B Dynamics of Creativity and Routine in Diachrony

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How to Get into Containers

The Emergence of German *Come to mind* Constructions

Abstract: Semantic changes of lexical verbs and within multi-word expressions remains a relatively unexplored domain in historical semantics in contrast to studies on grammaticalization. This paper deals with the diachronic development of the syntactic pattern [*in* 'in' N *kommen* 'come']. The most prominent debate within this context revolves around different light verb constructions of the pattern [P N V] which have received much attention in recent literature (see Fleischhauer and Hartmann 2021). Particular attention was given to the semantic content of the verb *kommen* and a presumed desemanticization process. By introducing a German 'Come to mind' construction I will demonstrate that the general development of the structure cannot be uniformly described. Instead, I propose a comprehensive semantic and cognitive viewpoint to explore the evolution of [*in* N *kommen*], which suggests that the emergence of individual constructions depends on the application of several metaphorical schemas that were conventionalized at different points in time.

1 Introduction

The present study investigates multi-word expressions which are formed following the pattern of the VP [*in* 'in' N *kommen* 'come']. This pattern gave rise to different constructions at various points in the history of German and its complexity poses a formidable challenge to understand its evolution comprehensively. This challenge encompasses various other constructions involving other movement and transfer verbs and different prepositions. The aim of this paper is to exemplify the developmental path of the specific construction [*in* 'in' N *kommen* 'come'] from a cognitive perspective.

The history of German has witnessed the emergence and disappearance of different manifestations of [*in* 'in' N *kommen* 'come'], making it appear initially chaotic and disjointed. The structure is encountered in present day German in

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several different ways with respect to its semantics and its degree of idiomaticity. The diachronically primary construction (1) is almost completely schematic in the sense that it denotes any change of location of any moving or movable entity: [P_{loc} N_{loc} V_{motion}]. 'Come to mind' constructions as in (2) are semi-specified and more restricted with respect to the verbal and the prepositional slot. They lack a concrete local reading and denote abstract entities like MENTAL CONTENT: [P_{loc} N_{mind} V_{motion}]. Light verb constructions as in (3) are sometimes considered almost fully specified, as the meaning of the whole structure is non-compositional, but their exact categorization and definition remain subject to debate (see e.g. Fillmore 1987, 1997; Fleischhauer and Neisani 2020; Smirnova and Stöber 2022): [V_{motion} P_{loc} N_{event}].

(1) *Der Schock war so groß, weil damals Millionen von Einwanderern per Schiff in die Neue Welt gekommen waren.*
'The shock was so great because millions of immigrants had come to (lit. 'in') the New World by ship at the time.' (Der Spiegel, 19.09.1983)[1]

(2) *Der erste Gedanke, der mir in den Sinn kam, war: Hunger.*
'The first thought that came to (lit. 'in') my mind was: hunger.' (Moers 1999)

(3) *Denn nur er konnte das Gesetz in Antrag bringen, und gegen seinen Willen kein Vorschlag in Berathung kommen.*
'For only he could propose the law, and no proposal comes into discussion against his will.' (Bluntschli 1875)

Both 'Come to mind' constructions (2) and light verb constructions (3) result from conceptual metaphors in that they create spatialized target domain entities from prelinguistic source domains: ABSTRACT ENTITIES ARE OBJECTS (2), MINDS ARE CONTAINERS (2), STATES / EVENTS ARE LOCATIONS (see Johnson 1987; Lakoff and Johnson 2003; Tendahl and Gibbs 2008). They nevertheless differ strongly with respect to their diachronic development: Light verb constructions consisting of the verb *kommen* are rarely attested until Early New High German and still continue to find high productivity (see Fleischhauer and Hartmann 2021). In contrast, 'Come to mind' constructions are already attested extensively in Old High German. The term 'Light verb constructions' (*Funktionsverbgefüge*, cf. e.g. Von Polenz 1987; Van Pottelberge 2001; Seifert 2016, 2020; Kamber 2008; Heine 2020; Harm 2021) implies that these constructions are primarily described in relation to the status of the

1 Examples from the DTA-corpus are cited according to the following pattern: (author/publication, year).

verb, which, in contrast to its 'heavy' use, is considered restricted or devoid of its 'full' semantic weight. Consequently, they have been repeatedly examined and analyzed from the perspective of grammaticalization theory (see Fleischhauer and Hartmann 2021 for an overview). On the other hand, 'Come to mind' constructions are rarely mentioned in the linguistic literature.

This paper diverges from traditional approaches like grammaticalization theory, which primarily focuses on the linear progression of grammatical elements from lexical to more abstract and functional units. I will argue that there is no coherent and uniform history of the structure [*in* N *kommen*], but rather specific constructions with various functions that feed on different metaphorical image schemas. The interpretation of the individual components of these constructions, especially the verb *kommen*, depends on the holistic constructional meaning and not on grammaticalization and desemanticization.

The paper is structured as follows: Section 2 includes the theoretical argumentation about desemanticization and grammaticalization, which I will challenge in relation to the research subject. In Section 3 I offer a working definition of metaphors emerging in the context of MIND and MENTAL CONTENT. In Section 4, I will explore the possibilities of abstract conceptualization of MIND in the Old Germanic languages. This investigation aims to identify elements that allow us, on the one hand, to reconstruct a metaphorical proto-system and, on the other hand, to serve as a basis for describing 'Come to mind' constructions in German. Section 5 presents the results of the analysis of the semantic space of the structure [*in* N *kommen*] in the history of German. Section 6 summarizes and consolidates the findings of the study and provides an outlook on future points of connection.

2 Theoretical Background – The Case of COME

Studies examining the historical evolution of verbal semantics have always been widely present in linguistic literature. The majority of these studies have primarily focused on the transition from 'full' verbs to auxiliaries (see Barðdal et. al 2019 for an oberview). This transition has been especially prominent in the context of grammaticalization theory, as exemplified by works such as Heine (1993), Bybee et al. (1994), and Krug (2011), which provide cross-linguistic investigations into auxiliaries. Important studies on specific languages include Diewald (1999) and Traugott and Dasher (2001) on modal verbs, as well as Fleischman (1983), Bybee and Thompson (2000), Barðdal (2001), Hilpert (2008), and Diewald and Wischer (2013) on aspectual verbs denoting future events. Haan (2007), Cornillie (2008), Diewald and Smirnova (2010), López-Couso and Méndez-Naya (2015), among

others, have explored evidential verbs in different languages. The vast amount of literature on specific individual phenomena under the label 'grammaticalization' is further exacerbated by the fact that the concept itself has drastically expanded in recent decades. Originally, it referred to a specific result of language change, which involved the transformation of lexical elements into grammatical or functional elements (see Meillet 1912). However, over time, the term has come to encompass almost the entire domain of language change (see Gildea and Barðdal 2023 for an overview). This is primarily due to the established mechanism of 'semantic bleaching' or 'desemantization' which often lead on to label any form of semantic shift of a lexeme or its use in abstract contexts as 'grammaticalized', even though other mechanisms, such as morphological and phonetic reduction or unidirectionality may not be met. To my understanding, the problem is based on one misconception. A common element in grammaticalization, and semantic change in general, is the shift from a concrete domain to an abstract one (see Langacker 1991: 325). It is also assumed that metaphorical processes often act as initiating forces in grammaticalization processes, since metaphors convey abstract or complex ideas by drawing on more concrete or familiar concepts introduce new semantic nuances (see Hopper and Traugott 1993: 87; Heine et. al. 1991: 151; Taverniers 2018). Of course, the reverse inference is not possible: Not every metaphor is an indicator of a grammaticalization process, and not every non-literal use of content words is a result of semantic bleaching. Otherwise, one would have to view every figure of speech and ultimately most forms of linguistic creativity within the context of grammaticalization.

Grammaticalization theory has always faced criticism for being limited in its explanatory power, as some argued that reanalysis or analogy were sufficient to explain the specific processes involved (see Campbell and Janda 2001; Roberts 1993; Kiparsky 2012; Anderson 2015). More recent criticism is less focused on that and more on the aforementioned broadening of the concept of grammaticalization itself. Regardless of these conceptual and ultimately terminological difficulties, there has been limited research devoted to understanding how verbs with full meanings undergo semantic changes to become verbs with different meanings, mostly through metaphorical extension. While some early studies, such as Bréal (1900), Wundt (1904), Sturtevant (1917), and Ullmann (1951, 1962), contain significant theoretical findings and observations related to semantic change, only a few studies have approached this topic from a broad cross-linguistic perspective. A typological study by Viberg (1982) investigates perception verbs related to the domains of SIGHT, HEARING, TOUCH, TASTE, and SMELL. Sweetser (1990) explores the phenomenon where words originally related to the physical domain in Indo-European languages often undergo a shift to represent abstract concepts in the psychological domain. Both Viberg and Sweetser demonstrate a consistent pattern of polysemy for perception verbs, demonstrating

how fully developed lexical verbs can acquire new meanings over time. Wegener (2001) examines how German verbs describing SENSATION diachronically emerge from expressions of PHYSICAL IMPACT. Reznikova, Rakhilina and Bonch-Osmolovskaya (2012) describe the development of PHYSICAL IMPACT verbs into PAIN verbs through metaphor and metonymy. In this research tradition, the work of Barðdal et. al (2019) is particularly noteworthy, who also focus on a specific process of semantic change in which verbs develop new meanings through metaphorical extension rather than grammaticalization. They specifically examine nouns associated with SUCCESS in Germanic and, on a broader scale, within the Indo-European language family. An important insight that this work has provided is that metaphors are dependent on the development of specific multi-word constructions in which they appear. The reconstructed Proto-Germanic metaphor SUCCESS IS MOTION FORWARD (see also Goatly 1997, 2007 and Lakoff 1993) is closely linked to specific patterns of predicate and argument structures. The consequence of this is that apparent desemanticization phenomena can hardly be isolated and generalized into a universal developmental path for individual lexemes without considering the history of the specific constructions in which they appear. Since this paper aims to explore the extent to which COME-verbs serve as a resource for the conceptualization of mental processes in Germanic, this problem becomes particularly evident. In the context of the multi-word constructions with MOTION-verbs, Fleischhauer and Hartmann (2021), within the framework of a loosely defined theory of grammaticalization, identify various signs of the 'desemanticization' of the German verb *kommen* 'come' in diachrony. They assume that *kommen* as an isolated lexical unit gradually reduces its concrete semantics to the extent that it can be used as a suitable element in different abstract contexts. Alongside its frequent appearance in multi-word units such as light verb constructions, they also consider a diachronic increase in the occurrence of abstract entities in subject position as an indicator of a desemanticized and grammaticalized *kommen*. This non-usage-based approach implies that a lexeme can develop its metaphorical potential and its overall more abstract semantics homogeneously across all constructions. On the other hand, Smirnova and Stöber (2022) do not consider the grammaticalization of *kommen* to be construction-independent. They assume a generally broad semantics for COME-verbs, which is a perspective that is well supported from a typological standpoint, since they are considered a rich resource for various grammaticalization processes that are observable cross-linguistically.[2] Since they combine traditional

2 They primarily refer to the *World Lexicon of Grammaticalization* (Heine et al. 2002: 68–79) and list different target domains of grammar for lexical expressions of COME-verbs, such as consecutive markers, imperative markers, future tense, hortative markers and semiauxiliary with past participles. From a Germanic perspective, another interesting phenomenon to note is the involvement of COME in different TRANSFER-constructions, the most prominent examples being GET/

grammatical descriptions of *Funktionsverbgefüge* (light verb constructions) with grammaticalization and lexicalization theories, along with more contemporary usage-based constructionist approaches (as seen in works like Traugott and Trousdale 2013; Barðdal et al. 2015; Coussé et al. 2018), they do not necessarily have to provide a unified answer to the question of the semantic content of the examined verb or the syntagmatic pattern in which it appears.

While grammaticalization is undeniably an essential aspect of language change, it is crucial not to overlook the coexistence of other linguistic processes. Different mechanisms may operate simultaneously, interact with each other, or even influence the trajectory of grammaticalization itself. Furthermore, language change can be influenced by a variety of extralinguistic factors, such as cultural, social, and historical developments. Ignoring these contextual influences and solely attributing linguistic change to grammaticalization might lead to an incomplete understanding of the intricacies involved in language evolution. In the following, I will argue that most of the seemingly detectable changes of meaning in German *kommen* 'come' occur as basic metaphorical extensions within specific usage contexts (i.e. constructions). As exemplified by the pattern [*in* 'in' N *kommen* 'come'] it will become evident that the diachronic development of *kommen* in the context of grammaticalization and desemanticization cannot be uniformly traced even for one and the same syntactic structure. Instead, I assume synchronically accessible metaphorical and metonymic patterns that are available to speakers as more or less conventionalized strategies at different points in time.

3 Metaphors in Constructions, Metaphors from Constructions

The essence of meaning lies in how we conceptualize things. Consequently, linguistic semantics needs to engage in the detailed examination and clear elucidation of abstract entities such as thoughts and concepts (see Langacker 1991: 2). The most important source domain for the conceptualization of these abstract entities is embodied experiences, which have image-schematic structure and are

BECOME-constructions (see Lenz 2013). Also worth mentioning is the metonymic shift from COME to PUT in Danish and in parts of neighboring North Lower German for their basic COME-verb (see Lenz et al. 2021: 75). This shows that Germanic COME-verbs are generally found in contexts of CHANGE OF LOCATION (like MOVEMENT and TRANSFER), but also in contexts of CHANGE OF STATE. The shared developments of the Germanic languages indicate that these are not phenomena of recent linguistic history.

rooted in recurring and physically perceivable patterns, such as CONTAINMENT, SOURCE-PATH-GOAL, BALANCE, etc. An image schema is a cognitive concept that refers to a mental representation or cognitive structure that emerges from our sensorimotor experiences. These experiences shape the way we understand and conceptualize abstract concepts and image schemas provide the cognitive basis for many metaphors, helping us understand and express abstract ideas in terms of these concrete experiences. Metaphors, in turn, often leverage image schemas to make abstract concepts more comprehensible in language (see Johnson 1987; Lakoff 1987). These image-schematic mappings can be found in both light verb constructions and 'Come to mind' constructions. Reconsider example (2)–(3): Both abstract or metaphorical uses of *kommen* create a spatialized target domain entity for an abstract location (GOAL). In (1), a similar image schema is present, but the domain mapping is more immediate.[3]

One common metaphor that permeate many, but not all languages is the conceptualization of MIND as a CONTAINER (see, for instance, Lakoff and Johnson 1980, 1999; Barnden 1997). In this metaphor, the mind is viewed as a receptacle capable of being filled, storing knowledge, and allowing the retrieval of MENTAL CONTENT. This metaphor, while abstract in its application to mental processes, is fundamentally grounded in our sensorimotor experiences. Consider, for instance, the physicality of our bodies: we possess orifices such as mouths, noses, and ears, through which more or less concrete entities like food, sound or pain can enter. MINDS ARE CONTAINERS is therefore strongly related to the broader conceptual metaphor BODIES ARE CONTAINERS. This becomes the foundation for the conceptual leap that gives rise to the metaphor of the mind as a container:

> We conceptualize the mind metaphorically in terms of a container image schema defining a space that is inside the body and separate from it. Via metaphor, the mind is given an inside and an outside. Ideas and concepts are internal, existing somewhere in the inner space of our minds, while what they refer to are things in the external, physical world. This metaphor is so deeply ingrained that it is hard to think about mind in any other way. (Lakoff and Johnson 1999: 266)

Just as we can fill a container with tangible objects, we metaphorically fill our minds with knowledge, ideas, and thoughts. The act of retrieving mental content

3 Often, the terms *metaphor* and *domain mapping* are used synonymously (see Croft 1993). However, strictly speaking, even in different concrete (in this case: spatial-concrete) expressions, the same image schema underlies them. With distance from certain prototypical uses, the degree of metaphoricality gradually increases. The reason for this is more ontological in nature: Even concrete spatial relations are not all semantically equal, even though they are formed according to the same pattern. Therefore, an image schema never has a one-to-one correspondence in linguistic expressions.

parallels the process of taking items out of a physical container. Metaphors do not emerge in isolation but rather form a network with other close representatives within their semantic field. The existence of MINDS ARE CONTAINERS not only necessarily presupposes the existence of a BODIES ARE CONTAINERS metaphor, but also an ABSTRACT ENTITIES ARE OBJECTS metaphor, under which events of mental processes like thinking and imagining are depicted as existing in a physical space outside of a person. Lakoff and Johnson (1999) identify several metaphorical emergences closely related to the CONTAINMENT schema in the context of MIND, such as MINDS ARE MACHINES as in *my mind just isn't operating today* or MINDS ARE BRITTLE as in *his mind snapped*. These individual metaphors function as family members within a broader and likely cognitively prior conceptual framework MINDS ARE PHYSICAL SPACES. The scope and complexity of such metaphorical families can vary from one language to another. Therefore, making universal statements about them is challenging, as they often reflect the unique linguistic and cultural characteristics of a given community.

There is no comprehensive study on MIND metaphors or 'Come to mind' constructions available for German. Occasionally, one can already find observations about this phenomenon in the *Deutsches Wörterbuch von Jacob Grimm und Wilhelm Grimm* such as *der sinn ist der ort und behälter für gedanken, vorstellungen, erinnerungsbilder*.[4] The authors list different 'Come to mind' constructions and synonym expressions, see (4a–i).[5] They also emphasize the diachronically inconsistent nature of these constructions.

(4) a. *in den sinn kommen*
lit. 'come into the mind'
b. *zu sinne kommen*
lit. 'come to the mind'
c. *einfallen*
lit. 'fall into'
d. *in sinn nemmen*
lit. 'take into the mind'
e. *aus dem sinne kommen*
lit. 'come out of the mind'

4 'The mind is the place and container for thoughts, ideas, and memories', Sinn, in: Deutsches Wörterbuch von Jacob Grimm und Wilhelm Grimm, Erstbearbeitung (1854–1960), digitalisierte Version im Digitalen Wörterbuch der deutschen Sprache, <https://www.dwds.de/wb/dwb/Sinn>, last access 26.09.2023.

5 The literal translations are given in the conventional word order of English verb phrases and differ from the German notation in this respect.

f. *aus dem sinne entfahren*
lit. 'escape out of the mind'
g. *im sinne liegen*
lit. 'lie in(side) the mind'
h. *inn verstandt kommen*
lit. 'come into reason'
i. *[in]gedächtnusz fassen*
lit. 'contain/grasp into memory'

It seems that the CONTAINER schema for MIND is well established in German. All constructions license dative complements as EXPERIENCERS, which is typical in Indo-European languages for expressions of PERCEPTION, EMOTION and COGNITION (see Barðdal et al. 2012, 2019; Dewey and Arnett 2015). This demonstrates that individual representatives of the metaphorical MINDS ARE PHYSICAL SPACES / CONTAINERS framework are not only semantically but also structurally closely related. To a certain extent, this metaphorical conceptualization is also based on a constructional schema: MIND can be understood as a CONTAINER because the available constructions suggest such an interpretation. Conversely, it's conceivable that the establishment of such a schema also encourages the formation of new constructions that attract the element MIND as a slot filler. Metaphors in constructions are at the same time metaphors from constructions. 'Come to mind' constructions make use of a functor-argument metaphor, which involve the combination of semantically clashing concepts, where an argument forces a metaphorical reading of the functor due to conflicts with the functor's selectional restrictions (see Ellison and Reinöhl 2022). Functor-argument metaphors are analogical or proportional metaphors, where concept A is to B as C is to D. They involve relational terms with one or more slots for arguments, establishing an analogy between different conceptual domains. A 'Come to mind' construction can conceptually only be resolved in such a way that the COME verb takes on an abstract interpretation, as both the movable element MENTAL CONTENT and the spatial metaphorical target MIND in the prepositional phrase (PP) necessitate this abstraction. Ultimately, functor-argument metaphors also enable the conceptualization of schemas like ABSTRACT ENTITIES ARE OBJECTS and MINDS ARE PHYSICAL SPACES / CONTAINERS.

Given that abstract entities like MENTAL CONTENT are typically not immediately perceptible, it is logical that most languages establish some kind of MIND metaphors. But form and function of specific 'Come to mind' constructions in a specific language cannot be derived from this, as these characteristics also depend on the underlying inventory of motion verbs and spatial prepositions. A comprehensive analysis on all MIND metaphors or 'Come to mind' constructions in Old Germanic languages and cannot be undertaken within the scope of this paper. However,

certain conclusions can be drawn by contrasting Old High German MINDS nouns within [*in* 'in' N *kommen* 'come'] with data from related Germanic languages that are sufficient to answer whether German has always had the prerequisites to use ABSTRACT ENTITIES ARE OBJECTS and MINDS ARE PHYSICAL SPACES / CONTAINERS metaphors in different constructions.

3.1 MIND Metaphors in Old Germanic Languages

The metaphor of locating ABSTRACT ENTITIES in a conceptional PHYSICAL SPACE is present in many ancient Indo-european languages. Both Ancient Greek and Indian, for example, show certain types of MIND metaphors by deriving different MIND nouns from body parts or bodily functions. Marcinkowska-Rosół and Sellmer (2021) list AGr. *φράν* 'diaphragm, lungs', *θυμός* 'vital breath' *στῆθος* 'breast' for Greek, whereas in Indian epics, cognitive items are usually situated in the heart (*hṛd, hṛdaya*).[6] Additionally, there are conceptually less immediately accessible verbal abstracts like AGr. *νόος* 'mind; thinking; thought' (< νέω 'I spin' meaning 'to spin the thread of the mind' < PIE. **(s)neh₂-* 'to flow; to swim') or Ved. *manas* (< PIE. **ménos* 'mind' < PIE. **men-* 'to think').

The most commonly encountered word for MIND in Old High German within the structure [*in* 'in' N *kommen* 'come'] is OHG. *muot* 'mind' (< PGmc. **mōdaz* < PIE. **moh₁-*, **meh₁-* 'endeavour, will, temper'). The reconstructed semantics of PGmc. **mōdaz* 'sensation, mood, temper, anger . . .' (< PIE. **moh₁-*, **meh₁-* 'endeavour, will, temper') are mostly preserved in EGmc. as in Go. *mōþs*, whereas WGmc. **mōd* is characterized by a metonymic shift towards the general semantics of MIND as abstract PHYSICAL SPACE while the sensational and emotional semantics of MENTAL CONTENT recede into the background. The representative examples (5) and (6) illustrate this significant difference:

(5) *nu quimit líhtida imon múat*
'Now relief comes into their mind' (Otfrid, III, 23, 46)[7]

6 In the context of the CONTAINER metaphor, none of the words meaning 'heart' such as *κραδίη*, *κῆρ*, or *ἦτορ* are used. This evidence pertains specifically to classical Greek epics. It will become evident that Biblical Greek, for example, does indeed incorporate such a heart metaphor.

7 Old High German, Middle High German and Early New High German examples from the DDD-corpus are cited according to the original texts. If precise information is not possible due to missing metadata, the reference number is provided.

(6) *jah fullai waurþun allai modis in þizai swnagogein hausjandans þata*
καὶ ἐπλήσθησαν πάντες θυμοῦ ἐν τῇ συναγωγῇ ἀκούοντες ταῦτα
'And all they in the synagogue, when they heard these things, were filled with wrath' (Wulfila, Luke 4:28)[8]

OHG. *muot* indicates the application of a MINDS ARE CONTAINERS metaphor with *līhtida* as a (not literally) moving entity. *imon* is an amalgamation of the personal pronoun *imo* (Dat. Sg. of *er* 'he') to denote the EXPERIENCER and the preposition *in*. In contrast, Go. *mōþs* (translating AGr. *θυμός* 'anger, wrath . . .'[9] < PIE. **dʰuh₂mós* 'smoke') itself enters the human body or is produced within the body. Both constructions make use of the ABSTRACT ENTITIES ARE OBJECTS metaphor. However, the conceptualization of the CONTAINER differs between the two languages. Only Old High German makes an explicit distinction between BODY and MIND (such as Ancient Greek and Vedic), while Gothic metonymically depicts BODY as a unifying CONTAINER for both. Another difference becomes apparent in that the passive structure of the Gothic example does not necessarily imply the involvement of an external force. The idea of an already existing entity that fills the CONTAINER through its swelling would also be conceivable.

The preposition OHG. *in* 'in' in (5) introduces a goal PP which specifies the goal of the abstract motion expressed by the verb *queman* 'come'. In this context, MENTAL CONTENT typically appears as specific emotions or feelings, representing the mental state of the EXPERIENCER, and less frequently as mere thoughts or other forms of consideration. 17 occurrences of OHG. *muot* in [*in* 'in' N *kommen* 'come'] demonstrate that *in muot queman* was well-established in Old High German. Further evidence is provided by numerous uses of *muot* in constructions that may not be classified as 'Come to mind' constructions but nevertheless strongly attest to the frequent application of the MINDS ARE CONTAINERS metaphor. This includes paradigmatically closely related constructions like *in muot habēn* 'to have in mind' and *in muot sīn* 'to be in mind'. Proponents of the desemanticization hypothesis may also perceive a faded semantics in HAVE and BE verbs. However, there is also evidence showing a metaphorical or at least non-literal use of verbs or predicatives that are not inherently suspected to undergo a process of desemanticization, see examples (7)–(9):

(7) *sie gicléiptun sar thaz gúat filu vásto in iro múat*
'They impressed the joyful message very firmly in their minds' (Otfrid, I, 9, 38)

8 For Gothic examples the respective Bible reference is provided.

9 AGr. *θυμός* has undergone the same metonymic shift towards the general semantics of MIND as WGmc. **mōd.* In this context, the original meaning seems to emerge.

(8) *gidóugno in themo múate*
'hidden in the mind' (Otfrid, II, 21, 4)

(9) *mih io gómman nihein in min múat ni biréin*
'Never has a man touched my mind' (Otfrid, I, 5, 38)

It should be noted that the mere presence of the preposition *in* in these contexts as evidence for the existence of a container conceptualization of MIND in Old High German without further criteria raises certain concerns, since transferring present-day linguistic intuitions derived from contemporary Germanic languages to historical stages of German is imprecise when it comes to prepositional semantics. OHG. *in* is by far the most frequently used preposition in Old High German and has a diverse range of spatial semantics, which is significantly less restricted than that of its descendent in Modern German (see Schrodt 2004: § 28–29, Schützeichel 2006: 173, Filatkina 2018: 264).[10] However, it can be stated that OHG. *in* in the context of 'Come to mind' constructions in Old High German does not face competition from other prepositions like OHG. *zi* 'to' or adverbs like *ana* 'on'. Infrequently, *in* is alternated with the intensified adverbial form OHG. *innan* (< PGmc. **in* 'in' + locative suffix **-nai* 'there'), see (10):

(10) *Ouh ther wídarwerto thín ni quém er innan múat min*
'But your enemy may not come into my mind' (Otfrid, I, 2, 29)

Examples like this reinforce the assumption that the use of *in* in OHG. 'Come to mind' constructions is indeed motivated by a CONTAINER schema. This is supported by the fact that it is not just a mental content that occurs to the EXPERIENCER, but the moving entity is conceptualized as an evil spirit that can actively enter the MIND if not prevented. Similar conceptualizations in closely related West Germanic dialects are much harder to identify. The structure [*in* 'in' N *kommen* 'come'] doesn't appear in the Old Saxon corpus. In fact, the preposition *in* is scarcely attested at all (along with OS. *innan*). This doesn't mean that it was impossible to express similar local references in Old Saxon (as in Old English), but the means of expression appear to have shifted towards other prepositions such as OS. *an* or OE. *on* '*on, in, to . . .*'. The conceptualization of MIND as PHYSICAL OBJECT is still evident for OS. *mod*. The potential for a PHYSICAL SPACE or a CONTAINER meta-

10 A ratio of 8622 occurrences of OHG. *in* to 2944 occurrences of OHG. *zi* indicates the preferred usage of *in* in most concrete and abstract contexts.

phor exists but is not exploited to the same extent as in Old High German. Consider, for instance, example (11):

(11) *uuerðad imu sorga an môde*
'Sorrow settles on his mind' (Heliand, 3496)

The absence of motion verbs in such constructions does not allow for a spatial dynamic in the sense of a 'Come to mind' construction. While MIND is conceptualized as a PHYSICAL OBJECT that interacts with emotions, (11) suggests an internal interpretation of the entire event structure, rather than the notion of an external force intruding from outside. Such evidence is not attested for Old Saxon, although, of course, the limited extent of the entire preserved text corpus must be taken into account. The Old English text corpus is significantly more heterogeneous and extensive compared to the continental West Germanic one. An exhaustive study on Old English conceptualizations of MIND is currently lacking. Certain tendencies in the usage of the most common constructions can be demonstrated based on dictionaries.[11] OE. *mōd* is the nominal core of the typical 'Come to mind' construction, see (12)–(14):

(12) *Ān wundor iċ wille seċġan þæt mē nū on mōd berann*
'I want to tell you about one miracle that just occurred to me' (Werferth, Dialogues of Gregory)

(13) *Þā berann mē on mōd þæt iċ þās bōc of Lædenum ġereorde tō Engliscre sprǣċe āwende*
'Then it occurred to me that I should translate this book from Latin into English' (Ælfric, Homilies, preface)

(14) *þā berann him on mōd his ġebrōðra ġemynd*
'The memory of his brothers came to his mind' (Ælfric, Homilies, XXIII)

As mentioned before, OE. *on* '*on, in, to . . .*' does not allow for a specific interpretation in terms of spatial relations. One can speculate whether in the conceptualization of the process is more about an event that takes place directly at the MIND (as in Old Saxon) or if it actually stimulates the idea of an out-of-body external force. The semantics of OE. *beirnan* 'run around / along' (< metathesised form of earlier

11 *Spirit, soul, heart*, in: A Thesaurus of Old English (2017), <http://oldenglishthesaurus.arts.gla.ac.uk/category/?id=11240>, last access 26.09.2023.

OE. *berinnan* < PGmc. **birinnanǫ*) is not always easy to interpret. Clearly defined spatial contexts, however, suggest that with the verbal action expressed by *beirnan*, no clear penetration into a space or object is meant, but rather a washing around or circumventing. This would go against an established CONTAINMENT schema, which is not surprising given the semantically indifferent preposition. In the Old English 'Come to mind' construction, what appears as MENTAL CONTENT are primarily less salient subjects like spontaneous thoughts, not emotions or states of being. In (12) and (13), MENTAL CONTENT is expressed through subordinate clauses, and in (14), the mental content is specified: OE. *gemynd* translates to 'memory' and reflects an archaic meaning, as the original semantics of PGmc. **gamundiz* 'remembrance, memory' (also preserved in Go. *gamunds* used to translate AGr. *μνημόσυνον* 'memory') has been retained without the WGmc. metonymic shift MENTAL CONTENT > MIND. In this usage it is an exception in Old English. Most instances of OE. *gemynd* (as well as OHG. *gimunt*) show a MIND metonymy, see (15):

(15) *mē cōm swīðe oft on ġemynd hwelċe wiotan iū wǣron ġiond Angelcynn*
'it very often is in my mind what counselors there were throughout England' (Alfred, Pastoral care, preface)

It also becomes evident that Old English, unlike Old Saxon, occasionally forms 'Come to mind' constructions with *cuman*. The West Germanic metonymic shift MENTAL CONTENT > MIND can also be observed in other Old High German MIND nouns like *sin* (< PGmc. **sinnaz* 'sense, perception' < PIE. **sentnós*, from < **sent-* 'to feel') or *wan*. (< PWGmc. **wāni*. 'hope, expectation' < PGmc. **wēniz* < PIE. **wenh₁-* 'to love'), **hugi* (attested in MHG. *huge* and OS. *hugi* < PGmc. **hugiz* 'thought' < PIE. **ḱk-éy-s*, from **ḱek-* 'to be able, capable') and **sebo* (attested in OS. *seƀo* and OE. *sefa* < PGmc. ** sebô* 'mind, taste, perception' from PIE. **sep-* 'to taste'). In East Germanic, most these lexemes are not attested,[12] just like cognates of presumably Old High German formations like *gidahti*, *gidrahti* and *gitrahta* or OS. *gihugd* and OE. *gehygd* which are deverbal or paradigmatically related to different verbs of thinking and non prefixed MENTAL CONTENT nouns.

All the Old High German nouns mentioned so far have in common that they exist as autonomous MIND nouns both within and outside of 'Come to mind' constructions, and are thus entirely confined to the domain of abstract locations. This presupposes a MIND metonymy, which distinguishes modern West Germanic from more archaic East Germanic and Proto-Germanic. A lexical overlap between

12 Go. *hugs* and *gahugds* 'thought, memory' are attested, but reflect the Proto Germanic semantics without the metonymic shift.

the two branches can be observed with nouns that have more immediate bodily experiences as the basis for coining MIND nouns. The most common nouns in West Germanic are descendants of PGmc. **hertō* 'heart' (< PIE. **ḱérd* 'heart') and PGmc. **breustą* 'chest' (< PIE. **bʰrews-* 'to swell'), see (16)–(22). The absence of OHG. *brust* in the structure [*in* 'in' N *kommen* 'come'] is likely just a coincidence, since numerous examples from Old High German and Old Saxon attest to the metaphorical use of the noun.

(16) *in hérza imo quámi so iz fora góte zami*
'It came into his heart, as is fitting before God' (Otfrid, III, 2, 14)

(17) *Ni láz thir innan thina brúst arges wíllen gilúst*
'Never let the desires of evil will come into your heart' (Otfrid, I, 12, 27)

(18) *Nim nu wórt minaz in herza*
'Now take my words (in)to heart' (Otfrid, I, 15, 27)

(19) *in hérzen si iz bifángan*
'They lock it in their heart' (Otfrid, V, 15, 20)

(20) *rúarta sia thiu smérza ínnan ira hérza*
'The pain touched her in her heart' (Otfrid, I, 22, 30)

(21) *uuas imu unôðo innan breostun*
'He felt woe in his chest' (Heliand, 3294)

(22) *Thes uuarđ Âdamas hugi innan breostun suîđo an sorogun*
'There Adam's spirit in his chest became filled with sorrow' (Genesis, 673)

OHG. *herza* (20) and OS. *briost* (21) display the most primitive metaphorical use of the words, as an aching heart or a wounded chest reflect direct bodily experiences. An interesting conceptual intermediate stage is encountered in example (22). Here, it is not the chest or the heart itself that functions as the MIND, but rather the MIND itself is located in the chest. The Old Germanic languages reveal a metaphorical and metonymic developmental path: BODIES ARE PHYSICAL SPACES > BODIES ARE CONTAINERS > BODIES ARE MINDS > MINDS ARE PHYSICAL SPACES LOCATED WITHIN THE BODY.

Biblical Greek displays numerous heart metaphors, AGr. *καρδία* 'heart' is consistently translated with Go. *hairtō* in the Wulfila Bible. The Gospel of Mark best illustrates the conceptualization BODY and MIND in Gothic. In the context of other

body parts, it is entirely possible for abstract entities to enter the heart, suggesting the application of a CONTAINER metaphor, see (23):

(23) *unte ni galeiþiþ imma in hairto, ak in wamba, jah in urrunsa usgaggiþ, gahraineiþ allans matins.*
ὅτι οὐκ εἰσπορεύεται αὐτοῦ εἰς τὴν καρδίαν ἀλλ' εἰς τὴν κοιλίαν, καὶ εἰς τὸν ἀφεδρῶνα ἐκπορεύεται;
'Because it entereth not into his heart, but into the belly, and goeth out into the draught, purging all meats?' (Wulfila, Mark 7:19)

Go. *galeiþan* 'to go, pass (through)' (< PGmc. **galīþaną* 'to go, pass (through)' < PIE. **leyt-* 'to go, pass, die') is used, at least in this context of negation, as a motion verb in a proto 'Come to mind' construction. The idea that the heart or the whole body is a place, producer, and distributor of mental content is supported by the following examples:

(24) *qaþuþ~þan þatei þata us mann usgaggando þata gamaineiþ mannan.*
ἔλεγεν δὲ ὅτι τὸ ἐκ τοῦ ἀνθρώπου ἐκπορευόμενον ἐκεῖνο κοινοῖ τὸν ἄνθρωπον:
'And he said, that what comes out of the man, that defiles the man' (Wulfila, Mark 7:20)

(25) *innaþro auk us hairtin manne mitoneis ubilos usgaggand: kalkinassjus, horinassjus, maurþra,*
ἔσωθεν γὰρ ἐκ τῆς καρδίας τῶν ἀνθρώπων οἱ διαλογισμοὶ οἱ κακοὶ ἐκπορεύονται, πορνεῖαι, κλοπαί, φόνοι,
'For from within, out of the heart of men, come evil thoughts, adulteries, fornications, murders' (Wulfila, Mark 7:21)

(26) *þo alla ubilona innaþro usgaggand jah gagamainjand mannan.*
πάντα ταῦτα τὰ πονηρὰ ἔσωθεν ἐκπορεύεται καὶ κοινοῖ τὸν ἄνθρωπον.
'All these evil things come from within, and defile the man' (Wulfila, Mark 7:23)

The heart, like the human body as a whole, contains various emotions and thoughts. What is mostly lacking in Gothic is the concept of the heart as a pure vessel, especially when the idea is suggested that a CONTAINER would be filled by external action. Instead, it is usually envisioned more as an organ, a machine. The translator's fidelity to the Greek source makes it challenging to find contrasting examples. In (27), a more genuine Germanic structure seems to emerge:

(27) *akei unte þata rodida izwis, gauriþa gadaubida izwar hairto.*
ἀλλ' ὅτι ταῦτα λελάληκα ὑμῖν ἡ λύπη πεπλήρωκεν ὑμῶν τὴν καρδίαν.
'But because I have said these things unto you, sorrow has hardened your heart.' (Wulfila, John 16:6)

The author clearly feels uncomfortable describing the heart as a CONTAINER that is filled. Instead, he chooses to use the verb *gadaubjan* 'to harden' (< PGmc. **(ga)daufs* 'hardened' + denominative suffix **-(i)janą*). The external (possibly located in the body) stimulus of sorrow forces the heart to react. At this point, one could ask whether this is even a metaphor or whether it suggests the idea of an actual physical manipulation or involvement of the organ. It is reasonable to assume that the warlike pastoral cultures of the Iron Age, to which the Germanic peoples undoubtedly belonged, had access to a rich reservoir of knowledge regarding the anatomical features of humans and animals. Apart from individual immediate physical experiences like pain and well-being, the concept of a hardened or pierced heart, a growth, or fluid in the chest and lungs may not exclusively trigger abstract concepts, but rather very concrete and everyday experiences in ancient central and northern european societies. Body parts as abstract locations are primarily constituted by abstract entities acting within this physical space.

Although not exhaustively described, the data allow for some conclusions regarding the conceptualization of MIND in Old Germanic languages: Old High German makes use of an established 'Come to mind' constructions with the structure [*in* 'in' N *kommen* 'come']. Neighboring constructions suggest that the various types of MIND nouns were regularly used in this specific meaning. The picture of closely related West Germanic dialects remains fragmentary for now. What is common to West Germanic languages is the metonymic shift from MENTAL CONTENT to MIND, which hardly appears in East Germanic languages. The same phenomenon can also be observed in Ancient Greek. Both Old English and Old Saxon, as well as Old High German conceptualize MIND as PHYSICAL SPACE. There are also indications in Old Saxon and Old English that suggest the concept of a MINDS ARE CONTAINERS metaphor building upon it, but the opaque relationships regarding the choice of prepositions and the distinct text traditions make a superficial comparison more challenging. The Gothic data appear to exhibit more archaic patterns. The conceptualization of MIND in Gothic is based on more immediate bodily experiences. The body or specific body parts (especially the heart) function as real, existing physical objects and as location of emotional events. It is therefore not surprising that emotions and desires, which are sometimes also physically perceptible, are primarily associated with MIND, while other mental experiences like mere thoughts appear less frequently. In Gothic biblical texts, we can observe a BODIES ARE MINDS metaphor in the sense that the human body and its components are inherently accessible to more

or less concrete entities (BODIES ARE CONTAINERS). However, there is no abstract MIND CONTAINER derived from MENTAL CONTENT nouns as we can observe in Old High German. If we apply these findings to the situation in Proto-Germanic, we can hypothesize a cognitive developmental path that is reflected diachronically in the history of the Germanic languages: BODIES ARE PHYSICAL SPACES > BODIES ARE CONTAINERS (> BODIES ARE MINDS) > MINDS ARE PHYSICAL SPACES > MINDS ARE CONTAINERS. German 'Come to mind' constructions have been formed following the structure [*in* 'in' N *kommen* 'come'] since at least Old High German times. The frequent use of both abstract entities like MENTAL CONTENT and abstract locations like MINDS shows that COME has always been used in constructions denoting metaphorical or abstract motion. So, it is reasonable to assume that different interpretations of its semantics arise from the context, specifically the various constructions, and only in the interplay of their components. A general path of desemanticization of COME cannot be conclusively explained diachronically. Therefore, it is worthwhile asking how the interplay of the moving entity and abstract location within [*in* 'in' N *kommen* 'come'] changes in the further diachronic course.

4 The Semantic Space of [*in* N *kommen*]

In this section, I present the results of the analysis of the semantic space of the structure [*in* N *kommen*] in the history of German. The previous analyses have shown that in the oldest stage of the German language, there was an established 'Come to mind' construction exploiting this structure that drew on two metaphors: ABSTRACT ENTITIES ARE (MOVING) OBJECTS and MINDS ARE CONTAINERS. The term *semantic space* in the context of the structure [*in* N *kommen*] refers to a model that represents the relationship of all respective constructional components to each other and among themselves. The goal is to find out at which point which subjects are available as moving entities for the VP [*in* N *kommen*] and with which prototypical concrete or abstract locations they can be associated.

4.1 Data and Method

The analysis is based on the corpus data from DDD (Deutsch Diachron Digital), the DTA (Deutsches Textarchiv) and the DWDS Kernkorpus. Tokens were extracted from the corpora using different queries: one for the contexts where *kommen* precedes the prepositional phrase with *in* and one for those contexts where *kommen* follows the prepositional phrase with *in*. The entire respective reference

corpus was used as the basis for the older periods Old High German, Middle High German, and Early New High German. Due to the volume of data, a sample of 1000 query hits was used for each of the two more recent periods. he 19th century was chosen because during this time, a significant increase in similar structures following the pattern [P N V] has been observed (see Smirnova and Stöber 2022: 141). The time span 1980–1999 was chosen to contrast historical data with the most modern ones available. Table 1 provides an overview of the data:

Table 1: Overview of the data [*in* N *kommen*].

Period	Corpus size	Query results	Relevant structures
Old High German[13]	500.000	403	116
Middle High German[14]	2.500.000	1216	649
Early New High Geman[15]	3.500.000	2680	722
1800–1899[16]	Sample	1000	502
1980–1999[17]	Sample	1000	526

Due to the incoherent textual basis for these data, the necessary amalgamation of exhaustive historical corpora and samples from more recent periods, a mere presentation of numerical ratios is not informative. Therefor I applied a Correspondence Analysis (Glynn 2014) as an explorative technique to identify patterns and dependencies among the categories and represent them graphically. It's particularly useful when dealing with large datasets with multiple categorical variables, providing insights into the structure and associations within the data. For this analysis, the two variables MOVING ENTITY and GOAL have been chosen. The first one refers to the syntactic position of the subject and is described based on different degrees of animacy. The set of annotation categories for MOVING ENTITY is given in Table 2:

13 lemma = "in" . 1,10 lemma = "queman"; lemma = "queman" . 1,10 lemma = "in"
14 lemma = "in" . 1,10 lemma = "quemen"; lemma = "quemen" . 1,10 lemma = "in"
15 lemma = "in" . 1,10 lemma = "kommen"; lemma = "kommen" . 1,10 lemma = "in"
16 (kommen with $p=VV*) #5 (in with $p=APPR) #3 $p=NN*; (In with $p=APPR) #3 $p=NN* #5 (kommen with $p=VV*); (In with $p=APPR) #3 $p=NN* #5 (kommen with $p=VV*), (@ins with $p=APPRART) #3 $p=NN* #5 (kommen with $p=VV*), (kommen with $p=VV*) #5 (@ins with $p=APPRART) #3 $p=NN*
17 (kommen with $p=VV*) #5 (in with $p=APPR) #3 $p=NN*; (In with $p=APPR) #3 $p=NN* #5 (kommen with $p=VV*); (In with $p=APPR) #3 $p=NN* #5 (kommen with $p=VV*), (@ins with $p=APPRART) #3 $p=NN* #5 (kommen with $p=VV*), (kommen with $p=VV*) #5 (@ins with $p=APPRART) #3 $p=NN*

Table 2: Annotation categories (MOVING ENTITY).

Category	Definition	Example
animate	living beings (humans, animals, gods, etc.)	MHG. *ein grozze person* 'a tall person'
concrete	non-living but perceptible objects	MHG. *gewant* 'clothes'
abstract	non-perceptible entities / concepts	OHG. *fruma* 'benefit'

Animate entities refer to those capable of conscious movement, essentially humans and animals, but also supernatural beings. Concrete entities, in my categorization (following Fleischhauer and Hartmann 2021), are restricted to inanimate objects physically experienceable in our world. Abstract entities encompass everything non-living and non-concrete, such as MENTAL CONTENT, EVENTS or CONCEPTS.

The PP-internal nouns (GOAL) were initially defined based on the two most recent periods, considering not only the noun itself but also its function in the context of the entire construction. 'location' refers to a specific place that can be reached through movement. As 'mind', anything capable of serving as an abstract CONTAINER that holds MENTAL CONTENT is considered. Eventive nouns consist of two groups: 'Internal events' refer to processes where the entering change of state, to which the subject is subjected, is not necessarily attributed to an external action presupposed in the noun. 'External events' require a passive interpretation through an inverse argument structure and an external agent of action that affects the subject, see (28).

(28) *Denn nur er konnte das Gesetz in Antrag bringen, und gegen seinen Willen kein Vorschlag in Berathung kommen.*
'For only he could propose the law, and no proposal comes into discussion against his will.' (Bluntschli, 1875)

This sentence could be transformed into the passive voice: 'no proposal is discussed against his will.' Another category is 'Concepts'. This occurs when a predominantly abstract entity engages with a collective principle, idea, or event. Notably, in this case, the GOAL can undergo a change and the MOVING ENTITY is not affected as in the case of internal and external events, see (29).

(29) *Zum anderen ist Bewegung in die ästhetische Diskussion dadurch gekommen, daß die Literatur- und Kunstsoziologie in den letzten Jahren einen Aufschwung erfahren [. . .] hat.*
'On the other hand, movement has come into the aesthetic discussion through the fact that the sociology of literature and art has experienced an upswing in recent years [. . .].' (Zimmermann, 1985)

The set of annotation categories for GOAL is given in Table 3:

Table 3: Annotation categories (GOAL).

Category	Definition	Example
location	specific place or space	ENHG. *closter* 'monastery'
mind	application of the MINDS ARE CONTAINERS metaphor	MHG. *sin* 'sense, mind'
event (internal)	application of the STATES / EVENTS ARE CONTAINERS metaphor without an external force	OHG. *kust* 'well being'
event (external	application of the STATES / EVENTS ARE CONTAINERS metaphor with an external force	NHG. *Verwendung* 'usage'
concept	non-perceptible an non-eventive entities or concepts	NHG. *Literatur* 'literature'

4.2 Results

The initial situation in Old High German is as follows: There are exclusively animate and abstract subjects, but no concrete ones. An application of Correspondence Analysis was not possible for this reason, as more than two categories must be available for each variable. Concrete animate entities can come into concrete locations (30). Abstract entities, accounting for almost a quarter of all instances in Old High German, can come into abstract CONTAINERS (31).

(30) *Thô quam ther heilant in Galileu.*
'Then the savior came to Galilee.' (Tatian, 14, 1)

(31) *thie dáti mir quément in githáhti*
'The deeds came to my mind' (Otfrid, III, 1, 8)

This binary distribution within the semantic space of [*in* N *kommen*] essentially applies to the oldest texts in German. Only towards the end of the Old High German period three eventive nouns can be found in PP-internal position. All constructions are associated with animate subjects, see (32)–(34):

(32) *chúmet er in ándere chúst*
'He gets into another state (of mind)' (Notker, Boethius, 126)

(33) *Chúmet er in_frêisun. er hilfet ímo dar ûz*
'If he comes in danger, he helps him out again' (Notker, Psalter, 36, 2)

(34) *úbe ih chómen sol in putrefactionem* (Notker, Psalmen)
'Once I am to get into decay'

(32) and (33) are genuine German light verb constructions in the narrower sense. The subject undergoes an emotional change of state. The author makes use of two established eventive nouns, which, synchronically, are not deverbal. Such a noun is obviously not available to him in (34), which is why he instead uses Lat. *putrefactio* 'decay'. In comparison to more recent periods of the German, Old High German has significantly fewer deverbal nouns. This demonstrates that the presence of potential slot fillers plays a crucial role in establishing a syntactic construction. Referring to the research literature, Fleischhauer and Hartmann (2021) mention three additional light verb constructions containing an eventive noun in PP-internal position in Old High German that do not appear in the DDD: *in angest queman* 'frighten' (lit. 'come into fear'), *in forhtūn queman* 'fear' (lit. 'come into fear'), *in scama queman* 'be upset' (lit. 'come into consternation'). These are also combined with animate subjects.

The fundamentally binary structuring of the semantic space is still reflected in Middle High German, for which the results of the analysis are depicted in a contingency table in Figure 1. This archaic system is only disrupted in Early New High German, as Figure 2 illustrates.

The observable patterns in Middle High German reveal a predominant clustering of locations and (internal) events around animate subjects on the left side of the plot. The 'Come to mind' construction is located on the right side of the plot. Abstract entities still avoid goals other than mind. A notable development in Middle High German is the emergence of inanimate subjects, which exclusively appear in combination with animate subjects. Inanimate subjects share the same kind of goals as animate ones, following the conceptual regions already occupied by the animate subjects.

(35) *Swelh man dem and^{s}n eín pherít. od^{s} eín gewant. od^{s} deheín varende gůt ſetzet. od^{s} lihet mít ſínē willen. ſo hat íener reht dar an. ín dez gewalt ez alſo kvmet.*
'Whoever transfers or lends a horse, a clothing or any movable property to another with his will, he has a right to it in whose power it thus comes.' (Schwabenspiegel, 108vb, 2)

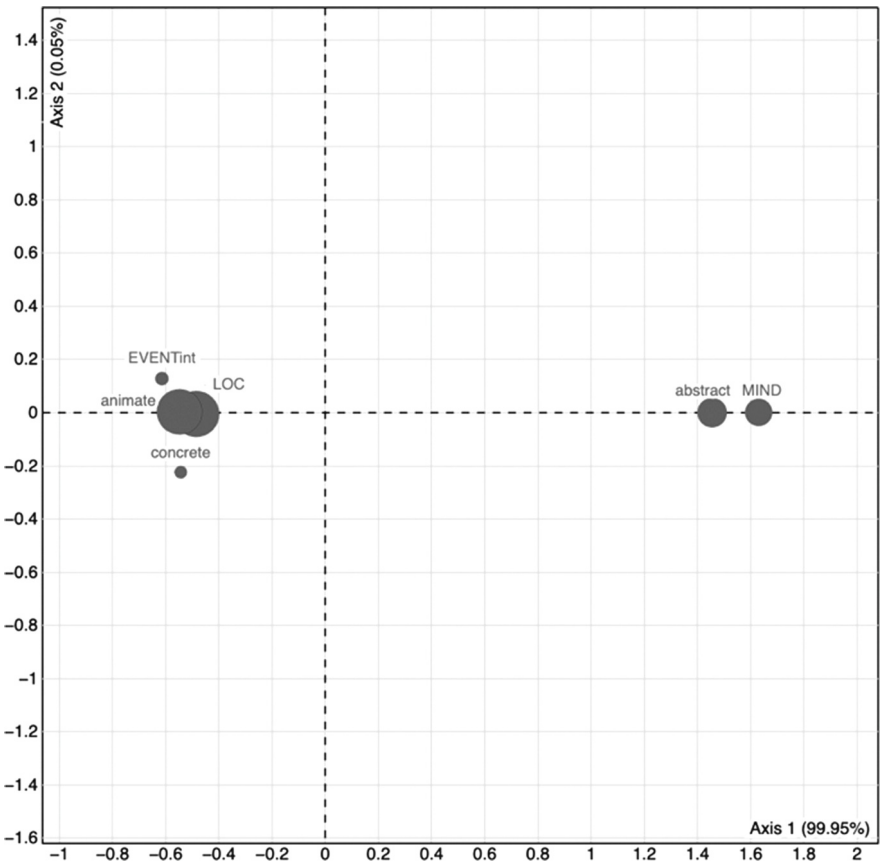

Figure 1: Semantic space of [*in* N *kommen*] (MHG.).

However, inanimate nouns in subject position remain an exception in Middle High German. The axis weighting within the graph indicates that over 99% of the data can still be explained through the Old High German dichotomy. The picture changes drastically in Early New High German. The observed transformation reveals a shift from a two-part system to a triangle. Animated subjects still exhibit fidelity to their established LOCATIONS and internal EVENTS. Abstract entities, predominantly confined to their MIND CONTAINER, exhibit a slight expansion with the introduction of a new category involving abstract CONCEPTS as PP-internal GOALS, see (36):

(36) *Darnach aber nach langer zytt das die zyt der natur kam in die zytt der gnaden*
'Afterwards, but after a long time, that the time of nature came into the time of grace.' (Antichristdrama, 102va,21)

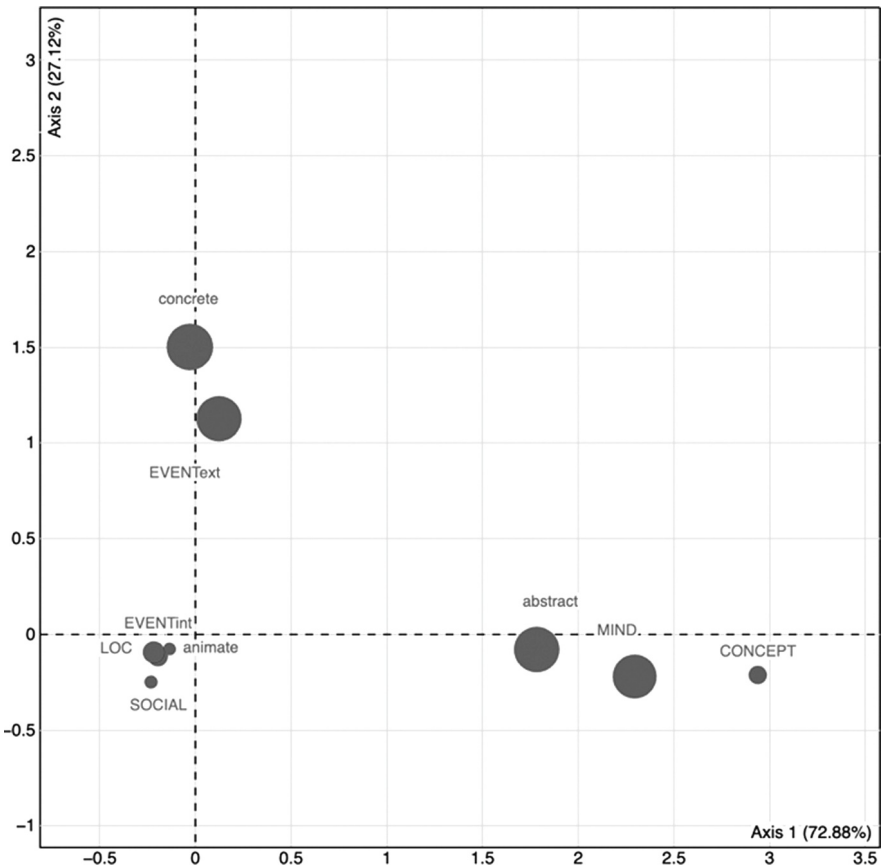

Figure 2: Semantic space of [*in* N *kommen*] (ENHG.).

The most significant change compared to older periods pertains to the substantial increase of inanimate subjects strongly associated with external events.

(37) *vnd hernoch volgende gutere sein Jn die teilunge komen.*
'And after that the following goods have come into division.' (6. Dresdner Stadbuch, 004va,22)

This increase is associated with the rise in deverbal nouns (or nouns with verbal cognates), such as *Teilung* 'division,' *Abschleif* 'cut-off,' *Aufschlag* 'surcharge,' Schaden 'damage,' *Nutz* 'benefit,' or *Regierung* 'government'. Most of these formations have transitive base verbs that allow for a passive interpretation of the con-

struction, favoring the use of inanimate or abstract subjects that are not capable of conscious movement.

In the 19th century abstract entities gradually become more associated with external EVENTS, converging toward the domain of inanimate subjects. The overall semantic space condenses to some extent and becomes less structured, leading to the dissolution of clear restrictions. The evolving dynamics suggest the formation of a novel cluster, a trend that becomes more apparent in the 20th century. Notably, the role of the MIND container diminishes over time, gradually receding, while abstract entities draw closer to external EVENTS, see Figures 3 and 4.

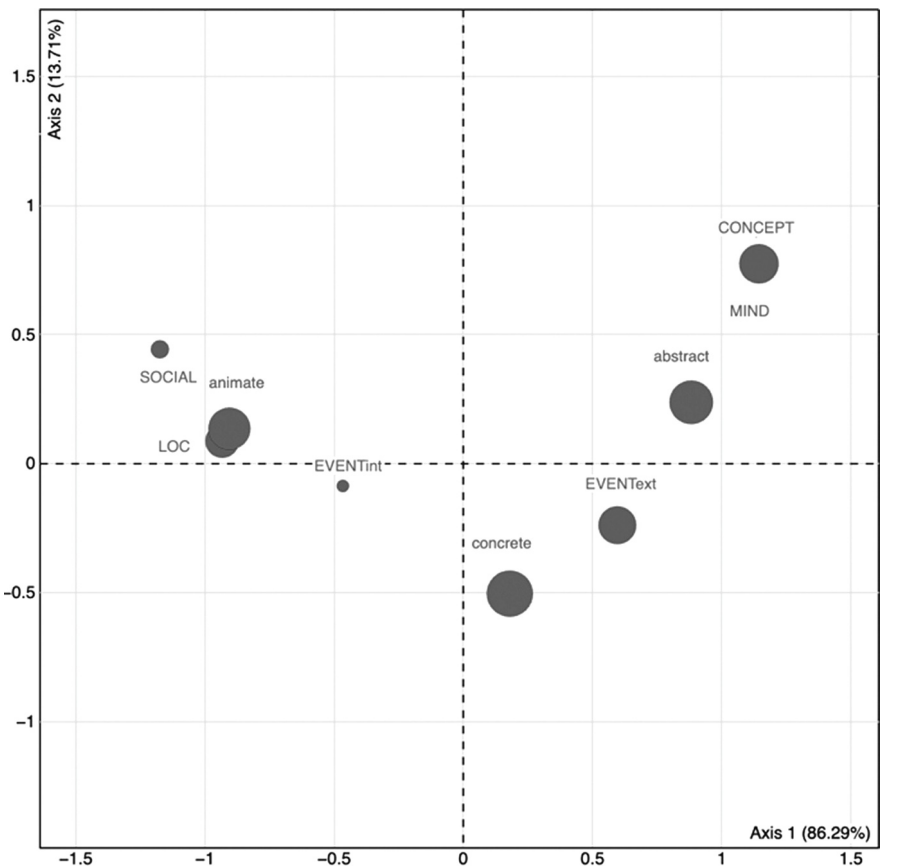

Figure 3: Semantic space of [*in* N *kommen*] (1800–1899).

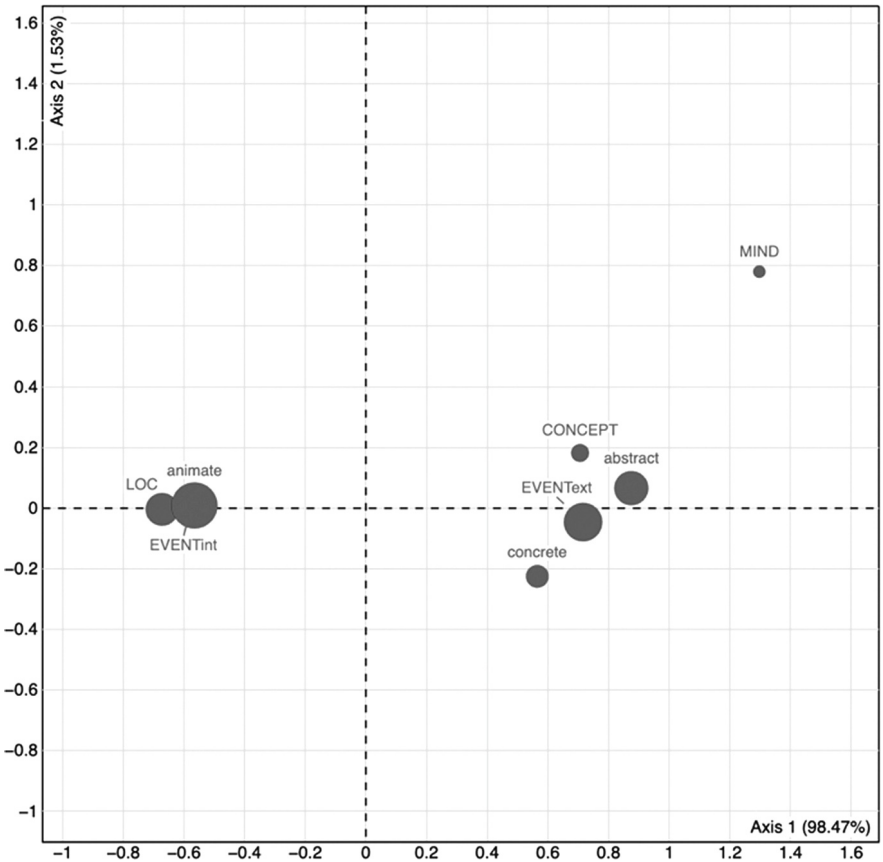

Figure 4: Semantic space of [*in* N *kommen*] (1980–1999).

The semantic space undergoes a rearrangement, returning to a two-part system; however, this time, abstract and inanimate entities constitute a shared associative group with external EVENTS. The most recent data reveal a distinct peripheral position of the 'Come to mind' construction. A brief qualitative examination of 'Come to mind' construction formed following the pattern of the VP [*in* N *kommen*] reveals that the diminishing presence of the construction in the semantic space is not only a matter of frequency. Since Middle High German, there has been a clear downward trend in the number of distinct types of MIND nouns used within the construction, see Table 4:

Table 4: MIND nouns within [*in* N *kommen*] in the history of German.

OHG	MHG	ENHG	1800–1899	1980–1999
sin	*sin*	*sinn*	*Sinn*	*Sinn*
herz	*herz*	*herz*	*Herz*	
	kopf	*haupt*	*Kopf*	
	sel	*sele*		
muot	*muot*	*muat*		
gimuot	*gemuot*	*gemüet*		
gidrahti	*getrecht*	*getrecht*		
gidahti	*gedanc*	*gedenke*		
wan	*wan*			
	busen			
	munt			
	man	*mensch*		
gitrahta				
		wille		
HUMAN BODY	HUMAN BODY	HUMAN BODY		

In modern German, *Sinn* is the sole survivor among lexemes used to denote the concept of MIND within [*in* N *kommen*]. This survival is no coincidence, but rather aligns with the broader pattern observed in West Germanic languages, where MENTAL CONTENT primarily pertains to less salient subjects like thoughts rather than emotions or states of being. The decreasing salience is given in that the nominal pool of MENTAL CONTENT that can be placed in a CONTAINER is potentially almost unlimited. *Sinn* with its basic semantics is at the top of this cognitive development, while competing nouns are more sensitive in terms of possible MOVING ENTITIES. This applies in particular to all types of body part metaphors, which necessarily have a certain affinity to specific emotions or mental states that can also be reflected in concrete physical experiences. As the analysis of the historical data has shown, this group of nouns reflects more archaic concepts that are slowly being overcome by the identified metonymic shift towards the general semantics of MIND as abstract PHYSICAL SPACE in West Germanic.

5 Conclusion

The history of the structure [*in* N *kommen*] exhibits a complex and multifaceted pattern, characterized by the interplay of compatibility between MOVING ENTITY and GOAL, dependent on the overall semantics of each construction. In the case of ‘Come to mind’ constructions, the question does not arise from the start, as only

abstract entities can naturally enter the MIND container. From the very beginning, abstract entities appear in subject position, albeit restricted in the function of a 'Come to mind' construction. The prerequisite for this is the identified West Germanic metonymic shift from MENTAL CONTENT to MIND, traceable in Old High German and closely related languages. The distinctive feature of Old High German, in contrast to other West Germanic languages, is its consistent metaphorical development from MINDS ARE PHYSICAL SPACES to MINDS ARE CONTAINERS. The evolution of constructions that involve an EVENT as a GOAL diachronically follows a salience hierarchy on the animacy scale: Animated subjects are the innovative pioneers, followed later by concrete entities, and ultimately, abstract entities. This finding is relevant to the development of light verb constructions. The increase in abstract subjects in these constructions may be considered a sign of the 'desemanticization' of the verb *kommen*. But this only applies to this specific group of constructions involving an eventive noun. In this regard, the fate of the 'Come to mind' construction is contradictory. The longstanding potential for the abstract interpretations of *kommen* is evident not only in 'Come to mind' constructions but also in sporadic instances of light verb constructions in Old High German. The diachronically different behavior of the individual constructions could probably be explained on the basis of available lexical items for the favored purpose at a specific time. While the number of MENTAL CONTENT nouns reaches its peak in Middle High German, German light verb constructions do not thrive until new kinds of deverbal word formation were established from Middle High German onwards.

In contrast to light verb constructions, 'Come to mind' constructions cannot maintain their once central position in the semantic space and are progressively marginalized throughout history. The development of the two constructions is, therefore, divergent and cannot be uniformly explained. It must be assumed that different constructions also have different histories. The availability of possible elements within any structure can always be exploited to the maximum unless there are impediments to the process. The creative enrichment of the structure is thus stimulated and demanded by the availability of morphologically and lexically appropriate material. The solidified structure attracts potential elements, which leads to a high variance with respect to the noun slot. But there is obviously a discernible decline in interest as individuals exhaust all possible metaphors, leading to a declining charm of extravagance. The metonymic shift MENTAL CONTENT > MIND could be hypothesized as the reason for this. This cognitive precondition gave the noun *Sinn* the opportunity to assert itself over competing nouns. While the reservoir of new MIND nouns depletes early, other constructions such as light verb constructions, specifically those involving a change of state, benefit from a more extensive supply of new material for specific usage contexts,

particularly deverbal nouns. This could save light verb constructions from an 'evaporation effect' to which constructions with lower lexical potential fall victim.

In conclusion, I propose that the number of abstract nouns in subject position within [*in* N *kommen*] is not solely determined by a uniform two-step process of desemanticization and an increase in eventive nouns in PP-internal position. Instead, the variation observed depends on multiple factors, including the semantics of the specific construction, its underlying metaphor, the availability of suitable lexical material and pragmatic considerations. Taking these factors into account will provide a more nuanced and comprehensive understanding of the emergence and evolution of [*in* N *kommen*] and similar structures in German.

References

Anderson, Stephen R. 2015. Morphological change. In Claire Bowern & Bethwyn Evans (eds.), *The Routledge handbook of historical linguistics*, 264–285. London: Routledge.

Barðdal, Jóhanna. 2001. The Role of Thematic Roles in Constructions? Evidence from the Icelandic Inchoative. In Arthur Holmer, Jan-Olof Svantesson & Åke Viberg (eds.), *Proceedings of the 18th Scandinavian Conference of Linguistics 2000*, 127–137. Lund: Department of Linguistics.

Barðdal, Jóhanna & Thórhallur Eythórsson. 2012. Hungering and lusting for women and fleshly delicacies: Reconstructing grammatical relations for Proto-Germanic. *Transactions of the Philological Society* 110 (3). 363–393.

Barðdal, Jóhanna & Spike Gildea. 2015. Diachronic Construction Grammar: Epistemological Context, Basic Assumptions and Historical Implications. In Jóhanna Barðdal, Elena Smirnova, Lotte Sommerer & Spike Gildea (eds.), *Diachronic Construction Grammar*, 1–50. Amsterdam: John Benjamins.

Johnson, Cynthia, Peter Kerkhof, Leonid Kulikov, Esther Le Mair & Jóhanna Barðdal. 2019. Argument Structure, Conceptual Metaphor and Semantic Change: How to Succeed in Indo-European without Really Trying? *Diachronica* 36, 463–508.

Barnden, John. 1997. Consciousness and Common-Sense Metaphors of Mind. In Seán Ó Nualláin, Paul Mc Kevitt & Eoghan Mac Aogáin, (eds.), *Two Sciences of Mind*, 311–340. Amsterdam & Philadelphia: Benjamin.

Bréal, Michel. 1900. *Semantics. Studies in the Science of Meaning*. London: Heinemann.

Bybee, Joan,Revere Perkins &William Pagliuca. 1994. *The evolution of grammar: tense, aspect and modality in the languages of the world*. Chicago: University of Chicago Press.

Bybee, Joan & Sandra Thompson. 2000. Three Frequency Effects in Syntax. *Berkeley Linguistic Society* 23. 65–85.

Campbell, Lyle & Richard Janda. 2001. Introduction: Conceptions of grammaticalization and their Problems. *Language Sciences* 23. 2–3, 93–112.

Cornillie, Bert. 2008. On the Grammaticalization and (Inter)Subjectivity of Evidential (Semi-)Auxiliaries in Spanish. In Elena Seoane & María José López-Couso (eds.), *Theoretical and Empirical Issues in Grammaticalization*, 77–110. Amsterdam: John Benjamins.

Coussé, Evie, Peter Andersson & Joel Olofsson. 2018. Grammaticalization meets Construction Grammar: Opportunities, challenges and potential incompatibilities. In Evie Coussé, Peter

Andersson & Joel Olofsson (eds.), *Grammaticalization meets Construction Grammar*, 3–19. Amsterdam: John Benjamins.
Dewey, Tonya Kim & Carlee Arnett. 2015. Motion Verbs in Old Saxon with the Oblique Subject Construction: A Semantic Analysis. *Beiträge Zur Geschichte der Deutschen Sprache und Literatur* 137 (2), 183–220.
Diewald, Gabriele. 1999. *Die Modalverben im Deutschen: Grammatikalisierung und Polyfunktionalität*. Tübingen: Niemeyer.
Diewald, Gabriele & Elena Smirnova. 2010. *Evidentiality in German: Linguistic Realization and Regularities in Grammaticalization*. Berlin: Mouton de Gruyter.
Diewald, Gabriele & Ilse Wischer. 2013. Markers of Futurity in Old High German and Old English: A Comparative Corpus-Based Study. In Gabriele Diewald, Leena Kahlas- Tarkka & Ilse Wischer (eds.), *Comparative Studies in Early Germanic Languages: With a Focus on Verbal Categories*, 195–216. Amsterdam: John Benjamins.
Ellison, T. Mark & Uta Reinöhl. 2022. Compositionality, Metaphor, and the Evolution of Language. *International Journal of Primatology* 23.
Filatkina, Natalia. 2018. *Historische formelhafte Sprache: Theoretische Grundlagen und methodische Herausforderungen*. Berlin & Boston: De Gruyter.
Fillmore, Charles. 1987. How to Know Whether You're Coming or Going. In Gisa Rauh (ed.), *Essays on Deixis*, 219–227. Tübingen: Narr.
Fillmore, Charles. 1997. *Lectures on Deixis*. Stanford: CSLI Publications.
Fleischhauer, Jens & Mozhgan Neisani. 2020. Adverbial and attributive modification of Persian separable light verb constructions. *Journal of Linguistics* 56. 45–85.
Fleischhauer, Jens & Stefan Hartmann. 2021. The emergence of light verb constructions: A case study on German kommen 'come'. *Yearbook of the German Cognitive Linguistics Association* 9/1. 135–156.
Fleischman, Suzanne. 1983. *The Future in Thought and Language: Diachronic Evidence from Romance*. Cambridge: Cambridge University Press.
Gildea, Spike & Jóhanna Barðdal. 2023. From Grammaticalization to Diachronic Construction Grammar: A Natural Evolution of the Paradigm. *Studies in languages* 47 (4). 743–788.
Glynn, Dylan. 2014. Correspondence analysis: Exploring data and identifying patterns. In Dylan Glynn & Justyna A. Robinson (eds.), *Corpus Methods for Semantics: Quantitative studies in polysemy and synonymy*, 443–485. Amsterdam: John Benjamins.
Goatly, Andrew. 1997. *The Language of Metaphors*. London: Routledge.
Goatly, Andrew. 2007. *Washing the Brain: Metaphor and Hidden Ideology*. Amsterdam: John Benjamins.
Haan de, Ferdinand. 2007. Raising as Grammaticalization: The Case of Germanic SEEM verbs. *Rivista di Linguistica* 19.1. 129–150.
Harm, Volker. 2021. *Funktionsverbgefüge des Deutschen: Untersuchungen zu einer Kategorie zwischen Lexikon und Grammatik*. Berlin & Boston: De Gruyter.
Heine, Bernd, Ulrike Claudi & Friederike Hünnemayer. 1991. *Grammaticalization: A conceptual framework*. Chicago: University of Chicago Press.
Heine, Bernd. 1993. *Auxiliaries: Cognitive Forces and Grammaticalization*. Oxford: Oxford University Press.
Heine, Antje. 2020. Zwischen Grammatik und Lexikon. Forschungsgeschichtlicher Blick auf Funktionsverbgefüge. In Sabine De Knop & Manon Hermann (eds.), *Funktionsverbgefüge im Fokus*, 15–38. Berlin & Boston: De Gruyter.
Hilpert, Martin. 2008. *Germanic Future Constructions: A Usage-based Approach to Language Change*. Amsterdam: John Benjamins.

Hopper, Paul J. & Elizabeth Closs Traugott. 2003. *Grammaticalization*. Cambridge: Cambridge University Press.
Johnson, M. (1987). *The body in the mind: The bodily basis of meaning, imagination, and reason*. Chicago: University of Chicago Press.
Kamber, Alain. 2008. *Funktionsverbgefüge – empirisch*. Tübingen: Niemeyer.
Kiparsky, Paul. 2012. Grammaticalization as optimization. In Dianne Jonas, John Whitman & Andrew Garrett (eds.), *Grammatical change: Origins, nature, outcome*, 15–51. Oxford: Oxford University Press.
Krug, Manfred. 2011. Auxiliaries and grammaticalization. In Heiko Narrog & Bernd Heine (eds.), *The Oxford handbook of Grammaticalization*, 547–558. Oxford: Oxford University Press.
Lakoff, George. 1993. Contemporary Theory of Metaphor. In Andrew Ortony (ed.), *Metaphor and Thought*, 202–251. Cambridge: Cambridge University Press.
Lakoff, George. 1987. Women, Fire, and Dangerous Things: What Categories Reveal about the Mind. Chicago: University of Chicago Press.
Lakoff, G. & M. Johnson (1999). *Philosophy in the Flesh: The embodied mind and its challenge to western thought*. New York: Basic Books.
Lakoff, George & Mark Johson. 2003. *Metaphors we live by*. Chicago: Chicago University Press.
Langacker, Ronald W. 1991. *Foundations of cognitive grammar II: Descriptive application*. Stanford, CA: Stanford University Press.
López-Couso, María José & Belén Méndez-Naya. 2015. Epistemic/Evidential Markers of the Type Verb + Complementizer: Some Parallels from English and Romance. In Andrew Smith, Graeme Trousdale & Richard Waltereit (eds.), *New Directions in Grammaticalization Research*, 93–120. Amsterdam: John Benjamins.
Marcinkowska-Rosół, Maria & Sven Sellmer. 2021. The Mind as Container: A Study of a Metaphor in Homer and Hesiod with a Parallel Analysis of the Sanskrit Epics. *Mnemosyne* 75 (6). 873–897.
Meillet, Antoine. 1912. L'evolution des formes grammaticales. *Revue internationale de synthese scientifique* 12. 6.
Polenz, Peter von. 1987. Funktionsverben, Funktionsverbgefüge und Verwandtes: Vorschläge zur satzsemantischen Lexikographie. *Zeitschrift für Germanistische Linguistik* 15 (2).169–189.
Pottelberge, Jeroen Van. 2001. *Verbonominale Konstruktionen, Funktionsverbgefüge: vom Sinn und Unsinn eines Untersuchungsgegenstandes*. Heidelberg: Winter.
Reznikova, Tatiana, Ekaterina Rakhilina & Anastasia A. Bonch-Osmolovskaya. 2012. Towards a Typology of Pain Predicates. *Linguistics* 50 (3). 421–465.
Roberts, Ian. 1993. A formal account of grammaticalization in the history of Romance futures. *Folia Linguistica Historica* 13. 219–258.
Schrodt, Richard. 2004. *Althochdeutsche Grammatik II: Syntax*. Tübingen: Niemeyer.
Schrodt, Richard & Karin Donhauser. 2003. Tempus, Aspekt/Aktionsart und Modus im Deutschen. In Werner Besch (ed.), *Sprachgeschichte, 3. Teilband: Ein Handbuch Zur Geschichte der Deutschen Sprache und ihrer Erforschung*, *2504–2525*. Berlin & Boston: De Gruyter.
Schützeichel, Rudolf. 2006. *Althochdeutsches Wörterbuch*. Tübingen: Niemeyer.
Seifert, Jan. 2016. Zu erkanntnuss gebracht: Frühneuhochdeutsche Funktionsverbgefüge – Sprachliche Strukturen in der Diglossiesituation. In Claudia Wich-Reif (ed.), *Historische Sprachkontaktforschung*, 165–187. Berlin & Boston: De Gruyter.
Seifert, Jan. 2020. Funktionsverbgefüge in älteren Texten: Topologische, prosodische und informationsstrukturelle Aspekte. In Delphine Pasques & Claudia Wich-Reif (eds.), *Textkohärenz und Gesamtsatzstrukturen in der Geschichte der deutschen und französischen Sprache vom 8. bis zum 18. Jahrhundert*, 397–415. Berlin: Weidler.

Smirnova, Elena & Vanessa Stöber. 2020. Verbo-nominal constructions with *kommen* 'come' in German. *Constructions and Frames* 14 (1). 121–149.
Sturtevant, Edgar Howard. 1917. *Linguistic Change: An Introduction to the Historical Study of Language*. Chicago: University of Chicago Press.
Sweetser, Eve. 1991. *From Etymology to Pragmatics: Metaphorical and Cultural Aspects of Semantic Structure*. Cambridge: Cambridge University Press.
Taverniers, Mirian. 2018. Grammatical metaphor and grammaticalization. The case of metaphors of modality. *Functions of Language* 25 (1). 164–204.
Tendahl, Markus & Raymond W. Gibbs Jr. 2008. Complementary perspectives on metaphor: Cognitive linguistics and relevance theory. *Journal of Pragmatics* 40 (11). 1823–1864.
Traugott, Elizabeth Closs & Richard B. Dasher. 2002. *Regularity in Semantic Change*. Cambridge: Cambridge University Press.
Traugott, Elizabeth Closs & Graeme Trousdale. 2013. *Constructionalization and Constructional Changes* (Oxford Studies in Diachronic and Historical Linguistics 6). Oxford: Oxford University Press.
Ullmann, Stephen. 1951. *The Principles of Semantics*. Glasgow: Jackson.
Ullmann, Stephen. 1962. *Semantics: An Introduction to the Science of Meaning*. Blackwell: Oxford.
Viberg, Åke. 1983. The Verbs of Perception: A Typological Study. *Linguistics* 21 (1). 123–162.
Wundt, Wilhelm Max. 1904. *Völkerpsychologie: eine Untersuchung der Entwicklungsgesetze von Sprache, Mythus und Sitte*. Leipzig: Engelmann.
Wegener, Heide. 2001. Verbs of Affect from a Synchronic and a Diachronic Perspective. In Nicole Dehé & Anja Wanner (eds.), *Structural Aspects of Semantically Complex Verbs*, 219–248. Frankfurt: Peter Lang.

Primary Sources

[Heliand] Heliand und Genesis. Ed. by Otto Behaghel. Bearbeitet von Burkhard Taeger. Tübingen: Niemeyer 1984 (= Altdeutsche Textbibliothek; 4).
[Notker] Die Werke Notkers des Deutschen. Herausgegeben von James C. King und Petrus W. Tax. Neue Ausgabe. Band 1–10A. Tübingen: Niemeyer 1972 (= Altdeutsche Textbibliothek; 73).
[Otfrid] Otfrids Evangelienbuch. Herausgegeben von Oskar Erdmann 1882. Sechste Auflage, besorgt von Ludwig Wolff. Tübingen: Niemeyer 1973 (= Altdeutsche Textbibliothek; 49).
[Tatian] Tatian. Lateinisch und altdeutsch mit ausführlichem Glossar. Herausgegeben von Eduard Sievers. Unveränderter Nachdruck. Paderborn: Schöningh 1966 (= Bibliothek der ältesten deutschen Literatur-Denkmäler; 5).
[Wulfila] Die gotische Bibel. Herausgegeben von Wilhelm Streitberg. 1. Teil. Der gotische Text und seine griechische Vorlage mit Einleitung, Lesarten und Quellennachweisen sowie den kleinen Denkmälern als Anhang. Heidelberg: Winter 1919 (= Germanische Bibliothek; 2/3).