



Seeking Persuasion: Building Argumentation Metadiscursively

Reza Abdi ^{1*} , Bita Alaei ² 

¹ Associate Professor, Department of ELT, Faculty of Humanities, University of Mohaghegh Ardabili, Ardabil, Iran

² MA Student, Department of ELT, Faculty of Humanities, University of Mohaghegh Ardabili, Ardabil, Iran

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Abstract: Toulmin's (1958) model of argumentation and Abdi et al.'s (2010) model of metadiscourse, mapped onto Grice's (1975) Cooperative Principle, are both attempts to elaborate on the process and contribute to the goal of obtaining persuasion. This study is an attempt to integrate the use of metadiscursive and argument strategies to provide a common logical rationale for their employment. Through a qualitative investigation of 40 ELT research articles (RAs), we propose a convergent framework for employing CP-based metadiscourse and argumentation model in RA arguments. As a result, endophoric markers were identified to be used as warrants to meet quantity, while transitions, frame markers, and code glosses were found to be employed as conclusions and data to fulfill manner. Furthermore, evidentials were found to be employed in conclusion, backing, and warrant; hedges were seen to be used as qualifiers; and finally, disclaimers were recognized to be employed in rebuttals; to meet quality. The findings reveal that argumentations are built metadiscursively which has implications for writers and educators. For writers, it could help to develop a deeper understanding of the positive role of metadiscursive strategies in RA arguments and as such could guide a more efficient employment of it to facilitate persuasion. For educators, the findings could provide a model for building and ensuring basic logical and rhetorical characteristics of an argument in academic writing.

Keywords: Argumentation, Metadiscourse, Cooperative principle, Research Article, Academic Writing.

* Corresponding Author.

Authors' Email Address:

¹ Reza Abdi (reabdi@uma.ac.ir), ² Bita Alaei (bita.alaei.6104@gmail.com)



Introduction

Language is an essential component of human communication and plays a crucial role in our daily lives. From expressing ourselves to others to understanding and interpreting the world around us ([Johnstone, 2018](#)), language is at the core of our existence. Although at first, language was believed to be a system constituted of different components and a tool used to report and describe reality, later it was claimed that it also involves an array of inseparable contextual factors ([Romaine, 2000](#)), which are examined in discourse and "language in use" ([Cook, 1989](#)). While considering the content, we also consider the use of language to guide the readers, organize the text, and make it more comprehensible, which is materialized through the use of metadiscourse. Metadiscourse refers to the ways through which writers use language to reflect on their own communication and connect with their audience helping to create meaning and build relationships within a community ([Hyland, 2005a](#)) according to the conventions of the academic discourse community. The emergence of different models of metadiscourse use in academic fields (e.g., [Crismore, 1989](#); [Vande Kopple, 1985](#); [Hyland, 2005a](#); [Ädel, 2006](#); [Abdi et al., 2010](#)) has led to developing a more comprehensive understanding and employment of this language feature among community members. [Abdi et al.'s \(2010\)](#) metadiscourse model based on [Grice's \(1975\)](#) Cooperative Principle (CP) proposes that discourse and metadiscourse cannot be separated in a context of interaction. The CP principle suggests that when participants engage in a conversation, they try to be cooperative, keep the goal of the conversation, and be informative and relevant.

Among different contexts of discourse and metadiscourse use, argumentation is a vital concept that contributes to effective communication and critical thinking. Argumentation is often used when parties in communication have opposing points of view ([Karunatilake & Jennings, 2005](#)). In academic discourse, argumentation plays a significant role in establishing and spreading knowledge. A well-constructed argument helps writers persuade their audience and communicate their ideas effectively while reinforcing their stance ([Yasuda, 2023](#)). According to [Wolfe \(2011\)](#), most writing tasks assigned to undergraduate students across different fields of study at a university in the US involved the creation of an argument that indicated the importance of this skill.

Different models of argumentation have been proposed to help researchers and practitioners explore and utilize it in a more effective way. A comprehensive argumentation theory is proposed by [Toulmin \(1958\)](#) who claims that an argumentation is essentially composed of six components (see below). Considering the basic role of argumentation and the inseparable role of discourse and metadiscourse in persuasion, it would be helpful to

understand the relationship between them in RAs, which is the most highlighted genre in academic writing. Thus, it is hoped that this study, by converging the components of metadiscourse (based on the metadiscourse model proposed by [Abdi et al., 2010](#)) and components of argumentation (based on the argumentation model proposed by [Toulmin, 1958](#)), would reveal the common rationale and show how metadiscourse and argumentations are used convergently to facilitate persuasion.

Review of the Literature

Discourse and Metadiscourse

Language plays a crucial role in promoting collaboration and sharing knowledge and experiences between individuals ([Halliday, 1978](#)). In order to accomplish this goal, individuals participate in discourse, which involves creating meaning in a particular context. According to [Cook \(1989\)](#), this process is referred to as "*language in use*" for communication. Metadiscourse, on the other hand, refers to the use of language elements and techniques by writers or speakers, whether implicit or explicit, to interact with readers or listeners and involve them. This can help to showcase their evaluation and perspective, structure the text, assist the audience in understanding the content, and establish a relationship between the communicators. ([Hyland, 2018](#); [Ädel, 2006](#); [Vande Kopple, 1985](#); [Crismore & Farnsworth, 1990](#); [Salager-Meyer, 1994](#); [Yue, 2020](#)). The effective use of metadiscourse strategies is critical for building interactional and interpersonal relationships with the audience and convincing them of the value and reliability of research findings. To be proficient in field-specific writing practices, it is important to have a thorough understanding of metadiscourse and utilize it productively. The study of metadiscourse strategies in academic writing is of great importance as this helps authors separate their opinions from the facts and present their ideas persuasively. A study by [Livingstone \(2019\)](#) revealed that interactive markers are used more than interactional ones, with transitional/logical connectives being the most used, followed by other markers like evidentials and code glosses. The results of another study by [Mirshamsi & Allami \(2013\)](#) showed that native English writers used more interactive and interactional meta-discourse markers than native Persian and EFL learners. These insights from research can make teachers aware of the way metadiscourse markers are actually used and can serve as a helpful resource for anyone thinking about a career in academia or in any field where sharing information and ideas is crucial.

Various models for metadiscourse have been developed to aid comprehension and employment, including those proposed by [Crismore \(1989\)](#), [Vande Kopple \(1985\)](#), [Hyland \(2005a\)](#), and [Ädel \(2006\)](#). The most recent model, proposed by [Abdi et al. \(2010\)](#), is based on [Grice's \(1975\)](#) CP, which asserts that discourse and metadiscourse are strongly connected and that the CP guides decision-making at both levels.

The Cooperative Principle

The concept of the Cooperative Principle was introduced by [Grice \(1975\)](#). This principle is built on the idea that communication is a collaborative effort and we strive to make our conversations as efficient and as effective as possible. It assumes that we all have a mutual understanding of the fundamental rules of communication, and we agree to do our part in conveying information accurately and clearly while expecting the same from others. We work together to achieve our communication goals and are committed to collaborating with one another. The CP is broken down into four categories and relevant maxims. Each of the maxims provides guidelines for how speakers should cooperate in order to achieve the goal of communication (Table 1).

Table 1. The Categories and Relevant Maxims of the Cooperative Principle

Category	Maxims
Quantity	<ol style="list-style-type: none"> 1. Make your contribution as informative as is required. 2. Do not make your contribution more informative than required.
Quality	<ol style="list-style-type: none"> 1. Do not say what you believe to be false. 2. Do not say that for which you lack adequate evidence.
Relation	Be relevant.
Manner	<ol style="list-style-type: none"> 1. Avoid obscurity of expression. 2. Avoid ambiguity. 3. Be brief and orderly.

The principle has a close relationship with the notion of "discourse community" proposed by [Swales \(1988\)](#). A discourse community is a group of individuals who have shared ways of thinking, beliefs, values, and language use. Together, they work towards a common goal, utilizing their unique communication style to accomplish tasks. Members of such a community share knowledge specific to their group, thus building a collective identity. This identity, fused with their distinct language use, grammar usage, and jargon, enables

members to take similar actions, creating a sense of cohesion and unity (Swales & Swales, 1990; Swales & Feak, 2012). Studies of cooperative principles and maxims in academic writing enable the people involved (researchers, teachers, and students) to be aware of the coherence of the writings.

A CP-based Model of Metadiscourse

Abdi et al. (2010), after a thorough analysis of RAs from different fields, suggested an approach to the employment of metadiscourse, by mapping the strategies onto Grice's cooperative principle (1975). This model establishes a stronger connection between discourse and metadiscourse, where it is maintained that the cooperative principle is relevant to decision-making at both levels in an attempt to achieve effective communication. The model categorizes metadiscourse strategies into four categories, namely quantity, quality, manner, and also interaction, as shown in Table 2, assumed to function as the rationale behind their employment. They suggested that as Wilson and Sperber (2004) argue, relevance is a critical element in the whole writing process for achieving coherence in a successful communication, as such removing the necessity to include it as an independent category. Instead, they added *interaction* as a category as it is widely recognized as a vital part of any human communication.

Table 2. A CP-based Model of Employing Metadiscourse Strategies in Research Articles (Abdi et al., 2010, p. 1677)

Metadiscourse strategy	Maxims	Cooperation category	Overall orientation
	1. Make your contribution as informative as is required.		
Endophoric markers	2. Refer the audience to other parts of the text to avoid repetition 3. When repetition is inevitable, acknowledge it to avoid inconvenience.	Quantity	Avoid prolixity to make the text manageable and friendly
Collapsers	Avoid undue repetition by using proper referents.		
Transitions	1. Properly signpost the move through arguments. 2. Be perspicuous	Manner	Clarify steps and concepts to make the text

Frame markers	1. Be orderly. 2. State your act explicitly.		comprehensible
Code glosses	1. Avoid ambiguity. 2. Avoid obscurity of expression.		
Evidentials	1. Do not say that for which you lack adequate evidence. 2. Cite other members of the community to qualify your propositions.		
Hedges	1. Do not say what you believe to be false. 2. Do not say that for which you lack adequate evidence. 3. Mark if evidence is not enough. 4. Do not use hedges in widely accepted or supported propositions.		
Boosters	1. Do not say what you believe to be false. 2. Do not say that for which you lack adequate evidence. 3. Mark if evidence is notable. 4. Do not use emphatics if evidence is not enough.	Quality	Build on evidence to make the propositions tenable
Disclaimers	1. Do not say that for which you lack adequate evidence. 2. Outline the framework within which you would like your propositions to be interpreted. 3. Explicitly distance yourself from untenable interpretations.		
Attitude markers	Express your feelings or avoid them according to the norms and conventions.		
Self-mentions	Enter your text or sidewalk it according to the norms and conventions.		Make participants and feelings visible
Engagement markers	1. Draw the audience in or ignore them according to the norms and conventions. 2. Give directions to your readers to follow when appropriate.	Interaction	to promote rapport

Argumentation

[Bruce \(2015\)](#) introduced the "*social/cognitive model*" which elaborates on two genre kinds in texts. The social genre (the first kind) describes the socially accepted organizational frameworks that categorize pieces of writing based on their broader social intent, such as a novel, a short story, or a newspaper editorial. The cognitive genre (the second kind) on the other hand, refers to the overall cognitive mindset and internal structure of a piece of writing that is intended to accomplish a specific rhetorical objective. This could include explaining a procedure, presenting an argument, or narrating a series of events. A highlighted cognitive genre in academic writing is "*argumentation*" which is a vital skill for effective communication and critical thinking ([Miller & Charney, 2009](#)). It is important to note that argumentation is not solely about winning an argument or convincing someone to agree with you, rather it's about comprehending opposing viewpoints, assessing evidence, and arriving at a logical conclusion ([Walton, 2005](#)).

The ability to engage in constructive argumentation is critical in navigating societal discourse and effectively resolving problems ([Mercier & Landemore, 2012](#)). Thus, several theoretical and/or pedagogical frameworks for conceptualizing arguments have been suggested (e.g. [Wolfe et al., 2009](#); [Britt et al., 2007](#); [Toulmin, 1958, 2003](#); [Fahnestock & Secor, 1988](#); [Wingate, 2012](#)), the most famous and comprehensive of which is [Toulmin's model \(2003\)](#). The main components of Toulmin's model are the *claim*, *data*, *warrant*, *backing*, *rebuttal*, and *qualifier* (Table 3). The model places significance on backing up arguments with evidence and reasoning, along with recognizing and resolving counter-arguments.

Table 3. [Toulmin's \(1958\)](#) Model of Argumentation

Claim	The purpose and main element of an argument
Data	Evidence used to support the claim and provide grounding for it
Warrant	The reason that connects the data to the claim
Backing	The support or evidence that further strengthens the warrant
Qualifier	The degree of authorization granted by the warrant
Rebuttal	Situations where the warrant's overall power would be questioned

[Toulmin's](#) model (1958) has received a lot of attention in academic fields. [Osman & Januin \(2021\)](#) used his argumentation model to analyze Malaysian students' persuasive essays and identified the strong and weak aspects of their essay writings. Another study by [Bermani](#)

[et al. \(2017\)](#), using [Toulmin's](#) model, showed that the argument in the introduction and discussion sections of essays of postgraduate students of English is not appropriately constructed. Studies of this kind would allow the teachers to focus on students' needs and allow the textbook developers to improve their materials. Considering the wide employment of argumentation in academic writing, and the importance of metadiscourse in establishing the context and conveying findings, we embarked on exploring the potential for creating a single framework that helps using metadiscourse strategies in argumentations in RAs. Thus, this study aims to formulate a framework integrating the components of [Toulmin's](#) model, and metadiscursive quantity, quality, and manner strategies as identified in [Abdi et al.'s \(2010\)](#) model. The merge is assumed to shed light on a more plausible use of metadiscourse strategies in argumentation based on a common rationale. That is, authors can create a more persuasive argument while satisfying the cooperative principle.

Methodology

The present study undertook a review of recent research literature spanning the period 2022-2023, encompassing a total of 40 articles. As the aim of the study was to develop a framework for the potential relationship between metadiscourse and argumentation strategies, the latest RAs were selected to ensure that they would be based on up-to-date scholarly texts. The articles were chosen from five ELT journals including *Language Learning & Technology*, *Language Learning Journal*, *Studies in Second Language Acquisition*, *Electronic Journal for English as a Second Language*, and *Modern Language Journal*. As we were addressing widely similarly employed rhetorical strategies, we were convinced while examining the data that saturation is achieved and that there is no need to include more journals and articles. As the primary objective of this inquiry was to broaden our understanding of the use of metadiscourse within RA argumentations through revealing the common rationale behind the two, only articles from the English Language Teaching (ELT) discipline were selected for examination. This discipline was identified as being particularly suited for the purposes of this study, as it represents the writers' own field of scholarship, which is important for a better understanding of the arguments. This approach was deemed ideal in facilitating the identification of argumentation and metadiscourse employment patterns, as the discipline-specific norms and conventions are highly familiar to the authors.

The aim of the study was to develop a framework that can guide the employment of metadiscourse markers in RA argumentations considering the maxims of CP. For the purpose of this study, the argumentation components of [Toulmin's model \(1958\)](#) and metadiscourse

strategies from [Abdi et al.'s \(2010\)](#) CP-based metadiscourse model were considered before and during the analysis, attempting to find overlapping characteristics of the two in RA sections. We consistently discussed examples in order to analyze the articles in a coherent and less subjective manner.

Only a few representative examples, assumed sufficient for the purpose of the qualitative research, have been selected and discussed in related sections of results and discussion.

Each example is numbered and metadiscourse strategies are boldfaced. A precise determination of what component of argument is included in a sentence, essentially requires a close examination of the context of use. The examples provided in the *Results and Discussion* section below are solely representing the core of the identified arguments.

Results and Discussion

Endophoric Markers

Endophoric markers are external references to the entirety of a written work as well as its different components ([Burneikaitė, 2009](#)). These markers are used to prevent repeating a linguistic or graphic element when referring to it internally thus contributing to the quantity category of CP.

Endophoric markers were used mostly in *warrants*. We used *in* before *warrants* to denote that metadiscourse strategies are part of a larger argument component. These markers were used as phrases like *as stated earlier* or *as said before* (1, 2). As the nature of *warrants* is to explain the reason ([Toulmin, 1958](#)), the writers use endophoric markers to refer back to previously mentioned evidence and ideas to remind the readers as a way to support their current argument.

- (1) **As noted above**, lexically independent priming in production, tends to ...
- (2) **As stated earlier**, for these structures as the verbs (e.g. selected, washed), differ in morphosyntactic

Transitions

The employment of transitions in writing is crucial to provide clear markers throughout the argument and prevent reader confusion ([Abdi et al., 2010](#)). Essentially, writers rely on these transitional phrases to guide readers through their thought processes and ensure that the overall message remains coherent and understandable ([Hall, 2007](#)). Transitions were

identified to be used in *data* and *conclusions* aiming to preserve the overall organization serving *manner*.

As *data* was observed to contain the most amount of information in RAs among the other components of arguments, the writers frequently use transitions to signpost the argument stream (3, 4).

(3) **Admittedly**, we have no way of knowing for certain ...; **however**, we are quite confident that **Furthermore**, if some portion of participants were in fact insomniacs, ...

(4) **Although** we have clearly shown **However**, while Gonzalez Alonso et al. (2020) argued for ...

The transitions were also used mostly before starting the *conclusion* component of the argument in order to signal the beginning of the claim in the argument stream using *therefore*, *thus*, *as such*, etc. ... (5, 6).

(5) Transitions are employed to signpost **Thus**, they are necessary to help readers follow the line of argument as visualized by the writer ([Hall, 2007](#)).

(6) **Therefore**, the above maxims and the following tentative suggestions are to be taken as an attempt to materialize such an intention.

Frame Markers

Frame markers are metadiscourse strategies employed to explicitly organize the content of the text, helping to meet the requirements of manner in the CP model. They were seen to be used mostly in the Discussion and Conclusion of RAs, in the form of markers like *first*, *second*, *further*, *finally*, etc. They were mostly matched with the *data* component of an argument where different arguments were being made following each other (7, 8, 9).

(7) **Consequently**, for L2 grammar practice, there should be a point at which durable knowledge is attained, and this should be predictable from training measures.

(8) **Finally**, in an effort to avoid speculative remarks, we do not ...

(9) **First**, for n-grams, learners may show increases in frequency **Second**, learners may be particularly sensitive ...

Code Glosses

Code glosses serve the purpose of identifying the concepts the authors predict would be a challenge for the imagined audience to clear understanding. These could include but are not

limited to defining terms more explicitly, or providing clarification and examples (Hyland, 2007; Dehghan & Chalak, 2016). Code glosses were also identified to be mostly used in *data* serving manner. As *data* serves as the grounding for the conclusions and insights drawn from it (Toulmin, 1958), it is essential to clarify any potential confusion or misinterpretation that could arise. As *data* serves as the grounding for the conclusions and insights drawn from it (Toulmin, 1958), it is essential to clarify any potential confusion or misinterpretation that could arise.

As such, code glosses were considered a useful tool for achieving this aim (10, 11, 12).

(10) The verb differs in tense and voice (**MC–RC: past tense vs. passive participle**) or subcategorization (**DO– SUBJ: transitive vs. intransitive**).

(11) L2-Spanish speakers rated ungrammatical sentences in Spanish manipulated to include Portuguese subject-to-subject raising as being significantly more acceptable than did L1-Spanish speakers (**e.g. the sentence Ana me parece adorer a Miguel "Ana seems to me to adore Miguel" is ungrammatical in Spanish but grammatical in Portuguese**).

(12) Specifically, prior research used structures involving MC–RC ambiguity (**e.g. The speakers selected by the group would be perfect for the program**) or SUBJ–DO ambiguity (**e.g. After the lady washed the dog started eating some food quickly**).

Evidentials

Evidentials are used to create arguments based on established evidence (Abdi et al., 2010) or reveal the source of information, emphasizing the dependability and credibility of its source (Hyland, 2005b; Hyland & Tse, 2004; Thomas & Hawes, 1994) in an attempt to increase the overall quality of the text. Evidentials play a vital role in writing RAs as they are replete with claims and arguments the credibility of which is basically dependent on providing sufficient and trusted evidence. Evidentials used in RA arguments take two forms. Evidential in *warrants* took both forms of citing the evidence from the other research (13), which is quite widely employed, and also building on widely established grounds using phrases like *this follows from the fact that* (14) or *it is generally accepted that* (15).

(13) ... since the L1 sound system has a very early window for nativelike acquisition in both perception (**Best et al., 1995; Werker et al., 1981**) and production (**Flege et al., 1999**).

(14) This follows from the **fact** that in nearly every case, to observe priming within comprehension, some ‘boost’ is needed. "

(15) ... it is **generally accepted that** English L1 speakers also exhibit verb-dependent priming.

Evidentials in *conclusions* (16) and *backings* (17) took the form of citations from the other research.

(16) ... leading us to assure that immediate priming originates partly from explicit memory of the prime structure (**Bernolet et al., 2016**).

(17) **As Montero Perez et al. (2015)** argued, eye-tracking data cannot provide a full picture of learners’ engagement with the ...

Hedges

Qualifiers, as proposed by [Toulmin \(1958\)](#), indicate the strength conferred by the *warrant*. Hedges, on the other hand, aligning with the definition of qualifiers, refer to linguistic expressions used to convey that the available evidence may be insufficient in supporting a claim ([Abdi et al., 2010](#)). *Qualifiers* in arguments were observed to mostly take the form of hedges in order to keep the text acceptable in terms of quality (18, 19).

(18) Thus we **may** argue that lexically independent priming in L2 comprehension is not restricted.

(19) Therefore, we **could** argue that recognizing the appropriate form of the verb is crucial to parsing.

Disclaimers

Disclaimers are metadiscursive strategies used by the authors as an attempt to avoid any untenable understanding of their current and future statements. *Rebuttals*, on the other hand, suggest situations where the authority of the warrant may need to be disregarded ([Toulmin, 1958](#)). Both *rebuttals* and disclaimers aim to enhance the quality of the text as they are used when the author wants to avoid something that he/she believes could be false. *Rebuttals* and disclaimers prevent counter-arguments by identifying the untenable situations and addressing them in advance. Disclaimers and *rebuttals* were observed to be partially (20) or completely (21, 22) overlapped, with the latter being the case when the covert type of disclaimer was used (see [Abdi, 2012](#)).

(20) **However**, as Lwo and Lin pointed out, the findings **should be interpreted with caution** because the viewing material used ...

(21) ... which might imply that the participants were attempting to establish form-meaning links. **However, additional data would be needed to confirm this**

(22) Thus, L2 priming can impact the ultimate interpretation without verb repetition, **though it is unclear whether verb-independent priming would be observed if measuring online reading times.**

Overall Discussion

As the CP model of metadiscourse embarked on revealing the underlying logic for the use of strategies, we set out to reveal a similar underlying logic for argumentation strategies and converge them to facilitate understanding and employment of both. After analyzing the use of metadiscourse strategies in RA argumentations, seven metadiscourse strategies were identified to converge with argumentation components to meet the requirements of quantity, manner, and quality as summarized in Table 4.

As an attempt to meet the quantity maxim in arguments, endophoric markers were used in warrants in order to remind the already mentioned ideas as a way to support their arguments.

To meet the needs of the maxim of manner, transitions, frame markers, and code glosses were used. Transitions (in data and conclusion) and frame markers (in data solely) were used to organize and clarify the steps of the argumentation. Code glosses, on the other hand, were used mostly in data to clarify any possible confusion on the part of readers.

In order to meet the requirements of the maxim of quality, evidentials, hedges, and disclaimers were used covering five segments of the six argument segments. Evidentials were used in backings and conclusions as citations to other research, and in warrants as both citations and establishing the credibility of propositions by referring to already established facts or information. Hedges were used as qualifiers in order to show the strength of the claim, and disclaimers were used in (19) or *as* (20, 21) rebuttals to anticipate and acknowledge weak points, making it less likely for opposing viewpoints and misunderstandings to be brought up.

As the findings suggest, the metadiscursive strategies that were used in the *qualifier*, *rebuttal*, and *backing* components all belong to the quality section of the CP-based model of metadiscourse. In addition, most of these strategies (hedges and disclaimers) and the argument components that they were used in, often had complete overlaps, meaning that they functioned both as metadiscursive strategies and argumentation components. These findings

suggest that the three components of argumentations (qualifier, rebuttal, and backing) that [Toulmin \(1958\)](#) has determined, serve the quality category of the CP principle, proposing the important effect of quality in academic writings.

Table 4. A Merged Model of CP-based Metadiscourse Use in Argumentation

Metadiscourse Strategy	Cooperation Category	Overall Orientation	Argumentation component
<i>Endophoric Markers</i>	Quantity	Avoid prolixity to make the text manageable and friendly	<i>Warrant</i>
<i>Transitions</i>			<i>Data and Conclusion</i>
<i>Frame markers</i>	Manner	Clarify steps and concepts to make the text comprehensible	<i>Data</i>
<i>Code glosses</i>			<i>Data</i>
<i>Evidentials</i>	Quality	Build on evidence to make the propositions tenable	<i>Conclusion, Backing and Warrant</i>
<i>Hedges</i>			<i>Qualifier</i>
<i>Disclaimers</i>			<i>Rebuttal</i>

Conclusion

This paper discussed different types of metadiscourse strategies used by authors in ELT RA argumentations. It could be contended that every instance of communication involves cooperative behavior, which means that the participants exercise reason and collaborate jointly in order to achieve a successful outcome ([Abdi et al., 2010](#)). On the other hand, metadiscourse strategies are seen as the use of linguistic features and strategies to show the authors' stance, organize the text, guide the interpreter through the text, and shape an interpersonal relationship ([Hyland, 2018](#); [Ädel, 2006](#); [Vande Kopple, 1985](#); [Crismore & Farnsworth, 1990](#); [Salager-Meyer, 1994](#); [Yue, 2020](#)). Thus, it is argued that a CP framework for metadiscourse use can be helpful in academic writing ([Abdi et al., 2010](#)). While the purpose of RA writing is to share the findings, there is also an aim to make effective communication and persuade discourse community members in terms of the acceptability and credibility of their research findings ([Miles & Huberman, 1994](#)). The RA is supposed to include several argument types attempting to persuade the members of an academic discourse community in line with the goals. We tried to show that the three maxims of quantity, manner, and quality are met by using metadiscourse strategies in building argumentations. In other words, we demonstrated that metadiscourse and argumentation strategies are convergently employed to live up to the CP maxims which are arguably the underlying rationale behind any communication.

We believe that a framework that incorporates the principles of cooperation to facilitate the use of metadiscourse strategies in building argumentation would be a beneficial resource for academic researchers, practitioners, and educators. For researchers, this study offers a deeper comprehension of the metadiscourse employment in the genre of RA and indicates the need for further research. For practitioners, the results offer a profound understanding of how to use metadiscourse in an effective and persuading way, and for educators, it highlights the importance of teaching the features of academic writing to future members of academic communities so that they can build stronger and more effective argumentations.

However, as the purpose of this study was to extend our understanding of metadiscourse use while arguing, a limited, yet supposedly sufficient, corpus was examined. Further research across disciplines, genres, and cultures can be followed to reveal any possibly different pattern. Further studies can also consider quantitative analyses to determine whether metadiscourse strategies are employed quantitatively differently across different argumentations.

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