Evidentiality and Propositional Scope in Early Modern German

Richard J. Whitt

The University of Nottingham

This paper provides an overview of verbal markers of evidentiality in Early Modern German (1650-1800) in light of Boye's propositional scope hypothesis. The markers under investigation include the semi-auxiliary *scheinen* 'to shine, appear, seem' and the perception verbs *sehen* 'see' and *hören* 'hear.' It is shown that, although Boye's hypothesis sheds new light on and calls into question previous diachronic accounts of *scheinen*, it appears not to fully account for why cases where perception verbs do not scope over propositions are also found with evidential readings in light of the larger discourse context. It will be shown that Boye's hypothesis is still feasible when such contexts are taken into account. Data are drawn from the German Manchester Corpus (GerManC), a representative multi-register corpus of Early Modern German from 1650 to 1800.

Keywords: Evidentiality, Early Modern German, Propositional Scope

1. Introduction

The current study is an investigation of evidential markers – items that encode the evidence speakers or writers have for the statements they make – in Early Modern German (1650-1800), with a focus on examining diachronic data in light of Boye's (2010a, 2010b, 2012) hypothesis that evidential markers have scope over propositions but not states-of-affairs. There is little agreement among typologists as to how to delineate the category of evidentiality. Some argue that evidentiality should be solely a grammatical category (Aikhenvald 2004), while others admit a broad range of grammatical and lexical markers into the category (Chafe 1986). The most recent contribution to this discussion is Boye (2012), who argues that the key to understanding evidentiality is not a matter of grammar vs. lexicon, but rather whether an alleged evidential marker has scope over a proposition. This notion has yet to be examined in the light of diachronic data. So even historical studies of evidentiality in German (Diewald & Smirnova 2010; Whitt 2010) do not always approach evidentiality with the

same criteria of analyzing evidential constructions. The current study will examine a range of previously studied grammatical(ized) and lexical(ized) markers of evidential meaning in view of Boye's claims, showing how previous accounts of these markers are sometimes too narrow in their approach, while also demonstrating how Boye's model does not account fully for the broader discourse context in which evidential items occur, but nevertheless serves as a useful analytic tool when taking this context into consideration. The markers under investigation are *scheinen* 'to shine, seem' (Diewald & Smirnova 2010) and the perception verbs *sehen* 'to see' and *hören* 'to hear' (Whitt 2010). Data are drawn from the German Manchester Corpus (or GerManC), a corpus of Early Modern German from 1650 to 1800 (Durrell et al. 2012; Scheible et al. 2012).[1] This corpus provides a broad sampling of texts from a number of different registers, allowing the possibility of register variation to be considered. Previous diachronically-oriented studies on evidentiality in German did not have the GerManC Corpus at their disposal, and the current investigation is the first to exploit this resource to these ends. The seventeenth and eighteenth centuries are a pivotal time in the history of German, as this is when the Modern Standard language comes into its own as a fully-fledged *Kultursprache* 'cultural language' through the acceptance and codification of certain norms throughout the German-speaking realm (Roelcke 1998, 813; Elspaß 2008, 4-6; von Polenz 2013, 1-2), as well as a period when grammaticalization is particularly active in the verbal system (Diewald & Smirnova 2010).

2. Evidentiality in German

Evidentiality is a deictic process where speakers indicate the source of information for making a claim: evidential utterances "typically include indicators pointing directly to particular sources or away from potential sources, as the speaker takes a particular point of view in describing an action" (Joseph 2003, 308). In a sentence such as *Ich habe gehört, dass Diana den Zug verpasst hat* 'I heard that Diana missed the train,' for example, the speaker points to hearsay as her source of information for the proposition *Diana hat den Zug verpasst* 'Diana missed the train.' Both Anderson (1986) and Willett (1988) constitute early studies seeking to explain how such a process can be realized in a range of languages. Anderson (1986, 274-275) made an early attempt to explicate what a "prototypical" evidential marker looks like: (a) it

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[1] The GerManC Corpus is available at http://ota.ahds.ac.uk/desc/2544 (last accessed 15 December 2014).

shows the "justification" the speaker has for a "factual claim"; (b) it is not the main predication of the clause, but is rather a "specification added to a claim *about something else*" (emphasis Anderson's); (c) the indication of evidence is part of the primary meaning rather than a pragmatic inference; and (d) morphologically, evidentials can be either free syntactic elements, inflections, or clitics (but not compounds or derivations). Anderson's criteria have not gone unquestioned, especially concerning the nature of grammatical marking and evidential meaning not being part of the primary meaning (Aikhenvald 2003; Boye & Harder 2009). Looking back at three decades of evidentiality studies, Boye (2010a, 290-291; 2012, 185-187) has noted that beyond the general consensus that evidentiality is the marking of speaker evidence, there is little agreement as to whether what is meant by "evidential" is evidence for propositions, claims, assertions, statements, actions, speech acts, or states-of-affairs. Boye (2010a, 2010b, 2012) thus proposes a framework in which evidential markers have scope over propositions, not states-of-affairs.

To illustrate how Boye distinguishes between propositions and states-of-affairs, consider (1) and (2) (taken from Boye 2010a, 293 and Boye 2012, 192):

(1)   a.   I saw him write a letter.

        b.   I heard him yell.

(2)   a.   I saw that he was writing a letter.

        b.   I heard that he was yelling.

According to Boye, the accusative and infinitive constructions (also known as *accusativus-cum-infinitivo*, or AcI, constructions) in (1) denote states-of-affairs, while the complement clauses in (2) contain propositions. The difference, Boye argues, is that states-of-affairs can be "said to occur" and do not have a truth value (Boye 2012, 193); they do not "stipulate the existence of an extra-linguistic referent" (Boye 2010b, 415). They can be thought of as "actions" occurring at a specific point in time (Boye 2010a, 293). Propositions, on the other hand, represent "pieces of knowledge" that have been acquired and contain a truth value. Unlike states-of-affairs, they do code the intention to refer to extra-linguistic referents. They can be thought of as "facts" that are either true or not true (Boye 2010a, 293; cf. Hengeveld & Mackenzie 2008, 144, 166). Consequently, they can be subject to epistemic qualification, whereas states-of-affairs cannot (contrast *I heard that he was probably yelling* vs. ?*I heard him probably yell*, for example). So in (1), what is perceived – writing a letter and yelling – is inexorably tied in with the concurrent

perceptive act and does not constitute a separate "piece of knowledge" or "fact" resulting from the perception; that this perception provides justification for the assertion of writing in (1a) and yelling in (1b) is *implied* but it is not *expressed* (Boye 2012, 213; cf. Anderson's 1986 view that pragmatic inference does not constitute a part of evidentiality). In (2), on the other hand, the delineation between the acquisition of knowledge (indicated by the perception verb in the matrix clause) and "pieces of knowledge" or "facts" acquired is made explicit by the complement clauses, the contents of which do have a truth value and which stipulate that someone was writing a letter or yelling (see Boye 2010b for a much fuller discussion of the ontological differences between states-of-affairs and propositions). Given this criterion, Boye (2012, 183ff.) concludes that scope over propositions is of primary importance, not whether something is grammatical or lexical. This is a radical departure within evidentiality studies, most notably from Aikhenvald (2004), who argues that evidentiality is solely a grammatical phenomenon. Even Diewald and Smirnova (2010), who adopt a less stringent position for German (which lacks inflectional evidential marking), maintain the distinction between grammaticalized constructions and more lexical "evidential strategies," i.e., items which are not grammaticalized but which often signal evidential meaning (such as certain uses of perception verbs) (40ff.). Leiss (2011) also maintains a distinction between grammatical and lexical evidential markers in German – epistemic modal verbs versus adverbs, for example – given the more complicated deictic operations involved with the former.

Even though German does not encode expressions of speaker evidence in verbal morphology, recent studies (Diewald & Smirnova 2010; Whitt 2010) have shown it has developed both lexical and more grammaticalized means of signifying evidential meaning. The perception verbs *sehen* and *hören* are an example of lexical means of expressing speaker evidence (what Diewald and Smirnova (2010, 45) would call "stereotypical constructions," evidential strategies involving the repeated use of certain lexical constructions or collocations). On the other hand, the semi-auxiliary *scheinen* is an example of a more grammaticalized realizations of evidentiality because it has evolved from the more concrete, lexical sense of 'to shine.' This distinction is – to some extent – rendered irrelevant when determining whether something expresses evidential meaning or not in Boye's framework.

In the typological literature on evidentiality, a two-way distinction is often drawn between direct and indirect evidence (Palmer 1986; Willett 1988; Lazard 2001; Plungian 2001). Direct evidence is acquired through first-hand perceptual experience, whereas indirect evidence can be further subdivided into inference and mediated information, that is, information received from

someone else. In (3) the perception verb *sehen* is a marker of direct perceptual evidence. *Scheinen* in (4) functions as a marker of inferential evidentiality, and in (5), *hören* is an indicator of mediated information:

(3)   Ich blikte hinab und **sah**, daß Malgen mit einem Glase Wasser sehr beschäftigt heraufstieg.

        'I looked up and saw that Malgen came up very busily with a glass of water.'

        (NARR_P3_OMD_1774_Werther: Johann Wolfgang von Goethe, *Die Leiden des jungen Werthers*, Leipzig 1774)[2]

(4)   Leider **scheint** sie diese Krankheit auf ihren Sohn fortgeerbt zu haben . . .

        'Unfortunately she seems to have passed this sickness on to her son . . .'

        (NARR_P3_NoD_1790_AntonReiser: Karl Philipp Moritz, *Anton Reiser*, Berlin 1790)

(5)   ich **höre**/ es wird sehr viel Geld von den neuen Zöllen einkommen.

        'I hear there will be a lot of money coming in from the new customs duties.'

        (DRAM_P1_OMD_1683_Masaniello: Christian Weise, *Trauer-Spiel Von dem Neapolitanischen Haupt-Rebellen Masaniello*, Zittau 1683)

In (3), the speaker indicates he has first-hand visual evidence for the proposition that Malgen is ascending with a glass of water. In (4), on the other hand, there is an inference (no doubt based on observable facts) that someone has inherited a disease from his mother. And in (5) the source of information about the earnings of new customs duties is marked as hearsay.

The paper is structured as follows. In Section 3 the structure of the GerManC Corpus is discussed. Section 4 provides in-depth accounts of

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[2]Data from the GerManC corpus are cited using the file name and basic bibliographic information. In (3), for example, the file name contains information on the register (NARR = Narrative), the period (P3 = 1750-1800), the region of origin (OMD = *Ostmitteldeutsch* 'East Central German'), year of publication (1774), and some bibliographical elements of author, title, and publication location. See Section 3 for a full description of the corpus structure.

scheinen, sehen, and *hören*, comparing the results of previous studies with Boye's propositional scope hypothesis. Throughout the discussion, the possibility of register-specific uses of evidential markers during the Early Modern Period is kept in mind.

3. The Data: The GerManC Corpus

Data for the current study are drawn from the German Manchester Corpus (GerManC), a multi-register representative corpus of Early Modern German (Durrell et al. 2012; Scheible et al. 2012). The corpus covers the years 1650 to 1800 and is subdivided into three sub-periods of 50 years each. Texts are also classified along the lines of the five major dialect regions of Germany.[3] Finally, texts were classified along the lines of print-oriented and orally-oriented registers.[4] Table 1 summarizes the structure of the corpus:

Table 1. The Structure of the GerManC Corpus

PERIOD	REGION	REGISTER

1650-1700
1700-1750
1750-1800
	North German
	East Central German
	West Central German
	East Upper German
	West Upper German
		print-oriented:
		    Humanities
		    Legal
		    Narrative
		    Scientific
		orally-oriented:
		    Drama
		    Letters
		    Newspapers
		    Sermons

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[3]No correlation could be found between regional variation and the use of evidential markers in the present study.

[4]This is based on Koch & Oesterreicher's (1985) discussion of written representations of spoken language. Although not mirroring speech exactly, some registers such as dramas come nearer than more formal academic registers (like scientific texts) to mirroring the spoken language. The newspapers are considered orally-oriented here because they are written transcriptions of oral reports provided by reporters via *Depeschen* 'dispatches.'

Three text extracts of roughly 2,000 words each were taken for each possible period/region/register configuration, e.g. there are three 2,000 word samples of East Central German legal texts dating from 1750-1800. This brings the total word count of the corpus to approximately 720,000 words.

The items under investigation – *scheinen, sehen,* and *hören, –* were extracted from the corpus using the WordSmith 6 concordancer (Scott 2012). All spelling variants and morphological forms were considered and analyzed with reference to the formal criteria established in the literature on what constitutes an evidential value or not (Diewald & Smirnova 2010; Whitt 2010): namely, the syntactic constellation in which these verbs appear often goes hand-in-hand with whether they are evidential markers or not. Boye's framework is then applied to show how *scheinen* can serve an evidential function in more contexts than previously claimed by Diewald & Smirnova (2010). Then Boye's hypothesis itself appears brought into question when the discourse context of certain perception verb constructions that Boye does not find evidential nevertheless suggest an evidential reading. Ultimately, however, such uses are shown to be compatible with Boye's notion of propositional scope.

4. Analysis and Results

4.1 Inferential Evidentiality and Grammaticalization: The Case of *scheinen*

The verb *scheinen* is one of the main verbal markers of speaker inference in Modern German. In its lexical use as an intransitive main verb it means 'to shine' (as in *Das Licht scheint sehr hell* 'The light is shining very brightly'), but more often, it means 'to seem, appear.' It is during the seventeenth and eighteenth centuries that its full range of evidential uses comes into being (Diewald & Smirnova 2010, 254ff.). A number of different syntactic constellations are involved: a copula, a compound copula with infinitive *sein* 'to be,' a *zu*-infinitive other than *sein*, a complement clause (often introduced by the complementizer *dass* 'that'), and a parenthetical. Its overall token frequency in the GerManC corpus is 309.

4.1.1 Copulas and the *zu*-Infinitive Construction

In Diewald and Smirnova's (2010) account of *scheinen*'s evolution into a grammaticalized marker of evidentiality, the copula construction (as seen in (6)

and ((7)) – which dates back to the Middle High German period (255-257) – is held to be the historical precursor of the *zu*-Infinitive construction, which first occurred with the verb *sein* 'to be' ((8) and (9)) and later took other verbs as infinitival complements ((10) and (11)).[5]

(6)   . . . hab aber noch nicht recht mit ihr kundschafft gemacht, sie **scheindt** gegen mich gar forchtsam.

        '. . . I have not yet properly made her acquaintance, she seems quite afraid of me.'

        (LETT_P1_WMD_1663_Pfalz: Letter from Elector Karl Ludwig von der Pfalz to Elisabeth Charlotte von der Pflaz, June 1663)

(7)   Die Kindbetterin **schien** bey dem Anblick der Unbekannten etwas betroffen, vermuthlich aus Verwunderung, daß die Nixe so treulich Wort gehalten hatte.

        'The woman who just gave birth appeared shocked at the sight of the strangers, probably due to amazement that the mermaid had stayed true to her word.'

        (NARR_P3_OMD_1782_Volksmaerchen: Johann Karl August Musäus, *Volksmärchen der Deutschen*, Gotha 1782)

(8)   Eine davon **scheinet** von einer römischen Kaiserin, und eine von ANTONIO Philosopho, zu seyn.

        'One of them [a statue] appears to be of a Roman Empress, and one of them appears of the philosopher Antonius.'

        (HUMA_P3_WOD_1768_Roemer: Christian Hans Hanßelmann, *Beweiß, wie weit der Römer Macht, in den   mit   verschiedenen teutschen Völkern geführten Kriegen . . .*, Halle 1768)

(9)   In Schweden **scheint** der Revolutionsgeist rege zu werden.

        'The spirit of revolution appears to be astir in Sweden.'

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[5]In line with previous studies (Diewald & Smirnova 2010, 177-179, 251ff.; cf. de Haan 2007, 140-141), the *zu sein* 'to be' construction in (8) is kept separate from that in (9) because it is diachronically older and functioned as a sort of transitional construction between the copula use in (6) and (7) and the *zu*-Infinitive construction in (9).

(NEWS_P3_WMD_1793_mainz: *Die neue Mainzer Zeitung oder der Volksfreund*, no. 13, 29 January 1793)

In (6) and (7), the indication of some appearance being emanated from the subject is in focus. However, there is a second component present as well which paves the way for evidential meaning, as *scheinen* in these instances "describes not only a visual effect produced by a subject (like *Sonne* 'sun' or *Mond* 'moon') but rather an impression which is caused by the subject referent by means of its visual (or other) appearance" (Diewald & Smirnova 2010, 178-179). That is, the woman's physical demeanor and behavior is projecting an *appearance of* fear on the perceiver in (6), while the woman in (7) is projecting an appearance of amazement. As a mere impression is being projected by the grammatical subject and inferential meaning is supposedly absent, Diewald and Smirnova do not consider these to be evidential, and Boye's propositional scope criterion appears to support this, as (6) and (7) only indicate states-of-affairs (the appearance of fear and amazement) rather than propositions. Even so, the appearance of these copula constructions with *scheinen* provide a conceptual link between an emanating subject and an observer, one who can draw inferences based on appearances. This is what is then indicated with the *zu*-Infinitive construction, when a second proposition is made explicit through the use of a verbal infinitive complement introduced by the particle *zu* (Diewald & Smirnova 2010, 260ff.). The copula *sein* 'to be' is supposed to be the first verb to appear in this (compound copula) construction (de Haan 2007, 140; Diewald & Smirnova 2010, 260), with other verbs quickly following suit. So in (8), for example, *scheinen* allows the speaker/writer to infer who exactly the objects of the sculpture are, while in (9), the reporter infers from ongoing events in Sweden that revolutionary sentiments are spreading. Rather than being the main (and only) predication indicating a visual appearance, *scheinen* serves the role of secondary predication in the *zu*-Infinitive constructions, allowing speakers to express their inferences about whatever is indicated by the *zu*-Infinitive and its respective complements (cf. Anderson 1986, 274). Rather than a mere adjectival or nominal complement, *scheinen* now has scope over an entire proposition and thus is free to serve an evidential function (Boye 2010a). Through this process, grammaticalization was at work, as the meaning of 'to shine' and general visual appearance became bleached (acquiring the inferential evidential meaning in the process), restrictions on extrapositioning and valency went into effect, while syntactic restrictions on subject selection decreased (for a fuller account, see Diewald 2001, 91-93, and Diewald & Smirnova 2010, 177-191, 251-268).

The GerManC data confirm Diewald and Smirnova's (2010, 263ff.) assertion (based on a different data set) that the eighteenth century is when

these grammaticalization processes appear to have come into fruition, allowing the use of the evidential *zu*-Infinitive to increase in frequency and spread rapidly. Figure 1 provides a visualization of the raw counts of *zu*-Infinitive constructions in each of the three fifty-year periods covered by GerManC:

Figure 1. Occurrences of evidential *scheinen* + *zu*-Infinitive contructions in the GerManC Corpus
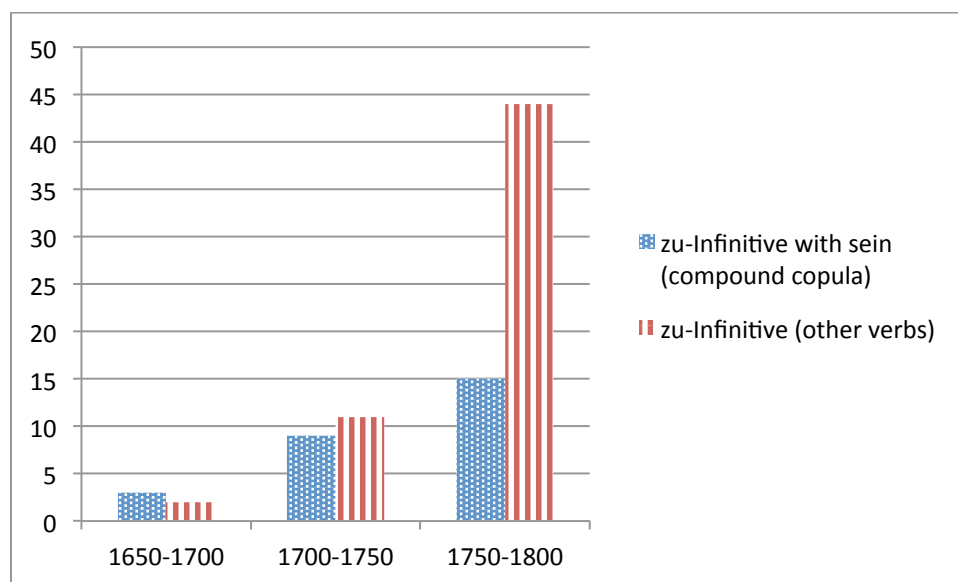
Whereas the period 1650 to 1700 attests only a few instances of evidential *zu*-Infinitive constructions, the next two periods show that this construction's frequency increases proportionally several hundredfold within the eighteenth century. A chi-square test with Yates' correction for continuity reveals these increases to be statistically significant. For the *zu*-Infinitive construction involving *sein*, there is only a statistically significant difference for the entire period rather than for each incremental increase (that is, between 1650-1700 and 1750-1800): $\chi_2 = 6.721$, df = 1, $p = .009$. On the other hand, the *zu*-Infinitive construction involving other verbs shows a statistically significant increase between 1650-1700 and 1700-1750 ($\chi_2 = 4.922$, df = 1, $p = .026$), and even more so between 1700-1750 and 1750-1800 ($\chi_2 = 18.615$, df = 1, $p = $ <.001). Diewald and Smirnova (2010, 262) speculate that this rapid increase was due to analogical transfer from the *werden* 'to become' + Infinitive construction (as in *Diana wird den Zug verpassen* 'Diana is bound to miss the train'), which they claim was also grammaticalizing into an inferential

evidentiality marker.[6] Whether this was the casee or not lies beyond the parameters of the current study, but the data do at least confirm the diachronic account put forward by Diewald and Smirnova (2010). No connection between register and the grammaticalization of the *zu*-Infinitive could be established.

If one re-examines the copula and *zu*-Infinitive construction within light of Boye's (2012) notion of propositional scope, even some of the former could be construed as attesting evidential meaning. Although *scheinen* in (6) and (7) does not appear to take a proposition in its scope, Boye (2012, 250ff.) notes that there are cases of epistemic markers (which include evidential expressions) "coercing" (253) a proposition where one is not overtly expressed: "even when epistemic expressions have less than a propositional construction in their semantic scope, their epistemic meanings are interpreted as having a proposition as their scope. More precisely, whatever is found in the explicit scope of a given epistemic meaning is interpreted as being part of the implicit propositional scope" (253). This coerced proposition must be identifiable in some way, however (254). Given the copula construction's close affinity with the compound copula construction (where an explicit proposition does fall within the scope of *scheinen*), it may well be possible for propositional coercion to occur in at least some copular constructions, especially where an inference on the part of the speaker is suggested. Let us return to (6) and (7), where the adjectival complements are *forchtsam* 'afraid' and *betroffen* 'shocked,' respectively. States of fear and of shock cannot be perceived directly or have visual appearances unto themselves; rather, one can display signs of fear or shock (e.g., facial expressions, flushed looks, mumbled speech) that are symptomatic of these states. An observer can then infer from these signs that the individual is in a state of fear or shock. Such is suggested by the discourse contexts surrounding (6) and (7), for in (6) the writer's inference is based on the fact that his failed attempts to become acquainted with a *Fraw Trelong* 'Mrs. Trelong' are due to her fear of him, and he points to her incessant refusal to travel to Heidelberg as a sign of this fear. Similarly in (7), the speaker infers that the woman in childbed was in a state of shock because the mermaid's words have proven true (which apparently was not expected). That there is an implicit proposition in both these instances is supported by the fact that these could be turned into compound copula constructions with the addition of *zu sein*, thus rendering the propositions overt. This still supports Diewald and Smirnova's (2010) claim that the copula construction forms the historical (and conceptual) basis for the evolution of the *zu*-Infinitive

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[6]In an earlier study, Diewald (2001) suggested that this analogical transfer was due to the grammaticalization of the epistemic modal verbs instead, but she has since changed her position.

constructions, as these constructions allow simple adjective or nominal states indicated by *sein* to be inferred, and then eventually any sort of verbal action indicated by verbs other than *sein*. However, Boye's notion of propositional coercion admits simple copula constructions into German's evidential repertoire as well.

Not all cases of *zu*-Infinitive constructions, and certainly not all cases of copular uses of *scheinen*, are carriers of evidential meaning. Consider the following:

(10)   Hier **scheinet** die See gantz grün.

         'Here the sea appears very green . . .'

         (SCIE_P2_WOD_1708_WunderbarenWelt: Everhard Gvern. Happelii, *MUNDI MIRABILIS TRIPARTITI, Oder Wunderbaren Welt*, Ulm 1708)

(11)   Was die Welt mit Gunst und Liebe allhier zu geben **scheinet**/ reisset sie nachgehends wie der arge Dieb an sich/ lasset dem Menschen nichts übrig.

         'What the world appears to give here with grace and love, it subsequently snatches back like a wicked thief and leaves people with nothing.'

         (SERM_P2_OOD_1728_Verstellte: Aemilian Daneli, *Der Verstellte einer gantzen Welt/ Denen Christen aber bekandte Pilger . . .*, Vienna 1728)

In (10), *scheinen* functions merely to describe the physically perceivable color of the sea, while in (11), *scheinen* serves to indicate how things appear in contrast with how they actually are. As speaker inference is not involved in either case, evidential meaning is not present. Diewald and Smirnova (2010, 183-185) ascribe this use of *zu*-Infinitive constructions to persistence in grammaticalization, where the more lexical semantics of an item are maintained even after the grammaticalization process has taken place. Regarding the copular construction, (10) contrasts with (6) and (7) not because of any sort of persistence or scope properties (a proposition could be "coerced" [Boye 2012, 253] here as well), but rather because of the semantics of the adjectival complement. Greenness is a physically perceivable quality, whereas conditions of fear and shock must be inferred from observable behavior. In both cases, the wider discourse context is necessary to determine whether evidential meaning is expressed. Quantitatively, the GerManC corpus attests 68

uses of copular *scheinen*, with 17 (25%) signaling evidential meaning. Regarding the compound copular constructions with *zu sein*, 27 out of 60 (45%) instances in GerManC express speaker/writer inference. Finally, 57 of the 80 (71.25%) *zu*-Infinitive constructions involving other verbs were found to be evidential. Although Diewald and Smirnova (2010) do not admit any copular constructions into the category of evidential markers, these data support their diachronic account of the *zu*-Infinitive construction developing evidential meaning: the *zu*-Infinitive construction involving verbs other than *sein* is a marker of speaker inference more often than when *sein* is in the infinitive, and in particular more often than any copular uses which may also be markers of speaker inference.[7] By the end of the eighteenth century, *scheinen* + *zu*-Infinitive with verbs other than *sein* has become the preferred marker of speaker inference among this group of related constructions.

4.1.2 Complement Clauses and Parentheticals

There are two other construction types relevant to the function of *scheinen* as an evidential marker: complement clauses (12) and parentheticals ((13) and (14)):

(12)   dazu ich dann nun vermeine leichter zu gelangen/ weil es **scheinet**/ daß unsere heurat/ nach dem tode des Königs Amraphel von Elam/ nicht so eiferig bei unserem hofe mehr getrieben wird.

'In addition I suppose it will be easier to succeed because it seems that our wedding is no longer being so fervently planned for at our court since the death of King Amphrael of Elam.'

(NARR_P1_OOD_1669_Aramena: Anton Ulrich (von Braunschweig), *Die durchleuchtige Syrerin Aramena Der Zweyte Theil: Der Beschwiegerten Freundschaft gewidmet*, Nuremberg 1669)

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[7] 9 of the 17 (53%) evidential uses of copular *scheinen* in GerManC date from 1750-1800, which confirms Diewald and Smirnova's (2010, 258) finding that copular uses of *scheinen* occur in an increasingly broader range of contexts in the Early Modern period. That is, complements are no longer restricted to adjectives that merely indicate a physical state (such as *grün* in (10)), but can also involve adjectives denoting perceptual effects and illusory appearances, as indicated in (6) and (7). Even so, none of these uses would be considered evidential by Diewald and Smirnova.

(13)   ich aber mein verhoffen/ Starrt eine lange Zeit/ von diesem Blitz
         getroffen/ Biß ich mich vnterwand zu lindern jhren Grimm Doch/ wie
         es **schien**/ vmbsonst.

         'In hope I stared for a long time, affected by this flash of light, until I
         strove to abate her anger but, as it seemed, in vain.'

         (DRAM_P1_OMD_1657_Cardenio: Andreas Gryphius, *Cardenio vnd
         Celinde, Oder Unglücklich Verliebete*, Breslau 1657)

(14)   Gott will so **scheint's** nicht haben dass ich Autor werden soll.

         'God does not, it seems, intend for me to become an author.'

         (LETT_P3_WMD_1768_Goethe: Letter from JohannWolfgang von
         Goethe, Janurary 1769)

S*cheinen* in (12) clearly takes a proposition indicated by the complement
clause in its scope: that wedding planning is no longer a priority at court.
Diewald and Smirnova (2010), however, argue against an evidential
interpretation of complement clauses:

> What *scheinen* seems to express in constructions with complement clauses is
> the impression which is produced (on some observer) by some entity or
> situation. The impression may be more or less concrete, and it may be more or
> less plausible. Every actual interpretation of the evaluative or epistemic status
> of the represented impression is supported by further contextual devices and
> does not arise from the verb *scheinen* alone (179-180).

By "further contextual devices" Diewald and Smirnova are referring to matters
such as the tense and mood of the verb in the complement clause, which often
occurs in the subjunctive (2010, 180), hence rendering the proposition non-
factual and non-evidential. This is true enough, but it does not account for
cases where the verb is in the indicative. A total of 15 of the 55 (27.3%)
scheinen complement clauses in GerManC were found to contain verbs in the
indicative, and as can be seen (12), one is hard pressed not to see *scheinen* as
scoping over the following propositional content and serving as a secondary
predication. In (12), the speaker infers that since the king's death an upcoming
wedding is no longer on everyone's minds because very little is actually being
said about it.   Diewald and Smirnova (2010, 259) acknowledge this
construction as a "potential" indicator of evidence, but do not actually call it an
evidential marker. But as in (10) and (11), "further contextual devices" are
required to determine whether a *zu*-Infinitive construction is used as an
evidential, as the following clause immediately contradicts the impression

signaled by *scheinen*. Diewald and Smirnova (2010, 183-185) simply write this off as persistence in grammaticalization. Specifically, this means that cases such as (11), in which a mere impression rather than an inference is indicated, older meanings "persist" despite the fact that the *scheinen* + *zu*-Infinitive construction has grammaticalized into a marker of speaker inference. This is true enough, but the exception made for such uses is possibly due to their larger agenda of arguing for a coherent grammaticalization scenario involving not only *scheinen*, but also *werden* 'to become,' *drohen* 'to threaten,' and *versprechen* 'to promise' with infinitive complements as the genesis of a grammatical(ized) paradigm of evidentiality in present-day German. In the process, they do not even acknowledge the possibility of complement constructions potentially serving as "stereotypical constructions" or "evidential strategies" (40-46). Example (12) should make clear that, although perhaps not as frequently used as *zu*-Infinitive constructions, complement clauses with *scheinen* in the matrix clause do express speaker evidence in some instances, at least insofar as the GerManC data are concerned.[8]

Parenthetical uses of *scheinen*, as seen in (13) and (14), are given very little attention by Diewald and Smirnova (2010, 180, 253), who view such parentheticals as adverbial because they are not syntactically integrated into the clause and demonstrate notably different distributional properties. Even so, they note these parentheticals' semantic and functional affinity with copular and *zu*-Infinitive constructions (180). That some parentheticals (especially *wie*-type parentheticals like in (13)) bear a formal resemblance to adverbials is indisputable (d'Avis 2005, 266-269), especially in that they can be placed at the front of a clause whereas more prototypical parentheticals, such as (14), cannot be. Haider (2005, 283ff.), however, points to a key functional difference between true *wie*-type adverbials and adverbial-like *wie*-type parentheticals: whereas the former serve merely to modify the nature of the verbal action indicated in the clause, *wie*-type parentheticals serve a *redekommentierende*

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[8]To their credit, Diewald and Smirnova (2010, 253ff.) dispel the long-held belief that *scheinen* followed by a complement clause dates only from the eighteenth century (see, for example, de Haan 2007) by providing examples of variants of this construction in Old and Middle High German. Indeed, sometimes their glosses betray an evidential reading, even if they do not acknowledge this. For instance, Example 53 (p. 256) is *Das schinet uch an uwerm libe wol das ir darumb nit enwißent* (Lanc 283, 12, MHDWB) 'It is also obvious from your body that you do not know about it,' where the body language of the interloctor serves as the speaker's evidence for the claim that the former lacks certain knowledge.

'discourse commenting' function.[9] These parentheticals allow the speaker/writer to comment on the (propositional) content of the clause in which they are embedded (cf. Brinton's 2008 discussion of 'comment clauses'). This is the exact function found with the parentheticals involving *scheinen*: the speaker infers that his actions to abate a woman's anger have been in vain in (13), and in (14), Goethe expresses his frustration with editors in Leipzig fussing over his work and infers that God is hindering his efforts to become an established author. Although the diachronic origins of this construction type remain unclear, both Diewald and Smirnova (2010, 253), who note such parentheticals first emerged in the Early New High period, and de Haan (2007) suggest these evolved from the the matrix clause of complement clause constructions (cf. Thompson & Mulac 1991).[10] There are only 9 such parentheticals (8 being *wie*-type constructions) in the GerManC Corpus.

4.1.3 Summary of *scheinen*

Scheinen serves the evidential function of marking speaker inference in a number of different constructions, some of which – copulas and complement clauses – were claimed by Diewald and Smirnova (2010) not to be evidential. In all cases, the larger syntactic and discourse context must be consulted to determine whether *scheinen* is evidential or not. Boye's (2012) notion of propositional coercion allows an implied proposition over which *scheinen* has scope to be coerced with adjectival and nominal copular complements, hence the close conceptual and diachronic affinity with compound copulas involving *zu + sein*. This then gave rise to *zu*-Infinitive constructions involving other verbs, and the GerManC data confirm Diewald and Smirnova's (2010) account

[9]Haider's (2005, 283) example of a *wie*-type adverbial is *Es wurde (so), wie sie es wollte, erledigt* 'It was completed as she desired,' where the adverbial *wie sie es wollte* 'as she wanted it' (literal gloss) specifies the manner in which the action was completed. However, in *Er wurde, wie gemunkelt wird, bestochen* 'He was, as rumor has it, bribed,' the parenthetical in no way modifies the nature of the bribery, but rather allows the speaker to comment on the source of information (a rumor, hearsay) for the proposition *Er wurde bestochen* 'He was bribed.'

[10]Thompson and Mulac's (1991) hypothesis that matrix clauses give rise to epistemic parentheticals (at least in English) has recently been brought into question by Brinton (2008) and López-Couso and Méndez-Naya (2014), who note that epistemic parentheticals can have a variety of diachronic origins, and in the case of English *seem*, such parentheticals were found to derive from both adverbial and complement constructions. This is also likely with German, although there is not enough data in GerManC to investigate this further.

that the frequency of this construction increased significantly during the eighteenth century. The GerManC data reveal clear propositional scope and contextual clues suggestive that at least some complement clause constructions can serve an evidential function as well. Finally, parentheticals involving *scheinen* were also shown to be evidentials that, although bearing some resemblance to adverbs, have clear formal and functional differences: they scope over an entire proposition rather than merely the verbal predicate, and they serve a discourse commenting function of marking speaker evidence as opposed to modifying the nature of the verbal action.

4.2 Lexical Evidentials: The Perception Verbs *sehen* and *hören*

I turn now to two perception verbs functioning as evidential markers in Early Modern German: *sehen* ' to see' and *hören* 'to hear.' *Sehen* 'to see' can serve as a marker of direct visual perception as well as speaker inference, and it is the most frequently used of German perception verbs (the total token count in the corpus is 1,502). *Hören* 'to hear' can mark not only direct auditory perception as evidence, but also hearsay (mediated) evidence. Its overall token frequency is 454, over two-thirds less than the frequency of *sehen*. Boye's (2010a, 2010b, 2012) propositional scope criterion will be contrasted with the findings of previous studies of perception verbs, namely Whitt (2009, 2010). As with *scheinen*, a number of different complementation patterns are involved in the expression of evidential meaning: complement clauses, *wh*-complement clauses, parentheticals, direct object (AcI) constructions, and constructions external to the clause for which there is evidence.

4.2.1 Complement Clauses and Parentheticals

Sehen and *hören* occur in complement clause constructions (see (15) and (16)) with the complementizer *dass* 'that' sometimes left unexpressed. Both also occur in complement clauses introduced by a *wh*-complementizer (*wie* 'how,' *wo* 'where,' *wer* 'who,' *warum* 'why'), as in (17) and (18), and in parentheticals ((19) and (20)):

(15)   Ich **seh**/ daß du verliebet bist.

'I see that you're in love.'

(DRAM_P1_NoD_1700_Freyheit: Ortensio Mauro*, Der in seiner Freyheit vergnügte ALCIBIADES*, Braunschweig 1700)

(16)   weil ich **höre** daß Master Popes Dunciade in Hamburg aufgeleget worden . . .

'Because I hear that Master Pope's *Dunciade* was published in Hamburg . . .'

(LETT_P2_WOD_1732_Bodmer: Letter from Johann Jakob Bodmer to Johann Christoph Gottsched, 1732)

(17)   weil man nicht ungewöhnlich **siehet**/ wie sich diese zwey Thiere in einem Hause wol vertragen/ solche Feindschafft nicht natürlich/ wie zwischen Hund und Hasen/ sondern mehrentheils aus Beneidung des Essens sey . . .

'Because it's not unusual to see how these two animals tolerate one another in the same house, and such an animosity is not natural – as is the animosity between dog and rabbit – but rather supposedly has more to do with begrudging food to one another . . .'

(NARR_P1_WMD_1696_DerEdelmann: Paul Winkler, *Der Edelmann*, Frankfurt 1696)[11]

(18)   Er räuspert sich und macht zum Reden sich bereit/ Still! daß ich **hör** wie er sein eignes Lob außschreyt.

'He is clearing his throat and preparing to speak. Be quiet! So I hear how he shouts out his own praise.'

(DRAM_P1_WMD_1668_ChristRuehmendes: Johann Rudolf Karsten, *Christ-rühmendes Schau-Spiel*, Frankfurt 1668)

(19)   sie zweifelten nicht, wie wir aus unserm Text **sehen**, daß die Ermordnung jener Galiläer, und der Einsturz jenes Thurms, der 18.

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[11]As evidentiality concerns the speaker's expression of his or her evidence a proposition, perception verbs such as *sehen* and *hören* are generally only evidential when occurring with first-person grammatical subjects (Whitt 2009, 2010; cf. Gisborne & Holmes 2007, 3-4). However, the third-person impersonal subject *man* 'one' can often be used in an interpersonal function with a meaning similar to *wir* 'we' (Eisenberg 1999, 171; Durrell 2011, 113-114). In the GerManC data, the occurrence of *man* as subject to *sehen* and *hören* was deemed evidential because ultimately it is the speaker or writer who is pointing to the evidence, rather than some other third-person subject. See Whitt (2011, 2014) for a fuller discussion of singular versus plural first-person subjects with perception verbs.

Menschen erschlug, ein göttliches Verhängnis über diese Personen gewesen sey.

'They had no doubt, as we see from our text, that the murder of those Gallileans and the collapse of that tower, which killed eighteen people, was a divine judgment visited upon these people.'

(SERM_P3_WMD_1780_Feuersbrunst: Justus Christoph Krafft, *Eine Predigt über Luc. 13, 1-5 mit Beziehung auf die Feuersbrunst*, Frankfurt 1781)

(20)   Eben jetzt kombt Bericht. daß die gemelte Brod-Wägen mit einer Convoy von 500. Mann/ nacher Ehingen abfahren sollen/ vnd wie einige wollen/ so sollen die Chur-Bayrischen Völcker in Ehingen/ Riedlingen vnd Munderkingen verlegt werden/ so man morgen **hören** wird.

'Just now comes a dispatch that the aforementioned bread carts with a convoy of 500 men is to leave for Ehingen afterwards, and as several claim, the Bavarian troops in Ehingen, Riedlingen, and Munderkingen are to be relocated, as will be heard tomorrow.'

(NEWS_P2_OOD_1702_muenchen2: *Mercurii Relation, oder Wochentliche Ordinari Zeitungen* (no. 48), November 1702)

Examples (15) and (16) contain explicit propositions in the complement clause introduced by *dass*, and the perception verbs in the matrix clause provide the evidence for these propositions (Boye 2010a, 2010b, 2012, 208ff.; see also discussion of Examples (1) and (2)). However, both *sehen* in (15) and *hören* in (16) function as markers of indirect evidence in these types of constructions: the speaker infers (no doubt from visual clues) that her interlocutor is in love in (15), and hearsay in (16) is the basis on which Bodmer reports the publication location of Pope's *Dunciade*. This ability to mark indirect evidence (based on perceptual cues) is thanks to these verbs' highly polysemous and metaphorical nature both within and without the evidential domain (Viberg 1983; Falkenberg 1989; Matlock 1989; Sweetser 1990, 23ff.; Harm 2000; Whitt 2010). Indirect evidence is also indicated by the parentheticals in (19) and (20), which similar to parenthetical *scheinen*, allow speakers/writers to comment on the propositional content of the clauses in which they are embedded. In (19), the writer indicates that an inference can be drawn from the Biblical text that the deaths described were a result of divine judgment, while in (20), the fate of the bread carts and moving Bavarian troops are indicated as mediated information. Of course, as was seen in example (3), direct visual evidence without regard to

inference can be indicated in these constructions as well. But when perception verbs are used to indicate indirect forms of evidence, complementizer clauses and parentheticals are the main construction types used to do so (Whitt 2009, 2010). No diachronic trend could be found with either of these constructions, which occur through all periods of the GerManC corpus. A total of 85 evidential *dass*-complementizer clauses (5.7% of total token count) and 18 evidential parentheticals (1.2%) involving *sehen* were found, whereas *hören* attests only 18 complementizer clauses (4% of total token count) and 6 parentheticals (1.3%).[12] Although both are low-frequency phenomena, the complementizer clauses occur much more often. Whether these provide the diachronic origin of the parentheticals – as has been suggested by Thompson and Mulac (1991) and Boye (2012, 212-213) – cannot be assessed with only the current data, as investigations into the earlier stages of German would be necessary.[13]

Regarding the *wh*-complementizer clauses in (17) and (18), Whitt (2010, 95-96, 158-160) and Boye (2010b, 405) have argued that these constructions indicate perception of the *manner* in which something occurred or was done, rather than for the entire proposition itself. So in (17), the author is indicating there is visual evidence available as to the degree to which dogs and cats can get along when living together, while in (18), the speaker indicates that he has directly perceived the manner in which a doctor expresses self-praise (extremely loud shouting). Whitt (2010, 95-96, 158-160) argues that only perceptual evidence is available for the *manner* of the events that are indicated, but Boye (p.c.) has pointed out that because these complementizers scope over the entire proposition nonetheless, they can still be considered as evidence for the entire proposition. So in (17), although only the manner of cats and dogs getting along is being highlighted by *wie*, the actual proposition (*diese zwey Thiere vertragen sich wol in einem Hause* 'the two animals are getting along in one house') still falls within the scope of the complementizer,

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[12]Of the 85 complement constructions involving *sehen*, 41 (48.2%) were considered to be only markers of direct visual perception and not inference. On the other hand, all of the complement constructions involving *hören* were markers of hearsay and not of direct auditory perception. The trend is similar with parentheticals, where 5 of the 6 (83.3%) *hören* parentheticals are markers of hearsay, but 14 of the 18 (77.8%) parentheticals with *sehen* involved direct perception without regard to inference.

[13]Timofeeva's (2013, 177ff.) study of hearsay evidentials in the oldest Germanic languages reveals both complementizer and parenthetical constructions with Old English *(ge)hieran* 'to hear,' bringing this hypothesis into question.

and thus there is visual evidence that the proposition holds true. And in (18), that a certain doctor is making a scene in the market square is indicated earlier in the discourse, and the *wie*-clause here simply indicates he is praising himself in a very loud fashion. Of course, this auditory perception serves as evidence that the noises are the doctor's self-praises. These evidential *wh*-complementizer constructions are lower in frequency than *dass*-complementizer constructions: there are only 22 cases (1.5%) of *sehen* and 7 (1.5%) of *hören* occurring in the matrix clause followed by a *wh*-complementizer clause in the GerManC Corpus.

4.2.2 Direct Object + Infinitive Constructions

We now turn our attention to cases where perception verbs take a direct object and infinitive as their complements. Although such construction in the Germanic languages are generally treated as evidential (Chafe 1986, 267-268; Hengeveld & Mackenzie 2008, 176-178; Diewald & Smirnova 2010, 47ff.; Whitt 2009, 2010; Timofeeva 2013), Boye (2010a, 2010b, 2012) has recently argued against such an analysis on the grounds that in such a construction, the perception verb has scope over a state-of-affairs but not a proposition, and therefore it cannot be evidential (a similar argument is implied by Matlock 1989, 216). Let us consider some AcI constructions from the GerManC corpus:

(21)   Ferner so habe ich auch selbst einsmahls eine Magd von einem Obst-Marckte gehen **sehen** welche unterwegens von den eingeaufften Früchten unauffhörlich naschte und die schönsten heraus suchte, biß sie zuletzt, als sie bald an das Haus kam, wo sie hinein gehörete, wenig mehr in ihren Korbe übrig hatte, daß sie also sich gezwungen sahe wieder umzukehren und ander Obst zu kauffen, welches der Lohn vor ihr Naschen war . . .

‘Furthermore even I myself once saw a servant girl leaving a fruit market, who, while returning home, unceasingly nibbled on the fruit she had bought, until when she nearly arrived back at the house to which she belonged, she realized she hardly had any fruit left, and thus was forced to return to the fruit market and buy more fruit, which was the price for her nibbling . . .’

(HUMA_P2_OMD_1717_DienstMaegde: Marforius,   *Kurtze Beschreibung Des zum theil liederlichen Lebens und Wandels Derer anjetzo in grossen Städten sich befindenden Dienst-Mägde*, Leipzig 1717)

(22)   Ihr machet mich bestützet/ (sagte die Königin) die ich allemal so viel tugend an der Mirina preisen **hören**: zu dem daß sie aus einem geschlechte und volk entsproßen ist/ so das laster/ dessen ihr sie beschüldiget/ überaus hassete und meidete.

'You make me distressed (said the queen), you whom I have always heard praise Mirina for her great virtue, since she comes from a lineage and people which have utterly detested and avoided the vice of which you accuse her.'

(NARR_P1_OOD_1669_Aramena: Anton Ulrich (von Braunschweig), *Die durchleuchtige Syrerin Aramena Der Zweyte Theil: Der Beschwiegerten Freundschaft gewidmet*, Nuremberg 1669)

In the standard analysis of such constructions (as is found, for example, in Whitt 2010, 30-31 *et passim*), the perception verb is taken as indicating evidence for the complement containing the accusative object (or the agent of perceived action) and the verbal infinitive. So in (21), the writer has direct visual evidence of a servant girl leaving the fruit market and nibbling on the fruits she just purchased, while in (22), the Queen reports she has heard the prince's praises of Mirina on a number of occasions. Boye (2010a, 2010b, 2012) has repeatedly argued against such an analysis of these constructions, arguing that AcI constructions do not take propositions in their scope, but only states-of-affairs. The actions described are "objects of perception" and there is not an "acquisition of knowledge" indicated in such constructions (as there is in complementizer constructions), for the action described is allegedly construed as concurrent with the act of perception (Boye 2010b, 396). Any indication that this perception serves as evidence for what is described comes after the fact, and it is therefore "implied" but not "expressed" (Boye 2012, 213), cf. Anderson's (1986, 274) ban on a marker whose evidential meaning arises solely by means of inference as being considered a true evidential.

Such an analysis, although conceivable with Boye's decontextualized examples (see (1) and (2)), appears problematic when one considers the broader discourse context of the above examples. In (21), for example, the author is engaging in an extended diatribe against the perceived inherent dishonesty of servant girls and is warning all those who engage such servants to be on guard against thievery and other such moral ills. He first discusses shifty behavior which he has heard servant girls engage in (using a hearsay evidential). Then – to emphasize the reality of the dishonesty found among servant girls – he describes a situation he once witnessed directly, and even adds the reflexive *selbst* 'myself' to emphasize the fact that the incident at the

fruit market was indeed witnessed by him. His direct visual perception of the servant girl's actions thus adds credibility to his account, and the fact that his vision serves as his evidence does not arise by mere implicature. In (22), the Queen indicates she is perplexed by her brother's allegations against Mirina, noting she has heard only praiseworthy things about Mirina (she has direct auditory evidence of Mirina's virtuous character). That she has heard these praises directly adds credibility to her assertion, as does the writer's direct perception of the servant girl's actions in (21). In these contexts, it is difficult to see how the evidence indicated by the perception verbs can be written off as pragmatic implicatures within Boye's framework. Even if there is no proposition aside from the denotation of the perceptual act – as the act of perception is certainly indicated as concurrent with the states-of-affairs being described – the actual utterance itself would occur at least after the initial act of perception begins, so the speaker's knowledge will have already been informed by the perceptual act before this is realized linguistically. In (21), for example, the author will have already witnessed the servant girl's action before he wrote his diatribe. So although the AcI construction does indicate a state-of-affairs in the scope of the perception verb rather than a proposition, the larger discourse contexts surrounding these utterances suggest that the perceptual acts being mentioned serve as explicit indications of evidence for the claims being made, as well as subsequent conclusions based on this perceptual evidence.[14]

Given the larger discourse context, Boye (p.c.) acknowledges that examples such as those above can serve an evidential function. That is, although there is no proposition to scope over in the direct object construction itself, the construction *as a whole* can serve as evidence for a proposition elsewhere in the discourse. In his own words: "the description of a perception of an event may in a wider discourse serve as evidence for an (implicit, explicit or deducible) proposition."[15] This is different from propositional coercion, however, in that the proposition is found elsewhere in the discourse, or inferred altogether from the discourse context; with propositional coercion, the proposition can be coerced from the immediate syntactic environment (as is the case with copula uses of *scheinen*). So in (21), for example, we can construe a

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[14]It is worth noting that Hengeveld and Mackenzie (2008, 176-178) also consider AcI construction denoting states-of-affairs and not propositions, but they do not believe this precludes evidential meaning. Boye (2010a, 194-196), of course, argues against such an analysis.

[15]In a similar vein, Boye has argued elsewhere (contra Anderson) that evidential meaning should not be divorced from pragmatic context, i.e. certain items may signal an evidential reading in certain contexts and not in others (Boye & Harder 2009, 23ff.).

proposition that servant girls are dishonest and untrustworthy, and the AcI construction serves as evidence for this. Similarly, the proposition that Mirina is virtuous is supported by the AcI construction indicating that the Queen has heard Minira praised repeatedly for such virtue. Hence these AcI constructions may not be evidential in and of themselves in the way that complementizer constructions are, but they are nevertheless capable of serving an evidential function in their respective discourse contexts.

Another objection Boye (2010a, 296; 2012, 218-219) has to considering AcI constructions evidential is that they are incapable of, or have never been attested as, providing the source construction for more grammaticalized expressions of evidentiality, where "true" evidential constructions like complementizer clause constructions supposedly can and do. This is based mainly on Thompson and Mulac's (1991) matrix clause hypothesis, the feasibility of which has been called into question by a number of recent studies (Brinton 2008; Timofeeva 2013; López-Couso & Méndez-Naya 2014). Granted, it has long been acknowledged that perception verbs can serve as the lexical origins for grammaticalized markers of evidentiality (Anderson 1986; Willett 1988; Aikhenvald 2004), but I am unaware of any evidentialist beside Boye (2010a, 2012) claiming that, in order for a lexical use of a perception verb to be deemed evidential, it must first be considered a (potential) diachronic precursor to a grammaticalized evidential marker. Boye also overlooks the fact that certain AcI constructions in Germanic have undergone a complex (re)lexicalization process from markers of direct auditory perception to markers of hearsay (*Ich höre X sagen > Ich höre sagen > Hörensagen* 'I hear X say > I hear say > hearsay') (Timofeeva 2013, 189-192; Kotin 2011, 41-46; cf. Traugott & Trousdale 2013, 149ff.).[16] Although no such evidential construction was found in the GerManC corpus, these other studies demonstrate that non-grammaticalized AcI constructions are not so diachronically homogenous and static as Boye would have it.

All in all, there are a total of 41 evidential AcI constructions involving *sehen* and 11 involving *hören* in the GerManC Corpus, representing 2.7% and 2.4% of the total token counts, respectively. Both verbs are almost exclusively markers of direct, external perception in such constructions.

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[16]One could argue, along the lines of Boye and Harder (2009), that the phrase *I hear say*/*Ich höre sagen* is grammaticalized to the same degree as expressions such as *they say* and *it seems* are, insofar as it serves a secondary function of indicating hearsay evidence for an expressed proposition, rather than being the main predication. Thus it is at least conceivable that certain AcI constructions can serve as source constructions for grammaticalization.

4.2.3 External Constructions

There is one construction that is structurally related to the AcI construction, but here, there is only an accusative object – generally in the form of a pronoun – present, and this pronoun relates not to a specific referent, but rather to a chunk of discourse either preceding or following the construction involving the perception verb.

(23)   Wir **sehns** sie hintergehn den Fürsten noch durch List.

'We see it – they are still craftily deceiving the Prince.'

(DRAM_P1_WMD_1662_Tomyris: Hieronymus Thomæ, *Titus und Tomyris Oder Traur-Spiel, beygenahmt Die rachbegierige Eyfersucht*, Giessen 1662)

(24)   *Hausvater.*   Wie sagen sie heißt der, welcher meinen Sohn soll gefodert haben?

Dromer.   Nechrostfeld.

Hausvater.   Sind sie zuverläßig benachrichtiget, daß er das vom Ferdinand sagt.

Dromer.   Ich **hört** es aus seinem eignen Munde.

'*Hausvater.*   What do they call the one who supposedly was asking for my son?

Dromer.   Nechrostfeld.

Hausvater.   Are you reliably informed that he said that of Ferdinand?

Dromer.   I heard it from his own mouth.'

(DRAM_P3_WMD_1780_Hausvater: Otto Heinrich von Gemmingen-Hornberg, *Der deutsche Hausvater*, Mannheim 1780)

It is difficult to say how these types of constructions would fit into Boye's (2010a, 2010b, 2012) model of evidential constructions. On the one hand, as direct object constructions, they could be said to have scope only over states-of-affairs rather than propositions (but still serve evidential functions in the broader discourse context). On the other hand, given the perception clause and the clause for which there is evidence are separated syntactically (as with

complementizer clauses), the perception verb could also be argued to have scope over propositions via discourse anaphora (in (24)) or cataphora (in (23)). Whichever analysis one chooses, these types of constructions clearly serve an evidential function. In (23), Tomyris indicates that she and others are witnessing the prince being deceived (visual evidence). And in (24), Dromer confirms to the family patriarch that Nechrostfeld is requesting to see Ferdinand because he has heard these requests himself (first-hand mediated evidence). These are very low-frequency constructions, with only 13 (0.9%) external constructions involving *sehen* and 3 (0.7%) involving *hören* found in the entire corpus.

4.2.4 Summary of *sehen* and *hören*

The GerManC data reveal the perception verbs *sehen* and *hören* mark evidential meaning in a number of different complementation patterns. Indirect evidence (such as inference and hearsay) tends to be marked in complementizer clause constructions and parentheticals. And although Boye's (2010a, 2010b, 2012) assertion that evidential markers do not scope over states-of-affairs may well hold true, contextualized readings of AcI constructions show that these constructions as a whole can still serve evidential functions when seen in their full discourse context. In line with earlier findings (Whitt 2009, 2010), AcI constructions are almost exclusively markers of direct perceptual evidence. And the low-frequency external constructions attest both direct and indirect evidential uses of perception verbs. As with *scheinen*, no connection between the use of evidential perception verbs and register could be established.

5. Concluding Remarks

This paper has presented an overview of evidential markers in Early Modern German (1650-1800) in light of Boye's notion of propositional scope. Regarding *scheinen*, Boye's (2012) notion of propositional coercion sheds new light on evidential uses of certain copular constructions, which previous accounts held to be non-evidential (Diewald & Smirnova 2010). In addition, his more general comments on propositional scope fully allow for *dass*-complementizer and parenthetical constructions to be considered evidential markers. The GerManC data do confirm Diewald and Smirnova's (2010) general diachronic account of the grammaticalization of *scheinen* with *zu*-Infinitive complements, but the data also contradict their analysis of what should and what should not be considered evidential. Perception verbs are less

straightforward, as complementizer clauses and parentheticals show clear propositional scope, whereas AcI constructions appear to draw Boye's claim that evidential markers cannot scope over states-of-affairs into question. Although Boye has maintained this stance, he has further elaborated on this position, acknowledging that AcI constructions as a whole can scope over propositions (either implicit or explicit) elsewhere in the discourse (p.c.). This paper has thus demonstrated that, although robust formal or semantic criteria for the delineation of evidential markers – such as those put forward by Boye – can shed new light on data, the larger discourse context surrounding the use of evidential markers is equally important. This is especially true for the Germanic languages, where there is not a devoted set of evidential inflections available to speakers, but rather a range of items that can be used evidentially, given specific formal and discourse environments. And both factors must be taken into consideration when accounting for the presence or absence of evidential meaning, in either a synchronic or diachronic perspective.

Acknowledgments

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Author's address

Richard J. Whitt

The University of Nottingham

Department of German Studies

University Park

Nottingham NG7 2RD

UK

E-mail: richard.whitt@nottingham.ac.uk

About the author

Richard J. Whitt is a Research Fellow in the Department of German Studies at the University of Nottingham. He is working on a project about evidentiality and genre in the histories of English and German, with a focus on medical discourse in the Early Modern period.