Historical text analysis: Underlying parameters and methodological procedures

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1. Introduction

A major branch of historical linguistics today utilises functionally and contextually oriented approaches which explore linguistic patterns of usage of past stages of a language. These, recently covered under the heading of “modern historical linguistics” (Mair 2006), tell new stories about socio-pragmatic or even cognitive linguistic phenomena that have changed or remained stable in the course of a language’s history. Ideally, these findings are bridged with the more classic historical linguistic areas, such as historical phonology, historical morphology or historical syntax. More specifically, both the fields of historical pragmatics (Jacobs and Jucker 1995) and historical sociolinguistics (Nevalainen and Raumolin-Brunberg 2004) have made significant contributions to explaining socio-pragmatic features of language use in the past. They have furthered our understanding of research methods and data analysis and therefore have also revealed their potentials for the analysis of contemporary language data.

Within this framework the role of historical corpus-analysis, the refinement of corpus tools and search procedures as well as the availability of more and easily accessible historical data have lead diachronic text mining into new and highly delicate analytical directions, which even allow the analyst to systematically investigate explicitly discoursal phenomena and aspects of style (Busse 2010) on a much broader (and) diachronic scale than used to be possible, for example, twenty years ago (Taavitsainen and Fitzmaurice 2007, Taavitsainen and Jucker 2007). In addition, these historical pragmatic and historical sociolinguistic approaches have been better at considering literary sources to be indispensable for the study of older stages of a language (Busse 2010) than linguistic approaches which deal with Present-day language data; and this is not only because – due to the non-existence of spoken records for historical periods – they have been forced to do so. As such, they have followed Sinclair (2004) who does not marginalise the study of literature for the analysis of linguistic features. On the contrary, he stresses: “no systematic apparatus can claim to describe a language if it does not embrace the literature also; and not as a freakish devel-
opment, but as a natural specialisation of categories which are required in other parts of the descriptive system” (Sinclair 2004: 51).

Due to these fruitful trends new complex challenges have evolved and need to be addressed. They include, for example, a re-discussion of the relationship between a function-to-form and a form-to-function mapping (Jacobs and Jucker 1995) or the question of how much context is needed in order to infer socio-pragmatic meanings in historical texts, or the relationship between low and high-frequency items or the question of whether we actually need quantitative procedures to trace historical-pragmatic change, or the dimensions of semantic-pragmatic change on a longer diachronic scale.

This paper takes stock and describes the methodological and theoretical advantages of including a recent modern historical linguistic approach to the analysis of historical data. As such, this paper outlines its major pillars and its basic toolkit. In addition, it illustrates where both methodologies and text mining need to be pushed further and be critically discussed. To illustrate why and how modern historical linguistic approaches win accolades, the investigation of stance adverbials in the history of English, especially in Early Modern English (ca. 1500-1700), serves as a case study. The aim is to illustrate how to identify a set of possible stance adverbials in Early Modern English, how to determine their syntactic realisations, semantic categories, quantitative distribution and pragmatic functions as well as how to systematically investigate a phenomenon as discoursal as stance adverbials in the history of English.

2. Historical expressions of stance

Stance adverbials indicate a speaker’s attitude or opinion. They can be defined as sentence modifiers with sentential scope, which are not grammatically required but may be pragmatically desired and are speaker- and/or hearer-oriented. Shakespeare examples are: “Here's a change indeed!” (Oth. 4.2.1061, emphasis mine), “And indeed such a fellow, to say precisely, were not for the court” (AWW 2.2.12, emphasis mine), or, from the Paston letters, “for by my trowthe they haue as well deseruyd it as eny men tat euer bare lyue” (PASTON, I, 546.180.5514, PCEEC, emphasis mine). The position stance adverbials can take on in the clause is flexible amongst initial, medial or final position, and they can be realised not only by adverbs, but also by a variety of other syntactic stuctures, such as propositional phrases, finite clauses, non-finite clauses or noun phrases.
Biber et al. (1999: 853-854) label the examples listed above stance adverbials, which may simultaneously function as an indication of the speakers’ comment on what they are saying (the content of the message) and how they are saying it (the style). Biber et al. (1999) also set up a semantic classification of stance adverbials. Following their analyses of stance adverbials in Present-day English conversation, fiction, newspapers and academic English, they establish three broad categories of stance adverbials. These are (a) epistemic, (b) attitudinal, and (c) style adverbials. Epistemic stance adverbials enhance the truth value of the proposition and they can be further subdivided into (i) doubt and certainty stance adverbials, (ii) actuality and reality stance adverbials, (iii) source of knowledge stance adverbials, (iv) stance adverbials indicating limitation, (v) viewpoint and perspective stance adverbials, and (vi) stance adverbials indicating imprecision. Examples of epistemic stance adverbials are indeed (doubt and certainty) or in regard of (viewpoint) (see also Lenker 2007: 82-83). Attitudinal stance adverbials express the speaker’s attitude towards an evaluation, as in haply, for example. Stance adverbials of style convey a speaker’s style and often clarify how the speaker is speaking or how the utterance should be understood. They are seen as explicitly metalinguistic adverbials. One example would be to say precisely, quoted in the example above.

According to Biber et al. (1999: 969), grammatical stance devices fulfil two distinct roles simultaneously, that of presenting the stance, and that of realising a proposition that is framed by the stance. For example, in Shakespeare’s “And indeed such a fellow, to say precisely, were not for the court” (AWW 2.2.12), to say precisely frames the proposition “were not for the court” and underlines, in initial position the truth of what is claimed in the proposition. What this example also illustrates is that the boundaries between the categories of stance adverbials may be fuzzy because although to say precisely is, semantically speaking, metalinguistic because it defines how something is said, it is also epistemic in that it strengthens the truth value of the utterance.

3. Methods of historical text analysis

Historical text analysis in general and the analysis of stance adverbials in particular demand a methodological plurality (Busse 2010) in order to account for both the general methodological difficulties of dealing with historical texts and, more specifically, in order to be able to capture the complex discursive import of pragma-linguistic phenomena such as stance ad-
verbials, as well as their functional and stylistic development over time. General methodological difficulties evolve around such aspects as diverse as choice of copy text, spelling variants, wealth or scarcity of material for a particular period, text production and reception or the analyst functioning as a mediator between past and present (Taavitsainen and Fitzmaurice 2007).

Moreover, the retrieval of forms in historical corpora, for example, – which, in historical pragmatic terms, can be regarded as a form-to-function mapping (Jacobs and Jucker 1995) and would be needed to make reliable quantitative statements – can only be successfully performed if the analyst knows the forms he or she is looking for. Therefore, for stance adverbials it is necessary to know how they have been realised in the past. But stance adverbials carry complex micro-contextual features and are in need of a pragma-philological interpretation. The fact that stance adverbials can be found in a variety of formal realisations, ranging from simple adverbs to comment clauses, makes their retrieval even more difficult. For comment clauses, Brinton (2008) has impressively analysed not only the rise of a number of their linguistic realisations and their multifunctionality during the Early Modern English period, but also their increasing frequency of occurrence. The focus of this paper will be on stance adverbials other than comment clauses because it seems necessary to identify them first before they can be fruitfully compared with comment clauses.

It is not possible to simply follow one’s Present-day English intuitions or search for a Present-day set of stance adverbials in a historical text. The meanings and functions of Present-day stance adverbials are likely to have undergone a rapid process of change and/or of grammaticalisation (Hopper and Traugott 2003) or subjectification (Traugott 2003). Hence, it cannot be immediately assumed that forms of stance adverbials used today are relevant to, for example, Shakespeare’s English: in Shakespeare’s time apparently still refers to the manner in which something is done, that is, is does not function as an epistemic stance adverbial of source of knowledge, as can be seen in the finally positioned “If he should scorn me so apparently” (Err. 4.1.78) from Shakespeare’s The Comedy of Errors.

Furthermore, forms may also oscillate – or show a semantic layering (Hopper and Traugott 2003) – between their source and the grammaticalised meaning in a particular period under investigation. These have to be carefully discriminated against one another. For example, during the Early Modern English period in regard of can refer to the esteem in which somebody is held. But during that period it moves towards functioning as a stance adverbial, restricting a topic, which makes it not always easy to determine functional import. This multifunctionality or semantic layering can
be exemplified by: “I thank my liege that in regard of me / He shortens four years of my son’s exile” (R2 1.3.216-217) from Shakespeare’s Richard The Second, which is ambiguous between both a stance adverbial restricting the topic and a reference to the esteem in which the speaker is held. Another example is the frequently used stance adverbial indeed. Although it was already grammaticalised to function as a stance adverbial during Shakespeare’s time (Traugott and Dasher 2002: 159-165), we can find cases in which the adverb both indicates sincerity as a stance adverbial and refers back to its source meaning denoting actuality, and therefore does not function as a stance adverbial. This is visible in the following example from Shakespeare’s Antony and Cleopatra in which Cleopatra and the eunuch play on the former and the grammaticalised/subjectified meaning of indeed and in deed in Ant. 1.4.14.

Cleo. […] Hast thou affections?
Mar. Yes, gracious madam.
Cleo. Indeed?
Mar. Not in deed, madam, for I can do nothing
But what indeed is honest to be done;
Yet, have I fierce affections, and think
What Venus did with Mars. (Ant. 1.4.8-19, emphasis mine)

Cleopatra, who is moody because of Antony’s departure, provokes the eunuch, whose function usually is to entertain the queen, by asking him about his “affections” (Ant. 1.4.7), that is, his sexual desires. The eunuch’s positive and simple answer is taken up by Cleopatra as an incentive to use indeed jokingly and lasciviously. As such, indeed has the meaning of truly. The eunuch understands the sexual implications of her questions, takes them up as well, but reverses them to “not in deed” (Ant. 1.4.8). He redresses his answer with a rejecting, but polite affirmative reply, using the polite form of address, madam. Also, the polite and decorous commonplace “for I can do nothing / But what indeed is honest to be done” (Ant. 1.4.8-9) fulfils this role. Here indeed strengthens the adjective honest. This discussion illustrates that a corpus-based retrieval of forms is also in need of an individual qualitative analysis.

The preceding paragraphs have only highlighted some of the challenges the historical linguist or pragmatician encounters when systematically investigating a discoursal phenomenon such as stance adverbials. The following procedures suggested for historical text analysis in general and for the retrieval and analysis of stance adverbials in particular account for a transparent and systematic research framework. This informed investigation
guarantees that both our analyses as well as our interpretations are valid (Taavitsainen and Fitzmaurice 2007).

To retrieve a set of stance adverbials, one initial procedure consults investigations of stance adverbials which focus on Present-day English (e.g. Biber et al. 1999), which focus on historical periods of the English language, such as Biber (2004) or Fitzmaurice (2004), and which represent case studies of particular historical forms, such as Lenker’s (2003, 2007). For reasons illustrated above it is necessary to draw on studies which cover phenomena of grammaticalisation (Traugott 1995, Traugott and Dasher 2002, Traugott 2003, Brinton and Traugott 2005, Lenker 2003, 2007).

The other procedure goes back in time to determine which stance adverbials occur in Early Modern English and are not part of the Present-day English set. These include samples such as *powerfully, assuredly* or constructions beginning with the preposition *by*. As an exemplary corpus of Early Modern English and as a starting point to retrieve a set of stance adverbials, the analysis of stance adverbials in Early Modern English initially focuses on Shakespeare’s plays allowing “the possibility of total accountability of linguistic features” (Svartvick 1992: 9) from one author. Additionally, I also suggest a close reading and analysis of a selected set of plays (generally speaking, I would also suggest a close reading of a sample of texts from specific corpora). I have studied two of Shakespeare’s comedies and tragedies – *A Midsummer Night’s Dream*, *Much Ado About Nothing*, *King Lear*, and *Othello* – in order to find additional forms which can then be searched for in the complete corpus. Furthermore, it is also necessary to consult contemporary sources as well as those sources that have been published as dictionaries of Shakespeare. For example, classic critical work on the language of Shakespeare consists of Spevack’s (1968-1980) concordances, Spevack’s (1993) *A Shakespeare Thesaurus* or Onions (1996) and Schmidt and Sarrazin ([1874/75] 1962). Early Modern English dictionaries (and for other periods, other dictionaries, such as the *Middle English Dictionary*, for example), now electronically compiled in the *Lexicons of Early Modern English (LEME)* by Ian Lancashire (2008) as well as the *Oxford English Dictionary (OED)* are of crucial importance for the identification of stance adverbials and their functions. All of these serve as important lexicographical aid to determine meaning. For example, a *LEME* search of *indeed* lists under Thomas Thomas’s (1587) dictionary *Dictionarium Linguæ Latinae at Anglicanae* the additional stance adverbials *clearly, manifestly, plainly, without faile*, which show how this search may provide additional candidates of stance adverbials.

For the English language, another source is the *Historical Thesaurus of the Oxford English Dictionary* (Kay, Roberts, Samuels and Wotherspoon
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which is now electronically available and can be used for a variety of search procedures.\(^2\) It divides the senses of all (!) \textit{OED} lemmas into a network of semantic categories, which means that for searches of stance adverbials we can use the \textit{Thesaurus} to find generally related terms and related terms of the same period. Also, it is possible to search not only for particular forms and how they are semantically categorised, but also for particular semantic categories. For example, semantic categories that may be of interest to the search of stance adverbials are the following:

1. conformity with what is known, – \textit{truth}, – \textit{in truth}, – truthfulness, veracity
2. faithfulness or trustworthiness > fidelity or loyalty > \textit{troth}
3. foundation in fact, validity – \textit{real}, \textit{really} and \textit{truly}, soothfast

\textit{Diagram 1. Pillars of historical text mining}

This methodological plurality should be further enhanced by corpus linguistic methodology. With an established set of forms it is possible to systematically search a corpus in order to find out how the forms are used in Shakespeare’s plays and other historical corpora. Due to the difficulties resulting from grammaticalisation and semantic layering, a corpus-based approach is particularly helpful here because it shows patterns of usage from which we can infer contemporary meanings. In this study, the search
of stance adverbials in the Shakespeare corpus will be enhanced by a corpus-based investigation of a selected number of stance adverbials in other Early Modern English corpora in order to make some genre-specific interpretations and to say something about frequency of usage. However, following my new historical stylistic basis (Busse 2010), I try to avoid number crunching for its own sake and an exclusive interest in high frequency items because functional import and stylistic meanings are established in interplay of low and high frequency items and qualitative as well as quantitative considerations. Diagram 1 should serve as a summary of what it takes to perform functionally oriented historical text analysis.

4. Stance adverbials in Shakespeare

4.1. Preliminaries

The Shakespeare corpus comprises 38 plays (including The Reign of Kind Edward III). The number of words for his dramatic works amount to 857,705.

Table 1. Number of words in the Shakespearean comedies, romances, histories and tragedies

<table>
<thead>
<tr>
<th>genre</th>
<th>number of words</th>
</tr>
</thead>
<tbody>
<tr>
<td>comedies</td>
<td>261,623</td>
</tr>
<tr>
<td>tragedies</td>
<td>227,977</td>
</tr>
<tr>
<td>romances</td>
<td>109,870</td>
</tr>
<tr>
<td>histories</td>
<td>258,235</td>
</tr>
</tbody>
</table>

Table 1 shows the number of words in the respective sub-genres of the Shakespeare corpus. The texts used are based on the modern The Riverside Shakespeare (Evans et al. 1972, 1997) edition. The assignment of plays to genres is a controversial issue. Here, the categorisation of the plays into genres is a modern one and also follows The Riverside Shakespeare (Evans et al. 1997) and draws on the Shakespeare Database (Neuhaus forthcoming), a full lemmatization of Shakespeare’s work.

Outside Shakespeare, the by my construction and indeed are compared with their occurrences in A Corpus of English Dialogues 1560-1760 (CED), which is a 1.4 million word corpus of Early Modern English speech-related text, which are divided into “authentic dialogue”, such as witness depositions and trials, and “constructed dialogue”, such as excerpts from drama comedy, prose fiction and didactic works. The results from
Shakespeare are also compared with their occurrences in a letter corpus, the *Parsed Corpus of Early English Correspondence* (*PCEEC*) (1410-1695), which contains 2.2 million words. To search these texts *Wordsmith Tools* (Scott 2008) have been used with attention to spelling variants. Quantitative figures are calculated by means of percentages, relative frequencies and frequency per 10,000 words.

4.2. Quantitative findings

The set of stance adverbials so far identified in Shakespeare’s plays consists of 112 types. These are realised by 2248 tokens, which amount to 26 tokens per 10,000 words. Although many of the individual types of stance adverbials occur only once, the number of tokens per 10,000 words is substantial. As Figure 1 illustrates, stance adverbials are most frequent in Shakespeare’s comedies and less frequent in the romances, the tragedies and the history plays.

![Figure 1. Distribution of stance adverbials in the Shakespeare plays](image)

Generally speaking, the possible assumption that comedies contain more prose than verse and therefore also more stance adverbials cannot be verified, because, in the comedies, 153,370 words occur in verse and 108,262 occur in prose (Spevack 1968-1980: volume 1). In the comedies, we also find more types of stance adverbials than, for example, in the tragedies: there are 83 types of stance adverbials in the comedies (realised by 865 tokens) and 68 types in the tragedies (realised by 527 tokens), even though, as Table 2 illustrates, the list of the most frequently realised types is somewhat similar.
Table 2. Most frequently occurring stance adverbials in Shakespeare’s comedies and tragedies

<table>
<thead>
<tr>
<th>position</th>
<th>comedies stance adverbial</th>
<th>raw freq.</th>
<th>tragedies stance adverbial</th>
<th>raw freq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>indeed</td>
<td>169</td>
<td>indeed</td>
<td>132</td>
</tr>
<tr>
<td>2</td>
<td>truly</td>
<td>74</td>
<td>truly</td>
<td>41</td>
</tr>
<tr>
<td>3</td>
<td>in faith</td>
<td>55</td>
<td>faith</td>
<td>38</td>
</tr>
<tr>
<td>4</td>
<td>faith</td>
<td>47</td>
<td>at all</td>
<td>21</td>
</tr>
<tr>
<td>5</td>
<td>by my troth</td>
<td>38</td>
<td>by heaven</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>by gar</td>
<td>27</td>
<td>in faith</td>
<td>16</td>
</tr>
<tr>
<td>7</td>
<td>at all</td>
<td>21</td>
<td>upon my</td>
<td>13</td>
</tr>
<tr>
<td>8</td>
<td>perhaps</td>
<td>20</td>
<td>perforce</td>
<td>13</td>
</tr>
<tr>
<td>9</td>
<td>perchance</td>
<td>19</td>
<td>perchance</td>
<td>13</td>
</tr>
<tr>
<td>10</td>
<td>surely</td>
<td>18</td>
<td>perhaps</td>
<td>12</td>
</tr>
</tbody>
</table>

Therefore, it is not through the most frequently occurring types that this kind of creativity is realised – because these are almost similar for both genres – but through those types that are only realised by ten or fewer tokens, such as troth or apparently. A general investigation of the ten most frequent stance adverbials and the by my construction shows in Table 3 that these stance adverbials also occur more frequently in verse than in prose. The figures are given in relative frequencies. Yet, as can be seen in Table 3, in the comedies, the result is reversed because these top ten stance adverbials occur more frequently in the prose sections than in those passages written in verse. Therefore, the high proliferation of stance adverbials in the comedies Ado, Wiv. and TN (illustrated in Table 4) may be attributed to the fact that these three plays also contain more passages in prose than in verse (see Spevack 1968-1980: volume 1) and that, therefore, the rapid exchange and sometimes shorter turns might result in a higher use of stance adverbials. However, this is not the case for the tragedies in general and the tragedy Oth. in particular, which contains more passages in verse than in prose.
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Table 3. The verse-prose and generic distribution of the ten most frequent stance adverbials and the by my construction in the Shakespeare corpus (raw frequencies and relative frequencies which are computed according to the total number of words in each genre)

<table>
<thead>
<tr>
<th>genre</th>
<th>verse (raw freq.)</th>
<th>verse (rel. freq.)</th>
<th>prose (raw freq.)</th>
<th>prose (rel. freq.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>comedies</td>
<td>194</td>
<td>0,074</td>
<td>348</td>
<td>0,133</td>
</tr>
<tr>
<td>histories</td>
<td>238</td>
<td>0,092</td>
<td>128</td>
<td>0,049</td>
</tr>
<tr>
<td>romance</td>
<td>80</td>
<td>0,072</td>
<td>43</td>
<td>0,039</td>
</tr>
<tr>
<td>tragedies</td>
<td>216</td>
<td>0,094</td>
<td>128</td>
<td>0,056</td>
</tr>
</tbody>
</table>

Table 4. Distribution of stance adverbials in the respective Shakespeare plays

<table>
<thead>
<tr>
<th>play</th>
<th>date</th>
<th>genre</th>
<th>raw freq.</th>
<th>number of words in the play</th>
<th>rel. freq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ado.</td>
<td>comedy</td>
<td>117</td>
<td>20768</td>
<td>0,56</td>
</tr>
<tr>
<td>2</td>
<td>Wiv.</td>
<td>comedy</td>
<td>101</td>
<td>21119</td>
<td>0,48</td>
</tr>
<tr>
<td>3</td>
<td>Oth.</td>
<td>tragedy</td>
<td>109</td>
<td>25887</td>
<td>0,42</td>
</tr>
<tr>
<td>4</td>
<td>TN</td>
<td>comedy</td>
<td>80</td>
<td>19401</td>
<td>0,41</td>
</tr>
<tr>
<td>5</td>
<td>2H4</td>
<td>history</td>
<td>100</td>
<td>25706</td>
<td>0,39</td>
</tr>
</tbody>
</table>

4.3. Semantic distribution of stance adverbials in Shakespeare’s plays

In Shakespeare’s plays, epistemic stance adverbials make up almost 97%, Attitudinal stance adverbials amount to 1.91% and style adverbials to 1.42%. The forms illustrated in Table 5 show a selection of stance adverbials assigned to each of the categories.

Table 5. Selected forms of stance adverbials and their semantic categories

<table>
<thead>
<tr>
<th>semantic</th>
<th>example</th>
</tr>
</thead>
<tbody>
<tr>
<td>epistemic</td>
<td>assuredly (AYL 2.4.96), by all means (Wiv. 4.2.215), by cock and pie (Wiv. 1.1.3), by my white beard (WT 4.4.404)</td>
</tr>
<tr>
<td>attitudinal</td>
<td>fortunately (Lr. 2.2.167)</td>
</tr>
<tr>
<td>style</td>
<td>generally (TIM 2.2.112), in a word (TGV 2.4.71), to say precisely (AWW 2.2.12), to speak more properly (AYL 1.1.8), in a sort (Tmp. 2.1.104)</td>
</tr>
</tbody>
</table>

It should be stressed that, as a starting point, the initial assignment into semantic categories tried to rely on the sense of the signifier, although the categories of epistemic, attitudinal and style adverbials are fuzzy so that a function-to-form and a form-to-function mapping is interdependent. In other words, although the Hallidayean functions can be correlated to the
semantic classes identified in Biber et al. (1999) – epistemic adverbials refer to the experiential function, attitudinal adverbials refer to the interpersonal and style adverbials to the textual – , we will see that each category on its own can assume one or more of those Hallidayean functions and may be ambiguous between epistemic or attitudinal, for example.

The result for epistemic stance adverbials in Shakespeare is somewhat similar to findings for Present-day English outlined in Biber et al. (1999: 867): “All of the most common stance adverbials mark epistemic stance”. However, the strength of the preference for epistemic stance in Shakespeare is not reflected in Present-day English. There are indeed fewer occurrences of attitudinal and style stance adverbials in Present-day English than there are epistemic stance adverbials, but the frequencies for the former two semantic categories are much higher than they are in Shakespeare’s plays (Biber et al. 1999: 859f). One reason for this might be that the other uses still had to be developed (along the lines of grammaticalisation etc.). Also, in modern conversational English stance adverbials of style are more frequent than attitudinal stance adverbials. For Shakespeare’s plays one of the most important functions of epistemic stance adverbials is to express certainty (rather than doubt), as can be seen in Table 2.

Out of the ten most frequently occurring stance adverbials, seven denote certainty. This result contrasts with Present-day English where epistemic stance adverbials express certainty, but also often doubt. The most common three Present-day stance adverbials are of course, perhaps and probably (of which of course and probably are not used in Shakespeare). Also, Modern English conversation has particularly high frequencies of adverbials marking actuality (actually, really) and imprecision (sort of, like, kind of) (Biber et al. 1999: 867). Yet in Shakespeare, the lexical field of truth and faith, which has been coded as belonging to the field of epistemic stance adverbials, is particularly frequent in constructions like by my troth and (in) faith. It also occurs with verbs of communication, such as to speak truth and to say sooth, but less frequently so.

4.4. Forms of stance adverbials in Shakespeare’s plays

The variety of stance adverbials found in Shakespeare is similar to Present-day English (Biber et al. 1999: 862-863) and could therefore be seen as a stable factor in the history of English. Among the epistemic forms, the following patterns can be observed:

(1) conjunction as followed by a clause (“As I am an honest Puck”, MND 5.1.417) or the preposition for (“As for that ravenous tiger Tamora, / No funeral rite, nor man in mourning weed, Tit. 5.3.196-200)
(2) adverbs such as *indeed* (“These indeed seem, / For they are actions that a man might play”, *Ham.* 1.2.77-84)

(3) single nouns such as *faith* or *sooth* (“No, faith, hate him not for my sake”, *AYL* 1.3.35)

(4) noun phrases such as *good sooth* (“They in themselves, good sooth, are too light”, *MV* 2.6.42)

(5) prepositional phrases with *by* (“Now, by my maidenhead at twelve year old, / I bade her come”, *Rom.* 1.3.2), with *in* (“No, in good earnest”, *WT* 1.2.150), with *on/upon* (“And on my life his malice ‘gainst the lady / Will suddenly break forth” *AYL* 1.2.282)

(6) *to* infinitive followed by verbs of communication such as *to say* and *to speak* (“And to say truth, Verona brags of him”, *Rom.* 1.5.67)

Among the attitudinal stance adverbials, so far only adverbs are found. An example is *fortunately* in: “I know ‘tis from Cordelia / Who hath most fortunately been informed / Of my obscured course” (*Lr.* 2.2.167).

Style adverbials indicating stance take the following forms:

(1) adverbs such as *generally* (“He is very often like a knight; and, generally, in all shapes that man goes up and down”, *TIM* 2.2.112)

(2) infinitival clauses followed by verbs of communication such as *to speak* and *to say* followed by an adverb as in *to speak more properly* (“For my part, he keeps me rustically at home, or (to speak more properly) stays me here at home unkept”, *AYL* 1.1.8-9); the copula verb *to be* (“To be brief, the very truth is that the Jew, having done me wrong”, *MV* 2.2.132)

(3) prepositional phrases beginning with the preposition *in* (“And in a word (for far behind his worth / Comes all the praises that I now bestow, / He is complete in feature and in mind”, *TGV* 2.4.71)

The set of syntactic realisations of stance adverbials in Shakespeare are used for a form-to-function mapping. Prepositional phrases and adverbs are the most frequently realised syntactic forms of stance adverbials in Shakespeare’s plays. Stance adverbials most frequently occur in initial position.

4.5. Case studies of stance adverbials

4.5.1. *indeed*

As mentioned, *indeed* is the most frequently occurring stance adverbial in Shakespeare’s plays with 447 occurrences, which amounts to 5.23 word per 10,000 words. A comparison of the frequency of occurrence of *indeed* in the PCEEC (Table 6) and the CED (Table 7) illustrates that *indeed* more
frequently occurs in the “constructed” spoken discourse, especially in the comedy section of the CED.

For the Shakespeare period, the letter corpus only shows a frequency of 2.51 per 10,000 words, while in the CED sections, “drama comedy” and “didactic works”, indeed appears almost as frequently as in Shakespeare plays with 5.25 words and 8.38 per 10,000 words in the “drama comedy” section and 5.59 words per 10,000 words in the corpus sub-section “didactic works” (Tables 6, 7). In the sections “didactic works” and “prose”, the use of indeed is also higher than in the Shakespeare corpus (Table 7).

Generally speaking, the distribution of indeed in the CED also shows a rather extensive rise of the use of indeed moving towards the 17th and 18th centuries. This increase is also visible – yet not as extensively – in the letter corpus. It can be said, however, that the use of the stance adverbial indeed remains to be a marker of constructed spoken discourse moving towards the Late Modern English period.

It is surprising that the CED sub-corpus “trials” only shows noteworthy usages of indeed for the Shakespeare period, while for the 17th and 18th centuries the frequencies decrease. In the “trials” sub-corpus, the records of the court proceedings were written down by an official scribe, who reported speech in a direct form without much intervention (Kytö and Walker 2006: 20). Either the stance adverbial indeed was not frequently used in court interaction after 1600 or the scribe did not record this rather subjective linguistic strategy of expressing one’s attitude. In the sub-corpus “witness deposition”, the testimony of a witness is written down by a scribe as a third-person narrative with extensive scribal intervention (Kytö and Walker 2006: 21). Again, the point of view as well as the choice of discourse presentation might explain why indeed is not considered to be relevant in recording the testimony of a witness because the pragmatic level of a testimony’s report was not considered to be noteworthy.

Table 6. Distribution of indeed in the PCEEC

<table>
<thead>
<tr>
<th>periods</th>
<th>absol. freq.</th>
<th>tokens per 10,000 words</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3 1350-1419</td>
<td>1</td>
<td>0.51</td>
</tr>
<tr>
<td>M4 1420-1499</td>
<td>7</td>
<td>0.19</td>
</tr>
<tr>
<td>E1 1500-1569</td>
<td>70</td>
<td>2.26</td>
</tr>
<tr>
<td>E2 1570-1639</td>
<td>229</td>
<td>2.51</td>
</tr>
<tr>
<td>E3 1640-1710</td>
<td>175</td>
<td>3.15</td>
</tr>
<tr>
<td>sum</td>
<td>482</td>
<td>2.23</td>
</tr>
</tbody>
</table>
The person-to-person orientation of the use of *indeed* in Shakespeare and its social function of addressing the speaker may serve as an exemplary analysis of the function of *indeed* in “constructed” spoken discourse in general.

One general function of *indeed* is to emphasise the speaker’s certainty about what is said. This is also explained in Thomas Thomas (1587) *Dictionaryum Linguae Latinae et Anglicanae* where *indeed* collocates with “rightly, truly, as truth is.” The *OED* explains that *indeed* is frequently placed after a word for emphasis (*OED* 1.b.). This can be seen in an example from the letter corpus in which the foolishness of a writer is described as “indeed a vain glorious fool” and “And I saye, 'there', 'bicause they be above the singuler numbre, although oonly Roderigo Mors writeth this booke, who is in dede a vayneglorious fole” (PCEEC, 1545).

In Shakespeare, contrary to the general trend in the Shakespeare corpus where stance adverbials most frequently occur in initial position, we most frequently find *indeed* in final position (243 times, as opposed to 95 cases in medial position and 109 in initial position). Interestingly, generally speaking, it occurs more frequently in verse, but, in the comedies, it is most frequently occurring in prose (116 times as opposed to 53 times) although, generally speaking, the comedies contain more verse. In *Ant.* 3.10.29, Enobarbus converses with Canidius during Antony’s fight with Caesar and foreshadows his sincere conviction of Antony’s defeat in the finally placed use of *indeed*: “Why then good night indeed” (*Ant.* 3.1.29). When Edgar sadly is forced to acknowledge Lear’s death, *indeed* in “He is gone indeed” (*Lr.* 5.3.316) is more than a stance adverbial stressing the truth of what is said. It carries almost additive extra-linguistic qualities because it refers to the actual visual process of Lear’s wasting away, and therewith refers to the
meaning of *indeed* as “in reality, in real nature” (*OED* 2.). As such, it encapsulates both Edgar’s and Kent’s despairing description of seeing Lear dying. Edgar exclaims: “He faints. My lord, my lord!” (*Lr.* 5.3.312) and Kent acknowledges: “Vex not his ghost. O, let him pass, he hates him / That would upon the rack of this tough world / Stretch him out longer” (*Lr.* 5.3.314-316). The scope of *indeed* is syntactically cancelled in Kent’s turn following Edgar’s “He is gone indeed” (*Lr.* 5.3.316), because with “The wonder is” Kent uses another modalising expression of stance in “The wonder is he has endur’d so long” (*Lr.* 5.3.317). From a discoursal point of view both Kent and Edgar elaborate on the connotations as well as etymological base of *indeed* by stressing the physical necessity of showing one’s stance through real deeds rather than through appearance. Kent expresses his wish to follow his master: “My master calls me, I must not say no” (*Lr.* 5.3.322), and Edgar concludes the play with “Speak what we feel, not what we ought to say” (*Lr.* 5.3.325).

As mentioned, the core meaning of *indeed* still exists in Shakespeare’s time as synchronic layering, with that of a stance adverbial indicating sincerity (*Traugott and Dasher* 2002: 159-165), and it can be assumed to have been understood by an Elizabethan audience. It is visible in the example from *Antony and Cleopatra* already cited at the beginning of this paper in which Cleopatra and the eunuch Mardian play on the former and grammaticalised/subjectified meaning of *indeed* and *in deed* in *Ant.* 1.4.14. There are many occasions in Shakespeare’s plays where *indeed* takes on a jocular or cynical tone in addition to expressing the sincerity of what is said. In *Ham.* 1.2.83-84, Hamlet uses *indeed* to cynically elaborate on the discrepancies between appearance and reality, which are caused by the marriage between King Claudius and his mother and the death/murder of his father. “‘Tis not alone my inky cloak, good mother, / Nor customary suits of solemn black, / […] These indeed seem, / For they are actions that a man might play“ (*Ham.* 1.2.77-84). Hamlet’s metaphorical description of how appearances of grief cannot really explain what he feels is encapsulated and summarised in his “These indeed seem” (*Ham.* 1.2.83). Syntactically, the scope of *indeed* is that of modifying – almost in an antithetical way – the verb *seem*.

*Indeed* is a marker of the spoken, but especially, of the “constructed” spoken discourse. By means of construing the stance of the speaker through the use of *indeed* as a pragmatic marker, this interactional function contains components of attention-getting, hedging, and turn-taking. It may also textually repair, sustain a discourse, mark boundaries, open a topic, shift it or close it.
4.5.2. The by my construction

The original preposition *bi* must have had a local sense (in the presence of) and is of native origin (*MED bi* 9a., and *OED by* 2.a.). In ME, it is not certain how far the use of *by* was native or in how far it was a translation of French *par* indicating instrumentality (*OED by* 2.a.). In ME, *by* occurs as part of an epistemic adverbial indicating sincerity, in constructions like “bi Crist!, bi God (gog)!”, bi (Seint) Marie!, bi mi fei, lei, treuthe!, bi mi live!” (*MED bi* 9e). Both the *OED (by* 2.a.) and the *MED (bi* 9e.) describe these usages as asseverations, oaths, affirmations, and expletives. According to the *OED (by* 2.b.), in elliptical phrases the verb swear is not mentioned. What we find in ME, for example, are the following forms quoted from the *OED entries* (*OED by* 2.a.) and citing Chaucer’s *Parliament of Fowls* (c1380, c1430): “‘Wel bourded,’ quod the doke, ‘by myn hat!’” as well as Chaucer’s *Book of the Duchess* (1369, c1459): “By my trouthe, I take no kep Of nothing”.

In Shakespeare’s English, the construction *by my* as an epistemic stance adverbial indicating sincerity has a token frequency of 173 (2.01 tokens per 10,000 words). The construction is the second-most frequent construction realising stance adverbials in Shakespeare. Mention has been made that the expression *by my troth* has a frequency of 66 (rel. freq. 0.007) and makes up almost one third of these constructions. Yet, the type frequency is nevertheless very high. It amounts to 56 types (and is therefore higher than that for the preposition *by*).

In the letter corpus (Table 8), the raw number of occurrences of the *by my* construction is not high and the distribution is very uneven, with hardly any occurrences for the periods 1350-1419 and 1500-1569 and an increase from 0.87 words per 10,000 for 1570-1639 to 2.21 for the period 1640 to 1710. It is also interesting to see that for the period 1420-1499 most of the forms have a religious basis and consist of the type *by my troth* and *by my faith*, while the forms from the 16th and 17th centuries do not exclusively show religious terminology. The lexical fields drawn on become more secular in the way they try to enhance the sincerity-indicating force of the utterance. One example would be *by my mother*. One reason for this lexical broadening might be the religious wars in the 16th century as well as the 1606 Profanity Act “An Act to Restrain Abuses of Players” which prohibited spoken profanity, irreligion in any dramatic production, and policing of speech with religious reference. This caused speakers to refrain from using religious terminology in the *by my* construction to stress the sincerity of their utterance. The construction, however, seems to have survived or at least been taken up again by Shakespeare and other dramatists to serve their
dramatic purposes. In the CED corpora, it is most frequently occurring in the constructed spoken sections, but most frequently for the period 1720-1760 while – again – this construction fairly rarely occurs in the “witness deposition” and “trials” sub-corpora.

Table 8. Distribution of the by my construction in the PCEEC

<table>
<thead>
<tr>
<th>periods</th>
<th>absolute frequency</th>
<th>tokens per 10,000 words</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3 1350-1419</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>M4 1420-1499</td>
<td>30</td>
<td>0.82</td>
</tr>
<tr>
<td>E1 1500-1569</td>
<td>3</td>
<td>0.10</td>
</tr>
<tr>
<td>E2 1570-1639</td>
<td>79</td>
<td>0.87</td>
</tr>
<tr>
<td>E3 1640-1710</td>
<td>123</td>
<td>2.21</td>
</tr>
<tr>
<td>sum</td>
<td>235</td>
<td>1.09</td>
</tr>
</tbody>
</table>

Table 9. Distribution of the by my construction in the CED (D1 1560-1599, D2 1600-1639, D3 1640-1679, D4 1680-1719, D5 1720-1760)

<table>
<thead>
<tr>
<th>CED</th>
<th>trials</th>
<th>tokens per 10,000 words</th>
<th>witness depositions</th>
<th>drama comedy</th>
<th>didactic works</th>
<th>prose fiction</th>
<th>tokens per 10,000 words</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>0</td>
<td>0.00</td>
<td>3</td>
<td>0.71</td>
<td>8</td>
<td>1.68</td>
<td>1</td>
</tr>
<tr>
<td>D2</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>0.00</td>
<td>13</td>
<td>2.73</td>
<td>3</td>
</tr>
<tr>
<td>D3</td>
<td>1</td>
<td>0.14</td>
<td>1</td>
<td>0.21</td>
<td>4</td>
<td>0.84</td>
<td>0</td>
</tr>
<tr>
<td>D4</td>
<td>2</td>
<td>0.21</td>
<td>0</td>
<td>0.00</td>
<td>30</td>
<td>6.36</td>
<td>9</td>
</tr>
<tr>
<td>D5</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>0.00</td>
<td>3</td>
<td>0.62</td>
<td>0</td>
</tr>
<tr>
<td>sum</td>
<td>3</td>
<td>0.35</td>
<td>4</td>
<td>0.23</td>
<td>58</td>
<td>2.43</td>
<td>13</td>
</tr>
</tbody>
</table>

In Shakespeare, the construction is used most creatively. We can find: by my fay (Rom. 1.5.126), foes (TN 5.1.19), George, by my Garter and my Crown (R3 4.4.366), God (Tit. 5.1.86), halidam (TGV 4.2.135), hand (Mac. 3.2.93), head (Rom. 3.1.35, Rom. 3.1.36), holidam (Shr. 5.9.99), white beard (WT 4.4.404). What these terms share – or, in other words, what these terms are lexically primed for (Hoey 2005) – is that the persons, concepts or things referred to are usually held in high esteem by the speaker. Also, they are thought to be appreciated by the hearer. More generally speaking, they also create and reflect the Elizabethan world picture (Tillyard [1943] 1973). Swearing on a father or mother, for example, indicates sincerity. Other expressions, such as the reference to my white beard, may be a sign of the speaker’s wisdom or maturity and humility, but the use may also point to the momentary nature of what is said or the transience of a proposition, because a beard can be cut off.
Therefore, the discursive potential of the *by my* construction is multifunctional and also has to be related to the position in which these constructions occur. This can be illustrated first with an example from the letter corpus: “for by my trowthe they haue as well deseruyd it as eny men +tat euer bare lyue” (PCEEC, PASTON, 1469). In this example, John Paston writes to his brother about “John Chapman and hys iij felaws” and asks him to pay them for their good service. The initial position of *by my troth* indicates the writer’s conviction that they have done good work. Despite the formulaic character of this form *by my troth* interpersonally indicates to the recipient the need (or even requests him) to actually pay the workers. Hence, the adverbial has scope over the entire declarative sentence. Textually, it functions like a pause, interpersonally construing the stance, and prepares the reader for what follows, while again interpersonally framing the proposition.

In Shakespeare, following the general pattern of stance adverbials in Shakespeare, the *by my* construction also appears most frequently in initial position. In *MND* 3.2.251, Lysander, who is under the effect of the love potion, expresses his love for Helena (rather than Hermia). He uses the initially positioned *by my life* to underline the sincerity of his love, but also to beg for a positive answer. This address causes further confusion and reinforces the comedy of the play. It is therefore also directed at the audience: “Helen, I love thee, by my life I do” (*MND* 3.2.51). The exclamation “by my life I do” (*MND* 3.2.251) encapsulates and cohesively links (by means of ellipsis) the declaration of love. The scope is extended to the following speech act *I swear*. *By my life* also foreshadows the love declaration by Demetrius, who is likewise under the effect of the potion, and who elaborates on *by my life* through his confession that he allegedly loves Helena “more” than Lysander does. The *by my* phrase as a pragmatic marker is not restricted in scope to just one sentence, but relates to larger stretches of the discourse.

In the following example from the Bishop’s Court (1561) at Chester a direct speech presentation of the words exchanged at the engagement of Edward Morgan and Elizabeth Bird is given:

She: "I wilbe your wief, and take you for my husband from hense forth, by my faith and trouth, with all my hart."

“And he, the said Morgan, likewise [...] He said “I take you for my wief, with all my hart, & I will marry you, by my faith & trouthe”.

Some of the felicity conditions do not seem to be fulfilled when the actual act of the engagement is performed, as is retrospectively noted by the
scribe in the witness deposition and one of the reasons why they end up at court. They do not exchange a ring (but send it later) to seal the spoken ceremony, although Edward then had obviously asked Elizabeth “whether she wold be content to geve hym her faith and trouthe before such as were there.” It is just the act of confession with words, a formula, which is to serve the purpose on both sides. She is reported to have said: “I wilbe your wief, and # take you for my husband from hense forth, by my faith and trouthe, with all my hart.” And he is reported to have encountered: “I take you for my wief, with all my hart, & I will marry you, by my faith & trouthe”. Like a performative verb, the adverbial construction by my – temporarily at least – performs and seals the act of engagement. Hence, because of this formulaic character of the stance adverbial and it being part of the actual performative act of the engagement the scribe considers it adequate to include it in his retrospective report.

During the Early Modern English period the by my construction experiences a creative revival, which is exploited in the historical data of the constructed dialogues. We find a more secular lexical set that follows the preposition and the possessive pronoun. The sub-corpora “trials” and “witness deposition” do not show a significant number of this rather emotional stance adverbial.

5. Conclusion

Despite the complexity of historical text analysis this paper has illustrated that the analysis of pragmatic data from past stages of the English language is possible and fruitful to address such aspects of language stability and change, genre distribution and the interplay between Present-day and past practices of language usage. Underlying parameters have been identified that may facilitate the search procedure and that illustrate the need to combine quantitative corpus-based searches on the one hand and more philologically qualitative analyses on the other within a historically informed research framework.

The type-frequency as well as the wide range of syntactic realisations of stance adverbials turn them into meaning-making interpersonal, textual and at times even experiential markers. Stance adverbials in general and epistemic, attitudinal and style adverbials in particular are most frequent in the comedies, although epistemic stance adverbials indicating truth and certainty outnumber the other semantic categories by far. Reasons for this distribution are complex but can partly be seen in the verse/prose distinction and
Historical text analysis

might also result from particular Early Modern discoursal strategies of expressing sincerity. EModE politeness features additionally play a role and the fact that most of the epistemic stance adverbials indicate certainty rather than viewpoint or imprecision. There is more directness and less hedging. Most stance adverbials take on initial position. Indeed shows a variety of semantic layering, which is used by Shakespeare for his dramatic purpose. The by my construction is particularly frequent in fictional and constructed conversation and allows for an extensive lexical variety that is indicative of the speaker’s attitude and of the Early Modern world-view.

Notes

1. The abbreviations for the Shakespeare plays follow the MLA standard.
2. See http://www.oed.com/thesaurus
3. See Shakespeare Database. <URL: http://www.shkspr.uni-muenster.de/
4. Relative frequencies enable the meaningful comparison of frequencies drawn from datasets that differ in size. They are calculated by dividing the target frequency (in this case, the total number of stance adverbials) by the total of items in the data (in this case, the total number of words in Shakespeare, i.e. 857,705 words) and then multiplying by 100, which leads to the frequency per 100 words, in effect percentage.

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