

Engaging with the reader in research articles in English: Variation across disciplines and linguacultural backgrounds



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ABSTRACT

This paper studies engagement in English-medium research articles across two disciplines, linguistics and economics, and two linguacultural backgrounds, Anglophone and Czech, in order to explore how disciplinary and linguacultural considerations affect the choice, frequency and distribution of engagement markers in the construal of persuasive academic discourse. The contrastive analysis applying Hyland & Jiang's (2016) modified model of engagement is carried on a corpus of 60 refereed research articles published in international and local academic journals within these disciplines and linguacultural backgrounds. The findings indicate the existence of cross-disciplinary variation, as authors of linguistics research articles employ significantly more engagement features than those of economics research articles. Moreover, linguistics research articles show a preference for proximity engagement markers aiming at enhancing disciplinary solidarity, while economics research articles tend to prioritize positioning engagement features directing readers towards intended understandings and anticipating alternative interpretations. Intercultural variation, which is less significant and affects the frequency of use and choice of specific engagement markers, reflects divergences in linguacultural conventions, target audiences and contexts of publication. These results indicate the potential of this doubly contrastive approach to contribute towards an understanding of rhetorical choices in academic discourse. The study can have important pedagogic applications in efforts to support academic writers.

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1. Introduction

Over the last three decades, there has been growing interest in the interactional dimension of academic discourse, triggered by the realization that the persuasive force of academic texts stems not only from the scientific knowledge they convey, but also, and probably no less importantly, from the skilful use of rhetorical and language choices resonating with the shared beliefs, expectations and conventions of a specific specialized discourse community (e.g. Sancho Guinda, 2019; Swales, 2004). When endeavouring to convince readers of their claims and views, academic writers strive to cast a credible representation of themselves and to establish solidarity with readers by acknowledging their presence and negotiating potential alternative views (Hyland, 2014; Myers, 1989). The rhetorical and language devices which embody writer–reader interaction vary according to context, be it disciplinary, language or cultural, as it is the discourse community's specific epistemological and interpersonal conventions that determine what its members find convincing (Hyland, 2008). Thus, the study of discipline-

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and culture-related variation in the use of interactional resources in academic discourse is useful for deepening our insights into how academic persuasion is constructed in different contexts. This paper endeavours to contribute to this line of research by exploring variation in the use of engagement markers in English-medium research articles (RAs) across two disciplines (economics and linguistics) and two cultural backgrounds (Anglophone and Czech).

Engagement refers to the ways in which the writer overtly acknowledges the presence of the “reader-in-the-text” (Thompson, 2001) by “pulling [the readers] along with their argument, focusing their attention, acknowledging their uncertainties, including them as discourse participants, and guiding them to interpretations” (Hyland, 2005b, p. 176). This reader-oriented understanding of engagement is different from the concept of ‘engagement’ as used within Martin and White’s (2005) Appraisal Theory, where it refers to the writer’s attitude or opinion towards the message and other voices in the text and is thus closer to the notion of ‘stance’ within Hyland’s (2005b) stance and engagement framework. Engagement is an essential aspect of academic persuasion, as it enables the writer to build a rapport with the reader, create an in-group relationship, indicate politeness, bring in the reader’s voice and guide the audience towards intended interpretations. The various ways in which the writer can appeal to the readers and involve them in the construal of the argument are reflected in Hyland’s (2005b) five categories of engagement features: reader-pronouns, questions, directives, personal asides and appeals to shared knowledge. These features help the writer achieve different goals: reader mentions and personal asides convey the feeling of community membership and solidarity, while questions, directives and appeals to shared knowledge allow the writer to engage in a dialogue with the reader’s positions and beliefs, acknowledge alternative views and anticipate criticism, so as to eventually construe a sense of sharedness and agreement (e.g. Hyland, 2001, 2005a, 2005b, 2010; Lafuente-Millán, 2014; Hyland & Jiang, 2016; Sancho Guinda, 2019). Together with stance, engagement is one of the interactional resources (pertaining to Halliday’s (1985) interpersonal metafunction) which have been investigated under the umbrella term of metadiscourse, i.e. the rhetorical and pragmatic devices that authors use to manage social interaction with readers by “tak[ing] up positions and align[ing] themselves with the readers in a particular context” (Hyland, 2005a, p. 4).

Previous research has provided convincing evidence that disciplinary and linguacultural constraints have a strong bearing on the choice of interactional metadiscourse, including engagement features. The impact of disciplinary conventions on the choice of interactional resources has been scrutinized across a spectrum of various disciplines, usually focusing on the genre of the RA, from a synchronic (e.g. Hyland, 2001, 2005b, 2014; Harwood, 2005; Hu & Cao, 2015; Hyland & Tse, 2004; McGrath & Kuteeva, 2012) and recently also from a diachronic perspective (e.g. Gillaerts & Van de Velde, 2010; Hyland & Jiang, 2016, 2018). These studies have revealed that the ways researchers in different disciplines construct persuasive argumentation differ as a function of the kind of knowledge transmitted, the disciplinary conventions of meaning-making and the expectations established in the discourse community in respect of the rhetorical strategies and linguistic resources employed in writer–reader interactions. This calls for further research to reveal more fine-grained distinctions in the repertoire of interactive means that scholars have at their disposal in different disciplines.

Cross-cultural research into resources conveying the writer’s interaction with the reader has discussed the influence of various factors, such as the epistemological traditions, politeness conventions and the level of homogeneity of the national culture, focusing on divergences in the use of metadiscourse markers between, e.g. Finish and English (e.g. Mänttinen, 1993), Spanish and English (e.g. Mur-Dueñas, 2008; Sheldon, 2009), Danish and English (e.g. Shaw, 2003), English and Italian (Molino, 2010), English and Chinese (e.g. Hu & Cao, 2015; Mu et al., 2015) and across several languages (e.g. Vassileva, 1998; Shaw & Vassileva, 2009). Less common, however, are publications exploring the use of interactional resources in English-medium RAs by L2 scholars published in an international and a national context (e.g. Dontcheva-Navratilova, 2014; Lafuente-Millán, 2014; Lorés-Sanz, 2011b, 2011a; Shaw, 2003; Yang, 2013) and studies scrutinizing non-published RAs by non-native writers (e.g. Bondi & Borelli, 2018; Lafuente-Millán, 2018). The findings of these studies suggest that non-published RAs and articles published in local English-medium journals tend to differ in interactional features from RAs by Anglophone authors published in international journals as they are typically marked by underuse of interactional resources. The English-medium discourse of non-Anglophone scholars thus shows signs of hybridisation, as it generally tends to reflect to some extent the discursive and rhetorical conventions of their original academic literacy, and at the same time bears signs of adjustment to conventions characteristic of Anglophone academic discourse (Pérez-Llantada, 2013; Gotti, 2012). Since non-Anglophone scholars are pressed to publish in English-medium high-impact journals, the presence of significant hybridization features and divergences in interaction from conventions expected in such journals may reduce their chances of having their research published internationally (Flowerdew, 2008). Thus, the academic writing instruction for expert and novice non-Anglophone scholars should be informed by investigation of how and to what extent the use of interactive features in the English-medium discourse of scholars from different linguacultural backgrounds diverges from the dominant Anglophone rhetorical tradition.

Within this growing body of contrastive research very few publications (but see Dahl, 2004; Fløttum et al., 2006; Lorés-Sanz, 2011a; Dontcheva-Navratilova, 2018) have addressed the issue of variation in the use of interactional resources in RAs from a doubly contrastive perspective, taking into consideration both discipline and linguacultural background, as factors that affect the choice of rhetorical and language resources employed by academic writers. This study applies this doubly contrastive approach to the analysis of engagement features which allow the writer to “construct an audience” (Hyland, 2019: XIII) by addressing the readers, representing them as active participants in the argument and anticipating their positions and reactions to the claims and assertions being made.

As pointed out by Sancho Guinda (2019, p.1), engagement is under-researched in comparison with stance and the whole variety of interactional resources available in academic discourse. Previous work on engagement often focused only on the

contribution of specific engagement features to the build-up of persuasive argumentation and carving the writer's authorial style. Thus, Swales et al.'s (1998) and Hyland's (2002b) discourse-analytical and interview-based investigations into the role of directives in academic discourse have shown that, despite their potentially face-threatening nature, directives contribute to the clarity and succinctness of the text and are instrumental in positioning the readers by directing their attention to aspects relevant to the progress of the argument. Hyland (2002a) has applied a similar approach to the study of questions, concluding that there is cross-disciplinary and cross-genre variation in the way writers use questions to explicitly involve the reader in the discourse by organizing the text, indicating the writer's purposes and expressing claims. Several studies (e.g. Dontcheva-Navratilova, 2013; Harwood, 2005; Kuo, 1999; Sheldon, 2009; Tang & John, 1999; Vassileva, 1998) have evidenced the role of reader pronouns in creating a sense of in-group belonging and agreement. Yet most previous work (e.g. Hyland & Tse, 2004; McGrath & Kuteeva, 2012; Mu et al., 2015; Mur-Dueñas, 2011; Qin & Uccelli, 2019) has considered engagement as a variable in the taxonomy of interactional metadiscourse, usually without discriminating among the five categories of engagement identified by Hyland (2005b). It is only recently that engagement has been subjected to more comprehensive research (e.g. Hyland, 2014; Hyland & Jiang, 2016; Jiang & Ma, 2019; Lafuente-Millán, 2014; Sancho Guinda, 2019), which has led to a refinement of the taxonomy of engagement resources and a better understanding of the rhetorical effect achieved by the different categories of engagement. However, while some of these studies have investigated engagement in applied linguistics, to the best of my knowledge there is no comprehensive study of engagement in RAs in the field of economics.

Adopting an ESP genre analysis perspective (Swales, 1990), this study draws on Connor's (2004) intercultural rhetoric approach to the study of written discourse in social interaction across linguacultural backgrounds. I use Hyland's (2005b, 2014) engagement framework to explore intercultural variation in engagement markers in a specialized corpus of economics and linguistics English-medium RAs by Czech and Anglophone authors published in international and national academic journals. The choice of linguistics and economics as disciplines under consideration was motivated by the fact that they represent different areas of the soft sciences spectrum (i.e. social sciences and humanities), in which the social construction of knowledge follows different patterns and methodologies, and therefore they are likely to show divergences in the rhetorical and language devices used to manage writer–reader interaction. A comparison between the Czech and Anglophone academic discourse conventions shows some divergencies which may potentially impact the English-medium RAs of Czech scholars. Formed under the influence of German and Slavonic epistemologies and literacies, Czech academic discourse is oriented towards the establishing of authority through presentation of disciplinary knowledge and theorizing; it shows a tendency to approach the issues under consideration from a general perspective and a preference for a writer-oriented, depersonalized style associated with the use of impersonal constructions and the exclusive 'editorial we' (Dontcheva-Navratilova, 2013; Čmejrková & Daneš, 1997). In this it differs from Anglophone academic conventions typically characterised by a more reader-friendly attitude and a higher level of interactivity (Hyland, 2005b; Thompson, 2001).

The contribution of this investigation lies in the doubly contrastive perspective adopted in the analysis of the impact of discipline and culture on the choice of engagement resources in the genre of RAs. To the best of my knowledge, it is also the first study exploring the full range of engagement features in English-medium RAs by Czech authors and applying the modified model of engagement (Hyland & Jiang, 2016) from a cross-disciplinary and intercultural perspective. In addition, it compares engagement in English medium RAs published in two different contexts of publication (international high-impact journals and national journals) in order to identify possible divergences in interactive resources which might affect the chances of L2 (Czech) authors to have their research results published in an international context. Endeavouring to bring new insights into the interplay of factors affecting persuasion in an academic context, this investigation addresses the following research questions:

- 1) Is there disciplinary variation between linguistics and economics RAs in the use of engagement markers to stress collective solidarity and perform interactional positioning?
- 2) What are the reasons for the existing divergences in the use of engagement markers in linguistics and economics RAs?
- 3) Is there intercultural variation in the use of engagement markers in RAs published in international and national English-medium journals?

2. Data and method

2.1. Corpus

The analysis of engagement was carried out on a specialized corpus, which comprises 60 single-authored English-medium linguistics and economics RAs published in six linguistics and six economics journals in the period 2010–2017 (five articles per journal). The corpus was subdivided into two disciplinary sub-corpora compiled according to the same criteria to ensure their comparability following the principles of *tertium comparationis* (Connor & Moreno, 2005). So as to identify recurrent similarities and differences in the use of engagement resources not only across disciplines, but also across linguacultural backgrounds, the linguistics sub-corpus (LING) includes 30 linguistics RAs (15 by Anglophone authors and 15 by Czech authors) and the economics sub-corpus (ECON) includes 30 economics articles (15 by Anglophone and 15 by Czech authors).

Table 1 provides an overview of the size and composition of the corpus. The analysis was carried out on the full text of the articles, excluding abstracts, notes, appendices and reference lists; in addition, the texts of the articles were cleaned to exclude citations and examples which do not reflect the use of engagement markers by the authors. In agreement with the common procedure in contrastive corpus-based research, the difference in word-count between the sub-corpora was neutralized by normalization to occurrences per 10,000 words.

Table 1
Composition of the corpus.

Sub-corpora	ENG		CZENG		Total	
	RAs	Words	RAs	Words	RAs	Words
RAs LING	15	94,000	15	68,000	30	162,000
RAs ECON	15	120,000	15	75,000	30	195,000
Total	30	214,000	30	143,000	60	357,000

The RAs included in the corpus were published in peer-reviewed English-medium international and national journals. The choice of international journals from which RAs by Anglophone authors were extracted was motivated by their high prestige and inclusion in the *Social Sciences Citation Index* (SSCI). The international journals chosen for the Anglophone linguistics sub-corpus (LING-ENG) were *Applied Linguistics*, *Journal of Pragmatics*, and *Discourse & Communication*; for the Anglophone economics sub-corpus (ECON-ENG), the chosen sources were *Journal of International Economics*, *Economic Systems*, and *Journal of Accounting and Economics*. The RAs by Czech scholars were taken from national journals indexed by SCOPUS and ERIH Plus. These journals were *Linguistica Pragensia*, *Brno Studies in English*, and *Discourse and Interaction* for the linguistics sub-corpus (LING-CZENG), and *Economics and Management*, *Prague Economic Papers*, and *Central European Review of Economic Issues* for the economics sub-corpus (ECON-CZENG). The context of publication is regarded as an important factor that may have a bearing on the use of engagement markers across the sub-corpora.

All the articles included in the corpus are single-authored by different scholars, thus assuring a relatively solid representativeness of the sample from the point of view of reducing the impact of author idiosyncrasies. As to the linguistic background of the authors, Anglophone writers are regarded as native speakers of English on account of their name, affiliation and, if available, CV; they publish exclusively in English. It has been ascertained that all Czech authors are native speakers of Czech who publish both in Czech and in English. The selection of authors includes both highly experienced authors who have published extensively in their field and authors who have substantial expertise but have begun to publish more recently. The Czech authors publish primarily in national journals; only two of the Czech authors (one linguist and one economist) have published several articles in international journals, although most have contributed chapters to books published by international academic publishers.

The homogeneity of the corpus was also maintained by selecting only empirical articles (Gray, 2015) generally displaying the IMRD structure (Swales, 1990, 2004) and comprising sections typically labelled 'Introduction', 'Data and method', 'Results and discussion' and 'Conclusion'. It should be acknowledged, however, that the coding of the rhetorical sections posed some problems because of a lack of explicit labelling, especially in the linguistics articles; in such cases, the coding was done according to the rhetorical moves identified in the sections.

The corpus was compiled using the software tool *SketchEngine* (Kilgariff et al., 2004), which was also used to search the corpus for engagement features. The coding of engagement resources was carried out by taking the lists of engagement markers compiled by Hyland (2005a) and Hyland and Jiang (2016) as a starting point; in addition, the texts were scanned carefully to identify corpus-specific items with engagement function. While some engagement markers were easily identified by corpus word-search (*clearly, usually, your, multiply*), others were identified by searching for formulaic expressions (e.g. *it is adj. to + verb*), or by searching for punctuation marks (question marks, commas and dashes in the case of questions and asides). The occurrences of potential engagement markers obtained by the corpus search were processed manually, taking into consideration the co-text to decide whether the language features indeed function as engagement markers (the engagement markers identified in the sub-corpora are listed in the Appendix). In line with current practice in the analysis of specialised corpora, which are not very large and for which we cannot assume a normal distribution of features, I have used the non-parametric log-likelihood statistical test (Rayson et al., 2004) to determine the statistical significance of differences with a significance level, set at the standard value of <0.05 (very low p-values are represented as <0.001).

2.2. Analytical framework

This study adopts a modified model of engagement (Hyland & Jiang, 2016) organizing the five types of engagement markers into two broad categories reflecting the adjustment of the distance between the participants in the interaction. These categories are (i) proximity, i.e. the rhetorical interaction between the writer and the disciplinary community aiming at creating a sense of alliance and solidarity, and (ii) positioning, i.e. the writer's involvement with the readers in an attempt to

guide them towards intended interpretations and to anticipate potential objections and alternative interpretations of views and claims. The two categories are realized by the following engagement features:

Proximity

- *Reader mentions* mark the inclusion of the reader in the discourse typically by the use of first person inclusive pronouns and possessives (*we, us, our, one*) and second person pronouns and possessives (*you, your*), thus presenting the reader and the writer as bound by shared values, views and positions.
- *Personal asides* represent the writer as benevolent in that he/she shares his/her subjective comments on what has been said, which contributes to the development of a relationship between the writer and the reader.

Positioning

- *Appeals to shared knowledge* seek the reader's agreement on the basis of familiarity or previous knowledge of circumstances, processes, practices and beliefs. In the modified model of engagement (Hyland & Jiang, 2016), appeals to shared knowledge are subdivided into three categories: logical reasoning (e.g. *of course, obviously*), routine conditions (e.g. *normally, routinely*), and familiarity with tradition (*traditionally, commonly*).
- *Questions* directly involve the writer in a dialogue with the reader, whose interest is captured and gradually attracted to the focal points in the writer's argument.
- *Directives*, realized by imperatives (*suppose, note*), obligation modals (e.g. *must, should*) and predicative adjectives (e.g. *it is important to*), address the readers directly by instructing them to perform textual acts, i.e. they refer to another text or a different part of the text, physical acts, i.e. they perform an action in the real world, or cognitive acts, i.e. they guide the readers towards the desired interpretation of the argument.

The present investigation uses a mixed quantitative and qualitative approach. Quantitative analysis was used to identify the frequency of occurrence of all categories of engagement and unveil statistically significant differences and variation in the patterns of use of engagement features across the two disciplines and linguacultural contexts. The aim of the contextualized qualitative analysis was to establish the context-specific rhetorical functions of the various types of engagement markers, compare their distribution across the rhetorical sections of RAs and consider their contribution to the build-up of academic persuasion across the two disciplines and linguacultural backgrounds.

3. Results and discussion

Overall, the results of the quantitative cross-disciplinary analysis summarised in Table 2 show that engagement features are significantly more prominent in linguistics RAs than in economics RAs ($LL-G^2$ 65.3383, p-value <0.001). This concurs with the highly argumentative and interpretative character of knowledge in humanities, which urges writers to engage more intensely with readers to construe solidarity, anticipate criticism and acknowledge alternative views. In the linguistics sub-corpus the most prominent engagement features are reader mentions and appeals to shared knowledge which present the writer and the reader as in-group members sharing the same values and understandings. These two features are significantly more frequent in the linguistics sub-corpus than in the economics sub-corpus (reader mentions: $LL-G^2$ 51.2765, p-value <0.001; shared knowledge: $LL-G^2$ 83.1486, p-value <0.001). Pertaining to the social sciences, economics draws its knowledge base from the objectivity of real world processes observations, statistical methods of inquiry and interpretations of data typically aiming at verifying a hypothesis or model. Thus, in their persuasive attempts, economists rely to a large extent on rigorous mathematical and statistical tools, but they also provide subjective interpretations of social processes which often are “not as straightforward as it may appear at first sight” (Bloor & Bloor, 1993, p. 157). The effort to engage with readers while guiding them through the steps of reasoning chains seems to explain the significantly more common presence of directives in economics RAs as compared to linguistics ones ($LL-G^2$ 4.4903, p-value 0.034) (the only category of engagement that differs from the overall trend). Personal asides show no statistically significant difference ($LL-G^2$ 0.6191, p-value 0.431), thus reflecting their scarce occurrence in the whole corpus.

Table 2

Frequency of use of engagement categories in the two disciplinary sub-corpora.

Engagement markers	ECON		LING		$LL-G^2$	p-value
	Raw number	Per 10,000 words	Raw number	Per 10,000 words		
<i>Reader-mentions</i>	178	9.1	288	17.7	51.2765	<0.001
<i>Asides</i>	36	1.8	36	2.2	0.6191	0.431
<i>Shared knowledge</i>	138	7.8	285	16.9	83.1486	<0.001
<i>Questions</i>	18	0.9	27	1.7	3.8675	0.049
<i>Directives</i>	330	16.9	229	14.1	4.4903	0.034
Total	699	36.5	873	53.0	65.3383	<0.001

As Tables 3 and 4 indicate, intercultural variation is not statistically significant in either the economics sub-corpus ($LL-G^2$ 0.2852, p-value 0.593) or the linguistics sub-corpus ($LL-G^2$ 3.6143, p-value 0.057). The only engagement feature which shows significant variation is the category of appeals to shared knowledge, which is significantly more prominent in the linguistics sub-corpus ($LL-G^2$ 9.1603, p-value 0.002), where Czech linguists use it considerably more frequently than their Anglophone counterparts. As subsequent analysis will show, however, significant intercultural differences between the CZENG and ENG sub-corpora also occur at the level of sub-types of reader-mentions and directives.

Table 3

Frequency of use of engagement categories in the ECON-ENG and ECON-CZENG sub-corpora.

Engagement markers ECON	ECON-ENG		ECON-CZENG		$LL-G^2$	p-value
	Raw number	Per 10,000 words	Raw number	Per 10,000 words		
<i>Reader-mentions</i>	114	9.5	64	8.5	0.4770	0.489
<i>Asides</i>	18	1.5	18	2.4	1.9704	0.160
<i>Shared knowledge</i>	78	6.5	59	7.8	1.2117	0.271
<i>Questions</i>	12	1.0	6	0.8	0.2038	0.652
<i>Directives</i>	215	17.9	115	15.3	1.8467	0.174
Total	437	36.4	262	34.8	0.2852	0.593

Table 4

Frequency of use of engagement categories in the LING-ENG and LING-CZENG sub-corpora.

Engagement markers LING	LING-ENG		LING-CZENG		$LL-G^2$	p-value
	Raw number	Per 10,000 words	Raw number	Per 10,000 words		
<i>Reader-mentions</i>	171	18.2	117	17.2	0.2167	0.641
<i>Asides</i>	21	2.2	15	2.2	0.001	0.970
<i>Shared knowledge</i>	140	13.3	145	21.3	9.1603	0.002
<i>Questions</i>	20	2.4	7	1.8	3.0026	0.082
<i>Directives</i>	121	12.9	108	15.9	2.5087	0.113
Total	476	49.0	392	58.9	3.6143	0.057

The distribution of engagement markers across the rhetorical sections of RAs (Figures 1a and 1b) indicates the same tendency in all sub-corpora – engagement markers peak in the Results and Discussion section, where they are used to persuade the reader to accept the proofs and interpretations suggested by the writer. They also occur frequently in Introductions, where the writer strives to create a relation of collegiality with the audience, but their rate is lower in the Methods and Conclusions sections.

In agreement with the more dialogic and interpretative character of the humanities, engagement features are more prominent in all rhetorical sections of the linguistics than in the economics RAs, the only exception being the Methods section in the LING-CZENG sub-corpus, where Czech linguists employ fewer engagement markers; this might be tentatively explained by a preference for a reliance on analytical models well known to and generally applied by most members of the homogenous Czech disciplinary community, so that they consider it unnecessary to elaborate on them extensively. As to intercultural variation, Czech linguists make a greater effort to engage with readers in Introduction and Results and Discussion sections. While in Introductions they rely primarily on reader mentions and textual act directives relating their work to previous research to create commonality and in-group relationship with the local discourse community characterized by a high degree of solidarity, in Results and Discussions they exploit more extensively the potential of logical reasoning markers and appeals to shared knowledge to assert a proximity relation between the writer and the audience. Introduction sections in the economics sub-corpus show a similar tendency; however, the preference of Anglophone economists for frequent use of directives guiding readers through the steps of reasoning chains when presenting and discussing their results explains the greater prominence of engagement in Results and Discussion sections of the ECON-ENG sub-corpus, which perhaps indicates a concern to reach a wider and more heterogeneous audience.

In the following sections I will present and discuss consecutively the results of the comparative cross-disciplinary and intercultural analyses of all the engagement categories included in the analytical framework.

3.1. Proximity: creating an in-group relationship with the reader

The proximity dimension of engagement concerns the rhetorical devices writers can employ to create a relationship with readers based primarily on a sense of belonging to the same disciplinary community. By representing readers as in-group members, the writer constructs them as bearers of the same professional identity, who thus share similar knowledge, values, experiences, conventions and beliefs, as well as the ability to understand and follow the argument developed by the writer. The establishment of in-group relationship and collegiality with readers seems to be particularly important in linguistics RAs, as engagement markers pertaining to the proximity dimension make up 37.4 per cent of all engagement

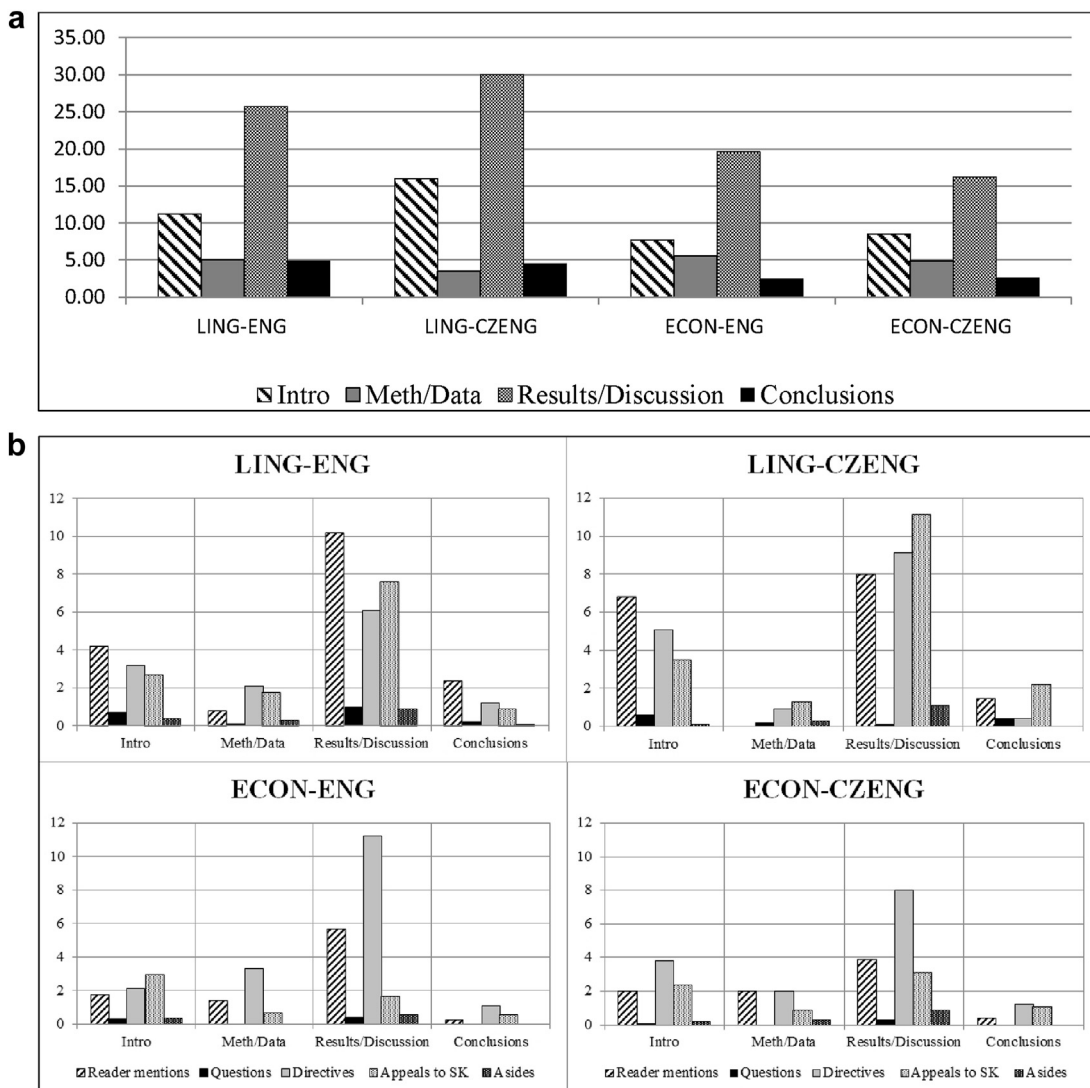


Figure 1. a Distribution of engagement features across the rhetorical sections of RAs (normalised per 10,000 words).

b Distribution of the five categories of engagement markers across the rhetorical sections of RAs (normalised per 10,000 words).

resources in the linguistics sub-corpus, while they represent only 30.1 per cent of the engagement resources in the economics sub-corpus.

3.1.1. Reader mentions

Reader mentions are obviously the most direct way in which the writer can appeal to the reader. The linguistics sub-corpus shows a significantly higher rate of reader mentions than the economics sub-corpus (17.7 vs 9.1; $LL-G^2$ 51.2765, p -value <0.001). This is in consonance with the importance of creating a feeling of commonality, which assumes that the writer and the reader share similar values and assumptions in interpreting claims based on discussion and argument rather than on establishing facts (Hyland, 2008). By contrast, in the economics sub-corpus, solidarity is solicited not only through the use of reader mentions but also by assuming familiarity with established models and statistical methods.

Table 5

Reader mention features across the sub-corpora (normalised per 10,000 words).

Reader mention features	LING	LING-ENG	LING-CZENG	ECON	ECON-ENG	ECON-CZENG
<i>We/our/us</i>	14.1	13.5	13.4	7.2	8.1	5.6
<i>You/your</i>	0.6	0.9	0.1	0.3	0	0.8
<i>One/reader</i>	3.0	3.6	2.0	1.6	1.2	2.2

First person forms are the most common markers of reader involvement; this is associated with their potential to act as positive politeness devices (Harwood, 2005; Myers, 1989) and indicates that binding the writer and the reader together as members of the same disciplinary community is regarded by both disciplines as an effective strategy for creating a feeling of agreement, collegiality and solidarity. Thus in Example 1 the writer constructs positive politeness by presenting the reader as a peer considering possible directions of inquiry, while in Example 2 the reader is positioned as an interested colleague competent enough to follow the flow of argumentation.

- (1) From a case-based perspective, **we** can investigate whether these speakers have anything in common, looking for both linguistic and demographic patterns. (LING-ENG 1)
- (2) **We** can see similar results in the case of property taxes and in the social security contributions; however, the impact of these election variables is quite weak. (ECON-CZENG 9).

The results of the quantitative analysis reported in Table 5 indicate more important intercultural differences in the economics sub-corpus, where the frequency of first person inclusive forms is significantly higher in RAs by Anglophone writers ($LL-G^2$ 4.3535, p-value 0.036). The lower incidence of the first person plural pronoun in the ECON-CZENG sub-corpus may result from the functional specialization of the exclusive *we* to express self-mention (e.g. *we used a calculation...*); consequently, reader involvement is indicated by second person and indefinite pronouns rather than by *we*. Within the linguistics sub-corpus there is no quantitative difference in the use of first person inclusive pronouns across the CZENG and ENG sub-corpora ($LL-G^2$ 0.5034, p-value 0.478). It may be argued that Czech linguists (due to their interest in language studies) are aware of the more dialogic character of Anglophone academic discourse and therefore to a large extent approximate its conventions, while Czech economists' writing is more likely to bear traces of the writer-oriented Czech academic tradition, which shows a preference for a lower degree of interactivity (Dontcheva-Navratilova, 2014; Čmejrková & Daneš, 1997).

In both disciplinary sub-corpora, the lower incidence of indefinite reference devices (*one*, *reader*) and second person forms (*you*, *your*) as compared to first person forms may be associated with the fuzziness of the group with which the reader is invited to identify, thus implying a lower degree of sharedness and collegiality. The indefinite pronoun *one* occurs more frequently in the linguistics sub-corpus (3.0 vs. 1.6; $LL-G^2$ 7.3725, p-value 0.006), where it usually represents the reader as a disciplinary member or a scholar in general (Example 3), while in the economics sub-corpus the referent of *one* tends to be very fuzzy, e.g. any reasonable person (Example 4).

- (3) Given participants' unequal access to their own others' experiences, **one** should expect discrepancies to arise often between first and second-hand accounts in interaction, as circumstances often change in one participant's day-to-day life without that news being reported to others. (LING-ENG 9)
- (4) **One** can hope that the wave of democratization will continue and episodes of civil war will decrease as more countries open their political systems. (ECON-ENG 3)
- (5) In my experience in commercial gyms **you** certainly cannot incite strangers, just as **you** cannot stare at them, but if you know someone, **you** may incite their more 'important lifts'.

The lower degree of formality of the second person forms *you/your* as well as the possibility of interpreting them as implying a distance between the reader and the writer (Example 5) may explain their low occurrence, which confirms the tendency towards a decline in their use over the last 50 years (Hyland & Jiang, 2016, p. 33).

3.1.2. Personal asides

Personal asides are generally the least frequent engagement feature (Lafuente-Millán, 2014), and their use has declined considerably over the last 50 years (Hyland & Jiang, 2016). It is therefore not surprising that their occurrence in the corpus is rare and shows no statistically significant difference across the two disciplines and linguacultural backgrounds. As Example 4 indicates, asides have the rhetorical potential to appeal directly to the reader by interrupting the flow of the argument by an additional comment indicating the benevolence of the writer as he/she shares further details with the reader.

- (6) At the same time, Russian EMP spills over to South African MMP, and Indonesia has a similar (**although not very significant**) effect on Mexico. (ECON-ENG 2)

3.2. Positioning: rhetorical construction of the reader-writer dialogue and roles

The positioning dimension of engagement refers to the rhetorical involvement between the writer and the disciplinary community through which the writer engages in a dialogue with the reader and 'designs' the audience. Positioning features help the writer construe various forms of footing and alignment in discourse, thus meeting readers' expectations of inclusion by representing them as knowledgeable and interested peers who are looking for the key points in the argumentation, considering alternative interpretations or perhaps challenging the suggested views and claims. Given the complexity of this dimension of engagement, it is not surprising that proximity markers account for more than 60 per cent of all engagement markers: 62.6 per cent in the linguistics sub-corpus and 69.9 per cent in the economics sub-corpus. The higher ratio of

positioning features in the economics sub-corpus is due to the prominence of directives used to introduce a hypothesis or a new line of argument, or to focus the attention of the reader on an important point in the argument.

3.2.1. Appeals to shared knowledge

Appeals to shared knowledge seek to create a feeling of sharedness and collegiality by positioning “readers within the apparently naturalised and unproblematic boundaries of disciplinary understandings” (Hyland, 2001, p. 566). They are the only prominent engagement feature to show significant variation not only across the two disciplines, but also across the two linguistic contexts. Their rate is significantly higher in the linguistics sub-corpus than in the economics sub-corpus (16.9 in LING vs 7.9 in ECON; $LL-G^2$ 76.1397, p -value <0.001) and it is Czech linguists that use this engagement feature significantly more frequently than their Anglophone counterparts (21.3 in LING-CZENG vs 13.3 in LING-ENG; $LL-G^2$ 9.1603, p -value 0.002). The prominence of appeals to shared knowledge in linguistics stems from their rhetorical potential to position readers on an equal footing with the writer as expert members of the discipline, sharing common understandings, methods and conventions. In the economics sub-corpus the frequency of knowledge appeals is lower, as the authors tend to refer directly to mathematical and statistical methods which the reader is required to know to follow the writer's argument.

Table 6 summarizes the results for the different categories of appeals to shared knowledge in the corpus. There is clear prevalence of logical reasoning in all sub-corpora (commonly expressed by *of course*, *obviously* and *clearly*), followed by markers of familiarity and tradition (usually indicated by *typically* and *commonly*), while the last category, routine conditions, is barely represented, especially in the economics sub-corpus.

Table 6

Appeals to shared knowledge across the sub-corpora (normalised per 10,000 words).

Shared knowledge appeals	LING	LING-ENG	LING-CZENG	ECON	ECON-ENG	ECON-CZENG
<i>Logical reasoning</i>	8.9	7.7	10.5	4.2	3.4	5.4
<i>Familiarity and tradition</i>	6.5	5.2	9.7	2.5	2.6	2.3
<i>Routine conditions</i>	1.5	1.9	1.0	0.5	0.2	0.1

Logical reasoning markers subtly combine the expression of an epistemic stance of certainty on the part of the writer with the assumption of shared beliefs with the reader and alignment with disciplinary practices, thus representing the writer's arguments and claims as self-evident and difficult to challenge (Example 7). They can also be used to acknowledge limitations (Example 8) or construct agreement after conceding a point (Example 9), which allows the writer to anticipate possible alternative interpretations or criticism.

- (7) The presence of ‘competitor’, **of course**, is highly relevant for such investigations. (LING-CZENG 12)
- (8) **Most obviously**, the fact that some disciplines are represented by relatively small numbers of writers raises questions about the representativeness of the results in relation to those disciplines. (LING-ENG 5)
- (9) Testing hypotheses implied by the results can, **of course**, shed much light on that question, but since their results relate essentially to a question of why people do what they do, it is the examined people who can settle the issue. (ECON-CZENG 2)

From an intercultural perspective, logical reasoning markers show higher frequencies in the Czech sub-corpora. The difference is significant in the economics sub-corpus ($LL-G^2$ 4.4893, p -value 0.034) and insignificant in the linguistics sub-corpus ($LL-G^2$ 3.4701, p -value 0.062). The greater prominence of logical reasoning markers in the Czech sub-corpora may be related to the homogeneity of small Czech disciplinary communities, which tend to assert a proximity relation between the writer and the reader on the basis of in-group membership. This, together with the local context of publication, perhaps explains why Czech authors feel confident to ask readers to recognise assumptions, methods and beliefs as shared, despite a tendency towards a decline in logical reasoning features as evidenced by Hyland and Jiang (2016).

The second category of shared knowledge appeals referring to familiarity with more general understandings and ways of doing things occurs less frequently in both disciplinary sub-corpora. While appeals to typicality may often refer to familiarity with more or less widespread social practices (Example 10), in most cases they assume shared knowledge of analytical approaches or research procedures (Example 11).

- (10) **Typically**, such introductions remind the congregation of what the topic was last time or refer to the textual context, specifying the position of the biblical passage to be discussed shortly. (LING-CZENG 10)
- (11) The first step in lexical bundle research has **typically** been to set a frequency-threshold, above which four-word combinations are taken to be sufficiently common to qualify as lexical bundles. (LING-ENG 5)

Given the less specific, approximative character of shared assumptions, this category of knowledge reference may help writers reach a wider audience, yet perhaps for this very reason it seems less persuasive for expert members of the disciplinary community and shows lower frequency of occurrence than logical reasoning markers. Like reasoning appeals,

familiarity and tradition markers are significantly more numerous in the CZENG component of the linguistics sub-corpus ($LL-G^2$ 11.0356, p -value <0.001), while the economics sub-corpus shows no intercultural variation ($LL-G^2$ 0.2979, p -value 0.585). Notwithstanding the sense typicality markers give of enhancing inclusiveness in the local discourse community, Czech linguists may be more prone to use them as knowledge about language and discursive behaviour is generally more accessible than the highly specialized knowledge about statistic and mathematical models in economics.

The last category of shared knowledge appeals assumes readers' familiarity with the routine conditions under which research is carried out (Example 12). Routine conditions are significantly more frequent in the linguistics sub-corpus ($LL-G^2$ 24.0691, p -value <0.001), yet their occurrence is very low as they are generally rare in the soft sciences (Hyland & Jiang, 2016, p. 36). This category shows no significant cross-cultural variation.

- (12) Many of the categories **routinely** used in survey research, policy evaluations and monitoring practices are less stable than they may seem at first sight (Sealey and Carter 2001; Carter and Sealey in press). (LING-ENG 1)

3.2.2. Questions

Questions are the most direct interpersonal device by which writers can engage in a dialogue with readers. In the egalitarian context of the RA, where the writer and the reader are positioned as peers, questions may be regarded as a positive politeness device which helps writers show willingness to share information and create a rapport with their readers (Lafuente-Millán, 2014; Thompson, 2001).

While questions may serve useful rhetorical purposes, like asides they are not frequent in the corpus, or in the genre of RAs in general (Hyland, 2002a). Unlike asides, however, questions show significant cross-disciplinary variation, as their role is more prominent in the linguistics sub-corpus than in the economics sub-corpus (2.1 in LING vs. 0.9 in ECON; $LL-G^2$ 9.1706, p -value 0.002). A possible reason for this may be that linguists tend to make more frequent use of questions which might be attributed to the reader, who is positioned as a colleague sharing the writer's interest in the issue at hand (Example 13); in this way the writer constructs sharedness and guides the reader towards acceptance of suggested interpretations. In the Czech sub-corpora the frequency of questions is extremely low; they occur in only a few RAs and often form clusters, as in Example 14.

- (13) While the expression indicates a bid to return to serious talk, the question remains as to why it has been invoked when the prior tease was interactionally achieved as jocular by the participants? (LING-ENG 13)
- (14) What is it that makes a piece of language persuasive? What do addressors do in order to make their utterances credible and potent enough to convince their addressees? What are the particular linguistic tools that foster persuasion in human communication? (LING CZENG-10)

3.2.3. Directives

The function of directives is to instruct readers to perform an action and to see things in a way determined by the writer (Hyland, 2001, p. 563). Their frequent occurrence in RAs across many disciplines shows that even though they indicate some degree of imposition on the part of the writer and therefore may be seen as a somewhat risky strategy, directives are a useful rhetorical device allowing the writer to impart knowledge and instructions to the reader in a concise and clear way (Hyland, 2001, 2005a, 2005b; Hyland & Jiang, 2016; Swales et al., 1998). Following Giltrow (2005) and Lafuente-Millán (2014), in this study the scope of directives is extended to include obligations imposed by the writer, not only on the reader but also on other actors, who are designated to carry out actions in the real world.

Directives show significant cross-disciplinary variation (16.9 in ECON vs 14.1 in LING; $LL-G^2$ 4.4903, p -value 0.034). They are most frequent in the economics sub-corpus, perhaps because they seem to help writers to provide clear and precise instructions for the application of mathematical and statistical methods, as well as to guide the readers through the steps of reasoning chains. The relatively high rate of directives in the linguistics sub-corpus stems from their frequent use to indicate intertextual reference.

The distribution of linguistics markers realizing directives is shown in Table 7.

Table 7

Realizations of directives across the sub-corpora (normalised per 10,000 words).

Directives	LING	LING-ENG	LING-CZENG	ECON	ECON-ENG	ECON-CZENG
Imperatives	8.1	6.3	10.6	8.2	10.3	4.8
Obligation modals	5.0	6.1	3.5	7.1	6.7	7.7
Predicative adjectives	1.1	0.5	1.9	1.5	0.8	2.8

The most frequent realizations of directives are imperatives (e.g. *consider, see, multiply*, as in Examples 15 and 16), although they are typically seen as a bald-on-record, face-threatening act (Brown & Levinson, 1978). Yet demands of efficiency and

clarity may override concerns of negative politeness, as the reader is supposed to be interested in receiving knowledge from the writer and thus the act is considered beneficial to the audience (Myers, 1989, p. 21; Swales et al., 1998, p. 99). While there is no cross-disciplinary difference in the overall frequency of imperatives ($LL-G^2$ 0.0035, p-value 0.952), Czech and Anglophone writers seem to have different preferences for their use. Czech linguists use significantly more imperatives than English linguists ($LL-G^2$ 9.4731, p-value 0.002), which is mostly due to the frequent use of *see* for referring to sources (Example 16), while Czech economists use significantly fewer imperatives than their Anglophones counterparts ($LL-G^2$ 18.6044, p-value 0.001), owing to the low occurrence of verbs like *assume* and *note* to guide the reader along the chain of argumentation.

(15) **Consider** point A and income level M0 in xxx 2. (ECON-ENG 11)

(16) It cannot pass unnoticed that the italicised direct reports form short dialogues reminiscent of those found e.g. in fiction or spoken narrative (**see** e.g. Tannen 1986, 2007). (LING-CZENG 2)

Given their potentially strong impact on the reader, obligation modals (e.g. *must*, *should*) tend to occur less frequently than imperatives in all sub-corpora, apart from ECON-CZENG where they are more numerous than imperatives. Apparently, the higher frequency of obligation modals in the economics sub-corpus as compared to the linguistics sub-corpus ($LL-G^2$ 6.6117, p-value 0.010) is because they are used to signal important points and to impose obligations that other actors, such as governments or companies, are expected to carry out (Example 17). Obligation modals show significant intercultural variation only in linguistics articles ($LL-G^2$ 4.2506, p-value 0.039). Their low number in the CZENG-LING sub-corpus might indicate transference from Czech academic discourse, where they typically occur only in the first person inclusive form and are frequently substituted by predicative adjectives controlling an infinitive clause. This also seems to explain the higher rate of predicative adjectives in the Czech sub-corpora as compared to the Anglophone ones (ECON: $LL-G^2$ 10.8578, p-value <0.001; LING: $LL-G^2$ 6.4043, p-value 0.011) (Example 18).

(17) For those cases where direct spillovers occur – primarily in Asia – central bankers **should** be particularly aware of the possible cost of turbulence in the banking system. (ECON-ENG 2)

(18) At first, **it is necessary** to calculate the national technical coefficients from the national table and then to recalculate the national coefficients into the regional ones using location quotients. (ECON-CZENG 4)

A comparison of the functions of directives across the sub-corpora reveals significant cross-disciplinary (Table 8).

Table 8

Functions of directives across the sub-corpora (normalised per 10,000 words).

Directives	LING	LING-ENG	LING-CZENG	ECON	ECON-ENG	ECON-CZENG
Textual acts	5.6	4.2	7.5	3.3	2.9	4.0
Cognitive acts	6.9	6.2	7.9	10.7	10.6	10.8
Physical acts	1.6	2.4	0.4	2.8	4.3	0.5

While cognitive acts ($LL-G^2$ 13.0169, p-value <0.001) and physical acts ($LL-G^2$ 7.1214, p-value 0.007) prevail in economics articles, textual acts are more numerous in the linguistics sub-corpus ($LL-G^2$ 10.5175, p-value 0.001). The prominence of cognitive directives in the economics sub-corpus stems to a large extent from the use of imperatives (Example 16) and modals of obligation (Example 20) to direct the reader through arguments and proofs. From an intercultural perspective, cognitive directives show no significant differences.

The higher frequency of textual acts in the linguistics sub-corpora stems from the more interpretative character of the discipline, where dialogical engagement with previous research by intertextual connection is indispensable to persuasion (Example 16). Textual acts are significantly more numerous in LING-CZENG ($LL-G^2$ 7.2734, p-value 0.007), which results from the frequent use of *see* in parenthetical references to previous research. This is a clear sign of interference from Czech academic discourse, where use of this imperative is standard practice, while in Anglophone discourse the parenthetical form itself seems to provide sufficient indication that the reader is referred to another text. While in the linguistics RAs intertextual reference clearly predominates, in economics RAs textual acts (especially in the CZENG sub-corpus) often refer to visualisations and other parts of the text (Example 19).

(19) It **should** be emphasized that what matters is the relation higher/lower degree, rather than the absolute numerical value; also the difference of 1 is too small to be relevant (**see** (c) above). (LING-CZENG 11)

Physical act directives used to provide instructions explaining the research procedure (Example 20) are significantly more frequent in Anglophone RAs (ECON: $LL-G^2$ 29.3238, p-value <0.001; LING: $LL-G^2$ 10.8129, p-value 0.001). The tendency of Czech scholars to rely on well-established analytical frameworks and methods which are considered to be well known and shared within the small Czech disciplinary discourse communities may explain why physical act directives are infrequent in their RAs.

- (20) **Multiply** both sides of the four pricing Eq. (21) by the relevant outputs and set to zero (move c terms to the left-hand side). (ECON-ENG 11)

4. Conclusions

This study has adopted a doubly contrastive approach for the investigation of cross-disciplinary and intercultural variation in linguistics and economics English-medium RAs written by Anglophone and Czech scholars. The results have shown that there is significant cross-disciplinary variation in the ways engagement markers are used across the two disciplinary contexts. Although the RAs from both disciplines displayed the whole range of engagement features, it was found that linguistics RAs employ significantly more engagement markers and show a preference for the use of proximity markers, while economics RAs tend to use more positioning features. These differences reflect the more interpretative character of linguistics, which is associated with a higher level of dialogism and the proximization of the reader as an in-group member sharing the author's beliefs, values and understandings. In contrast, the employment in economics of methods of statistics and mathematics is associated with an extensive use of directives for positioning readers by providing instructions and directing their attention to aspects relevant to the progress of the argument. These results are in line with previous research suggesting that disciplinary variation is influenced by epistemology, methods and conventions established in a specific discipline (e.g. Fløttum et al., 2006; Gray, 2015; Hyland, 2008).

This comparative analysis of engagement in RAs by Czech and Anglophone scholars has shown that in terms of overall frequency of the categories of engagement differences across the two linguacultural contexts are not highly significant, as only one engagement feature (appeals to shared knowledge, used more frequently by Czech writers) shows significant intercultural variation. However, analysis of the sub-categories of engagement has revealed significant intercultural differences between RAs by Czech scholars published in national journals on the one hand and RAs published by Anglophone scholars in high-impact international journals on the other concerning the realisation of reader mentions and types and functions of directives. These divergences can to a large extent be related to the context of publication and the intended audience, thus confirming that in linguistics and economics national culture is an important variable in rhetorical choice (cf. Dahl, 2004). The orientation of Anglophone writers towards an expanding heterogeneous readership is likely to explain the effort they invest in providing instructions and guiding readers through the reasoning chain of the argument. Czech writers, who address primarily a local, small and homogeneous disciplinary community, seem to attribute greater importance to the construal of solidarity and reference to shared sources, methods and understandings. Another reason for divergence may be the influence of Czech academic writing conventions, which seem to explain the frequent use of *see* in parenthetical citations and the higher frequency of directives with predicative adjectives. Therefore, it can be argued that while Anglophone and Czech authors convey engagement with their readers in similar extents, they tend to diverge in their preferences for specific realisations of engagement markers. These divergences may be seen as signs of hybridisation in Czech writers' English-medium academic discourse; although they do not seem great enough to be stigmatized, they might be a factor that inhibits the chances of Czech scholars being published in international journals.

To conclude, the findings of this study have evidenced that disciplinary and linguacultural factors affect the choice of engagement resources in RAs in different ways. Disciplinary conventions seem to have a key impact on rhetorical choices instrumental in persuading the disciplinary community to accept suggested interpretations and claims. The specific engagement markers the authors opt for, however, tend to be influenced by cultural considerations. These findings have important implications for English for Specific Purposes, as they highlight the importance of academic writers' awareness of the interplay of discipline and culture-driven rhetorical choices in academic discourse. To improve their chances of being published in high-impact international journals, Czech academic writers should have extensive knowledge of rhetorical conventions and expectations in their discipline in the context of international publications. The results of this study can inform the design of materials and resources that can be used by writing-in-the-disciplines instructors to draw the attention of professional and novice L2 writers to specific ways in which engagement is conveyed in different cultural and publication contexts, thus assisting them in the development of their academic writing skills. Obviously, the results of this research cannot be overgeneralized. In order to refine our knowledge of how the correlation between culture and discipline partakes in the construal of persuasion in academic context, these results should be extended and verified by larger-scale studies considering the interplay of engagement and stance markers in different disciplines and across various linguacultural backgrounds.

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Declaration of competing interest

None.

Appendix. Engagement markers across the sub-corpora

Engagement marker	ECON-ENG	ECON-CZENG	LING-ENG	LING-CZENG
Reader mentions				
we	73	28	106	70
our	13	5	9	18
us	12	8	12	13
you	0	4	7	1
your	0	2	2	0
one	11	12	21	1
one's	0	4	13	14
reader	5	1	1	0
Personal asides				
incidentally	0	0	0	2
(15	18	16	13
-	3	0	5	0
Shared knowledge appeals				
apparent	0	0	6	3
apparently	1	0	3	2
certainly	2	3	8	6
clearly	16	7	8	18
established	0	0	1	1
common	5	3	10	7
commonly	6	2	12	7
conventional	3	2	7	0
conventionally	0	0	1	1
evident	1	2	1	1
evidently	0	0	4	1
familiar	0	0	2	0
it is apparent that	1	1	2	0
it is clear that	1	9	8	3
it is acknowledged	0	0	1	1
it is well known	2	0	1	0
normally	0	0	4	7
naturally	2	4	1	4
obvious	2	5	6	8
obviously	2	1	4	10
of course	9	8	13	9
prevalent	0	0	1	0
prevailing	0	1	1	0
routinely	1	1	14	0
traditional	5	4	2	3
traditionally	0	0	2	6
typical	1	3	4	15
typically	15	2	6	26
undoubtedly	1	1	2	6
usual	3	0	5	0
Questions				
?	12	6	20	7
Directives				
add	2	1	0	0
assume	3	0	0	0
broaden out	0	0	1	0
choose	1	0	0	0
compare	0	0	1	0
consider	34	1	8	0
denote	1	0	0	0
develop	0	0	1	0
establish	0	0	1	0
have to	0	8	1	4
identify	0	0	1	0
it is essential to	0	0	1	2
it is important to	10	4	4	4
it is necessary to	0	17	1	1
let	12	0	0	0
let us	0	3	1	7
look for	0	0	1	0
make	2	0	0	0
move	2	0	0	0
multiply	1	0	0	0

(continued)

Engagement marker	ECON-ENG	ECON-CZENG	LING-ENG	LING-CZENG
must	19	22	17	10
need to	3	6	14	4
note	13	1	2	2
notice	0	0	2	1
pick	1	0	0	0
recall	6	0	1	1
see	29	30	40	51
should	59	22	23	21
suppose	17	0	0	0

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