



LUND UNIVERSITY

A study of dialogic expansion and contraction in spoken discourse using corpus and experimental techniques

Pöldvere, Nele; Fuoli, Matteo; Paradis, Carita

Published in:
Corpora

DOI:
[10.3366/cor.2016.0092](https://doi.org/10.3366/cor.2016.0092)

2016

Document Version:
Publisher's PDF, also known as Version of record

[Link to publication](#)

Citation for published version (APA):
Pöldvere, N., Fuoli, M., & Paradis, C. (2016). A study of dialogic expansion and contraction in spoken discourse using corpus and experimental techniques. *Corpora*, 11(2), 191-225. <https://doi.org/10.3366/cor.2016.0092>

Total number of authors:
3

General rights

Unless other specific re-use rights are stated the following general rights apply:
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Read more about Creative commons licenses: <https://creativecommons.org/licenses/>

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

LUND UNIVERSITY

PO Box 117
221 00 Lund
+46 46-222 00 00

A study of dialogic expansion and contraction in spoken discourse using corpus and experimental techniques

Nele Pöldvere,¹ Matteo Fuoli¹ and Carita Paradis¹

Abstract

This study examines the dialogic functions of EXPANSION and CONTRACTION of first-person epistemic and evidential Complement-Taking Predicate (CTP) constructions, such as *I think* COMPLEMENT, *I suppose* COMPLEMENT and *I know* COMPLEMENT, in spoken discourse. It combines corpus and experimental methods (*i*) to investigate whether CTP constructions are used to open up the dialogic space for new ideas or counterarguments, or to fend off alternative views, and (*ii*) to identify what contextual factors play a role in determining the dialogic force of the constructions. First, an exploratory analysis of CTP constructions in the London–Lund Corpus (LLC) of spoken British English is carried out with the aim to identify important contextual factors and generate hypotheses about their dialogic effects. Then, a laboratory experiment is conducted to test the impact of the three most prominent factors for speakers' interpretations of utterances containing CTPs. The results indicate that CTP constructions do not only serve to expand the dialogic context in which they occur, but also to restrict alternative views. Interlocutor status, the co-occurrence of other stance markers and prosodic marking of first-person CTP are shown to have a significant effect on the dialogic function of the expressions. These findings call into question some claims in APPRAISAL theory about the role of CTP constructions in discourse, and highlight the need for a flexible approach to the analysis of these poly-functional stance expressions.

Keywords: APPRAISAL, complement-taking predicates, epistemic modality, evaluation, evidentiality, inter-coder agreement, intersubjectivity, prosody, stance

¹ Centre for Languages and Literature, Lund University, 221 00 Lund, Sweden.
Correspondence to: Nele Pöldvere, e-mail: nele.poldvere@englund.lu.se

1. Introduction

Human communication is a constantly developing process of social action in that it is dynamic, adaptive and inter-subjective in nature. The words and phrases that constitute communicative acts obtain their meanings and functions in the linguistic and situational contexts in which they are used (Dancygier and Sweetser, 2015; Halliday, 1994; Paradis, 2015; and Thompson and Alba-Juez, 2014). One important thing that language users do with language when they are involved in communication with others is to express and consider other people's opinions and take a stance (Englebretson, 2007). This function of language is what we are concerned with in this study. Combining data from spontaneous face-to-face conversations in the London–Lund Corpus (LLC) of spoken British English (Greenbaum and Svartvik, 1990) and experimental techniques, we analyse the dynamic use of a family of stance-marking constructions, namely first-person epistemic and evidential Complement-Taking Predicate (CTP) constructions such as *I think* COMPLEMENT, *I wasn't certain* COMPLEMENT, *I know* COMPLEMENT, *I doubt* COMPLEMENT and *I believe* COMPLEMENT.

In this study, we make use of the functional category of ENGAGEMENT in APPRAISAL theory as an analytical tool (Martin and White, 2005; and White, 2003, 2012). More precisely, we examine whether CTP constructions are used to open up the dialogic space for new ideas or counterarguments by the interlocutors (EXPANSION) or whether they are used to fend off alternative views (CONTRACTION). How these two contrasting strategies may be used is shown in Examples 1 and 2 from Martin and White (2005: 107, 154–5). Emphasis has been added to the CTP constructions to facilitate the task of the reader.

- (1) The sad aspect of all this is that by giving support to this invasion Blair will be destroying the UN and *I believe* will have betrayed the British people.
- (2) *I know* Inspector Morse was supposed to be the pinnacle of the late John Thaw's career, but to my mind he never did anything better than Detective Inspector Jack Regan in *The Sweeney*.

According to Martin and White (2005) and White (2003, 2012), stance expressions such as *I believe* and *I think* are used in discourse to indicate that speakers and writers take into account the possible existence of alternative viewpoints in addition to the ones they themselves are advancing. In their framework, *I believe* in Example 1 belongs to the category of EXPANSION because it is used to signal that the speaker's opinion is one out of many possible viewpoints. In contrast, *I know* in Example 2 is used to express CONTRACTION, signalling that further comments are not invited.

It is well known that natural language use is not straightforward and clear-cut. Consider Example 3 from LLC.

- (3) B: *I think* he was \obviously trying . to st\eer us in that dir/ection
 [ə] and sort of
 A: y=es
 B: dropping h\ints

In Example 3, B is expressing an opinion and taking a stance. *I think* is prosodically unaccented, serving as a starting point for the opinion expressed in the complement clause, which contains an evidential marker with a falling accent (*obviously*) signalling a high degree of commitment (Cruttenden, 1997; Kärkkäinen, 2003; and Paradis, 1997, 2003). In light of these contextual cues, our interpretation of the dialogic function of the *I think* COMPLEMENT in Example 3 is one of CONTRACTION, which is the opposite of Martin and White's (2005) classification of *I think* as an element of EXPANSION.

Our basic assumption is that the interpersonal functions and force of the CTP constructions in discourse rely both on the meanings contributed by the predicates themselves and on contextual factors in the linguistic, textual and situational contexts in which they are used. We question the APPRAISAL approach to the analysis of ENGAGEMENT expressions because of its conception of meaning in language as fixed and its lack of explanatory tools for poly-functionality and meaning shifts. We argue that the discursive meanings and functions of lexical items have to be described and explained with reference to principles of meaning-making and variation in discourse (Cruse, 2002; Geeraerts *et al.*, 1994; Glynn and Robinson, 2014; Gries and Stefanowitsch, 2004; Hilpert, 2014; and Paradis, 2003). It is true that Martin and White (2005: 103–4) recognise that the function of ENGAGEMENT expressions 'may vary systematically under the influence of different contextual conditions, and across registers, genres and discourse domains'. However, these conditions are not discussed in detail by the authors, nor have they been systematically investigated in the literature. The questions we raise concern *when* the CTP constructions are used to expand or contract the dialogic space in discourse, and *how* the functional differences can be explained. We address these questions using a combination of corpus and experimental methods. First, we carry out an exploratory analysis of CTP constructions in the LLC by means of manual semantic annotation. The corpus findings are used to generate hypotheses that we then test in a controlled experimental laboratory setting to determine the contributions of prosodic, collocational and social factors for functional variation.

This investigation increases our understanding of the dynamics and the complexities of stancetaking and dialogic ENGAGEMENT in spoken discourse. From a more practical point of view, it contributes to the refinement of APPRAISAL as an annotation tool in that the classification criteria are translated into concrete guidelines, facilitating more transparent, reliable and replicable analyses (Fuoli, forthcoming; and Fuoli and Hommerberg, 2015). To the best of our knowledge, this study is the first to use experimental methods to test hypotheses generated from the APPRAISAL

framework. In this way, the study provides a basis for a more comprehensive and robust empirical validation of the model.

The paper is organised as follows. Section 2 gives a more detailed overview of Martin and White's APPRAISAL theory and the system of ENGAGEMENT, and identifies some challenges in applying it to CTP constructions. In Section 3 we present the corpus analysis and the results and discussion of that part of the study, and Section 4 deals with the experiment and the analysis of the experimental data. This is followed by a general discussion of the findings in Section 5 and a conclusion of the study in Section 6.

2. Background

This section presents the theoretical background for the study. In Section 2.1, the APPRAISAL category of ENGAGEMENT is described in more detail. Section 2.2 presents some of the challenges in classifying CTP constructions based on the criteria stated in the framework.

2.1 The classification of ENGAGEMENT in APPRAISAL

Martin and White's APPRAISAL theory is a development of the Systemic Functional Linguistics paradigm, according to which there are three main functions of language: the ideational, interpersonal and textual functions (Halliday, 1994). APPRAISAL is an extension of the interpersonal dimension, and has been widely adopted to analyse evaluation in (mainly) written texts (e.g., Bednarek, 2008; Carretero and Taboada, 2014; Don, 2007; Fuoli, 2012; Fuoli and Hommerberg, 2015; Fuoli and Paradis, 2014; Hommerberg and Don, 2015; Hood, 2006; Hood and Martin, 2007; Kaltentbacher, 2006; Lipovsky, 2008, 2011, 2013; Mackay and Parkinson, 2009; O'Donnell, 2014; Pounds, 2010, 2011; Ryshina-Pankova, 2014; Santamaría-García, 2014; Taboada and Carretero, 2012; Taboada *et al.*, 2014; and White, 1998). The category of APPRAISAL with which this study is concerned is ENGAGEMENT and its division of evaluative expressions into markers of dialogic EXPANSION and CONTRACTION on the basis of their inter-subjective functionality.

ENGAGEMENT is a category that relates to dialogue management. A fundamental idea in dialogicity is that all verbal communication, whether written or spoken, is a response to what has been said before and an anticipation of what will come after (Bakhtin, 1981; Linell, 2009; Marková *et al.*, 2007; and Voloshinov, 1986 [1973]). The ENGAGEMENT model is 'interested in whether [speakers and writers] present themselves as standing with, as standing against, as undecided, or as neutral with respect to [...] other speakers and their value positions' (Martin and White, 2005: 93). At the same time, it is concerned with the anticipatory nature of communication. Accordingly, the model provides an overview of linguistic resources that

speakers and writers use to present their value positions as something to be taken for granted, as ‘novel, problematic or contentious’ or as something that should be ‘questioned, resisted or rejected’ (Martin and White, 2005: 93).

The inter-subjective resources of ENGAGEMENT are divided into two broad categories, which in turn contain different sub-categories at increasing levels of delicacy. First, dialogic EXPANSION is realised by linguistic expressions where ‘alternative positions are construed as possible or even likely and as to greater or lesser degrees authorized’ (White, 2003: 268). The majority of first-person epistemic and evidential CTPs, and especially those expressing lack of commitment, are considered to have an expansive function in discourse (see Example 1). Other members of this category are modal auxiliaries such as *may*, *might*, *can* and *could*; modal adverbs such as *perhaps*, *maybe* and *probably*; and evidentials such as *it seems*, *apparently* and *reportedly*. Martin and White (2005: 105) extend the traditional account in linguistics according to which these expressions primarily indicate a lack of commitment to the truth of the proposition, or speakers’ and writers’ assessment of its degree of reliability (Chafe, 1986; Lyons, 1977; Nuyts, 2001; and Palmer, 1986). They argue that the ‘dialogistic perspective shifts our focus so that such a concern with “epistemic status” and “reliability of knowledge” is seen to be not always and not necessarily the primary, determining communicative motive’ (Martin and White, 2005: 105).

Second, the category of ENGAGEMENT that makes reference to expressions with an opposite function is referred to as dialogic CONTRACTION. The category contains wordings that acknowledge the existence of possible alternative viewpoints, but at the same time act to close down, or ‘contract’, the dialogic space for these (White, 2003: 268). One of the few first-person CTPs that is represented in this category is *I know* (see Example 2).

While the distinction between dialogic EXPANSION and CONTRACTION is theoretically important and conceptually clear, analysing and classifying CTP constructions and other expressions of ENGAGEMENT in naturally occurring discourse is, however, not always straightforward. In certain contexts, expressions that are generally considered to perform a dialogically expansive function appear to be used to inhibit or preclude dialogue instead, and *vice versa*. In the next section, we discuss some of the main challenges in the classification of first-person epistemic and evidential CTP constructions as either dialogically expansive or contractive, following the definitions reported here.

2.2 Some challenges in analysing and classifying CTP constructions in APPRAISAL

The classification of ENGAGEMENT expressions into dialogically expansive and contractive is not uncontroversial (see Fuoli, forthcoming). The complexities involved in the analysis of these expressions are primarily due to

the highly context-dependent nature of evaluation (e.g., Bednarek, 2006; Hunston, 2011; Martin and White, 2005; Paradis *et al.*, 2012; and Thompson and Alba-Juez, 2014). Therefore, the classification of expressions of ENGAGEMENT as either dialogically expansive or contractive should take into account the contextual patterns in which these expressions are used in discourse. As mentioned above, Martin and White (2005: 103, 106) acknowledge that the dialogic function of ENGAGEMENT expressions may vary in different co-textual environments, registers and genres. However, the contextual conditions that may affect and contribute to determining their meaning are never explicitly identified nor dealt with in their work. For instance, in their analysis of *claim* in Example 4, the authors describe the predicate as having a distancing effect, representing the proposition that the religious beliefs of Aboriginal women are inherent in their fight against the bridge as still open to question. They add that the lexeme might not have the same function across all contexts of use, but provide no further examples.

- (4) His attack came as the Aboriginal women involved in the case demanded a female minister examine the religious beliefs they *claim* are inherent in their fight against a bridge to the island near Goolwa in South Australia.

(Martin and White, 2005: 102–3)

Fuoli (forthcoming) provides several examples of ambiguous cases, and cautions against a rigid treatment of ENGAGEMENT expressions. He discusses the incongruence that may arise between Martin and White's (2005) definition of dialogic EXPANSION and the CTP constructions he finds in his data. The author acknowledges the generally expansive function of *I believe*, but finds it unintuitive to annotate some statements within the scope of the CTP, such as the one exemplified in Example 5, as presenting an opinion that welcomes other alternatives.

- (5) We firmly *believe* deepwater drilling can be done safely and in an environmentally sensitive manner.

(Fuoli, forthcoming)

Fuoli (forthcoming) argues that in Example 5 *believe* performs a dialogically contractive function, rather than an expansive one. He notes that, in this example, the discursive function of the predicate is similar to expressions such as 'I contend that' or 'it is absolutely clear to me that'—namely, to represent the proposition as highly warrantable and thus to suppress or rule out the expression of alternative viewpoints (Martin and White, 2005: 98). This is primarily due to the interplay between *believe* and the booster *firmly*. The dialogically expansive function of *believe* seems to be affected by the relatively more contractive force of *firmly*, rendering the utterance as a whole contractive. The upshot of this is that the dialogic function of *I believe*

and other similar first-person CTPs, such as *I think*, appears to be strongly influenced by their co-occurrence with stance markers of opposite function.

Another core aspect that makes the study of first-person epistemic and evidential CTP constructions and their dialogic effects in discourse so intricately complex is the overall functional flexibility with which these markers are used in communication. This flexibility is a result of pragmatism. According to the grammaticalisation theory, CTPs such as *think* and *believe* are characterised by considerable semantic reduction and consequent pragmatic enrichment, which has left these markers extremely versatile and diverse in natural language use (e.g., Aijmer, 1997, 2014; Boye and Harder, 2007; Brinton, 1996, 2008; Kaltenböck, 2013; Simon-Vandenberg, 2000; Thompson and Mulac, 1991; and Van Bogaert, 2009). For example, Simon-Vandenberg (2000) compares the use of *I think* in casual face-to-face conversations and parliamentary interviews, and finds that, while casual conversations are characterised by tentative uses, *I think* mainly conveys deliberation and authority in political interviews. This is often indicated by the linguistic context of *I think* that often contains expressions of epistemic certainty, maximising devices and emphasisers, as a result of which the predicate does not express doubt but it can be paraphrased as ‘it is my opinion that’ (Simon-Vandenberg, 2000: 54–6). Since her analysis is based on spoken interaction, Simon-Vandenberg (2000) also considers prosody to identify the different functions characteristic of *I think* in the two genres. In fact, it is in prosody that the speakers’ choices of how *I think* should be interpreted become apparent (Dehé, forthcoming; Dehé and Wichmann, 2010a, 2010b; and Kaltenböck, 2008, 2009). According to Dehé and Wichmann (2010b) and their prosodic analysis of clause-initial *I think* and *I believe* in spoken discourse, the functions of *I think* range from the expression of the speaker’s true belief and attitude when the accent is placed on the pronoun, as in Example 6, to marking speaker uncertainty with accent on the verb, as in Example 7, and finally to having a discoursal–interactional function when unaccented, as shown in Example 8.²

- (6) /\ *I think* that Lord Scarman was right when he said that our accountability for the police in this country was muddled and incomplete.
- (7) *I th\ink* that the problem of faith very often presents itself as an individual problem.
- (8) *I think* that these democratic ideals still have to be achieved in Britain and I hope to show in this programme that this can’t be achieved until Britain becomes a republic.

² In these examples, the instrumental prosodic analysis was only carried out in the CTP-clause (Dehé and Wichmann, 2010b: 50–2). Also, note that where intonation patterns are indicated, the British tradition of intonation analysis is used, where / is a rise from a low accented syllable, \ a fall from a high accented syllable, ∨ a fall-rise and ∧ a rise-fall (Cruttenden, 1997).

In her analysis of the dialogic function of unaccented *I think*, Kärkkäinen (2003) assigns the first-person CTP a framing function where it simply serves as a starting point for a perspective, rather than as a marker of doubt or uncertainty.

In sum, the observations above indicate that the account of first-person epistemic and evidential CTPs in APPRAISAL is not satisfactory, and that context must be taken into account for a more complete and accurate analysis of the expressions. The next two sections present two complementary studies, a qualitative corpus analysis and an experiment, that seek to determine exactly what factors play a significant role in the dialogic functions of CTP constructions. We start with the corpus study.

3. The corpus-based analysis

In this section, we present the data and the procedure for the corpus investigation followed by a description of the results. Section 3.1 introduces the corpus and Section 3.2 introduces the sample from which utterances with CTPs were selected and annotated. The annotation was carried out in two phases. Phase 1, described in Section 3.3, involves the annotation of CTP utterances for linguistic and social factors. Section 3.4 gives an overview of Phase 2, which is concerned with the coding of the same utterances as either dialogically expansive or contractive by two annotators. In Section 3.5, the annotations produced in Phase 1 and Phase 2 are compared, and factors that appear to have an effect on the interpretation of the dialogic force of CTP constructions are identified and accounted for. The corpus study, then, serves as basis for the development of the experiment in Section 4.

3.1 The corpus

The data used in the corpus analysis were retrieved from the London–Lund Corpus (LLC) of spoken British English. The LLC consists of half a million words of spoken data, both dialogues and monologues, produced by educated adult speakers of English (see Greenbaum and Svartvik, 1990, for a description of the corpus). The texts are prosodically annotated, which allows for a systematic analysis of the intonation patterns of first-person CTPs.

3.2 The sample

The sample analysed in this study comes from spontaneous face-to-face conversations. It contains six texts of 5,000 words each. Three texts represent conversations between equals (texts S.1.2, S.1.6 and S.2.13) and the other three conversations between disparates (texts S.3.1, S.3.2 and S.3.3).

The extraction of utterances with CTPs from the sample was carried out in a bottom-up manner – that is to say, the constructions were not searched

for but the texts were read as a whole in order to identify and extract CTPs that:

- (a) are epistemic and/or evidential in that they make reference to the speaker's degree of commitment and/or reliability of the information provided;
- (b) have a first-person subject in the singular;
- (c) take scope over a finite complement clause; and,
- (d) occur before, after or inside a complement clause, or in the form of a pronominal clause ('I think so').

Based on the above four selection criteria, 246 examples of utterances with CTPs were identified and extracted from the sample. The CTPs are ASSUME, BE AFRAID, BE CERTAIN, BE CONVINCED, BE SURE, DOUBT, FEEL, GATHER, HOPE, KNOW, REALIZE, REMEMBER, SEE, SUPPOSE, TAKE, TELL, THINK, UNDERSTAND and WONDER. Both base and variant forms of the predicates are included in the study; in addition to, for example, *I think*, the sample also includes its derivations *I don't think* (negation), *I'm thinking* (progressive), *I would think* (modal auxiliary), *I thought* (past tense), and others.

3.3 Annotation of contextual factors

The corpus analysis was carried out in two phases. In Phase 1, the 246 CTP utterances identified based on the selection criteria were manually annotated by Author 1 in accordance with five factors: interlocutor status, prosodic marking of first-person CTP, additional expansive and contractive markers, and type of information expressed in the complement clause. The factors with corresponding values and examples are given in Table 1.

Interlocutor status has two values: equals and dispartes. The values of prosodic marking are accent on pronoun, accent on verb/adjective or no accent. The identification of the presence or absence of other markers with expansive or contractive functions in the utterance was based on the category descriptions offered in Martin and White (2005). However, additional features that are typical of informal speech were added to account for some of the peculiarities of spoken communication, such as discourse markers (e.g., *well*, *you know* and *I mean*),³ tag questions and vagueness markers (e.g., *sort of*) for EXPANSION, and *do*-insertion and other strategies of emphasis for CONTRACTION. Complement clauses within the scope of CTPs were annotated either as opinions or factual statements.

³ Most discourse markers found in the data were considered to be expansive in that they served to facilitate conversation through mitigation and discourse organisation. In such cases, they were unaccented and incorporated into the same intonation unit with the CTP utterance (*let me s\ee well I don't think there's enough th\ought in ...*). However, sometimes the same discourse markers were used to strengthen the utterance instead, in which case they were considered to promote contraction (*w\ell I know it's a dr\awback but ...*).

Factors	Values	Examples from corpus
Status	– Equals	Conversation between colleagues
	– Disparates	Conversation between student representatives and university administrator
Prosody	– Accent on pronoun	Well <i>/I</i> don't think so
	– Accent on verb/adjective	Because I'm quite <i>s\ure</i> that that that that we're wrong
	– No accent	<i>I suppose</i> it is difficult to lecture about sort of fossilized subject
Expansive marker	– Expansive marker(s)	Which we <i>could</i> perfectly well have had I think a month ago
	– No expansive marker(s)	I think that's a nice gesture
Contractive marker	– Contractive marker(s)	Because I think it had been built up into a very powerful instrument <i>indeed</i>
	– No contractive marker(s)	That's not Chaucer I'm afraid
Complement clause	– Opinion	I don't doubt <i>that this was a good thing</i>
	– Fact	<i>What he teaches</i> I think <i>is modern languages</i>

Table 1: Annotation of five contextual factors.

3.4 Annotation of ENGAGEMENT and assessment of reliability

In Phase 2, each CTP utterance was annotated as either dialogically expansive or contractive. The goal was to compare the annotations produced in Phase 1 with those of Phase 2 in order to identify correlations between the dialogic EXPANSION or CONTRACTION of the CTP constructions in their various contexts and the factors in Table 1. The annotation of the CTP utterances as either dialogically expansive or contractive was performed following Fuoli's (forthcoming) step-wise method for annotating APPRAISAL. In line with this approach, the reliability and replicability of

	Observed agreement (percent)	Cohen's k coefficient	Assessment
Session 1	72.62	0.46	moderate
Session 2	85.88	0.58	moderate
Session 3	92.86	0.77	substantial
Overall agreement	83.79	0.61	substantial

Table 2: Inter-coder agreement test results.

the annotation procedure were optimised in the following way. First, the annotation guidelines as well as all the choices made during the annotation process were recorded in a detailed annotation manual, which is reported in full in Appendix A. Second, the CTP utterances were annotated by Author 1 and Author 2 independently, based on the same guidelines, and inter-rater reliability was measured by means of an inter-coder agreement test. The results of the test were then used to progressively refine and optimise the annotation guidelines.

Similar to Fuoli and Hommerberg (2015) and Read and Carroll (2012), the inter-coder agreement test was conducted over three rounds, separated by intermediate sessions in which disagreements between the annotators were thoroughly discussed and resolved. Where agreement could not be reached, Author 3 was consulted and her opinion was used as a basis for the final classification. Each annotation session covered one-third of the entire dataset. The intermediate sessions served to progressively refine the annotation guidelines and address unanticipated annotation problems. All choices made during these sessions were recorded and added to the annotation manual.

To calculate inter-coder agreement, Cohen's chance-corrected *kappa* coefficient was used (Cohen, 1960). The results from each annotation round, as well as the overall agreement (i.e., calculated over the complete dataset) are shown in Table 2. The table reports both observed agreement (not corrected for chance agreement) and *kappa* scores. The scores displayed are those obtained before reconciling the disagreements, which count as reliability data proper (Krippendorff, 2004: 219). After reconciliation, perfect agreement was reached. The overall *kappa* score obtained indicates a 'substantial' level of agreement between the independent annotators, according to Landis and Koch's (1977: 165) scale. Agreement increased progressively over the annotation sessions, which indicates that the annotation task became clearer and better defined after each session. The results of the analysis discussed in Section 3.5 are based on the fully reconciled dataset.

	Annotated as expansive	Annotated as contractive	Total
THINK	121	26	147
KNOW	18	24	42
SUPPOSE	16	4	20
BE SURE	2	9	11

Table 3: Annotation of dialogic EXPANSION and CONTRACTION of four most frequent CTPs in the sample.

3.5 Results and analysis

This section presents the results of the corpus study based on the sample of 246 CTP constructions and the five factors given above: interlocutor status, prosodic marking of first-person CTP, additional expansive and contractive markers, and content of complement clause. It discusses the results in the light of APPRAISAL and provides the rationale for the choice of expressions and factors for the experiment.

In the fully reconciled dataset, 172 examples out of 246 were interpreted as dialogically expansive and seventy-four as dialogically contractive. This means that in our sample of spontaneous face-to-face conversations, the proportion of CTP constructions with an expansive function is clearly higher than the proportion of CTP constructions used contractively. Table 3 lists the four most frequent CTPs in the data. The most frequent CTP by far, and one of the most frequent cognition verbs in the English language (Biber *et al.*, 1999: 669), is THINK (147 examples), followed by KNOW (42 examples), SUPPOSE (20 examples) and BE SURE (11 examples). The other CTPs are all relatively infrequent, with nine of them occurring only once. The table also lists the number of times each CTP construction was annotated as either dialogically expansive or contractive. The numbers show that all of them are used for both expanding and contracting purposes. Contrary to what is suggested in the APPRAISAL framework, this points to the fact that CTP constructions are dynamic and sensitive to contextual forces.

Due to the fact that research in APPRAISAL has focussed on written genres, little or no work has been done on such informal but common constructions as *I think*. In Martin and White (2005), *I think* belongs to the group of mental verb/attribute projections, alongside *I suspect that*, *I believe* and *I doubt*, all of which form part of the EXPANSION category of ENGAGEMENT. However, as shown in Table 3, out of the 147 examples of *I think* COMPLEMENTS in the data, twenty-six were interpreted as having a contractive rather than an expansive effect. The expansive use of the CTP construction is illustrated in Example 9, taken from a conversation between two academics, A and B, in text S.1.2.

- (9) B: *I think* in Austria
 A: [m] . [m] . [m]
 B: you have to find a good m\an and build on h\im . rather than .
 pick a place on the m\ap⁴

In contrast, consider Example 10 where *I think* is used by the same speaker, B, and with the same contextual features (expression of opinion within the scope of an unaccented *I think*) as in Example 9 but where the complement clause contains a contractive marker. The clause, ‘but once again I’m not surprised’, frames the CTP construction, where *I think* precedes the complement clause ‘it had been built up into a very powerful instrument’, which in turn is followed by the contractive adverb *indeed*. The adverb is treated as a formulation in APPRAISAL that involves authorial emphasis and interpolation and that is believed to be ‘directed against some assumed or directly referenced counter position’ (Martin and White, 2005: 129). Here, the counter position is a policy established in the department that speaker B regards as *too* powerful and that he challenges with a high personal investment.

- (10) B: but once again I’m not surprised . because *I think* it had been
 b\uilt \up into a very powerful instrument ind\eed . [ə:m] with
 with you know four . four vice-presbyters five vice-presbyters with
 Coventry

A consideration of the collocational patterns of other predicates suggests that the only first-person CTP that systematically co-occurs with contractive adverbs is *I think*. The frequency with which *I think* combines with markers of certainty in spoken communication has also been observed in Aijmer (2014) and Simon-Vandenberg (2000), who explain it in terms of the pragmatic strengthening of *I think*, as a result of which the construction is often used to express authority rather than tentativeness. More examples of *I think* combined with markers of CONTRACTION are given in Examples 11 and 12.

- (11) B: I think you’re much more likely to go to your . your academic
 tutor
 [...]
 C: *I think* \actually that depends . on your relationship with your .
 \own tutor
- (12) A: no I mean I I think there’s a limit though because *I think* that
 s\ome people . d\o want comp/anionship and and and << syll >> .
 and and although the union can offer this . what it can’t offer [ii]
 necessarily is . [ʔə] to be able to talk to – [ʔə] people in your own
 age and your own year about your work

⁴ In all examples, patterns of nuclear tones are only indicated in the CTP utterance.

Both Examples 11 and 12 are extracted from text S.3.3. The dialogue takes place at a formal meeting between student representatives (B and C) and a university administrator (A). In the conversation preceding Example 11, the administrator questions the student representatives about their contacts with their tutors, both academic and departmental. Following B's response, C insists upon a different point of view, that students' contacts with their tutors depend on the relationship between the two, by classifying the complement clause with the adverb *actually*. In Example 12, the topic of discussion has switched to the unpopularity of departmental events among students. The student representatives note that students prefer to spend their free time outside the university, to which A provides a counterargument where the complement clause following *I think*, 'some people do want companionship', contains an accented *do* that considerably strengthens the speaker's argument and the dialogic force of the *I think* COMPLEMENT. Similar to the prosodic marking of *I think* in Examples 9 and 10, the first-person CTPs in Examples 11 and 12 are also unaccented, making them less likely to express speaker uncertainty and invite the expression of counterarguments, and more likely to act as neutral frames for opinions. The predicates are, then, considered to be highly sensitive to functional variation brought about by contextual cues, including the presence of contractive markers.

Examples 11 and 12 also raise questions about power relations between conversational participants. The division of spontaneous face-to-face conversations into equals and disparates in LLC allows for a systematic analysis of the socio-communicative context in which the conversations occur. The relationship between the student representatives and the administrator in Examples 11 and 12 is asymmetric. Both parties use *I think* contractively to defend the value positions for which they stand. Another example of a conversation between disparates is provided in Example 13. It is taken from text S.3.1 where an academic, B, addresses a prospective undergraduate student, A. The latter replies to B's question about her impressions of the book *Lord of the Flies* by using the unaccented *I'm sure*, which expresses certainty, followed by the accented *does*, to underline and emphasise her view of the novel. *I'm sure* belongs to the category of EXPANSION in APPRAISAL, similar to *I'm convinced that* (Martin and White, 2005: 105), but as a result of the interplay of the factors above, the dialogic force of the *I'm sure* COMPLEMENT in Example 13 is one of CONTRACTION instead.

- (13) B: that's really what I'm trying to get at – is it – a freak or does
 A: (– sighs) oh dear
 B: it have its roots in English literature –
 A: *I'm sure* it d\oes have its roots in English l/iterature

Examples 9 to 13 all illustrate cases where an expansive first-person CTP in APPRAISAL, such as *I think* or *I'm sure*, crosses category boundaries by co-occurring with markers of CONTRACTION, but opposite cases can

also be detected in the data. Compare Examples 14 and 15, taken from conversations between colleagues in texts S.1.2a and S.2.13, respectively. Both make use of *I know*, but only the former was considered to have a contractive effect by the annotators.

- (14) B: and *I know*. c\ertainly – one thing he wr\ote was concerned
with th/at – but [ə] – – no I don't [ə] . wish
A: [m] no
B: him ill at all
- (15) A: I mean I just can't remember I was trying to << 6 to 8 sylls >>
B: *I know* you said there were five c\ourses

The different functions of Examples 14 and 15 are influenced by the presence or absence of a co-occurring contractive expression and the prosodic marking of *I know*. In Example 14, *I know* is followed by the assertive adverb *certainly* and is realised with a falling accent on the verb *know* in addition to which it forms its own tone unit. In Example 15, the complement clause within the scope of *I know*, 'you said there were five courses', does not contain any explicit expressions of CONTRACTION that would affect the interpretation of the CTP. Also, *know* is unaccented and the utterance ends with a fall-rise accent on *courses*. Although in both examples *I know* takes scope over factual statements, this does not seem to play an important role in balancing out their dialogic effects. As a result, the two examples are analysed differently, with the former being annotated as contractive and the latter as expansive.

In addition to being unaccented, two other intonation patterns of first-person CTPs become apparent in the analysis. These are prosodic prominence on the pronoun and on the verb. While CTP constructions containing the unaccented *I think* were mostly interpreted as being relatively contractive in our analysis, largely due to its co-occurrence with contractive expressions, the two other intonation patterns often triggered an expansive reading. Consider Example 16 with prosodic prominence on the pronoun.

- (16) B: well Mallet is is [ə] is hopping mad about all this because Mallet sees a hundred and fifty thousand pounds for a building and various other things going down the drain – what I [f] what ^*I think* he doesn't r\ealize is that . it's very largely bec\ause he's been b\uilding . [ə:m?] this kind of per\ipheral thing in /Appleby that it h\as gone down

Here, Speaker B from text S.1.2 realises the pronoun *I* in *I think* with an accent, which implies that the opinion is provided as a contrast to some dialogically prior stance (Dehé and Wichmann, 2010b: 62). Speaker B expresses his opinion as one possible viewpoint and at the same time acknowledges the existence of others, including that of his interlocutor. Prosodic prominence on the pronoun has been annotated as moderately expansive in the analysis.

Prosodic prominence can also occur on the verb, as already illustrated in Example 14.⁵ In Dehé and Wichmann's (2010b: 62–3) analysis of *I think* and *I believe*, an accentuated verb suggests that the CTPs are used to express a high degree of speaker uncertainty and doubt. In this analysis, uncertainty shows that the speaker has reservations about the validity of the opinion he or she is advancing, and other conversational participants are encouraged to confirm, refute or complement it. Consider Example 17.

- (17) B: I mean about the –b\est lecture theatre
 ? : [m m]
 B: in the b\uilding is the B\otany Theatre *I suppose*

In addition to being clause-final, *I suppose* in Example 17 also signals uncertainty and potential turn exchange by attracting rising accent on the verb *suppose*. In the analysis, such cases have unanimously been annotated as very expansive.

The observations made above have mostly focussed on *I think*, the most frequent CTP in the data. Due to its frequency of use, the construction is more prone to displaying diverse contextual patterns compared to other predicates. For these reasons, the CTP to be tested in the experiment in Section 4 will be *I think*, leaving the investigation of other predicates for the future. *I think* is considered to be expansive by Martin and White (2005), but the corpus-based analysis presented here has shown that there are two linguistic factors and one extra-linguistic factor that most strongly correlate with the dialogic function of the construction in spoken discourse. They are interlocutor status, the presence of a contractive marker and prosodic marking of the first-person CTP. The effect and significance of these factors will be investigated in the following sections.

4. The experiment

The qualitative exploratory corpus analysis in the previous sections formed the basis for the development of a laboratory experiment, the design and results of which are presented in the following sections. First, the hypotheses that arose from the corpus study are given in Section 4.1, followed by the experimental design in Section 4.2. Sections 4.3 and 4.4 describe the task and stimuli used in the experiment, and Section 4.5 introduces the participants. Finally, quantitative analyses, both descriptive and confirmatory, are presented in Section 4.6.

⁵ Note, however, that while accent on the verb has a cumulative effect of lack of commitment for CTPs of uncertainty, the same does not apply to CTPs of certainty. Instead, if an assertive CTP is emphasised by a falling tone, the predicate becomes even more assertive than its unaccented counterpart.

4.1 Hypotheses

Based on the findings in the qualitative corpus analysis presented above, the following hypotheses were developed.

- Hypothesis 1. Utterances containing *I think* produced by speakers of equal status will be perceived as more expansive than utterances produced by speakers of higher status.
- Hypothesis 2. Utterances containing *I think* only will be perceived as more expansive than utterances containing *I think* and an additional contractive marker.
- Hypothesis 3. Utterances in which *I think* receives an accent on the verb will be perceived as more expansive than utterances in which the accent is on the pronoun, which in turn will be perceived as more expansive than utterances with no accent on *I think*.

4.2 Experimental design

To test the hypotheses above, an experiment was developed in which participants were asked to rate the dialogic expansion of a number of utterances containing *I think* (detailed below). The utterances were manipulated according to three factors.

1. Interlocutor status
equal (i.e., attributed to an equal-status interlocutor) *versus* dispartes (i.e., attributed to a higher-status interlocutor).
2. Contraction
presence *versus* absence of a co-occurring contractive marker.
3. Prosodic marking of *I think*:
accent on the pronoun *versus* accent on the verb *versus* no accent.

Accordingly, the experiment implemented a $2 \times 2 \times 3$ within-subjects factorial design. Table 4 provides an overview of the design. Each condition is illustrated by means of a simple fabricated example.⁶

4.3 Procedure

The experiment was set up in PsychoPy.⁷ The participants were seated in front of a 13-inch laptop and given a set of headphones. They were asked to take part in thirty-six imaginary conversations with another person in

⁶ The complete set of stimuli is included in Appendix B.

⁷ See: <http://www.psychopy.org>.

Equals		
	Without contractive marker	With contractive marker
No accent	I think you're wrong	I think you're <i>clearly</i> wrong
Accent on pronoun	<i>I</i> think you're wrong	<i>I</i> think you're <i>clearly</i> wrong
Accent on verb	<i>I think</i> you're wrong	<i>I think</i> you're <i>clearly</i> wrong
Disparates		
	Without contractive marker	With contractive marker
No accent	I think you're wrong	I think you're <i>clearly</i> wrong
Accent on pronoun	<i>I</i> think you're wrong	<i>I</i> think you're <i>clearly</i> wrong
Accent on verb	<i>I think</i> you're wrong	<i>I think</i> you're <i>clearly</i> wrong

Table 4: Experimental design for interlocutor status, presence of a contractive marker and prosodic marking of *I think*.

which the person expressed her opinion about something. Each conversation (Example 19) was preceded by a short description of the context in which it occurred (Example 18). The participants listened to the conversations from the headphones and simultaneously read them on the screen. The opinion, or target utterance, was enclosed within asterisks and shown to the participants twice, both in written and spoken form.

- (18) You are looking for a job. Mrs. Smith is offering you a position as a secretary in her company, which in her opinion is a much better choice than becoming a schoolteacher.
- (19) MRS. SMITH SAYS TO YOU:
Being a secretary certainly gives you more flexibility than having a teaching job. Also, the salary will be higher. ** I think it's getting more and more difficult to live on a teacher's salary **.

Two questions then followed each conversation.

1. To what extent would the person take a different opinion from you into consideration?
2. How comfortable are you in expressing a different opinion?

The questions are intended to capture the inter-subjective nature of ENGAGEMENT by addressing two facets of this construct that we envisaged to be important in spoken interaction. In the first question, the participants were asked to imagine the extent to which the interlocutor takes into consideration a possible alternative viewpoint in addition to the one she is advancing. This question allows us to measure what we refer to as the ‘perceived openness to dialogue’. In the second question, the participants were asked to rate their own level of comfort in providing an alternative viewpoint, an aspect of ENGAGEMENT that we refer to as ‘willingness to disagree’. In both cases, the participants marked their answer on a 7-point scale, with 1 corresponding to ‘not at all’ and 7 to ‘completely’. Together, the ratings obtained from these questions represent the degree of perceived dialogic openness expressed by the target utterance. After each experiment, short interviews were carried out with the participants.

4.4 Stimuli

The stimuli for the experiment were thirty-six conversations that contained a target utterance with the first-person singular declarative simple present form *I think*, followed by a zero-complementiser and a complement clause. The content of the complement clause was always an opinion, rather than a factual statement. Most of the conversations and their contexts were taken from the naturally attested examples analysed in the corpus study; however, they were considerably simplified. In order to retain the naturalness of the conversations and to allow for the inclusion of a prosodic factor, the conversations were read by a female native speaker of British English, and recorded in an anechoic chamber at the Lund University Humanities Laboratory.

As mentioned above, the utterances were manipulated for three factors: interlocutor status, the presence of a co-occurring contractive marker and prosodic marking of the first-person CTP. Interlocutor status was manipulated by changing the name of the imaginary conversational partner. In Example 20, she is referred to as Clare, indicating that the relationship between the speakers is equal. If the relationship is asymmetric, surnames and titles were used, as shown in Examples 18 and 19.

(20) CLARE SAYS TO YOU:

This is a problem in schools. By the age of sixteen those who are going to become academics should have done their general reading. ** I think the schools are indeed wrong in trying to tackle those types of courses after the age of sixteen **.

The second factor was manipulated by adding or omitting a contractive marker in the complement clause following the CTP. In Example 20, the contractive marker is *indeed*. Other markers include adverbs of

assertion, such as *clearly*, *obviously*, *certainly*, *of course*, *always* and *definitely*, and adverbs of negation, like *nothing*, *never* and *any* (see Appendix B for a complete list). The co-occurring contractive markers were always accented.

Prosody was manipulated in the CTP clause. Example 20 presents a target utterance where accent is placed on the pronoun *I*; Example 19 gives an utterance where accent is placed on the verb *think*; and Example 21 illustrates an utterance with no accent on *I think*. The female speaker whose voice was recorded was instructed always to pronounce the target items, including the contractive markers, with a falling tone. In certain cases, multiple takes were needed to achieve the desired result.

(21) PROFESSOR ADAMS SAYS TO YOU:

They've actually been talking about unemployment for teachers within the next two or three years. But at the end of the day governments take care of schoolteachers, ** but I think they obviously don't care about university lecturers **.

4.5 Participants

The experiment was carried out at the Centre for Languages and Literature at Lund University in September 2015. Thirty-one participants (twenty-three female and eight male), all native speakers of English, were recruited through advertisements in social media and on university noticeboards. The participants were recruited regardless of their regional dialects. They were between nineteen and forty-two years of age, and all of them were either staff or students at Lund University. Participation was compensated with a cinema ticket.

4.6 Results

In the following sections, both descriptive and confirmatory statistical analyses of the experiment are provided.

4.6.1 Descriptive statistics

Table 5 reports means and standard deviations by condition for the perceived openness to dialogue scale (POD). Table 6 presents the same information for the willingness to disagree scale (WTD). As the tables show, standard deviations are approximately of the same magnitude across all experimental conditions. The results are also graphically represented in Figure 1. The top panels show the mean values of POD across the experimental conditions. The bottom panels represent the mean values of WTD.

Equals				
	Without contractive marker		With contractive marker	
	Mean	S.D.	Mean	S.D.
No accent	3.60	1.07	4.10	0.92
Accent on pronoun	3.64	1.06	2.91	1.09
Accent on verb	4.32	0.86	3.83	1.00
Disparates				
	Without contractive marker		With contractive marker	
	Mean	S.D.	Mean	S.D.
No accent	3.38	0.86	2.80	1.16
Accent on pronoun	3.51	1.01	2.87	1.07
Accent on verb	3.67	1.17	3.44	1.10

Table 5: Mean ratings and standard deviations for POD scale.

Equals				
	Without contractive marker		With contractive marker	
	Mean	S.D.	Mean	S.D.
No accent	5.26	1.32	5.68	0.85
Accent on pronoun	5.51	0.77	4.94	1.30
Accent on verb	5.48	0.85	5.20	1.05
Disparates				
	Without contractive marker		With contractive marker	
	Mean	S.D.	Mean	S.D.
No accent	4.30	1.06	4.34	1.08
Accent on pronoun	4.83	0.97	4.53	1.16
Accent on verb	4.59	1.39	4.61	1.05

Table 6: Mean ratings and standard deviations for WTD scale.

As the plots show, on average, WTD scores were higher than POD scores across all the conditions. This means that participants’ willingness to disagree with their interlocutors was generally higher than their interlocutors’ apparent openness to dialogue. The plots also indicate that both POD and WTD tended to be higher for conversations between equals (solid red lines)

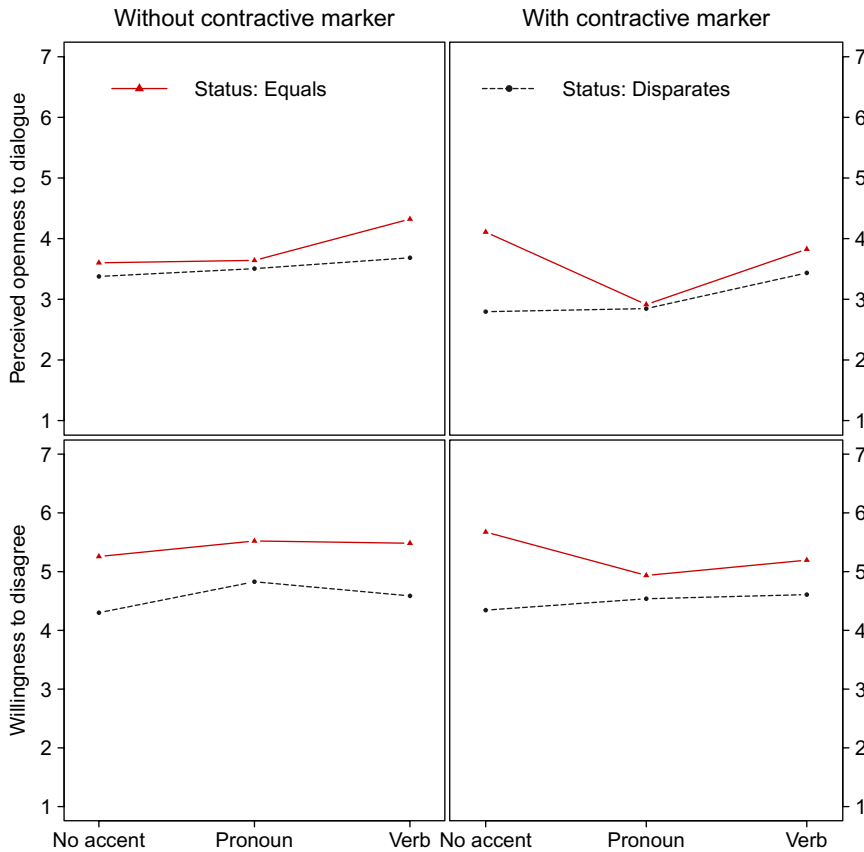


Figure 1: Interaction plots for POD scale (top panels) and WTD scale (bottom panels).

compared to conversations between disparates (dashed black lines). This difference, however, is not consistent across conditions. As far as POD is concerned, when no contractive marker was included in the target utterance (top-left panel) and the accent fell on the verb, the divergence between equals and disparates was larger than in the other accent placement conditions. A similar and even stronger pattern can be observed for trials where a contractive marker was included (top-right panel), but no word in the first-person CTP received an accent. In the case of WTD, the difference between equals and disparates is, overall, bigger. However, while the disparity appears to be rather constant in the case where no contractive marker was present (bottom-left panel), it is more uneven where a contractive marker was included in the target utterance (bottom-right panel), reflecting the pattern observed for the POD scale. Furthermore, the graphs show that, for conversations between disparates, POD was lower when a contractive marker was included in the target utterance compared to when it was not.

This pattern, however, does not apply to conversations between equals. With regard to WTD, there appears to be no substantial difference between utterances with and without a contractive marker. Finally, in conversations between disparates, POD was lowest when there was no accent on *I think*, slightly higher when the accent was on the pronoun, and highest when the accent fell on the verb. A similar pattern can be observed for conversations between equals when no contractive marker was added, but a different picture seems to emerge when a contractive marker was included in the utterance. Unexpectedly, in this condition, utterances with no accent on *I think* yielded the highest average POD score. The results for the WTD scale show similar trends. However, when no additional contractive marker was present, utterances with accent on the pronoun yielded the highest scores.

4.6.2 Repeated-measures ANOVA analyses

To assess the effects and interactions of the three within-subjects predictors considered on perceived dialogic openness and test the hypotheses presented above, repeated-measures ANOVA was used, followed by Bonferroni corrected post-hoc tests. Two three-way repeated-measures ANOVA analyses were performed, one for each of the two scales used to measure the dependent variable. All effects are reported as significant at $p < 0.05$.

In the first analysis, the effects of the independent variables on POD were tested. Mauchly's test indicated that the assumption of sphericity was met, so no correction was applied. The analysis showed significant main effects of interlocutor status, $F(1, 30) = 40.72$, $p < 0.001$, presence of a contractive marker, $F(1, 30) = 10.24$, $p = 0.003$, and prosodic marking of *I think*, $F(2, 60) = 14.00$, $p < 0.001$. Furthermore, there was also a significant three-way interaction between the three predictors, $F(2, 60) = 5.10$, $p = 0.009$.

Looking more closely at the effect of interlocutor status, post-hoc *t*-tests with Bonferroni correction revealed that when no contractive marker was included and the accent was on the verb, POD was significantly higher for conversations between equals compared to conversations between disparates, $t(30) = 3.00$, $p = 0.033$. Also, POD was significantly higher for equals compared to disparates when a contractive marker was present, and the first-person CTP was not accented, $t(30) = 6.26$, $p < 0.001$. The difference between equals and disparates was not statistically significant in the other conditions. These results support Hypothesis 1. They show that utterances produced by equal-status speakers are perceived as more expansive than utterances produced by higher-status speakers. However, this effect is qualified by the interaction between the three variables.

With respect to the effect of the presence of a contractive marker, post-hoc comparisons revealed that, in conversations between equals, utterances with a contractive marker were perceived as significantly more

contractive than utterances where no contractive marker was included only when the pronoun was accented, $t(30) = -3.46$, $p = 0.010$. The difference between the other scores was not significant. These results provide partial support for Hypothesis 2. Similar to interlocutor status, the effect produced by the presence of a contractive marker was influenced by the other factors.

With regard to prosodic marking, post-hoc pairwise comparisons showed that, when no contractive marker was present, utterances with an accent on the verb in conversations between equals yielded significantly higher POD scores compared to both utterances without an accent on *I think*, $t(30) = 3.86$, $p = 0.007$, and utterances with accent on the pronoun, $t(30) = 3.15$, $p = 0.044$. However, no significant difference was found neither between utterances with unaccented *I think* and utterances with accent on the pronoun, nor between the different accent placement conditions in conversations between disparates. Where a contractive marker was included, utterances with unaccented *I think* were rated as significantly more expansive than utterances with accent on the pronoun in conversations between equals, $t(30) = 7.00$, $p < 0.001$. Also, utterances with accent on the verb yielded significantly higher POD scores than utterances with accent on the pronoun, $t(30) = 4.94$, $p < 0.001$. In the case of conversations between disparates, a significant difference was found between utterances with no accent on *I think* and utterances with accent on the verb $t(30) = 3.15$, $p = 0.044$. These results provide partial support for Hypothesis 3, showing that, at least in the case of conversations between equals, utterances with accent on the verb are perceived as significantly more expansive than when the accent is on the pronoun. However, interlocutor status seems to override the effect of prosodic marking. In conversations between disparates, prosodic marking plays only a limited role. In conversations between equals and when a contractive marker is added, the highest average POD is obtained from utterances with no accent on *I think* and not from utterances with accent on the verb, as was hypothesised.

In the second ANOVA analysis, the effects of the independent variables on WTD were tested. Mauchly's test indicated that the assumption of sphericity had been violated for the three-way interaction between the independent variables, $W = 0.72$, $p = 0.008$. Therefore, degrees of freedom were corrected using Greenhouse–Geisser estimates of sphericity. The analysis showed significant main effects of interlocutor status, $F(1, 30) = 36.64$, $p < 0.001$. In addition, a significant two-way interaction between interlocutor status and prosodic marking, $F(2, 60) = 4.09$, $p = 0.022$, and a significant two-way interaction between accent placement and presence of a contractive marker, $F(2, 60) = 6.68$, $p = 0.002$, were found.

Post-hoc *t*-tests with Bonferroni correction revealed that WTD was significantly higher for conversations between equals compared to conversations between disparates across all conditions, except in the case of utterances containing a contractive marker and with accent on the pronoun. If the utterance did not contain a contractive marker, WTD was significantly higher for equals than disparates when *I think* had no accent, $t(30) = 2.84$,

$p = 0.048$, when the accent was on the pronoun, $t(30) = 3.03$, $p = 0.030$, and when the accent fell on the verb, $t(30) = 3.12$, $p = 0.024$. If the utterance included a contractive marker, WTD was significantly higher for equals than disparates when *I think* had no accent, $t(30) = 6.50$, $p < 0.001$, and when the accent was on the verb, $t(30) = 3.74$, $p = 0.005$. These results provide strong support for Hypothesis 1.

Concerning the effect of the presence of a contractive marker, post-hoc comparisons revealed that, in conversations between equals, utterances with a contractive marker did not yield significantly lower WTD scores. These results do not support Hypothesis 2.

Focussing on prosodic marking, post-hoc pairwise comparisons showed that, when a contractive marker was included in conversations between equals, utterances with unaccented *I think* yielded a significantly higher WTD than utterances with accent on the pronoun, $t(30) = 3.52$, $p = 0.017$. All the other observed differences were, according to the post-hoc tests, not significant. These results provide only partial support for Hypothesis 3, highlighting a similar pattern to that observed above in the case of utterances between equals including a contractive marker.

5. Discussion

This study was concerned with the meanings and functions of CTP constructions with respect to their use in dialogue as either inviting or disinviting viewpoints from other interlocutors. We used two observational techniques to address those questions. This section looks more closely at the results from the point of view of the predictions made in Section 4.1.

In Hypothesis 1, we predicted a direct relationship between the perceived dialogic function of the CTP constructions in their various contexts and the relationship between the speaker and the addressee. The results of both the corpus analysis and the experiment provide convergent support for this hypothesis. Interlocutor status played an important role in the corpus annotation decisions. In the experiment, utterances for which the participants evaluated the stance of a friend or a colleague were judged as being more expansive than those attributed to a higher-status interlocutor, such as a Professor or a CEO of a company, even though significant differences were not obtained for all the conditions. The statistical analysis showed that, among the factors considered, interlocutor status had the strongest and most consistent effect on the participants' ratings. This was further confirmed by post-experiment interviews carried out with the participants in which interlocutor status was unanimously identified as the principal determinant of the ratings. This means that speakers are conscious of the notion of power and of the asymmetry inherent in human communication, and their interpretation of the interlocutor's openness to dialogue is mediated by the perceived mutual roles and relationship with others. Du Bois (2007) contends

that stancetaking is a social act, as much as it is a linguistic one, and participants in dialogic interaction are constantly engaged in the alignment or divergence of stances to negotiate the inter-subjective relationship between them. These findings support this view and demonstrate that a study of stance that limits itself to the investigation of isolated elements of language only ignores the basis for natural language use – namely the situational context in which language is used.

As the results of the experiment suggest, the interaction between all three factors considered should be taken into account for a better understanding of how dialogic ENGAGEMENT is realised in discourse. In this sense, the most striking finding was that utterances with an unaccented *I think* followed by a contractive marker were perceived as the most expansive utterance type in conversations among peers. What is more, when higher-status interlocutors used the same type of utterance, participants rated them as significantly more contractive than when they were used by equal-status interlocutors. This result seems to suggest that the pattern has developed two separate meaning construals that are activated depending on the communicative context. The systematic co-occurrence of *I think* with adverbs of certainty has been explained in terms of the reinforcement of the authority and expertise of the speaker (Aijmer, 2014; and Simon-Vandenberg, 2000), but also as a strategy for the speaker to undermine a strong epistemic claim (Brezina, 2009). The results observed here suggest that the different readings are to a large extent dependent on the relationship between the conversational participants. In case of a higher-status interlocutor, the combination of *I think* and a marker of certainty enforces the asymmetric relationship between the speakers, whereas the same pattern in a conversation between equals facilitates the negotiation of knowledge. The latter idea is supported by Brezina (2009), who proposes that when speakers feel obliged to justify their statements with markers of certainty, such as *must*, *certain*, *sure* or *certainly*, their main communicative goal is not to express certainty but to seek approval from the interlocutor(s) and negotiate the validity of what is said. Also, some of the adverbs used as additional contractive markers in the experiment, such as *obviously*, are more frequently used for intensification and affect than as truth-attesting markers of modal certainty (Aijmer, 2008). In fact, the relatively weak effect of *obviously* was also pointed out by some of the British participants in the post-experiment interviews. The results, therefore, provide only partial support for Hypothesis 2 and Hypothesis 3.

Hypothesis 3 also made predictions with regards to the accented *I think*, and it is supported for both prosodic patterns, when the accent is on the verb and on the pronoun. The results suggest that when a high degree of epistemic uncertainty and doubt is expressed with accent on the verb, the *I think* COMPLEMENT is considered to perform a higher-order communicative function that invites the addressee's validation of what is said. In contrast, when the speaker frames an utterance with *I think* with accent on the pronoun, it is interpreted as relatively more contractive. Kaltenböck (2008) notes that such examples change the pragmatic function of *I think*

from a downtoner to a booster where one viewpoint is contrasted to another. However, acknowledging the existence of possible alternative viewpoints does not necessarily mean that they are also going to be accepted and taken into consideration. Thus, the construction is comparable to formulations of PRONOUNCEMENT, or authorial emphasis, in APPRAISAL, where speakers acknowledge the heteroglossic diversity of the communicative situation but at the same time reduce the dialogic space for the alternative in the subsequent conversation (Martin and White, 2005: 128). Thus, speakers' intentions of how their message should be interpreted by the addressee(s) seem to be grounded in the prosodic marking of the utterance, and they alter the prosodic realisations of stance constructions in order to control and influence the course of the conversation. This clearly points to the need to extend the application of APPRAISAL theory to spoken discourse.

While the confirmatory statistical analysis for perceived openness to dialogue showed significant main effects for all three predictors, the only significant main effect for willingness to disagree was interlocutor status. Thus, the degree to which speakers are willing to disagree with their interlocutors is affected less by how the opinion is construed and more by the relation between the conversational participants. This shows that considerations of authority and power are essential to our understanding of stancetaking and how the state of mind of interlocutors might be affected by them, which once again indicates that research on stance should not be restricted to language only. In addition, the ratings for willingness to disagree were higher than those for perceived openness to dialogue. This suggests that the two scales capture two fundamentally distinct aspects of ENGAGEMENT in spoken interaction. In the post-experiment interviews, it was clear that the participants' answers to the second question were strongly affected by their outgoing personalities and readiness to challenge the ideas of their conversational participants, and less by how the message was presented to them. Thus, speakers are more willing to express their own opinion than what they perceive the interlocutor is willing to accept. The resulting dialogic tension is a consequence of the dynamic and complex interplay of stance and the socio-cultural context in which it is expressed.

6. Conclusion

The primary goal of this study was to examine the dialogic functions of first-person epistemic and evidential CTP constructions in spoken discourse and to investigate the role of linguistic and extra-linguistic factors in the interpretation of the dialogic force of these stance expressions. We used a combination of corpus and experimental tools to (i) identify correlations between linguistic and extra-linguistic factors and the dialogic function of CTP constructions in conversation, and to (ii) test the effects of three factors, interlocutor status, presence of a contractive marker and prosodic marking of the first-person CTP, in a judgment experiment.

The contributions of this study are both theoretical and methodological in nature. First, it shows that, for an accurate description of the dialogic function of ENGAGEMENT expressions in conversation, it is necessary to take the dynamic and social nature of stance into account as well as the socio-cognitive dynamic nature of meanings and functions in language use (Du Bois, 2007; and Paradis, 2015). The results of our investigation indicate that the functions of ENGAGEMENT expressions heavily rely on the interaction between linguistic and extra-linguistic factors, and first-person epistemic and evidential CTP constructions express both dialogic EXPANSION and CONTRACTION. We have adopted a dynamic usage-based approach to meaning and function in language, and demonstrated that the dialogic force of CTP constructions—or any other expressions of evaluation for that matter—can only be explored with respect to the interactional situation in which they occur. The discursive use of the constructions, then, depends on the meaning of the CTP itself, the relationship between the interlocutors, the presence or absence of other stance markers in the utterance, and the prosodic marking of the first-person CTP. While the effect of only three factors was tested in the study, other contextual factors are likely to contribute to our interpretation of the dialogic function of the stance expressions in language. One such factor is the type of information expressed in the complement clause and whether the information is an opinion or a fact. Also, the many variant forms of CTPs witnessed in the data, such as the past tense form *I thought* or the negative *I don't know*, may play a role in how the predicates are interpreted in dialogue. Second, contrary to most of the work done in APPRAISAL, this study has made use of spoken dialogic data. This has facilitated the investigation of features that are not available in written texts such as prosody. Finally, the study has made an effort to ensure a methodologically robust and replicable analysis of CTP constructions in the ENGAGEMENT system by following the annotation guidelines established in Fuoli (forthcoming) and combining both corpus and experimental methods. To the best of our knowledge, experimental methods have not been used to study APPRAISAL before, and we believe that drawing evidence from different linguistic activities considerably improves our understanding of evaluation in discourse. With this study, we hope to have shed some new light on how meanings and functions are negotiated in discourse, in particular in spoken dialogic data. We also hope that, through this work, we will encourage more research devoted to empirically testing, developing and refining the APPRAISAL framework.

Acknowledgments

We would like to thank our informants for taking part in the experiment and the participants of the 13th International Cognitive Linguistics Conference in Newcastle and of the 42nd International Systemic Functional Congress in

Aachen who took part in the pilot study. We would also like to extend our thanks to Ellen Turner for agreeing to have her voice recorded for the stimuli and Joost van de Weijer for his help with statistics. Finally, we are grateful to the Editorial Board of *Corpora* and two anonymous reviewers for their constructive comments and suggestions on the manuscript.

Appendix A

The annotation manual can be found in the form of an appendix as supplementary material to the web-based version of this paper.

Appendix B

The complete set of experimental trials can be found in the form of an appendix as supplementary material to the web-based version of this paper.

References

- Aijmer, K. 1997. 'I think—an English modal particle' in T. Swan and O.J. Westvik (eds) *Modality in Germanic Languages: Historical and Comparative Perspectives*, pp. 1–47. Berlin: Mouton de Gruyter.
- Aijmer, K. 2008. 'Modal adverbs in interaction—*obviously* and *definitely* in adolescent speech' in T. Nevalainen, I. Taavitsainen, P. Pahta and M. Korhonen (eds) *The Dynamics of Linguistic Variation: Corpus Evidence on English Past and Present*, pp. 61–83. Amsterdam: John Benjamins.
- Aijmer, K. 2014. 'Pragmatic markers' in K. Aijmer and C. Rühlemann (eds) *Corpus Pragmatics: A Handbook*, pp. 195–218. Cambridge: Cambridge University Press.
- Bakhtin, M.M. 1981. 'Discourse in the novel' in M. Holquist (ed.) *The Dialogic Imagination: Four Essays by M.M. Bakhtin* (translated by C. Emerson and M. Holquist), pp. 259–422. Austin: University of Texas Press.
- Bednarek, M. 2006. *Evaluation in Media Discourse: Analysis of a Newspaper Corpus*. London: Continuum.
- Bednarek, M. 2008. *Emotion Talk across Corpora*. Houndmills, Basingstoke: Palgrave Macmillan.
- Biber, D., S. Johansson, G. Leech, S. Conrad and E. Finegan. 1999. *Longman Grammar of Spoken and Written English*. Harlow: Longman.

- Boye, K. and P. Harder. 2007. 'Complement-taking predicates: usage and linguistic structure', *Studies in Language* 31 (3), pp. 569–606.
- Brezina, V. 2009. "'We only say we are certain when we are not'": A corpus-based study of epistemic stance' in J. Levická and R. Garabik (eds) *NLP, Corpus Linguistics, Corpus Based Grammar Research*, pp. 41–53. Brno: Tribun.
- Brinton, L.J. 1996. *Pragmatic Markers in English: Grammaticalization and Discourse Functions*. Berlin: Mouton de Gruyter.
- Brinton, L.J. 2008. *The Comment Clause in English: Syntactic Origins and Pragmatic Development*. Cambridge: Cambridge University Press.
- Carretero, M. and M. Taboada. 2014. 'Graduation within the scope of Attitude in English and Spanish consumer reviews of books and movies' in G. Thompson and L. Alba-Juez (eds) *Evaluation in Context*, pp. 221–39. Amsterdam: John Benjamins.
- Chafe, W. 1986. 'Evidentiality in English conversation and academic writing' in W. Chafe and J. Nichols (eds) *Evidentiality: The Linguistic Coding of Epistemology*, pp. 261–72. Norwood: Ablex Publishing Corporation.
- Cohen, J. 1960. 'A coefficient of agreement for nominal scales'. *Educational and Psychological Measurement*, 20 (1), pp. 37–46.
- Cruse, A. 2002. 'The construal of sense boundaries', *Revue de Sémantique et Pragmatique* 12, pp. 101–19.
- Cruttenden, A. 1986. *Intonation*. Cambridge: Cambridge University Press.
- Cruttenden, A. 1997. *Intonation*. (Second edition.) Cambridge: Cambridge University Press.
- Dehé, N. Forthcoming. 'The prosodic phrasing of parenthetical comment clauses in spontaneous spoken language: Evidence from Icelandic *held ég*', *Studia Linguistica*.
- Dehé, N. and A. Wichmann. 2010a. 'The multifunctionality of epistemic parentheticals in discourse', *Functions of Language* 17 (1), pp. 1–28.
- Dehé, N. and A. Wichmann. 2010b. 'Sentence-initial *I think (that)* and *I believe (that)*: prosodic evidence for uses as main clause, comment clause and discourse marker', *Studies in Language* 34 (1), pp. 36–74.
- Don, A. 2007. 'An approach to the analysis of textual identity through profiles of evaluative disposition' in *Proceedings of the Australian Systemic Functional Linguistics Association 2007 Conference*. Accessed 22 September 2015 at: <http://www.asfla.org.au/category/asfla2007/>
- Du Bois, J.W. 2007. 'The stance triangle' in R. Englebretson (ed.) *Stancetaking in Discourse: Subjectivity, Evaluation, Interaction*, pp. 139–82. Amsterdam: John Benjamins.

- Englebretson, R. 2007. *Stancetaking in Discourse: Subjectivity, Evaluation, Interaction*. Amsterdam: John Benjamins.
- Fuoli, M. 2012. 'Assessing social responsibility: a quantitative analysis of Appraisal in BP's and IKEA's social reports', *Discourse and Communication* 6 (1), pp. 55–81.
- Fuoli, M. Forthcoming. 'A step-wise method for annotating APPRAISAL', *Functions of Language* 25 (1). Manuscript available online at: <http://www.sol.lu.se/en/person/MatteoFuoli/>
- Fuoli, M. and C. Hommerberg. 2015. 'Optimizing transparency, reliability and replicability: annotation principles and inter-coder agreement in the quantification of evaluative expressions', *Corpora* 10 (3), pp. 315–49.
- Fuoli, M. and C. Paradis. 2014. 'A model of trust-repair discourse', *Journal of Pragmatics* 74, pp. 52–69.
- Gärdenfors, P. 2014. *Geometry of Meaning: Semantics Based on Conceptual Spaces*. Cambridge: MIT Press.
- Geeraerts, D., S. Grondelaers and P. Bakema. 1994. *The Structure of Lexical Variation: Meaning, Naming and Context*. Berlin: Mouton de Gruyter.
- Glynn, D. and J.A. Robinson (eds). 2014. *Corpus Methods for Semantics: Quantitative Studies in Polysemy and Synonymy*. Amsterdam: John Benjamins.
- Greenbaum, S. and J. Svartvik. 1990. The London–Lund Corpus of Spoken English in J. Svartvik (ed.) *The London–Lund Corpus of Spoken English: Description and Research*, pp. 11–59. Lund: Lund University Press.
- Gries, St.Th. and A. Stefanowitsch. 2004. 'Extending collocation analysis: a corpus-based perspective on "alternations"', *International Journal of Corpus Linguistics* 9 (1), pp. 97–129.
- Halliday, M.A.K. 1994. *An Introduction to Functional Grammar*. London: Edward Arnold.
- Hilpert, M. 2014. 'Collocation analysis: measuring associations between constructions and lexical elements' in D. Glynn and J.A. Robinson (eds) *Corpus Methods for Semantics: Quantitative Studies in Polysemy and Synonymy*, pp. 391–404. Amsterdam: John Benjamins.
- Hommerberg, C. and A. Don. 2015. 'Appraisal and the language of wine appreciation: a critical discussion of the potential of the Appraisal framework as a tool to analyse specialised genres', *Functions of Language* 22 (2), pp. 161–91.
- Hood, S. 2006. 'The persuasive power of prosodies: radiating values in academic writing', *Journal of English for Academic Purposes* 5 (1), pp. 37–49.

- Hood, S. and J.R. Martin. 2007. 'Invoking attitude: the play of graduation in appraising discourse' in R. Hasan and C. Matthiessen (eds) *Continuing Discourse on Language*, pp. 739–64. London: Equinox.
- Hunston, S. 2011. *Corpus Approaches to Evaluation: Phraseology and Evaluative Language*. New York: Routledge.
- Hunston, S. and G. Thompson. 2000. *Evaluation in Text: Authorial Stance and the Construction of Discourse*. Oxford: Oxford University Press.
- Israel, M. 2004. 'The pragmatics of polarity' in L. Horn and G. Ward (eds) *The Handbook of Pragmatics*, pp. 701–23. Oxford: Blackwell.
- Kaltenbacher, M. 2006. 'Culture related linguistic differences in tourist websites: the emotive and the factual—a corpus analysis within the framework of Appraisal' in G. Thompson and S. Hunston (eds) *System and Corpus-Exploring Connections*, pp. 269–92. London: Equinox.
- Kaltenböck, G. 2008. 'Prosody and function of English comment clauses', *Folia Linguistica* 42 (1), pp. 83–134.
- Kaltenböck, G. 2009. 'English comment clauses: position, prosody, and scope', *Arbeiten aus Anglistik und Amerikanistik* 34 (1), pp. 49–75.
- Kaltenböck, G. 2013. 'The development of comment clauses' in B. Aarts, J. Close, G. Leech and S. Wallis (eds) *The Verb Phrase in English: Investigating Recent Language Change with Corpora*, pp. 286–317. Cambridge: Cambridge University Press.
- Kärkkäinen, E. 2003. *Epistemic Stance in English Conversation: A Description of its Interactional Functions, with a Focus on I Think*. Amsterdam: John Benjamins.
- Krippendorff, K. 2004. *Content Analysis: An Introduction to its Methodology*. Thousand Oaks: Sage.
- Landis, J. and G. Koch. 1977. 'The measurement of observer agreement for categorical data', *Biometrics* 33 (1), pp. 159–74.
- Linell, P. 2009. *Rethinking Language, Mind, and World Dialogically: Interactional and Contextual Theories of Human Sense-Making*. Charlotte: Information Age Publishing.
- Lipovsky, C. 2008. 'Constructing affiliation and solidarity in job interviews', *Discourse and Communication* 2 (4), pp. 411–32.
- Lipovsky, C. 2011. "'It's really a great presentation!": appraising candidates in job interviews', *Linguistics and the Human Sciences* 4 (2), pp. 161–85.
- Lipovsky, C. 2013. 'Negotiating one's expertise through appraisal in CVs', *Linguistics and the Human Sciences* 8 (3), pp. 307–33.
- Lyons, J. 1977. *Semantics*. Cambridge: Cambridge University Press.

- Mackay, J. and J. Parkinson. 2009. 'My very own mission impossible: an APPRAISAL analysis of student teacher reflections on a design and technology project', *Text and Talk* 29 (6), pp. 729–53.
- Marková, I., P. Linell, M. Grossen and A.S. Orvig. 2007. *Dialogue in Focus Groups: Exploring Socially Shared Knowledge*. Cambridge: Cambridge University Press.
- Martin, J. and P. White. 2005. *The Language of Evaluation: Appraisal in English*. London: Palgrave Macmillan.
- Nuyts, J. 2001. *Epistemic Modality, Language, and Conceptualization: A Cognitive–Pragmatic Perspective*. Amsterdam: John Benjamins.
- O'Donnell, M. 2014. 'Exploring identity through appraisal analysis: a corpus annotation methodology', *Linguistics and the Human Sciences* 9 (1), pp. 95–116.
- Palmer, F.R. 1986. *Mood and Modality*. Cambridge: Cambridge University Press.
- Paradis, C. 1997. *Degree Modifiers of Adjectives in Spoken British English*. Lund: Lund University Press.
- Paradis, C. 2003. 'Between epistemic modality and degree: the case of *really*' in R. Facchinetti, F. Palmer and M. Krug (eds) *Modality in Contemporary English*, pp. 197–220. Berlin: Mouton de Gruyter.
- Paradis, C. 2015. 'Meanings of words: theory and application' in U. Hass and P. Storjohann (eds) *Handbuch Wort und Wortschatz (Handbücher Sprachwissen-HSW Band 3)*, pp. 274–94. Berlin: Mouton de Gruyter.
- Paradis, C., J. van de Weijer, C. Willners and M. Lindgren. 2012. 'Evaluative polarity of antonyms', *Lingue e Linguaggio* 11 (2), pp. 199–214.
- Pichler, H. 2009. 'The functional and social reality of discourse variables in a northern English dialect: I DON'T KNOW and I DON'T THINK compared', *Intercultural Pragmatics* 6 (4), pp. 561–96.
- Pounds, G. 2010. 'Attitude and subjectivity in Italian and British hard-news reporting: the construction of a culture-specific reporter voice', *Discourse Studies* 12 (1), pp. 106–37.
- Pounds, G. 2011. "'This property offers much character and charm": Evaluation in the discourse of online property advertising', *Text and Talk* 31 (2), pp. 195–220.
- Read, J. and J. Carroll. 2012. 'Annotating expressions of appraisal in English', *Language Resources and Evaluation* 46 (3), pp. 421–47.
- Ryshina-Pankova, M. 2014. 'Exploring argumentation in course-related blogs through ENGAGEMENT' in G. Thompson and L. Alba-Juez (eds) *Evaluation in Context*, pp. 281–302. Amsterdam: John Benjamins.
- Santamaría-García, C. 2014. 'Evaluative discourse and politeness in university students' communication through social networking sites'

- in G. Thompson and L. Alba-Juez (eds) *Evaluation in Context*, pp. 387–411. Amsterdam: Johns Benjamins.
- Simon-Vandenberg, A.-M. 2000. 'The functions of *I think* in political discourse', *Journal of Applied Linguistics* 10 (1), pp. 41–63.
- Simon-Vandenberg, A.-M. and K. Aijmer. 2007. 'The discourse functionality of adjectival and adverbial epistemic expressions: evidence from present-day English' in C. S. Butler, R.H. Downing and J. Lavid (eds) *Functional Perspectives on Grammar and Discourse: In Honour of Angela Downing*, pp. 419–46. Amsterdam: John Benjamins.
- Stubbs, M. 1986. 'A matter of prolonged field work: Notes toward a modal grammar of English', *Applied Linguistics* 7 (1), pp. 1–25.
- Taboada, M. and M. Carretero. 2012. 'Contrastive analyses of evaluation in text: key issues in the design of an annotation system for attitude applicable to consumer reviews in English and Spanish', *Linguistics and the Human Sciences* 6 (1–3), pp. 275–95.
- Taboada, M., M. Carretero and J. Hinnell. 2014. 'Loving and hating the movies in English, German and Spanish', *Languages in Contrast* 14 (1), pp. 127–61.
- Thompson, G. and L. Alba-Juez. 2014. *Evaluation in Context*. Amsterdam: John Benjamins.
- Thompson, S.A. and A.J. Mulac. 1991. 'A quantitative perspective on the grammaticalization of epistemic parentheticals in English' in E.C. Traugott and B. Heine (eds) *Grammaticalization II*, pp. 313–39. Amsterdam: John Benjamins.
- Tseronis, A. 2009. *Qualifying Standpoints: Stance Adverbs as a Presentational Device for Managing the Burden of Proof*. Unpublished PhD thesis, Leiden University.
- Voloshinov, V.N. 1986 [1973]. *Marxism and the Philosophy of Language*. (Translated by L. Matejka and I.R. Titunik.) Cambridge: Harvard University Press.
- Van Bogaert, J. 2009. *The Grammar of Complement-Taking Predicate Constructions in Present-Day Spoken British English*. Unpublished PhD thesis. Ghent University.
- Van Bogaert, J. 2010. 'A constructional taxonomy of *I think* and related expressions: accounting for the variability of complement-taking mental predicates', *English Language and Linguistics* 14, pp. 399–427.
- White, P. 1998. *Telling Media Tales: The News Story As Rhetoric*. Unpublished PhD thesis. University of Technology, Sydney.

- White, P. 2003. 'Beyond modality and hedging: a dialogic view of the language of intersubjective stance', *Text-Interdisciplinary Journal for the Study of Discourse* 23 (2), pp. 259–84.
- White, P. 2012. 'Exploring the axiological workings of 'reporter voice' news stories – attribution and attitudinal positioning', *Discourse, Context and Media* 1 (2–3), pp. 57–67.