials other than negation. This makes it difficult to analyse its exact position within the middle field. However, the modal particle in interrogatives and imperatives in Modern Danish occurs in the modal particle position (cf. Sections 4.2 and 8.2.4.7). For instance, in the following Modern Danish example, *da* precedes the modal particle *mon* and the sentence adverbial *derfor* speaking for its status as a modal particle:

(8.72) Men er det **da** mon alligevel sandt?
but is it **DA** MON anyways true

'But is it **DA** MON true after all?

(internet)

(8.73) Kom **da** derfor lige ind
come **DA** therefore just inside

'So just come **DA** inside!'

(internet)

As the source constructions of the modal particle *da* also can occur in the left periphery of the middle field (cf. the examples in Section 8.2.2.5), it is reasonable to assume modal particle position of the modal particle *da* throughout its history.

Interestingly, when the modal particle *da* expresses this meaning, it can also occur in the right periphery throughout its history:

(8.74) **Troels.** Ney, Monsieur Jeronimus, han giør hende ikke u-ret. Jeg veed endda nogle fleere Omstændigheder, som den samme fremmede Kone fortaalte mig, hvilke jeg ikke har villet sige Hosbond.

Corfitz. Hvad sagde hun til dig **da**?
Corfitz. What said she to you **DA**

'**Troels.** No, Monsieur Jeronimus, he does not wrong her. I even know some more circumstances that the same foreign woman told me which I have not wanted to tell my lord.

Corfitz. What did she say to you **DA**?'

(1728 HolPla IV 93)

Based on my material, it is not possible to say whether this is the post-field position or the right position for interjectionals, but I assume the latter, because it corresponds to the Modern Danish situation (cf. Section 4.2.3 and Hansen & Heltoft 2011: 1151)

According to Seip (1954: 51–52), the right periphery position is a Norwegianism of the writer Holberg, who grew up in Bergen (Norway). However, according to the Holberg dictionary (HO, s.v. *da*), a similar usage is attested in the plays of the time in general, and it can still occur in the right periphery today (cf. Section 4.2.3). I will discuss the diachrony of this position in Section 10.2.3.

8.2.4.4 Grammatical vs. lexical status of the modal particle in interrogatives and imperatives

As pointed out, at least according to Modern Danish intuitions, none of the cited examples of the modal particle in interrogatives and imperatives can be stressed. This indicates that the modal particle cannot be foregrounded and hence is grammatical. Furthermore, I do not find examples where the modal particle is modified or foregrounded in any other way. Negative evidence for this can be provided based on Modern Danish:

(8.75) *Hvad sagde hun til dig lige **da**?

'What did she say to you **DA**?'

8.2.4.5 Stage II: conflict moves

Already in the 18th century, the first instances of the modern modal particle *da* in declaratives begin to appear. In the following examples, *da* expresses a conflict with a proposition that is available in the context as well as the identifiability of the speaker's claims corresponding to the meaning of *da* discussed in Section 8.1. In (8.76), *da* indicates that the utterance conflicts with the belief that none of the men are awake implied by the previous utterance. Furthermore, *da* seems to be used to express the speaker's expectation that his assumption is reasonable (hence identifiable), possibly seeking the addressee's confirmation:

(8.76) **Musicanteren**. Hr. Vert! Kunde han ikke flye os nogen af Paltz-Grevens Folk i tale?

Verten. Jeg har, min Troe, ikke seet nogen af dem i Dag.

Jubileren. Jeg veed, nogen af dem maa **da** være opstaaen.

Verten. Jeg skulde bilde mig det samme ind. Jeg vil ind udi Lakey-Kammeret, og vække dem, hvis de ere ikke vaagen.

'**The musician**. Mr. Host! Could you not get us any of the Count Palatinate's men to speak with?

The host. I have certainly not seen any of them today.

The jeweller. I know some of them must **DA** have gotten up.

The host. I should believe the same. I will go into the servants' room and wake them if they are not awake.'

(1726 HolPla VI 40)

In (8.77), *da* addresses the implied proposition that the income from the Minerva artefact was not certain:

(8.77) Din Beslutning at opgive Minerva ikke heller var gandske nødvendig; (…) Imidlertid er Sagen dog i Grunden ikke saa overmaade farlig. Egentlig var Minerva-Indtægten **da** ogsaa usikker;

'Your decision to abandon Minerva was not entirely necessary (...) However, the matter is not very dangerous. In fact, the Minerva income was **DA** also uncertain.'

(1794 OluLet 59)

In none of these examples does *da* seem to express temporal meanings. Furthermore, it does not index any explicit propositions and cannot be translated with *så* in Modern Danish, which speaks against cohesive meanings. Finally, in Modern Danish all utterances would contain unstressed *da.*

In the 18th century, good examples of the modal particle in declaratives are rare, however, at the latest in the early 19th century, it becomes easy to find good examples of the modal particle. In the following examples, *da* indicates that the speaker sees his or her assumption as conflicting with another assumption. In the example below, the comment by the narrator (probably *style indirect libre*) is in contrast with the fact that the person in question is crying:

(8.78) »Der kommer Rasmus ind til Velstand!« sagde hun. »Det kan jeg unde ham!« Og hendes Øine bleve ganske vaade, her var **da** ikke Noget at græde over!

'"Here Rasmus comes into prosperity!" she said. "I do not begrudge him that!" And her eyes became quite wet. There was **DA** nothing to cry about here!'

(1872 AndEve V 187)

In (8.79), *da* addresses and rejects the belief that someone might think that the husband of the speaker might have had reason to be jealous:

(8.79) Af Skinsyge viiste der sig sjeldent eller aldrig noget Spor hos ham. Han havde **da** ikke heller nogen virkelig Grund dertil; thi af alle dem, der dengang omgave mig, behagede i Sandhed ikke een mig mere end han

‘Of jealousy, he rarely, if ever, showed any traces. He had **DA** no real reason for it either; for of all those who surrounded me at that time, truly no one pleased me more than he.’

(1813 GabLet 86)

In the following example, the speaker rejects the belief that the wild ducks should care about the addressee’s ugliness and indicates that the point of view is identifiable:

(8.80) »Du er inderlig styg!« sagde Vildænderne, »men det kan **da** være os det samme, naar Du ikke gifter Dig ind i vor Familie!«

‘“You are terribly ugly!” said the wild ducks, “but it will **DA** not matter to us as long as you do not marry into our family!”’

(1844 AndEve II 33)

In the following example, the ducks reject the implied belief that someone thinks the ducks do not have hearts:

(8.81) men Ænderne gik og havde de rødeste Øine.

»Hjerte have vi!« sagde de, »det kan **da** Ingen negte os!«

‘But the ducks walked around and had the reddest eyes.

“We have a heart!” they said, “no one can **DA** deny us that!”’

(1861 AndEve IV 110)

As soon as the conflict meaning is available in declaratives, *da* appears in or is used to express exclamative speech acts as well:

(8.82) [speaking about a text that is difficult to read:]

Hammer. Det er endnu for nær.

Gamstrup. Det er **da** Fanden til Skrift!

'**Hammer**. It is still too close.

Gamstrup. It is **DA** a terrible writing?'

(1836 HeiPla II 193)

The modal particle *da* is well-suited to appear in exclamative speech acts because the conflict semantics emphasizes the speaker's point of view, and such an emphasis again easily lends itself to an exclamative reading.

8.2.4.6 The diachrony of the general modal particle meaning

There are at least three factors that have played a role in the development of the modern modal particle *da*:

1. bridging contexts based on the cohesive or consecutive meaning,
2. context expansion of the modal particle in interrogatives and
3. conflation with the modal particle *dog*.

I will discuss them in turn.

The bridging contexts for the modal particle meaning of *da* build on the same assumption discussed in connection with *jo* and *skam*. Argumentative meanings like the conflict meaning emerge in contexts where common ground is under discussion (cf. Waltereit & Detges 2007: 74–76).

The cohesive meanings of *da* are particularly well-suited to such argumentative contexts. Because *da* indexes prior textual elements, the speaker can use it to back her argumentation, referring to propositions in the preceding context. Example (8.83) is a plausible bridging context:

(8.83) **Pernille**. Ey Jomfru! er ikke Kierligheden sterkere end som saa, saa har jeg en skiøn Invention: I skal skille jer ved Leander, og blive Leonora Peder Erichsens.

Leonora. Ach! ney Pernille.

Pernille. Ach! jo Jomfru. Vi har jo **da** ikke saa mange Hocuspocus fornøden.

'**Pernille**. Oh, my lady! If love is not stronger than that, then I have a good idea. You shall part with Leander and become Leonora Peder Erichsen.

Leonora. Ah! No, Pernille.

Pernille. Ah! Yes, my lady. We will not need so much hocus-pocus **then**.'

(1731 HolPla VI 346)

In this passage, Pernille and Leonora are conspiring against Leonora's father. Pernille then suggests that Leonora should be separated from Leander, but Leonora is reluctant to do so. However, Pernille argues that if Leonora is separated from Leander, their plot will be easier to execute. While *da* in this example retains its older conditional meaning, the utterance in which *da* occurs contextually conveys the conflict meaning of the Modern Danish modal particle *da*: the proposition is identifiable in that it stands in a causal relationship to the previous suggestion of Pernille (Leonora getting separated from Leander), and it addresses the conflicting point of view of Leonora. Note also the cooccurrence of *da* with *jo,* expressing uncontroversiality similar to the modal particle *da*, and the negation *ikke* expressing adversativity.

The modern modal particle meaning might also emerge as the result of a context expansion of the modal particle that is already attested in interrogatives. As argued, from Early Modern Danish onwards, *da* appears in questions where it expresses 1. that the question is motivated based on the preceding context, and 2. (contextually at least) that the question is based on a conflict of hypotheses.

With these meaning features, all it takes for the modern modal particle to emerge is a context expansion to declaratives. Such a context expansion could have been aided by declarative questions:

(8.84) **Link** (…) Farvel saalænge, farvel, og tusind Tak for al din Godhed! *(Tager sin Hat.)*

Hammer Men hør! den Hat vil De **da** vel heller ikke gaae med?

'**Link** (…) Farewell for now, farewell, and a thousand thanks for all your kindness! (*Takes his hat*.)

Hammer But listen! You are **DA** VEL not going to wear that hat?'

(1836 HeiPla II 142–43)

Such declarative questions are both declarative utterances (a fact is asserted) and questions (the speaker requests confirmation of that fact). A declarative question can therefore bridge the extension from interrogatives to declaratives.

A third plausible factor facilitating the emergence of the modern meaning of the modal particle *da* might be a conflation or merger with the modal particle *dog*. Brøndum-Nielsen (1914: 69–70; 92) points out that, in Early Modern Danish (at least in the eastern Danish varieties spoken in Skåne, Halland, Blekinge and Bornholm), *dog* is sometimes used where *da* would be expected historically. A reflection of this can still be seen with *enddog*: through a conflation with the adverb *endda*, the subordinator *enddog* begins to be used as an adverb. Similarly, according to the ODS, *dog* gains some of its meaning through a conflation with *da* (cf. Brøndum-Nielsen 1914: 92; ODS *enddog, dog*[2]). If *da* influenced the meaning of *dog*, it is not unreasonable to assume that *dog* might have influenced the meaning potential of *da* as well.

The exact meaning potential of *dog* in Early Modern Danish is not clear. However, it seems to have had a broader meaning potential in Early Modern Danish than it has today. In Early Modern Danish, *dog*, like Modern Danish *da*, seems to express conflicts, where the proposition introduced with the *da* utterance is assumed to be mutually manifest corresponding to Early Modern High German and Modern German *doch* (e.g., FNHDW, s.v. *doch*; Hentschel 1986: 87–93; 110–15):

(8.85) [A woman has stolen thread from the castellan. She lies and swears that she did not do it:]

Der Slosf: war borte sagde ieg til quinden, Gud beware oss; torde i sige de Ord, torde I tage Sacramentet paa Løgn, oc sige ded i min paahør, der ieg **dog** wiste att ded er Slosf: traa;

'When the castellan was gone, I said to the woman: God save us! Dare you say those words, dare you take the sacrament on a lie, and say it in my hearing, even though I **DOG** know that it is the threat of the castellan?'

(1692 LeoJamII 191)

The following example from the 19th century illustrates the same meaning:

(8.86) Det er **dog** vel ikke dit Alvor, Casimir, du behøver jo **dog** ei at laane Penge af Nogen?

'You are **DOG** VEL not serious, Casimir? You do **DOG** VEL not need to borrow money from anyone?'

(1839 HauPoF I 15)

Space and time prevent me from thoroughly discussing the development of this modal particle, but examples like these suggest that *dog* had a meaning close to the proximal modal particle. This is corroborated by the ODS. According to the ODS (s.v. *dog*), *dog* is used to indicate that the speaker expects the proposition to be given, that is, identifiable. Therefore, *dog* may have acted as an analogical model for the latter, facilitating the reanalyses discussed.[37]

In sum, I have argued that there are several plausible sources and factors for the emergence of the modern modal particle *da*. I have argued that it might originate in the cohesive meaning of *da* and in the modal particle in interrogatives. Furthermore, an already existing modal particle like *dog* might have been an analogical model facilitating its development. Obviously, these scenarios do not rule each other out.

8.2.4.7 Topology

When the modal particle *da* appears in declaratives, I find it exclusively in the middle field, and it always occurs in the left periphery. For instance, in (8.87), *da* precedes negation:

(8.87) »Der kommer Rasmus ind til Velstand!« sagde hun. »Det kan jeg unde ham!« Og hendes Øine bleve ganske vaade,

her	var	**da**	ikke	Noget	at	græde	over!
here	was	**DA**	not	something	to	cry	over

'"Here Rasmus comes into prosperity!" she said. "I do not begrudge him that!" And her eyes became quite wet. There was **DA** nothing to cry about here!'

(1872 AndEve V 187)

[37] It might of course be the case that the influence of the merger was reversed, that is, that *dog* has gained these meanings from *da*. However, examples like (8.85) from Early Modern Danish seem to indicate that *dog* had this meaning prior to *da*.

As illustrated in the following example, the modal particle *da* appears before other modal particles (e.g., *også*), like it still does today:

(8.88) **Klatterup**. (…) Veed De ikke, hvor det er.....

Ledermann. Hvad beha-ha-hager?

Klatterup.	Det	er	**da**	ogsaa	fordømt,	at	det Menneske
Klatterup	It	is	**DA**	OGSÅ	damned	that	that human

skal	være	døv.
must	be	deaf

'**Klatterup**: (…) Do you not know where it is...

Ledermann: What a-a-a-re you saying?

Klatterup: It is **DA** OGSÅ frustrating that this person must be deaf.'

(1826 HeiPla I 189)

Unfortunately, I lack further unambiguous examples where the modal particle cooccurs with other sentence adverbials in my historical material. However, it seems that the modal particle *da* had the topological distribution of a proximal modal particle as soon as it emerges.

8.2.4.8 Grammatical vs. lexical status of the modal particle *da*

As was the case with the modal particle occurring in interrogatives and imperatives, at least with Modern Danish intuitions, none of the cited examples of the modal particle can be stressed. Again, I interpret this fact as an indication that the modal particle cannot be foregrounded and hence is grammatical. This can be corroborated with Modern Danish intuitions. In Modern Danish, the modal particle cannot be modified (8.89) or constitute an utterance alone (8.90):

(8.89) *Det er netop **da** ogsaa fordømt.

'It is precisely **DA** OGSÅ damned.'

(8.90) A: Er det fordømt?

B: ***Da**!

'A: Is it damned.

B: **DA**!'

These examples are only ungrammatical in a modal particle reading.

8.2.5 Summary of the development of the proximal modal particle *da*

Da originates in a Proto-Indo-European construction with a temporal meaning. Based on this, a number of cohesive meanings emerge. *Da* expresses a conditional meaning already in Middle Danish and develops a consecutive meaning in Early Modern Danish. I have argued that *da*, even with its temporal meaning, that is, as a state-of-affairs operator, can be placed in the left periphery of the middle field.

On this background, the adverb gives rise to a modal particle in Early Modern Danish. The modal particle *da* first appears in interrogatives and imperatives, where it expresses that the question or request is motivated by the context. Most often, the preceding discourse has generated a conflict of hypotheses. The modal particle is then generalized to declaratives and expresses its Modern Danish meaning. There seem to be various factors contributing to this extension, including the cohesive meanings, the contextual motivation meaning and possibly a constructional merger with the modal particle *dog*.

I have argued that the temporal and conditional meanings are lexical, while all later meanings are grammatical.

The following figure summarizes the development of *da*. Dotted lines symbolize analogical influence from related constructions:

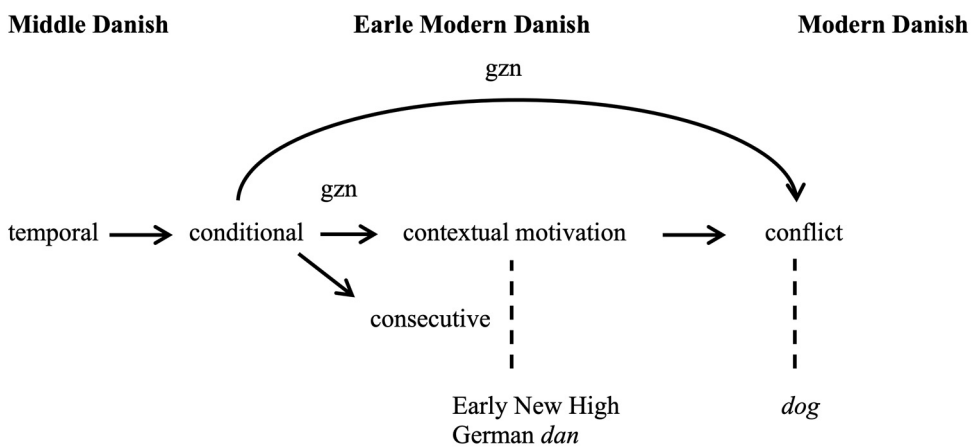

Figure 8.2
Summary of the development of *da*

8.3 The development of *nu*

In this section, I discuss the historical development of *nu*. According to Kroonen (2013: 392), *nu* already expressed a temporal meaning in Proto-Indo-European. In Middle Danish, *nu* also develops a cohesive meaning. In late Early Modern Danish, *nu* gives rise to a modal particle occurring in interrogatives and imperatives. This modal particle is generalized in the transition to Modern Danish leading to the Modern Danish modal particle.

Parts of the analysis have already been presented in Westergaard (2021).

8.3.1 A temporal adverb

The temporal adverb *nu* indexes the time of speaking:

(8.91) Juliane vndee oc vrenee, thu girides at ædæ myn twnge, ther iac skulde Gudh met loffue, **nu** ær Gudzs rætte dom yffuer tek kommen, ath thu hauer tith øghæ misth.

'Juliane, evil and impure, you wanted to eat my tongue, with which I was to praise God. **Now**, God's righteous judgment has come upon you, so that you have lost your eye.'

(1480 ChrisLeg 51)

Detges (2008: 431; cf. Westergaard 2021) points out that 'now' constructions often have a contrast implicature. Based on Grice's (1975: 45) quantity maxim, Detges argues that, in utterances without a 'now' construction, the default reading of a present tense clause is that it describes a current state-of-affairs. Consequently, for temporal 'now' constructions to be relevant, there must be a reason for pointing out that the utterance refers to the present. In many cases, this relevance arises from a temporal contrast. In other words, the relevance of *nu* is often warranted because the world changed or because it might change at a later point of time. This is particularly clear in an example like (8.92):

(8.92) herre igar arla fynge i meg lxM folk **nw** ær icke igen wdhen halffdelen

'My lord, yesterday morning, you gave me 60,000 men; **now**, only half of them is left.'

(1480 KMK 166)

In such a context, *nu* establishes a contrast between the two propositions, in this case 'there were 60,000 men' and 'only half of them is left'.

The temporal meaning is deictic, referring to the here and now of the utterance, as in (8.91) and (8.92). However, the narrator can transpose this deictic centre to the viewpoint of the narrated events:

(8.93) **Nw** tha alt var i arkene som nw ær sakt. tha løsdos alla vatn adhror j iordhene oc al reynsky i hemelin

'**Now** that everything was in the ark, as has been said now, all the waters were released from the earth and all clouds in the heavens.'

(1425 SjT 36)

8.3.1.1 Topology of temporal *nu*

In Middle Danish, temporal *nu* appears to have a topological distribution similar to the behaviour it has in Modern Danish. It can appear in the pre-field (8.94), in the middle field (8.95) and in the post-field (8.96):

(8.94)

Nu	kaller	iach	tegh	ey	dotter,
now	call	I	you	not	daughter

'**Now** I do not call you daughter.'

(1480 ChrisLeg 43)

(8.95)

hwat	wel	mænnæskæ	**nw**	gøræ
what	will	human	**now**	do

'What will a human do **now**?'

(1350 Luc 65r)

(8.96)

at	thet	motte	niderfalle	**nu**	i	stadh	oc	slass
that	it	may	fall down	**now**	in	place	and	break

om	smot	sosom	sandh.
about	small	as	sand

'So that it may fall down and shatter into pieces **now** as fine as sand.'

(1480 ChrisLeg 48)

In the middle field, *nu* can be placed in the left periphery in front of, for instance, the affirmative particle *vel* (8.97) (cf. Section 9.4.2.1), argumentative *fordi*

'therefore' (8.98), negation (8.99) as well as other types of adverbs like *adir* 'again' (8.100) and *aldræ* 'never' (8.101):

(8.97)
mek minnis **nw** væl
me remembers **now** well

at iac entidh hemeliga flytte en sten af minum agir oc pa en annar agir.

'I remember **now** that I once secretly moved a stone from my field to someone else's field.'

(1425 SjT 96)

(8.98)
Gak **nw** forthi til
go **now** therefore to

'Therefore, go there **now**.'

(1480 ChrisLeg 39)

(8.99)
tha lidhe iac **nw** ey thænna skiæmeliga dødhin
then suffer I **now** not this shameful death

'Then I would not suffer this shameful death **now**.'

(1425 SjT 35)

(8.100) Tha han hafdhe swa vm alle værldene faarit.

oc vilde **nw** adir hem til sit fædhirnis rige.
and wanted **now** back home to his fathers' kingdom

'When he had thus travelled throughout all the lands and **now** wanted to return home to his father's kingdom.'

(1425 SjT 129)

(8.101)
ther han motæ hauæ oc kan **nw** aldræ fongæ
which he may have and can **now** never get

'Which he could have had but **now** will never get.'

(1350 Luc 80r)

The following example from Early Modern Danish even illustrates that temporal *nu* can precede a proposition operator like the epistemic *vist*:

(8.102) Kierre Christopher, dw willtt nu giøre, som mynn gode
dear Christopher you will now do as my good

tro er till tig, och **nu** wiist kome hid till mig
belief is to you and **now** certainly come hither to me

'Dear Christoffer, you must do now, as I trust you will, and certainly come here to me **now**.'

(1566 GøjLet 106)

This might indicate that the position of *nu* is due to an older structure where light material precedes heavier material. I will discuss some diachronic implications of this further in Section 10.3.2.

The adverb *nu* does not have to be placed in the left periphery. For instance, *nu* can follow another state-of-affairs operator like the adverb *daglig* 'daily':

(8.103) Æn the wordhæ thæm sithæn mæst aa mood oc til scadhæ.

som wi daglig **nu** finnæ
which we daily **now** find

'But they then turned most strongly against them and became harmful, as we **now** daily see.'

(1400 RydEdv3 n.p.)

In this section, I have argued that temporal *nu* already in Middle Danish occurs in the pre-, middle and post-field, as it still does today. Within the middle field, I have argued that *nu* can occur in the left periphery, even though it is a state-of-affairs operator.

8.3.1.2 Grammatical vs. lexical status of temporal *nu*

In an example like (8.104), temporal *nu* is modified and focused by the focus operator *oc* 'also'. Furthermore, the utterance contrasts a prior situation with the current situation. The meaning contributed by *nu* is therefore highly foregrounded:

(8.104) vi hafva altidh giort idhart budh. swa vilie vi oc **nw** giøra

'We have always carried out your commands, and so we will do **now** as well.'

(1425 SjT 82)

This suggests that temporal *nu* is lexical throughout its history.

8.3.2 Cohesion

Already in my oldest Middle Danish texts, there are instances of a cohesive adverb *nu*. In my Middle Danish material, this cohesive *nu* only introduces new premises. In Early Modern Danish, it expresses textual transitions or introduces textually new information and is not restricted to premises. The following illustrates *nu* in Middle Danish:

(8.105) Jac hafvir tagit goz vppa ogir skal iac thæt ogerit vtfaa. Min kiære son thw skal thæt ey giøra: **Nw** hafvir iac bathe lafvat oc sworit at iac skal thæt vt gifwa: tha halt thina tro.

'I have taken goods upon usury. Shall I repay that debt? My dear son, you must not do that: **Now**, I have both promised and sworn that I shall repay it. Then, keep your word.'

(1425 SjT 102)

A temporal reading is improbable because the clause refers to a past event.

The content of the clause containing *nu* is textually new, but it is not necessarily an unknown proposition. This is clear in the following example. That humankind descends from Adam and Eve is "known" to both the speaker and the hearer. What *nu* indicates is that the premise has not yet been taken into consideration:

(8.106) Thoc willæ the fwl gernæ stridæ och serlestæs the meth the storæ føther Discipulus **Nw** sier scripten ath alt folk ær komet aff adam oc eua Hwar mwnnæ soo wæræ ath the æræ soo skildhæ ath i there skapnet

'But they will gladly fight, and especially those with the great feet. Disciplus: **Now**, the bible says that all people come from Adam and Eve. How can it then be that they are so distinct in their appearance?'

(1350 Luc 56r)

The generic nature of the state-of-affairs rules out a temporal reading.

This cohesive *nu* also appears in the medieval laws:

(8.107) Æn løpær thræl frán bonden, tha ma han ækki bondænum meræ for gøræ mæth sit burtlop æn sich sialuæn, thet ær **nu** swa um han dræpær man, tha bøtær bondæn ækki meræ æn thrællæn gangæ a theræ wald thær han hauær gen giørth um han warthær fangæn

'If a thrall runs away from the farmer, he cannot cause more harm to the farmer than the loss of himself. **Now**, this means that if he kills a man, the farmer is not liable for anything more than surrendering the thrall to those he has wronged, should he be captured.'

(1300 VL § 86)

In this example as well, *nu* expresses a transition to a new premise. The paragraph defines who is accountable if a thrall commits a crime. The law says that the owner of the thrall is not liable for any loss beyond that of the thrall, whose ownership is transferred to the aggrieved party. This is then exemplified using the case of murder, and this new premise is headed by a matrix clause with *nu.*

At the latest in Early Modern Danish, cohesive *nu* occurs in clause types other than premises. In all of the following examples, *nu* seems to mark textual transitions:

(8.108) Den fierde formaning til folckit huad de skulle giøre udj deris sognekirke.

Huad schulle i **nu** giøre børnlille, naar i kommer inden diße dørre

'The fourth exhortation to the people about what they should do in their parish church.

Now, what should you do, little children, when you come through these doors?'

(1543 PalArg V 55)

In the following examples, *nu* marks a transition to the final text passage summing up the content of the previous passages:

(8.109) Derfore skulle i jo siunge vdj eders sognekirche (…)

Dette er **nu** den fierde gierning som eder bør at giøre udj eders sognekirche, siunge, loffue och tache gud

'Therefore, you should JO sing in your parish church (…)

Now, this is the fourth action that you should perform in your parish church: sing, praise, and thank God.'

(1543 PalArg V 72)

(8.110) Da merckte Faderen at det vaar ved den time / i huilcken Jhesus haffde sagd til hannem / Din Søn leffuer / Oc hand trode met alt sit Huss. Det er **nu** det andet Tegen / som Jhesus giorde / der hand kom aff Judea til Galileam.

'Then the father realized that it was at that hour in which Jesus had said to him, your son lives, and he believed with all his household. **Now**, this is the second sign that Jesus performed when he came from Judea to Galilee.'

(1550 Bib John 4:54)

The analysis is similar to the one presented in dictionaries such as Fritzner for Old West Norse nú (FO, s.v. *nú*) and the ODS (s.v. *nu*) for Modern Danish speaking of a 'transition and introduction adverb'.[38]

Finally, in Early Modern Danish, *nu* can also indicate that the proposition contrasts with a preceding counterfactual conditional:

(8.111) Kunde [Eder] haffue ther tiæniste aff, wille ieg icke vndtslaa meg, (…), om ther icke wore anden. **Nu** haffue y wel anden, ther kandt tiæne till;

'If you could benefit from it, I would not try to avoid it (…), if there would be no other. **Now** you VEL have another one, who can be of service.'

(1558 GylLet I 477)

[38] It corresponds only partly to the analysis presented in Hansen & Heltoft (2011: 1054; Westergaard 2021), where the cohesive adverb *nu* is analysed as a marker of unidentifiability. For instance, in (8.109), *nu* does not express unidentifiability of the content of the clause. Rather, *nu* expresses a textual transition to the summary. The content of the clause reiterates old information, and it is consequently identifiable.

This meaning may be contextually derivable based on the cohesive meaning. However, as I will argue below, these two meanings have distinct topological distributions, which warrants treating them as distinct constructions. This meaning only appears when *nu* is placed in the pre-field.

In sum, already in Middle Danish, *nu* expresses cohesive meanings. While *nu* in all examples in my Middle Danish material introduces new premises, at the latest in Early Modern Danish, it expresses a more general cohesive meaning indicating transitions or introducing new or unidentifiable content.

8.3.2.1 Diachrony of cohesive nu

There are at least two possible pathways leading to the cohesive meaning of *nu*:

1. a metaphorical extension from the temporal to the textual domain, and
2. a conventionalization of a contrast implicature.

Because cohesive *nu* is grammatical, and because grammaticalization requires background usage patterns (Boye & Harder 2012: 22) while metaphorical extensions attract attention (Thy et al. in press; Vries et al. 2018; Olkoniemi et al. 2016), the former path is unlikely. I will therefore focus on the latter possibility.

The cohesive meaning can emerge contextually when *nu* cooccurs with verbs of saying. In such contexts, temporal *nu* can address the time of the text's production and reception. Thereby, the temporal contrast implicature can be reanalysed as the textual transition meaning (cf. Detges 2008: 432 on German *jetzt*; cf. Westergaard 2021: 184–85). For instance, in the following example, temporal *nu* introduces a new textual passage:

(8.112) [A woman asks a scholar whether she is allowed to live off the property of her husband that he did not obtain lawfully. The scholar points out that she is allowed to do so if she suffers from famine:]

Tha matu thær af bathe æda oc drikka: tha mæth thæn vilgha. At tha thw thæt forma. Vil thw thæt gerna betala forsta thw gidir. **Nw** sighir thw swa. Min kiære fathir iac thiænar enom hærra som inkte hafvir vdan vrætfongit gooz. Ma iac thær af æda oc drikka.

'Then you may eat and drink of it. If you have the intention to pay it back as soon as you are able. **Now** you say, my dear father, I serve a man who only has unlawfully obtained property. May I eat and drink it?'

(1425 SjT 98–99)

This is not the only plausible bridging context. Many narrative contexts where *nu* expresses a contrast with a preceding proposition may qualify as bridging contexts. For instance, in the following example, *nu* introduces a textually new proposition and connects it with the prior discourse through *nu*'s contrast implicature:

(8.113) hærra konung thw hafvir sworit mek thæt at min son salomon skulde konung æftir thek vardha. **Nw** hafvir adonias en storan samnath giort oc the hafva honum til konung giort.

'Lord King, you have sworn that my son Solomon should be king after you. **Now** Adonijah has gathered a great assembly, and they have made him king.'

(1425 SjT 53)

In such a context of textual transitions, the contrast implicature can be conventionalized as the cohesive meaning (cf. Detges 2008: 433 on German *jetzt*).

8.3.2.2 Topology of cohesive nu

The cohesive meaning appears in the pre-field (8.114) and the middle field (8.115):

(8.114)

Nw	sier	scripten	ath	alt	folk	ær	komet
Now	says	the writing	that	all	people	is	come

aff	adam	oc	eua
of	Adam	and	Eve

'**Now**, the Bible says that all people descend from Adam and Eve.'

(1350 Luc 56r)

(8.115)

thet	ær	**nu**	swa	um
it	is	**now**	thus	if

'**now**, this means that if (…)'

(1300 VL § 86)

When cohesive *nu* occurs in the middle field, it can be placed in the left periphery. For instance, in the preceding example, *nu* precedes the cohesive adverb *swa*, and the following illustrates that *nu* precedes the negation *ingen* 'none':

(8.116) eptherdi uy erre uys pa, at ded uyl bliiffue hinder en hard Nød at byde paa, da skal uorris deputerede uden affladelse trenge pa at Erfahre, huem hun heldtz uyl haffue derhuos, bade til att høre derpa, saoch at protucollere ded, som sagdt bliffuer.

Saframdt	hun	**nu**	ingen	uyl	Neffne,
if	she	**now**	none	will	name

daa skal uorris deputerede lade hinder forsta, at uy uille tage dem dertil, som hun inted gerne seer derhuos.

'Since we are certain that this will cause her considerable distress, our deputies shall, without interruption, press to find out whom she prefers to have present, both to listen and to record what is said. **Now**, if she refuses to name anyone, our deputies shall make it clear to her that we will appoint those she does not wish to have there.'

(1641 ChrisIV V 28)

I do not find examples of the cohesive *nu* in the post-field in my historical material. Similarly, in Modern Danish, the cohesive meaning is impossible in the post-field (cf. Westergaard 2021: 176). Therefore, the following utterance, constructed in parallel to (8.105), is odd if *nu* is intended to convey its cohesive meaning:

(8.117)

*scripten	sier	ath	alt	folk	ær	komet
the writing	says	that	all	people	is	come

aff	adam	oc	eua	**nw**
of	Adam	and	Eve	**now**

'**Now**, the Bible says that all people descend from Adam and Eve.'

In Early Modern Danish, cohesive *nu* also appears as an interjection or discourse marker:

(8.118) M. h. k. s., yeg skreff deg tell ffra Egholem mett Mores Podeboskes vondryuer, yeg fforser meg ttell, ad du hauer vell bekomed breued.

Nu	gud	bevare	deg,
now	God	keep	you

m. h. k. s., mett syn velsenelse och benedydelse, och han vne vos snartt ad ffyndes sune och helbre etc.

'My dearest sister, I write to you from Egholm with Mores Podeboske's coachman. I expect that you will have received the letter.

Now, may God keep you, my dearest sister, with His blessing, and may He grant us soon to meet healthy etc.'

(1574 GøjLet 215)

Arguably, this interjectional *nu* has the same functions as the cohesive adverb. In (8.118), *nu* marks the transition to the last greetings.

I only find it in the left position for interjectionals, and at least in Modern Danish, the right periphery position seems to be impossible:

(8.119)	*Gud	bevare	dig	i	sin	velsignelse	**nu**
	God	keep	you	in	his	blessing	**now**

The cohesive *nu*, which expresses a contrast with a preceding counterfactual conditional, can only be placed in the pre-field, as in (8.113) above. Based on this difference in topological distribution, we can reckon with two distinct cohesive constructions.

Finally, by the 18th century at the latest, cohesive *nu* appears adjacent to subordinators in subordinate clauses:

(8.120)	Om	**nu**	en	af	de	gode	Venner	læser	et	Par
	if	**now**	one	of	the	good	friends	reads	a	couple

Timer	forgjæves!
hours	in vain

'**Now** if one of the good friends reads a couple of hours in vain!'

(1787 PraLet 20)

In sum, while the cohesive adverb cannot occur in the post-field, it otherwise appears to behave like the temporal adverb. Additionally, it can be placed in the left position for interjectionals and adjacent to subordinators.

8.3.2.3 Grammatical vs. lexical status of the cohesive *nu*

The cohesive adverbial never constitutes discourse primary information. Furthermore, in Modern Danish, it cannot be modified or focused, which speaks for its grammatical status (cf. Westergaard 2021: 182–83). The following examples (cf. (8.105)) are only grammatical if *nu* expresses its temporal meaning:

(8.121) Præcis **nu** siger skriften, at folk afstammer fra Adam og Eva.
'Exactly **now**, the scripture says that people descend from Adam and Eve.'

(8.122) **NU** siger skriften, at folk afstammer fra Adam og Eva.
'**NOW**, the scripture says that people descend from Adam and Eve.'

This indicates grammatical status of the cohesive adverb throughout its history.

8.3.3 Emergence of the modal particle

In the 17th or 18th century, I find the first instances of *nu* as a modal particle. However, it does not appear with its modern modal particle meaning right away. Rather, in its development, the modal particle *nu* seems to go through a similar development as *da* does, and interestingly, changes in this development seem to coincide temporally with only a few decades separating the changes. As was the case with *da*, *nu* develops the modal particle meaning in two steps, exhibiting modal particle meanings in interrogatives and imperatives before it does so in declaratives:

Stage I (from the 17th or 18th century): conflict meaning in interrogatives and imperatives
At the first stage, the modal particle *nu* only appears in interrogatives and imperatives, where it expresses that the content of the utterance conflicts with another proposition or state-of-affairs available in the context. This meaning

is typically used to express surprise, scepticism or insistence. A similar meaning is attested in Modern German *jetzt* and Old French *or* (Detges 2008).

Stage II (from the late 18th century): conflict moves
At the second stage, the modal particle *nu* is generalized and expresses its modern conflict meaning regardless of sentence type.

The semantic aspects of these stages will be discussed in the following sections. Afterwards, I will examine the topology of the modal particle *nu* in Section 8.3.3.5 and its grammatical or lexical status in Section 8.3.3.6 collectively.

First a note on methodology, however. Isolating these meanings is difficult, because both the temporal and the cohesive meanings are very flexible regarding their contextual compatibility, making them difficult to rule out in individual instances. Nevertheless, I will argue that the meaning associated with Stage I might have been conventional.

Be that as it may, the important thing for present purposes is that *nu* develops a new usage pattern (be it a conventional meaning or not), which does not seem to have been possible previously, and that this usage pattern predates the full modal particle meaning that *nu* has in Modern Danish.

8.3.3.1 Stage I (17th or 18th century): conflict meaning in interrogatives and imperatives

During Early Modern Danish, *nu* seems to develop a new meaning in interrogatives and imperatives. It expresses that the utterance conflicts with another proposition, wish, state-of-affairs or similar in the context. This meaning is contextualized as a conflict of hypotheses or more specifically 'surprise', 'wondering' or similar in interrogatives and as insistence in imperatives.

The Modern German modal particle *jetzt* (< 'now') and Old French *or* (< 'now') express a similar meaning (Detges 2008: 425, cf. Hentschel 1986: 33–38; Burkhardt 1994: 143; Westergaard 2023a: 257). As these modal particles have a similar source meaning, they can be of help in reconstructing the meaning of *nu* in Early Modern Danish. I first review Detges' analysis of *jetzt* and *or* and then present my analysis of *nu* in interrogatives in Early Modern Danish. Afterwards, I discuss the modal particle *nu* in imperatives.

In Modern German, the modal particle *jetzt* expresses 'surprise' and 'wondering' (Detges 2008). More generally, Detges (2008: 425) argues that when the modal particle *jetzt* appears in interrogatives, it expresses that the speaker has two competing hypotheses:

(8.123) Fahren Sie mich **jetzt** zum Bahnhof?

'Are you **JETZT** driving me to the train station?'
[implied: the speaker had previously assumed they would be driven to the register office]

(Detges 2008: 423)

(8.124) [...] also, auf welcher Seite steht **jetzt** die Moral?

'So, which side is **JETZT** morally right?'

(Detges 2008: 418)

In (8.123), the speaker indicates with *jetzt* that a new hypothesis ('you are taking me to the station') conflicts with a previously held belief ('you are taking me to the register office'). Similarly, in (8.124), *jetzt* indicates that there are conflicting propositions in the common ground. It is unclear which side is morally right.

According to Detges (2008: 425–29), Old French *or* 'now' has a similar meaning potential. In the following passage from Perceval, *or* expresses a conflict between two hypotheses, contextualized as 'sceptical wondering', that is, the speaker does not believe that Perceval's name really is *Biax Filz* 'dear son':

(8.125) Mes or te pri que tu m'anseignes

par quel non je t'apelerai.

- Sire, fet il, jel vos dirai.

J'ai non Biax Filz. - Biax Filz as *ores*?

'But now I ask you that you tell me,

what name I should call you.

- Sir, he [Perceval, LW] said, I will tell you.

My name is Dear Son. – Are you **ORES** called *Dear Son*?'

(Detges 2008: 427)

Similarly, in Early Modern Danish, *nu* begins to appear in questions or indirect questions where the speaker expresses 'surprise', 'wondering' or more generally a conflict of hypotheses, indicating that the proposition asked about contradicts a previously held belief. Example (8.126) is the oldest plausible example I have of this usage. The utterance containing *nu* is the first utterance in the speaker's turn, and a cohesive meaning as a transition marker or similar is therefore less plausible. While a temporal meaning is marginally available, this does not seem to be the point of the utterance. Rather, the speaker expresses his surprise or disbelief:

(8.126) [Hans has offered his help to Karen and told Oluf not to beat her]

Karen, robte, Ou, Hans Madzsen, hui sloe I min strippe sønder? och saa trinde hand i gaarden och spurde denom och sagde, Er I **nu** galne?

'Karen shouted: Oh, Hans Madsen, why did you break my strap? And then he [Hans, LW] went into the yard and asked them and said: Are you **NU** crazy?'

(1630 SokVer 110v)

Olluff beats his wife even though Hans Madzsen told him not to. He is therefore surprised that Olluff did it anyway and asks him in disbelief: 'Are you crazy!?'

Similarly, in the following utterance, *nu* seems to express 'surprise':

(8.127) **Grevinden**. (…) for vi er dog mere end Friherinder.

Friherinden. Hvad **nu**? Ere vi ikke ogsaa Herrestandspersoner?

Grevinden. Jo, mens det lugter dog noget af Adel.

'Countess: (...) for we are DOG more than just baronesses.

Baroness: What **NU**!? Are we not also members of the gentry?

Countess: Yes, but it still carries a bit of the scent of nobility.'

(1680 GFKom 16)

The countess suggests that the title of baroness is less prestigious than that of countess. In response, the baroness exclaims 'what?!' in disbelief or surprise. Presupposing that, previously, she thought they were of equal rank.

In the following utterance, a conflict meaning is the most plausible reading of *nu*:

(8.128) Der hun dog dagen tilforn Skrifftlig Erbød siig at uille suerge, Siig aldrig at haffue kund tilforn mercke, at uy haffde nogen thuiffuel pa hinders øngste datterbarn, Och haffde hun merckt ded, da haffde hun ded inted uillidt haffue hafft y siit hus. Huorledis ded **nu** Riimer sig, ded ma hun selffuer forklare

'However, she had previously written that she was willing to swear that she never had noticed that we had any suspicion regarding her youngest granddaughter, and had she noticed it, then she would have been unwilling to have her in her house. How this **NU** fits together, she must explain herself.'

(1640 ChrisIV IV 336)

The following examples are further plausible instances of the conflict of hypotheses meaning:

(8.129) **Jens**. (*Tager Ølkanden*) Singot. (*han drikker og byder Julie den, som rekker den til sin Naboe, Tredie Poet*) Hvad **nu**, de hverken spiser eller drikker?

'**Jens**. (*Takes the beer jug*) Cheers! (*He drinks and offers it to Julie, who hands it to her neighbour, Third Poet*) What **NU**, you neither eat nor drink?'

(1781 WesAn 79)

(8.130) **Jeronimus**. Jo, jo, Magisteren har i Dag lagt ud for mig tydelig alle de got Folk, han har angrebet i sine Skrifter, og sagt mig, at i den sidste, hvoraf han er Autor, jeg selv ikke er sparet. Jeg veed ikke hvor udi Satyren bestaaer, thi jeg seer aldrig paa saadant Narrerie.

Pernille. Ej hvilken Bagvaskelse! Jeg var paa Galleriet sidste Comoedie; Men der blev min Troe ikke spillet uden om en gammel Hanrey, som lod sig tage ved Næsen af sin Kone. Hvordan kunde **nu** saadant passe sig paa Herren?

'**Jeronimus**. Yes, yes, the Magister has today clearly outlined to me all the good people he has attacked in his writings, and told me that in the last one, of which he is the author, I myself have not been spared. I do not know in what the satire consists, for I never look at such foolery.

Pernille. What slander! I was in the gallery during the last comedy; but there, by my faith, they only portrayed an old cuckold, who let himself be led by the nose by his wife. How could **NU** that possibly apply to the gentleman?'

(1731 HolPla VI 61)

Even though it is difficult or impossible to rule out temporal and cohesive meanings in such example, two points corroborate the assessment that *nu* expresses a conflict of hypotheses already in the 17th century.

First, while no conflict meaning is discussed in any of the entries for *nu* in the renaissance dictionaries, the dictionaries by Colding (1626) and Moth (1700) have other interesting entries. Colding (CO, s.v. *Huor nu*) mentions the phrase *hvor nu* (literally 'how now') (cf. (8.127) and (8.129)) and translates it with the Latin interjection *hui*, which is used to express surprise and wondering. This indicates that *nu* in some way was associated with surprise, that is, a conflict of hypotheses.

Similarly, Moth (1700) has examples of *nu* in questions where a putative temporal meaning is omitted in the Latin translations:

(8.131) Hvad **nu**?
What **NU**?

quid est.
what is

'What is it?'

(8.132) Hvôr **nu**[?]
How **NU**

quid hoc rei est.
what this kind of thing is

'What is the matter?'

If *nu* in such examples would express a temporal meaning, we should expect that Moth would have provided a Latin translation equivalent that included this meaning.

A second argument for reckoning with the conflict meaning stems from the converging evidence from German and French already discussed. For Modern German, the presence of the conflict meaning can be verified based on intuitions. Furthermore, Modern German even has constructions like *wie jetzt* (literally 'how now') that are fully parallel to examples like (8.132). Thus, the fact that the German and French constructions originate in the meaning 'now' and have similar usage patterns to Early Modern Danish *nu* speaks in favour of the suggested analysis.

In addition to interrogatives, *nu* also appears in imperatives in Early Modern Danish, where it seems to express its modern conflict meaning as well. However, as was the case with *nu* in interrogatives, it is extremely difficult to rule out the temporal and cohesive meaning. Again, I will first briefly discuss the Modern German modal particle *jetzt* and then discuss *nu*. According to Detges (2008: 420), when the Modern German modal particle *jetzt* appears in imperatives, it expresses 'insistence' or 'emphasis'. He illustrates this with the following example:

(8.133) **Jetzt** verlassen Sie (doch/mal) nicht den Raum!

'**JETZT** do not leave the room!'

(Detges 2008: 420)

He argues that negative imperatives such as the one in (8.133) are indicative of this modal particle meaning. Because it is not possible to substitute *jetzt* in such an

utterance with a temporal adverb like German *sofort* 'immediately', he argues that the temporal meaning can be ruled out.

While I do not disagree with Detges' intuitions regarding *jetzt*, this distributional argument is weak. An adverb like *sofort* has a much more restricted temporal meaning potential than *jetzt*. Therefore, the fact that *jetzt* cannot be substituted with *sofort* does not prove that the temporal meaning of *jetzt* can be ruled out in the same context. This can be illustrated with a comparison with English *now*. This adverb has a meaning potential similar to temporal *jetzt* (and *nu* for that matter), but no modal particle meaning. In an utterance like (8.134), *now* expressing a temporal meaning is certainly possible:

(8.134) Do not leave the room **now**!

As temporal *now* is possible in the same context, such a context does not provide compelling evidence for the insistence meaning.

In Westergaard (2021: 185), I identified utterances like (8.135) as early instances of the modal particle *nu* in imperatives:

(8.135) Kere Crisstoffer, gør **nu** well oc skriff meg **nu** wisst tyll en iiij eller vj dage, fføre en tu drager aff

'Dear Christopher, do **NU** well and write **NU** VIST to me within four or six days, before you leave.'

(1565 GøjLet 62)

The argument in Westergaard (2021: 185) is that utterances like these contain an additional temporal adverbial. This, I argue, would clash with a temporal reading of *nu* if *nu* expressed express a temporal meaning. However, this argument is weak as well. It is in fact not uncommon for temporal *nu* to cooccur with other temporal expressions:

(8.136) Denn andenn hans dotter will hann **nu** snart skicke indt thill kongenn aff Franckerigh

'This other of his daughters, he will **now** soon send to the King of France.'

(1570 GøjLet 175)

(8.137) M. a. k. Berette oc myn kere søster, gud almetygeste hand uere **nu** altyd hos dyg med syn helyg and oc nade

'My dearest Berette and my dear sister, may God's almighty hand always be with you **now** with his holy spirit and care.'

(1569 GøjLet 162)

This is not to say that an utterance like (8.135) is not a likely instance of the imperative modal particle meaning, but rather that it is not unequivocal evidence for it.

In the early 18th century, I find imperative clauses including *nu* where the modal particle meaning is highly plausible while temporal and cohesive meanings are less likely. In the following example, the speaker reiterates a previous request. This means that the imperative probably does not occur in a textual transition or introduction of a textually new element, speaking against the cohesive meaning. Furthermore, the temporal meaning is unlikely, as the implied temporal contrast would make little sense in this context. Rather, *nu* expresses the speaker's insistence that the hearer realizes the state-of-affairs described despite his reluctance to do so:

(8.138) [A couple of lawyers are trying to persuade Bremenfeld to tell them about Hugo Grotius:]

Bremenfeld Ej slipper mig, I Ting-Stude! I hører jo, at jeg skal op paa Raadhuset.

1. Advocat Ej Herr Bormester! et Øyeblik! Lad os **nu** høre hvad Hugo Grotius siger.

'**Bremenfeld** Oh, let me go, you idiots! You hear that I need to go to the town hall.

1. Lawyer No, Mr. Mayor! Just a moment! Let us **NU** hear what Hugo Grotius has to say.'

(1722 HolPla III 68)

Similarly, in (8.139), Philip reiterates his imperative *hør* 'listen!' used to emphasize his insistence. The reiteration makes a cohesive reading less plausible, because the speaker does not indicate he is moving on to a new text passage, but rather insists on a previous one:

(8.139) **Philip**. Du tænker altsaa, at det er Julie kun om at giøre, at blive gift. Hør Stephen! for at overbevises om at Du tænker feil, saa gaae ind og underret Dig om, hvad Virkning denne Tidende har giort paa hende.

Stephen. Ja gierne, jeg længes ret efter at høre, hun er glad, og det er jeg vis paa, hun er.

Philip. Men hør **nu**, dersom Du mod Formodning finder hende bedrøvet?

Stephen. Nei, hun er min Troe ikke saa tosset.

'**Philip**: So, you think that Julie only wants to get married? Listen, Stephen! To convince you that you are wrong, go in and find out what effect this news has had on her.

Stephen: Yes, gladly, I am really longing to hear that she is happy, and I am sure she is.

Philip: But listen **NU**, if, contrary to expectations, you find her upset?

Stephen: No, she is certainly not so foolish.'

(1776 WesLyk 16)

Note that *nu* cannot be stressed in any of the examples discussed in this section, which speaks for the analysis of *nu* as a modal particle.

In sum, in this section I have provided examples that are similar to examples of the Modern German modal particle *jetzt* as described in Detges (2008). Modal particles like *nu* and *jetzt* express that the proposition or wish expressed in the interrogative or the imperative clause conflicts with the context. Furthermore, I provided evidence from historical dictionaries corroborating this assessment. However, even though I provided examples where these meanings are likely, it is difficult if not impossible to provide examples where older meanings of *nu* can be ruled out with certainty due to their generality and flexibility. Be that as it may, whether these meanings were conventionalized is less important. The important thing is that this is a new usage pattern predating the emergence of the modern modal particle meaning in declaratives.

8.3.3.2 The emergence of the conflict meaning

In this section, I argue that the conflict meaning of *nu* emerges based on the temporal meaning, and more specifically, that it is the contrast implicature that gives rise to the conflict of hypotheses meaning (cf. also Westergaard 2021). The development I

propose is in line with Detges' (2008) account of the development of German *jetzt* and Old French *or*.

The conflict meaning emerges from the contrast implicature in those cases where some new information indicates that a previously held belief might not be true. Often, this involves an element of surprise or doubt on the part of the speaker. Therefore, the speaker seeks confirmation of this new information. The contrast implicature of *nu* relates the conflicting propositions to each other, and this feature can then be conventionalized.

This is particularly clear in an example like (8.140). In this utterance, *nu* expresses its temporal meaning. This does not only imply a temporal contrast, but also a contrast of hypotheses, that is, a contrast between the proposition asked about and a proposition that the speaker believes or previously believed:

(8.140) **Rosiflengius.** Ach Velædle Hr. Jeronymus samt Velbaarne Frue, I skal ikke kunde troe, hvilken Glæde det var for mig at høre denne Vildfarelse.

Magdelone. Er vi **nu** Velædle og Velbaarne? for nyeligen vare vi Carnallier og Staadere.

'**Rosiflengius.** Ah, noble lord Jeronymus and honourable lady, you cannot imagine what joy it brought me to hear this misconception.

Magdelone. Are we **now** Noble and Honourable? For recently, we were scoundrels and vagabonds.'

(1731 HolPla VI 111)

In this example, the speaker is surprised because the addressee calls the speaker and her husband noble and honourable even though they were previously called scoundrels and vagabonds. With *nu* and its contrast implicature, the speaker then indexes this contrasting proposition. This can then give rise to the conflict meaning, which in turn can be associated with *nu*.

In addition to surprise questions like (8.141), rhetorical questions may also have served as bridging contexts for this conflict meaning:

(8.141) Saa at alle Christne mue nu frit tradtze mod døden, oc sige med den hellige Prophet Osea, Vbi nunc mor aculeu tuu? Død hwor er **nu** dÿn brod? Helffuede hwor er **nu** dÿn seyr?

'So that all Christians may now freely defy death and say with the holy prophet Hosea: Vbi nunc mor aculeu tuu? Death, where is your sting **now**? Hell, where is your victory **now**?'

(1539 TausPos 10)

In this example, *nu* is clearly temporal. However, *nu* is used in a rhetorical context, where the speaker believes a different proposition than the one presupposed by the question. The question can be paraphrased as follows: '(implied: Death, you said earlier that you will win, but) where is your victory now?'. The conflict meaning of the rhetorical question can then be associated with *nu* due to its contrast implicature.

Turning now to the development of *nu* in imperatives, two scenarios are plausible. Firstly, temporal *nu* may have been reanalysed as a modal particle in imperatives independently of the emergence of the modal particle in interrogatives. Obvious candidates for bridging contexts are utterances with imperatives where the speaker emphasizes that she wishes or insists that the state-of-affairs be realized immediately. Because the wish that a requested state-of-affairs be realized immediately can be regarded as the default case, explicating this urgency makes the imperative particularly insisting:

(8.142) Kerre her Mons, hyelp **nu** for Iesu død oc pine skyll, thi alt mit hob er nw til Gud almectigste oc til ether oc flerre ethers gode vener.

'Dear Mr. Mons, help **now** for the sake of the death and suffering of Jesus, for all my hope is now in God the Almighty and in you and several of your good friends.'

(1559 GylLet I 674)

In such a context, the requested state-of-affairs has not been realized. The contrast implicature then indexes this conflict (cf. Detges 2008: 433–434).

Secondly, the modal particle may also have spread from interrogative contexts to imperative contexts through actualization or context expansion. The fact that the two changes seem to coincide temporally supports this scenario, though it is difficult to pinpoint the exact timing of either of these two variants. It is also possible that these two scenarios interacted, where context expansion is facilitated by the availability of bridging contexts, or where the conventionalization in bridging contexts is facilitated by the availability of analogical models.

8.3.3.3 Stage II (18th century): conflict moves

It is only in the late 18th century that I find good examples of the modal particle *nu* in declarative clauses. In the following utterance, the speaker contrasts his own opinion with that of another person (*den gamle Laurent* 'the old Laurent'). Laurent suspects that Jansen is pretending to be sick in order to avoid school. The writer of the letter believes the opposite. This conflicting belief is indexed with *nu*:

(8.143) Den gamle Laurent, som kun tænkde paa Arbeidet, uden at efterforske Aarsagen til Udeblivelsen, knurrede lidt derover, men jeg troer **nu** fuldt og fast, at Jansens Ansigt og Tunge icke lyver.

'The old Laurent, who only thought about work without inquiring into the reason for the absence, growled a bit about it, but I firmly believe **NU** that Jansen's face and tongue do not lie.'

(1788 PreLet 155–56)

The *nu* utterance does not constitute a new section or similar. Hence, a transitional or other cohesive meaning seems unlikely. Note also that pre- and post-field position would rule out the conflict meaning, only allowing for a temporal or cohesive meaning, which in turn would make the utterance odd:

(8.144)	**nu**	troer	jeg	fuldt	og	fast
	now	believe	I	fully	and	firmly

'I believe fully and firmly **now**.'

(8.145)	jeg	troer	fuldt	og	fast	**nu**
	I	believe	fully	and	firmly	**now**

Similarly, stressing *nu* makes the utterance unacceptable in this context. The fact that *nu*, at least according to modern intuitions, can neither appear in the pre-field nor be stressed in such an example speaks for the modal particle analysis.

In (8.146), the speaker's point of view is contrasted with the point of view of his friends, who believe that France is finished after the French Revolution:

(8.146) Min Beslutning er nu engang taget at blive i Paris i Vinter, uagtet alle de Tilskyndninger jeg faaer fra mine Venner, at reise strax til Engelland. De troe, det er forbi med Frankrig. Jeg er **nu** ikke af den Mening.

'My decision is made to stay in Paris over the winter, despite all the encouragement I receive from my friends to travel to England immediately. They believe that France is finished. I do **NU** not share that opinion.'

(1799 EngLet 252)

Again, in Modern Danish, the pre- and post-field position would be awkward in this context, as they only allow for temporal and cohesive meanings:

(8.147)

Jeg	er	ikke	af	den	Mening	**nu**.
I	am	not	of	that	opinion	**now**

'I do not share that opinion **now**.'

(8.148)

Nu	er	jeg	ikke	af	den	Mening.
Now	am	I	not	of	that	opinion

Neither can *nu* be stressed in this context.

In the 19th century, it becomes very easy to find instances of this modal particle:

(8.149) Den fremmede lærde Mand syntes, den var ganske mageløs, men det kunde **nu** ogsaa gjerne være at han kun bildte sig det ind, for han fandt Alting mageløst derude i de varme Lande, naar der kun ingen Sol havde været.

'The foreign learned man thought it was quite remarkable, but it could **NU** just as well be that he was merely imagining it, for he found everything remarkable out there in the warm countries, if only there had been no sun.'

(1847 AndEve II 130)

In this example, the utterance conflicts with the proposition of the prior clause ('the situation is marvellous'). Again, based on Modern Danish intuitions, *nu* in the pre-field or the post-field only allows for a temporal or cohesive interpretation, which does not seem to fit the context very well:

(8.150) men **nu** kunne det ogsaa gjerne være at han kun
but **now** could it also gladly be that he only
bildte sig det ind
imagined it in
'But it could just as well be that he was merely imagining it **now.**'

(8.151) men det kunne ogsaa gjerne være at han kun
but it could also gladly be that he only
bildte sig det ind **nu**
imagined it in **now**

Similarly, if *nu* is stressed in (8.149), only a temporal reading is possible, indicating modal particle status as well.

In Westergaard (2021: 186), I argued that an utterance like (8.152) might be an early instance of the modal particle:

(8.152) **Ffabritius.** (...) Jeg teg veldwg giør offuer alt mit gotz
Oc teg skal vedes hedher oc roess (...)
Dorothea. Meg tycker, tw sigher szom en affwe,
Saa haffwer tw giord i mange daffue.
Jeg wiil **nw** ingen ere haffue,
Oc paess ieg ey paa tyne gaffue
'**Fabritius.** (…) I will let you rule over my estate,
and you shall be honoured and praised. (...)
Dorothea. It seems to me you talk like a monkey.
So have you done for many days.
I do **NU** not want any honour,
Nor do I care for your gifts.'

(1530 Westergaard 2021: 186)

However, in the present study, verse texts have not been included, because the presence of unstressed monosyllabic constructions like modal particles could be *metri causa* (cf. Section 6.3). The results of the present study confirm this suspicion.

Finally, as was the case with *da*, as soon as the modal particle is available, *nu* begins to appear in exclamative utterances where the speaker expresses her subjective experience:

(8.153) **Tambouren.** (…) jeg maae føre ham hid, om Capitainen skulle have Lyst at kysse ham, førend han blev uærlig.

Capitain Sophie. Du har **nu** altid nogle forrykte Indfald.

'**Tambour.** (...) I can bring him here, in case the Captain might like to kiss him before he becomes dishonest?

Captain Sophie. You **NU** always have some wild ideas.'

(1781 WesAn 90)

Such subjective or emotive meanings are conceptually contiguous with the argumentative meaning of the proximal modal particles, in that the conflict meaning can be used to express one's subjective engagement (cf. Westergaard 2021: 180).

Again, Modern Danish intuitions would not allow *nu* in the pre-field or post-field in this utterance, nor can *nu* be stressed:

(8.154)

Nu	har	du	altid	nogle	forrykte	Indfald.
NU	have	you	always	some	crazy	ideas

'You always have some wild ideas **now**.'

(8.155)

Du	har	altid	nogle	forrykte	Indfald	**nu**.
You	have	always	some	crazy	ideas	**NU**

Another example of this exclamative use from approximately the same period of time is provided in Westergaard (2021: 187):

(8.156) *En Pomeranz bliver kastet ud af et Vindue, Aladdin griber den.*

Selim: Du er **nu** altid lykkelig.

'*An apple is thrown out of a window, Aladdin catches it.*

Selim: You are **NU** always lucky.'

(1805 Westergaard 2021: 187)

The temporal coincidence of this exclamative use with the emergence of the modal particle meaning indicates that this meaning is a pragmatic extension of the modal

particle, rather than a distinct meaning. Conversely, the presence of such subjective uses is an additional argument for the present analysis, as such a meaning can hardly be triggered by the cohesive or the temporal meaning.

8.3.3.4 Diachrony of the general conflict meaning

In this section, I discuss three plausible factors that may have played a role in the emergence of the proximal modal particle *nu*. The proximal meaning in declaratives might have emerged based on:

1. the temporal adverb *nu*,
2. the modal particle *nu* in interrogatives and
3. an analogy with the modal particle *da*.

These factors do not rule each other out. I will discuss them in turn.

In Westergaard (2021: 187–91), I argue that the conflict meaning emerges based on the temporal meaning of *nu*. This is based on Waltereit & Detges (2007: 74–76), who argue that argumentative meanings emerge in contexts where common ground is under discussion. In such contexts, constructions without argumentative meanings as part of their conventional meaning are used to achieve certain argumentative effects. These argumentative effects can then be conventionalized.

As was the case with the modal particle occurring in interrogatives and imperatives, it is the contrast implicature of *nu* that can explain the emergence of the conflict meaning. This contrast implicature can give rise to a conflict meaning when the contrasting propositions correspond to conflicting points of view. In Westergaard (2021: 187–88), I illustrate this with the following example from the 17th century. In the preceding context, it is made clear that the speaker thinks the addressee cannot remain a maiden because she is pregnant. However, because the maiden just had an abortion, she expects that she can remain one. The speaker and the hearer thus have conflicting points of view (whether or not the maiden can remain a maiden), which are related to each other by the contrast implicature of *nu*:

(8.157) I Afften kommer her en anden Quinde.« Ded behagede hender intet; hun meente att kunde **nu** wel bliffue.

‘In the evening, another woman will be coming here. That did not please her. She said she could stay very well **now**.’

(1696 LeoJamIII 217)

In an utterance like this, the contrast is supported by the oppositional or affirmative *vel* (cf. Section 9.4.2), which relates the proposition of the utterance to an implied contrary proposition, that is, the addressee’s point of view in this case.

Recall from Section 8.1 that *nu* also expresses the unidentifiability of the clause in which it occurs. This semantic feature can be explained in this scenario as well. The speaker's point of view is based on a state-of-affairs that has just come about, that is, it relies on new information. In this example, the abortion is a new piece of information, and therefore, the speaker cannot expect the addressee to have been aware of her point of view beforehand. This newness can then be associated with *nu* as unidentifiability.

The second factor that may have contributed to the development of the modern proximal modal particle is the use of *nu* to express a conflict of hypotheses in interrogatives. The modern proximal modal particle can be regarded as a generalization or context expansion of the early modal particle. These two scenarios can be combined: as soon as the conflict of hypotheses meaning is conventionalized in interrogatives, it may have facilitated the realization of the potential for reanalysis in a bridging context like (8.157).

Finally, the proximal modal particle *da* appears in declaratives shortly before the modal particle *nu* does so (cf. Section 8.2.6). This temporal coincidence might suggest a connection in the development of these modal particles. It is not unreasonable to assume that *da* attracts a construction with a similar meaning, thus facilitating the reanalysis of *nu*. I will discuss such systemic aspects in more detail in Chapter 10.

8.3.3.5 The topology of the modal particle *nu*

Due to the generality of the temporal and cohesive meanings of *nu*, it is difficult to conduct a topological analysis, as there are few examples where temporal and cohesive meaning can be ruled out and where *nu* cooccurs with relevant adverbials. Nevertheless, I will argue that the modal particle *nu* has the topological distribution of modal particles as soon as it emerges.

The modal particle *nu* only appears in the left periphery of the middle field. The following examples illustrate that the modal particle *nu* precedes state-of-affairs adverbials like *altid* 'always' and negation:

(8.158)

Du	har	**nu**	altid	nogle	forrykte	Indfald.
you	have	**NU**	always	some	crazy	ideas

'You always have **NU** some wild ideas.'

(1781 WesAn 90)

(8.159)

men	vær	**nu**	ej	efter	Sedvane	overdreven		
but	be	**NU**	not	after	custom	excessively		
beskeden	og	ædelmodig	i	ikke	at	afsende	min	Epistel.
humble	and	noble	in	not	to	send	my	letter

'But do **NU** not, as is custom, be overly modest and noble in not sending my epistle.'

(1789 PraLet 21)

Furthermore, already in the earliest examples of this modal particle in declaratives, *nu* precedes sentence adverbials like the textual *endelig* 'finally' and epistemic or emphasizing adverbials *durchaus* 'certainly' and *sagtens* 'certainly'. However, in all of the following examples, a cohesive or temporal meaning might be plausible as well:

(8.160)

Hvoraf leer De saa overgivet min unge Herr v. D.? Parbleu, siger De, af det pedantiske Indfald jeg har haft, at De skulde bøie Halsen under Egtestandens slaviske Aag. En Nar, siger De, at De var, om De nogen Tid giftede Dem.

Ja	der	kan	jeg	**nu**	endelig	ikke	sige	meget	imod
Yes	there	can	I	**NU**	finally	not	say	much	against

'Why do you laugh so heartily, my young Mr. v. D.? Certainly, you say, due to the pedantic idea I have had that you should bow your neck under the slavish yoke of marriage. A fool, you say, you would be if you ever married. Yes, I really can **NU** not say much against it.'

(1771 EwaPeb II 46)

(8.161)

Dette maae berolige Dem, og skulde De end i mine tilkommende Schweitzerbreve finde et eller andet Glimt af den hellige Ild, saa maae jeg forud bede Dem at antage slige Udbrud for en Virkning af den Forfængelighed at ville vise, man ogsaa kan være med.

Jeg	lider	**nu**	durchaus	ikke	Beskrivelser	af	Følelser.
I	suffer	**NU**	certainly	not	descriptions	of	feelings

'This must reassure you, and should you after all find some glimpse of the sacred fire in my future Swiss letters, then I must ask you beforehand to regard such outbursts as merely the effect of vanity, of wanting to show that one can also take part. Certainly, I do **NU** not like descriptions of feelings.'

(1794 OluLet 99)

(8.162) Det kan være, at Boudet har meget naturligt Anlæg til Roller af dette Slags, og at det af den Aarsag lykkes saa vel for hende.

Derfor bliver hun **nu** sagtens ingen stor Skuespillerinde,
therefore becomes she **NU** certainly none big actress

'It may be that Boudet has a very natural talent for roles of this kind, and that this is why she succeeds so well. However, this certainly does **NU** not make her a great actress.'

(1794 PraLet 105)

Given that the source constructions of the proximal modal particle *nu* appear in the left periphery and that the modal particle in Modern Danish does so as well, it is reasonable to assume that the proximal modal particle has had this topological distribution throughout its history, unless there is evidence to the contrary.

8.3.3.6 Grammatical vs. lexical status of the modal particle *nu*

As discussed in Westergaard (2021: 182–83), the modal particle *nu* is grammatical in Modern Danish. It cannot be modified, focused or constitute an utterance on its own. All of the following utterances are only possible with a temporal interpretation:

(8.163)

Du	har	netop	**nu**	altid	nogle	forrykte	Indfald.
you	have	right	**NU**	always	some	crazy	ideas

'You always have some wild ideas right **now**.'

(8.164)

Du	har	**NU**	altid	nogle	forrykte	Indfald.
you	have	**NU**	always	some	crazy	ideas

'You always have some wild ideas **now**.'

(8.165) A: Har du altid nogle forrykte Indfald?

B: ***Nu**.

'A: Do you always have some wild ideas?

B. **NU**.'

I have found no indications that *nu* had a different behaviour previously. Hence, I assume that the modal particle *nu* had grammatical status throughout its history. Because the temporal meaning is lexical and the modal particle most probably at

least partly emerged based on the temporal meaning, this makes the emergence of the modal particle a case of grammaticalization.

8.3.4 Summary of the development of *nu*

Nu is originally an adverb with temporal meanings, which date back to Proto-Indo-European. Already in Middle Danish, *nu* expresses cohesive meanings, and I argued that it introduces new information and marks transitions to new text passages. This adverb cannot appear in the post-field, and I have argued that it is grammatical, making its emergence a case of grammaticalization.

The temporal adverb gives rise to the modal particle in late Early Modern Danish. I have argued that this modal particle develops through two mayor stages. At first, *nu* develops a meaning where it expresses conflict meanings in interrogatives and imperatives. In interrogatives, it expresses that the question is due to a conflict of hypotheses, and in imperatives, it expresses insistence on the request typically because someone else rejects to realize the requested state-of-affairs.

In the transition to Modern Danish, *nu* develops the modern modal particle meaning where it indexes conflicting propositions regardless of sentence type. I discussed several factors that may have contributed to this development, namely bridging contexts of the temporal meaning, context expansion of the conflict meaning in interrogatives and analogical influence from *da.* It seems that this meaning can only appear in the position for modal particles throughout its history, and I have argued that the modal particle has grammatical status, while at least the temporal source meaning is lexical. Thus, the emergence of the modal particle constitutes a case of grammaticalization.

The following figure summarizes my analysis of the development leading to the modal particle *nu*:

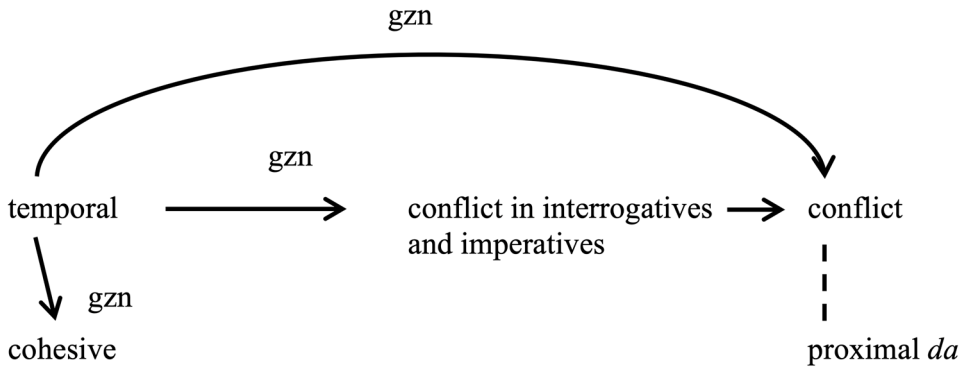

Figure 8.3
Summary of the development of *nu*

8.4 The emergence of the proximal modal particle paradigm

I close this chapter by summarizing the results of the analysis related to the paradigmatic development of the proximal modal particles. A discussion of more theoretical aspects of the paradigmatic development of the modal particles is postponed to Chapter 10.

In this chapter, I have first discussed the synchronic system of the proximal modal particles in Modern Danish. I argued that the proximal modal particles form a paradigm. As regards the content of this paradigm, the proximal modal particles both express that the utterance in which they occur conflicts with a contextually available proposition or similar. Furthermore, *da* indicates that the content of the utterance is identifiable, that is, it can be expected to be known or deducible or similar, while *nu* introduces the content of the clause as unidentifiable. As regards the expression side of this subparadigm, the proximal modal particles are defined based on their word order properties, that is, they occupy a position between phatic and evidential modal particles. Furthermore, they have the expression features of the remaining modal particles.

In the historical sections, I proposed a scenario for the development of the individual modal particles. Interestingly, both modal particles develop modal particle meanings in interrogatives and imperatives before they do so in declaratives, and I have argued that the former facilitates the emergence of the modal particles in contexts of the latter type. Furthermore, these changes seem to coincide temporally.

This suggests a connection between these changes. In Chapter 10, I will propose an account of this paradigmatic link and its role in the development of the proximal modal particles and argue that it can be explained with reference to analogy.

9 The evidential modal particles *vel*, *vist* and *nok*

In this chapter, the development of the evidential modal particles will be discussed. In Section 9.1, I discuss the evidential modal particle paradigm in Modern Danish. In Section 9.2, I present my analysis of the historical development of *vel*, in Section 9.3 of *vist* and in Section 9.4 of *nok*. Section 9.5 summarizes the development of the evidential modal particles from a paradigmatic perspective.

9.1 The evidential modal particles in Modern Danish

In this section, I discuss the evidential modal particles in Modern Danish. I first give an overview of previous analyses of *vel*, *vist* and *nok* in Section 9.1.1. In Section 9.1.2, I suggest a new analysis of *vel* as a conjecture marker. In Section 9.1.3, I discuss the evidential modal particle paradigm from an interactive perspective based on the analysis of *vel*, arguing that the meaning of the modal particles can also be understood as relating to epistemic responsibility or accountability. In Section 9.1.4, I briefly discuss what other modal particles may be considered evidential. In Section 9.1.5, I briefly discuss the dialectal distribution of the evidential modal particles. In Section 9.1.6, I offer a summary.

9.1.1 Previous analyses of the evidential modal particles

The first in-depth analysis of *nok* and *vist* and their paradigmatic relation was conducted by Jacobsen (1992). He argues that *nok* expresses a 'subjective supposition' while *vist* expresses an 'objective supposition', that is, *nok* expresses a guess for which the speaker alone is accountable, while *vist* renders the proposition as a generally accepted fact (p. 15). He illustrates this with the following minimal pair:

(9.1) Han var **nok/vist** gift med Leonora Christine.
'He was **NOK/VIST** married with Leonora Christine.'

Using *vist*, the speaker indicates that others than the speaker herself believe that the proposition is true, while *nok* indicates that the proposition is based on an inference.

Furthermore, according to Jacobsen, *vist* also expresses 'memory', that is, it conveys that the speaker is recalling the proposition. This semantic category has barely been treated in the literature. Following Jakobson (1957: 135; Janssens & Nuyts 2021: 230–31; Nuyts 2022), I regard memory as an evidential category. It indexes the speaker's past knowledge as the information source. For instance, in the following minimal pair from Jacobsen (1992: 14), *vist* can indicate that the supposition relies on the memory of the speaker:

(9.2) Han er **vist** fra Århus.
'He is **VIST** from Århus.'

If the speaker would have used *nok*, she would indicate that the proposition rests on a subjective assessment (typically an inference).

Additionally, Jacobsen (1992: 15–16; cf. Davidsen-Nielsen 1996: 286; Krylova 2005: 80) points out that, as opposed to other evidential markers, the proposition that *nok, vel* and *vist* modify cannot be denied by the speaker in a subsequent clause without producing a Moore's paradox:

(9.3) *Jensen er **vist** kleptoman, men det mener jeg ikke.
'Jensen is **VIST** a kleptomaniac, but I do not think so.'
(Jacobsen 1992: 16)

That means that the speaker, despite some epistemic reservation, believes the proposition to be true.

Davidsen-Nielsen (1996: 286) adopts Jacobsen's analysis in a polyphony-theoretical approach and groups *vel* together with *vist* and *nok*. He argues that all three modal particles express uncertainty. *Vist* conveys that "there are others besides [the speaker, LW] who believe the situation referred to be true". *Nok* is rendered as expressing that "the evaluation of probability is made by [the speaker, LW] alone" (p. 286), corresponding to Jacobsen's subjective supposition. He argues that *vel* introduces an "inquiring element" (p. 286). Davidsen Nielsen (1996) illustrates this meaning with the following example:

(9.4) John er **vel** i London.
'John is **VEL** in London.'

According to Davidsen-Nielsen, the speaker seeks confirmation of the statement. Similar analyses have been proposed for the cognates of *vel* in Swedish (Bergqvist 2020: 483) and Norwegian (Fretheim 1991: 181)

Krylova (2005; 2007; cf. Christensen 2007: 137) also describes the evidential modal particles using a polyphony-theoretical approach. Jacobsen's subjective supposition is said to be a '1st person particle', that is, expressing the voice of the speaker alone (Krylova 2005: 82). *Vel* is argued to be a '2nd person particle', in the sense of being confirmation seeking (Krylova 2005: 85; cf. Laureys 1982: 102; Therkelsen 2004: 89). Finally, she argues that *vist* is a '3rd person particle': it 'refers the addressee to a third person who can confirm what is said' (Krylova 2005: 86).

Mortensen (2006: 164) and Hansen & Heltoft (2011: 1058–61) reframe these analyses slightly. They also assume that all evidential modal particles express that the speaker, with some reservation, expects that the proposition is true (Hansen & Heltoft 2011: 1058). Based on an adaption of Bech's (1951: 7; cf. Heltoft 2005: 82–84) 'modal factor' notion, Hansen & Heltoft describe the difference between *nok* and *vist* as a difference in where the evidence for the proposition is located. The modal particle *nok* expresses a subjective modal factor placement, that is, 'the speaker alone has sufficient knowledge or reason to believe that p is true'. The modal particle *vist* expresses an objective modal factor placement, that is, that 'the evidence stems from a 3rd person source' which can be a person or a state-of-affairs (p. 1058). Hansen & Heltoft (2011: 1059) illustrate this distinction with the following utterances:

(9.5) Der er **vist** ikke mere øl i køleskabet, så vidt jeg forstod.
'There is **VIST** not more beer in the fridge as far as I understood.'

(9.6) ?Der er **nok** ikke mere øl i køleskabet, så vidt jeg forstod.
'There is **NOK** not more beer in the fridge as far as I understood.'

(9.6) is odd because the objectively assessable evidence (*så vidt jeg forstod* 'as far as I understood') is at odds with the semantics of *nok* that 'the speaker alone has sufficient knowledge or reason to believe that p is true'.

As argued by Engberg-Pedersen et al. (2019: 96), *vist* can be used to express hearsay. However, as pointed out by Hansen & Heltoft (2011: 1058), the evidence indexed by *vist* can be any type of objectively assessable evidence. In addition to reports or hearsay as in (9.5), *vist* can express inferences based on evidence that is available to the speaker as well as others. For instance, in the following example, someone is trying to turn on a lighter without success. The speaker then makes an inference based on this:

(9.7) Den er **vist** gået i stykker.
'It is **VIST** broken.'

(Bysoc)

Vist can even index a direct information source:

(9.8) Det banker **vist** på døren.
'Someone is **VIST** knocking on the door.'

Like the other analyses discussed, Hansen & Heltoft (2011: 1061) argue that *vel* expresses that the speaker seeks confirmation from the addressee (cf. (9.4) from Davidsen-Nielsen's analysis).

Recently, Engberg-Pedersen et al. (2019: 94–97; cf. Laurey 1982: 101) have claimed that *nok* and *vel* express epistemic modal meanings and not evidentiality. However, they are inconsistent and refer to the meaning of *nok* both as epistemic modal (p. 96) and as evidential (p. 95). The modal particle *vel* is assumed to express some probability and *nok* strong probability. They do not provide any arguments for this analysis, and the evidential analysis corresponds to my own intuitions. I will therefore discard their analysis.

Finally, Togeby's (1979: 19) analysis of *nok* can be mentioned. He analyses this particle by taking a monosemous approach and argues that the evidential meaning is only a contextual meaning derivable based on the meaning 'enough', giving rise to the meaning 'probable enough' in an utterance as the following:

(9.9) Hun skal **nok** spise (siden hun ikke kan lege).
'She must **NOK** eat (since she cannot play).'

(Togeby 1979: 19)

However, it remains unclear what exactly the pragmatic mechanisms for this meaning extension are. Furthermore, if the meaning contribution of *nok* actually could be reduced to the meaning 'enough', it should be possible to derive the same contextual meanings with expressions like *tilstrækkelig* 'enough'. Yet, this is not the case.

While I generally agree with the traditional analyses of the modal particles *nok, vel* and *vist* as evidentials in line with Jacobsen, Davidsen-Nielsen and Hansen & Heltoft, there are some problems with their accounts. In what follows, I will suggest some adjustments. The main problem is the analysis of *vel* as confirmation seeking.

I first suggest a slightly different analysis of *vel*. Afterwards, I suggest a refinement of the evidential modal particle paradigm based on the analysis of *vel*.

9.1.2 *Vel* as a conjecture marker

While I certainly do not contest the intuition that the confirmation-seeking function is a typical contextual meaning of *vel*, this is arguably not its conventional meaning. The analysis runs into problems when considering utterances like the following:

(9.10) Jeg fik ca. 30 sting og det gjorde **vel** ondt i en måneds tid.
'I got about 30 stitches, and it **VEL** hurt for about a month.'
(internet)

(9.11) Jeg har **vel** i virkeligheden skrevet bogen, fordi jeg blev besat.
'I have **VEL** actually written the book because I became obsessed.'
(internet)

In (9.10) and (9.11), it would be absurd to hold that the speaker seeks confirmation from the addressee. Only the speaker can know about these propositions, as they concern the speaker's past subjective experience.

As an alternative analysis, I suggest that *vel* conventionally conveys that the proposition is based on a conjecture and that the speaker, by using *vel*, indicates that she therefore does not want to be held accountable for its truth, even though she may believe it is true. The modal particle *vel* is, so to speak, grammaticalized gut feeling. Consequently, a possible English paraphrase for evidential *vel* is parenthetical *I guess*. For instance, in (9.10), the speaker cannot remember the exact duration of the pain but puts forth an approximation, that is, a guess about its exact duration. Similarly, in (9.11), the speaker expresses a proposition that he is not willing to take epistemic responsibility for, even though he has some gut feeling that it might be true: 'I have written the book because I became obsessed, I guess'.

The pragmatic connection between *vel* as a conjecture marker and the confirmation-seeking function is obvious. By making it clear that the proposition is a guess, a cooperative move by the addressee would be to confirm or disconfirm the proposition if possible. For instance, in the following example, the addressee is in a privileged position to confirm or disconfirm whether the proposition is true, which implies that the speaker seeks confirmation:

(9.12) Du har **vel** haft en skolekæreste?

'You have **VEL** had a girlfriend at school?'

(Bysoc)

Other epistemic expressions have the same effect in so-called declarative questions in Danish (cf. Mortensen 2018; Therkelsen 2009).

Conjecture as an evidential category might be rare, but it corresponds to several analyses in the evidentiality literature. The German modal particle *wohl*, which is cognate with *vel*, has recently been analysed as a marker of conjectures in interrogatives by Eckardt (2020; cf. Zimmermann 2004):

(9.13)

Wo	ist	**wohl**	der	Schlüssel?
Where	is	**WOHL**	the	key

'Where, **do you assume**, is the key?'

(Eckardt 2020: 3)

However, she does not seem to make a clear distinction between conjecturing and inferencing. Instead, *wohl* is said to ask for "the addressee's inferred beliefs" (p. 4). However, I think it is more accurate to say that, in an utterance like (9.13), the speaker asks for the addressee's guess. The conjecture marker in interrogatives will be discussed more thoroughly below in Section 9.4.3.

According to Fleck (2003: 417), the Matsés conjecture marker *-ash*/*-nëdash* expresses 'conjecture' in an utterance like the following (gloss and translation by Fleck):

(9.14)

miqued	cadau	uënës-**nëdash**
Miguel	Grau	die-DIST.PAST.**CONJ**

'Miguel Grau is dead.'

He describes this meaning as follows:

> the speaker wishes to report the occurrence of an event or state that he did not witness, did not hear about from somebody else, and for which there is no resulting evidence. For example, if a dog is missing, the owner might conjecture that a snake bit it or a jaguar ate it. As might be expected, the nature of conjecture as a source of knowledge is often associated with uncertainty; however, the speaker does not necessarily have to be uncertain about the event to use the conjecture markers. (Fleck 2003: 417)

A description like this makes it clear that the evidential only expresses conjecture and that such conjecturing does not necessarily need to rely on inferences. Arguably, this could also be a description of Danish *vel.*

Similarly, the analysis of the Nambiquara tense-evidential *-nha²* (Lowe 1999: 275 "present tense internal") is very similar to the suggested analysis. It is said to be used "when the speaker reports their 'gut feeling'" (Lowe 1999: 275). Unfortunately, he does not provide an example of this meaning.[39]

In this section, I have argued that *vel* expresses conjecturing and pointed out that this is a cross-linguistically attested meaning.

9.1.3 The evidential modal particle paradigm as epistemic responsibility

If *vel* expresses conjecture, as I argued, it might not be obvious how exactly it relates to the other evidential modal particles paradigmatically. While all meanings are evidential in some way, the contrast between the particles is not obvious. To make the paradigmatic relation clearer, I will suggest a semantic reframing of the evidential modal particle paradigm in terms of epistemic accountability or responsibility.[40] Epistemic accountability or responsibility can be understood as an indication of whom the speaker sees as responsible or accountable for the epistemic evaluation. Claiming responsibility for the epistemic evaluation means that that person can, in principle, be blamed if the proposition is not true.

As already pointed out, in this light, *vel* can be conceived of as an expression with which the speaker refuses to take epistemic responsibility for what is said even though she believes the proposition is true. Focusing on interactive aspects, *nok* and *vist* can be described in a similar way. Using the subjective *nok*, the speaker indicates that she is in a privileged position to evaluate the truth value of the proposition; it typically expresses an inference. Therefore, she alone assumes responsibility for the truth of the asserted proposition.

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[39] There are a number of further evidentials that (partly) overlap with my analysis of *vel*. These include Shipibo-Konibo speculative *-mein* (Valenzuela 2003: 49), the 'mere conjecture' evidential *-kha* in Northern Embera (Mortensen 1999), Retuarã *-rihi* (Strom 1992: 90), *-nke* in the Thompson language (Thompson & Thompson 1998:139) and several evidentials in the Quechuan languages like Wanka Quechuan *-chr(a)* (Floyd 1999: 96; cf. also Dedenbach-Salazar Sáenz 1997: 161-162; Hintz & Hintz 2017). However, most of these descriptions are too sketchy for deriving any conclusions as to the comparability with Danish *vel*. Wanka Quechuan *-chr(a)* will be discussed in Section 9.4.3 below.

[40] Note that Jacobsen (1992: 15) highlights accountability as a meaning aspect of *nok* and *vist.*

The modal particle *vist*, on the other hand, conveys that there is some evidence that is intersubjectively[41] available. Therefore, the speaker assumes responsibility for the proposition but indicates that (the speaker assumes that) others do so too. In other words, it expresses shared responsibility. The accountability or responsibility can be shared with the addressee in the case of direct evidence as in (9.7) and (9.8) or it can be shared with others as in reports like (9.5).

The contrast between the three evidentials can be illustrated with the following context:

(9.15) A: Hvorfor blev du smidt ud?

B: Jeg lavede for mange narrestreger.

A: Aha, det er jo det man i dag betragter som en kvalitet ved mennesker, at de kan finde på narrestreger. Men det gjorde man **vel** ikke dengang.

B: Nej.

'A: Why were you kicked out?

B: I played too many pranks.

A: Aha, people JO consider it a quality in people today, that they can come up with pranks. But they did **VEL** not do it back then.

B: No.'

(BySoc)

In this example, the speaker expresses a conjecture and indicates that he does not take responsibility for the truth of the proposition that, in earlier times, people did not consider coming up with pranks a quality in people. Had the speaker used *nok*, he would have indicated that he makes a subjective inference. Therefore, he would assume responsibility for this assessment alone:

(9.16) Men det gjorde man **nok** ikke dengang.

'But they did **NOK** not do it back then.'

[41] I prefer to speak of intersubjectively rather than objectively available evidence (cf. Mortensen 2006: 164), as it avoids implying the objective existence of the evidence. However, no substantial difference in the semantic analysis is implied with this change in terminology.

With *vist*, the speaker would indicate that there is evidence for the proposition, other than the speaker's subjective assessment, and that it therefore is a fact that is held to be true by others as well:

(9.17) Men det gjorde man **vist** ikke dengang.
'But one did **VIST** not do it back then.'

The speaker therefore indexes shared epistemic responsibility.

Arguably, this analysis is not substantially different from the evidential analyses of *nok* and *vist* discussed above, but rather it focuses on interactive aspects of the evidential meanings. I will therefore regard the analyses discussed in Section 9.1.1 and my analysis as two sides of the same coin focusing on different aspects of the meaning of the evidential modal particles. One advantage of this analysis is that it highlights the common semantic core of the evidential modal particle paradigm.

A question that is difficult to address is whether the modal particles express only evidentiality or also epistemic modality. All cited publications claim that the evidential modal particles do not convey full epistemic support. For instance, as discussed above, Hansen & Heltoft (2011: 1058) argue that the evidential modal particles express some degree of epistemic reservation. In general, this corresponds to my own intuitions. However, it is difficult to decide whether this is indeed part of the conventional meaning of the particles or whether this is a contextual inference. If the speaker indicates that her belief that a proposition is true relies on some kind of evidence, the addressee might take this to imply that the speaker is not fully certain (cf. Aikhenvald 2004: 338; Boye 2012: 166). However, a speaker uttering (9.8) above is not necessarily uncertain about whether somebody is knocking on the door. Rather, the speaker might use *vist* to indicate that others can hear the knock as well. Nevertheless, there seems to be little doubt that, at least when using *nok* and *vel*, the speaker has some reservation as regards the truth value of the proposition, and the same seems to be true of all other instances of *vist* possibly except for those cases where it is used to index directly available evidence. Following the analyses discussed in Section 9.1.1, I will therefore also assume that the evidential modal particles express some doubt.

Finally, it should be pointed out that none of the evidential modal particles can occur in interrogatives or in imperatives in Modern Danish except for *vel*, which can marginally appear in interrogatives:

(9.18) Er der **vel** øl i køleskabet?
'Is there **VEL** beer in the fridge?'

(Hansen & Heltoft 2011: 1051)

According to Hansen & Heltoft (2011: 1051), this is a phatic modal particle. I will discuss it further below and provide arguments indicating that this is a remnant of an older opposition adverb.

The following table summarizes my analysis of the evidential modal particle paradigm with typical contextualized meanings:

Table 9.1
The evidential modal particle paradigm

Expression: evidential modal particle position and modal particle features	**Content:** epistemic responsibility or information source	
nok	speaker alone claims epistemic responsibility; subjective information source	'inference'
vist	shared epistemic responsibility; intersubjective information source	'inference, hearsay, report, direct perception, memory'
vel	no epistemic responsibility claimed	'conjecture'

The expression features of this paradigm are discussed in Section 4.2. Interestingly, this system does not correspond to any of the evidential systems discussed in Aikhenvald (2004: Chapter 2).

One issue remains. Given that *vist* indicates an intersubjectively available information source or shared epistemic responsibility, it might be puzzling that *vist* has 'memory' as part of its meaning potential, as this might seem more like a subjective evidential meaning. Even if the evidence is only subjectively accessible, only *vist* can be used when recalling something:

(9.19) Jeg var **vist** forelsket, men turde ikke gøre noget ved det.
'I was **VIST** in love, but did not dare do anything about it.'
(internet)

The modal particle *nok* cannot refer to the speaker's memory:

(9.20) Jeg var **nok** forelsket, men turde ikke gøre noget ved det.
'I was **NOK** in love, but did not dare do anything about it.'

Arguably, memory can be understood as an intersubjective information source. When the speaker recalls something from her memory, she recalls a fact that others might know as well, because the evidence for it was available in the past. One might also claim that the intersubjective evidential meaning is contextualized as indexing knowledge that is shared with a past version of the speaker herself.

9.1.4 Other evidential modal particles

In this section, I briefly discuss other constructions that are part of the evidential modal particle paradigm.

Vel and *vist* also appear in combination with *nok* as *velnok* and *vistnok*. These can be regarded as univerbated modal particles originating in a combination of *vel* and *vist*, with *nok* meaning 'enough' or 'a lot' (cf. Section 9.3.1) and as more or less synonymous with *vel* and *vist* (Hansen & Heltoft 2011: 1104; 1108). I will not discuss them any further.

According to Hansen & Heltoft (2011: 1051–53), *mon* is part of the phatic modal particle paradigm together with *jo, sgu* and *skam*. However, *mon* expresses conjectures in interrogatives corresponding to the meaning of *vel* in declaratives. In other words, with *mon*, the speaker encourages the addressee to make a guess:[42]

(9.21)

Men	er	det	da	**mon**	alligevel	sandt?
but	is	it	DA	**MON**	anyways	true

'But is it DA **MON** true after all?'

(internet)

As illustrated in this example, *mon* follows *da*. This distribution contrasts with that of the phatic modal particles, which precede *da* (cf. Section 4.2.3). Therefore, *mon* should be classified as an evidential modal particle. Due to considerations of space and time, I chose not to include *mon* among the modal particles to be analysed.

Christensen (2007: 143) categorizes *sikkert* 'surely' as an evidential modal particle (which she calls epistemic modal particles). However, she does not comment on this choice, and there are good reasons not to include *sikkert*. It can be placed in the pre-field (9.22) without semantic difference relative to its placement in the middle field (9.23):

[42] In Section 9.4.4.3, I will argue that *mon* has pushed conjecture *vel* out of this function.

(9.22) Mon ikke det ville skæppe i statskassen, hvis vore politikere gav afkald på [sic] af deres "ukrænkelige" talrige privilegier, såsom: [...] kort til toggang i hele Danmark, billetter til Det Kongelige Teater, flybilletter, og hvad ved jeg.

Sikkert	er	der	mange	flere	goder.
surely	are	there	many	more	perks

'I wonder if it would not benefit the treasury if our politicians gave up some of their "inviolable" numerous privileges, such as: [...] tickets for train trips throughout Denmark, tickets to the Royal Theatre, plane tickets, and who knows what else. **Surely** there are many more perks.'

(KorpusDK)

(9.23)

der	er	**sikkert**	mange	flere	goder.
there	are	**surely**	many	more	perks

As opposed to the evidential modal particles, *sikkert* cannot precede argumentative modal particles, that is, it cannot be placed in the position for evidential modal particles. For instance, while *vist* in (9.24) can precede the argumentative modal particle *ellers*, *sikkert* must follow *ellers* like other sentence adverbials (9.25):

(9.24) A: så var det rarere at bo det andet sted

B: jamen der var da også (uf)

C: jeg ved ikke jeg synes ellers hvis man skulle vælge imellem forskellige boformer så…

en	andelsboligforening	vil	**vel**	**ellers**	være	noget	
a	cooperative housing	will	**VEL**	**ELLERS**	be	some	

af	det	bedste	synes	jeg	på	en	måde
of	the	best	think	I	in	a	way

'A: Then it would be nicer to live in the other place.

B: Well, but there was DA also (incomprehensible)

C: I do not know, but I think that if one had to choose between different types of housing, then... a housing cooperative would be one of the best options, I think, in a way.'

(BySoc)

(9.25)	en	andelsboligforening	vil	**ellers**	**sikkert**	være	bedst
	a	housing cooperative	will	**ELLERS**	**surely**	be	best

I will therefore not classify *sikkert* as an evidential modal particle.

9.1.5 Dialectal distribution of the evidential modal particles

In this section, I argue that the evidential modal particles *nok* and *vel* are attested in the western as well as eastern dialects. Whether *vist* is present in these dialects is uncertain.

As regards Jutlandic, the JO (s.v. *nok*) states that *nok* corresponds to Standard Danish, but provides no examples. Feilberg (JAO, s.v. *nok*) glosses *nok* using epistemic glosses like 'sagtens, rimeligvis' meaning 'certainly, probably':

(9.26) De wå **nåk** åsə de bæst!

'It was **NOK** OGSÅ for the best!'

(c. 1900 Western Jutland JAO, s.v. *nok* 1)

While these glosses suggest that *nok* has epistemic meanings in the Jutlandic dialects, it is difficult to say whether *nok* has an evidential meaning in these dialects corresponding to Standard Danish. *Nok* in an example like (9.26) might also correspond to *nok*'s opposition meaning (cf. Section 9.3.2).

According to the BO (s.v. *nokk*), in Bornholmian *nok* can express suppositions:

(9.27) Hajnj e **nåkk** i kammersed, vistnåkk.

'He is **NOK** in the room, VISTNOK.'

(1923–31 Bornholm BO, s.v. *nokk*)

This indicates that *nok* is present at least in eastern dialects.

The modal particle *vel* seems to be attested across dialect boundaries as well. According to Feilberg (JAO, s.v. *vel*), *vel* is said to express doubt and indicate concession in Jutlandic:

(9.28) Do komər da **wal** ia·wtən!

'You are **VEL** coming tonight.'

(c. 1900 Western Jutland JAO, s.v. *vel*)

(9.29) De wè do **wal**?

'You know it **VEL**?'

(c. 1900 Northern Jutland JAO, s.v. *vel*)

Example (9.29) seems to correspond to the confirmation-seeking use of *vel*.

Regarding Bornholmian, *vel* is said to be accommodating and expressing epistemic modality (paraphrased as 'that's true', BO, s.v. *vel*):

(9.30) Ded hâr jâ for ræsten **væl** alri hört

'I have by the way **VEL** never heard that.'

(1923–1931 Bornholm BO, s.v. *væl*[3])

It is difficult to decide whether this corresponds to the suggested evidential analysis. The cited example might also correspond to an older Standard Danish opposition meaning (cf. Section 9.4.2).

Feilberg (JAO, s.v. *vist*) as well as JO (s.v. *vist*) state that Jutlandic *vist* corresponds to Standard Danish *vist*. Based on their very short entries, it is difficult to say whether this also holds for the evidential meaning. The BO does not have an entry for *vist*, and it is not mentioned in the entry for the adjective *vis* either, which constitutes the source construction for the modal particle. This might indicate that the evidential meaning of *vist* is a feature of central Danish throughout its history.

In sum, the dialectal distribution of the evidential modal particles is not clear. There are some indications that at least *nok* and *vist* are generally attested, while *vist* might be absent in the eastern and western dialects. However, concerning meanings like those of the modal particles, it should be kept in mind that absence in a dictionary does not provide compelling evidence that a meaning does not exist (cf. Section 6.2.2).

9.1.6 Summary of the evidential modal particles in Modern Danish

In this section, I have reviewed previous analyses of the evidential modal particles. While I generally agree with these, I suggested analysing *vel* as a conjecture marker. Based on this revised analysis of *vel*, I proposed that the evidential modal particles could be analysed from an interactive perspective, and I argued that they can also be understood as relating to epistemic responsibility or authority.

The subjective evidential *nok* indicates that the information source is subjectively available only. Therefore, by using *nok*, the speaker conveys that she is the only one accountable for the truth of the proposition. The objective or intersubjective evidential *vist* indicates that the information source is intersubjectively available.

Therefore, by using *vist*, the speaker indicates that responsibility for the truth of the proposition is shared. The evidential *vel* conveys that the proposition is a conjecture, and consequently, the speaker does not assume epistemic responsibility for its truth.

I discussed what other constructions might be considered evidential modal particles. I argued that at least *vistnok*, *velnok* and *mon* are evidential modal particles. Due to space and time constraints, I will not discuss them any further.

Finally, I reviewed the distribution of the evidential modal particles in the main dialect dictionaries. While *nok* and *vel* are attested with their evidential meaning in some of the dialects, *vist* is not unambiguously attested in any of the dialect dictionaries.

9.2 Historical analysis of *vist*

In this section, I present my historical analysis of *vist*. Originating in an adjective with meanings like 'reliable, certain, known', the adverb *vist* emerges in the 16th century where it expresses epistemic modal meanings. This adverb in turn gives rise to its modern evidential meaning in the 17th century.

9.2.1 The point of departure: 'reliability', 'certainty' and 'knowledge'

The development of the modal particle *vist* raises difficult questions concerning its lineage, that is, what exactly to count as a predecessor of the modal particle. Etymologically, *vist* goes back to the adjective *vis* 'reliable, certain' (with a short vowel), which originates in a participle of the verb *vide* 'know' (cognate with Old English *(ge)wiss*, Middle Low German *wis*, Old High German *giwis*, cf. ODS, s.v. *vis*[2]).

It appears that the etymologically related adjective *vis* (with a long vowel) meaning 'wise, aware', which is cognate with Modern English *wise* and Modern German *weise*, also had a hand in the game. According to the ODS (*vis*[2]), the short vowel adjective meaning 'reliable, certain' had an allomorph with a long vowel, which would have made it indistinguishable from the long vowel adjective *vis* 'wise, aware'. Because it might have played a role in the development of *vist*, I will also briefly touch upon the history of this adjective in this section.

Furthermore, the most productive adverbializing suffixes were not the same throughout the history of Danish. According to Skautrup (1947: 239), the Modern Danish adverbial suffix *-t* was still used very little in Early Modern Danish, although it was present already in Middle Danish (Skautrup 1947: 91). Indeed, an adverb *vist* is not present in my Middle Danish material. Rather, in Middle Danish, *-elig(en)* is

used to derive adverbs from the adjective *vis*. This raises the question of whether adverbial forms of the source construction of *vist* with the adverbializer *-elig(en)* should be included in the lineage of *vist*, that is, it concerns the relationship between *vist* and the adverb *visselig(en)*, which clearly has epistemic modal meanings in Middle Danish (which will be discussed and illustrated immediately below) and *vislig(en)*, that is, the adverb to the long vowel adjective. The question becomes even more acute, knowing that Old West Norse had the adverbial form *vist* with clear epistemic meanings:

(9.31) **vist** er hon diavoll oc drep þu hana
'**Certainly**, she is a devil. Kill her!'
(1275–1300 ONP*, s.v. víss*)

It might thus be the case that there was an epistemic *vist* in Middle Danish, but that it for some unknown reasons did not appear in my material.

At least on the content side, a diachronic link of some sort between the two constructions is certainly not unlikely. Because *visselig* could have affected the development of *vist* through analogy as a case of attraction due to formal and semantic similarity (cf. De Smet et al. 2018, cf. Section 3.2.2), the semantics of *visselig* will be discussed briefly in the following sections as well.

9.2.1.1 The short vowel adjective *vis*: 'reliable' and 'certain'

Vis expresses meanings like 'reliable' and 'certain'. For instance, I find it in examples that describes a reliable messenger:

(9.32) ladett ett etterss **visse** bod komett hjd
'Let one of your **reliable** messengers come hither!'
(1546 GylLet I 109)

This reliability can also be of a more abstract type. In the following example, the help or cure is described as reliable:

(9.33) Hwo som eder wlwe hiærte tha fanger han **wisse** bodh.
'The one who eats the heart of a wolf, he receives **reliable** help.'
(1450 Læg n.p.)

While (9.33) concerns the reliability with which the state-of-affairs is realized, this reliability meaning very easily shades into epistemic meanings. Generally speaking,

if the realization of a state-of-affairs is reliable, a description of it will most likely be seen as a description of a proposition that the speaker regards as probable. This is particularly clear in the (dubious) advice for toothache offered in the following example, where the adjective *vis* appears nominalized and as part of a PP. In such an example, it can easily be read as modifying either a state-of-affairs ('reliably') or a proposition ('certainly'):

(9.34) tager man døts mans tendh ok legger wedh then ten ther wærker tha helper thet til **wise**

'If you take a dead man's tooth and put it close to the tooth that hurts, it helps **reliably**/with **certainty.**'

(1450 Læg n.p.)

The reliability expressed in this example is a kind of dynamic necessity, that is, the treatment causally necessitates improvement of the toothache. However, the dynamic necessity can easily be taken to imply epistemic necessity ('it is certainly true that it helps'). Nevertheless, because examples like these are very similar to examples like (9.33), and they equally well allow for a dynamic interpretation, I regard them as instances of the dynamic meaning.

There is one example in my Middle Danish material that could indicate an unambiguous epistemic use of this nominalized *vis*. Unfortunately, the passage has many lacunae:

(9.35) Kiærlingin swarathe. th[…] for **visso** at hwat som sker vm daghin […] vet vor hærra.

'The old woman replied, that […] for **certain**, that whatever happens during the day […] our Lord knows.'

(1425 SjT 30)

It is reasonable to assume that what is missing is a matrix clause, such as *th[æt ær] for visso* ('it is certain'), which would make the passage unambiguously epistemic. No matter the interpretation of this passage, it is clear that a conventional epistemic meaning of *vis* was marginal in Middle Danish, if it was present at all, even though it was contextually available in many utterances.

At the latest in Early Modern Danish, the adjective can express epistemic meanings like in (9.36), where the adjective *vis* can express that the subject is certain about something:

(9.36) [Jesus, LW] beder for oss/ (…) der paa ere wi fuld **visse**

'Jesus prays for us (…) about this, we are fully **certain**.'

(1554 PalArg III 46)

9.2.1.2 The short vowel adverb *visselig*(*en*): 'reliability' and strong epistemic support

The adjective *vis* gave rise to the adverb *visselig*(*en*), which was derived based on the adverbializer -*elig*(*en*). In my material, it appears in texts from 1425 onwards. Firstly, the adverb *visselig*(*en*) expresses a meaning corresponding to the meaning 'reliable' discussed above:

(9.37) lad dine føder gaa lige frem, saa gaar du **visselige**.

'Let your feet go straight forward! Then you will walk **safely**.'

(1550 Bib Prov 4:26)

Secondly, already in Middle Danish, *visselig*(*en*) could express full or strong epistemic support. The epistemic meaning could appear in combination with cognition verbs like *tænke* 'think' and *tro* 'believe':

(9.38) tror tw ath gud skabæde adam ok eua han sade ja thet tror jeg **wissælege**

'Do you believe that God created Adam and Eve? He said, yes, I **certainly** believe that.'

(1480 KMK 147)

In utterances like these, *visselig*(*en*) is a manner adverbial and derives the epistemic meaning based on its original manner meaning: 'I have a reliable/safe belief that…'. However, in such utterances, this meaning is virtually indistinguishable from an epistemic meaning like 'I believe with certainty that…'.

Visselig(*en*) also occurs as a sentence adverbial and expresses epistemic modality on its own. In the following, Alexander visits king Darius in disguise, but is revealed:

(9.39) hærra, **visseliga** ær thætta alexander,

'Lord, **certainly**, this is Alexander.'

(1425 SjT 122)

Reconstructing the exact strength of the epistemic modal expression is difficult. However, it seems to be a full or possibly strong epistemic support marker. First of all, *visselig*(*en*) is still possible in Modern Danish (though archaic), where it expresses full epistemic support:

(9.40) Hun var **visselig** ikke typen, man giftede sig med.
'She was **certainly** not the type one married.'
(KorpusDK)

Another argument stems from the distribution of *visselig*(*en*) in commissives:

(9.41) at thæn tidh som gudh hafdhe hænne hulpit oc hon hafdhe føth barn skulde hon honum thæt **visseliga** til skrifva.
'At the time when God had helped her and she had given birth to a child, she would **certainly** write it to him.'
(1425 SjT 65)

While Traugott (1997) has discussed the extension from verbs like *promise* and *threaten* to epistemics, to my knowledge the extension from full epistemic support to commissives has not been discussed in the literature. However, there is an obvious pragmatic link between epistemic modality and commissives. If the speaker expresses a high degree of certainty that a proposition with a future state-of-affairs will be true, and it is in the power of the speaker to realize this state-of-affairs, the utterance can easily be interpreted as a promise. The combination of future and epistemic necessity markers has the same effect in English, German and Modern Danish:

(9.42) I am **certainly** going to do it.

(9.43) Ich werde es **bestimmt** tun.
'I am **certainly** going to do it.'

(9.44) Jeg skal **bestemt** gøre det.
'I am **certainly** going to do it.'

This contrasts with evidentials or partial or strong epistemic support markers:

(9.45) I am **apparently** going to do it.

(9.46) I am **probably** going to do it.

This is so because evidentials like *apparently* or less than full epistemic support markers lack the full subjective commitment that expressions of strong epistemic support imply. The speaker can therefore not be considered to commit herself. The fact that *visselig*(*en*) is used to express commissives thus indicates that it expresses full epistemic support.

Concluding these last two sections, the predecessor of the adverb and later modal particle *vist* is an adjective expressing various meanings relating to 'reliability' and 'certainty'. The adjective *vis* was used in several epistemic modal contexts and gave rise to the adverb *visselig(en)*, which expresses full epistemic support.

9.2.1.3 The long vowel adjective *vis*: 'knowledge' and 'awareness'

The Middle Danish long vowel adjective *vis* could express meanings relating to 'knowledge', like 'wise' or 'intelligent', as it still does in Modern Danish:

(9.47) Tha spordhe alexander en **vis** mæstara hwat som thæt hafdhe bethydh.

'Then Alexander asked a **wise** master what it had meant.'

(1425 SjT 128)

As (9.48) illustrates, the adverb *vislig*(*en*) expressed the manner-adverbial equivalent to this meaning:

(9.48) Tha konungin hørdhe hvro **visliga** han vtthydde drømana.

'When the king heard how **wisely** he interpreted the dreams.'

(SjT 1425 44)

The adverb *vislig*(*en*) is attested from 1425 onwards in my material.

According to Fritzner's dictionary (FO, s.v. *víss*), the Old West Norse cognate *víss* also expresses the meaning 'informed, knowledgeable about something, aware'. He illustrates with examples like (9.49):

(9.49) er E. var **víss** orðinn þessarra tíðinda

‘as E. became **informed**/was made **aware** of these news’

(1200 FO, s.v. *víss*)

I do not find this meaning in my Middle Danish material. However, this might be due to the low number of occurrences. I only have 40 instances of *vis* (irrespective of vowel length) in Middle Danish. It is possible to find this meaning in Early Modern Danish. Kalkar provides the following example from Early Modern Danish, which I render here with additional context from the original source:

(9.50) oc samme Tiidt sende the theres Svoger *Chrestenn Perssenn* aff Kriigenn enn Hest (…) menn ther handtt kom uti Lante Holstenn met samme Hest, skulle Hogborne Fyrste Hertog *Adolff,* vor kiere Broder, bleffvitt thet **viss** oc laditt riide eptther hanum,

‘And at the same time, they sent their brother-in-law, Christen Persson, a horse from the war (…) But when he came into the land of Holstein with the same horse, his Highness, Duke Adolf, our dear brother, reportedly became **aware** of it and had him pursued.’

(1557 KO, s.v. *vis*)

The following example (also provided by Kalkar) illustrates that this was not only a propositional knowing, but makes clear that *vis* could also indicate awareness of state-of-affairs and terms or first-order entities:

(9.51) Der hun kaam y thykeen risz,

der bleff hun thi vlffue **wisz**[43].

‘When she came in the thicket, she became **aware** of the wolves.’

(1583 KO, s.v. *vis*)

[43] *Vis* here is spelled with a single vowel and two consonants. This might indicate that the vowel was short. However, this is probably not the case. First of all, vowel length is quite randomly rendered orthographically if at all. For instance, in the previous line adjectival suffix *-en* in *thykeen* ‘thick’ is rendered with two vowels but has certainly been pronounced short, given that it is a grammatical affix. Secondly, *vis* rhymes with *ris* ‘thicket’. Still today, both have a long vowel.

In such an example, *vis* does not scope over a proposition ('she got to know that there are wolves'), but rather expresses awareness of the state-of-affairs of there being wolves or simply the term 'wolves' as such.[44]

Interestingly, all of the occurrences of the meaning 'informed, aware' seem to be nominal (adjectives or predicate complements). I have not been able to find a single unambiguous example where this meaning occurs adverbially, neither as *vist* nor as *vislig* or any other derivation. However, this might be due to the strong semantic similarity between meanings relating to 'knowledge' or 'awareness' and 'certainty', which might have caused me to miscategorize instances of this variant as adverbial instances of the short vowel adjective.

9.2.1.4 Diachrony of strong epistemic support

According to the ODS (s.v. *vis*[2]), short vowel *vis* is originally a past participle of *vide* 'know'. Moreover, the long vowel adjective is assumed to be related to *vide* (ODS, s.v. *viis*). The verb *vide*, in turn, goes back to a verb meaning 'see' (Kroonen 2013: 588–89). In this section, I will discuss how the emergence of the full epistemic support meaning can be explained and argue that it originates in the 'reliable' meaning.

Discussing example (9.34) here repeated as (9.52) in the previous section, I already suggested how the epistemic meaning can emerge. This is possible in cases as the following:

(9.52) tager man døts mans tendh ok legger wedh then ten ther wærker tha helper thet til **wise**

'If you take a dead man's tooth and put it close to the tooth that hurts, it helps **reliably**/**with certainty**.'

(1450 Læg n.p.)

This extension is based on the fact that, in many contexts, it is virtually impossible to conceptualize a difference between a state-of-affairs being realized in a reliable way and a proposition being said to be certainly true. If a state-of-affairs is said to be realized with reliability, the speaker can be taken to believe that it certainly will be realized. There is an abundance of parallel changes in related languages (e.g., French/English *certain,* Italian *sicuro*, English *surely*, German *sicher,* Danish *sikker*).

[44] With static predicates like 'be, exist', it seems to be virtually impossible to distinguish states-of-affairs from terms in such contexts.

9.2.1.5 Topology of the Middle Danish source constructions

I will only discuss the topological distribution of the adverbial forms. In Middle Danish, the topological distribution of the adverbs *vislig*(*en*) or *visselig*(*en*) seems to be in accordance with their semantic and syntactic classes or functions:

1. The manner adverb meaning 'in a wise manner' behaves like other manner adverbials. For instance, in the middle field, it is placed after negation:

(9.53)

thw	hafvir	ey	**visliga**	giort.
you	have	not	**visely**	done

'You have not acted **wisely**.'

(1425 SjT 111)

2. The epistemic manner adverb *visselig*(*en*), which derives its epistemic meaning from cooccurrence with verbs of cognition, also has the topological distribution of manner adverbials. For instance, in an utterance like (9.54), it appears after the infinite verb, that is, in the post-field:

(9.54)

tha	hafdhe	iac	thænkt	**visseliga**
then	had	I	thought	**certainly**

at thæt hafdhe varit ed hart kar som thæn sivge mannin hafvir.

'Then I had **certainly** thought that it had been a hard vessel the sick man had.'

(1425 SjT 82)

3. The epistemic sentence adverb *visselig(en)* behaves like other sentence adverbials. It is attested in the middle field (9.55), the pre-field (9.56) and even in the left position for interjectionals (9.57):

(9.55)

at	thæn	tidh	som	gudh	hafdhe	hænne	hulpit
that	that	time	that	God	had	her	helped
oc	hon	hafdhe	føth		barn	skulde	hon
and	she	had	given	birth	child	should	she

honum	thæt	**visseliga**	til	skrifva.
him	it	**certainly**	to	write

'At the time when God had helped her, and she had given birth to a child, she would **certainly** write him about it.'

(1425 SjT 65)

(9.56) hærra, **visseliga** ær thætta alexander,
Lord, **certainly**, is this Alexander

'Lord, **certainly**, this is Alexander.'

(1425 SjT 122)

(9.57) saghdhe, **visseliga** thæt ær hans hustru.
said **certainly** this is his wife

'Said, **certainly**, this is his wife.'

(1425 SjT 111)

Like other sentence adverbials, it is not attested in the post-field.

In sum, nothing in the source constructions of the modal particle *vist* indicates that it would turn into a modal particle some centuries later.

9.2.1.6 Grammatical status of the adjective *vis* and its derivatives

Both the long and the short vowel adjective *vis* are modifiable and hence not grammatical. Example (9.58) illustrates this with the meaning 'wise', and example (9.59) for the meanings relating to 'certain, safe':

(9.58) Da opstod en logkøn mand som holt sig megit **viss**.

'Then a man rose who was learned in the law and who thought he was very **wise**.'

(1515 PedJ n.p.)

(9.59) den euige heluedis ild ere de der effter fuld **visse** paa/ saa mange/ som sig icke rette oc bedre.

'They can be fully **certain** to end in eternal hellfire, all those many who do not correct themselves and do better.'

(1554 PalArg III 52)

The adverb *visselig*(*en*) is also modifiable:

(9.60) Swa **visseliga** som gudh lifvir tha ær thæn mannin værdhir dødhin.

'As **surely** as God lives, this man deserves death.'

(1425 SjT 109)

Finally, the adverb *vislig*(*en*) can be negated, that is, focused:

(9.61) Konungin saghdhe thw hafvir ey **visliga** giort.

‘The king said you have not acted **wisely**.’

(1425 SjT 111)

Hence none of the discussed meanings was grammatical.

9.2.2 The adverb *vist* emerges in the 16th century

During the 16th century, a new adverb *vist* arises alongside *vislig(e/en)* and *visselig(en)*. This adverb exists as a manner adverb as well as a sentence adverb.

The manner adverb *vist* expresses that the state-of-affairs occurs in a ‘reliable’ or ‘safe’ way similar to *visselig*(*en*). In (9.62), *vist* concerns the reliable or safe way of walking, and in (9.63), *vist* indicates that the letter arrives in a reliable or safe way:

(9.62) Oc drog mig aff den forferdelige Graff / oc aff Dynd / oc sette mine føder paa en Klippe / at ieg kand træde **vist**.

‘And he drew me out of the terrible grave and out of the mud, and put my feet upon a rock so that I can step **safely**.’

(1550 Bib Ps 40:2)

(9.63) bedynndis eder giernne, atth y wylle flye hannum samme breff; om konng^{e} matt^{s} jcke wor tyll stede, atth y daa wylle forskitt tyll hannum, atth thet **wiist** kommer hannum tyll hennnde.

‘I eagerly ask you to bring him the same letter. If his Majesty is not present, that you then forward it to him, ensuring that it **safely/reliably** reaches him.’

(1565 GylLet II 657)

Furthermore, as soon as the adverb *vist* is available, it seems to express full epistemic support. There are several ways *vist* can do so (cf. Jensen 2000: 165).

1. Parallel to *visselig*, it can express epistemic modality in combinations with verbs of cognition and similar notions:

(9.64) ieg ved **vist**, at hun halp meg till gode

‘I know **reliably/certainly** that she helped me.’

(1559 GylLet I 670)

2. It can express epistemic modality in combination with verbs of communication:

(9.65) Dette gick saa stille aff, att ieg kand icke schriffue eder dett **vist** til, huad hand haffuer bedreffuet.

'This happened so quietly that I cannot write to you with **certainty** what he has done.'

(1564 GylLet II 433)

3. It can also express epistemicity as a predicate complement (9.66). This is obviously not an adverbial use, but I mention it here because the occurrence of the epistemic predicate complement coincides with the emergence of the homonymous (epistemic) adverb *vist*:

(9.66) effterdi det er **vist** at de som forfølge dit Ord høre icke til dit Rige/ men de som tro der paa/ oc bliffue hart der ved bliffue euindelige

'Because it is **certain** that those who persecute your word, they do not belong to your realm, but those who believe and continue to do so fiercely, they will become everlasting.'

(1556 PalArg III 355)

At least when *vist* is used as a predicate complement, the epistemic modal evaluation does not seem to be restricted to a subjective evaluation but can be of an objective kind, as the epistemic evaluation can be discussed and epistemically assessed itself. For instance, in (9.67), *vist* appears in an interrogative, that is, the epistemic evaluation is asked about, and in (9.68), *vist* is evaluated as certain with full epistemic support *visselig*:

(9.67) Er det **vist** / at i ville salffue mig til Konge offuer eder[45]

'Is it **certain** that you wish to anoint me as king over you?'

(1550 Bib Judge 9:15)

[45] In this Bible passage, *vist* translates Luther's *wahr*. However, there is no other indication that *vist* had the meaning 'true', and because 'certain' and 'true' in this context lead to equivalent contextualized meanings, I will not assume 'wahr' as a meaning of *vist*.

(9.68) Mijn herre fec vdj iafftis viisse tiidinge, at thet er viisselig **viist**, thet hertug Albret viil ind vdj Dytmersken

'My lord received certain news in the evening that it is certainly **certain** that Duke Albert intends to enter Dithmarschen.'

(1559 GylLet I 587)

4. Most importantly, *vist* can express epistemicity independently of other constructions as an epistemic sentence adverb, as in (9.69) and (9.70):

(9.69) thaa schalttuu strax faa mynn schryffwelsse, ther som jeg jcke syelffwer kann faa forlouu adt komme hyem, och troer jeg jcke andyt, enn wy jo **wyst** faar forlouu adt komme hyem.

'Then you shall immediately receive my writing, if I cannot myself obtain permission to return home, and I believe nothing other than that we will **certainly** be granted permission to return home.'

(1564 GøjLet 42)

(9.70) For eritt saa, ad kongen aff Danmarck begynner naagen krig med de Hamborer, daa lader de herrer aff Meckelborg **vist** finne dennom, for kongen oc hertug Hans forligtes icke altug vel her til schiel

'For if it happens that the King of Denmark begins a war with the people from Hamburg, then the lords of Mecklenburg will **surely** attack him, because the King and Duke Hans are not always reconciled on this matter.'

(1561 GylLet II 173)

Based on the following considerations, I assume that *vist* expresses full epistemic support:

1. *vist* occurs in unambiguous full epistemic support contexts

Vist occurs in utterances that express judgements that leave no or only little room for doubt:

(9.71) Weste yegh, nor den gode Krystofer och dw kom uy dene egen, da wylde yegh **west** tale med eder.

'If I knew when the good Krystofer and you come in this region, then I would **certainly** want to speak with you.'

(1572 GøjLet 188)

A translation of (9.71) with a weaker epistemic marker (e.g., 'probably') is awkward because it would imply doubt, which is odd in a context where the speaker discusses his own intentions.

2. *vist is* attested with uses typical of full epistemic support meanings

In Early Modern Danish, epistemic modal *vist* is attested with the following uses, all of which are typical of full epistemic support markers:

(a) commissives

In combination with the modal verbs *skulle* and *ville*, *vist* can express or at least emphasize commissives. As discussed above in combination with *visselig*(*en*), this indicates that *vist* expresses full epistemic support:

(9.72) men dett lille, ieg haffuer, dett skall y faa till fulld wesze om fredagen ad afftenn y den landsby, som y ligger med bruden wdj om natten, och wille ieg gierne haffue sent eder dett, nu er dett icke her, dog skall y **west** faa det

'But the little I have, you shall certainly have it by Friday evening in the village where you and the bride are staying overnight, and I would gladly have sent it to you, but it is not here. However, you shall **certainly** have it.'

(1578 GøjLet 280)

(b) emphasiser

The full epistemic support meaning can render emphasizing meanings:

(9.73) (…) pinter vnder Pontio Pilato, kaarsfest, død oc iordet, nedfoer thill helffuede, hid hør langfredagen en merkelig høytidelig dag, och vaar **vist** vor herre Iesu en lang dag, der hand hengde paa kaarsens gallie

'(…) tormented under Pontius Pilate, crucified, died, and buried, descended into hell. Therefore, Good Friday is a noteworthy solemn day, and it was **certainly** a long day for our Lord Jesus, when he hung on the cross.'

(1543 PalArg V 119)

In such an example, the epistemic modal meaning is used to emphasize the speaker's judgement of the validity of the proposition.

Example (9.74) indicates that this emphasis meaning was fully conventionalized as a distinct meaning. In this example, *vist* permits only an emphatic reading as it appears in an imperative that excludes an epistemic reading because imperatives or commands do not express propositions and therefore lack a truth value that an epistemic operator could modify (cf. Hengeveld 1989: 154; Boye 2012: 195):

(9.74) Kere Crisstoffer, gør nu well oc skriff meg nu **wisst** tyll en iiij eller vj dage, ffør en tu drager aff

'Dear Christopher, do NU well and write NU **VIST** to me within four or six days, before you leave.'

(1565 GøjLet 62)

The same applies to an embedded directive as well as cooccurrence with verbs of hope or similar:

(9.75) Bedindis etther therfor gierne, att y her forindenn **vist** ville skriffue mig etthers villiigh oc meningh thiill her om

'Therefore, I ask you eagerly that you **certainly** write to me your will and opinion on it first.'

(1560 GylLet II 109)

(9.76) dog forhober ieg nu **wist**, att handt er for Kiøbnnehaffn.

'However, I **certainly** hope now that he is in Copenhagen.'

(1565 GylLet II 734)

3. Full epistemic support is attested in Early Modern Danish dictionaries

In 1626, Colding (CO, s.v. *vist*) glosses *vist* with Latin glosses like *scilicet*, *nimirum* and *certus*, among others, all expressing full epistemic support. Similarly, in his dictionary from 1700, Moth (MO, s.v. *vist* adv.) reckons with a full epistemic support meaning, which he glosses with Latin *certo* 'with certainty'.

4. Modern Danish full epistemic support

In Modern Danish, *vist* still has full epistemic support meanings in certain restricted contexts. With *vist*, the speaker can deny the truth of a preceding proposition (9.77), and express concession (9.78) (cf. Petersson 2008: 138 for similar uses of Modern Swedish *visst*):

(9.77) Du var jazz-sangerinde? – **Vist** var jeg ej!

'You were a jazz singer? – **Certainly**, I was not!'

(DDO, s.v. *vist*)

(9.78) **Vist** er håret på brystet ved at gråne, men brystkassen er bred og armene muskuløse.

'**Certainly**, the hair on the chest is greying, but the chest is broad, and the arms are muscular.'

(DDO, s.v. *vist*)

In sum, in Early Modern Danish, the adverb *vist* emerges, and it seems to express full epistemic support. In the following section, I will discuss whether the full epistemic support meaning develops into a strong epistemic support meaning.

9.2.2.1 Weakening of full epistemic support *vist*?

Jensen (2000: 168, in line with the ODS) suggests that *vist* weakened during the 19th century, arguing that it expresses 'uncertainty'. However, this analysis may reflect a misinterpretation of the intersubjective evidential, which emerges in the 17th or 18th century (to be discussed in Section 9.2.4), as an epistemic modal meaning.

Jensen's (2000: 168–73) main argument is that *vist* begins to cooccur with strengthening degree adverbs like *nok* ('sufficiently' or 'very') and *ganske* ('rather' or 'very'). This distribution suggests that speakers may have felt a need to reinforce *vist*, as it may have been weakened. Such an argument is intuitively appealing, and there are plenty of parallel examples where the strength of epistemic support expressions is weakened, such as *surely* (OED, s.v. *surely*).

Nevertheless, it is not completely convincing. If epistemic modal *vist* was weakened, one might wonder why it is only the full epistemic support meaning that survived in Modern Danish and Swedish (cf. (9.77) and (9.78)), and not the strong or partial epistemic support meaning.

Be that as it may, whether or not *vist* was weakened does not change the suggested scenario for the development of the evidential modal particle.

9.2.2.2 Adverbial 'wise, aware'?

All the meanings of the adverb *vist* discussed thus far correspond to the short vowel adjective. I have not found examples of *vist* with meanings that unambiguously relate to the long-vowel adjective. However, the meaning 'wise' can be expressed adverbially with the adverbs *vislig* and *viselig*, which were already present in Middle

Danish (cf. the previous sections), and at least in Modern Danish, the adverb *vist* (with a long vowel) can express the meaning 'wisely':

(9.79) Og alligevel har han hele vejen igennem handlet **vist**, tålmodigt og retfærdigt.

'And nevertheless, he acted **wisely**, patiently and fairly all the time.'

(internet)

Be that as it may, as pointed out already, I am not aware of any adverbial forms of the meaning 'aware, informed, known' throughout the history of *vist*.

9.2.2.3 Diachrony of the epistemic modal adverb *vist*

I have already discussed the transition from the meaning 'reliable, unwavering' to full epistemic support in connection with the emergence of the Middle Danish epistemic adverb *visselig*(*en*). The same type of contexts can explain the emergence of the epistemic modal adverb *vist*.

I pointed out that meanings like 'reliable, unwavering' very easily shade into epistemic meanings due to implications emerging based on the dynamic modality meaning. If the realization of a state-of-affairs is described as occurring reliably, the speaker can be taken to believe that the proposition is most probably true. The following illustrates this:

(9.80) Item Siwd de smaa Brwne Fioler (søm voxe ved iorden) i vin oc holt det i mwnden/ det hielper **vist** oc er forsøgt

'Additionally, simmer the small brown violets (which grow in the earth) in wine and hold them in the mouth. It helps **reliably** and is well-tried.'

(1533 PedLæg n.p.)

The reliability expressed in such utterances is a kind of dynamic necessity. If the realization of the state-of-affairs is predicted as necessary, the clause will also describe a true proposition, that is, the utterance implies full epistemic support.

There are additional factors that might have facilitated such a reanalysis:

1. A reanalysis could have been facilitated through attraction (De Smet et al. 2018; cf. Section 3.2.2). The sentence adverb *visselig*(*en*), which had epistemic meanings already in Middle Danish (cf. Section 9.2.2.1), might

have attracted the not yet epistemic modal *vist* analogically due to similarity in content and expression.

2. Another possible factor or path could be cooccurrence with verbs of cognition (cf. Jensen 2000: 162 who identifies this cooccurrence pattern as the main factor). In Early Modern Danish, the meaning 'reliable, safe' is associated with the belief state of humans, as in (9.81):

(9.81) oc veed nu **vist**, at hand alene er min Saliggiørere

'And I know now with **certainty** that he alone is my salvation.'

(1578 StH II 350)

In such utterances, the subject referent is unwavering in her belief, that is, the epistemic meaning is compositional, emerging based on the combination with an epistemic verb. This epistemic meaning can then be conventionally associated with *vist* in a hypoanalysis.

3. Finally, language contact likely played a role. Early New High German *gewiss* expressed the meaning 'reliable' (9.82) as well as epistemic modal meanings (9.83):

(9.82) auch ist der büchsen meister, ein **gewisser** schütz,

'The gun smith is also a **reliable** shooter.'

(1565/6, FNHDW, s.v. *gewis*)

(9.83) Got werde / [...] / dein gebet **gewiß** erhȫren.

'God will **certainly** listen to your prayer.'

(1548, FNHDW, s.v. *gewis*)

Due to language contact, the polysemy of *gewiss* was certainly part of the competence of many Early Modern Danish speakers, and it could thus have formed a model for an analogical extension of *vist* resulting in polysemy copying.

In sum, in this section, I have suggested a number of factors contributing to the emergence of epistemic modal *vist*, including bridging context, analogy with other already existing constructions and language contact.

9.2.2.4 Topology of the adverb *vist*

In this section, I first present the topological distribution of the manner adverb *vist* and then that of the epistemic modal sentence adverb *vist*. As other manner adverbials, with meanings pertaining to 'safe', 'reliable' etc., *vist* can appear in the middle field (9.84) as well as the post-field (9.85):

(9.84)

atth	thet	**wiist**	kommer	hannum	tyll	hennnde.
that	it	**safely**	comes	him	to	hand

'That it **safely/surely** reaches him.'

(1565 GylLet II 657)

(9.85)

ieg	kand	træde	**vist**.
I	can	step	**safely**

'I can step **safely**.'

(1550 Bib Ps 40:2)

The absence of the manner adverb *vist* in the pre-field is probably incidental.

When the manner adverb is placed in the middle field, it can be in the scope of negation and hence follow negation as other manner adverbials:

(9.86)

Ieg	kand	icke	**west**	skriffue	dig	dett	till
I	can	not	**with certainty**	write	you	it	to

'I cannot write to you about it with **certainty**.'

(1568 GøjLet 135)

When *vist* expresses full or strong epistemic support as a sentence adverbial, it appears in the pre-field (9.87) and middle field (9.88) like other sentence adverbials:

(9.87) Ia ieg ligger uden viedt æcteskab i horerie, skiørleffnet och bolerie, derfor er det bedre at ieg er fra sacramentet;

ia	**vist**	er	det	bedre	min	ven,
yes,	**certainly**,	is	it	better	my	friend

'Yes, I am living in adultery, fornication, and debauchery. Therefore, it is better that I am absent from the sacrament. Yes, **certainly**, it is better, my friend.'

(1543 PalArg V 68)

(9.88) och wille ieg gierne haffue sent eder dett, nu er dett icke her,

dog	skall	y	**west**	faa	det
however	shall	you	**certainly**	get	it

‘And I would gladly have sent it to you now, but it is not here. However, you shall **certainly** have it.’

(1578 GøjLet 280)

It can also be placed in the position for interjectionals:

(9.89) **1. Dame.** Har Barnet alt været i Kirke, Madame?

Barselkonen.	Aa	**vist**!	alt	for	længe	siden.
the maternity wife	oh	**certainly**	al	too	long	since

‘**1. Lady.** Has the child already been to church, Madame?

The new mother. Oh, **certainly**! Quite a long time ago.’

(1728 HolPla IV 28)

Within the middle field, the epistemic sentence adverb *vist* behaves like other sentence adverbials. It expresses a subjective evaluation and can therefore not be in the scope of negation. Consequently, it precedes negation:

(9.90) Den vandt i vores Akademie, paa en Kabale nær, Prisen forleden Aar.

Men	alle	de,	jeg	har	oplæst	den	for,	velsigner
But	all	those	I	have	read	it	for	bless

vist	ikke	Kabalen.
certainly	not	the intrigue

- Dog selv Roes er overflødig her.

‘It won the prize last year in our academy, except for an intrigue. All those I have read it to, **certainly** do not appreciate the intrigue. – Yet even praise is unnecessary here.’

(1781 WesAn 98–99)

Epistemically modal *vist* followed cohesive adverbs such as *oc*:

(9.91) Først betager han denno den frøcht oc redsel dennom paakom, aff saadane vwanlige himmelske siun,

som	det	oc	**wist**	er	en	inderlig	indscreffuen
as	it	also	**certainly**	is	a	deep	written

nature	ÿ	alle	menniske
nature	in	all	humans

aff synden oc den syndige samwittighed oss fyl, at all wor nature frøchter for Gud

'First, he takes away from them the fear and terror that came upon them from such unusual heavenly visions, as there **certainly** also is a deep nature in all humans of the sin and the sinful conscience that fills us, so that our entire nature fears God.'

(1539 TausPos 15)

Furthermore, as opposed to the modern modal particle, epistemic modal *vist* appears after sentence adverbials:

(9.92) thaa fyck jeg mynn bescheden y dag, adt jeg paa nougenn tyddt motte drage hyem,

och	wyll	ther for	nest	gudts	hyelp	**wyst**	werre
and	will	therefore	with	God's	help	**certainly**	be

hyeme	nu	paa	løørdag	først	kommendes.
home	now	on	Saturday	first	coming

'Today, I got my letter that I for some time can take home, and therefore, I will **certainly** be home next Saturday if God allows it.'

(1566 GøjLet 87)

This corresponds to the Modern Danish order of argumentative and epistemic adverbials:

(9.93) Bruger du lidt tid på at indrette værelset med
use you little time on to arrange the room with

udgangspunkt i dit barns behov, interesser
point of departure in your child's need, interests

og ønsker, vil du **derfor** **sikkert** opleve,
and wishes will you **therefore** **surely** experience

at barnet kan få timevis til at gå på værelset med at fordybe sig i både stort og småt.

'If you spend a little time arranging the room based on your child's needs, interests, and wishes, you will **certainly** find that the child can spend hours in the room immersing itself in both big and small things.'

(internet)

In sum, epistemic modal *vist* does not seem to behave topologically as the modern modal particle. Rather, it appears with the same topological distribution as other epistemic adverbials. However, in general, *vist* rarely cooccurs with other sentence adverbials, which makes it difficult to conclude anything with certainty.

9.2.2.5 Grammatical vs. lexical status of epistemic modal *vist*

As the following examples illustrate, the epistemic modal *vist* is modifiable and hence not grammatical:

(9.94) Saa **vist** som Christi Sandhed er i mig / da skal denne ross icke tilstoppis for mig i Achaia Land.

'As **certain** as Christ's truth is in me, nobody shall stop this praise of me in the land of Achaia.'

(1550 Bib 2 Cor 11:10)

(9.95) Den Dreng giør mig **vist** nok gall i Hovedet.

'**Certainly** enough the boy drives me crazy.'

(1728 HolPla IV 17)

Hence, also the epistemic modal sentence adverb is probably lexical throughout its history.

9.2.3 The specific reference marker *vis*

In Early Modern Danish, I find the first instances of *vis* as a specific reference marker:

(9.96) De Athener i Græcaland haffde for en viis, huert Aar paa en **viss** tid pleiede de at sætte deris Børn til Konster at lære, huer som hand vaar skickit til aff sin natur.

'The Athenians in Greece had a custom that every year, at a **certain** time, they would have their children taught the arts, each according to what they were suited for by their nature.'

(1572 HemEc 272)

As interesting as this development is, taking its nominal nature and meaning into consideration, it seems to be unrelated to the development of the modal particle *vist*, and I will therefore not discuss it any further here.

9.2.4 The intersubjective evidential

In the 17th century, *vist* occurs in utterances that suggest that the evidential meaning is conventionalized, although the epistemic meaning cannot be ruled out with certainty in these early examples. At the latest in the 18th century, I find unambiguous examples of the evidential meaning.

In the following clauses, the epistemic modal reading is awkward, while an evidential reading of *vist* seems very plausible. The following is part of a testimony, and it is the earliest plausible case of the evidential *vist* that I could find in my material:

(9.97) [A witness reports what he said to his travel companion when some of their fellow townsmen became involved in a fight]

Holder och lader oss tage vaare bymendt med oss, som er tillbage, dj erre **vist** i perlamente

'Stop, and let us take our fellow townsmen with us who are left behind. They are **VIST** in a fight.'

(1630 SokVer 27v)

Arguably, in such a context, *vist* indexes the intersubjective availability of a direct visual information source.

Though perhaps not impossible, a translation containing an expression of full or strong epistemic support is odd, as it implies that someone might doubt the proposition, which is unwarranted in a context of direct visual evidence:

(9.98) '**Certainly**, they are in a fight.'

While in (9.97) an epistemic modal reading still might by marginally possible, such a reading is even less plausible in the following passage:

(9.99) Imod 8. slet kom Maren igien oc sagde, att der kom **wist** imod Middag tuende Quinder, som skulle løsse hender aff; (…) Maren adwarede mig, att en aff de toe Quinder som skulle tage ware paa mig, war Kongens Skomagers Quinde en Tydsk, oc meget wel lied aff Dronningen, (…) Den anden Quinde wiste Maren icke huem skulle were

'Around 8 o'clock, Maren returned and said that towards noon, two women would **VIST** come to replace her. (…) Maren warned me that one of the two women who would take care of me was the King's shoemaker's wife, a German, and very well-liked by the Queen. (…) Maren did not know who the other woman was.'

(1674 LeoJamI 29–30)

A translation with a full epistemic support marker is odd:

(9.100) … **certainly** two women would come to replace her…

Again, for a full epistemic support meaning to be of relevance, the context must allow for some doubt. However, the speaker does not appear to doubt the proposition that there are two women coming, as the following context makes clear. The narrator reports that the maid Maren says who these women are, presupposing that there are some specific women. Neither is there anything in the surrounding context to indicates that (the speaker should think that) the addressee should doubt what the speaker says, which would allow for an emphasizing reading.

An evidential reading, corresponding to Modern Danish *vist*, fits the context perfectly. The maid has gleaned some information and indicates that the information source is (in principle) intersubjectively available.

While these examples might still marginally allow for an epistemic support reading, at the latest in the early 18th century there are unambiguous examples of the evidential modal particle. In examples like (9.101) and (9.102), *vist* is used to index

a direct information source. It indicates that the state-of-affairs can be heard or seen by others:

(9.101) **Corfitz.** Jeg skal inden Aften have beviist hvad jeg siger.

Troels. Det banker **vist**. *Løber til Døren og kommer tilbage.*

'**Corfitz.** Before evening I shall prove what I say.

Troels. Someone is **VIST** knocking. *Runs to the door and returns.*'

(1728 HolPla IV 77)

(9.102) [context: Henrich sees the mayor hide under a table, then Abrahams enters:]

Abrahams Er Bormester ikke hiemme?

Henrich Jo han sidder **vist** under Bordet.

'**Abrahams** Is the mayor not home?

Henrich Yes. He is **VIST** sitting under the table.'

(1722 HolPla III 76–77)

In both examples, it is reasonable to assume that the speaker knows the proposition to be true. The speaker does not make an evaluation of how certain he is, but instructs the addressee to consider the directly perceptible evidence. Consequently, epistemic modal glosses would be odd:

(9.103) **Certainly**, someone is knocking.

(9.104) **Certainly**, he is sitting under the table.

In the following utterances, the state-of-affairs that the propositions describe is not perceivable as such. Rather, the propositions are inferred. The contribution of *vist* is to indicate that these inferences rely on intersubjectively available evidence or that the inference can be made by others as well:

(9.105) Ieg har endnu en gammel Codex af Adamo Bremensi at conferere, som **vist** er af Tolv Hundrede Talet;

'I have another old codex of Adam of Bremen to consult, which is **VIST** from the twelfth century.'

(1763 LanLet 369)

(9.106) [Being verbally attacked by an officer, a clerk crawls under the table and hides there.]

Dommeren. Hvor blev Skriveren af?

Skriveren. *krybende frem.* Der faldt en Pen ned, som jeg leedte efter under Bordet.

Dommeren. I tabte **vist** ogsaa jer Hierte, som I maaskee kand finde i jere Buxer, om I leeder.

'**The judge**. Where did the clerk go?

The clerk. *Crawling forward.* A pen fell down, which I was looking for under the table.

The judge. You **VIST** also lost your heart [meaning his courage failed him, LW], which you might find in your trousers, if you look.'

(1731 HolPla VI 129)

In an example like (9.107), *vist* seems to be used to express that the information source is 'hearsay':

(9.107) Her er i disse dage atter ankommen 1500 Matroser og 1300 Soldater fra Norge. I Morgen skal Vallet i Sverig **vist** gaae for sig

'These days, another 1500 sailors and 1300 soldiers have arrived from Norway. Tomorrow, the election in Sweden will **VIST** take place.'

(1743 LanLet 64)

In these last three cases, it might not be possible to rule out the epistemic support meaning. Nevertheless, in the light of examples like (9.101) and (9.102), these examples are plausible reading of the intersubjective evidential.

In examples like (9.108) and (9.109), *vist* indicates that the proposition is construed as a fact known to others besides the speaker (probably including the speaker's past self). They can thus be contextualized as 'memory':

(9.108) **Corfitz.** Kommer nu din Slyngel med din Troe og med din Raisonering igien? Du siger, det var 14 Dage for Juul?

Troels. Ja det var, Hosbond, og nu skriver vi **vist** den 5tende October.

'**Corfitz.** Do you, scoundrel, come with faith and logic again now? You say it was 14 days before Christmas?

Troels. Yes, it was, Master, and now we are **VIST** writing the 5th of October.'

(1728 HolPla IV 18)

(9.109) **Herman** Velkommen allesammen. I gode Mænd! hvor var det vi slap sidst?

Richart Børstenbinder Det var **vist** om Tydsklands Interesse.

Gert Buntmager Det er sandt, nu erindrer jeg det. Det vil altsammen give sig paa neste Rigsdag.

'**Herman.** Welcome everyone. Good men! Where did we leave off last time?

Richart Børstenbinder It was **VIST** about Germany's interests.

Gert Buntmager That is true, now I remember. It will all be settled at the next parliament assembly.'

(1722 HolPla III 27)

From a more interactive perspective, *vist* can be said to index a shared epistemic responsibility in all of the examples discussed in this section.

In sum, these examples indicate that the evidential meaning emerged in the 17th or 18th century. This is supported by Colding's dictionary from 1626 (CO, s.v. *vist*). He provides two entries for *vist* with the following glosses:

(9.110) vist

scilicet, nimirum

(9.111) vist

status, testatus, certus, ratus, exploratus, dogma

The glosses of the first variant align with the full epistemic support meaning: *scĭlĭcet* translates as 'of course' and can, for instance, be used as a concessive marker, while *nīmīrum* means 'certainly'.

The second entry might indicate the presence of an evidential meaning. However, as Colding does not provide any examples, and most of his glosses are themselves highly polysemous, it is difficult to be certain about what exact meaning he had in mind when providing these glosses. While some of the Latin adjectives first and foremost appear to be epistemic modal (e.g., *certus* 'certain'), there are several evidential meanings such as *testatus* 'witnessed, generally known' and *exploratus* 'explored, investigated'. Similarly, *ratus* and the Greek *dogma* can refer to general or public beliefs. The presence of such evidential glosses, then, might suggest that *vist* may indeed have had the evidential meaning already in the 17th century.

In sum, evidential *vist* seems to emerge in the 17th and 18th century. The meaning can be contextualized in at least four ways. It can be used to express 1. direct perceptibility of the state-of-affairs referred to, 2. inferences (that others might make as well), 3. hearsay and 4. memory. These seem to become available with *vist* simultaneously.

9.2.4.1 The diachrony of evidential *vist*

In this section, I outline a scenario for how *vist* gained its evidential meaning. According to Jensen (2000: 168–73), the Modern Danish modal particle *vist* emerges based on a weakening of the full epistemic support meaning. I have discussed this scenario in Section 9.2.3.1. Whether or not *vist* is weakened, it is clear that the emergence of the evidential meaning cannot be addressed in a weakening scenario, because the evidential meaning is a different type of meaning than epistemic support, and not just a weaker form of support.

According to a very brief comment in Hansen & Heltoft (2011: 1107–8), *vist* develops its evidential meaning based on uses of the full epistemic support meaning in questions. According to Hansen & Heltoft, in such utterances the speaker wants the addressee to confirm her epistemic assessment. Thereby, the intersubjective meaning element is assumed to emerge:

(9.112) Herren har **vist** forlanget, at jeg skulle tage Maal til en Klædning?
'The master has **VIST** requested that I take measurements for a suit?'

However, the conceptual link between a full or strong epistemic support meaning in such questions and the intersubjective available evidence or shared epistemic responsibility meaning is not obvious. Indeed, in a suggested bridging context like the one provided by Hansen & Heltoft, it is not clear that the full or strong epistemic

support meaning implies the evidential meaning. Other full epistemic support meanings do not imply such a meaning:

(9.113) The master has **certainly** requested that I take measurements for a suit?

I will therefore argue that *vist* developed along another pathway.

Semantically, the obvious candidate for a source meaning for the evidential *vist* is the meaning of the long vowel adjective with meanings relating to 'knowledge, awareness', as there is an obvious direct conceptual link between being aware of or knowing something and an intersubjectively available information source, that is, a fact (that can be) known by others.

Nevertheless, there are two issues with this approach. Firstly, the modal particle *vist* has a short vowel, while the adjective expressing meanings relating to 'knowledge, awareness' still retains a long vowel today. However, the vowel might have been shortened during the course of its development. Secondly, much more problematic is the fact that the adjective with meanings relating to 'awareness' never seems to have given rise to an adverb *vist*. The transition from the adjective to the modal particle seems to be too great a leap without an intermediary adverbial stage.

Therefore, I will suggest a scenario that takes its point of departure in the full epistemic support meaning. However, below I will argue that the long vowel adjective as well as other related constructions might have played a more indirect role in the development of the modal particle.

Epistemic support and intersubjective evidence are conceptually contiguous (cf. the semantic map of epistemic expressions in Boye 2012: 130[46]). If a speaker makes an epistemic judgement and expresses full epistemic support, this judgement will most often be based on some kind of evidence. Typically, this is evidence that others can assess:

[46] According to Boye's semantic map, there is a link between direct justification corresponding to *vist* in examples like (9.102) and (9.103), and between the weaker partial epistemic support and indirect justification corresponding to meanings such as inference in (9.106) and (9.107). The evidential meaning of *vist* covers both direct and indirect evidence. Furthermore, it is unclear whether epistemic modal *vist* expressed full or partial epistemic support. Therefore, the development of *vist* is difficult to relate to this diachronic generalization.

(9.114) Oc naar Presten seer tegen paa kødsens hud / at haaret huidner / oc at det er dybere til at see paa den sted / end den anden hud paa hans kød / da er det **vist** Spedalsk siuge

'And when the priest sees on the skin that the hair whitens, and that it appears deeper on that spot than the other skin on his flesh, then it is **certainly** leprosy.'

(1550 Bib Lev 13:3)

There are other contexts for the emergence of the intersubjective evidential meaning. In the 16th century, *vist* often occurs under matrix clauses that express a report or hearsay of some kind:

(9.115) vij haue kundskab, ath thet skal **vist** bliffue fred.

'We have information that there will **certainly** be peace.'

(1559 GylLet I 576)

(9.116) Ieg har hørt, her Ture achter seg **vyst** i somer hyt

'I have heard that lord Ture **certainly** intends to come here this summer.'

(1525 GylLet I 31)

While *vist* probably expresses epistemic support, in such contexts, this epistemic evaluation is reported, that is, it is the epistemic evaluation of someone else. In other words, others assume that the proposition is true.

In such a context, the evidential meaning can be conventionally associated with *vist*. Obviously though, this cannot be the whole story. If it were, we would expect to see markers of full epistemic support develop into intersubjective evidentials much more often than what seems to be the case, as strong epistemic support markers are common across languages.

Arguably, there are related constructions that may have facilitated an evidential reanalysis in bridging contexts like (9.114) – (9.116). I will argue that the evidential meaning of related constructions may have dragged *vist* in a more evidential direction based on analogy, that is, as a case of attraction (De Smet et al. 2018; cf. Section 3.2.2). There are at least two relevant related constructions: the adjective *vis* meaning 'aware' and 'known' and the verb *vide* 'know'.

The possible diachronic link between long vowel *vis* and the evidential meaning was already hinted at above. The meaning 'known, aware' can appear in impersonal constructions where it is used as a predicate complement to a proposition. In an

utterance like the following, *vist* probably expresses that the proposition is a known fact:

(9.117) Vdermere, kære her Mogens, tha er vel **wist**, at jeg haffuer før sagdtt ether at haffue ladet giort jern schøt vdj Amsterdam

'Furthermore, dear Lord Mogens, it is VEL **known** that I have previously told you that I have made iron guns in Amsterdam.'

(1558 GylLet I 475)

In this example, the speaker expresses that he expects it to be a known fact that he has told the addressee that he has previously made guns in Amsterdam. Because the adjective is formally similar to the epistemic modal adverb *vist*, some of its meaning may have been extended to *vist* based on analogy. However, as this meaning apparently never occurs adverbially, the influence can at best have been indirect.

Another plausible candidate is the past participle *vidst* of the verb *vide* 'know'.[47] This had the same phonological form as the later modal particle *vist*. Moth (MO, s.v. *vide*) renders the present perfect of *vide* as *har vist* in 1700, and Høysgård states in 1769 that *vist* was pronounced with an [e] (cf. ODS, s.v. *vide*[5]), that is, a phonological form similar to the evidential modal particle. Furthermore, as the following illustrates, some speakers spell the emerging modal particle *vist* with a *d*, that is, they treat it like the past participle construction *vidst* orthographically:

(9.118) Da jeg aldrig har troet, at enhver *Compliment* er en Kierligheds Erklæring og tillige vidste at jeg var den yngste og smukkeste i Sælskabet, saa ansaae jeg hans Smigren og Opmærksomhed for en Følge der af, og jeg var **vidst** den sidste, der merkede, at det ikke var almindelig Høflighed.

'Because I never believed that every compliment was a declaration of love and furthermore knew that I was the youngest and most beautiful in the circle, I regarded his flattery and attentiveness as a consequence thereof, and I was **VIST** the last one to notice that it was not mere common courtesy.'

(1787 BiehlLøb 74)

In the following example, *vist* unambiguously expresses the full epistemic support meaning. Still, the speaker uses the spelling of the past participle construction:

[47] I am grateful to Sune Gregersen for bringing this to my attention.

(9.119) at det skeer for hendes Skyld, nægter jeg **vidst** heller ikke.

'That it happens for her, I **certainly** do not deny either.'

(1778 PreLet 129)

While there do not appear to be any syntactically ambiguous contexts, speakers might have confused the meaning 'known' with the meaning of the modal particle due to phonological and semantic similarity. Examples like (9.118) and (9.119) can be seen as symptoms of such an analogy.

The assumption of an influence of (the past participle form of) *vide* is supported by cross-linguistic evidence. Chappell (2001: 63–65; Kuteva et al. 2019: 247–48) argue that the meaning 'know' in combination with perfect aspect constitutes the source meaning for evidentials in several Min languages. However, it is not clear whether the evidential meaning in the Min languages corresponds to the evidential meaning of *vist*.

In conclusion, in this section, I have argued that there are bridging contexts where a reanalysis of *vist* as an index of an intersubjectively available information source is possible. This extension relies on conceptual contiguity between epistemic support and the evidential meaning of *vist*. I then argued that other related constructions might have facilitated such a reanalysis based on analogy.

9.2.4.2 The topology of evidential *vist*

It is very difficult to conclude anything with certainty concerning the topological distribution of evidential *vist*, as it is difficult to find examples 1. where other epistemic readings than the evidential reading can be ruled out and 2. where *vist* cooccurs with other relevant adverbials.

Nevertheless, there are some weak indications that *vist* behaves like a modal particle as soon as the evidential meaning emerges. First of all, even though this assessment is difficult to make, evidential *vist* apparently only appears in the middle field:

(9.120)

I	tabte	**vist**	ogsaa	jer	Hierte
you	lost	**VIST**	also	your	heart

'You **VIST** also lost your heart.'

(1731 HolPla VI 129)

In all cases where *vist* appears in the pre-field in my 18th century material and where it expresses one of its epistemic meanings, it most probably expresses full epistemic support, such as the confirming *vist* in (9.121) or the concessive *vist* in (9.122):

(9.121) **Else**. Men I gode Madamer, skal det være vist med det Skib, man i disse Dage har seet i Maanen?

Øllegård.	Ja	**vist**,	er	det	sandt.
Øllegård	Yes,	**certainly**	is	that	true.

'Else. But, good ladies, is it certain that one has seen this ship in the moon these days?

Øllegård. Yes, **certainly** it is true.'

(1728 HolPla IV 43)

(9.122)

O	jo	**vist**	er	der	tusinde	Ting,
oh	yes	**certainly**	are	there	thousand	things

som det vilde interessere Dig at underrettes om; men fordi det er tusinde, derfor maa man forbigaae dem alle-sammen.

'Oh yes, **certainly**, there are a thousand things that would interest you to be informed about, but because there are a thousand things, one must pass over them all.'

(1796 PraLet 163)

As regards the position of *vist* in the middle field relative to other adverbials, the analysis is again complicated by the difficulty of determining what meaning *vist* expresses in each example and by the fact that there are only few examples where *vist* cooccurs with other sentence adverbials and even fewer where *vist* unambiguously expresses evidentiality. In my 18th century material, I do not find any examples where evidential *vist* cooccurs with relevant adverbials. However, in my material covering the 19th century, I find an example like the following:

(9.123) thi naar jeg betragter Mænd, som Friedrich den Eneste og Napoleon,

der	**vist**	for	Resten	slet	ikke	var	stærkere	i	Troen
who	**VIST**	for	the rest	at all	not	was	stronger	in	the faith

end	vor	Krigsminister,
than	our	minister of war

da seer jeg grandt, at de troede desuagtet, den ene paa Preusens og den anden paa Frankrigs Slumpe-Lykke

'For when I look at men such as Friedrich the only one/the first and Napoleon, who **VIST**, by the way, were not at all stronger in faith

than our minister of war, I clearly see that they nonetheless
believed, one in Prussia's and the other in France's stroke of luck.'

(1848 GruDan IX 154)

In this example, *vist* precedes the textual adverbial *for Resten* 'by the way'. In Modern Danish, epistemic sentence adverbials have the reverse order, at least in unmarked cases:

(9.124)	der	for	Resten	**sikkert**	slet	ikke	var	stærkere
	who	for	the rest	**probably**	at all	not	was	stronger
	i	Troen	end	vor	Krigsminister,			
	in	the faith	than	our	minister of war			

However, even in this example, *vist* is not unambiguously evidential.

In sum, the material is too scarce to allow for any firm conclusions. Nevertheless, I suggested that *vist* probably behaved like a modal particle as soon as its evidential meaning emerged.

9.2.4.3 Grammatical vs. lexical status of evidential *vist*

As was the case with the topology of evidential *vist*, it is difficult to decide whether or not it was grammatical because there are only very few unambiguous cases of evidential *vist*. However, at least in Modern Danish, evidential *vist* is grammatical. The following examples illustrates that *vist* cannot be modified (9.125), focused (9.126) or constitute an utterance on its own (9.127):

(9.125)	Han	er	så	**vist**	ikke	stærkere	i	troen.
	He	is	so	**VIST**	not	strongere	in	the faith

'He is **VIST** not stronger in his faith.'

(9.126)	Han	er	**VIST**	ikke	stærkere	i	troen.
	He	is	**VIST**	not	strongere	in	the faith

'He is **VIST** not stronger in his faith.'

(9.127) A: Er han stærkere i troen?

B: **Vist**.

'A: Is he stronger in his faith?

B: **VIST**.'

These utterances are not necessarily ungrammatical. However, they can only be read as instances of the full epistemic support meaning.

This is probably not due to the semantics of *vist*. For instance, *åbenbart* 'apparently' has a very similar meaning, and it can constitute an utterance on its own:

(9.128) A: Er han stærkere i troen?

B: **Åbenbart**.

'A: Is he stronger in his faith?

B: **Apparently**.'

Given that evidential *vist* never exhibits signs of lexical status, I will regard it as grammatical throughout its history.

9.2.5 Summary of the development of *vist*

The evidential modal particle *vist* originates in an adjective meaning 'reliable' and is furthermore related to an adjective with meanings pertaining to 'awareness' and 'knowledge'. From there, it first develops epistemic modal meanings, which I analysed as full epistemic support. In the 17th or at the latest in the 18th century, *vist* develops its modern evidential meaning.

The material does not allow any firm conclusions as to the topological distribution of evidential *vist*. It is not unreasonable to assume that the evidential meaning has the topological distribution of a modal particle from the start, but this assessment remains speculative.

I have argued that historical prior meanings of *vist* are lexical, while evidential *vist* is grammatical. Hence its emergence is a case of grammaticalization.

The following figure sums up the development of the modal particle *vist*. Dashed lines indicate analogically conditioned influence from other constructions:

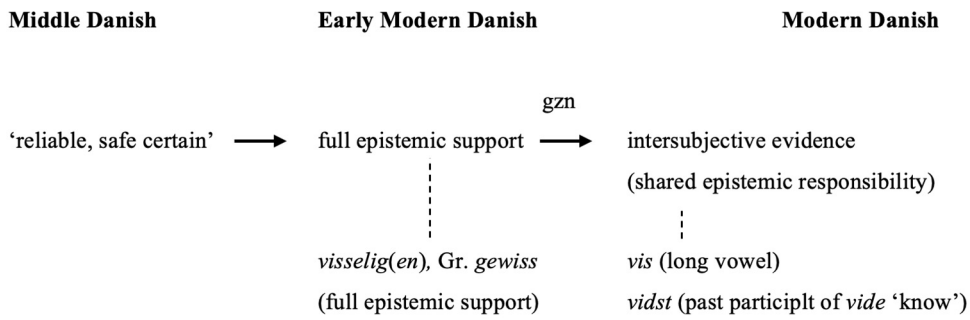


Figure 9.1
Summary of the development of *vist*

9.3 Historical analysis of *nok*

In this section, I discuss the development of *nok*. I argue that *nok* originates in an adverb meaning 'sufficient', which gives rise to an opposition meaning. This in turn gives rise to a prediction marker. At the latest in the 18th century, *nok* begins to convey subjective evidentiality or subjective accountability, which is a further development of the prediction meaning.

Parts of this analysis have already been presented in Westergaard (in press).

9.3.1 The point of departure: quantification

The oldest instance of *nok* in my material is from 1425 (*Sjælens Trøst*):

(9.129) Darius swarathe. hwi hafvir thw swa stoor ordh. thæt vore **nogh** talat at thw vore sælfvir alexandir.

'Darius answered: Why do you speak such grand words? What you have said is **enough** to make one believe you were Alexander himself.'

(1425 SjT 121)

This meaning can be traced back to Proto-Germanic **nōga-* 'enough' (Kroonen 2013: 391), and its absence in the older part of my Middle Danish material is thus probably a coincidence or due to poor synchronic representativity.

In Middle Danish, *nok* only has a quantifier meaning and expresses the meaning 'enough':

(9.130) er han møgyth saar tha er thet **nogh** ath han smøriß v reser

'If he is very hurt, then it is **enough** to anoint it five times.'

(1475 LægGKS n.p.)

By way of understatement, *nok* meaning 'enough' can be used to express 'too much' or 'a lot', and at least in the 16th century, there are examples where the meaning 'a lot' seems to be conventionalized:[48]

(9.131) de ville nu intet ligge paa de fattiges tauffle som de lagde før offuerflødig **noch** paa munche alter

'They would now place nothing in the poor box, as they had previously done, so **very** superfluously, on the monks' altar.'

(1543 PalArg V 75)

When *nok* expresses 'a lot' it often has subjective overtones, as in (9.131). This could also make a subjective reading plausible, corresponding to one of *nok*'s Modern Danish meanings. In combination with evaluating adverbials, *nok* is used to indicate that the speaker expresses a subjective evaluation, rather than expressing degree:

(9.132) *Det store nøddekup* er baseret på instruktøren Peter Lepeniotis' kortfilm *Surly Squirrel* fra 2005, og der er overflødigt **nok** allerede en efterfølger på vej.

'*The big nut coup* is based on director Peter Lepeniotis' short film *Surly Squirrel* from 2005, and **quite** superfluously, there is already a sequel on the way.'

(internet)

At the latest from the 17th century onwards, I also find the combination *vist nok*, where *nok* meaning 'enough' or 'a lot' modifies the epistemic meaning of *vist* 'certain enough' or 'very certain':

[48] Sune Gregersen points out to me that the meaning 'a lot' seems to be so common in Middle English that the editors of the Middle English Dictionary (MED) list it as the primary meaning of *nok*.

(9.133) Da er ded uyst **nock**, at hun uar et gaadt stund derfra

'Then it is certain **enough** that she was quite far away.'

(1641 ChrisIV 68)

In such examples, *nok* participates in an epistemic construction, but does not express epistemicity on its own.

According to Kalkar, *nok* could also express the meaning 'furthermore' in Early Modern Danish. However, this meaning is stylistically highly restricted. It only appears in legal documents. Because it is hardly relevant for the emerging modal particle, I will not discuss it any further.

9.3.1.1 From 'enough' to 'plenty, a lot, very'

The meaning 'plenty, a lot, very' could have developed by way of understatement, as argued in the previous section (cf. Hansen & Heltoft 2011: 1101). Furthermore, in many contexts, the meaning 'enough' implies the meaning 'plenty':

(9.134) Konung darius flydhe oc sænde bref i gien til alexandrum oc beddis naath of honum. oc bath sænda sek sina modhir sina hustru oc børn. Han vilde honum gul oc silf **nok** adir sænda. thæt vilde conung alexander ey giøra.

'King Darius fled and sent a letter to Alexander and begged for mercy from him and asked him to send him his mother, his wife and his children. He was willing to send him gold and silver **enough/in abundance** in return. King Alexander refused to do so.'

(1425 SjT 122)

The context suggests that the king is willing to offer a lot of gold and silver, as he offers it in exchange for the release of his family.

9.3.1.2 Topology of quantifier *nok*

As a quantifier, *nok* can modify adjectives and nouns. Furthermore, it can be used adverbially. I will only discuss the topology of *nok* as an adverbial. It occurs in the middle field (9.135) and in the post-field (9.136):

(9.135) hwi hafvir thw swa stoor ordh.

thæt vore **nogh** talat at thw vore sælfvir alexandir.
it was **enough** spoken that you were self Alexander

'Why do you speak such grand words? What you have said is **enough** to make one believe you were Alexander himself.'

(1425 SjT 121)

(9.136) for hues skyld hun kand icke obnis **nock**
for whose sake she can not be opened **enough**

'For whose sake she cannot be opened **enough**.'

(1577 SmiKB n.p.)

Interestingly, in Modern Danish, *nok* meaning 'sufficiently' has lost the middle-field position:

(9.137) *Du har **nok** talt nu.
you have enough spoken now

'You have spoken enough now.'

Pre-field position is possible in Modern Danish. The absence of examples with *nok* expressing 'enough' in the pre-field is thus probably due to coincidence:

(9.138) **Nok** fik vi ikke at spise,
enough got we not to eat

men vi klarede os da.

'We did not get **enough** to eat, but we managed.'

Furthermore, as other manner adverbials, quantifier *nok* follows negation when it is placed in the middle field:

(9.139) De haffve meg ike **nook** ffoorfvltt
they have me not **enough** pursued

'They have not pursued me **enough**.'

(1547 GylLet I 134)

In late Early Modern Danish, *nok* develops an interjectional use where the meaning 'enough' is used to interrupt the interlocutor. In this function, *nok* is placed in the left position for interjectionals (9.140):

(9.140) **1ste Kone.** Ach! vær saa god og see i mine Hænder.

Bonifacius.		Ja	**nok**.	Jeg	seer,	Madame!	at	hun
Bonifacius.		yes	**enough**	I	see	Madame	that	she
faaer	6	Børn	endnu.					
gets	6	children	still					

'**1st Wife**. Ah! Be so kind and look at my hands.

Bonifacius. Yes, **enough**! I see, Madame, that she is going to have six more children.'

(1728 HolPla IV 58)

9.3.1.3 Grammatical vs. lexical status of quantifier *nok*

Unsurprisingly, quantifier *nok* can be modified throughout its history. Hence, most likely, it is lexical:

(9.141)

thet	scall	oss	wære	saa	**nock**
it	shall	us	be	so	**much/enough**

at wij ther mett schule wære till fredtz

'It shall be **enough/so much** for us that we shall be satisfied with it.'

(1527 HelArg II 149)

9.3.2 Opposition

In the late 17th and 18th century, *nok* develops an opposition meaning. It indicates that the proposition contrasts with another proposition in the common ground, which can be explicit as well as implicit. This meaning has several related uses. These include the following:

1. affirmation and simple opposition,
2. reassuring prediction and
3. concession.

These will be discussed in turn.

9.3.2.1 Affirmation and simple opposition

From the end of the 17th century, I find *nok* expressing opposition or affirmation. Affirmation is a term Jensen (1997; 2009) employs in her analysis of *godt* and *vel*. It covers what is elsewhere called the 'negated negation' (cf. Hansen 2000: 82 on *godt* in Modern Danish). Affirmative markers indicate that the state-of-affairs is not negated or that the speaker claims that the proposition is true despite a counter-expectation.

It can appear with verbs of cognition (e.g., *tænke* 'think') and with ability or dynamic possibility modals, that is, with modals where something in the world makes it possible for the state-of-affairs to be realized (*kunne* and *måtte* both meaning 'can'). In such cases, *nok* seems to express that the proposition contrasts with another proposition:

(9.142) thi ieg tenkte **nok** att de kom icke mig ihue

'For I thought **NOK** that they will not remember me.'

(1697 LeoJamII 91)

(9.143) Ieg sagde, kand i tie, saa wil ieg komme Potten til att sye. Io (soer hun en forfærdelig Eed) ieg kand **nok** tie, oc ieg skal aldrig sige ded:

'I said, if you can be quiet, I will get the pot to cook. Yes (she swore a terrible oath), I can **NOK** be quiet, and I shall never say it.'

(1697 LeoJamII 131)

(9.144) Ded war oc Dronningen imod att ieg bekom et Flaskefoder med sex smaa flasker der vdi war Slag Wand, Hoffwitwand, oc hiærtstærckende Wand; alt ded sagde hun maatte hun **nok** wære foruden

'It was also against the will of the Queen that I should receive a flask container with six small bottles, in which there was a fragrant liquid for strokes, headaches and for liquids for refreshment. All of that she said she can **NOK** do without.'

(1697 LeoJamII 114)

In these examples, *nok* relates the proposition expressed to a contrasting proposition. This is particularly clear with ability modals. For instance, in (9.143), *nok* seems to address the expectation that the contrary of the expressed proposition is the case, namely that the speaker cannot keep silent.

One might argue that this affirmative meaning is still pragmatically derivable and therefore should not be regarded as a conventional meaning of *nok*. However, in my material from the early 18th century, I find examples where the 'sufficient' meaning is even further backgrounded or even fully absent. Already in the 17th century, I find a single instance of the affirmative marker in combination with a perception verb. In the early 18th century, this becomes a typical context of *nok*:

(9.145) Hand spurte hwor til ieg wille haffwe ded Leer quinden haffde baarren ind til mig? hand saa ded **nok** der hun bar ded ind.

'He asked what I wanted to do with the thing that the clay woman had carried in for me? He saw it **NOK** when she carried it in.'

(1697 LeoJamII 116)

(9.146) **Henrich** Han er endelig inde, men han er ikke vel. *Sagte*. Disse Karle ere dumme som Bæster, de kand ikke fatte min Meening.

Advocat *sagte* Jeg merker **nok**, Mon Frere, at den Karl vil lade sig smørre.

'**Henrich** Indeed, he is in, but he is not well. *Quietly.* These men are as stupid as beasts; they do not understand me.

Lawyer *quietly* I understand **NOK**, mon Frere, that the man wants to be bribed.'

(1722 HolPla III 63)

In the early 18th century, affirmative *nok* furthermore spreads to volitive and deontic modals like *ville* 'will, want' and *måtte* 'may'. In (9.147), *nok* relates the utterance to the contrary wish of the addressee. In combination with the deontic possibility modal, *nok* expresses a permission (parallel to *måtte vel* in Middle Danish and *måtte godt* in Modern Danish, cf. Jensen 1997; 2009; cf. Section 9.4.2):

(9.147) Tak for den Omsorg, han bær for min Ære; hans Raad er meget sunde, men desuagtet vil jeg **nok** lade ham hænge.

'Thank you for the care he bears for my honour; his advice is very healthy, but nevertheless, I will **NOK** let him hang.'

(1776 WesLyk 98)

(9.148) mens dog først fremsætte diße dubia, 1) om jeg icke **nock** uden for mit Kald for en bare intercession maa tage skienck;

'But first I will put forth these questions: 1) if I, outside of my vocation, may **NOK** receive a gift as an intercession.'

(1736 RanLet 65)

In a context like (9.148), only the affirmative meaning is available. The speaker does not ask whether he may sufficiently realize the state-of-affairs described. Rather, *nok* affirms the deontic possibility expressed by *maa* 'may' and addresses and cancels the negative implication associated with deontic possibility (cf. Talmy 1988 and Sweetser 1990 on possibility as an 'absent barrier', that is, a negated negation).

This meaning is still possible in Modern Danish:

(9.149) Please, please, please må jeg ikke **nok** få lov at være amatørmor i fred?

'Please, please, please, may I not **NOK** be allowed to be an amateur mom in peace?'

(internet)

At the latest in the 18th century, *nok* expresses opposition without contextual restrictions pertaining to the nature of the verb. In the following, *nok* appears to express opposition to the preceding clause:

(9.150) jeg har aldrig friet, og jeg tror, paa min Sjæl! ikke, at jeg kunde sige et Ord til hende i den Materie, skjont Kjæften ellers **nok** plejer at staa mig bi.

'I have never proposed, and I do not think, by God, that I could say a word to her in that matter even though I usually am **NOK** eloquent enough.'

(1792 HeiVon 456)

Moth (MO, s.v. *nok*) seems to be aware of this meaning of *nok* and translates *nok* with *quidem* (an emphasizer and opposition marker) in his dictionary from 1700:[49]

[49] He also provides *let* and *facile* (both 'easy') as glosses in the same entry.

(9.151) det kand **nok** skêe.
hoc **quidem** concedi potest.
both: 'That may **well** happen.'

(9.152) Hun stræbte **nok** imôd.
illa **quidem** pugnabat.
both: 'She **NOK** fight.'

In sum, *nok* develops an opposition meaning in the 17th and 18th century. This development appears to proceed along the following contexts:

(9.153) cognition verbs/ability modals > perception verbs
> permission, volition and other modals > all types of verbs

9.3.2.2 Reassuring predictions

In the later 17th century, *nok* also begins to express reassuring prediction. This can be regarded as a contextual meaning of the opposition meaning. The speaker addresses a counter-expectation of the addressee who believes that a future state-of-affairs will not be realized. Typically, *nok* does so in combination with *skulle* 'shall', but can also do so on its own. For instance, in the following example, the addressee does not believe that she will have the opportunity to defend herself. This is addressed by the speaker with the opposition marker *nok*:

(9.154) wil dog formode, att de icke erre saaledis, att Hs. kl. Majts. Vnaade lenge skal ware, naar ieg maa faa Aarsagen att wide oc mig forsuare. G. Rantzow sagde, I skal **nock** faa Loff att forsuare Eder;

'Nevertheless, I will assume that they are not of such a nature that His Royal Majesty's displeasure will last long, if I may learn the cause and defend myself. G. Rantzow said: You shall **NOK** have the opportunity to defend yourself.'

(1674 LeoJamI 14)

Nok expresses similar meanings in the following examples:

(9.155) **Jomfruen**. Jeg vil være holdt gruelig prægtig, lækker og vel og gider gjerne haft Selskab.

Baronen. Ja, ja, naar vi faar været paa Landet et Aar eller halvandet, da forgaar det **nok** af sig selv.

'**Maiden**. I want to be kept terribly splendid, refined and well, and I would like to have company.

Baron. Yes, yes, once we have been in the countryside for a year or a year and a half, that will **NOK** fade on its own.'

(1680 GFKom 19)

(9.156) Ieg sagde Penge kand vdrette meget; forærer Slosf: nogle penge, saa tall hand **nok** for eder;

'I said money can accomplish a great deal; give the castellan some money, and he shall **NOK** speak for you.'

(1692 LeoJamII 136)

This can be corroborated based on Modern Danish, where opposition *nok* is used to express commissives. Interestingly, when *nok* does so, it seems to imply an opposition, that is, the Modern Danish commissive construction *skulle nok* expresses that somebody might think the speaker is not willing to realize the state-of-affairs. Compare the following promises:

(9.157) Jeg **lover** at elske dig for evigt og altid.

'I **promise** to love you forever and always.'

(internet)

(9.158) Jeg vil elske dig for evigt og altid. **Det er et løfte**.

'I will love you forever and always. **That is a promise**.'

(9.159) Jeg skal **nok** elske dig for evigt og altid.

'I shall **NOK** love you forever and always.'

As opposed to (9.157) and (9.158), (9.159) is odd in the typical context of a love declaration. Arguably, this is due to the contrast semantics of *nok*, which in this context seems to imply a doubting interlocutor.

9.3.2.3 Concessive

Expressing opposition, *nok* is highly suitable for concessive uses like in (9.160), which begin to appear in the 18th century:

(9.160) Vores Hovedstad staar **nok** størrelsesmæssigt tilbage for mange andre Byer, men der er ikke mange der overgaar den i Betydelighed.

'Our capital may **NOK** be smaller in size compared to many other cities, but there are few that surpass it in significance.'

(1737 HolLet I 181)

There are possible concessive examples such as (9.161) already in the 16th century:

(9.161) Huilche onde naboer vaare de, gud vnde oß bedre igien end di vore, **noch** vaare de gamble, det haffde veret bedre, at de haffde veret borte for thi aar siden

'How evil such neighbours would be. May God give us better neighbours than they were. While they were **NOK** old, it would have been better if they had been gone ten years ago.'

(1543 PalArg V 105)

However, these are extremely infrequent prior to the 18th century, and an example like (9.161) could also be analysed as an instance of the meaning 'sufficient': 'they are old enough, but it would have been better if they had been gone ten years ago.'

9.3.2.4 Converging evidence for the meaning potential of opposition *nok*

There is converging evidence for the suggested analysis of opposition *nok*, namely the polysemy of German *schon* (< 'already' < 'beautiful'; cf. DWb). Just like *nok*, *schon* can express affirmation in combination with cognition verbs (9.162), plain opposition (9.163), concession (9.164) and reassuring predictions (9.165) (with the exception of (9.162), the examples are from the Duden):

(9.162) Ich weiß **schon**, dass er kommt.

'I know **SCHON** that he is coming.'

(9.163) Von der Tätigkeit her ist die Stelle nicht sehr interessant, von der Bezahlung her **schon**.

'In terms of the work, the position is not very interesting; in terms of the pay, it **SCHON** is.'

(9.164) Sie hat **schon** recht, wenn sie das sagt

'She is **SCHON** right if she says so.'

(9.165) Das wirst du **schon** schaffen.

'You will **SCHON** manage that.'

9.3.2.5 Diachrony of opposition *nok*

Waltereit & Detges (2007: 74–76) argue that argumentative meanings emerge in contexts where common ground is under discussion. In such contexts, a contextual argumentative meaning can be conventionalized. I will argue that this can also account for the development of opposition *nok*.

French *bien* 'good, in a satisfactory manner' has a meaning similar, though not identical to the affirmative marker *nok.* In their analysis of the development of *bien*, Waltereit & Detges (2007: 74–76) argue that the affirmative meaning emerges in bridging contexts where "adverbial *bien* is used to argue against strong counter-expectation on the part of the hearer". They do so with reference to the semantics of what they call "scalar argumentation": According to Waltereit & Detges (2007: 76), for *bien*, "scalar argumentation means that (…) p is WELL the case is invoked as an argument in favour of the conclusion that (…) p is the case. This is done against strong counter-expectation, i.e. against the hearer's belief that (…) p is not the case is true". Similarly, Jensen (2009: 71) argues that the reanalysis of the very similar affirmative meaning of *godt* 'good, in a satisfactory manner' takes place in contexts of doubt.

Like *bien*, *nok* meaning 'sufficiently' can be used to address a counter-expectation in argumentative contexts. Someone thinks or might think that the speaker does not know a given proposition. However, the speaker rejects this (possibly implicit) assumption by stating a proposition like 'I know this sufficiently well' or similar. In an argumentative context where doubt may exist about whether the speaker knows the proposition, this phrase can imply: 'I am very well aware of that, contrary to what you seem to think'. While the following example possibly already is an example of the affirmative meaning, it clearly illustrates the link between the meaning 'enough' and affirmation:

(9.166) **Jomfruen**. Jeg vil aldrig gifte mig, min hjerte Moder.

Grevinden. Jeg kjender vel den Snak. Ho, ho, jeg véd **nok**, hvordan jeg var, den Tid jeg var paa din Alder.

'**Maiden**. I will never marry, my dear mother.

The Duchess. I know that way of speaking. Ho, ho, I know **sufficiently** well how I was when I was your age.'

(1680 GFKom 7)

The duchess seems to think that the maiden does not think the duchess knows how it is to be young and not wanting to marry. The duchess then addresses this belief by saying that she knows it well enough. Thereby, the duchess relates her utterance to the counter-expectation of her daughter. This meaning can then in turn be conventionalized as the affirmative meaning.

Later, the affirmative meaning can be generalized as an opposition meaning through context expansion.

9.3.2.6 Topology of opposition *nok*

In my material, opposition *nok* appears in the pre-field and in the middle field:

(9.167)

Nok	laane,	men	ikke	beholde!
NOK	borrow	but	not	keep

'You may **NOK** borrow it, but not keep it.'

(1858 AndEve III 15)

(9.168)

I	skal	**nock**	faa	Loff	att	forsuare	Eder;
you	shall	**NOK**	get	permission	to	defend	yourself

'You shall **NOK** have the opportunity to defend yourself.'

(1674 LeoJamI 14)

I do not find the opposition meaning in the post-field in my material, and this position does not seem to be possible in Modern Danish either. The following example illustrates this (cf. (9.160)):

(9.169) *Vores Hovedstad staar størrelsesmæssigt tilbage for
Our Capitol stands size-wise back for

mange andre Byer **nok**, men…
many other cities **NOK** but

Within the middle field, *nok* seems to follow modal particles (9.170) and apparently all types of sentence adverbials like the cohesive adverb *oc* (9.171), the epistemic adverb *maa skee* (9.172), the full epistemic support adverbial or emphasizer *min Troe* ('certainly', lit. 'my belief') (9.173) and evaluative adverbs like *desværre* ('unfortunately') (9.174):

(9.170) Jeg veed det jo **nok**, og vil ikke fortie det
I know it JO **NOK** and will not conceal it

'I know it **NOK**, and I will not conceal it.'

(1848 GruDan IX 171)

(9.171) Derefter Curfyrstinnen aff Saxen,

som ieg oc **nok** kunde kiende
as I also **NOK** can know

'Then the Prince-Electress of Saxony, whom I could **NOK** recognize also.'

(1692 LeoJamII 178)

(9.172) da han skulde nu tilbage igien, havde han nær bleven hængende, og rev sine nye Klædesbuxer i tu,

som I maa skee **nok** kiender?
as you maybe **NOK** know

'When he was about to go back again, he almost got stuck and tore his new trousers into pieces, which you perhaps **NOK** know?'

(1728 HolPla IV 50)

(9.173) jeg skal min Troe **nok** sige ham det.
I shall my belief **NOK** say him it

'I shall certainly **NOK** tell him that.'

(1728 HolPla IV 69)

(9.174) Faderen havde betroet ham,

at	hun	desværre	**nok**	var	noget	forvirret
that	she	unfortunately	**NOK**	was	some	confused

i	Hovedet	efter	en	Sygdom,
in	the head	after	a	illness

og at det kun var for at skjule sin Grimhed, at hun bar Slør, men at hun paa den sidste Tid alene sværmede for sin store Landsmand

'The father had confided to him that, unfortunately, she was **NOK** quite confused in the head after an illness, and that it was only to hide her ugliness that she wore a veil. However, recently, she had only become infatuated with her great compatriot.'

(1847 IngEve 144)

As illustrated in (9.175), opposition *nok* can even appear after the negation *ikke*:

(9.175)

om	jeg	icke	**nock**	uden	for	mit	Kald
if	I	not	**NOK**	outside	of	my	vocation

for	en	bare	intercession	maa	tage	skienck;
for	a	simple	intercession	may	take	present

'If I, outside of my vocation, may not **NOK** receive a gift as an intercession.'

(1736 RanLet 65)

The previous example also illustrates that *nok* can precede various state-of-affairs adverbials like *uden for mit Kald* 'outside of my vocation' and 'for en bare intercession'. Presumably, *nok* is placed in the position for negation or focus operators when it is placed in the middle field (cf. Section 4.1) due to its semantic affinity with negation.

In sum, opposition *nok* appears in the pre-field and in the middle field. Within the middle field, it seems to occupy a position between sentence adverbials and state-of-affairs adverbials. It is clear that opposition *nok* does not have the topological distribution of a modal particle.

9.3.2.7 Grammatical vs. lexical status of opposition *nok*

There is no evidence in my material to indicate that opposition *nok* was lexical, and at least in Modern Danish, the opposition marker cannot be modified (9.176) or constitute an utterance on its own (9.177):

(9.176)	*Jeg	skal	**så**	**nok**	hjælpe	dig.
	I	shall	**so**	**NOK**	help	you

(9.177) A: Hjælper du mig?

B: ***Nok**!

'A: Will you help me?

B: **NOK**!'

Only one aspect speaks in favour of lexical status. Opposition *nok* can be stressed:

(9.178) Jeg skal **NOK** hjælpe dig.

'I shall **NOK** help you.'

However, in that case, the emphasis associated with stress seems to target the truth value of the proposition rather than the emphasizer. Hence, this does not clearly speak for the lexical status of *nok.* Therefore, I assume that the emergence of the opposition meaning constitutes a case of grammaticalization.

9.3.2.8 Summary of opposition nok

In this section, I have argued that *nok* expresses opposition in Early Modern Danish and that this meaning can be contextualized in at least three ways. It can express affirmation, reassuring predictions and concession. Furthermore, I have shown that opposition *nok* does not exhibit modal particle topology but appears in the pre-field and follows sentence adverbials when placed in the middle field. Finally, I argued that opposition *nok* is grammatical.

9.3.3 Prediction

In the previous section, I argued that *nok* developed an opposition meaning and that this meaning was used to express reassuring predictions. It allows the speaker to address a counter-expectation concerning a future proposition.

In this and the following sections, I argue that the opposition meaning gives rise to a distinct prediction construction shortly after the emergence of the opposition meaning. This prediction *nok* expresses that the speaker makes a subjective assessment about the future, typically based on inferences, and personally vouches for its truth. Crucially, I assume that this meaning is distinct from the opposition

meaning. In Section 9.3.5.2, I will argue that prediction *nok* is also formally distinct from opposition *nok*.

Around 1700, several utterances express predictions without the opposition meaning being apparent:

(9.179) I skal ogsaa legge jer en Skiødehund til, hvilken I skal elske som jer egen Datter; thi det er ogsaa fornemme. Vor Naboe-Kone Arianke har en smuk Hund, som hun **nok** laaner jer, til vi kand selv faae en. Hunden skal I give et fransk Navn.

'You must also get yourselves a lapdog, which you shall love as your own daughter; for that is also classy. Our neighbour woman Arianke has a beautiful dog, which she will **NOK** lend you until we can get one ourselves. You shall give the dog a French name.'

(1722 HolPla III 45–46)

(9.180) Nyt har ieg endnu intet hørt meget af, uden at Biskop *Hagerop* i *Trundhiem* er død. *Marchen til Helsingør* bliver **nok** ikke af før idag 8te dage. Ieg har idag haft den Ære at opvarte Naadige Fruen.

'I have not yet heard much news, except that Bishop Hagerop in Trondheim has died. The march to Helsingør (Elsinore) will **NOK** not take place until eight days from today. I have today had the honour of waiting upon the gracious lady.'

(1743 LanLet 60)

Enough context is given to rule out the opposition meaning. In (9.179), the speaker uses *nok* to convey that the proposition 'she is going to lend you a dog' is a subjective statement about the future. Similarly, *nok* expresses a subjective prediction about the march on Helsingør (Elsinore) in (9.180). Note that, in Modern Danish, the highlighted instances of *nok* in these examples cannot be stressed without resulting in a contextually odd meaning. As the opposition meaning can be stressed (cf. Section 9.3.2.7), this corroborates the assessment that another meaning than opposition is at stake.

This prediction meaning can be confused with the subjective evidential meaning (cf. Section 9.1 and 9.3.4). However, when *nok* expresses an epistemic meaning[50] prior to 1750, it never occurs with states-of-affairs having taken place in the past, even though some of these early epistemic clauses have generic time reference or refer to states-of-affairs that are ongoing at the time of speaking:

[50] Recall that I consider epistemicity as a cover term for epistemic modality and evidentiality in line with Boye (2012), as discussed in Section 2.6.1.

(9.181) siden ieg hører *Mr. v. d. Maase* anderledes fortælle, og at han agter sig til *Rensborg,* maae **nok** hans Efterretninger være vissere.

'As I hear Mr. v. d. Maase tell it differently, and that he intends to go to Rendsburg, his information is **NOK** more reliable.'

(1743 LanLet 82)

This absence suggests that *nok* for some time only expressed predictions and only later developed its subjective evidential meaning.

This analysis is corroborated by Moth (MO, s.v. *nok*). While he glosses one of the meanings of *nok* with *mâ skêe* and *forsan*, both meaning 'perhaps, maybe', the example he provides for this meaning (9.182) suggests that *nok* expressed predictions, as indicated by his Latin translation equivalent (9.183):

(9.182) det vil **nok** regne i aften.

'It will **NOK** rain this evening.'

(9.183) Pluviam denunciat aër.

'The sky announces the rain.'

First, it should be noted that the clause in question can hardly be analysed as an expression of opposition. Neither the context of the utterance (which is absent in a dictionary entry) nor the Latin translation suggest an opposition meaning. Moth's glosses *mâ skêe* and *forsan* 'perhaps, maybe' do not suggest an opposition meaning either. Hence, the opposition meaning can be ruled out.

At first sight, the choice of the Latin translation equivalent appears somewhat puzzling. It is curious that Moth did not choose a Latin translation equivalent more closely aligned with the Danish phrase, given that he provided *forsan* 'perhaps, maybe' as a gloss for *nok*. However, assuming an analysis where *nok* expresses predictions, the choice of translation equivalent becomes less confusing. The speaker predicts a future event, that is, that it will rain.

The choice of this translation equivalent is interesting for another reason. In the Latin translation, this prediction is not presented as a plain assertion, but rather, it is made clear that this assessment relies on an inference based on the speaker's observation of the skies. In other words, the meaning seems to involve a subjective or inferential meaning feature. The remarkable choice of translation equivalent can then be understood as an effort to convey the epistemic aspects of the prediction meaning of *nok*.

A subjective or inference meaning nuance is also present in the dictionary entry for *nok* in the ODS (s.v. *nok*[5]). The editors reckon with a distinct prediction meaning, noting that this meaning often carries inferential nuances. However, while opposition is not mentioned as a meaning feature of *nok* in this entry, it is not possible to rule out the opposition meaning in any of the cited examples. This can be illustrated with the following example:

(9.184) Hvis jeg ikke falder, kommer jeg **nok** hjem igen.
'If I am not killed, I will **NOK** be coming back home again.'
(1848 ODS, s.v. *nok*[5])

The utterance is meant to calm down a soldier's girlfriend. She wants to follow him to battle but is not allowed. Therefore, it is impossible to rule out the opposition meaning where the speaker expresses a reassuring prediction. Nevertheless, *nok* appears in an unstressed position in an iambic verse. In Modern Danish, the opposition marker seems to prefer stress in such a context. Hence, this speaks for a non-oppositional use.

Be that as it may, at least the semantic description of *nok* in the ODS corroborates my analysis of Moth's entry that *nok* 1. conveys predictions (distinct from the opposition meaning) and 2. that these predictions are not neutral claims about future events, but subjective assessments, often based on the speaker's inferencing.

In this section, I have argued that *nok* develops a prediction meaning around 1700, which is semantically distinct from the opposition meaning used to express reassuring predictions. *Nok* expresses predictions based on the speaker's subjective evaluation. In Section 9.3.3.2, I will argue that there also seems to be a topological distinction between opposition *nok* and prediction *nok*, indicating that the latter might have been recategorized as a distinct construction, presumably a modal particle.

9.3.3.1 Diachrony of prediction *nok*

In this section, I discuss the emergence of the prediction meaning. Because reassuring predictions are part of the meaning potential of opposition *nok,* it is only a very small step from the opposition meaning to the prediction meaning. When *nok* is used to express reassuring predictions, the opposition meaning can become backgrounded and eventually lost, while the prediction meaning can be conventionalized.

However, as argued in the previous section, prediction *nok* does not only express a temporal meaning. It also conveys a subjective meaning element. Arguably, this subjective element is contextually implied when opposition *nok* is used to reassure

the addressee. In such cases, it is presupposed that the addressee does not believe that the proposition expressed is true. When the speaker then asserts the truth of the proposition, an asymmetrical epistemic configuration emerges. To make such a reassuring prediction, the speaker must possess information that the addressee either lacks or is unable to interpret in the same way. Furthermore, in such contexts, only the speaker takes epistemic responsibility for the truth of the proposition. This asymmetrical epistemic configuration can then be conventionalized.

This can be illustrated with an utterance such as (9.185), where the speaker reassures the addressee about the truth of a future proposition. She expresses that she expects to receive a new thread for sewing:

(9.185) sagde Quinden en dag, hwad wil I nu faa att giøre naar dette [sytråd, LW] slipper? Ieg swarte, O! ieg faar **nock** noget att giøre, skulle end Raffnene føre mig ded til, saa faar ieg ded;

'One day, the woman said: What will you do now that this [thread, LW] is finished? I replied: Oh! I will **NOK** figure something out. Even if the ravens will bring it to me, I shall have it.'

(1692 LeoJamII 164)

The preceding context makes it clear that the woman expects the speaker to run out of sewing thread. This motivates the use of the opposition meaning. The fact that the speaker can reassure the addressee here implies that she has information the addressee does not have or that she assumes that she is in a privileged position to make such a claim. This contextual feature can then be conventionalized.

9.3.3.2 Topology of prediction *nok*

In Section 9.3.2.4, I argued that *schon* was very similar to *nok* as regards the opposition meaning. The comparison with Modern German *schon* reveals another interesting point. In Modern German, there appears to be a symbolic dissociation between an opposition *schon* and a prediction *schon*. In the entry in the Duden, it is indicated that the former can be stressed while the latter obligatorily is unstressed (it is a modal particle[51]). It is extremely difficult to say whether this is also the case with opposition and prediction *nok* in the 17th and 18th century. However, in this

[51] The fact that *schon* is a modal particle only when it expresses predictions, however, is not always recognized in the literature. For instance, Thurmair (1989: 148) and Hentschel (2013: 69–73) reckon with the opposition marker *schon* as a modal particle even though it can be stressed, while at least Thurmair (1989: 22–23) explicitly assumes that lack of stress is a defining feature of the German modal particles.

section, I will argue that the prediction meaning at least has a topological distribution that is different from the opposition marker.

Firstly, while opposition *nok* can occur in the pre-field, I only find prediction *nok* in the middle field:

(9.186) wille Gud haffue ded aabenbaret

saa	skeede	ded	**nock**	alligewel	Broderen;
then	happened	it	**NOK**	anyways	the brother

oc Pigen i Huuset wiste ded;

'If God wanted it to be revealed, then it certainly happened to the brother anyway, and the girl in the house knew it.'

(1696 LeoJamIII 204)

Secondly, while opposition *nok* follows sentence adverbials of various types (cf. Section 9.3.2.6), prediction *nok* seems to be able to precede these. In (9.186), *nok* precedes the cohesive adverbial *alligewel* 'anyway', and in the following example, it precedes the negation:

(9.187) Der seer jeg Pernille; hende vil jeg fixere lidt,

hun	kiender	mig	**nok**	ikke	i	den	Dragt.
she	recognize	me	**NOK**	not	in	this	costume

God Dag lille Pige! vil hun ogsaa til Magisteren?

'There I see Pernille; I'll fool her a bit. She will not recognize me in this costume. Good day, little girl! Are you also going to the magister?'

(1731 HolPla VI 96)

The following example is particularly interesting because it illustrates that prediction *nok* preceded sentence adverbials like *forhaabentlig* 'hopefully':

(9.188) skiøndt Gud skee Lov alle roese hans Flid og Fremgang og ikkuns have den store Vivacité paa hannem at udsætte, hvilket Aarene

og	vores	Leve-Maade	her	hiemme	**nok**	forhaabentlig
and	our	way of life	here	home	**NOK**	hopefully

i	sin	Tid	raader	Boed	paa.
in	its	time	counsel	remedy	on

'Although, thank God, everyone praises his diligence and progress and only reproaches him for his great liveliness, which the years and our way of life here at home will hopefully remedy in time.'

(1737 GraLet 75)

It might be difficult to rule out the opposition meaning with certainty in these examples, and the cooccurrence of *nok* and other relevant sentence adverbials is rare, which further hampers a topological assessment. Nevertheless, the examples indicate that opposition and prediction *nok* behave topologically differently. Because *schon* in Modern German illustrates a similar dissociation between an oppositional adverb and a prediction modal particle, I will assume that *nok* with the prediction meaning was a modal particle.

9.3.3.3 Grammatical status of prediction *nok*

I do not find any evidence indicating that the prediction meaning should have been lexical. Hence, just like opposition *nok*, it seems to be associated with grammatical status. Given that this meaning is no longer present in Modern Danish, I cannot substantiate this assessment based on modern intuitions.

9.3.4 The subjective evidential

The previous sections dealt with the emergence of prediction *nok*. As I will discuss below, from there, it is only a very small step to the evidential modal particle *nok*, and indeed, only around half a century after the emergence of the prediction meaning, the evidential modal particle appears c. 1750.

The following examples describe states-of-affairs occurring in the past, which rules out the prediction meaning. An opposition meaning is not plausible either, as there are no salient contrasting propositions or counter-expectations in the context. An evidential reading, on the other hand, seems to get the gist. In all of these examples, the speakers express their subjective assessment of the propositions.

For instance, in (9.189), the speaker reports Swartz' subjective supposition that the addressee is in Zelle and in Hannover. The modal particle *nok* indicates that the

statement is made based on subjective evidence. He thereby assumes responsibility for the truth of the proposition alone:

(9.189) og erfoer, at du ikke blev længe nok i Hamborg til at kunne modtage Svaret der. Swartz kom nu hiem, og sagde, at du **nok** opholdt dig nogle Dage i Zelle og i Hannover

'And I was told that you did not stay long enough in Hamburg to receive the reply there. Swartz returned home now and said that you **NOK** stayed a few days in Celle and in Hanover.'

(1793 PraLet 11)

Similarly, in the following example, the speaker expresses that the epistemic evaluation is based on the speaker's own judgment of the situation:

(9.190) **Boden**. (…) En Spitzbube, som ansaae mig venteligen for et godt Stykke Karl, og som vidste, Himlen veed hvorfra, hele Sammenhængen imellem Dem og mig, vilde skildt mig ved dem, under Paaskud, at han var Deres Brodersøn, (…) men jeg var ham for klog.

Philip. Ja, det havde **nok** ingen Fare; den skulde staae tidligen op, som skulde føre Dem bag Lyset.

'**Boden**. (…) A scoundrel, who probably took me for a good piece of man and somehow knew, heaven knows how, the whole connection between you and me, tried to separate me from it, claiming he was your nephew (…) but I was too clever for him.

Philip. Yes, there was **NOK** no danger; the person would have to get up early who wants to lead you astray.'

(1776 WesLyk 59)

Although the addressee is likely in a better position to assess whether or not the nephew can outsmart the addressee, using *nok*, the speaker indicates that he evaluates the proposition as true based on his own inferencing.

In (9.191), the speaker similarly indicates that the proposition is based on an inference. She assumes that the addressee probably has learned to make compliments and be more talkative and lively, drawing on her knowledge of what young aristocrats typically learn when travelling around the courts of Europe:

(9.191) hun lar dig flitig helse og hun rover nock paa, at du maa endelig lære det franske sprog at snage det frit og vere inte saa bley, som du har voren, men snagsom og leystig og braf at gørre complimenter som du **nog** lærde der ude ved hofferne

'She eagerly sends you her warm regards and insists that you must finally learn to speak French fluently and not be as timid as you have been, but rather talkative, lively, and good at making compliments, as you **NOK** learned out there at the courts.'

(1766 JueLet 128)

Similarly, in the following example, the speaker reports an inference by the mother. This inference is probably made based on what she knows about the travel plans of her son:

(9.192) din mama sa at nu med siste post hade hun ingen breve mens med forie post og da var du ris fra Manheim og du reiste sa om tel alle hoffene, mens mente at du var **nog** nu kommen tel Strasburg

'Your mother said that with the last post she had not any letters, but with the previous one, and there you had departed from Mannheim and you then travelled around all the courts, but she thought that you had **NOK** arrived in Strasbourg now.'

(1765 JueLet 100)

In all of these examples, the speaker or the reported speaker expresses that the epistemic assessment is based on evidence that is only available to the speaker, typically inferences. Consequently, in all of these examples, it is only the speaker who assumes responsibility for the truth of the proposition.

9.3.4.1 From predictions to evidentiality

In this section, I argue that evidential *nok* developed based on the prediction meaning. Furthermore, I argue that there are systemic conditioning factors facilitating this development.

As argued in Section 9.3.4, prediction *nok* expresses subjective evaluations of the future. In other words, when *nok* is used to express predictions, it already conveys the subjective meaning feature that characterizes the Modern Danish evidential. Therefore, the emergence of the subjective evidential meaning can be conceived of as a case of generalization where the future time reference is lost, while the subjective meaning element remains.

Such a generalization may have been facilitated by contexts where a future state-of-affairs is negated. The following example was already discussed in Section 9.3.3:

(9.193) Nyt har ieg endnu intet hørt meget af, uden at Biskop Hagerop i *Trundhiem* er død. *Marchen til Helsingør* bliver **nok** ikke af før idag 8te dage

'I have not yet heard much news, except that Bishop Hagerop in Trondheim has died. The march to Helsingør will **NOK** not take place until eight days from today.'

(1743 LanLet 60)

In such negated contexts, the future-time meaning of the prediction marker is backgrounded if *nok* in such an example is not already an instance of the subjective evidential. When a speaker (subjectively) claims that a future proposition does not hold, she often also holds that it is not true at the moment of speaking either. Therefore, in such contexts, the future-time meaning can be backgrounded and eventually lost all together.

It is well known that futures can give rise to epistemic expressions such as *will* (and its cognates like Danish *ville* and German *wollen* cf. Diewald et al. 2009: 199) and the Italian future (Squartini 2012: 2118, where the following example and translation is taken from):

(195) [Suonano alla porta] Sarà il postino

'[The bell rings] It will be [be:FUT1] the postman.'

Parallel pathways like these future constructions suggest that it is indeed the prediction meaning that gives rise to the evidential meaning.

Arguably, there is an additional systemic factor that might have facilitated the reanalysis of the subjective evidential. The intersubjective evidential *vist*, which begins to appear some decades prior to the occurrence of evidential *nok* (cf. Section 9.2.4), might function as an analogical model for the emerging evidential meaning of *nok*. Semantically, these two modal particles are very similar. Both specify the availability of the information source and indicate whether epistemic responsibility for the truth is shared or solely assumed by the speaker. Furthermore, they are similar as regards their expression side being stressless monosyllabic particles. Arguably, *vist* favours a potential for the evidential reanalysis as an analogical model. I will discuss this in more detail in Chapter 10.

In sum, in this section, I have argued that evidential *nok* is a generalization of the prediction meaning, and that *vist* might have facilitated this development through analogy.

9.3.4.2 Topology of evidential *nok*

In this section, I argue that evidential *nok* topologically behaved like a modal particle throughout its history. However, topological analysis is hampered by the similarity of contexts of the opposition, prediction and evidential meaning and the low number of clauses with an additional sentence adverbial. Indeed, in my historical material, evidential *nok* only cooccurs with negation and not with any other type of sentence adverbial. As all sentence adverbials precede negation (cf. Section 4.1), it is difficult to conclude anything about the modal particle status of evidential *nok* in the 18th and 19th century based on these results.

Nevertheless, as already pointed out in Section 9.3.2.6, with the opposition meaning, *nok* follows sentence adverbials. This contrasts with evidential *nok.* At least in Modern Danish, if *nok* occurs in the position for modal particles, it can only be interpreted evidentially:

(9.194) så jeg alt for ofte ender med at kværne en plade fra Lindt selv.

Ja, nu står jeg også ved det på indernættet.

Det	kommer	**nok**	derfor	heller	ikke	som	den
it	comes	**NOK**	therefore	either	not	as	the

største	overraskelse,
biggest	surprise

at mit næste fudgeprojekt måtte være med chokolade og chili.

'So I all too often end up devouring a bar from Lindt on my own.

Yes, now I am even admitting it on the internet. It will **NOK** therefore not come as the biggest surprise that my next fudge project had to involve chocolate and chili.'

(internet)

Enough context is given to illustrate that *nok* indeed is placed in the position for modal particles and not in a position where it narrowly focuses *derfor*.

Because it seems that the source construction of the evidential meaning already behaved like a modal particle (cf. Section 9.3.3.2), it is therefore reasonable to assume that evidential *nok* was a modal particle throughout its history as well.

9.3.4.3 Grammatical vs. lexical status of evidential *nok*

In Modern Danish, the evidential modal particle cannot be modified, be focused with stress or constitute an utterance alone:

(9.195)

*Bo	kommer	meget	**nok.**
Bo	comes	very	**NOK**

(9.196) Bo kommer **NOK.**

'Bo is **NOK** coming'

(9.197) A: Kommer Bo?

B: ***Nok**.

'A: Is Bo coming?

B: **Nok**.'

While (9.196) is not necessarily ungrammatical, *nok* can only be interpreted as an instance of the opposition meaning.

I have found no indications that this has been different at any point in time. As the assumed source construction of the evidential *nok* likewise seems to be grammatical, I expect that evidential *nok* was grammatical throughout its history.

9.3.5 Exclamative

At least from the 19th century, *nok* appears in exclamative speech acts. However, arguably, it should not be categorized as a distinct meaning in such contexts, because it seems to be contextually derivable based on the opposition meaning:

(9.198) I det samme bankede det ganske stærkt inde i Skuffen, hvor Idas Dukke, Sophie, laae ved saa meget andet Legetøi; Røgmanden løb hen til Kanten af Bordet, lagde sig langs ud paa sin Mave og fik Skuffen en lille Smule trukket ud. Der reiste Sophie sig op, og saae ganske forundret rundtomkring. »Her er **nok** Bal!« sagde hun; »hvorfor er der ingen, der har sagt mig det!«

'At that moment, somebody was knocking very loudly inside the drawer where Ida's doll, Sophie, was lying among so many other toys. The smoke man ran to the edge of the table, lay down, stretched out on his stomach, and got the drawer a bit open. Then,

Sophie sat up and looked around quite surprised. "There is **NOK** a ball going on!" she said. "Why did nobody tell me!"'

(1835 AndEve I 48)

In this passage from one of Hans Christian Andersen's fairy tales, the puppet Sophie suddenly awakens while all the toys are having a ball. She then expresses her subjective feeling about this situation using the *nok* utterance.

9.3.5.1 From opposition to exclamative *nok*

Two points might indicate that the exclamative meaning is related to the evidential modal particles: 1. both are subjective evaluations, and 2. the exclamative meaning appears in the corpus only after the occurrence of evidential *nok*, that is, the chronology favours this scenario. In that vein, Hansen & Heltoft (2011: 1067; 1094) assume that it is the evidential modal particle that is used in these contexts.

However, on closer scrutiny, it is not obvious how such a development might have happened, and indeed, I am not aware of any bridging context where evidential *nok* could give rise to the exclamative meaning.

The opposition meaning, on the other hand, readily gives rise to exclamative meanings:

(9.199) Børnenes uskyld - begrebet er helt til grin i dag. Den havde ellers **nok** været værd at værne om.

'The innocence of children – the concept is utterly ridiculous today. However, it would ELLERS **NOK** have been worth protecting.'

(internet)

In a context such as (9.199), the speaker relates the proposition expressed to an opposing proposition (the previous context implies that 'the concept of the innocence of children is not worth protecting'). Thus, the opposition meaning is used to emphasize the speaker's point of view. Such an emphasizing use can then give rise to exclamative meanings. For instance, the full epistemic support marker and emphasizer *sandelig* 'really, indeed, truly' gives rise to exclamative meanings in the same context:

(9.200) Her er **sandelig** Bal!

'Here is **truly** a ball!'

In addition to the pragmatic link between opposition and exclamation, the proposed development is also in line with the expression side of this meaning. As I will argue in the following section, within the middle field, the exclamative *nok* has the same topological distribution as the opposition marker.

9.3.5.2 Topology of exclamative *nok*

Exclamative *nok* seems to have a topological distribution that partly corresponds to that of the opposition marker (cf. Section 9.3.2.6). At least in the middle field, exclamative *nok* occurs in the same position as the opposition marker. The following example is taken from Hansen & Heltoft (2011: 1067):

(9.201)	Han	havde	ellers	**nok**	fået	noget	at	drikke
	he	had	ELLERS	**NOK**	got	something	to	drink

'He did ELLERS **NOK** get something to drink.'

In this example, *nok* follows the argumentative modal particle *ellers*. When *nok* is placed in the position for evidential modal particles, the exclamative meaning is impossible, that is, *nok* cannot precede the modal particle *ellers* while maintaining the same meaning as in (9.201):

(9.202)	Han	havde	**nok**	ellers	fået	noget	at	drikke
	he	had	**NOK**	ELLERS	got	something	to	drink

'He did **NOK** ELLERS get something to drink.'

In this example, either *nok* is an evidential modal particle, or *ellers* is a sentence adverbial. This clearly illustrates that exclamative and evidential *nok* are distinct constructions with distinct topological distributions; such exclamative uses of *nok* group with the opposition meaning (cf. Section 9.3.2).

However, at least in Modern Danish, the exclamative meaning does not seem to be available in the pre-field:

(9.203)	***Nok**	havde	den	ellers	fået	noget	at	drikke
	NOK	had	it	ELLERS	got	something	to	drink

'**NOK** did he ELLERS get something to drink.'

This contrasts with the opposition meaning.

In sum, exclamative *nok* topologically partly behaves like opposition *nok*. This corroborates the assumption of a link between the opposition meaning and this exclamative use. However, as opposed to the opposition meaning, it cannot occur in the pre-field.

9.3.5.3 Grammatical vs. lexical status of exclamative *nok*

In Section 9.3.2.7, I argued that the opposition meaning is grammatical. There are no indications that the exclamative meaning is associated with lexical status, and I will therefore regard it as grammatical as well.

9.3.6 Summary of the development of *nok*

Throughout its history, *nok* expresses the meaning 'sufficient'. This meaning gives rise to an affirmative and opposition meaning in Early Modern Danish. I have argued that this meaning in turn gives rise to a prediction meaning, and that it was reanalysed as a modal particle. The prediction meaning is then generalized to the subjective evidential meaning. Finally, the opposition meaning gives rise to an exclamative meaning at the latest in the 19th century.

I have argued that already the emergence of the affirmative meaning involves grammaticalization. This means that the grammaticalization of *nok* and the recategorization of *nok* as a modal particle are distinct changes. The emergence of the subjective evidentiality meaning can therefore simply be regarded as semantic change of a grammatical construction.

The following figure summarizes the development of the major semantic changes of *nok* with approximations of when those changes occurred:

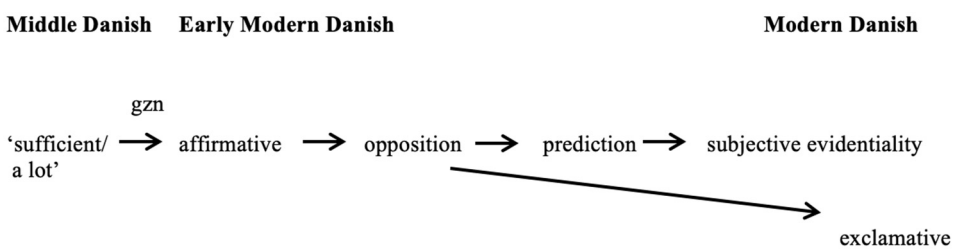


Figure 9.2
Summary of the semantic development of *nok*

Closing this section on *nok*, I will relate my scenario to other accounts of the development of *nok*. According to a very brief note in the ODS, evidential *nok* originates in or relates to the 'sufficient' meaning. A similar change is assumed in a

very brief etymological note in Hansen & Heltoft (2011: 1065–66; 1096–97). This is in line with my analysis, even though it obviously glosses over many aspects of the development.

According to Jensen (2000: 179–83), *nok* develops along the following pathway:

(9.204) 'sufficient' > epistemic certainty > epistemic uncertainty

Jensen (2000: 179–183) argues that *nok* receives its epistemic meanings through cooccurrence with other epistemic markers like cognition verbs and in combination with epistemic sentence adverbials like *vist* and *vitterlig*, that is, through hypoanalysis (Croft 2000: 126, cf. Section 3.2.1). This epistemic certainty meaning is then assumed to be weakened. However, this is a bit imprecise. What I hope to have shown is that Danish *nok* never was a simple epistemic certainty or uncertainty marker and that the crucial step for the evidential meaning is the emergence of the prediction meaning.

9.4 Historical analysis of *vel*

In this section, I present my historical analysis of *vel*. Already in Middle Danish, *vel* expresses an affirmative and opposition meaning. Furthermore, it develops an approximative meaning. The evidential meaning emerges in the 16th century based on the opposition meaning or the approximative meaning. In the transition to Modern Danish, opposition *vel* gives rise to a negative confirmation-seeking meaning, which in turn is syntactically reanalysed as a tag.

9.4.1 The point of departure: 'good', 'in a satisfactory manner'

In Middle Danish, *vel* expresses the meaning 'good' or 'in a satisfactory manner':

(9.205) hun giec hem oc helsæth kunungæn glathælic oc plæghæth hanum **wæl** i all thæn gærth

'She went home and greeted the king gladly and took **good** care of him throughout his stay.'

(1300 LegFK48 n.p.)

This meaning is used excessively in my material, and depending on the context, it can have a variety of different contextual meanings. In (9.206), it gives rise to the contextual meaning 'easily', in (9.207) to 'thoroughly' and in (9.208) to 'a lot':

(9.206) forti at allæ handæ fruct ther a iordæn grodæ voræ tha so krafftegæ at man motæ **væl** fødæs ther aff

‘Because all sorts of fruit that grew there on earth were so strong that one was **easily** able to feed therefrom.’

(1350 Luc 89r)

(9.207) Man skal (…) stampæ thæt **wæl**

‘One must mash it **in a satisfactory way/thoroughly**.’

(1300 HarpNKS n.p.)

(9.208) thæt hiælpær **wæl**

‘It helps **in a satisfactory way/a lot**.’

(1300 HarpNKS n.p.)

The pragmatic link for the extensions is obvious. For many actions to be performed in a satisfactory way, they need to be performed thoroughly and if something helps in a satisfactory manner, it often helps a lot (cf. Ghesquiere 2021: 13; 19 concerning similar uses of English *good*).

At least the meaning ‘a lot, fully’ has been conventionalized. In (9.209), the meaning cannot be derived from the meaning ‘good’, as the utterance does not refer to a desirable state-of-affairs:

(9.209) thænna drøfilse som os nw ofvirgaar hænne hafve vi **væl** forthiænt

‘This torment that now befalls us, we **fully** deserve.’

(1425 SjT 103)

Related to the meaning ‘fully’, *vel* also develops an approximative meaning at the latest in the transition to Early Modern Danish:

(9.210) oc hade ttagen mjn han jgen aff kongelig magestatt **wel** ii eller iii aar ffoor heden,

‘And I had been released from my royal service **about** two or three years ago.’

(1554 GylLet I 234)

In an utterance like (9.210), the speaker seems to give an approximation as to how long it has been since he was released from his service. Because *vel* combines with a noun phrase that is vague itself, the approximative meaning is highly plausible.

Note that the combination *godt og vel* 'GODT and VEL' still expresses approximation in Modern Danish.

9.4.1.1 Diachrony of the approximative meaning

As pointed out, *vel* develops several meanings related to the meaning 'good'. The approximative meaning is important for the later development of the modal particle *vel*. Therefore, I briefly discuss its emergence.

In combination with expressions of quantity, the meaning 'a lot, fully' can imply the meaning 'at least and probably a bit more':

(9.211) ofvan offvir thæt nitharsta rumet gingo biælka vt i giønum murin **væl** fæmptan foda longa.

'Above the lowest room, the beam extended out through the wall, a **full** fifteen feet long.'

(1425 SjT 55)

When a speaker states that a certain quantity is reached fully, there is often an implicit expectation that there is some additional amount. This is so because, in an utterance like (9.211), the speaker must know that the beam is at least fifteen feet long. If it is shorter, the speaker would be lying. Therefore, the addressee might expect that the beam may be a bit longer than 15 feet long.

From the meaning 'at least and probably a bit more', the approximative meaning can arise through a semantic shift. While the meaning 'at least' sets a lower bound, it also expresses an approximation. If this approximation, rather than the lower bound, is the main point, the approximative meaning can be reanalysed as the only conventional meaning. This might have occurred in a situation like the following: a speaker might want to communicate that a beam is a bit more than 15 feet long. Because she might not know the exact length of the beam, she can simply state that it is at least 15 feet long. In such a context, the important message is not that it is at least 15 feet long, but that it is approximately 15 feet long. At least, an addressee might interpret such an utterance this way.

It is not difficult to find converging evidence for this development. For instance, the adverb *godt* ('good') in Modern Danish goes through a similar development. As a degree modifier, it originally expressed a bit more. However, some speakers also use it to express the meaning 'a bit less than'. English *good* has also developed into a degree modifier (cf. Ghesquiere 2021), though it never developed an approximative meaning similar to *vel*. Finally, Middle High German and Middle Low German *wol* had a similar meaning (DWb, s.v. *wohl*, MNDW, s.v. *wol*). The

fact that this meaning is present in these German varieties might furthermore suggest that the approximative meaning might be conditioned by language contact.

9.4.1.2 The topology of the manner adverb *vel* 'in a satisfactory way'

When *vel* expresses meanings related to 'good', it behaves like other manner adverbs. It is attested in the pre-field (9.212), the middle field (9.213) and the post-field (9.114):

(9.212)
Cristina sagde: **wal** sagde thu,
Christina said **well** said you

'Christina said you have spoken **well**.'

(1480 ChrisLeg 47)

(9.213)
tha ær **wæl** skift thar allæ hauæ æm got
then is **well** allotted there all have same good

'Then it is **well** allotted, as all have the same good.'

(1300 EL § 54)

(9.214)
tha dughær thæt maghæ at mat mughæ
then help it stomach so that food can

smæltæs **wæl** innæn hænnæ.
be digested **well** in her

'Then it helps the stomach so that the food can be digested in it **in a satisfactory manner/easily**.'

(1300 Harp K48 n.p.)

However, the pre-field position is rare, probably for information structural reasons.

Like other manner adverbials, *vel* follows other adverbials within the middle field, such as the temporal adverbials *goda stund* 'a while' (9.215) and *nu* 'now' (9.216), the textual *oc* 'also' (9.217) as well as the negation (9.218) and (9.219):

(9.215)
Tha hon hafdhe barnit godh stund **væl** lært.
when she had the child good hour **well** taught

'When she had taught the child **well** for a while.'

(1425 SjT 34)

(9.216) giør oc **vel** at pisse.
does also **well** to pee

'It helps **well** with peeing.'

(1577 SmiUr n.p.)

(9.217) Oc beder ether gerne, atj wille nu **well**
and ask you eagerly that=you would now **well**

giøre oc were mit budt behielpeligenn,
do and be my messenger helpful

'And I ask you eagerly that you will do **good** and help my messenger.'

(1558 GylLet I 425)

(9.218) afman gitær æi **væl** sin andæ draghæt.
if=one can not **well** ones breath pull

'If one cannot breathe **well.**'

(1300 HarpK48 n.p.)

(9.219) thæt vilde ikkie **væl** lukkas mæth honum
It would not **well** succeed with him

'He did not succeed.'

(1425 SjT 96–97)

In addition, *vel* can narrowly scope over other constituents, and in that case, it appears immediately adjacent to them:

(9.220) Stampær man thænnæ yrt **wæl** smat
mash one this herb **satisfactorily** small

'If one mashes this herb small **enough/in a satisfactory manner**.'

(1300 HarpK48 n.p.)

This also accounts for the approximative meaning:

(9.221)

oc	hade	ttagen	mjn	han	jgen	aff	kongelig	
and	had	taken	my	hand	again	of	royal	
magestatt	**wel**	ii	eller	iii	aar	ffoor	heden,	
majesty	**WEL**	2	or	3	years	for	from here	

‘And I had been released from my royal service **about** two or three years ago.’

(1554 GylLet I 234)

In sum, *vel* meaning ‘in a satisfactory way’ behaves like other manner adverbials. It appears in the pre-field, middle field and post-field. Within the middle field, it occurs in the right periphery. Furthermore, when it narrowly scopes over another construction, it can appear adjacent to it.

9.4.1.3 Grammatical vs. lexical status of *vel*

Throughout its history, the meanings that relate to the meaning ‘good’ are modifiable and hence not grammatical but lexical:

(9.222)

Thet	tæwer	saa	**wel**	ath	the	tyrffæ	æy	annen
It	taste	so	**good**	that	it	needs	no	other
math	weth							
food	with							

‘It tastes so **good** that it does not need the addition of other food.’

(1350 Luc 55v)

In my material, the approximative meaning is never modified or focused. This indicates the grammatical status of the approximative meaning. Because this meaning of *vel* is obsolete in Modern Danish, it is not possible to provide negative evidence for this analysis. However, as pointed out, *godt* ‘good’ has a very similar meaning in Modern Danish. *Godt* can be focused with stress, indicating lexical status:

(9.223) Bjælkerne var **GODT** 15 fod lange.

‘The beams were **GODT** fifteen feet long.’

In analogy, I assume that the approximative *vel* was lexical as well. Corroborating this further, in Modern Norwegian, approximative *vel* is obligatorily stressed (Marit Julien, p. c.).

9.4.2 Opposition

In addition to the meanings relating to 'good', *vel* had an affirmative meaning throughout Middle Danish (cf. Jensen 2009). The affirmative meaning seems to develop along a similar trajectory as affirmative *nok*, giving rise to a more general opposition meaning in late Middle Danish.

9.4.2.1 Affirmation

Like *nok*, *vel* expresses affirmation, that is, it negates a counter-expectation (Jensen 2009; cf. Section 9.3.4.1 on affirmative *nok*). The meaning is attested throughout Middle Danish with cognition verbs (e.g., *vide* 'know') (9.224), perception verbs (e.g., *se* 'see', *høre* 'hear', *mærke* 'feel') (9.225) and modals (e.g., *kunne* 'be able', *ville* 'want', *må* 'be allowed') (9.226) and (9.227):

(9.224) Discipulus hwi frestædæ han hældær oc talædæ til førræ til euæ/ æn til adam Magister forti at han vestæ **vælll** at hun vor skyudæræ til at swygæ æn manæn.

'Disciple: Why did he tempt Eve and spoke first to her rather than Adam?

Magister: Because he knew **well** that she was more inclined to cheat than the man.'

(1350 Luc 77r)

(9.225) wy see **wel** ath solen hauer al werdens lywsen

'We see **VEL** that the sun has all the world's light.'

(1350 Luc 46r–46v)

(9.226) thing men sculæ thes frændær til takæ thær bathæ **wæl** kunnæ oc **wæl** wiliæ.

'Councilmen should take their relatives who are both **VEL** capable and **VEL** willing.'

(1300 EL §33)

(9.227) Cummær thet swa at nokær bondæ kiærær yui nokær man. oc latær callæ han til things. et oc annæt. oc thrithie. oc thingmæn læggæ hanum sithæn fyarthæ foræ. oc han swarær hinum bondæ ængin ræt foræ. tha mughæ bøndær **wæl** dømæ bondæn hans ræt.

'If it happens that a farmer accuses a man and summons him to the thing, to the first, the second, the third thing, and the councilmen

prepare a fourth thing for him, and he [the man] does not stand to answer to the farmer then the farmers **may** judge for the farmer.'

(1300 EL § 128)

In combination with cognition and perception verbs, *vel* might be interpreted as expressing 'in a satisfactory way, easily, fully' or similar, that is, meanings that are related to the meaning 'good'. Be that as it may, in combination with volitive modals as in (9.226) and in combination with deontic possibility modals (9.227), the affirmative meaning must be regarded as conventionalized, as it is the only available meaning. The speaker does not ask whether or not he may sufficiently, easily or fully realize the state-of-affairs described. Rather, *vel* addresses and cancels the negative implication associated with deontic possibility (cf. Talmy 1988 and Sweetser 1990 on possibility as an 'absent barrier'). Modern Danish has a parallel permission structure (*må godt* 'may GODT') consisting of the deontic possibility modal *må* and the Modern Danish affirmative marker *godt*.

The analysis of *vel* as an affirmative marker is corroborated by the historical dictionaries. In Smith (1520, HS), the collocation of *vel* and *vide* is mentioned as *twvist thet* ***well*** ('you know that **VEL**'). He offers the following Latin paraphrases among others:

(9.228)	Non es nescius	'You are not unaware.'
	Non es ignarus	'You are not ignorant.'
	Haud te latet	'It is not hidden from you.'
	Non te fugit	'It does not escape you.'
	Non te preterit	'It does not escape your attention.'
	Non ignoras	'You are not unknowing.'

These translations have an explicit negative element (*non* 'not' and *haud* 'hardly' or 'not') negating an expression of unawareness, e.g., *non es ignarus* '**not** are.you **un**aware'. Because the Latin translations indicate that the construction is used to negate a counter-expectation, this corroborates the analysis of *vel* as an affirmative marker.

9.4.2.2 Opposition

From 1425 onwards, *vel* cooccurs with all types of verbs, and I assume that it expresses a more general opposition meaning similar to *nok* (cf. Section 9.3.2). In the following example, *vel* conveys that the proposition 'he would take a glass of

water for it now' contrasts with the preceding proposition 'he did not want to give his property for (being allowed into) heaven':

(9.229) [speaking about a man who has renounced God and then died]

O falsk værild. Hwro manga thw swigir: I gaar vilde han ey gifva sit gooz for hemerige. han toge thær nw **væl** en vatn dryk fore

'Oh, deceitful world, how many you betray. Yesterday he did not want to give his property for (being allowed into) heaven. He would **VEL** now take a drink of water for it.'

(1425 SjT 106)

As was the case with *nok* (cf. Section 9.3.2.2), *vel* can also be used to express reassuring predictions. In such cases, the opposition meaning addresses the addressee's counter-expectation about a future state-of-affairs. This seems to be the case in the following example where *vel* addresses the implied proposition that the addressee is not going to get to know the manner in which Amicus was cured:

(9.230) Jac ær amelius oc thætta ær min vin amicus. han ær nw helbredha af sinum sot. Tha saghdhe hon, hvro kom thæt til thæt vil iac gerna vida. Grefven swarathe laafom oc thakkom thæn vælsighnatha gudh. Hwilkin som af sine mildhet oc døyth vilde honum rensa oc hela. æn hwilka lund som thæt var giort thæt fongir thw **væl** at spørgha.

'I am Amelius, and this is my friend Amicus. He is now cured of his illness. Then she asked: How did that happen? That I would like to know. The duke answered: Let us praise and thank the blessed God who with his mildness and power chose to cleanse and heal him. In what way this was done, you will **VEL** get to know.'

(1425 SjT 86)

Similarly, in the following utterance, it is likely that *vel* expresses a prediction against a counter-expectation:

(9.231) Kiære fathir i ærin alt ohardhir skriftafathir. Gudh giøme os væl for idhre skrift. Jac findir **væl** en annar skriftafathir som mildare ær oc sighir mek **væl** annorledh.

'Dear father, you are too hard a father confessor. May God save us from your teaching. I **VEL** find another father confessor who is milder and **VEL** tells me other things.'

(1425 SjT 103)

In this example, the speaker rejects an implicit counter-expectation that the speaker will be unable to find a different father confessor with a more lenient approach and different teachings.

There are further similarities with opposition *nok.* In the following utterance, *vel* expresses a commissive in combination with the modal *skulle* 'shall':

(9.232) OC HERREN sagde till Mose / Jeg vil end nu lade en Plaffue komme offuer Pharao och Egypten / Siden skal hand **vel** lade eder fare / oc hand skal icke al eniste lade eder fare / men hand skal och driffue eder bort.

'And the Lord said to Moses. I will send another plague upon Pharaoh and Egypt. Then he will **VEL** let you go. And he will not only let you go, but he will also drive you away.'

(1550 Bib Exod 11:1)

As argued above, such a commissive meaning can be derived based on the opposition meaning.

The following examples illustrates the opposition meaning in Early Modern Danish. In (9.233), *vel* addresses the counter-expectation implied by the negation of the matrix clause:

(9.233) Tuiffueler mig innthit paa, att Herluff Trolle haffuer **well** nu paa thette paas giiffuitt ethers konng. m. ther om ald leyelighedenn tiill kiennde etc.

'I do not doubt that Herluf Trolle has **VEL** now at this time informed His Royal Majesty of this situation, etc.'

(1564 GylLet II 481)

In the following example, *vel* addresses the opposition between the hypothetical proposition expressed and reality:

(9.234) hade jeg ike agttet meg ttill key^{e} m^{t}, daa vjlle jeg **wel** haffve bleffven j Ssverjg

'Had I not intended to leave to go to His Royal Majesty, I would **VEL** have remained in Sweden.'

(1548 GylLet I 158)

Finally, the younger opposition marker *nok* seems to push *vel* out of several contexts diachronically. Many opposition contexts that today contain *nok* previously had *vel*, corroborating the analysis of these constructions as similar:

(9.235) Tænkte jeg det ikke **nok?**

'Did I **NOK** not thought so?'

(internet)

(9.236) Tænkte jeg det ikke **vel**?

(ODS, s.v. *vel*^{2})

(9.237) Det må du **nok** sige.

'You can **NOK** say so.'

(internet)

(9.238) Det må du **vel** sige.

(ODS, s.v. *vel*^{2})

Nevertheless, except for the examples of the affirmative meaning, all examples of what I argue is an opposition meaning allow for a full or strong epistemic support reading as well. Therefore, it should be considered whether *vel* indeed expresses opposition or rather some epistemic meaning. In addition to the parallelism with *nok*, there are at least four arguments that speak for the suggested opposition analysis:

1. In all relevant utterances in the 15th century, opposition is expressed. If *vel* had an epistemic meaning in Middle Danish, we would expect it also to occur in contexts that do not allow for an opposition reading. Furthermore, the opposition meaning allows for a generalization that covers the examples discussed in this section as well as instances of the affirmative meaning. Only assuming an opposition meaning is thus a simpler analysis, and in the absence of good reasons for a more complex analysis, we should assume the simpler analysis (cf. Section 2.4 and 6.2).

2. Still in the 17th century, Colding (CO, s.v. *vel*) and Moth (MO, s.v. *vel*) reckon with a meaning that they gloss with *quidem* and *concedendi*. Both can be used to express opposition. Moth exemplifies with the following concessive:

(9.239) Hand siger **vel** ja dertil, men ak.
ille **quidem** obsequitur, sed etc.
Both: 'he agrees **VEL**, but …'

On the other hand, neither Colding nor Moth include a gloss that unambiguously speaks for epistemic modality.

Though archaic, in Modern Danish, *vel* still expresses opposition, but not epistemic modality:

(9.240) Villa blev det ikke til, men **vel** et lille sommerhus.
'It did not turn out to be a villa, but **VEL** a small summer house.'
(ODS, s.v. vel[2])

Similarly, *wohl*, the Modern German cognate of *vel*, still expresses affirmation and opposition:

(9.241) Das kann man **wohl** sagen!
'You can **WOHL** say so.'
(DWDS, s.v. *wohl*)

(9.242) Mir musst du das nicht sagen, **wohl** aber ihr
'You do not need to tell me, but **WOHL** her.'
(Duden, s.v. *wohl*)

3. Another piece of evidence for the opposition meaning stems from translations. In the following passage from the Bible, *vel* translates Early New High German *zwar*, which in this utterance is used to indicate concession:

(9.243) Der predicke oc **vel** nogle Christum / for had oc auind skyld / Oc nogle aff en god mening.

'Some preach **VEL** also Christ for hate and envy, but some out of a good heart.'

(1550 Bib Phil. 1:15)

(9.244) Etliche **zwar** predigen Christum / auch vmb hass vnd hadders willen / Etliche aber aus guter meinung.

(1545 Luth Bib Phil. 1:15)

In conclusion, it seems that *vel* expresses affirmation throughout Middle Danish. This meaning is generalized as an opposition meaning in late Middle Danish, which also is used to express predictions and concession. In that way, it parallels the development of *nok* some centuries later. Even though *vel* in many examples can be analysed as an expression of epistemic modality, I argued against such an analysis.

9.4.2.3 *Måvelske*

The affirmative or opposition meaning gave rise to the epistemic constructions *kan vel ske* and *må vel ske* 'maybe'. In the following, Rebecca has just instructed Jacob to pretend he is Esau to trick Isaac and steal Esau's blessing. Jacob then replies:

(9.245) min broder Esau er laaen / och ieg er slæt / maa **vel** ske at min fader føler paa mig /

'My brother Esau is hairy, and I am hairless. It may **VEL** happen that my father touches me.'

(1550 Bib Gen 27:12)

In this clause, *maa vel skee* translates the etymologically unrelated *vielleicht* 'maybe' of the source text, which furthermore indicates that the clause indeed expresses an epistemically weakly supported proposition:

(9.246) So möchte **vieleicht** mein Vater mich begreiffen

(1550 LutBib Gen 27:12)

It seems that *vel* expresses weak or neutral epistemic support only in these micro-constructions. Therefore, they hardly played a role in the development of *vel*, and I will not discuss them any further.

9.4.2.4 Diachrony of affirmation and opposition

The meaning 'good' and the affirmative meaning are available throughout Middle Danish. Nevertheless, it is reasonable to assume that the meaning 'good' predates the affirmative meaning for the following reasons:

1. Fritzner (FO, s.v. *vel*) does not reckon with the affirmative meaning in Old West Norse.
2. Modern Danish *godt* 'good' develops a similar affirmative meaning based on the meaning 'good' (cf. French *bien* 'good', Waltereit & Detges 2007).
3. The development corresponds to a universal tendency of lexemes to develop more subjective meanings based on more objective meanings (Traugott & Dasher 2002).

As already pointed out, Waltereit & Detges (2007: 74–76, cf. Jensen 2009: 71) argue that argumentative meanings like the affirmative meaning emerge in contexts where common ground is under discussion. In such contexts, certain constructions can be used to argue against a counter-expectation. Such an argumentative structure can then be conventionalized. As argued by Waltereit & Detges (2007), the meaning 'good' or a related meaning like 'clearly' or 'fully' can give rise to the affirmative meaning in such argumentative contexts, and the development of *vel* thus mirrors the development of French *bien* (cf. Section 9.3.2.5):

(9.247) daniel tok asko vti et saald oc sældathe hænne kring vm alt gulfvit. thæt saa konungen **væl**, æn præstirna saagho thæt ey.

'Daniel took ashes in a sieve and spread them around the floor. The king saw this **clearly**, but the priests did not.'

(1425 SjT 14)

In this example, Daniel secretly spreads ashes around an alter to trick the priests of Baal. Because he does so secretly, the reader must expect that the king cannot see this. However, this negative expectation is addressed with *vel*. In pointing out that the king did not simply see what is going on, but indeed saw it clearly, the implied negative proposition ('he did not see it') is rejected more forcefully. Thereby an indexical link to a counter-expectation can be conventionalized.[52] As a subsequent change, the emergence of the opposition meaning can be regarded as a

[52] According to Jensen (2009), the development of affirmative *vel* is conditioned by cooccurrence with subjective verbs like *vide* 'know', *føle* 'feel', etc. While the cooccurrence with such verbs might have been a facilitating factor, it is arguably the nature of the argumentative context that is crucial. Jensen (2009: 73) also argues that the middle field position as such (being associated with negation and modality) could have influenced the reanalysis.

generalization or a loss of contextual restrictions of affirmative *vel* (cf. Section 9.3.2.5 on the parallel development of *nok*).

It might also be the case that the affirmative meaning was bypassed in the emergence of the opposition meaning. The meaning 'good' or a related meaning like 'easily' might have given rise to the opposition meaning directly. This can happen in an argumentative context like the following. Here, *vel* meaning 'good, easily' addresses a counter-expectation of the addressee:

(9.248) han [the devil] com entidh til hænne oc saghdhe. O thw fula hudh. thænkir thw at thw ær mek nw vnsluppin. jac skal thek hær **væl** finna.

'Once he [the devil] came to her and said: Oh, you evil woman. Do you think that you have now escaped me? I shall **easily** find you here.'

(1425 SjT 32)

A woman has taken sanctuary in a church with the expectation that the devil is not going to find her there. However, the devil points out that (contrary to these expectations) he is not only able to find her there, but that he can do so easily. In other words, the 'easily' meaning allows the speaker to address the counter-expectation and establish a semantic relation of contrast between these propositions.

Finally, German *wohl* also expressed affirmation and opposition in Middle Low German and Early Modern German (DWb, s.v. *wohl* MNDW, s.v. *wol*). The emergence of the affirmative and opposition meaning might therefore also be due to language contact. As pointed out several times already, language contact does not preclude the internal factors.

9.4.2.5 Topology of affirmative and opposition *vel*

When *vel* expresses the opposition meaning, it can be classified as a sentence adverbial. It can be placed in the pre-field (9.249) as well as in the middle field, where it seems to precede a temporal adverbial like *forra* 'before' (9.250):

(9.249) Kiære son, kiøbir thw korn tha som ær væl falt ælla annat goz. oc haabas thw at thæt vardhir thær æftir dyrt. thæt hobit som thw hafvir thæt giør thek ogir.

val	matu	kiøba	korn	til	ena	forvarning
VEL	may=you	buy	corn	for	own	keeping

vm thv frøktar at thæt vardhir dyrare.

'Dear son, if you buy grain when the price has fallen and hope that it becomes more expensive afterward. The hope you have makes you a usurer. You may **VEL** buy grain for your own storage if you fear that it will become more expensive.'

(1425 SjT 101)

(9.250) af honum vet iac inkte.

æn	af	thek	hafvir	iac	**væl**	forra	hørt
but	of	you	have	I	**VEL**	before	heard

'I do not know anything about him, but I have **VEL** heard about you before.'

(1425 SjT 76)

The following examples from the 18th century illustrate that opposition *vel* can also follow adverbials with meanings pertaining to the state-of-affairs, such as the temporal adverbial *efter mange Aars Øvelse og Indsigt* 'after many years of practice and insight':

(9.251) Men, Allernaadigste Konge, dersom det behager Deres Majestet allernaadigst at anbefale mig dette besværlige Arbeid at bringe til Fuldkommenhed, som, foruden nogle Aars Tid, behøver ei alene allerstørste Flid, Forsigtighed og accuratezza,

hvilken	ieg	efter	mange	Aars	Øvelse	og	Indsigt
which	I,	after	many	years'	practice	and	insight,

vel	haaber	at	skulle	præstere,
VEL	hope	to	shall	perform

men endog anseelig Bekostning, i Henseende til at ieg nødvendigen maae have nogen til Hielp

'But, most merciful king, if it pleases Your Majesty most mercifully to entrust me with this difficult task of finishing it, which, aside from a few years' time, requires not only the utmost diligence, caution and accuracy, which I, after many years of practice and

insight, **VEL** hope to manage, but also considerable expenses, inasmuch as I necessarily must have someone to assist me.'

(1751 LanLet 140)

Opposition *vel* appears after epistemic sentence adverbials like *maaskee* 'maybe' and *uden tvivl* 'without doubt':

(9.252)

HEr	Iustitz	Raad	har	maaskee	**vel**	kiendt	det	paa
Lord	Justice	Counsellor	has	maybe	**VEL**	known	it	on

den	tid,
that	time

'The Justice Counsellor has maybe **VEL** known about it at that time.'

(1742 RanLet 128)

(9.253)

Som	etther	wden	tviffvell	**well**	drages	till	mynde,
as	you	without	doubt	**VEL**	be dragged	to	memory

'As you without doubt **VEL** remember.'

(1546 GylLet I 128)

(9.254) »huad meente I dermed, *Madame*?« leg suarte ey att kunde mindis huad hendis Breffue mig haffde giffuen for Aarsage att suare til,

ded	som	staar	for	eller	følger	effter	skal
that	which	stands	for	or	follows	after	shall

vden	tuiffuel	**wel**	sige	min	Meening,
without	doubt	**VEL**	say	my	meaning

'"What did you mean by that, Madame?" I replied that I could not recall what her letter had given me as a reason to respond. That which comes before or follows after shall without doubt **VEL** convey my meaning.'

(1674 LeoJamI 34)

As for opposition *nok*, I assume that *vel* is placed in the position for focus operators within the middle field (cf. Section 4.1 and 9.3.2.6).

I have not found any good examples where this meaning appears in the post-field, and negative evidence corroborating this finding can be provided based on the topological distribution of the fossilized remnant of the opposition marker *meget vel* 'very well' in Modern Danish, which cannot appear in the post-field:

(9.255) Han kan **meget** **vel** have spist.
he can **very** **well** have eaten
'He may **very well** have eaten.'

(9.256) *Han kan have spist **meget** **vel**.
he can have eaten **very** **well**

In sum, it seems that opposition *vel* was placed in the pre-field and in the middle field. Within the middle field, it followed other sentence adverbials and preceded as well as followed state-of-affairs adverbials. Probably, it was placed in the position for focus operators.

9.4.2.6 Grammatical vs. lexical status of affirmative and opposition *vel*

Assessing the grammatical status of *vel* is difficult. There are examples like the following, where *vel* can be analysed as the affirmative marker and is modified:

(9.257) Ja / ieg ved det gantske **vel** /
'Yes, I know it very **well**.'

(1550 Bib Job 9:1)

This might indicate that affirmative *vel* is not grammatical but lexical.

However, *vel* is ambiguous in such an example. Both the lexical meaning 'good', 'fully' and the affirmative or opposition meaning are possible (it is a bridging context). The modifiability of *vel* in such clauses might then be due to its use with the older, lexical meaning.

In cases where there can be no doubt that *vel* expresses the affirmative or opposition meaning, for instance, in combination with deontic possibility modals, *vel* is never modified. The assessment can be corroborated with Modern Danish intuitions, as the Modern Danish affirmative marker *godt* cannot be modified either:

(9.258) *Du må ganske **vel/godt** være med.
'You may **VEL/GODT** join.'

I will therefore assume that affirmative and opposition *vel* was grammatical.

9.4.3 The conjectural evidential

In the 16th century, an epistemic meaning[53] seems to emerge. Arguably, this is the evidential conjecture meaning. In the utterances to be discussed in this section, *vel* indicates that the speaker conjectures or expresses a supposition and consequently cannot be held accountable for the truth of the proposition.

In the following example, the speaker discusses a request by some peasants to be allowed to fish for herring in Norway due to famine. With *vel*, the speaker indicates that the argument is a guess and that he consequently cannot take responsibility for its truth:

(9.259) Ther fore ieg gierne wille begiere ethers gode raad, huorledes ieg schall holdett ther met, inthen att holde them tilstede eller att lade them segle till Norgie fiscke; thæ siige **well**, att wille met allerførste giiffue seg till bage hiem igen etc. Her ær gode raad dyre met almoen.

‘Therefore, I would like to ask for your good advice on how I should proceed with this, whether to keep them here or to let them sail to Norway to fish. They will **VEL** say, that they will return home at the first opportunity, etc. In this matter, good advice is hard to come by.’

(1564 GylLet II 61)

In an example like this and the following to be discussed, meanings like ‘good’, ‘easily’, ‘a lot’ or similar are implausible. Furthermore, no contrasting proposition seems to be implied. Hence, the opposition meaning is implausible as well.

In the following example, the speaker expresses that he expects that Steffen Dann will be asked about the letters he is travelling with:

[53] Recall that I consider epistemicity as a cover term for epistemic modality and evidentiality in line with Boye (2012), as discussed in Section 2.6.1.

(9.260) I forfare aff Iens Bildes breff, att hand haffuer sagt, att Steffen Dann oc Hans von Berlin haffde liige sliige breffue mett thennom, som hand haffde mett att fare, oc thet war orsagen, att ther bleff spurtt effther thennom etc. Jeg forseer mig, att Dann bliffuer **wel** ther om tilspurdt etc.

'I have learned from Iens Bilde's letter that he has said that Steffen Dann and Hans von Berlin had such letters with them that he had to travel with, and that this was the reason that one asked for them, etc. I expect that Dann will **VEL** be asked about this etc.'

(1564 GylLet II 399)

It is uncommon for *vel* to express epistemic evaluations of past propositions. This could suggest that *vel* is undergoing a development similar to that of *nok*, first developing the prediction meaning, which only later loses its temporal restrictions. However, even though they are rare, it is possible to find epistemic examples of *vel* that refer to past states-of-affairs in the 16th century. In the following example, the speaker expresses his supposition that the deer of the property most probably have disappeared due to poaching or deer stealing:

(9.261) dy funde en rabock, war niis skot, la jndstopet vdy en busk. Ieg fyck icke rabock i tenne somer vden ten samme. Ter er **wel** sa ganget fler bort. Item ter gor 4 foller wyd Esserom

'They found a roebuck, which recently had been shot, lying in the bushes. I did not get any roebuck that summer other than that one. There are **VEL** more that have disappeared in the same way. Additionally, there are four foals near Esserom.'

(1560 GylLet II 92)

In the following example, the speaker expresses that he believes that Duke Karsten had certain letters for two nights:

(9.262) Kere Eske, ma i vyde, at her er kommen nogen breffue, som kwnge: mt: etter tyl skykker, tenom sender ieg etter, ter forfar i vel selluf hans nadis vylig udaf, oc mae i vyd, at hærttug Karsten vore samme breffue begerendes oc vylt see tenom, oc sende her Henricke Krwmedyge hanom tenom, oc troer ieg icke andet, en ty ere offuerseet, ty hand hafde tenom **vel** i tu netter hos seg; syden bleffue ty meg offuer anttuordet.

'Dear Eske, you must know that some letters have arrived, which the king sent to you. I am sending them to you, so that you may

learn the will of the king yourself. You should also know that Duke Karsten requested the same letters and wished to see them, and Henrik Krwmedyge sent them to him, and I do not believe anything else than that they were looked through by him because he had them **VEL** for two nights at his place. After that, they were forwarded to me.'

(1529 GylLet I 12)

At the latest in the 17th century, evidential *vel* occurs in declarative clauses, which are marked with a question mark and hence unambiguously confirmation-seeking:

(9.263) Jeg sagde ja og fortælte ded saa ligesom jeg skriftligen siden [fortælte ded]. Og sagde en af Acessorerne [som hos sad], han heder Magnus Skilder: "Grevinden giver ded **vel** skriftligen?" "Jo mænd," svarte jeg;

'I said yes and told it then just as I later did in writing. And one of the assessors who were present, named Magnus Skilder, said: "The Countess gives it **VEL** in writing?" "Indeed", I replied.'

(1659 LeoMal 90)

In (9.263), Magnus Skilder states his expectations about the future course of events, indicating with *vel* that Leonora Christina is to confirm this assessment.

In the 17th century, evidential *vel* spreads to interrogatives and interrogative complement clauses. In these interrogatives, a reasonable reading of *vel* is one where it adds a meaning element of conjecture or speculation, that is, the speaker asks for the addressee's guess. While *vel* in all utterances discussed thus far in this section could be analysed as expressing some epistemic notion other than evidentiality, for instance, strong epistemic support, the fact that *vel* begins to occur in interrogatives corroborates my evidential analysis. After discussing some Early Modern Danish examples, I will show that such conjectural questions are cross-linguistically attested extensions of conjecture meanings.

For instance, in the following example, the narrator Leonora Christina is asked to estimate the value of some jewellery. With *vel*, the interrogator Rantzow indicates that he does not expect her to know the exact value, but asks her to make an approximation, that is, a guess. Note that the clauses following the highlighted *vel* likewise contain instances of evidential *vel*:

(9.264) Ieg suarte att haffue hafft toe rader smaa trinde Perler om min Hatt, oc en Ring med en Demant vdi, huilcket ieg en Lutenant i Dovers wed Naffn Braten (som mig siden Forraade) giffuen haffde. G. Rantzow spurte, huor meget de Perler **wel** kunde were wært? Ded kunde ieg icke engentlig sige; Hand meente att vngefehr wiste ieg ded wel? Ieg sagde 200 Rdr. eller lided meere ware de wel wært.

'I replied that I had two rows of small pearls on my hat and a ring with a diamond in it, which I had given to a lieutenant in Dover by the name of Braten (who later betrayed me). Duke Rantzow asked how much the pearls **VEL** could be worth? I could not say exactly. He said that I VEL knew how much approximately. I said they were VEL worth 200 rigsdaler or a little more.'

(1674 LeoJamI 16)

Similarly, in (9.265), the narrator and an accompanying woman are seated in the prison cell of the narrator where they can hear that one of the other prison cells is opened. They have no way of knowing who this might be. The woman then asks for Leonora Christina's guess:

(9.265) Om anden dagen wed 8. slet hørte ieg de Iern Rigler oc døren der neden gaa op, kunde oc høre att ded inderste Fengsel bleff opluct. (da bleff Doctern ført vd til forhør) quinden sagde der maa wist sidde en Fange; hwem kand ded **wel** wære? Ieg swarte, ded synnis wel saa, att der er en fange indkommen, effterdi Slosf. er saa glad; i faar ded wel att wiide aff Pær, om icke saa lige i dag, da en andengang

'On the second day around eight o'clock, I heard the iron bars and the door below open, and I could also hear the innermost cell being unlocked (then the doctor was then taken out for questioning). The woman said: There must VIST be a prisoner. Who might it **VEL** be? I replied: It VEL seems so, that a prisoner has been brought in, as the castellan is so cheerful. You will VEL find out from Per. If not today, then another time.'

(1692 LeoJamII 107)

Again, note that there are several instances of evidential *vel* in the context, indicating the conjectural nature of this interaction.

In (9.266), the interlocutors discuss a recent failed attempt to assassinate the king and the royal family. Everything about the attempt is kept secret. However, Cathrine appears unconvinced about the accuracy of what she has been told and raises doubts

about its truthfulness. By merely asking for conjectures, *vel* seems to add hesitation to the question:

(9.266) Cathr. spurte huor de haffde faaet ded att wide? Anna suarte, ded maa Gud wiide, ded holdis saa himmelig, att ingen engang maa spørge derom fra huem ded er kommen. Ieg kunde icke lade, io ett Ord dertil att suare, oc syntist mig ded beklageligt nock, att man icke kunde faa Angiffueren att wide, oc war merckeligt, att ingen den Angiffuen torde were bekiendt. Cathr. sagde, skulle ded oc **wel** were sandt? Huad er ded i siger suarte Anna, skulle Kongen giøre ded hand giør, vden hand war wiss paa ded war Sant; hui snacker i saa.

'Cathr. asked where they had heard that. Anna answered, only God knows. It is kept so secret that no one is allowed to even ask who said it. I could not help but add a word to that and thought it was quite regrettable that no one could find out who the informant was, and it was remarkable that no one seemed to dare to claim to be the informant. Cathr. said, should it **VEL** be true? What do you say, answered Anna. Should the King do what he does without being certain that it is true? Why do you talk like that?'

(1674 LeoJamI 40)

The analysis of *vel* as expressing conjecture in such examples is corroborated by the ODS (s.v. *vel*[2]), where *vel* is said to express 'wondering', 'uncertainty' or 'supposition' in interrogatives. This meaning is illustrated with the following example:

(9.267) "Skulle vi *(dvs.: et dansende par)* **vel** staae derovre hos Emilie Helsted?" sagde Vilhelm. "Hvor De vil, den ene Plads er jo lige saa god som den anden."

'"Should we (that is, a dancing couple) **VEL** stand over there by Emilie Helsted?" said Vilhelm. "Wherever you like, one spot is just as good as another."'

(1836 ODS, s.v. *vel*[2])

This is also corroborated by the fact that, in the beginning of the Late Modern Danish period, *vel* cooccurs with its successor *mon*, which expresses conjectural questions in Modern Danish:

(9.268) **Julie.** De giør mig paa eengang hovmodig og undseelig.

Anden Poet. (*til Julie.*) Hvordan **mon vel** et ubegeistret Fruentimmer vilde udtrykke Tanken i Frøkenens Vers.

Julie. Hun vilde i Korthed sige: De seer mig græde Af lutter Glæde.

'**Julie.** You make me feel at the same time proud and shy.

Second Poet. (*to Julie*) How **MON VEL** might an uninspired woman express the thought in your verse?

Julie. She would say in short: You see me cry out of sheer joy.'

(1781 WesAn 34–35)

The meaning of *mon* is similar to the meaning I have suggested for conjecture *vel* in interrogatives. Under the proposed analysis, this cooccurrence is harmonic and can thus be accounted for straightforwardly, while it would pose problems for an analysis that does not reckon with a conjecture *vel* in interrogatives.

My conjecture analysis is also corroborated by cross-linguistic evidence. There is a cross-linguistically attested pattern of conjecture markers in interrogatives with meanings similar to the conjectural interrogative that *vel* occurs in. For instance, Floyd (1999: 111) argues that the Wanka Quechua conjecture marker *-chr(a)* in questions changes the question from being asked to being posed (with reference to Lyons 1977: 755), that is, it frees the question from the implication that the addressee is expected to deliver a more or less certain answer:

(9.269) ima-kta pinsa-l-**chra** chay-nuu-ta
what-ACC think-SS-**CONJ** that-SIM-ACC

suyñu-ku-u-la-nki
dream-REF-ASP-PST-2

'What **do you suppose** you were thinking about to dream that?'

(Floyd 1999: 111)

In the words of Floyd (1999: 113), "[t]he speaker of [an interrogative containing the conjecture marker, LW] does not construe the addressee as being in a particularly privileged position to be able to answer his query". Similarly, Eckardt (2020) argues that Modern High German *wohl* expresses conjectural questions (cf. (9.13) in Section 9.1.2).

Aikhenvald (2004: 246) points out that the "assumed" evidential in Tariana in interrogatives indicates that "the addressee has no firsthand information to provide the answer", that is, it acknowledges that the addressee can only offer conjectures or inferences as response to the question:

(9.270) kani-**sika** di-a diha ma:tʃ̀ite?
where-REC.P.**INFR**.INTER 3sgnf-go he bad+NCL:ANIM

'Where has this bad one gone?'

(INFERRED: None of us has a clue)

(Aikhenvald 2004: 246)

Similar analyses of evidentials in interrogatives have been proposed by Valenzuela (2003: 49) on Shipibo-Konibo and Littell et al. (2010) on the North American languages St'át'imcets, Nìeʔkepmxcín and Gitksan Tsimshianic. Based on this cross-linguistic pattern, I take the occurrence of *vel* in such conjectural questions as further evidence for the conventionalization of the evidential conjecture meaning.

If my analysis is correct, the reader might feel entitled to an explanation for why the evidential modal particle *vel* in Modern Danish can no longer appear in questions. Arguably, this is due to a push chain where the use potential of a younger construction restricts the use potential of an older construction (cf. Haspelmath 1998; Westergaard 2020). In the 18th century, the modal particle *mon* emerges as a conjecture marker in questions. This modal particle only takes over the use potential of *vel* in interrogatives. This in turn leads to a specialization of conjecture *vel*, which is restricted to declaratives. The exact history of *mon* cannot be discussed here for reasons of space and time.

In sum, in this section, I have argued that the evidential meaning of *vel* begins to emerge in the 16th century. In the 17th century, it begins to occur in interrogatives, and I take this distribution as an argument for the suggested analysis of *vel* as a conjecture marker in Early Modern Danish. This part of the use potential of the conjecture marker is lost when *mon* takes over in conjectural questions.

9.4.3.1 Diachrony of evidential *vel*

In this section, I discuss three scenarios for the development of the evidential meaning:

1. Evidentiality emerges based on concessive use of the opposition meaning.
2. Evidentiality emerges based on the approximative meaning.
3. Evidentiality emerges through contact-induced grammaticalization.

The scenarios are not mutually exclusive. I will discuss each of these in turn.

First of all, the conjecture meaning might have emerged based on the opposition meaning used in concessive structures. To see how concession might have played a role in the development of evidential *vel*, delving into the interactive structure of

concession is worthwhile. Couper-Kuhlen & Thompson (2000; 382; Squartini 2012: 2123) conceive of typical concessive structures as sequences consisting of three moves:

1st move	A: States something or makes some point
2nd move	B: Acknowledges the validity of this statement or point (the conceding move)
3rd move	B: Goes on to claim the validity of a potentially contrasting statement or point

Figure 9.3
The interactive structure of concession according to Couper-Kuhlen & Thompson (2000: 382)

For present purposes, the key aspect of this structure is that the speaker accepts the validity of a proposition that somebody else claimed. To illustrate this, take the following *vel* utterance from a book on marriage:

(9.271) som den vise Salomon i sine sprocks niende Capittel siger: Hus oc Rigdom giffuis aff Forældre, men aff Herren giffuis en forstandig Høstru. Her er icke Salomons mening, at Hus oc Rigdom kommer alene aff Forældrenis forsiun, oc icke er Guds gaffue, eller icke giffuis aff Gud. Men hand ligner tilsammen Hus, Rigdom oc en god Høstru. Lige som hand saa vilde sige: Hus oc Rigdom giffuis **vel** aff Gud, men er dog intet regnendis imod denne ypperlige gaffue, som er en god Høstru.

'As the wise Solomon says in the ninth chapter of his Proverbs: House and wealth are given from the parents, but a wise wife is given from the Lord. Solomon's meaning here is not that a house and wealth come solely from parental provision and are not a gift from God, or that they are not given by God. Rather, he groups house, wealth, and a good wife together, as if to say: House and wealth are **VEL** given by God, but they are nothing compared to this excellent gift, which is a good wife.'

(1572 HemEc 142–43)

In this passage, the first move is only implied. Somebody might claim that God does not only provide a wife but also a house and richness. This might seem to contrast with the proverb by Solomon, who states that a house and richness come from the parents. The speaker acknowledges the proposition of the first move. However, he then goes on to make a partly conflicting move claiming that the fact that God gives

a good wife deserves separate attention because it is God's most important and precious gift.

The crucial feature of the second move (the concession) is that the speaker puts forth the proposition that God gives a home and richness without strictly claiming it himself. This means that the speaker puts forth a proposition without assuming epistemic responsibility for it. This feature of the concessive structure can then be conventionalized.

The reanalysis must have involved a content syntactic rebracketing, where the hypotactic concessive structure is divided into a paratactic structure consisting of two independent clauses. This can be represented as follows:

(9.272) [[Hus oc Rigdom giffuis **vel** aff Gud], [men er dog intet regnendis imod denne ypperlige gaffue, som er en god Høstru]]

[[House and wealth are **VEL** given by God], [but they are nothing compared to this excellent gift, which is a good wife.]]

(9.273) [Hus oc Rigdom giffuis **vel** aff Gud], [men er dog intet regnendis imod denne ypperlige gaffue, som er en god Høstru]

[House and wealth are **VEL** given by God], [but they are nothing compared to this excellent gift, which is a good wife.]

The structure in (9.273) illustrates that the clause *Hus oc Rigdom giffuis vel aff Gud* does not necessarily stand in a syntactic adversative relation to the following clause.

While a transition from concessive meanings to evidential meanings is not observed particularly often, some comparable cases are reported in the literature. Based on comparative evidence, Thurgood (1981: 300; 1986: 217–18) argues that, in Akha, the 'non-visual' evidential *mi-* developed from a concessive marker. This is not a conjecture marker, but still similar enough to the evidential meaning of *vel* to be considered here. Molnar (2002: 41) also argues that concessive structures might have played a role in the development of *wohl*. However, these researchers do not offer an explanation for how such a development might have happened in terms of bridging contexts or similar.

One distinct scenario takes its point of departure in the approximative meaning discussed in Section 9.4.1. In a context like (9.274), *vel* can be reanalysed as an evidential expression:

(9.274) Myn part aff det godz oc eyendom y Fyn, som ieg vil vnde ether, om dene handel gaar for seg, er **vel** iij m daller verd

'My share of the goods and property on Funen, which I wish to grant you if this deal goes through, is worth **VEL** 3000 daler.'

(1554 GylLet I 234)

In an utterance like this, *vel* is vague or ambiguous. It can be analysed as an instance of the approximative meaning, in which case it expresses that the share of the speaker is worth about 3000 daler. Alternatively, it can be analysed as the evidential meaning, in which case it expresses that the estimation that the property is worth 3000 daler is a guess. These two meanings are clearly conceptually contiguous: if the estimation is an approximation, the whole assertion is a guess. In other words, when a speaker relies on approximation, she is unlikely to assume full epistemic responsibility for the claim.

This semantic ambiguity is paralleled by a syntactic vagueness or ambiguity that makes a syntactic reanalysis possible. In an utterance like (9.274), *vel* can be analysed as a quantifier as well as a sentence adverbial or modal particle. I will discuss this last point more thoroughly in Section 10.2.

At least two (partially) comparable cases can be provided as converging evidence for this analysis. Arguably, the Modern German modal particles *wohl* and *etwa* might have developed along similar lines. In Modern German, *etwa* still expresses approximation:

(9.275) wenn man in betracht zieht, daß die weltbevölkerung jährlich um **etwa** 2 prozent zunimmt

'if you take into consideration that the world population annually increases by **about** 2 percent'

(DWb, s.v. *etwa*)

At the latest in the 18th century, *etwa* develops an epistemic meaning. According to the DWb, it expresses an epistemic reservation (DWb, s.v. *etwa*; DW, s.v. *etwa*). This semantic description might indicate that *etwa* expressed conjecture similar to *vel*:

(9.276) Ich bin so blind nicht als ihr **etwa** glaubt.

'I am not so blind as you **ETWA** believe.'

(1848 DWb, s.v. *etwa*)

Unfortunately, the development of *etwa* has not been analysed in depth. As the meaning is obsolete in Modern German,[54] it is difficult to assess the epistemic nature of this reservation, making a comparison of *etwa* and *vel* difficult. Nevertheless, the case of *etwa* corroborates the plausibility of a diachronic link between approximation and conjecture (or epistemic reservation).

Finally, the emergence of the conjecture meaning might have occurred as a case of contact-induced grammaticalization where *vel* develops this meaning in analogy with Middle Low or Early New High German *wol*, which in these languages already seems to have had the conjecture meaning (DWb, s.v. *wohl*, MNDW, s.v. *wol*).

I want to close this section with a speculative critical reflection. I pointed out that, in the 16th century, there are still few examples where *vel* occurs in utterances that refer to states-of-affairs in the past. This might suggest that *vel* might develop along a similar trajectory as *nok*. It would not be unreasonable to assume that the opposition meaning gives rise to a prediction meaning, giving rise to an evidential meaning. It might even first develop a meaning corresponding to the subjective evidential meaning that *nok* expresses in Modern Danish.

Nevertheless, I lack evidence in my material for such a more complex scenario as well as evidence against the simpler scenario suggested in this section. Therefore, I do not assume any further intermediary steps. However, I cannot rule out with certainty that *vel* might have had some other meaning before developing the conjecture meaning in the 16th or 17th century. Future research should address this question.

9.4.3.2 The topology of evidential *vel*

It is difficult to decide whether *vel* had the topological distribution of a modal particle in Early Modern Danish. On the one hand, there are no good examples of evidential *vel* in the pre-field in my material. Rather, it only seems to occur in the middle field:

(9.277)

Hvad	haab	kand	da	**vel**	en,	der	nys	indkommer,
what	hope	can	then	**VEL**	one	who	just	comes

giøre	sig
do	oneself

'What hope can then **VEL** one have who just arrives?'

(1738 RanLet 95)

[54] In Modern German, *etwa* is a modal particle that seeks a negative confirmation from the addressee similarly to one of the other meanings of *vel* (cf. Section 9.4.4.1 below).

On the other hand, as regards the exact position of *vel* in the middle field, there is no good evidence prior to the 18th century that *vel* was placed in the position for modal particles. This makes it difficult to say whether *vel* was a modal particle in Early Modern Danish, or whether it only is reanalysed as a modal particle later.

On the one hand, there are examples from the 18th century that indicate that *vel* might have behaved like other epistemic sentence adverbials. For instance, in the following examples an evidential reading is plausible, and *vel* follows textual and epistemic sentence adverbials:

(9.278)

Meningen	er,	at	han	nok	ikke	veed	noget	
the meaning	is	that	he	NOK	not	knows	anything	
om	den	bevidste	Sag,	og	derfor	**vel**	ikke	
about	the	known	case	and	therefore	**VEL**	not	
vil	give	Vidnesbyrd						
will	give	testimony						

'I mean that he does NOK not know anything about the said case and therefore will **VEL** not give testimony.'

(1765 LanLet 403)

(9.279) Drengen er ey endnu ankommen, mens ieg venter ham Daglig;

i dette	vel	haarde	værd	har	hand	formodentl.	
in this	very	hard	whether	has	he	presumably	
vel	ey	faaed	stor	lyst	til	Siøen	
VEL	not	got	big	desire	to	the sea	

'The boy has not yet arrived, though I expect him daily; in this very harsh weather, he has presumably **VEL** not found much desire for the sea.'

(1738 RanLet 101)

Modern Danish (9.280) would have the reverse order in unmarked cases:

(9.280)

Lægen	har	**vel**	formodentligt	undersøgt	din	fod.
the doctor	has	**VEL**	presumably	examined	your	foot

'The doctor has **VEL** presumably examined your foot?'

(internet)

However, the sentence adverbials preceding *vel* in (9.278) and (9.279) might also be instances of foregrounded adverbials (cf. Section 4.1).

On the other hand, in the 18th and 19th century, there are also examples where evidential *vel* seems to be placed in the position for modal particles. In the following examples, *vel* precedes the textual adverbs *ellers* 'otherwise' and *altså* 'consequently, therefore':

(9.281) og har jeg et gandske nitidum Exemplar reen skreven færdig, som ickunds fattes at paaklædes i sømmelig Fransk-Dragt og med et par Ord fra min Haand til Ambassadricen at accompagnéres,

da	det	**vel**	ellers	vilde	ansees	som	alt	for
because	it	**VEL**	otherwise	would	be seen	as	all	too

Ostro-Gothicum	eller	trop	Allemand
Ostro-Gothicum	or	too	German

at sende Hender sligt et Skrift i saadan Materie og i saadan Sprog

'And I have a clean rather beautiful copy written out, which only needs to be dressed in a proper French dress and accompanied by a few words from my hand to the ambassadress, for otherwise, it would **VEL** be considered far too Ostro-Gothic or overly Germanic to send her such a writing on this matter and in this language.'

(1734 RanLet 41)

(9.282) Neppe havde Denne hilset rundt, før Baronen spurgte ham:

"vi	skal	**vel**	altsaa	kikke	lidt	i	de	apocryphiske
we	shall	**VEL**	so	look	a bit	in	the	Apocryphal

Bøger?"
books

'Hardly had he greeted everyone before the Baron asked him: "So, we shall **VEL** take a look at the Apocryphal books?"'

(1836 BliSto 25)

Other epistemic adverbials follow such adverbials in Modern Danish:

(9.283)

da	det	ellers	**sikkert**	vilde	ansees	som	alt
because	it	otherwise	**surely**	would	be seen	as	all

for	Ostro-Gothicum	eller	trop	Allemand
too	Ostro-Gothicum	or	too	German

(9.284) “vi skal altsaa **sikkert** kikke lidt i de apocryphiske
we shall so **surely** look a bit in the Apocryphal
Bøger?”
books

This suggests that there may have been some variation in the topological distribution of evidential *vel*. However, it seems to be clear that *vel* could occur in the position for modal particles at the latest in the 18th century.

9.4.3.3 Grammatical vs. lexical status of evidential *vel*

Like the other modal particles, the evidential modal particle *vel* is grammatical. For instance, it cannot be modified (9.285), be focused with stress (9.286) or constitute an utterance alone (9.287):

(9.285) *Det regner meget **vel**.
it rains very **VEL**
‘It is raining very **VEL**.’

(9.286) Det regner **VEL**.
it rains **VEL**
‘It is **VEL** raining.’

(9.287) A: Regner det?
B: ***Vel**.
‘A: Is it raining?
B: **VEL**.’

Example (9.286) is not ungrammatical as such, but impossible with the intended evidential meaning.

I have found no evidence indicating that evidential *vel* was modifiable at an earlier stage, and I will therefore regard grammaticalization as coinciding with the emergence of the evidential meaning.

9.4.4 Negative confirmation-seeking meaning

At the latest in the 19th century, *vel* develops a new meaning. When *vel* is stressed and occurs in interrogatives, it expresses that the speaker is seeking a negative confirmation (cf. ODS, s.v. *vel*[2]). In other words, the speaker assumes that the proposition in question is not true and wants the addressee to confirm this negative expectation. In the following example, the speaker wants the addressee to confirm that she has never been betrayed by the speaker:

(9.288) Undertiden bær madamen stor fortrolighed til mig, undertiden igen har hun mig mistænkt. Har jeg **vel** nogen tid røbet hende?

'Sometimes the madam shows great trust in me, and at other times she suspects me. Have I **VEL** ever revealed anything about her?'

(1891 HeiEr 43)

Similarly, in the following interrogative, the speaker seeks a confirmation from the addressee that no one is a more diligent letter writer:

(9.289) Kjereste Moder! Kan **vel** nogen være en flittigere Brevskriver end jeg?

'Dearest Mother! Can **VEL** anyone be a more diligent letter writer than I?'

(1812 HeiLet 64)

In many contexts, it is difficult to decide whether *vel* expresses conjectural questions or this negative confirmation-seeking meaning. However, in the cited utterances, it is clear that the speaker expects a negative answer. Indeed, at least in (9.288), *mon*, the successor of *vel* as a marker of conjectural questions, would be odd, and possibly also in (9.289):

(9.290) Har jeg **mon** nogen tid røbet hende?

'Have I **MON** ever betrayed her?'

(9.291) Kan **mon** nogen være en flittigere Brevskriver end jeg?

'Can **MON** anyone be a more diligent letter writer than I?'

The modal particle *mon* would imply that the questions are genuine (conjectural) questions.

During Modern Danish, this negative confirmation-seeking *vel* is syntactically reanalysed as a tag entering a paradigm with the positive expectation tag *ikke*:

(9.292)

han	er	jo	egentlig	ikke	ond,	**vel**,
he	is	JO	in fact	not	evil	**VEL**

altså det er en form for skizofreni, tror jeg,

at	lige	pludselig	går	der	en	djævel	i	ham,	**ikke**
that	right	suddenly	goes	there	a	devil	in	him	**right?**

'He is not really evil, **right**, well, it is a kind of schizophrenia, I think, so that all of a sudden a devil takes over him, **right**?'

(DDO, s.v. *vel*)

(9.293) Har man nogensinde indrømmet over for nogen vært/inde, at man syntes at det var en rædsom dessert. Nej **vel**?

'Has anyone ever admitted to a host/ess that they thought it was a dreadful dessert? No, **right**?'

(DDO, s.v. *vel*)

Arguably, in present-day Danish, this meaning mostly occurs as the tag, while its occurrence in the middle field is archaic if productive at all.

Given that negative confirmation-seeking *vel* is always stressed (cf. ODS, s.v. *vel*[2]), it cannot be a modal particle. Indeed, arguably, negative confirmation-seeking *vel* is most likely an extension of the opposition meaning, as I will argue in the following section. In the following section, I will only discuss whether it has a diachronic relation to the evidential modal particle *vel*, but refrain from discussing in detail its topology and grammatical status.

9.4.4.1 The emergence of the negative confirmation meaning

There are at least two plausible pathways leading to the negative expectation marker. The negative expectation meaning might have emerged based on:

1. the conjecture meaning or
2. the opposition meaning.

The first scenario is corroborated by cross-linguistic evidence. The Modern German modal particles *vielleicht* (< 'maybe') and *etwa* (< 'approximately' cf. Section 9.4.3.1) can be used to express that the speaker seeks a negative confirmation:

(9.294) Ist das **vielleicht** unsere Schuld?

'Is that **VIELLEICHT** our fault?'

(Duden, s.v. *vielleicht*)

(9.295) Ist das **etwa** in Ordnung?

'Is that **ETWA** okay?'

(Duden, s.v. *etwa*)

Both express or at some point did express, an epistemic reservation (in the case of *etwa* this might have been a conjecture meaning, cf. Section 9.4.3.1). According to the DW (s.vv. *vielleicht*, *etwa*), it is the epistemic meaning that gives rise to the negative expectation meaning. This development is assumed to take place in contexts that express an ironic or rhetorical question, where the speaker asks for a conjecture even though the answer is obvious. This can be illustrated with Modern English *perhaps*:

(9.296) And in truth, how does he now live? How does he perchance behave? Does he **perhaps** act superior? Is he **perhaps** proud? Does he **perhaps** say, "Already I am this"? Rather, he goes bowed; rather, he is humble.

(internet)

What is only indirectly addressed in the DW is the pragmatic mechanism underlying this shift. Why does conjecture or epistemic reservation more broadly give rise to questions to which the speaker expects a negative answer? One possible explanation is that the epistemic reservation makes one of the two contrasting propositions in a polar question seem more uncertain than the other, namely the one asked about. Arguably, the epistemically less certain proposition can then come to be understood as implicitly rejected by the speaker, and this meaning can then be attributed to the epistemic marker.

However, there is one problem with this scenario. The evidential modal particle is obligatorily unstressed, while the negative expectation marker is obligatorily stressed. This means that the scenario implies a shift from an obligatorily unstressed construction to an obligatorily stressed one. While this might not be impossible, it is difficult to explain why *vel* should change its stress pattern after reanalysis.

In this connection, it should also be mentioned that neither *vielleicht* nor *etwa* are stressed when expressing the negative confirmation-seeking meaning. If the reanalysis of the negative confirmation-seeking meaning would lead to a new stress pattern, we should expect that also *vielleicht* and *etwa* would have changed their formal behaviour after reanalysis, which they have not.

The second scenario takes its point of departure in the opposition meaning and avoids this problem. Recall from Section 9.4.2 that opposition *vel* can be used to reject a negative proposition. Arguably, this meaning can give rise to the negative confirmation-seeking meaning when it is stressed in interrogatives. Crucially, with the opposition meaning the speaker does not ask whether a proposition is true, but whether it is not true.

To illustrate this, consider the affirmative marker *godt*, which has not developed a negative expectation meaning, but which can give rise to such a meaning in interrogative clauses:

(9.297) Gider du **godt** gøre det?
'Would you **GODT** do it?'

Strikingly, especially when *godt* is stressed, a negative confirmation-seeking meaning emerges. The fact that negative confirmation-seeking *vel* obligatorily is stressed can then be regarded as a remnant from such a bridging context.

At the latest in the 19th century, negative confirmation-seeking *vel* appears as a tag:

(9.298) Men det vil du ikke. **Vel**?
'But you do not want that, **right**?'
(1894 ODS, s.v. *vel*)

Presumably, this is due to a reduction of an attached question:

(9.299) saa er det vist ikke Deres Alvor. Er det **vel**?
'Then you are VIST not serious, are you **VEL**?'
(1836 HeiPla II 167)

>

(9.300) saa er det vist ikke Deres Alvor, **vel**?
'Then you are VIST not serious, **VEL**?'

This topological change might have been facilitated by the tag *ikke* (9.292), which due to semantic similarity with negative confirmation-seeking *vel* might have acted as an analogical model for it.

9.4.5 Summary of the development of *vel*

The point of departure for the development of the modal particle *vel* is the meaning 'good' and related meanings or uses. Based on these meanings, *vel* develops an approximative meaning as well as an affirmative and opposition meaning. At least the latter of these are grammatical, making this transition a case of grammaticalization. These meanings in turn give rise to the evidential meaning in Early Modern Danish. I have argued that many of these meanings might evolve under the influence of the Middle Low and Early New High German *wol*.

In the transition to Modern Danish, *vel* develops a negative confirmation-seeking meaning in questions based on the opposition meaning, which in turn is reanalysed as a tag.

The most important aspects of this development are summarized in the following figure. Dashed lines represent a possible analogical influence from contact languages:

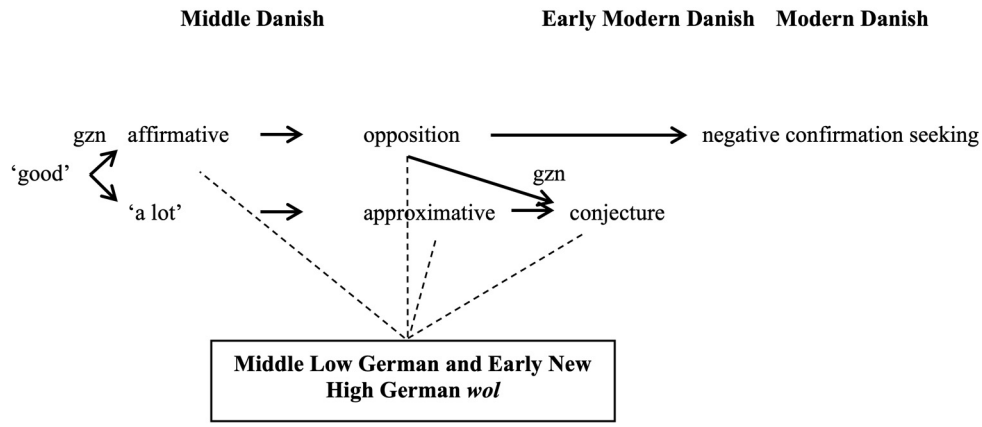


Figure 9.4
Summary of the semantic development of *vel*

I have discussed whether evidential *vel* was classified as a modal particle from the start. I left the matter undecided due to the absence of examples that unambiguously indicate the exact position of *vel* in the middle field in the 16th and 17th century. However, at the latest in the 18th century, *vel* occurs in utterances that indicate modal particle status of *vel*.

9.5 The emergence of the evidential modal particle paradigm

A discussion of more theoretical aspects of the paradigmatic development of the modal particles in general is postponed to the next chapter. In this section, I only round off by highlighting results of the analysis that relate to the paradigmatic development of the evidential modal particles.

In Section 9.1 on the Modern Danish system of evidential modal particles, I argued that the evidential modal particles are paradigmatically structured both as regards:

1. their content: they relate to a common semantic frame, namely information source and/or epistemic responsibility (cf. Table 9.1). Furthermore, the evidential modal particles are complementarily distributed relative to this semantic frame by specifying the availability of an information source and/or the location of epistemic responsibility.
2. their expression: the evidential modal particles have the same expression features as other modal particles. Furthermore, the evidential modal particles share the same position relative to other modal particles.

In the sections that followed, I proposed a scenario for each modal particle individually, and even though I occasionally referred to other modal particles as analogical models, I must emphasize that each scenario can explain the development of the individual modal particles on its own.

However, the paradigmatic perspective makes it clear that the three modal particles appear to develop evidential meanings more or less at the same time within Early Modern Danish. The exact timing of the reanalysis is obviously difficult to pinpoint, but at least for *nok* and *vist*, it seems as if the evidential meanings emerge towards the end of Early Modern Danish. This is highly suggestive of a connection between these changes. I will discuss the mechanism behind this paradigmatic integration in the following chapter.

10 The paradigmatic perspective

The focus of Chapter 7–9 was on the development of the individual modal particles. In this chapter, I shift the perspective from the individual modal particles to the systemic perspective of the modal particle paradigm. The question to be addressed is how this paradigm emerged and developed. I argue that, while much of the development of the modal particles can be explained based on the pathways and bridging contexts of individual modal particles, such an approach is prone to overlook important aspects of their development.

In Section 10.1, I recapitulate the results from Chapter 7–9 from the perspective of the emerging modal particle paradigm and present some observations and open questions resulting from this perspective. These constitute the foundation for the following sections. In Section 10.2, I provide an account of how the modal particle paradigm emerges, focusing on the expression side of the paradigm. In this section, I argue that *jo* is the proto-modal particle, which acts as an attractor for new modal particles, leading to the emergence of the modal particle paradigm, and I discuss by what mechanism the paradigmatic integration of modal particles may have occurred. In Section 10.3, I present an account of the emergence of the subparadigms and their internal word order. Section 10.4 deals with the grammaticalization of the modal particles from a general perspective. Section 10.5 offers a summary of this chapter.

10.1 Recapitulating the development of the modal particles

The history of the Danish modal particle paradigm begins in the 15th or 16th century. The oldest modal particle seems to be *jo*, originally a Middle Low German loan word from the 15th century, which develops its modern modal particle meaning in the 16th century based on the temporal source meaning ‘always’ as a case of contact induced grammaticalization. At the latest when it expresses its modal particle meaning, *jo* only appears in the left periphery of the middle field. While *jo* in the 16th century still expresses meanings it no longer has in Modern Danish (e.g., positive polarity and emphasis), part of *jo*’s usage potential in Early Modern Danish corresponds to the Modern Danish modal particle, as regards both its content and its topological distribution.

At the same time as the modal particle *jo* emerges, *vel* develops its evidential meaning. As discussed in Section 9.4.3.1, it is very difficult to determine the exact topological distribution of *vel* in Early Modern Danish. It might be that *vel* already in the 16th century develops the topological distribution it has today, that is, it may have been a modal particle already. However, evidence for this is unclear. At the latest in the 18th century, it is recategorized as a modal particle.

Nok and *vist* develop their evidential meanings in the 17th and 18th century. The modal particle *nok* originates in an adverb meaning 'sufficient', which gives rise to an opposition meaning, which in turn gives rise to a prediction meaning in the transition to the 18th century and a bit later to the subjective evidential meaning. Possibly already with the prediction meaning and at the latest with the subjective evidential meaning, *nok* was recategorized as a modal particle. The intersubjective evidential modal particle *vist* develops out of two related adjectives: one meaning 'certain', giving rise to full and possibly later strong epistemic support meanings, and one meaning 'wise, known, obvious'. As was the case with *vel*, the timing of its recategorization as a modal particle is difficult to pinpoint.

Both of the proximal modal particles *nu* and *da* originate in temporal adverbs. Throughout their history, these adverbs occur in the left periphery of the middle field, even though they are state-of-affairs operators. I argued that this is a remnant of an older structure related to Behagel's law *Gesetz der wachsenden Glieder*, according to which lighter material precedes heavier material.

These particles seem to develop in parallel. Both are reanalysed as modal particles in interrogatives and imperatives in the 17th century, where they expressed contextual motivation, typically based on a conflict of hypotheses. Around the 18th or 19th century, both modal particles are found also in declaratives, which corresponds to the distribution of the proximal modal particles in Modern Danish.

In the 19th or in the transition to the 20th century, the phatic modal particles *sgu* and *skam* emerge. Both originate in oaths containing taboo words, which are used as emphasizers. I argued that the phatic modal particle *skam* expresses a simple emphasis meaning before it expresses its Modern Danish modal particle meaning.

Adding to this the results of Jensen (2000: 71; 101–2; cf. Section 4.3.1), who argues that the argumentative modal particles *altså* and *ellers* emerge in the 20th century, the development of the Danish modal particles can be summarized as in Figure 10.1. The transition from dashed line to full line illustrates the point in time when the constructions presumably are reanalysed as modal particles, at least as regards their meaning. The double bars indicate a change in the meaning of the modal particles:

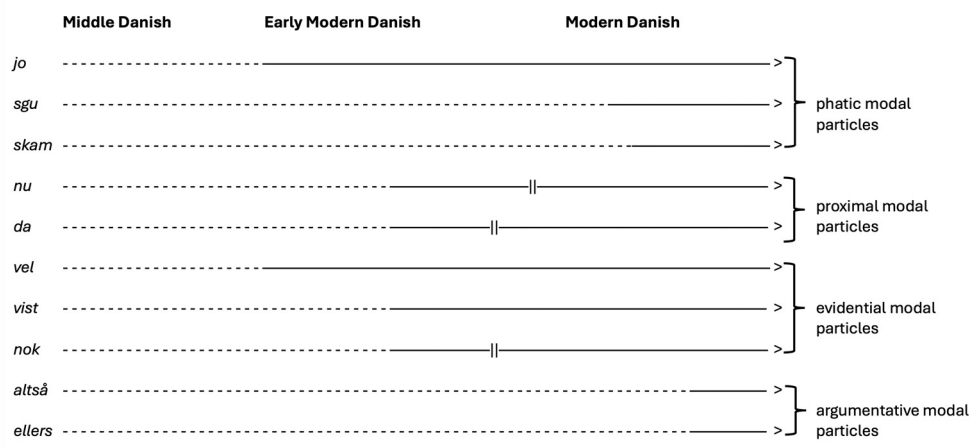


Figure 10.1
First occurrence of modal particles

Recall that, for Early Modern Danish, the evidence for formal modal particle status was inconclusive for the evidential modal particles, which might be recategorized at a later point only.

In conclusion, the previous chapters illustrate that the development of the individual modal particles can be accounted for based on bridging contexts and possibly language contact. However, in the remainder of this chapter, I argue that focusing only on individual trajectories misses several important aspects of the history of the modal particle paradigm:

1. The emergence of new modal particles seems to be exponential in the first centuries of the emerging paradigm, with a sudden great increase in the number of modal particles around the 17th and 18th century.
2. Many of the modal particles that end up forming subparadigms with each other emerge around the same time.

To this, we can add the following synchronic observations (cf. Chapter 4):

3. All modal particles share the same defining expression features.
4. All modal particles share a common semantic core.
5. Modal particles in subparadigms share a common position.
6. Modal particles in subparadigms share a common semantic core.

In the remainder of this chapter, I will address these observations, and I will argue that they result from system pressure that is due to paradigmatic integration. I will argue that paradigmatic integration can be regarded as a drag chain resulting in

similarity of content and expression of the emerging modal particles. I will suggest that the primary force driving paradigmatic integration is analogy.

10.2 The emergence of the modal particle paradigm

I argued in Chapter 7 that *jo* cannot be placed in the pre-field and that it expresses expected agreement in Early Modern Danish. Furthermore, with this meaning, it only occurs in the left-most adverbial position in the middle field (at least no adverbials ever precede it in my material). In that way, *jo* can be seen as a proto-modal particle. As I will argue below, new modal particles are treated similarly to *jo* due to analogy with it. The key to understanding the origin of the modal particle position thus lies in an answer to the question of why *jo*[55] had this idiosyncratic behaviour in the 16th century.[56]

In Section 10.2.1, I first discuss why *jo* ends up in the left-most adverbial position in the middle field, and what might explain its inability to be placed in the pre-field. In Section 10.2.2, I provide an account for how the paradigmatic integration of new modal particles might proceed. This account is based on analogy and topological ambiguity. In Section 10.2.3, I discuss the emergence of the more recent right periphery position of modal particles. In Section 10.2.4, I present my conclusion.

10.2.1 The origin of the idiosyncrasies of the proto-modal particle *jo*

As argued in Section 7.2.4.1, the modal particle *jo* emerges as a case of contact induced grammaticalization. While the development of *jo* can be accounted for language-internally, the development was probably triggered by language contact. Many speakers of Early Modern Danish often heard and possibly used the Middle Low German modal particle *jo* or the Early New High German *ja*/*je*. The German modal particle can therefore act as an analogical model for the Early Modern Danish emerging modal particle *jo*, favouring a potential for reanalysis present in bridging contexts such as the one discussed in Section 7.2.4.1. I first discuss how this can account for the pre-field restriction. Afterwards, I discuss the middle-field position.

[55] The evidential modal particle *vel* might have had a similar attractor function, but as its topological distribution in the 16th century is unclear, I will focus on *jo*.

[56] At least in Modern Danish, and the same seems to be true of Early Modern Danish, no sentence adverbials that are proposition or illocution operators ever appear in the post-field. The post-field only contains operators of content layers below the propositional layer (e.g., Christensen 2001: 70; Diderichsen [1943]1966: 57). The restriction that *jo* cannot be placed in the post-field is thus part of a more encompassing rule and does not require an explanation in this context.

10.2.1.1 The pre-field restriction

Before suggesting an explanation for the pre-field restriction of *jo*, it is worthwhile considering an example like (10.1), which illustrates that *jo*'s Middle Danish cognate and predecessor *e* 'always' can be placed in the pre-field:

(10.1)

oc	**e**	scal	han	them	hauæ	giort	stæfnæ	til	at
and	**always**	shall	he	them	have	done	summon	to	that
the	bæræ	i	mæth		hanum.				
they	bear	in	with		him				

'And he shall **always** summon them to contribute alongside him.'

(1300 EL §104)

Because *jo* and *e* are partly similar in content (at least the temporal meaning) and expression (both being monosyllabic adverbs), and because they have a common etymological source, an example like (10.1) indicates that *jo*'s topological distribution must have been an idiosyncrasy of *jo*.

The inability of *jo* to appear in the pre-field can be explained based on the language contact situation. The pre-field restriction could have been transferred through pivot-matching (cf. Section 3.4), that is, based on analogy with the German model modal particle *jo*/*je*/*ja*, which cannot occur in the pre-field.

This scenario gains in plausibility with the observation made by Panov (2020: 35) that, in several languages in his sample, borrowed constructions with so-called ENIMITIVE meaning (that is, the expected agreement meaning) also borrow the formal behaviour of the constructions in the source languages.

Needless to say, such a contact scenario is an unsatisfying explanation, because it does not explain the pre-field restriction as such, that is, why the pre-field restriction comes about in the first place in the German source language. Obviously, answering that question requires an investigation of the history of German modal particles and cannot be addressed here.

Nevertheless, there is also a language-internal factor that might explain why *jo* cannot be placed in the pre-field.[57] Boye & Harder (2012: 22; Boye & Harder 2021: 12) and Thy et al. (in press) argue that grammaticalization can be conceived of as the conventionalization of usage patterns where the grammaticalizing construction is backgrounded (cf. Section 3.3). As adverbs like the etymon of *jo* are backgrounded in constructional background slots like the background field within the middle field (cf. Sections 3.3.2 and 4.1), and as the expected agreement meaning is grammatical, that is, conventionally background, this constructional slot must

[57] The same explanation might account for its German cognate structure.

have favoured the conventionalization of the agreement expecting meaning. This may then have led to a strong association between *jo* and the background field in the middle field. As a consequence of this association, this new grammatical meaning may have been impossible in other positions such as the pre-field.

Converging evidence for such a scenario can be provided with the development of certain discourse markers (cf. Heine 2013). Discourse markers like English *now* and *well* are restricted to the English pre-subject position in their discourse structuring function. In post-verbal position, they cannot fulfil that same function:

(10.2) A What did your friend say?

B **Well**, I didn't understand him very **well**.

(Heine 2013: 1208)

Only the first occurrence of *well* is a discourse marker. The same holds for *now*:

(10.3) **Now** I did not know that.

(10.4) I did not know that **now**.

Just like the discourse markers *now* and *well*, the preverbal position connects the utterance with the preceding discourse. The preverbal position might then have facilitated the reanalysis of the discourse markers, which, as a consequence of this, may have become restricted to that position.[58]

In sum, there appears to be a language-external and -internal factor that can explain the pre-field restriction: 1. an association of the (grammatical) modal particle meaning and the background field and 2. language contact.

10.2.1.2 The middle-field position

In what follows, I argue that the position of *jo* in the middle field (and later the modal particle position) can be explained as a case of contact-induced grammaticalization (cf. Section 3.4). In order to do so, I first briefly discuss the middle field positions of modal particles in German, which constitute the source

[58] Heine (2013) analyses the rise of discourse markers as a case of cooptation, where the discourse marker etymon is used in thetical positions, which in turn can lead to conventionalization of meanings it occupies in these positions. One defining feature of theticals is their positional freedom. However, exactly such discourse markers like *now* and *well* are not positionally free. Therefore, the emergence of discourse markers like *well* and *now* is probably better understood as standard cases of reanalysis rather than cooptation.

structure in the contact scenario. Based on this, I will then discuss the emergence of the position of *jo* in the middle field in Early Modern Danish.

I am not aware of any study that has investigated the word order of modal particles in Middle Low German or Early New High German. However, it is not unreasonable to assume a structure that is similar to Modern German. As opposed to Early Modern Danish and Modern Danish (cf. Section 4.1 and 4.2), in Modern German, modal particles seem to have at least two positions in the middle field (Thurmair 1989: 29–35; cf. Hentschel 1986: 212–13; Moroni 2005: 25; Altmann & Hofmann 2008: 189):

1. modal particles in Modern German tend to follow given or non-remarkable ("unauffällig" Thurmair 1989: 33) elements and precede new or remarkable elements:

(10.5) Uli: Mein Gott, mir graut vor dieser Bahnfahrt morgen mit Rucksack und den schweren Taschen.

Eva: Weißt du was?

Wir	sollten	die	Taschen	**einfach**	aufgeben.
We	should	the	bags	**EINFACH**	check in.

'Uli: My God, I am dreading this train ride tomorrow with the backpack and those heavy bags.

Eva: You know what? We should **EINFACH** check in the bags.'

(Thurmair 1989: 29)

I assume that given or non-remarkable constituents at least roughly correspond to what Heltoft (2003) calls background (cf. Section 4.1).

Moreover, backgrounded adverbials can precede modal particles in Modern German:

(10.6)

Ein	wunderschöner	Tag	war	es	gestern	**ja**	nicht.
a	wonderful	day	was	it	yesterday	**JA**	not

habe aber trotzdem eine schöne Bootstour gehabt.

'It was **JA** not a wonderful day yesterday. Nevertheless, I had a lovely boat trip.'

(internet)

2. Additionally, modal particles occur in the left periphery of the middle field where they precede given or unremarkable elements:

(10.7) Wir sollten **einfach** die Taschen aufgeben.
we should **EINFACH** the bags check in

'We should **EINFACH** check in the bags.'

(Thurmair 1989: 29)

As in Modern Danish, modal particles also tend to precede sentence adverbials (Altmann & Hofmann 2008: 189):

(10.8) Karl-Otto hat ihm das **ja** leider nicht ins
Karl-Otto has him that **JA** unfortunately not into=the

Haus gebracht.
house brought

'Karl-Otto did **JA** unfortunately not bring that into the house for him.'

(Altmann & Hofmann 2008: 189)

The position of *ja* in examples of the latter type, where the modal particle is placed in the left periphery of the middle field, correspond to the modal particle position in Modern Danish (at least superficially). In a contact scenario, Early Modern Danish *jo* can then have adopted a similar topological distribution based on analogy. However, in such a scenario, one might ask why *jo* and later the Danish modal particles in general cannot appear in a position analogous to (10.6), that is, following backgrounded adverbials. Still in Modern Danish, there is a position between backgrounded and focused adverbials, namely the position for focus operators (cf. Section 4.1).

Arguably, this does not happen because the emergence of the proto-modal particle *jo* is a case of contact-induced grammaticalization. The crucial aspect of this type of grammaticalization is the fact that foreign material is not simply copied. Rather, a structure in a source language gives rise to a process in the target language that leads to a similar structure:

> rather than immediately relating two categories to one another, speakers relate a category (Mx) in one language to a process (Ry > Rx) in another language. (Heine & Kuteva 2008: 80)

The fact that no direct copying occurs means that the structure in the target language is partly determined by the usage patterns that give rise to the process (Ry > Rx), resulting in a similar structure in the target language.

The absence of a structure similar to (10.6) can presumably be attributed to the absence of examples of the etymon of *jo* in a position where it occurs after

backgrounded elements in Middle Danish or Early Modern Danish. Temporal *jo* almost only occurs in the background field where it precedes all other constructions, and in clauses that can be classified as bridging contexts, *jo* only occurs in this position. This means that there are no usage patterns in Middle or Early Modern Danish that would give rise to an internal change in Early Modern Danish (Ry > Rx) leading to a structure corresponding to (10.6).

There are two additional language-internal factors motivating the left-most position of *jo*: diagrammatic iconicity and reduced phonological weight of *jo*. As discussed in Section 2.6.3, it is generally assumed that the relative order of constructions can be functionally motivated based on their content relations. At least in the Modern Danish middle field, adverbials with broader scope tend to precede adverbials with narrower scope (cf. Section 2.6.3). Because the interactive meaning of *jo* as a contextualization instruction is located at the topmost layer in the layered model of the clause (cf. Section 2.6.2), most other meanings are in the scope of *jo*. For instance, if *jo* cooccurs with an epistemic sentence adverbial, this epistemic evaluation is in the scope of *jo*, that is, it is part of the content that the speaker expects the addressee to agree with or not to contradict. The epistemic meaning cannot scope over the interactive meaning. Therefore (10.9a) is a possible paraphrase of (10.9), while (10.9b) is not:

(10.9) Hun vil **jo** sikkert synge smukt.

a. 'I expect you to agree that she is probably going to sing beautifully.'

b. 'It is probably the case that I expect you to agree that she is going to sing beautifully.'

The left-most position of *jo* in the adverbial position of the middle field could then be motivated as a case of diagrammatic iconicity, that is, the ordering of *jo* vis-à-vis other adverbials mirrors their content structure.

However, diagrammatic iconicity cannot easily explain why *jo* must precede sentence adverbials that are illocution operators such as *ærligt talt* 'frankly' except when the latter is foregrounded (cf. Section 4.1):

(10.10) udseendet kan **jo** ærligt talt ikke bruges
the appearance can **JO** honestly speaking not be used

til noget her
to something here

'Frankly, appearance can **JO** not be used for anything here.'

(internet)

It is not obvious why *jo* should have broader scope than an illocution operator like *ærligt talt*. Indeed, *jo* and *ærligt talt* probably have similar scope properties, modifying different aspects of the illocution, that is, neither scopes over the other.

However, the fact that *jo* precedes other illocution operators can be explained as being due to its phonological weight. The obligatorily unstressed and monosyllabic particle *jo* precedes heavier sentence adverbials because it is lighter than these. When *jo* was introduced into Middle Danish, it might even have been classified in analogy with adverbs like *nu* and *da*, which precede various sentence adverbials even though they are temporal adverbs, that is, state-of-affairs operators (cf. Section 8.3.1.1).

10.2.1.3 Summary of the origin of *jo's* topological idiosyncrasy

In this section, I have argued that the topological distribution of *jo* in the 16th century can be explained with reference to language contact as well as language-internal factors. I argued that the Middle Low and Early New High German modal particles *jo/je/ja* facilitated the emergence of the Danish modal particle *jo* as a case of contact-induced grammaticalization. This explains why *jo* cannot be placed in the pre-field. The restriction is copied based on a German analogical model. Additionally, I discussed *jo*'s middle-field position, arguing that its restriction to the left periphery in the middle field likely is due to various factors including language contact, diagrammatic iconicity and weight.

10.2.2 Paradigmatic integration of new modal particles

In the previous section, I discussed possible causes for the topological idiosyncrasies of *jo.* This section deals with the paradigmatic integration of new modal particles, that is, why other constructions begin to be treated similarly to *jo* and reanalysed as modal particles.

I will suggest a mechanism where analogy with already existing modal particles, bridging contexts and topological ambiguity explain the paradigmatic integration of new modal particles. I will first characterize the mechanism from a general point of view. Afterwards, I will illustrate the mechanism with the modal particles discussed

in Chapter 7–9. While I focus on formal aspects of the paradigmatic integration in this section, I will focus on semantic aspects when discussing the paradigmatic integration of modal particles into subparadigms in Section 10.3.1.

In its most schematic form, the mechanism can be described as follows: a construction C that is placed in position P1 is associated with a conventional meaning M1. In bridging contexts, it can give rise to an additional contextual meaning M2. This contextual meaning M2 corresponds to meanings typical of a different position P2. In those contexts where the construction C can be analysed as placed in P1 as well as P2, it is topologically ambiguous. In such topologically ambiguous contexts, analogy with other constructions typical of P2 facilitates the conventionalization of meaning M2.

The following figure illustrates this. The full line illustrates a conventional association of C with M1 and P1. The dotted line indicates a contextual association with the new meaning M2 and new position P2. The arrow represents the process of reanalysis. P0 and P3 are adjacent positions:

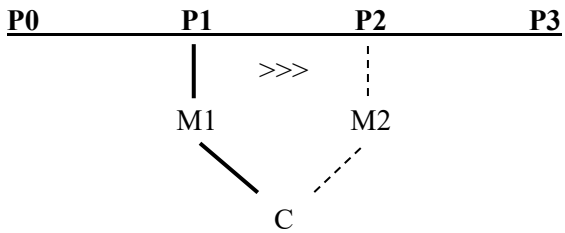


Figure 10.2
Topological ambiguity and analogy leading to reanalysis in bridging contexts

The mechanism can be regarded as a case of reanalysis of category labels, as discussed, for instance, by Harris & Campbell (1995: 63), where the category status of a construction is reanalysed due to formal ambiguity. However, it highlights the role analogy plays in this process.

In what follows, I will illustrate how this mechanism works. As discussed in Section 8.3.4.4, in example (10.11), *nu* conveys its temporal meaning 'now'. Contextually, *nu* additionally conveys the meaning of the modern modal particle. Furthermore, the example is topologically ambiguous. In line with its conventional temporal meaning, *nu* can be analysed as placed in the position for backgrounded free adverbials (backgr. FA). Contextually, it can also be analysed as placed in the emerging position for modal particles (MP) in line with its contextual meaning:

Table 10.1
Topological ambiguity facilitating the reanalysis of *nu*[59]

(10.11)

	V_{fin}	S	MP	backgr. FA	focus	V_{inf}
[hun meente att]	kunde		**nu**		wel	bliffue
She believed that	could		**now**		VEL	stay

a. 'She believed that she could very well stay **now**.'
b. 'She believed that she could **NU** very well stay.'

(1696 LeoJamIII 217)

Arguably, the topological ambiguity then facilitates the reanalysis of *nu* in such a bridging context.

Example (10.12) illustrates this mechanism for the paradigmatic integration of *vist.* As discussed in Section 9.3.5.1, the context implies an evidential reading. Furthermore, in such an utterance, the etymon of *vist* can be analysed as placed in the position for sentence adverbials (SA) (its historically expected position) as well as in the emerging position for modal particles (MP). Arguably, again, the topological ambiguity facilitates the reanalysis in the bridging context based on analogy with already existing modal particles:

Table 10.2
Topological ambiguity facilitating the reanalysis of *vist*

(10.12)

pre-field	V_{fin}	S	MP	SA	N
da	er	det	**vist**		Spedalsk siuge
then	is	it	**VIST**		leprosy

a. 'Then it is **certainly** leprosy.'
b. 'Then it is **VIST** leprosy.'

(1550 Bib Lev 13:3)

In (10.13), prediction or possibly opposition *nok* can give rise to the subjective evidential meaning. Additionally, *nok* can be analysed as being placed in the position for modal particles, which facilitates its reanalysis as a modal particle:

[59] Note that empty and irrelevant positions are left out in Table 10.1 and the following tables.

Table 10.3
Topological ambiguity facilitating the reanalysis of *nok*

(10.13)

pre-field	V_{fin}	S	MP	SA	V_{inf}	N	A
jeg	wil		**nok**		styre	ham	i Morgen
I	will		**NOK**		control	him	tomorrow

'I will **NOK** control him tomorrow.'

(1692 LeoJamII 153)

A bridging context like (10.14) for the modal particle *vel*, discussed in Section 9.4.3.1, is also topologically ambiguous:

Table 10.4
Topological ambiguity facilitating the reanalysis of *vel*

(10.14)

pre-field	V_{fin}	S	MP	V_{inf}	N (degree modifier within the NP)
myn part aff de godz (…)	er		**vel**		iij m daller verd
my share of the goods	is		**VEL**		3000 daler worth

a. 'My share of the goods (…) is **approx.** worth 3000 daler.'
b. 'My share of the goods (…) is **VEL** worth 3000 daler.'

(1554 GylLet I 234)

As argued in Chapter 7, the phatic modal particles *sgu* and *skam* originate in sentence adverbials with thetical remnants. As discussed there, their thetical status allows them to be placed between other modal particles as well as before modal particles. The following illustrates this using thetical *fandme*:

(10.15)

Man	skal	**fandme**	da	le	af	det	her	liv!
one	shall	**damn it**	DA	laugh	of	this	here	life

'**Damn it**, one should DA laugh at this life!'

(internet)

This distribution allows the former theticals *sgu* and *skam* to be recategorized as phatic modal particles in analogy with *jo*. In (10.16), this is illustrated for *sågu*/*sgu*:

Table 10.5
Topological ambiguity facilitating reanalysis of *saagu*/*sgu*

(10.16)

pre-field	V_{fin}	S	phatic MP	theticals	other MP
det it	er is	det it	**saagu** **SGU**		ogsaa OGSÅ

a. '**By God**, it is OGSÅ'
b. 'It is **SGU** OGSÅ'

(1847 HosPla 309)

In all of these cases, the pre-field restriction presumably follows from an analogy with *jo* or the recategorization as a modal particle.

It might be necessary to clarify how this mechanism for paradigmatic integration of new modal particles differs from the emergence of the proto-modal particle *jo.* In the latter case, *jo* develops its meaning as a contextualization instruction, that is, it indexes specific features of the context of the assertion. Thereby, it turns into an illocution operator. Based on diagrammatic iconicity, this reanalysis then motivates why *jo* precedes other adverbials. Furthermore, I argued that the weight of *jo* probably played a role in motivating the position of *jo*. In contrast, in the mechanism discussed in this section, topological ambiguity and analogy with already existing modal particles facilitate semantic reanalysis and recategorization. This in turn motivates the position of the emerging modal particles.

It is important to highlight that I assume that analogy only facilitates a reanalysis and that it presupposes the availability of contextual meanings in bridging contexts. In other words, I assume that there is a mutual interaction between the construction in the bridging context and analogy with the paradigm of existing modal particles:

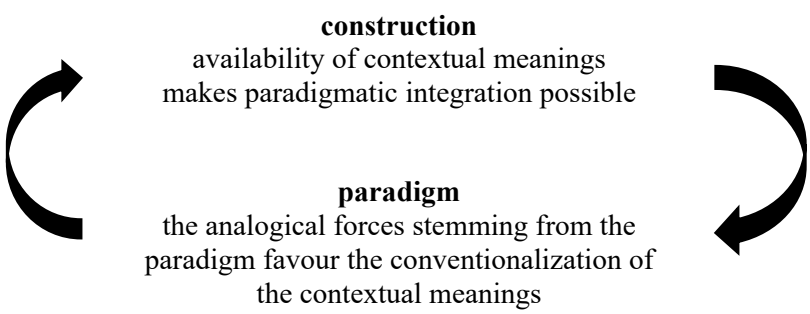


Figure 10.3
Mutual interaction of construction and paradigm in paradigmatic integration

In this mechanism, already existing modal particles have a role similar to what has been termed supporting constructions in the so-called construction conspiracy

hypothesis. Based on Abbot & Behrens (2006), De Smet & Fischer (2017: 243) argue that supporting constructions:

> facilitate the emergence of an innovative pattern, presumably because shared phonological, functional or morphosyntactic components are already entrenched and give the 'innovative form' a selectional advantage. (…) In that light, it can be hypothesized that the likelihood of an innovation depends on the set of supporting constructions facilitating the innovative form.

Arguably, the presence of already existing modal particles gives contextual modal particle meanings "a selectional advantage" in bridging contexts. It should be pointed out that the supporting constructions discussed in Abbot & Behrens (2006) as well as in De Smet & Fischer (2017) are phonologically similar. This is not the case in the present scenario. However, because the older modal particles acting as supporting constructions and the emerging modal particles contextually share meaning features and seem to be placed in the same position, there is a strong foundation for analogy.

Presumably, the suggested mechanism creates a self-reinforcing cycle with increasing productivity. The more modal particles are integrated, the more supporting constructions are available, and the easier it becomes for other constructions to follow. Conversely, the higher the productivity, that is, the type frequency of the constructions constituting the modal particle paradigm, the more its notional coherence will decrease (cf. Bybee 1995: 433–35; Clausner & Croft 1997: 253–54; Barðdal 2006: 469). At first, the paradigmatic influence will rely on local analogies between similar constructions, first and foremost similarity with *jo* or other early modal particles. For instance, the meaning of *jo* and *da* is very similar as regards the expected agreement meaning and the identifiability feature (both are classified as ENIMITIVE by Panov 2020: 4). Similarly, like *vel*, the modal particles *nok* and *vist* express evidentiality.

As the category of modal particles expands, the position gains in schematic meaning, making it easier for new modal particles to enter the paradigm. At this point in time, it is no longer necessarily local analogies between substantial constructions that facilitate the meaning development of other constructions. Rather the position itself can do so. This might be the case with the argumentative modal particles. While their meaning obviously is related to the meaning of already existing modal particles (cf. Section 4.3.1), the semantic link between these constructions is more indirect in nature. For instance, the argumentative modal particle *også* expresses that the utterance is to count as a confirmation of a proposition expressed in the preceding context (Andersen 1982: 91). This meaning clearly relates to the general meaning of the modal particle paradigm contextualizing the utterance of the speaker relative to the interactive context, but it does not correspond to any of the other modal particles more specifically.

10.2.2.1 Arguments for the importance of analogy and topological ambiguity

If the emergence of a modal particle can be explained based on bridging contexts followed by structural adjustments based on diagrammatic iconicity, one might ask whether topological ambiguity and analogy are necessary additional factors to explain the emergence of new modal particles. The following arguments speak for the presented mechanism:

1. With reference to the suggested mechanism, the sudden rise in the number of new modal particles can be explained. The presence of an analogical model or supporting construction boosts the potential for reanalysis of new modal particles. If the changes occurred independently of each other, we would expect that the emergence of new modal particles would be more evenly distributed across the centuries.
2. Similarly, it can be explained why modal particles that end up constituting subparadigms together tend to emerge at the same time (cf. Figure 10.1, to be discussed more thoroughly in Section 10.3.1).
3. With reference to the suggested mechanism, it can be explained why there is a high degree of notional coherence among the modal particles as a whole as well as within the subparadigms. An already existing modal particle gives selectional advantages to other modal particles with a similar meaning based on analogy. If we disregarded the paradigmatic context, we would expect much more variation in the meaning of modal particles.
4. The fact that modal particles share certain expression features can also be explained with reference to the suggested mechanism. There is no logical necessity for modal particles 1. to occupy the left-most position in the middle field or 2. to be excluded from the pre-field. 3. Furthermore, there is no logical necessity for modal particles that form a subparadigm together to end up in the same position. However, this can be explained with reference to analogy.

   This can be illustrated with a comparison with sentence-final pragmatic markers in English. Even though these pragmatic markers express meanings that are similar to the Danish modal particles, they are restricted to the right periphery in Modern English (cf. Haselow 2011; 2012; Traugott 2016). The case of the modal particle *da* in interrogatives and imperatives and English final *then* is particularly interesting in this connection. Both have very similar meanings at some point in their development (cf. Section 8.2.4.5). Nevertheless, they end up in distinct positions (cf. Section 8.2.4.7) due to differing analogical forces in the two languages.
5. As illustrated in Chapter 7–9, modal particles can have various sources. Common to almost all of them is that they are adverbs or are used adverbially prior to their recategorization as modal particles. The scenario presented in

this section takes this into account. The topological ambiguity emerges particularly easily with adverbials.

Finally, some might claim that the paradigmatic formation is coincidental or epiphenomenal to other changes such as grammaticalization. For instance, such a stance is taken by Bybee & Dahl (1989: 61), who argue that:

> if each gram follows a path of development according to its original meaning, then it develops independently of other grams. It belongs to a structural class if other grams from structurally similar sources (such as auxiliary verbs) undergo grammaticization at approximately the same period of time. Its membership in a structural class, then, is not determined solely by its meaning, but at least in part by chronological coincidence.

In other words, the authors argue that the structural class of a source construction giving rise to grammaticalization (in the broad sense) combined with temporal coincidence can account for paradigm formation.

Crucially, Bybee & Dahl seem to regard the chronology, that is, the temporal coincidence of the grammaticalization (in the broad sense) and structural similarity of the source constructions, as coincidental and not motivated. However, in this section, I have argued that temporal coincidence and structural similarity are not coincidental but can be explained with reference to the mechanism for paradigmatic integration.

Secondly, the modal particles are paradigmatically integrated throughout several centuries. Their paradigm formation can therefore not be explained solely based on chronological coincidence. Reinöhl & Himmelmann (2017: 404) propose the same argument in their discussion of Hindi simple postpositions, and it is not difficult to find further examples.

10.2.3 Current changes in the modal particle paradigm: Emergence of the right periphery position

As discussed in Section 4.2.3, in Modern Danish, some modal particles can appear in the right periphery of the clause. As argued there, of the modal particles discussed in this study, at least *jo, sgu, vel, skam* and *da* can do so.

As discussed in Section 8.2.4.3, already in the 18th century, the modal particle *da* can appear in the right periphery when it occurs in interrogatives and imperatives:

(10.17) Hvad sagde hun til dig **da**?
what said she to you **DA**

'What did she say to you **DA**?'

(1728 HolPla IV 93)

There are no traces in my historical material indicating that other modal particles occurred in the right periphery prior to the 20th century.[60] However, Sune Gregersen has pointed out to me that the right periphery position for modal particles may be older in some of the regional varieties that are ill-represented in my material. For instance, the modal particle *jo* occurs in the right periphery in dialect recordings that are c. 100 years old, as in the following example from Bornholmian (BO, s.v. *jo*):

(10.18) jâ hadde fâd ed grân fâr huzed, **ju**
I had got a bit for the house **JO**

'I received a bit for the house **JO**.'

(1923–31 Bornholm BO, s.v. *jo*)

In this section, I outline a possible scenario for why modal particles begin to appear in the right periphery. I first discuss the emergence of the right periphery position of *da*. Afterwards, I discuss why *vel*, *sgu* and *skam* can appear in the right periphery position. Finally, I discuss this for *jo*.

10.2.3.1 The right periphery position of *da*

As pointed out already, Modern English has a construction that is similar to the modal particle *da* in interrogatives and imperatives, namely so-called final *then*. Haselow (2012: 168–69; cf. Traugott 2016) argues that the position of *then* in the right periphery is due to the afterthought character of *then*.[61] However, this link between afterthoughts and the meaning of *then* (or *da*) is not obvious. While some of those cases where one would like to link an utterance to the preceding discourse certainly may be realized as an afterthought, this is not always the case. Indeed, the argument is difficult to align with the fact that many discourse markers that link the utterance to the preceding discourse can only do so utterance-initially (Heine 2013: 1208), e.g., *well* in (10.2) discussed above.

[60] *Sgu* and *skam* occurred in the right periphery already in the 19th century. However, as discussed, it is difficult to say whether these are modal particles already in the 19th century.

[61] Similarly, Kim & Jahnke (2011: 53) discuss the development of final *even* and relate the utterance-final position of *even* to its mirative meaning and its afterthought semantics.

A different though related cause of the right periphery position is assumed for the development of final *though* by Barth-Weingarten & Couper-Kuhlen (2002) and final *but* by Mulder & Thompson (2008; Hencil 2015), both of which have given rise to sentence-final discourse markers. These are assumed to result from an elliptical or implicit construction where the rest of the *but* and *though* clause is left implicit. The following illustrates this for *though* (from Barth-Weingarten & Couper-Kuhlen 2002: 348, rendered as in the original but shortened):

(10.19) S: thEY do no GOOD, thEY won't change a DAMN (.) thIng; (.) exCUSE the lAnguage,=

L: it's their right to be HEARD **though**; Isn't it

In such an example, *though* only implies the conceded clause. Thereby it comes to express concession without itself expressing the conceded proposition. Similarly, the modal particle *da* may have taken its point of departure in the subordinator *da* (cf. Section 8.2.3):

(10.20) **Skovsgaard**. Hvordan finder jeg Eder?

Jomfruen. Eders, som jeg altid har været.

Skovsgaard. Hvad forhindrer min Lykke **da**?

'**Skovsgaard**. How do I find you?

The Maiden. Yours, as I have always been.

Skovsgaard. What prevents my happiness **if** [implied: you are mine]?'

(1680 GFKom 22)

In an example like this, *da* may have been used as a subjunction with the rest of the subordinated clause left implicit.

It might of course also be the case that the post-field position can be explained as a remnant of the adverbial source construction, which straightforwardly occurs in the right periphery (cf. Section 8.2.1.1 and 8.2.2.5). An example like (10.20) might as well be an instance of the adverb in the right periphery, and hence, it can also illustrate this alternative scenario. However, if this is the case, one might wonder why the remaining modal particles that also have source constructions that can occur in the right periphery cannot be placed in the right periphery, e.g., *nu*.

10.2.3.2 Right periphery position of *sgu*, *skam* and *vel*

The fact that the modal particles *sgu*, *skam* and *vel* begin to appear in the right periphery of the clause might be due to these modal particles having heterosemes with meanings that are typical of the right periphery or originate in constructions with such meanings. The phatic modal particles *skam* and *sgu* are originally oaths that can be used interjectionally in the right periphery, as discussed in Section 7.3.1.2 and 7.4.3.5:

(10.21)

Min	gode	here,	gode	raad	ere	dyre	i
my	good	lord	good	councel	is	expensive	in

saadanne	vnde	sager,	**saa**	**sant**	**hielpe**	**meg**	**gud,**
such	evil	cases	**so**	**true**	**help**	**me**	**God**

fordi,	at	naar	gestlige	personer	icke	kunde
because	that	if	clerical	persons	not	can

komme	vnde	mennisker	til	lydelse	oc	hørsomhed,
come	evil	humans	to	sound	and	obedience

tha	er	der	raad	hoss	øffuerigheden
then	is	there	council	with	the authority

‘My good lord, good counsel is costly in such evil cases, **by God**, because if clerical persons cannot bring wicked people to obedience, then the authorities know what to do.’

(1546 PalLet I 247)

Similarly, as pointed out in Section 9.4.4.1, *vel* develops a tag meaning in the 19th century which begins to appear in the right periphery in analogy with the tag *ikke* ‘right?’:

(10.22)

Men	det	vil	du	ikke.	**Vel**?
but	that	will	you	not	**VEL**

‘But you do not want that, **right**?’

(1894 ODS, s.v. *vel*)

The topological distribution of the heterosemes of these modal particles might then have influenced the homophonous modal particles analogically to adopt this position, that is, it can be seen as a case of attraction (cf. De Smet et al. 2018, cf. Section 3.2.2).

10.2.3.3 Analogical extension to *jo*

Based on analogy with the modal particles *da, sgu*, *skam* and *vel*, other modal particles like *jo* can then be extended to this position. Again, such an analogy can be facilitated by topological ambiguity:

Table 10.6
Topological ambiguity facilitating reanalysis of *jo*

(10.23)

pre-field	V_{fin}	S	MP	right periphery
Tiden	går		**jo**	
time	goes		JO	

'Time is JO passing.'

(1928 HjoSto 128)

Summing up the development, the modal particles *da, sgu, skam* and *vel* develop the right periphery position for reasons related to their source constructions or heterosemes. As soon as these modal particles occur in the right periphery, other modal particles can be extended to this position based on analogy.

10.2.4 Summary of the emergence of the modal particle paradigm

In this section, I have provided a scenario for how the modal particle paradigm emerges. I argued that *jo* is the proto-modal particle, exhibiting the expression and content features that modal particles have today. I argued that these features emerge in an interplay between a foreign model and language internal motivations as a case of contact-induced grammaticalization. I then presented a mechanism for paradigmatic integration involving bridging contexts, analogy and topological ambiguity. This enables the fast integration of new modal particles as well as their semantic and formal alignment. Finally, I argued that the right periphery position in Modern Danish is a new development that is also driven by analogy.

Closing this section, I must emphasize that I do not assume that analogical system pressure is the sole factor influencing the emerging modal particles. Rather, as I argued in Chapter 7–9, the semantic changes of the individual modal particles can be explained based on bridging contexts. The suggested mechanism should therefore be understood as a weak drag chain, where a change in one construction facilitates a similar change in another construction rather than forcing a similar change. In other words, the paradigm only enhances the probability that certain changes occur, while these changes might happen anyway. Consequently, one might consider speaking of system facilitation rather than system pressure.

10.3 The emergence of the subparadigms

The focus of the preceding section was on the emergence and development of the modal particle paradigm as a whole. In this section, I focus on the emergence of the subparadigms. In Section 10.3.1, I present an account for the paradigmatic integration into subparadigms and discuss the temporal coincidence of the development of modal particles that form subparadigms together. Arguably, this can be explained with reference to the mechanism for paradigmatic integration discussed in Section 10.2.2. In Section 10.3.2, I suggest a scenario that explains the relative order of the subparadigms historically.

10.3.1 Paradigmatic integration into subparadigms

In this section, I discuss the paradigmatic integration of modal particles into subparadigms. This paradigmatic integration can be explained with reference to the same mechanism as the one that accounts for the integration of modal particles into the paradigm as a whole. The emergence of one modal particle within a developing subparadigm facilitates parallel developments in other particles based on analogy and topological ambiguity. This integration into subparadigms leads to semantic and topological alignment of those modal particles that eventually form subparadigms with each other.

This can be illustrated with the emergence of *nok*. Arguably, evidential *nok* develops in analogy with an already existing evidential modal particle, namely *vist*. The latter expresses that the information source is intersubjectively available and does so already around 1700 (cf. Section 9.2.4). At this point in time, the modal particle *nok* still expresses predictions (cf. Section 9.3.3). However, shortly after the emergence of the intersubjective modal particle, *nok* changes its meaning and begins to express subjective evidentiality (cf. Section 9.3.4). Arguably, this is due to at least two things: 1. as discussed in Section 9.3.4.1, the prediction meaning is contiguous with the subjective evidential meaning and can give rise to it contextually; 2. the fact that *vist* already expresses evidentiality facilitates a reanalysis of this contextual evidential meaning of *nok* based on analogy, as discussed in Section 10.2.2.

With reference to the mechanism for paradigmatic integration, it is also possible to explain the paradigmatic integration of *nu* and *da*. As argued in Chapter 8, *da* seems to develop the meaning potential of the modern modal particle slightly before *nu* in the 18th century. The emergence of the modal particle *da*, which expresses conflicts and identifiability, must have facilitated a similar change in the development of *nu*. Again, this is due to both the presence of relevant contextual meanings of *nu* in bridging contexts and the presence of an analogical model. The etymon of the modal particle *nu* expresses a meaning that, in certain contexts, implies a contrast or conflict of hypotheses and identifiability similar to the modal particle *da* (cf. Section

8.2.4). The similarity between the contextual meaning of *nu* and the meaning of the modal particle *da* facilitates the conventionalization of this meaning, which in turn leads to the paradigmatic integration of *nu* and *da*.

Finally, as discussed in Section 7.4.3, contextually, the emphasizer *skam* often expresses its modern modal particle meaning, namely the expectation not to be contradicted, and it occurs in contexts where somebody doubts the proposition expressed. Such a meaning might emerge on its own, but arguably, the presence of the analogical model *jo* facilitates such a development.

The same mechanism can probably also account for the paradigmatic integration of the argumentative modal particles. However, as I have not looked into their development myself, but exclusively rely on Jensen's (2000) analysis of them, I will refrain from further discussion.

As illustrated in Figure 10.1, one of the most intriguing findings from a paradigmatic perspective is that many of those particles that eventually form subparadigms together also seem to emerge around the same time. The evidential modal particles *nok* and *vist* emerge in the transition to the 18th century, the proximal modal particles *nu* and *da* emerge in the 17th century (in interrogatives and imperatives) and in the 18th century (in declaratives), and the phatic modal particles *sgu* and *skam* emerge in the 19th or in the transition to the 20th century. Finally, according to Jensen (2000: 71; 101), the argumentative modal particles *altså* and *ellers* emerge in the 20th century. Arguably, this can be explained with reference to the mechanism for paradigmatic integration, which supports the emergence of new modal particles once an analogical model is present.

It should be pointed out that I do not claim that this can account for the timing of the emergence of all modal particles. For example, the phatic modal particles *sgu* and *skam* develop several centuries later than the phatic modal particle *jo*. Additionally, the emergence of certain modal particles overlaps, even though they do not belong to the same subparadigm. For instance, the emergence of the proximal and evidential modal particles partly coincides. Nevertheless, the temporal coincidence of those modal particles that eventually constitute subparadigms is striking, and with reference to the mechanism presented in Section 10.2.2, this coincidence can be explained.

10.3.2 On the order of the modal particle subparadigms

In this section, I discuss how the relative order of the sub-paradigms can be explained.[62] Recall that the order of the modal particles in declarative clauses is as follows (Hansen & Heltoft 2011: 1063; cf. Section 4.2.4 for illustration):

Table 10.7
The relative order of modal particles

modal particle position			
phatic modal particles	**proximal modal particles**	**argumentative modal particles**	**evidential modal particles**

The following order is also possible:

Table 10.8
Alternative relative order of modal particles

modal particle position			
phatic modal particles	**proximal modal particles**	**evidential modal particles**	**argumentative modal particles**

I will argue that three partly competing factors explain the order of modal particles: 1. the chronology of the emergence of modal particles (which could be called a first-come-first-serve mechanism), 2. diagrammatic iconicity and 3. analogy. I will argue that the first factor is the default. However, it presupposes diagrammatic iconicity itself. Furthermore, diagrammatic iconicity and analogy are stronger than the chronology factor and can overrule it.

The idea behind the chronology factor is this: already existing modal particles precede most etymons of other modal particles (but see below on the etymons of the proximal modal particles). Arguably, this is so because already existing modal particles are placed higher in the scope hierarchy than constructions that are not yet modal particles that either scope over states-of-affairs or propositions.

For instance, in (10.24), the proto-modal particle *jo* has broader scope than the temporal adverb *nu*, a state-of-affairs operator, and consequently precedes it:

[62] As pointed out throughout the dissertation, there are rather few examples where modal particles and relevant sentence adverbials cooccur. Admittedly, this makes any assessment of the exact development of their relative order a bit speculative.

(10.24) en fattig vforstandig thieniste piige, kand **jo nu** vide,
a poor unwise servant girl can **JO now** know

huorledes hun skall skriffte
how she shall confess

'A poor, unwise servant girl can **JO now** know how she should confess.'

(1543 PalArg V 67)

In (10.25), *jo* precedes the temporal or conditional *da*, which also is a state-of-affairs operator:

(10.25) i uide **io daa** att sette eder til bords tilsammen
you know **JO then** to sit you to table's together'

och først bede it fader vor

'You know **JO then** to sit together at the table and first say the Lord's Prayer.'

(1543 PalArg V 55)

In these examples, *nu* and *da* are not yet modal particles and express meanings with narrower scope than *jo*. Based on the principle of diagrammatic iconicity, it is therefore expected that these modal particles follow *jo*.

When the proximal modal particles *nu* and *da* are then reanalysed as modal particles, this happens in a position where they follow the modal particle *jo*. Because, after reanalysis, the proximal modal particles are illocution operators with the same scope properties as *jo*, there is no reason for them to change their position vis-à-vis *jo*. We would therefore expect the emerging modal particles to inherit the word order properties of their etymons vis-à-vis already existing modal particles. Therefore, proximal modal particles follow an older modal particle like *jo*:

(10.26) De [svigerfamilien, LW] er **jo nu** ikke fra DK,
They [the in-laws] are **JO NU** not from Denmark

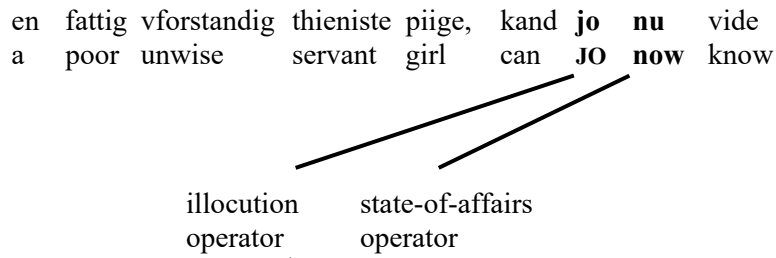
men svigermor skulle da lige se KBH og sårn.

'They [the in-laws] are **JO NU** not from Denmark, but my mother-in-law had to check out Copenhagen and stuff.'

(internet)

The following figure illustrates this diachronic inheritance:

Before reanalysis:



After reanalysis:

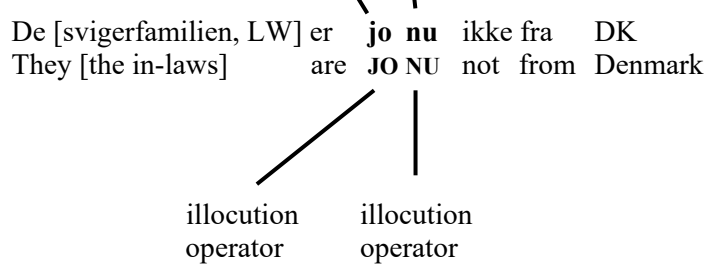


Figure 10.4
Diachronic topological inheritance

Based on this mechanism, we would expect a default situation where the internal word order of modal particles corresponds to their chronology. This chronology differs depending on whether one only looks at declaratives or also includes interrogatives. I will take my point of departure in the chronology of the emergence of modal particles in declaratives. Based on this chronology and the suggested mechanism, we should expect the following order (cf. Figure 10.1 above):

Table 10.9
Expected relative order of modal particles based on the chronology factor

modal particle position				
phatic modal particles	**evidential modal particles**	**proximal modal particles**	**phatic modal particles**	**argumentative modal particles**
jo	*vel, vist, nok*	*nu, da*	*sgu, skam*	*altså, ellers*

Much of this corresponds to the order of modal particles in Modern Danish illustrated in Table 10.7 and 10.8. The following points require an explanation:

1. why do proximal modal particles precede evidential modal particles as in (10.27)?
2. why can argumentative modal particles precede evidential modal particles as in (10.28)?
3. why are the phatic modal particles *sgu* and *skam* placed together with *jo* preceding other modal particles like the proximal particles as in (10.29)?

(10.27) Der er da mange problemer. Meget af det er fredet.

Men	det	er	**nu**	**nok**	ikke	så	meget	det
But	it	is	**NU**	**NOK**	not	so	much	that

'There are DA many problems. Much of it is protected. But that's **NU NOK** not really the problem.'

(Bysoc)

(10.28)

jo	hun	er	jo	**også**	**nok**	en	del	klogere	end	mig
yes	she	is	JO	**OGSÅ**	**NOK**	a	bit	smarter	than	me

'Yes, she is JO **OGSÅ NOK** a bit smarter than me.'

(Bysoc)

(10.29) når man så skyder torpedoen ud, så tænker man

den	lille	tynde	tråd	den	kan	**sgu**	**da**	holde	til	sådan	noget
the	small	thin	wire	it	can	**SGU**	**DA**	hold	to	such	things

'When you then launch the torpedo, then you think, the small, thin wire can **SGU DA** handle something like that.'

(Bysoc)

I will discuss these questions in turn.

Changes pertaining to proximal and argumentative modal particles vis-à-vis the evidential modal particles can be explained based on diagrammatic iconicity. The proximal and argumentative modal particles precede evidential modal particles because they, as illocution operators, scope over the latter, which are proposition operators (cf. Section 2.6.1 and 2.6.2). As regards the variation in the order of the argumentative modal particles vis-à-vis the evidential modal particles, this can then be explained as a rule conflict: the old rule based on the chronology vs. a new rule based on diagrammatic iconicity.

As I argued in Section 8.3.1.1, the etymon of the modal particle *nu* and probably also of the modal particle *da* always seem to have had an idiosyncratic topological distribution occurring in the left periphery of the middle field. I argued that this

might be due to a fossilized structure where light material preceded heavier material. The etymons of the evidential modal particles do not seem to have had that same topological distribution. Therefore, the etymons of the proximal modal particles might always have preceded evidential modal particles even though they have narrower scope.

While I lack unambiguous examples of the etymons of *nu* and *da* preceding evidential modal particles in my historical material, the following example illustrates that the etymons of the proximal modal particles at least precede the sentence adverbial predecessors of the evidential modal particles:

(10.30)

Kierre	Christopher,	dw	willtt	nu	giøre,	som	mynn	gode
Dear	Christopher	you	will	now	do	as	my	good
tro	er	till	tig,	och	**nu**	**wiist**	kome	hid	till	mig,
belief	is	to	you	and	**now**	**certainly**	come	hither	to	me’

‘Dear Christoffer, you must do now, as I trust you will, and **certainly** come here to me **now**.’

(1566 GøjLet 106)

One answer to the question of why the phatic modal particles *skam* and *sgu* align topologically with *jo* has already been hinted at in the preceding sections. In their paradigmatic integration, *sgu* and *skam* are reanalysed as phatic modal particles due to similarity with *jo*. Consequently, they occupy the same position as the phatic modal particle *jo.* As discussed in Section 10.2.2, such an analogy is facilitated by the thetical topological origin of these modal particles, which leads to topological ambiguity.

One might try to argue for an account with fewer assumptions where diagrammatic iconicity alone explains the relative order of the modal particles. However, at least two points speak against this scenario:

1. The account based on diagrammatic iconicity cannot explain why the evidential modal particles can precede argumentative modal particles, as the latter must be assumed to scope over the former.
2. It is not immediately clear that the phatic modal particles should scope higher than the proximal modal particles, and that these in turn scope above argumentative modal particles. Indeed, in Early Modern German, Luther has the order *doch ja* in his Bible translation, with *doch* semantically corresponding to the proximal modal particle *da*, and *ja* corresponding to the phatic modal particle *jo*:

(10.31) Sie sind **doch ja** deine Knechte vnd dein Volck
they are **DOCH JA** your servants and your people

'They are **DOCH JA** your servants and your people.'

(1545 LutBib Neh 1:10)

Furthermore, Müller (2014: 208) argues that, in Modern German, the order *doch ja* is possible in certain contexts:

(10.32) Das ist **doch ja** wieder typisch.
it is **DOCH JA** again typical

'That's **DOCH JA** typical again.'

(Müller 2014: 176)

Based on the chronology factor, the order *doch ja* would be the expected one for German, as it appears that *doch* is an older modal particle than *ja*. There is good evidence that the former is a modal particle at the latest in Middle High German. The latter is still only used sentence initially in Middle High German and hence seems to develop modal particle status later than *doch* (cf. Hentschel 1986: 115).

The fact that, in Modern German, the order *ja doch* is the unmarked order might very well indicate that diagrammatic iconicity plays some role in the ordering of phatic vis-à-vis proximal modal particles. However, examples like (10.31) and (10.32) illustrate that this is not the whole story at least.

In sum, in this section, I have argued that the relative order of the individual modal particle subparadigms is due to three factors: 1. chronology, 2. diagrammatic iconicity and 3. analogy.

10.4 The grammaticalization of the modal particles

In Chapter 7–9, I argued that the development of the investigated modal particles involves grammaticalization at some point in their history. Importantly, the results make it clear that the grammaticalization of these modal particles or their source constructions and their recategorization as modal particles do not necessarily correlate. Rather, modal particles can also originate in constructions that themselves are already grammatical. This is, for instance, the case with *nok*. *Nok* is already grammaticalized when the affirmative meaning is conventionalized. This means that modal particles can emerge through grammatical change, sometimes also referred

to as secondary grammaticalization (see Breban 2014 for a critical discussion of this term).

In the remainder of this section, I discuss one factor that contributes to the grammaticalization of modal particles or their source constructions, namely the constructional background slot in the middle field. I first present the argument from a general perspective. Afterwards, I illustrate how it applies to the modal particles *jo* and *sgu*. This account has already been presented in Westergaard & Boye (in press).

Recall from section 3.3 that grammaticalization consists in the conventionalization of discourse-secondary status. As pointed out, in this account, grammaticalization can be understood as a case of hypoanalysis, where a contextual feature becomes conventionally associated with a construction. The precondition for this is usage patterns in which the construction occurs with discourse-secondary status, that is, backgrounded; it must occur in contexts where it loses the "competition for discourse prominence" (Boye & Harder 2012: 23).

Furthermore, as discussed in Section 3.3.2, Boye & Harder (2021) argue that constructional background slots indicate that the material placed there is discourse-secondary or background information. In Section 4.1, I briefly discussed Heltoft's (2003) analysis of the background field in the Middle and Modern Danish middle field. Heltoft argues that constructions that precede negation in the middle field are backgrounded in Middle Danish:

Table 10.10
Iconic middle-field structure (cf. Section 4.1)

middle field		
background	**negation**	**focus**

Therefore, the background field within the middle field can be seen as a constructional background slot (cf. Boye & Harder 2015: 50; 2021). While this slot holds all types of constructions in Middle Danish, later, only light pronouns and certain adverbials can be backgrounded with it (cf. Section 4.1). Relevant to the present discussion is that those adverbials that constitute the etymons of the modal particles can occur in this position throughout their history. Arguably, then, the background field in the middle field is a facilitating factor for the grammaticalization of the modal particles or their etymons. Filler constructions that are placed in these constructional background slots are contextually processed as background information. This feature can then be reanalysed as a conventional feature of the filler construction, that is, the construction becomes grammaticalized.

This can be illustrated with *jo.* In an utterance such as the following, temporal *jo*[63] is backgrounded due to its position in the background field:

(10.33)

meen	ther som	thett	**jo**	ickij	andet	skee	kand,
but	since	it	**ever**	not	else	happen	can

ennd hand wille thretthe mitt ether och oss aelle, thaa siønis mig beest att were paa paa [sic] ether gode behaaffuee,

'But as nothing else **ever** can happen, other than him wanting to fight with you and all of us, I think it best to do as you wish.'

(1562 GylLet II 190)

In such an example, the meaning of the constructional slot instructs the addressee that *jo* should be processed as background information. In a hypoanalysis, this background feature, which at first is only associated with the constructional background slot, can then be conventionalized as part of the meaning of *jo*.

Similarly, the parenthetical oath *så (sandt) hjælpe mig Gud* or one of its more contracted forms like *så Gud* or similar can occur in the background field:

(10.34)

De	er	**saagu**	dog	en	charmant	ung	Mand
You	are	**so God**	DOG	a	charming	young	man

'**By God,** you are a charming young man.'

(1857 GolHje 239)

Also in this example, the oath is marked as background by the constructional background slot. This meaning can in turn be associated with the oath. As soon as this once contextual meaning is conventionally associated with the oath, grammaticalization has occurred.

Arguably, the same mechanism applies to all other modal particles *mutatis mutandis*. However, I will not discuss it further for any of the other modal particles.

As a closing remark, I want to highlight that placement of the modal particle etymons in the background field only facilitates grammaticalization; it does not necessitate it (cf. Boye & Harder 2021: 6–7). Other constructions can occur in the background field as well without ever being grammaticalized. Boye & Harder (2021: 6) point out that parenthetical once-formations like *he actually had the*

[63] As already pointed out in Section 7.2.1.1, in an example like (10.33), it is difficult to say whether *jo* still expresses its temporal meaning or the expected agreement meaning. However, in this example, the temporal meaning is at least possible, and therefore, it suffices for illustration.

temerity to say probably will not give rise to a grammaticalized construction even though these constructions appear in the position for background material.

Furthermore, the constructional background slots are not necessary for grammaticalization of the modal particle etymons. The only requirement for grammaticalization is that there are usage patterns where a construction is processed as background information. Therefore, constructions can grammaticalize without ever occurring in a constructional background slot (e.g., the grammaticalization of *gonna* discussed in Section 3.3). In other words, just as topological ambiguity was said to be a facilitating factor for paradigmatic integration, the background field is also only a facilitating factor for grammaticalization.

10.5 Summary of the history of the Danish modal particle paradigm

In this chapter, I have shifted the perspective from the individual modal particles to the emerging paradigm. I argued that the sudden rise of new modal particles, the temporal overlap in the emergence of particles within the subparadigms and the modern synchronic structure of modal particles provide compelling evidence for the diachronic influence of the emerging paradigm on the individual emerging modal particles. I also discussed a mechanism for paradigmatic integration. With reference to this, it is possible to explain how the paradigm facilitates the development of new modal particles.

I argued that the content and topological distribution of *jo* expressing expected agreement is a result of contact-induced grammaticalization based on a German model. With this meaning, *jo* serves as a proto-modal particle, that is, it functions as an analogical model constituting the basis for the emerging paradigm regarding its content and expression.

Subsequently, I discussed how the paradigmatic integration of other modal particles and their paradigmatic integration into subparadigms can be explained. I argued that this relies on an interplay of three factors: bridging contexts, analogy and topological ambiguity. In the suggested mechanism, topological ambiguity and analogy facilitate the conventionalization of contextual features in bridging contexts. I then suggested that the more recent spread of the right periphery position of some modal particles is facilitated by analogy and topological ambiguity in a similar manner.

Furthermore, I addressed the word order of the subparadigms and argued that their relative order can be explained with reference to the chronology of the emergence of individual modal particles, diagrammatic iconicity and analogy.

Finally, I discussed word order as a facilitator of grammaticalization of the modal particles. I argued that the background field may have played a role in the conventionalization of background status.

11 Conclusions and open questions

The main points of the analysis presented in Chapter 7–9 have already been summarized in Section 10.1. In this closing chapter, I only briefly review the main conclusions of this dissertation. Afterwards, I point to some open questions concerning the development of the Danish modal particles.

This study deals with the emergence and development of the Danish modal particle paradigm. After outlining theoretical, methodological and systemic preliminaries in Chapter 1–6, in Chapter 7–9, I present my analysis of the development of the individual modal particles *jo, sgu, skam, nu, da, nok, vel* and *vist*, tracing their historical pathways. In Chapter 10, I then discuss the development of the modal particles as a paradigm.

With this study, I hope to have shed some light on the history of the main Danish modal particles, outlining a possible trajectory for each modal particle. Furthermore, I suggested a scenario accounting for the development of the Danish modal particle paradigm as a whole.

From a theoretical perspective, I hope this study contributes to our understanding of paradigm formation and paradigmatic integration. Arguably, the dual perspective of this study, taking into account both the pathways of the individual modal particles and their overarching paradigmatic context, makes it clear how the development of paradigmatically structured constructions happens in an interplay between the potential a construction has in usage in so-called bridging contexts and the systemic context of the construction.

Closing this chapter, I will highlight some open questions. I have only dealt with a subset of modal particles. Much is still unknown about the history of the Danish modal particles. Future research could investigate the development of modal particles other than those covered here and relate it to the results of the present study. Furthermore, the aim of this dissertation was to trace the structural and functional evolution of the modal particle paradigm focusing on the semantic development of individual modal particles and how this relates to the development of the expression system of modal particles as well as their integration into a paradigm. Future research could add to this a historical sociolinguistic perspective: Where do the innovations stem from, how do they spread, etc.? Due to considerations of time and space, such aspects have been neglected in this study.

Not only the spread of the modal particles within the Danish language community, but also the areal patterns of modal particles deserve much more attention: How do the present results relate to the other North Germanic or Nordic languages? How should the results be interpreted in a broader Germanic, European or typological context?

These open questions show that there is still much work to do, but I hope this dissertation contributes to our understanding of the history of modal particles and the interaction between an emerging construction and its paradigmatic context.

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Databases

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Bysoc = Corpus of spoken Modern Danish. Available at: https://bysoc.ku.dk/engine_main.cgi?

DB = *Danmarks Breve*. Available at: https://tekster.kb.dk/text?editorial=no&f%5Bsubcollection_ssi%5D%5B%5D=letters&match=one&search_field=Alt

DUDS = *Dansk Sprog- og Stilhistorisk Tekstbase.* Available at: https://duds.nordisk.ku.dk/tekstresurser/dsst/teksterne/

KorpusDK = Corpus of written Modern Danish. Available at: https://ordnet.dk/korpusdk

ONP = Dictionary of Old Norse prose. Available at: https://onp.ku.dk/onp/onp.php

Tekstnet = https://tekstnet.dk/books/

Text sample

In what follows, the texts are grouped by centuries. For each century, I will first list the cited texts in alphabetic order. Afterwards, I will list the texts that are part of the sample but not cited in the dissertation.

14th century or older

EL = *Eriks Sjællandske Lov* (AM 455,12°). Ed. by S. S. Boeck Copenhagen: DSL 2015. Available at Tekstnet.

HarpNKS = *Harpestrengs skrifter* (NKS 66,8°). Ed. by M. A. Nielsen. Copenhagen: DSL 2015. Available at Tekstnet.

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LegFK48 = *Legendefragmenter* (Sthlm. K48). Ed. by M. A. Nielsen. Copenhagen: DSL 2015. Available at Tekstnet.

Luc = *Lucidarius* (AM 76, 8º). As cited in S. Kroon & B. O. Frederiksen (eds.). *A Danish Teacher's Manual of the Mid-Fifteenth Century (Cod. AM 76, 8°). Volume 1. Transcription and Facsimile. Addendum: The Gotfred of Ghemen Print of The Danish Lucidarius (1510). Volume 2. Commentary and Essays*. Lund. Lund University Press 1993.

SL = Skånske lov (AM 28, 8°). Ed. by M. S. Danielsen. Copenhagen: DSL 2015. Available at Tekstnet.

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Flensborg Stadsret. Ed. by M. A. Nielsen. Copenhagen: DSL 2015. Available at Tekstnet.

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kand hanlis met dem som erre besette, *Enchiridion*, *Et almindeligt Skriftemaal*, *Fortale og Efterskrift til En kort Katekismusudlæggelse*, *Jesu Christi ærefulde Forklarelse paa Thabor Bjerg*, *Fortalen til Christian den tredjes Bibel*, *Jesu Christi ærefulde Forklarelse paa Thabor Bjerg*, *Lille Katechismus*, *Om Exorcismo*, *Om Hosedieffuelen*, *Om kranke og fattige Mennesker*, *Om lønligt skriftemaal*, *Om Sværgen og Banden, Om Ægteskab og om frugtsommelige Kvinder*, *Sankt Peters Skib*, *Udlæggelse af Miserer*, *Visitatsbogen*. As printed in L. Jacobsen (ed.), *Peder Palladius' Danske Skrifter*. Copenhagen: H.H. Thiele 1911–1926. Available at ADL.

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