Metadiscourse: What is it and where is it going?

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Abstract

Metadiscourse – the ways in which writers and speakers interact through their use of language with readers and listeners – is a widely used term in current discourse analysis, pragmatics and language teaching. This interest has grown up over the past 40 years driven by a dual purpose. The first is a desire to understand the relationship between language and its contexts of use. That is, how individuals use language to orient to and interpret particular communicative situations, and especially how they draw on their understandings of these to make their intended meanings clear to their interlocutors. The second is to employ this knowledge in the service of language and literacy education. But while many researchers and teachers find it to be a conceptually rich and analytically powerful idea, it is not without difficulties of definition, categorisation and analysis. In this paper I explore the strengths and shortcomings of the concept and map its influence and directions through a state of the art analysis of the main online academic databases and current published research.
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1. Introduction

Metadiscourse is the commentary on a text made by its producer in the course of speaking or writing and it is a widely used term in current discourse analysis and language teaching. In fact, it is perhaps now one of the most commonly employed methods for approaching specialist written texts, so that a simple *Google* search produces over 154,000 hits, Google Scholar returns some 185,000 documents containing the term and the *Web of Science* encompasses over 270 papers on the topic. It has become one of the main ways that interaction is studied in academic writing and there are hundreds of articles and postgraduate dissertations completed each year which use it. Metadiscourse, then, is a concept which seems to have found its time, yet despite this popularity, it is a hard term to pin down and is often understood in different ways. In addition, like many terms which emerge and quickly attract a wide following, it has grown without any clear idea of its general development, contribution to discourse studies or overall direction and as a result it is difficult to judge its impact or the areas where it is having most effect.

In this paper I attempt to untangle some of the conceptual difficulties of the term and track its development. I first offer a brief critical overview of its main distinctions, assumptions and classifications and argue for an interactive model of metadiscourse. I then go on to provide a bibliometric map of its trajectory in terms of patterns of publication in the main research databases and the topics and keywords most frequently associated with the term in those publications. Finally, I explore the main themes which have been followed in the metadiscourse research and the directions in which it seem to

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be going. While perhaps an unconventional paper for this journal, I hope these methods clarify the term, document its main areas of focus and indicate its current strengths, limitations and directions.

2. Background and preliminaries

Originally introduced by the structural linguist Zelig Harris (1959), the term only gained traction in applied linguistics in the mid-1980s with the work of Vande Kopple (1985), Crismore (1989) and Williams (1981). At the heart of the idea is the view that language not only refers to the world, concerned with exchanging information of various kinds, but also to itself: with material which helps readers to organise, interpret and evaluate what is being said. This view connects metadiscourse to deeper roots in scholarship such as Jacobson's (1980) 'metalinguistic function' of language, which refers to language which focuses on the text itself, and Halliday's (1985:271) 'metaphenomena' which are ''categories of the language, not of the real world''.

In this way, metadiscourse is related to, and often confused with, terms such as *metalanguage* and *metapragmatics*, although it differs from both. Essentially *metalanguage* concerns people's knowledge about language and representations of language, so it is the terms used by teachers, learners and analysts to make statements about an 'object' language. It is a resource to talk about and reflect on language itself and is therefore a staple of such areas as language teaching, stylistics, language attitudes and folk linguistics. Because metalanguage allows us to analyse and convey ideas about what language is, it also has an ideological dimension, enabling statements to be made about what it ought to be (e.g. Jaworski et al., 2004). *Metapragmatics* on the other hand, is concerned with speakers' judgments of appropriateness of communicative behaviour, both their own and that of others. The metapragmatic dimension of language therefore allows the competent language user to both monitor his or her ongoing interaction and to talk about this ability (Caffi, 2006). Clearly the second concept is closer to metadiscourse than the first as it concerns the appropriate use of linguistic devices by the speaker to manage self-impressions and maintain interpersonal alignment.

However, while metadiscourse embraces these discourse monitoring and interactive functions, it differs from metapragmatics. Significantly, its proponents tend to focus on written rather than spoken texts and to prefer corpus methods rather than ethnographic inquiry, interactional sociolinguistics or conversational analysis (e.g. Bublitz and Hübler, 2007). Moreover, metadiscourse analysis has largely focused on specialised varieties of language, rather than general conversational competencies, and to expand analyses beyond the ways participant role relationships are negotiated to the persuasive structuring of discourse, looking at the contribution of cohesive features to writer–reader understandings. Perhaps the most significant difference, however, is the almost exclusive concern with explicit linguistic devices as functional markers, neglecting more indirect signals, so we see little analysis of pragmatic concepts such as presupposition or violations of cooperative maxims in metadiscourse studies.

Essentially metadiscourse refers to how we use language out of consideration for our readers or hearers based on our estimation of how best we can help them process and comprehend what we are saying. It is a recipient design filter which helps to spell out how we intend a message to be understood by offering a running commentary on it. This is important as drawing attention to the text in this way reveals a writer's awareness of the reader and the type and extent of his or her need for elaboration, clarification, guidance and interaction. In turn, because the successful management of these local rhetorical resources helps achieve immediate social and communicative objectives, such reader assessments also reveal something of how the writer/speaker understands the community being addressed (Hyland, 2005). Metadiscourse thus suggests a familiarity with an audience and so connects texts with contexts. It points to the routine, almost automatic, use of conventions which are developed through participation and linked to familiar situations and relationships which tie us into webs of common sense, interests and shared meanings. The fact that metadiscourse choices index a social and rhetorical context in this way means that the concept has been enthusiastically taken up by researchers seeking to characterise a range of genres, languages, modes and proficiencies.

3. Problems and workarounds

So far, so good. There is little in this overview that most metadiscourse analysts would disagree with. It acknowledges that metadiscourse sets out to capture something of the interactive character of communication, it recognises a distinction between propositional and reader-oriented material and it suggests that these features are context dependent and differ across genres and languages. Here, however, the broad consensus ends as there is little agreement on where we should draw the boundary of metadiscourse or what rhetorical categories it includes. Only part of this disagreement stems from divergent perspectives on metadiscourse, however, as the concept itself offers considerable opportunities for multiple interpretations.

Essentially, metadiscourse is a fuzzy category, most importantly in the sense of what it is. For there to be something called *metadiscourse* there needs to be something which is *not* metadiscourse, and this is generally posited to be

propositional content. Propositional material is what is talked *about*: what can be affirmed, denied, doubted, insisted upon, qualified, regretted, and so on. Metadiscourse, on the other hand, is what signals the presence of a text-organising and content-evaluating author rather than the subject matter (Vande Kopple, 1985; Crismore et al., 1993). The meaning of a text is the result of these two elements working together: an integration of talk about the experiential world and how this is made coherent, intelligible and persuasive to a particular audience (Hyland and Tse, 2004). It is this integration, for example, that allows conference presentations to be rewritten as popularisations, textbook chapters, blogs, research articles or grant proposals for different purposes and audiences but with recognisably similar content.

However, while this distinction is a necessary starting point to delimit a space for metadiscourse, it is difficult to apply in practice. Metadiscourse is what helps relate a text to its context by using language to take readers' needs, understandings, existing knowledge and prior experiences with texts into account and a stretch of discourse may realise both functions. A text might be an example of 'phatic communion', for instance, where the 'content' of a text is the writer–reader relationship itself. Equally, items often identified as metadiscoursal, such as *therefore, in contrast* and *as a result of*, can function in different ways. They can act as metadiscourse by connecting steps in an argument or work 'propositionally' to connect events in the world outside the text. Metadiscourse research therefore tends to sidestep a rigid distinction and instead look for rhetorical functions which writers and speakers use to talk about their own talk (Sanderson, 2008) or to shape propositional information with their evaluations of it (Ädel, 2006; Hyland, 2005).

A second aspect of fuzziness in the concept results from the fact that metadiscourse can be realised in a variety of ways and by units of varied length, from individual words to whole clauses or sentences. The size of the linguistic unit is important as longer units might encompass smaller units, so that '*Our conclusion*' could be categorised as an example of a frame marker/code-oriented metadiscourse signalling an upcoming text segment, or as two units with 'our' coded as self mention/personal metadiscourse. Identifying individual cases is therefore difficult and, indeed, can vary from one analyst to another. Ädel and Mauranen (2010), for example, argue that researchers seeking to compare different languages or genres often employ corpus-based approaches based on predefined sets of lexical items, such as *however* (a connective) and *possible* (a hedge), and this approach limits them to a ''heavy reliance on linguistic form coupled with the assumption that the overall function of each form searched for will not vary'' (Ädel and Mauranen, 2010:3). They compare this quantitative method unfavourably with their own 'qualitative' approach, which also seems to involve counting features, but which sees the metadiscursive unit as larger than the search term (e.g. *we would like to suggest; it is possible that*).

While this is an interesting distinction, it is not a decisive one as identifying the smaller units does not miss the longer ones, and nor does it misrepresent the extent of metadiscourse in a text as long as analysts are transparent in their judgements and consistent in their coding. Moreover, the criticism regarding an overemphasis on form is based on an erroneous assumption that corpus studies not only give priority to surface features but make the formal realisation rather than the discourse function the object of analysis. It is true that corpus studies may *begin* with lists of potential metadiscourse items, but these are merely a starting point for analysis, indicating high frequency items that commonly function as metadiscourse in a particular register. The list merely suggests an opening explorations before additional items are added on subsequent sweeps through the corpus. The fact that metadiscourse is a pragmatic category also means that all items should be examined in their sentential contexts to ensure they are performing metadiscourse functions: reading concordance lines is more important than recording frequency counts and, unfortunately, this is sometimes forgotten.

A third aspect of fuzziness, and related to the above, is that the formal heterogeneity of metadiscourse means that functions may be performed in different ways or individual items may perform more than one function simultaneously. One point to make here is that not all metadiscourse will be accessible to the analyst as communities have their own insider understandings of particular terms which carry insider meanings (Hyland, 2005). More generally, however, the same forms can convey different categories of metadiscourse, so that *quite* can be a hedge (*quite good*) or a booster (*quite extraordinary*), for example, or the word *possible* may function as metadiscourse by hedging a statement or drawing an inference expressing the speaker's attitude (*it's possible that he was drunk*) or as referring to a likelihood in the real world (*it's possible to catch a bus here*). Similarly, forms which realise particular functions, such as those which label concessive connections between statements, for instance, can be expressed in numerous ways (*even if, of course, admittedly, although*, etc.). While this kind of category overlap is well known in discourse analysis, and perhaps a consequence of the multi-functionality of language itself, metadiscourse underlines rather than resolves the problem of polypragmatic meanings.

This heterogeneity demands that researchers must employ discourse-analytic methodologies which involve the contextual checking of potential metadiscourse items. Most studies start by positing categories of metadiscourse, such as 'references to the text' (Mauranen, 1993), 'anticipating the reader's reaction' (Ädel, 2006) or 'endophoric markers' (Hyland, 2005), and then populate these categories with items which might potentially realise them (e.g. *in this paper*, *this may sound odd*, *see figure 2*). In some cases, these forms are solely determined by the researcher's intuitions while in others they are based on sweeps of the corpus to discover unexpected realisations, such as 'metadiscourse nouns' (Jiang and Hyland, 2016). The next step is often to conduct a search for these features in a corpus of texts and because some

candidate features are likely to occur only infrequently, relatively large corpus samples are needed to say anything meaningful about the texts being studied and ensure conclusions will be relatively generalisable. Each candidate item then needs to be examined in context to ensure that it is functioning as metadiscourse. Once this more quantitative operation is complete, the task of analysing lexico-grammatical co-occurrence patterns, distributions and discourse functions can begin.

The process of manually excluding irrelevant instances is essential, as noted above, to avoid making superficial assumptions of form-function correspondence and to exclude extraneous examples. However as I have noted, this step is not always observed, so what is counted is *forms* rather than forms acting in the service of *rhetorical objectives*. Such methodological missteps not only result in over-estimating the frequency of metadiscourse, and therefore weakening the results of a study, but also undermine the concept itself. It is also important to recognise that metadiscourse is often realised by signals which can stretch to clause or sentence length so that frequency counts do not convey the overall amount of metadiscourse in a corpus, but simply compare different patterns of *occurrence* of metadiscourse in corpora of unequal sizes. In sum, metadiscourse is not simply a quantitative method of hunting down and counting features on a pre-defined list. To have any descriptive and explanatory power at all metadiscourse must be a rhetorical and pragmatic, rather than a formal, property of texts.

A fourth problem associated with the term, and one I have skirted around until now, concerns what metadiscourse actually does in a text. Most generally, metadiscourse is the author's rhetorical manifestation in the text to ''bracket the discourse organisation and the expressive implications of what is being said'' (Schiffrin, 1980:231). This deceptively simple definition, however, is understood in various ways. Some restrict the term to what the author has to say about the unfolding text by self-referential acts such as labelling text stages, previewing upcoming material, and making connections explicit. Others include in their analyses how writers and speakers react to what they are saying; the ways they intervene to offer affective or epistemic comment on propositional information or establish a connection with readers.

4. A continuum of metadiscourse

These different views are often presented as a dichotomy between a narrow text-centred view and a broad interpersonal one (e.g. Mauranen, 1993). However, this characterisation leads to troubling evaluative comparisons where one is set against the other (e.g. Ädel and Mauranen, 2010). More importantly, however, it is a view which fails to capture a more nuanced picture. Conceptions of metadiscourse, and individual studies themselves, are more usefully seen as contributing different aspects to our understanding of discourse and as occupying different points on a cline rather than two opposed positions.

At one end of the continuum researchers believe we should reserve the term metadiscourse to refer only to features of textual organisation. Describing this as *metatext* or *text reflexivity* (Mauranen, 1993), this involves focusing only on those elements of discourse which refer to the text itself, signalling its direction, purpose and internal structure so only expressions such as '*I want to make two points*' or '*this will be discussed in the next chapter*' are included. This view attempts to clarify and sharpen the concept by simplifying it to its bare-bones of text-referential matter. It not only avoids more complex definitional problems but has also been productive in revealing the preferences of different language groups. Thus American students seem to use far more metatext than Finns (Mauranen, 1993) and English and Norwegian writers use more than French writers (Dahl, 2004).

Further along the continuum, we find theories and studies which extend this 'reflexive' view of metadiscourse to include how writers refer to themselves, their readers and their texts. Ädel (2006:20), for example, states that while the ''basic discourse functions of metadiscourse are to guide the reader through the text and to comment on the use of language in the text'', it also includes references to the writer of the text and to the imagined reader of the text, labelled 'writer-oriented' and 'reader-oriented' respectively. This recognition of metadiscourse as formed by features addressing writer presence, text presentation and reader guidance has been taken up by Zhang (2016) to study register variation in the press, general prose, academic prose and fiction and by Salas (2015) to compare metadiscourse in research articles from three disciplines written in Spanish.

Although Ädel refers to her position as 'reflexive', the inclusion of authorial self-reference and relational markers like inclusive 'we' pushes metadiscourse away from a purely metatextual understanding. Also positioned along the cline are alternative conceptions of the term, such as that proposed by Beauvais (1989) to limit metadiscourse to explicit illocutionary predicates or Ifantidou's (2005) reformulation based on a relevance framework. We can also identify on this cline studies which subscribe to a broader definition but focus selectively on a limited range of features, such as code glosses (Hyland, 2007) or interactional features (Gillaerts and Van de Velde, 2010).

At the other end of the cline, analysts see a writer or speaker's commentary on his or her unfolding text as representing a coherent set of interpersonal options which includes text organising material together with the ways speakers and writers project themselves into their discourse to signal their understandings of the material and their audience. This

appears to be a natural and logical extension of a concept which seeks to collect together the linguistic devices speakers and writers use to shape their messages for particular listeners or readers. Here metadiscourse is understood as a coherent set of interpersonal resources used to organise a discourse or the writer's stance towards either its content or the reader. It is an umbrella term for a heterogeneous array of features which assist readers not only to connect and organise material but also to interpret it in a way preferred by the writer and with regard to the understandings and values of a particular discourse community.

5. An interpersonal model

At this end of the cline, then, metadiscourse seeks to capture something of the interactive character of communication, as suggested by Hyland's (2005) adaptation of Thompson's (2001) distinction between interactive and interactional resources. While not concerned with metadiscourse, Thompson used *interactive* to refer to the writer's management of the information flow to guide readers through a text and *interactional* to refer to his or her interventions to comment on material. These macro-purposes are realised through a heterogeneous array of features as shown in Table 1.

This distinction seeks to recognise the interpersonal character of metadiscourse while rejecting an earlier model which, misinterpreting Halliday (1994), sought to unpick the essential metafunctional unity of the clause into discrete functions (e. g. Crismore et al., 1993). For Halliday, textual, interpersonal and ideational functions are realised simultaneously in a clause and not split up into different segments of texts. Equally, this model recognises that textual resources do not constitute a neatly separable set which can be clearly distinguished from either propositional or interpersonal aspects. The textual function is intrinsic to language and has an *enabling* role which allows us to construe both propositional and interpersonal aspects into a linear and comprehensible whole; it is not something that works independently of the other functions.

Here interactive and interactional elements are two sides of the same coin, so that metadiscourse becomes a coherent set of options which draw on both organisational and evaluative features. Some researchers feel that this broad interpretation weakens the term by trying to include too much, labelling it ''the thin approach'' (Ädel and Mauranen, 2010:2); others have taken it up enthusiastically as a systematic way of characterising the interactional dimensions of discourse. What is clear, however, is metadiscourse cannot be restricted to text organising elements in any principled way. Even Mauranen's (1993) reflexive model includes a category that looks outside the text to how writers address their readers. Put simply, the use of discourse to manage social relationships is as important as, and probably inseparable from, its role in managing the organisation of texts. A text communicates effectively only when the writer has correctly assessed both the reader's resources for interpreting it and his or her likely response to it and we cannot fully comprehend this process by arbitrarily excluding a whole area of relevant rhetorical activity.

The interpersonal model, then, offers a dynamic and inclusive view of metadiscourse based on the idea that we monitor our production as we speak or write, often unconsciously, by making decisions about the kind of effects we are having on our listeners or readers. A finished text is an outcome of this awareness of the reader. In this extract from a dog-walkers' guide, for instance, the writer is not simply presenting the route by listing changes of direction, but taking the trouble to see the walk from the reader's perspective:

Table 1
A model of metadiscourse in academic texts (Hyland, 2005).

Category	Function	Examples
Interactive resources	Help to guide reader through the text	
Transitions	Express semantic relation between main clauses	in addition / but / thus / and
Frame markers	Refer to discourse acts, sequences, or text stages	finally / to conclude / my purpose is
Endophoric mrkrs	Refer to information in other parts of the text	noted above / see Fig / in section 2
Evidentials	Refer to source of information from other texts	according to X / (Y, 1990) / Z states
Code glosses	Help readers grasp meanings of ideational material	namely / e.g. / such as / in other words
Interactional resources	Involve the reader in the argument	
Hedges	Withhold writer's full commitment to proposition	might / perhaps / possible / about
Boosters	Emphasise force or writer's certainty in proposition	in fact / definitely / it is clear that
Attitude markers	Express writer's attitude to proposition	unfortunately / I agree / surprisingly
Engagement mrkrs	Explicitly refer to or build relationship with reader	consider / note that / you can see that
Self mentions	Explicit reference to author(s)	I / we / my / our

Walk up the main street of the village, then turn up the road opposite Quaintways tea room. Turn right at a public footpath sign and cross a stile. There are great views of Penshurst Place almost immediately and it's well worth a taking a photo. The house dates back to 1341 and the Great Hall is a fabulous example of medieval architecture. The gardens are worth a visit but you have to leave your dog in the car. . . . Now walk to a squeeze gate, cross the road, then go through another squeeze gate.

(AA Dog Walks http://www.theaa.com/walks/)

Through imperatives, second person pronouns, and evaluative commentary the writer involves himself in the text to both convey information more clearly and to engage the reader as a fellow walker and dog owner. Without these metadiscourse features the text would be less personal, less interesting, and less easy to follow.

Thus "metadiscourse embodies the idea that communication is more than just the exchange of information, goods or services, but also involves the personalities, attitudes and assumptions of those who are communicating" (Hyland, 2005:3). By looking at these features systematically metadiscourse provides us with access to the ways individuals take up positions and align themselves with others.

6. Patterns of publication

Despite these different interpretations, metadiscourse offers a rich understanding of discourse and its creation in different contexts. For this reason there has been a steady increase in research using the concept. While it is difficult to track this change with complete accuracy, one measure is the number of publications recorded by the major academic databases: *Web of Science*, *Scopus* and *Google Scholar*. *Web of Science* (WoS) is an interdisciplinary source which gives access to multiple databases covering the peer reviewed literature of over 8000 titles while *Scopus* covers 22,000 peer reviewed titles from over 5000 publishers. Unlike the other two *Google Scholar* is not a human-curated database composed of material selected for inclusion by real people according to scholarly criteria, but a search engine of the whole internet which narrows the results based on machine automated matching criteria.

While *WoS and Scopus* are considered more discriminating about the quality of the material they include, *Google Scholar* harvests content from more varied sources and includes genres such as conference proceedings, books, and reports, that are not included in *Web of Science* or *Scopus* (e.g. Falagas et al., 2008; Mikki, 2009). These differences account for variations in the results they provide, so a search on "metadiscourse" in titles, keywords and abstracts returns 275 papers in *Web of Science* and 306 in *Scopus*. In *Google Scholar* searches automatically hunt through entire texts, producing over 17,500 hits, although this is reduced to 777 when the search is restricted to document titles only. The figures from all three sources certainly under-represent interest in the phenomenon, not least because they ignore material which focuses on particular categories of metadiscourse.

Together, however, these sources indicate something of the widespread interest in the topic. Fig. 1 shows that research output on metadiscourse has increased considerably since about 2004, and continues to rise (2016 data
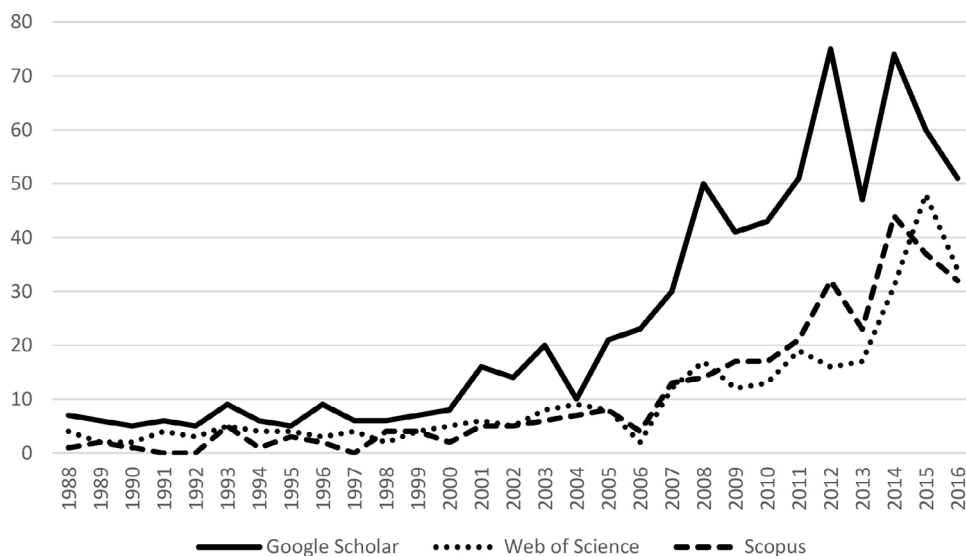

Fig. 1. Publication of metadiscourse work on *Google Scholar*, *Scopus* and *Web of Science* 1988–2016.

Table 2

Sources of metadiscourse work in three databases.

Type	WoS	Scopus	Google Scholar
Research articles	231	254	486
Proceedings / conference papers	31	15	72
Review articles	11	21	0
Books	0	0	13
Chapters	0	17	75
Dissertations / theses	0	0	92
Totals	273	307	743

Table 3

Papers on metadiscourse and citations to these in three databases.

Database	Papers	Citations	Citations per paper
Web of Science	273	1309	4.8
Scopus	306	2247	7.3
Google Scholar (top 200)	200	10,401	52.0

continues to be added in 2017). This resurgence may be due to the publication of two influential books (by Hyland, 2005 and Ädel, 2006) at that time.

The source of papers, following general publishing patterns, are overwhelmingly from the USA (25% in *Scopus* and 30% in *WoS*) with Spain, England, Iran and China comprising another 30%. The wide geographical interest in metadiscourse, however is indicated by the fact that *Scopus* includes peer reviewed papers originating in 46 different countries. These are, given the collection practices of the databases, mainly written in English although the more eclectic *Google Scholar* shows 9% written in Farsi, 5% in Chinese and 4% in Spanish.

Metadiscourse research also appears in a range of different formats, and while *Scopus* and *WoS* privilege research articles, *Google Scholar* suggests that the concept is contributing to scholarly activity more generally. Table 2 shows that 35% of the material collected by GS comprises conference papers, books, chapters and post-graduate dissertations. At the peer reviewed, Science Citation Indexed, end of the publishing spectrum *Scopus* lists 138 journals which have published work on metadiscourse, including such exotic venues as *Revue De Metaphysique Et De Morale* and *Poetics Today*. The top ten journals contain 30% of papers on the topic, however, with *Journal of Pragmatics* having published the most (22) followed by *English For Specific Purposes* (12), *JEAP* (11) and *Discourse Studies* (10).

A final measure of the influence of metadiscourse on academic research is the extent to which it encourages and supports other research. Most importantly, a paper is judged as a contribution to a particular field by colleagues who are able to make use of that contribution, citing it in their own work and developing it further. So citation, in the metrics-driven political-economy of academic life, is the default measure of impact, with influence counted in the 'hits', 'downloads' or citations a paper receives. Table 3 shows the healthy state of metadiscourse through the citations it receives. This includes those collected by *Web of Science* and *Scopus* from prestigious journals in the Science Citation Index together with the top 200 most cited sources gathered by *Google Scholar*.

Overall, this data points to a metadiscourse as a highly influential and productive concept in the study of spoken and written texts. The quantitative analysis of the three leading academic databases show that the topic has not only generated a large number of publications, conference presentations and student dissertations, but that these have been written by scholars from around the world and are highly cited. The growth of these citations, as shown in Fig. 2 for work in *WoS* and *Scopus* for example, suggests that metadiscourse remains highly topical and continues to provide researchers with a rich strain of productive ideas. In the next section I turn to the topics that writers are addressing.

7. Topics and keywords

One indication of the productivity of a concept is the range of areas to which it contributes. To trace these areas I first conducted an analysis of 139 papers on the *Web of Science* which included 'metadiscourse' among their keywords using the visualising analysis programme *CiteSpace* (Chen, 2014). This tool uses various techniques and algorithms to visualise information from the research literature, automatically generating keywords, or high frequency items which are likely to be significant when understanding the target item. These keywords, then, are not determined by the researcher
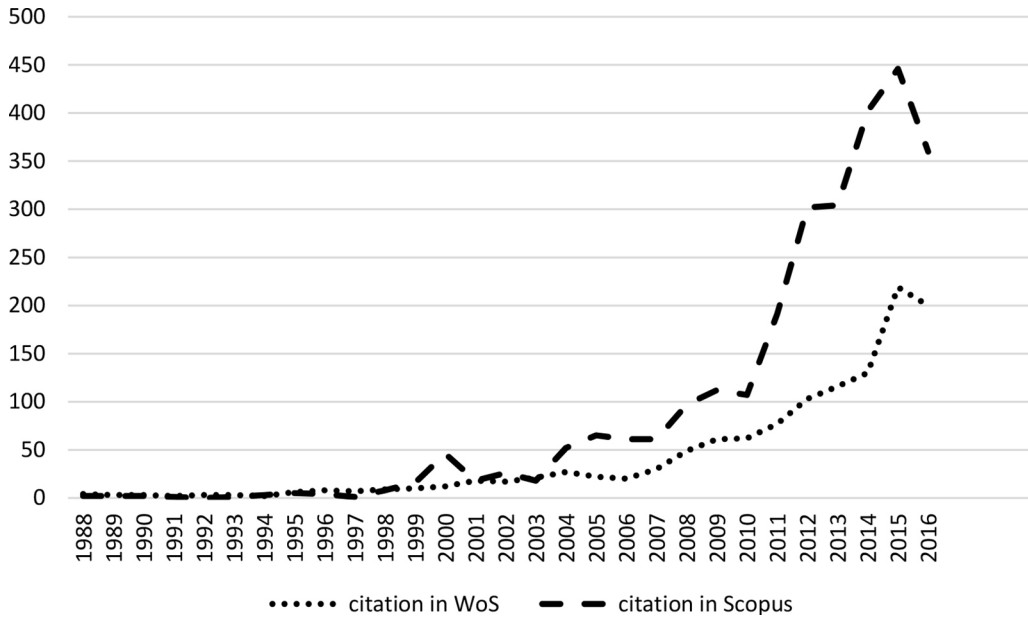
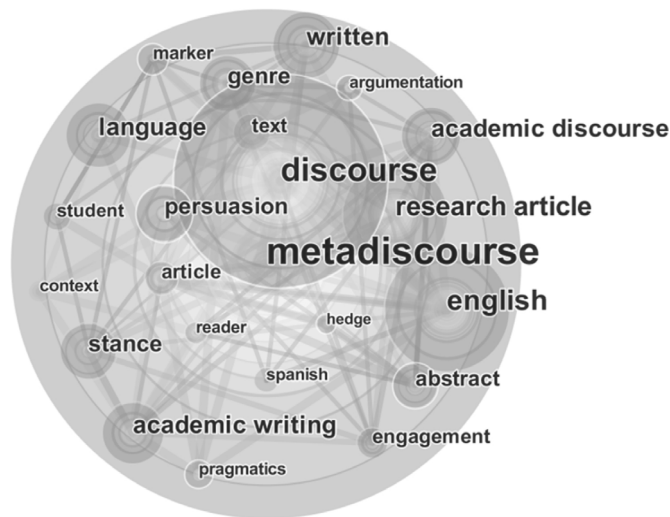Fig. 2. Citations to metadiscourse publications in *WoS* and *Scopus* over time.

Fig. 3. The most commonly co-occurring keywords occurring with 'metadiscourse'; in WoS.

Table 4
Most frequent 30 words in the titles of the metadiscourse work in *Google Scholar*.

English	177	Writing	95	Academic	87	Analysis	86	Research	85
Markers	82	Articles	79	Use	61	EFL	52	Interactional	49
Texts	47	Learners	45	Contrastive	44	Discourse	40	Based	39
Non-native	39	Students	37	Persian	36	Written	35	Interpersonal	34
Corpus	34	Comparative	33	Chinese	30	Comprehension	28	Abstracts	25
Reading	25	Interaction	23	Iranian	23	Writers	23	Rhetorical	22
Teaching	22	Essays	19	Role	19	University	22	Spanish	18

Table 5
Most significant 5 clusters of keyword associations in *WoS* metadiscourse papers.

Cluster	No. of papers	Homogeneity[a]	Items
1	48	0.637	Research article; academic writing; academic discourse
2	41	0.693	Personal pronoun; writing proficiency
3	28	0.791	University lecture; disciplinary interaction; academic culture
4	26	0.831	Social norm; contextualization cue; linguistic politeness
5	11	0.906	Discourse marker; metapragmatic marker; pragmatic act

[a] CiteSpace uses the more opaque term ''Silhouette'' to measure the quality of a clustering configuration. Its value ranges between −1 and 1. The higher the silhouette score, the more consistent the cluster members are.

but objectively calculated by the programme using a statistical test of word frequencies against a much larger corpus rather. This keyword analysis therefore reveals hot research topics in the metadiscourse literature. Fig. 3 represents the keywords mentioned together with metadiscourse in these papers. This shows that academic genres in English, particularly research articles and abstracts are the primary areas of interest with attention given to interactional elements of the interpersonal model with stance, evaluation, engagement and persuasion prominent. The keyword *language* points to a strong interest in comparative studies of research articles contrasting English with other languages or texts written in English by speakers of other languages.

The much larger corpus of work indexed by *Google Scholar* shows a similar leaning towards the interactional features of academic writing in English research articles and abstracts. Although restricted to words in the titles only, we can see in Table 4 that there is a wider range of themes pursued, with *EFL*, *non-native*, *university*, *essays*, *students* and *teaching* indicating considerable interest in the role metadiscourse plays in the work of English as a second language students, and *contrastive*, *comparative*, *Persian*, *Chinese* and *Spanish* pointing once again to comparisons of metadiscourse across languages. The 22 PhD theses on metadiscourse on *Google Scholar* reflect these same concerns of academic writing and comparisons between native and non-native texts.

Returning to the most central themes, *CiteSpace* generates clusters of the most regularly co-occurring keywords, together with a numerical measure of the strength of the bond between the items in them. Table 5 shows the largest clusters from the 275 metadiscourse sources on *WoS*. The largest cluster, comprising 48 papers, relates to research articles while the second concerns self-mention and student writing and the third variation across lectures in different disciplines. The smaller clusters have the tightest bonding of terms.

More generally, this frequency data suggests that the majority of work is conducted using interactional models of metadiscourse. A series of sweeps through each corpus using a number of terms to discriminate between the broad approaches confirms this conclusion.

8. Themes and directions

In this section I turn to look at these recurring themes in the metadiscourse literature in more detail and attempt to pull some generalisations from them, both about metadiscourse and the texts or writers/speakers they describe. I organise these reflections around the key themes identified above, looking at language, register, mode and expertise.

8.1. Language

One of the main themes in this research explores patterns of metadiscourse in other languages or by speakers of other languages writing in English. Persian, Chinese and Spanish are the languages most frequently analysed, with Persian the most frequent on *Google Scholar* and Chinese on *Web of Science* and *Scopus*. Research mainly addresses the persuasive role of metadiscourse. Thus Khabbazi-Oskouei (2016) explored newspaper editorials to examine the preference for oral features to act as metadiscourse in creating a bond between writer and reader. More commonly, academic genres are the focus, such as Salas' (2015) study of metadiscourse in Spanish articles in three disciplines, finding that writers in Economics and Medicine employ significantly fewer metadiscourse markers than those in Linguistics.

More often, however, authors seek to compare texts in one language (almost always English) with those in another language. Thus Hu and Cao (2011) examined how authors managed epistemic stance in English and Chinese-medium applied linguistics research article abstracts, finding that the English texts featured markedly more hedges. Similarly, Mur Dueñas (2011) analysed 'interpersonally driven features' of metadiscourse in Spanish and US journals in Business

Management, finding significant differences in rhetorical choices. Outside the academic domain, Yeganeh et al. (2015) explored language and cultural differences in the ways two mass-circulation newspapers in Iran and the United States reported the Iranian presidential elections, finding that the Keyhan employed statistically significant more hedges and booster than the Washington Post, not only during the election but also before and after it.

A variation of this contrastive rhetoric approach compares the metadiscourse used by members of a particular language group writing in English and in their first language. This contrastive text-linguistic perspective follows Mauranen's (1993) early finding in this area that Finnish economics academics tended to be more implicit in their writing while Americans took a more reader-oriented attitude with more metadiscourse to guide readers and signal their authorial presence. More recently Hong and Cao (2014) found that young EFL learners with Chinese, Spanish, and Polish mother tongue backgrounds used interactional metadiscourse in very different ways from each other in their English essays. Similarly, Shokouhi and Baghsiahi (2009) discovered almost twice as many hedges and boosters in sociology articles written in English than in Iranian. They also found less explicit orientation to readers in the Iranian ones, a feature the authors attribute to the encouragement to use 'flowery language' rather than consider readers while at school.

Virtually all these contrastive studies employ corpus methods, drawing on both frequency and collocational evidence. Occasionally authors are consulted, as in Perales-Escudero and Swales (2011) analysis of metadiscourse in the parallel translated English and Spanish abstracts in the journal *Iberica*, and Candarli et al. (2015) use of discourse-based interviews in their study of self-mention in essays in English by Turkish and American students. It is also the case that results are almost always discussed in terms of culturally preferred rhetorical strategies and epistemological beliefs; the assumption being that metadiscourse choices express underlying cultural differences and that the rhetorical habits these engender find their way into English texts written by L2 writers. While these seem reasonable inferences, it is notoriously difficult to control all potentially influential variables in contrastive studies. While studies often reflect the care taken to ensure comparability of genres and disciplines, texts are also influenced by different contextual expectations and practices, such as those between ISI indexed journals and those in local journals of uncertain provenance.

8.2. Register

Metadiscourse researchers have been attracted to a very narrow range of registers. Surprisingly only one study has compared registers, with Zhang (2016) showing that metadiscourse markers are more pervasive in more informational and abstract registers such as academic, general prose and editorials, where they are used to present arguments, while rare in narrative and concrete registers like fiction and press reportage, where they are mainly used for reader guidance. Nor are studies of social registers common in the literature, examples being that of Russell (2011) which confirms the use of metadiscourse in Twitter exchanges related to the Arab Spring and Ryoo's (2005) exploration of metadiscourse by linguistically diverse members of a *UseNet* discussion group.

The vast majority of metadiscourse research focuses on an academic register. This work, moreover, is dominated by studies of research articles, and often their introductions (e.g. Rubio, 2011)and abstracts (e.g. Gillaerts and Van de Velde, 2010). Other genres to attract attention are essays (e.g. Ädel, 2006) and textbooks (e.g. Hyland, 2004). Again, contrastive studies are common, with comparisons across genres and disciplines dominating the literature. In one genre comparison study, for example, Kawase (2015) found interesting differences between the ways writers employ metadiscourse in the introductions of their PhD theses compared with the subsequently published articles based on those theses. The purposes and characteristics of the two genres means that writers use far more metadiscourse in the article introductions, particularly in the use of phrases referring to previous research with less reference to other parts of the text and to authorial presence. In another study, Kuhi and Behnam (2011) show how metadiscourse is used differently to establish social relationships in research articles, handbook chapters, textbook chapters and introductory textbooks in applied linguistics.

Cross-disciplinary studies of metadiscourse are even more common in the literature. One example is Bruce's (2010) use of the BAWE corpus to compare essays written by students in sociology and English, finding "significant differences between the essay genre in the two disciplines in the complex variety of rhetorical purposes and associated textual resources that they draw upon". Hyland's (2010) study also explored cross disciplinary writing by students, this time by post graduate writers in six disciplines, showing different means of persuasion and uncovering something of the rhetorical and social distinctiveness of disciplinary communities.

Outside of academic registers, metadiscourse research is largely found in studies of news media and business communication. In business communication researchers have turned their attention to a variety of genres. Vergaro (2005), for example, compared the ways Italian and English 'For-Your-Information' letters employed metadiscourse to engage readers and Vasquez (2015) studied interactive metadiscourse in Online Consumer Reviews. Websites have also attracted attention as Perez (2014) explored the websites of Spanish and US toy companies to discover cultural differences in how individuals use interactional metadiscourse to define their identity and their relationship with others.

Metadiscourse has also been explored in terms of how it is used to guide readers through the complex maze of semiotic systems of commercial webpages, showing how hypertext links function as textual metadiscourse (Gonzalez, 2005).

In media texts metadiscourse studies have largely focused on newspapers, so that Le (2004), for example, explored how *Le Monde* editorialists use evidentials, person markers and relational markers to present themselves as representatives of public opinion and independent intellectuals in the French tradition. More unconventionally, Chaemsaithong (2013) shows how 16th century witchcraft pamphleteers strategically structured and designed their texts to secure readers' agreement through metadiscourse choices to present different writer identities. Once again, analyses almost exclusively focus on written texts and many employ a comparative element. Thus Dafouz-Milne (2008) explored how metadiscourse helped construct persuasive discourse in opinion columns in *The Times* and *El Pais* while Yao (2012) studied the similarities and differences in metadiscourse between 30 Chinese and 30 English news commentaries. Comparing journalistic genres, Fu and Hyland (2014) looked at 200 popular science and 200 opinion texts to show how authors use metadiscourse to structure their interactions very differently in these two genres, contributing to their rhetorical distinctiveness. In a comparison of spoken genres, Lundell (2014) shows how metadiscourse changes when established sports broadcasters are required to adjust to different audience expectations of increased sociability when shifting from traditional television to the web.

8.3. Mode

The overwhelming majority of metadiscourse research focuses on written genres, although spoken discourse has attracted increasing attention in recent years and research is beginning to appear which focuses on the visual mode.

As with studies of written metadiscourse, research into spoken texts typically focuses on academic registers, particularly in monologic genres. Thus Ágnes (2012) examined metadiscourse in students' course presentations, Thompson (2003) the occurrence of metadiscoursal and intonational signals of organisation in undergraduate lectures, and Ädel (2012) studied how second person *you* functions to orient audience in lectures. Lectures have also been compared with classroom teaching, with teachers using metadiscourse more to explicitly frame the discourse to set up classroom tasks and create student involvement and the lecturers' to establish relationships between ideas in the unfolding arguments (Lee and Subtirelu, 2015). An exception to this focus on monologue is Mauranen's (2010) study of how lingua franca speakers of English use metadiscourse in student academic discussions (*it's a good question; nothing to criticise you but*). Studies of spoken metadiscourse in non-academic genres are much less common. Examples are Saidian and Jalilifar's (2016) analysis of commentary of the 2014 World Cup semi-final between Brazil and Germany in Farsi and English, and Gordon and Luke's (2016) study of how trainee counsellors use metadiscourse to negotiate transitional professional identities.

The concept of metadiscourse has also been expanded to the visual realm, where metadiscourse is a design feature to help viewers navigate through and understand texts. Once again, studies tend to focus on academic genres, such as Stoner's (2007) argument that metadiscourse contribute to the success of *PowerPoint* as an inscriptional system that employs both discursive and presentational codes. Several studies have also tried to understand how the textual and visual interact. Thus Kumpf (2000), for example, shows how visual metadiscourse can provide design criteria for authors when considering the needs and expectations of readers of technical documents while D'Angelo (2016) explores how academic conference posters in different fields exploit visual as well as textual resources in conveying interactive and interactional meanings. Beyond academia, Kumpf's work has been useful in improving the reader-orientation of documents produced by the sugar industry (Bonaventura, 2009) and in the inserts of the *Illustrated Basic Dictionary of American English* where visual metadiscourse was found to organise the contents, guide users, attract attention and establishing direct communication between the reader and the author (Fechine and Pontes, 2012).

8.4. Expertise and instruction

The final broad category of research to which metadiscourse has made a substantial contribution is the understanding of expertise in language use and how this might be fostered through classroom teaching. Skilled writers and speakers are able to create a mutual frame of reference and anticipate when their purposes will be retrieved by their audiences while those unfamiliar with the audience, such as students, novice public speakers or writers entering a new field, are likely to make different, and perhaps less successful choices. Intraprawat and Steffensen (1995), for instance found that high rated essays by EFL students contain more, and more effective, metadiscourse.

This idea has stimulated research into how metadiscourse is used by students, so that Ädel (2006), for example, found considerable differences in metadiscourse use by advanced Swedish learners of English and native English writers and Hyland (2012) found undergraduates were far more reluctant to use self mention than professional academics writers.

While differential expertise or familiarity with the register may help account for these results, we should not ignore the different purposes and writer–reader relationships of different genres. The fact that articles are designed to construct knowledge through negotiation with peers and student genres to display knowledge to a more powerful assessor, clearly influences the ways authors represent themselves and readers in their texts.

When considered as a paradigm for informing English language teaching, and particularly the instruction which occurs within academic writing classes, insights from metadiscourse offer teachers a perspective which regards context-situated texts as the best foundation for pedagogy. Correia (2013), for example, proposes an automatic classification of metadiscourse for teaching presentation skills. Various studies have been conducted to explore the effect on students' performance following explicit instruction in the use of metadiscourse. These generally confirm that EFL students who are taught how to use metadiscourse write significantly better texts (e.g. Steffensen and Cheng (1996)), are able to comprehend texts in English more easily (Tavakoli et al., 2010) and improve their ability in a controlled speaking test (Ahour and Maleki, 2014). Among the advantages of teaching metadiscourse features to students are that they come to recognise the cognitive demands that texts make on readers, and the ways they can help them to process them while negotiating a stance with their readers (Hyland, 2005:178–179).

The form that effective classroom practices might take is less visible in the literature, although the fact that metadiscourse privileges the reader in text construction means that strategies used to teach genre are likely to be useful. One approach that has received attention is the role that collaborative learning can play in the acquisition of metadiscourse through the use of wikis (e.g. Alyousef and Picard, 2011). Kuteeva (2011), for example, found that using a course wiki encouraged students to consider their audience, producing a high use of interactional metadiscourse in their argumentative texts.

9. Conclusions and directions

This paper has sought to offer a general overview of what metadiscourse is and how the concept is being used. While the databases show that research heavily privileges, and continues to privilege, written academic texts, there is an emerging literature exploring spoken and visual modes in other registers. The field, however, is dominated by studies of academic texts and particularly of research articles (especially their abstracts and introductions). Although more recent work has branched into less well-trodden areas of academia, such as essays, theses and book reviews, and into business and mass communication genres, there is a serious danger that the approach might remain too closely associated with the description of a limited range of text types and fail to realise its potential as a systematic means of gaining insights into participant interaction more generally.

Methodologically, studies are understandably dominated by discourse-analytic procedures, particularly using corpora, although these are occasionally supplemented with the views of text users, such as Tse and Hyland's (2006) exploration of how discipline and gender effect metadiscourse choices in book reviews which also involved interviews with journal editors and reviewers. Other methods include experimental procedures, as in Camiciottoli's (2003) study of the effect of metadiscourse on ESP reading comprehension among Italian students, and Correia et al.'s (2014) use of a crowdsourcing annotation task to explore non-expert understandings of metadiscursive acts from TED's Talks.

Recently, the field has also seen developments in the features which are understood to realise metadiscourse, with previously unexplored structures such as 'metadiscursive nouns' in academic writing (Jiang and Hyland, 2016), hypertext in webpages (Gonzalez, 2005) and 'the excited utterance' in courtroom testimony (Andrus, 2009) making an appearance in the literature. There remains, however, a dependence on the linguistic and on what is overtly uttered and explicit on the page, a limitation which suggests the possibility of a more fruitful connection with metapragmatics to explore less direct means of communicating the authorial shaping of participant relationships. Both metadiscourse and metapragmatics are genre-related, context-bound, and culture-sensitive, yet I am aware of no metadiscourse study which explicitly draws on pragmatic concepts to better understand writer–reader interactions and the ways that language can be used to convey more than it says.

One inescapable conclusion of this review is that the term 'metadiscourse' has come to mean work conducted using a broad, interactional definition of the term. What Mauranen refers to as 'reflexivity' certainly points to a crucial aspect of the 'recipient design' of a text and, by limiting the scope of the term, helps to reduce some difficulties of identifying particular instances. But by restricting it's boundaries we also run the risk of eliminating much of what makes metadiscourse a powerful analytic tool. What categories and features should be understood as metadiscoursal remains controversial and there are good reasons for distinguishing the two ends of the continuum more clearly with different terms to label the management of texts and the management of interaction. The term *metadiscourse*, in various guises, however, is now well-established in applied linguistics and discourse analysis. While 'discourse about the ongoing discourse' can refer to a range of features and functions which may seem to be at odds with each other, metadiscourse has inspired a considerable amount of scholarship and continues to contribute enormously and offer fresh insights into how language works as communication.

References

Ädel, A., 2006. Metadiscourse in L1 and L2 English. John Benjamins, Amsterdam/Philadelphia.

Ädel, A., 2012. 'What I want you to remember is.': audience orientation in monologic academic genres. English Text Constr. 5 (1).

Ädel, A., Mauranen, A., 2010. Metadiscourse: diverse and divided perspectives. Nordic J. English Stud. 9 (2), 1–11.

Ágnes, M.G., 2012. Are you with me? A metadiscursive analysis of interactive strategies in college students' course presentations. J. English Stud. 12 (1), 55–78.

Ahour, T., Maleki, S., 2014. The effect of Metadiscourse instruction on Iranian EFL learners' speaking ability. English Lang. Teaching 7 (10), 69–75.

Alyousef, H., Picard, M., 2011. Cooperative or collaborative literacy practices: mapping metadiscourse in a business students' wiki group project. Aust. J. Educ. Technol. 27 (3), 463–480.

Andrus, J., 2009. The development of an artefactual language ideology: utterance, event, and agency in the metadiscourse of the excited utterance exception to hearsay. Lang. Commun. 29 (4), 312–327.

Beauvais, P., 1989. A speech-act theory of metadiscourse. Written Commun. 6 (1), 11–30.

Bonaventura, P., 2009. Sing like no one can hear you, dance like no one can see you but write like everyone will read you. In: 31st Annual Australian Society of Sugar Cane Technologists Conference, ASSCT 2009, pp. 345–356.

Bruce, I., 2010. Textual and discoursal resources used in the essay genre in sociology and English. J. English Acad. Purposes 9 (3), 153–166.

Bublitz, W., Hübler, A. (Eds.), 2007. Metapragmatics in Use. John Benjamins, Amsterdam.

Caffi, G., 2006. Metapragmatics. In: Brown, K. (Ed.), Encyclopedia of Language & Linguistics. 2nd ed. Elsevier, Amsterdam, pp. 83–88.

Camiciottoli, B.C., 2003. Metadiscourse and ESP reading comprehension: an exploratory study. Reading Foreign Lang. 15 (1), 28–44.

Candarli, D., Bayyurt, Y., Marti, L., 2015. Authorial presence in L1 and L2 novice academic writing: cross-linguistic and cross-cultural perspectives. J. English Acad. Purposes 20, 192–202.

Chaemsaithong, K., 2013. Interaction in early modern news discourse: the case of English witchcraft pamphlets and their prefaces (1566–1621). Text Talk 33 (2), 167–188.

Chen, C., 2014. The *CiteSpace* Manual. http://cluster.ischool.drexel.edu/~cchen/citespace/CiteSpaceManual.pdf

Correia, R., 2013. Automatic classification of metadiscourse for presentation skills instruction (Ph.D. thesis). Carnegie Mellon University http://www.cs.cmu.edu/~rcorreia/RuiCorreia_ThesisProposal.pdf

Correia, R., Mamede, N., Baptista, J., Eskenazi, M., 2014. Using the crowd to annotate metadiscursive acts. In: Bunt, H. (Ed.), Proceedings 10th Joint ISO – ACL SIGSEM Workshop on Interoperable Semantic Annotation, pp. 102–108.

Crismore, A., 1989. Talking with Readers: Metadiscourse as Rhetorical Act. Peter Lang, New York.

Crismore, A., Markkanen, R., Steffensen, M., 1993. Metadiscourse in persuasive writing: a study of texts written by American and Finnish university students. Written Commun. 10, 39–71.

Dafouz-Milne, E., 2008. The pragmatic role of textual and interpersonal metadiscourse markers in the construction and attainment of persuasion: a cross-linguistic study of newspaper. J. Pragmat. 40 (1), 95–113.

Dahl, T., 2004. Textual metadiscourse in research articles: a marker of national culture or of academic discipline? J. Pragmat. 36 (10), 1807–1825.

D'Angelo, L., 2016. Academic Posters – a textual and Visual Metadiscourse Analysis. Peter Lang, Bern.

Falagas, M.E., Pitsouni, E.I., Malietzis, G.A., Pappas, G., 2008. Comparison of Pubmed, Scopus, Web of Science, and Google Scholar: strengths and weaknesses. FASEB J. 22 (2), 338–342.

Fechine, L., Pontes, A.L., 2012. The visual metadiscourse of the inserts of an English dictionary. Calidoscopio 10 (3), 294–300.

Fu, X., Hyland, K., 2014. Interaction in two journalistic genres: a study of interactional metadiscourse. English Text Constr. 7 (1), 122–144.

Gillaerts, P., Van de Velde, F., 2010. Interactional metadiscourse in research article abstracts. J. English Acad. Purposes 9 (2), 128–139.

Gonzalez, R.A., 2005. Metadiscourse in commercial websites. Iberica 9, 33–52.

Gordon, C., Luke, M., 2016. Metadiscourse in group supervision: how school counselors-in-training construct their transitional professional identities. Discourse Stud. 18 (1), 25–43.

Halliday, M.A.K., 1985. Spoken and Written Language. OUP, Oxford.

Halliday, M.A.K., 1994. An Introduction to Functional Grammar, 2nd ed. Edward Arnold, London.

Harris, Z., 1959. The transformational model of language structure. Anthropol. Linguist. 1 (1), 27–29.

Hong, H.Q., Cao, F., 2014. Interactional metadiscourse in young EFL learner writing: a corpus-based study. Int. J. Corpus Linguist. 19 (2), 201–224.

Hu, G., Cao, F., 2011. Hedging and boosting in abstracts of applied linguistics articles: a comparative study of English- and Chinese-medium journals. J. Pragmat. 43, 2795–2809.

Hyland, K., 2004. Disciplinary Discourses: Social Interactions in Academic Writing. University of Michigan Press, Ann Arbor.

Hyland, K., 2005. Metadiscourse. Continuum, London.

Hyland, K., 2007. Applying a gloss: exemplifying and reformulating in academic discourse. Appl. Linguist. 28 (2), 266–285.

Hyland, K., 2010. Metadiscourse: mapping interactions in academic writing. Nordic J. English Stud. 9 (2), 125–143.

Hyland, K., 2012. Disciplinary Identities. Cambridge University Press, Cambridge.

Hyland, K., Tse, P., 2004. Metadiscourse in scholastic writing: a reappraisal. Appl. Linguist. 25 (2), 156–177.

Ifantidou, E., 2005. The semantics and pragmatics of metadiscourse. J. Pragmat. 37 (9), 1325–1353.

Intraprawat, T., Steffensen, M., 1995. The use of metadiscourse in good and poor ESL essays. J. Second Lang. Writing 4 (3), 253–272.

Jakobson, R., 1980. The Framework of Language. Michigan Studies in the Humanities, Michigan.

Jaworski, A., Coupland, N., Galasinski, D. (Eds.), 2004. Metalanguage: Social and Ideological Perspectives. De Gruyter, Berlin.

Jiang, F.K., Hyland, K., 2016. Nouns and academic interactions: a neglected feature of metadiscourse. Appl. Linguist.. http://dx.doi.org/10.1093/applin/amw023

Kawase, T., 2015. Metadiscourse in the introductions of PhD theses and research articles. J. English Acad. Purposes 20, 114–124.

Khabbazi-Oskouei, L., 2016. Orality in Persian argumentative discourse: a case study of editorials. Iranian Stud. 49 (4), 677–691.

Kuhi, Behnam, 2011. Generic variations and metadiscourse use in the writing of applied linguists: a comparative study and preliminary framework. Written Commun. 28 (1), 97–141.

Kumpf, E.P., 2000. Visual metadiscourse: designing the considerate text. Techn. Commun. Q. 9 (4), 401–424.

Kuteeva, M., 2011. Wikis and academic writing: changing the writer–reader relationship. English Specific Purposes 30 (1), 44–57.

Le, E., 2004. Active participation within written argumentation: metadiscourse and editorialist's authority. J. Pragmat. 36 (4), 687–714.

Lee, J., Subtirelu, N., 2015. Metadiscourse in the classroom: a comparative analysis of EAP lessons and university lectures. English Specific Purposes 37, 52–62.

Lundell, A.K., 2014. Cross-platform television: superliveness, metadiscourse and complex audience orientation in a sports journalism production on the web. Northern Lights Film Media Stud. Yearb. 12 (1), 11–27.

Mauranen, A., 1993. Cultural Differences in Academic Rhetoric: A Textlinguistic Study. Frankfurt am Main, Peter Lang.

Mauranen, A., 2010. Discourse reflexivity – a discourse universal? The case of ELF. Nordic J. English Stud. 9 (2), 13–40.

Mikki, S., 2009. Google Scholar compared to Web of Science: a literature review. Nordic J. Inform. Lit. Higher Educ. 1, 41–51.

Mur Dueñas, P., 2011. An intercultural analysis of metadiscourse features in research articles written in English and in Spanish. J. Pragmat. 43 (12), 3068–3079.

Perales-Escudero, M., Swales, J., 2011. Tracing convergence and divergence in pairs of Spanish and English research article abstracts: the case of Iberica. Iberica 21, 49–70.

Perez, F.M., 2014. Cultural values and their correlation with interactional metadiscourse strategies in Spanish and US business websites. Atlantis 36 (2), 73–95.

Rubio, M., 2011. A pragmatic approach to the macro-structure and metadiscoursal features of research article introductions in the field of agricultural sciences. English Specific Purposes 30 (4), 258–271.

Russell, A., 2011. The Arab Spring extra-national information flows, social media and the 2011 Egyptian uprising. Int. J. Commun. 5 (10).

Ryoo, M.-L., 2005. Metadiscourse in computer-mediated communication in a culturally diverse group. Discourse Cogn. 121, 21–41.

Saidian, S., Jalilifar, A., 2016. ''Mayhem! Absolute Mayhem!'' Exploring the promotional metadiscursive features in the sportscasts of the 2014 FIFA World Cup semi-final between Brazil and Germany Discourse Context Media 14, 9–17.

Salas, M.D., 2015. Reflexive metadiscourse in research articles in Spanish: variation across three disciplines (Linguistics, Economics and Medicine). J. Pragmat. 77, 20–40.

Sanderson, T., 2008. Corpus, Culture, Discourse. Narr Dr. Gunter.

Schiffrin, D., 1980. Metatalk: organizational and evaluative brackets in discourse. Sociol. Inq. Lang. Soc. Interact. 50, 199–236.

Shokouhi, H., Baghsiahi, A.T., 2009. Metadiscourse functions in English and Persian sociology articles: a study in contrastive rhetoric. Poznań Stud. Contemp. Linguist. 45 (4), 535–554.

Steffensen, M., Cheng, X., 1996. Metadiscourse and text pragmatics: how students write after learning about metadiscourse. In: Bouton, L. (Ed.), Pragmatics and Language Learning, pp. 153–170.

Stoner, M.R., 2007. PowerPoint in a new key. Commun. Educ. 56 (3), 354–381.

Tavakoli, M., Dabaghi, A., Khorvash, Z., 2010. The effect of metadiscourse awareness on L2 reading comprehension: a case of Iranian EFL learners. English Lang. Teaching 3 (1), 92–102.

Thompson, G., 2001. Interaction in academic writing: learning to argue with the reader. Appl. Linguist. 22 (1), 58–78.

Thompson, S., 2003. Text-structuring metadiscourse, intonation and the signalling of organisation in academic lectures. J. English Acad. Purposes 2 (1), 5–20.

Tse, P., Hyland, K., 2006. 'So what is the problem this book addresses?' Interactions in book reviews. Text Talk 27, 767–790.

Vande Kopple, W.J., 1985. Some exploratory discourse on metadiscourse. College Compos. Commun. 26, 82–93.

Vasquez, C., 2015. ''Don't Even Get Me Started. . .'': interactive metadiscourse in online consumer reviews. In: Darics, E. (Ed.), Digital Business Discourse. Palgrave, London, pp. 19–39.

Vergaro, C., 2005. 'Dear Sirs. I hope you will find this information useful': discourse strategies in Italian and English 'For Your Information' (FYI) letters. Discourse Stud. 7 (1), 109–135.

Williams, J., 1981. Style: Ten Lessons in Clarity and Grace, 3rd ed. Scott, Foresman, Boston.

Yao, H.Q.Z., 2012. A comparative analysis of the use of metadiscourse in English and Chinese news commentaries. Foreign Lang. Res. http://en.cnki.com.cn/Article_en/CJFDTotal-OUTL201201022.htm

Yeganeh, M., Heravi, I., Sawari, A., 2015. Hedge and booster in newspaper articles on Iran's presidential election: a comparative study of English and Persian articles. Proc. Soc. Behav. Sci. 192, 679–683.

Zhang, M., 2016. A multidimensional analysis of metadiscourse markers across written registers. Discourse Stud. 18 (2), 204–222.

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