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**| RESEARCH ARTICLE**

**Interactional Metadiscourse in Applied Linguistics Research Article Abstracts of Moroccan L2 Writers of English: A Small Corpus Investigation**

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**| ABSTRACT**

Arguably, the Moroccan academic writing stratosphere has long been understudied. Such oversight is particularly discerning given how beneficial these studies can be for L2 writers of English. To this end, using Hyland's (2005) metadiscourse framework, the current research studies interactional metadiscourse practices in a small corpus of 15 applied linguistics research article abstracts. These were collected from two Moroccan-based peer-reviewed journals. A "thick" approach for both frequency and textual analysis was adopted. Such an approach led to having contextually grounded results better matching the corpus nature. We can report that the abstracts exhibited a limited degree of reader interaction, shown by the low percentage of interactional markers and their functional orientation. This was attributed to the nature of the discourse community, disciplinary changes, and rhetorical transfer. We recommend that more effort be taken towards creating better academic courses for students in Morocco and elsewhere. We call for scholars of the field to kindly consider students as a source of input in this type of research.

**| KEYWORDS**

Interactional Metadiscourse; Applied Linguistics; Research Article Abstracts; Moroccan L2 Writers

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**1. Introduction**

Academic writing is an exchange of information between students and their professors, supervisees and their supervisors, and researchers and other researchers. Each party tries to convince and argue for what it believes to be true, stating facts, opinions, and arguments manifested in books, essays, and research articles. The latter represents one of the main mediums in which researchers debate, share, criticise, and enhance claims and findings (Koutsantoni, 2006). Authors, to an extent, are obliged to provide evidence-backed thoughts, which their readers are then open to critique and provide counter-arguments based upon the evidence presented. Jiang and Hyland (2018) better summarise this by saying, "academic papers are essentially conversations between members of academic communities who have some agreement on the ground rules for negotiating what counts as plausible" (p509). Metadiscourse is one of the means of facilitating this.

Metadiscourse owes a great deal of its theoretical foundation to Halliday's three language functions: a) the ideational function, b) the interpersonal function, and c) the textual function. Still, the concept is not defined unanimously. The source of the conflict can be attributed to which language functions one attributes to and associates with metadiscourse resulting in metadiscourse being conceived from a narrow and broad approach (Ädel, 2006). Under the narrow approach, metadiscourse is seen as serving the textual function or, in other words, as Mauranen (1993) states, metadiscourse is "text about text" (p. 7). The broad approach assumes a more holistic view of metadiscourse in that it is associated with the textual and the interpersonal function. In this sense, metadiscourse is all those linguistic resources with which writers "organise, classify, interpret, evaluate, and react to such material" (Kopple, 1985, p. 89). Such material, here, refer to written material. Hyland (2005) posited a definition and framework to metadiscourse that is most comprehensible and wholistic (Thompson, 2008). This is because Hyland, in his conceptualisation, built upon the work of previous prominent researchers in the field (e.g., Crismore et al., 1993; Mauranen, 1993; Vande Kopple, 1985; and

Williams, 1985). He views metadiscourse as a tool facilitating the academic writing endeavour wherein writers engage with their readers to negotiate claims and construct meaning. In other words, “all metadiscourse is interpersonal in that it takes account of the readers’ knowledge, textual experience, and processing needs and that it provides writers with an armoury of rhetorical appeals to achieve this” (Hyland & Tse, 2004, p. 161). This is echoed in him defining metadiscourse “as the cover term for the self-reflective expressions used to negotiate interactional meanings in a text, assisting the writer (or speaker) in expressing a viewpoint and engaging with readers as members of a particular community” (Hyland, 2005, p. 37). The often quoted interactive and interactional metadiscourse taxonomy is a direct outcome of his holistic view. On the one hand, interactive metadiscourse not only organises texts but also leads readers through those texts. On the other hand, interactional metadiscourse helps writers project their persona, mark a stance, and react towards the many propositions within their texts (Hyland, 2005; Hyland & Tse, 2004).

Previous studies on metadiscourse reveal that discipline and genre, or both, have an influence on authors’ metadiscoursal practices. Hyland and Tse’s (2006) study on the use of metadiscourse in book reviews revealed that reviewers employed hedges, engagement markers and transitions markers significantly more than any marker type regardless of discipline. Kawase (2015) found that authors use more metadiscourse in their article introductions than in their PhD thesis introductions. In social sciences and humanities, it was reported that authors employ more metadiscourse markers in their research articles than their hard sciences counterparts (e.g. Abdi, 2002; Hyland, 1998a, 1998b; Hyland et al., 2022). This influence extends to the two research paradigms, as shown by Hu and Cao (2015). They found that qualitative research articles contain more interactional markers like hedges, boosters, and attitude markers than quantitative ones.

In fact, as of 2016, since its inception in 1950 by Zelig Harris, metadiscourse has been the topic of research in more than 1000 works across *Web of Sciences*, *Scopus*, and *Google Scholar* databases (Hyland, 2017). Yet, no published studies exist investigating metadiscourse usage of Moroccan L2 writers of English in any academic writing genre. Oddly so, studies of the sort have been conducted targeting L2 writers of English in neighbouring countries, e.g., Egypt and Saudi Arabia (Awad Al-Dawoody Abdulaal, 2020) and Tunisia (Dallagi, 2021) and in distant countries, e.g., Finland (Mauranen, 1993), Sweden (Ådel, 2022), Hong Kong (Hyland, 2002; Mu et al., 2015). Such a conglomerate of studies contributes significantly to the creation of writing courses and pedagogies, better aiding L2 writers to establish a stance, negotiate for and against their claims and meet the demands of their discourse communities. L2 writers often face difficulties in those regards (J. Flowerdew, 2000).

For this, the present study aims to hopefully be the first brick of the figurative wall that is metadiscourse-related studies in Morocco. A corpus of 15 research article abstracts collected from two Moroccan-based open-source applied linguistics journals is investigated for instances of interactional metadiscourse. This is motivated by three reasons. First, an abstract is so vital to a research article that it is considered as its selling point (Pho, 2008). It also foreshadows the quality of the research to come functioning as a “time-saving device” (Khedri et al., 2013, p. 320). This might imply that abstracts are neat and concise summaries. However, such an implication is indirectly challenged by researchers (e.g., Alghazo et al., 2021; Gillaerts & Van de Velde, 2010; Hu & Cao, 2011; Liu & Huang, 2017, 2017; Šandová, 2021; and Stotesbury, 2003). It is argued, even established, that abstracts have a quality interpersonality to them exhibited in the existence of interactional metadiscourse. This leads to the second reason. Generally speaking, it is worth investigating how L2 Moroccan writers package their English research articles abstracts, blending the salesperson-like feature of abstracts with their own persona as academic writers. The third reason is purely methodological, as will be discussed later.

The research questions this study attempts to answer are:

- 1- To what extent is interactional metadiscourse present in the 15 abstracts?
- 2- To what extent do the writers of the 15 abstracts interact with their readers in their research article abstracts?

## **2. Methods**

### **2.1 Corpus compilation:**

This current study analysed 15 research article abstracts written by Moroccan graduate L2 writers of English majoring in applied linguistics for interactional metadiscourse usage. The abstracts were compiled from two open-source, and peer-reviewed Moroccan-based applied linguistics journals. These are:

- 1) *International Arab Journal of English for Specific Purposes*
- 2) *Journal of Applied Language and Culture Studies*.

The compilation procedure was as follows. First, a pool of articles published between 2018 and 2021 was created, totalling 44 articles. Second, 15 abstracts were chosen randomly using the Randomiser tool (Plous & Geoffrey C, 2022). This was to minimise personal bias. As per Table 2, the 15 abstracts combined have 2917 words.

Understandably, a corpus with just 15 abstracts not only pales in comparison to the target corpora of other prominent studies but can also yield limited results (Sinclair, 2004). For instance, Gillaerts & Van de Velde (2010) and Hu & Cao (2011) investigated corpora of 72 and 649 abstracts, respectively. Still, investigating small corpora has its merits as “they allow a much closer link between the corpus and the contexts in which the texts in the corpus were produced” (Koester, 2010, p. 67). Through their context dependency, small corpora enable researchers to go beyond generalisable frequencies and trends so as to have results informative of their source culture’s specificities (L. Flowerdew, 2008; Koester, 2010). Additionally, small corpora are more accessible (Koester, 2010). This accessibility proved useful in this study as it is a single-person endeavour. By implication, inter-rater reliability is absent as no colleague of mine is familiar with metadiscourse and metadiscourse analysis. Fortunately, the manageable size of the corpus resulted in search hits that are so few that one can scrutinisingly go over multiple times with ease over prolonged periods of time. In fact, it is possible to boldly claim one can do without inter-rater reliability.

## 2.2 Frequency and functional analysis

This study makes use of Hyland’s (2005) interactional metadiscourse model as a means of analysis. The model comprises five categories: hedges, boosters, attitude markers, engagement markers, and self-mentions. These are detailed in table 2 below.

**Table 1**

*Hyland’s (2005) Interactional Metadiscourse Classification*

Marker type	Function	Resource
Hedges	withhold commitment and open dialogue	might; perhaps; possible; about
Boosters	emphasise certainty or close dialogue	in fact; definitely; it is clear that
Attitude markers	express writer’s attitude to proposition	unfortunately; I agree; surprisingly;
Self-mentions	explicitly reference to author(s)	I; we; my; me; our
Engagement markers	explicit reference to author(s)	consider; note; you can see that

Note. Adapted from *Metadiscourse: Exploring Interaction in Writing* (p 49), by K. Hyland, 2005, Bloomsbury Publishing.

This paper adopts a “*thick*” approach to data analysis as defined by Ädel and Mauranen (2010). It is an approach that leans heavily towards the qualitative side of metadiscourse analysis in the sense that “all occurrences of metadiscourse are retrieved and examined in context” (Herriman, 2022, p. 124). In fact, such an approach takes into account Swales’ (2019) criticism of overtly quantitative textual analysis and calls for context-driven textual studies. The first major analysis step was the initial retrieval of metadiscourse occurrences. This began by first importing the 15 abstracts in the qualitative analysis software of choice, *MAXQDA 2020* (VERBI Software, 2020), as *.doc* files. Second, pre-defined lists of metadiscourse resources were added to the software’s keyword bank. The lists used correspond to those employed by Prommas (2020) as he supplements Hyland’s (2005) initial list with resources from the Academic Word List (Coxhead, 2000). Third, using the keyword frequency retrieval tool, the abstracts were checked for the occurrences of interactional markers. The results were then exported into *.xlsx* files containing the initial and unprocessed frequencies. The second major step was the inspection of all occurrences with respect to 1) their context and 2) Hyland’s theoretical model. This was done to 1) subtract the unmetadiscursive occurrences from the initial *.xlsx* list and 2) note down the many metadiscursive functions identified.

## 3. Results

### 3.1 Interactional metadiscourse frequencies

Overall, 45 interactional metadiscourse markers were found in the corpus, constituting less than 2% of its total size. A similar trend was found at the level of each abstract. Writers allocate a small proportion to interactional markers in their abstract, with percentages ranging between 0.40% to 3.47% (see Table 2). Regarding the five interactional marker categories, except for engagement markers, all four categories were present in the corpus. Their distribution frequency is inconsistent. At a minimum, writers used one interactional marker per category. Yet they never utilised all four marker types at once.

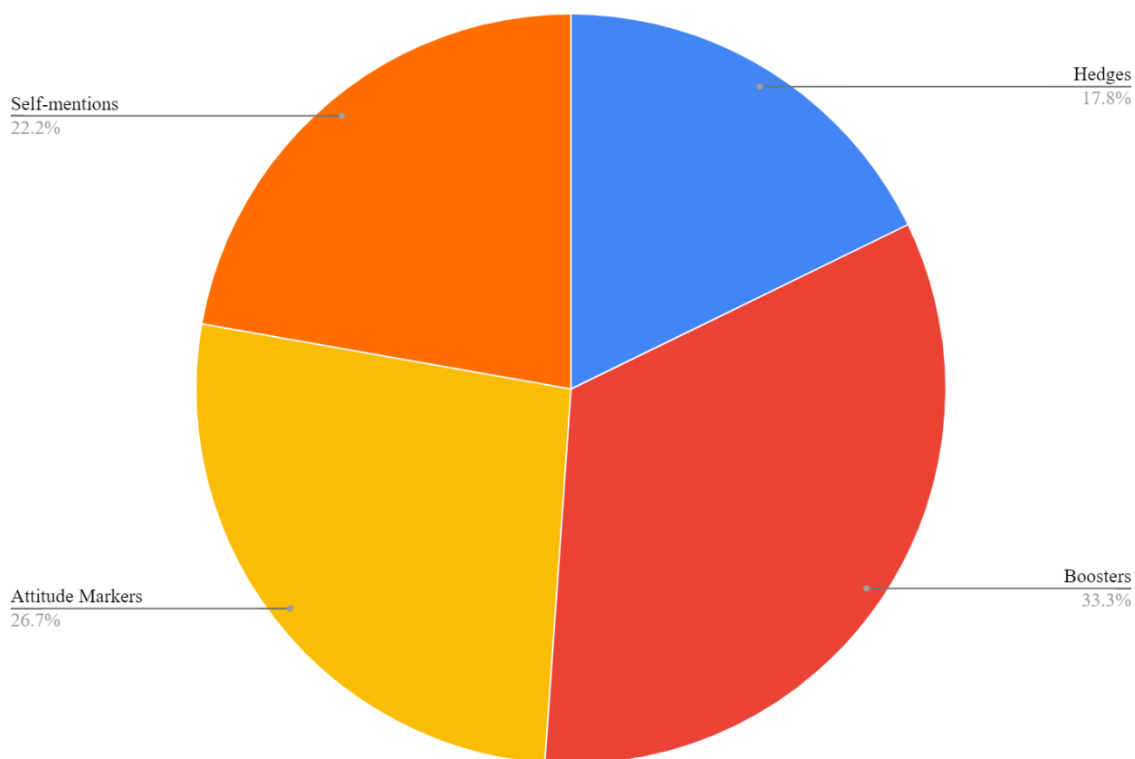
Figure 1 reports the overall distribution of interactional markers within the abstracts. Boosters were the most frequent category, followed by attitude markers, self-mentions, and hedges, respectively. Surprisingly, hedges were the least used, having a percentage that is almost double that of boosters. Looking at this from the perspective of writers indicates that hedging is barely considered relative to the other interactional resources.

**Table 2**  
*Interactional metadiscourse frequencies*

Sample	Word count	Hedges	Boosters	Attitude Markers	Engagement Markers	Self-mentions	Sum	percentages
Abstract (1)	268	0	1	1	0	0	2	0.75%
Abstract (2)	144	1	3	1	0	0	5	3.47%
Abstract (3)	232	0	3	2	0	0	5	2.16%
Abstract (4)	231	1	0	2	0	0	3	1.30%
Abstract (5)	223	1	1	0	0	0	2	0.90%
Abstract (6)	232	0	1	0	0	2	3	1.29%
Abstract (7)	102	0	0	0	0	1	1	0.98%
Abstract (8)	253	0	0	1	0	0	1	0.40%
Abstract (9)	142	0	0	1	0	0	1	0.70%
Abstract (10)	240	0	2	0	0	0	2	0.83%
Abstract (11)	93	0	1	1	0	2	4	4.30%
Abstract (12)	128	0	0	1	0	0	1	0.78%
Abstract (13)	234	0	1	2	0	0	3	1.28%
Abstract (14)	134	2	0	0	0	1	3	2.24%
Abstract (15)	261	3	2	0	0	4	9	3.45%
Totals	2917	8	15	12	0	10	45	1.54%

Figure 1

*Distribution of Interactional Metadiscourse Markers Across The Abstracts*



### 3.2 Functional analysis

Starting with hedges, their usage was limited to the writers taking a reserved position towards their study's a) expected results, b) obtained results, and c) expected benefit (see examples 1 to 3 below)

- 1- ... the shell structure analysis of dP/nP structure of SA CSs **might** serve the study of the minimal syntax of SA CSs and DPs (Abstract (15))
- 2- The present study investigates whether word formation rules **could** help Moroccan computer engineering students learn and recognise vocabulary items related to their specialty (Abstract (2))
- 3- The results obtained **indicate** that the students had a reasonably good attitude towards the course, stressing the need for more practice (Abstract (5))

Boosters were the mechanism whereby confidence is projected vis-à-vis a) the targeted research gap (e.g., example 4) and b) the obtained research results (example 5).

- 4- **Indeed**, scarce have been the studies that have attempted to explore inter-sentential, rhetorical components of EFL learners (Abstract (6))
- 5- ... It **demonstrates** that the majority of students and teachers react positively to the use of ICT in classroom, as they perceive it as modern and effective in learning English. (Abstract (3))

Writers cast a subjective quality of significance onto their research outcome (e.g., example 6) using attitude markers. When used in the very first sentence in the abstract, attitude markers help claim centrality (e.g., example 7). Centrality claims are "appeals to

the discourse community whereby members are asked to accept that the research about to be reported is part of a lively, significant or well-established research area" (Swales, 1990, p. 144).

- 6- The results showed that semantic features have a facilitatory priming effect implying its **significant** role in language processing. (Abstract (11))
- 7- Technical vocabulary instruction occupies a **crucial** role in the field of English for science and technology (EST) (Abstract (2))

Self-mentions were primarily utilised to announce a research goal performed later on in the research paper, as per the two examples below.

- 8- The questions **we** seek to answer are .... (Abstract (7))
- 9- ... **I** construct a grammar which predicts in which circumstances segmental variation may or may not occur. (Abstract (14))

#### **4. Discussion**

The existence of interactional metadiscourse is indicative of the writers adding a layer of interpersonality to their research abstracts. Hyland (2008) distinguished between participant-oriented and research-oriented lexical bundles. The first facilitates reader-writer interaction, and the latter serves the organisation of many research-related activities. At first glance, based on the functions reported earlier, the interactional markers identified are participant-oriented; nevertheless, one can argue that, perhaps, they align more with being research-oriented. While hedges, boosters, attitude markers, and self-mentions do add a layer of subjectivity to the 15 abstracts, this layer targets more the many research elements within an abstract than reader-writer interaction. The complete lack of engagement markers, which is in line with the studies of Gillaerts & Van de Velde (2010) and Suntara & Chokthawikit (2018), further supports this. Having such markers absent suggests that writers shy away from their readers, unwilling to integrate them directly in their abstracts, tipping the scale towards the research-orientation side. Overall, the interpersonality exhibited can only be described as limited. Certain interrelated factors can account for this.

When writing scientific articles, researchers have to make to their potential article reviewers that their article advances the current state of affairs. They have to argue the value of their research to their respective discourse community. Swales (1990) described this as competition for research space. He explains that researchers often fiercely compete for publication spots in high-end international journals. However, this holds true only for those journals. In local discourse communities, a such fierce competition is not as prevalent, as reported by Fredrickson & Swales (1994) and Ahmad (2011). Their reasoning behind this conclusion stems from how infrequently a niche is established in each of their corpora. Basically, a niche is a group of statements constituting a declaration of 1) the current state of the art in the literature (Shehzad, 2008) and 2) the novelty of the research. The same line of argumentation can be used to explain the limited interpersonality shown. The sampling pool from which the 15 abstracts are taken resembles a confined arena having two essential actors. The first actors are the writers who, arguably, share the same level of expertise amongst themselves and are few in number. They are PhD candidates from different Moroccan universities. This entails that, at the time of publishing their articles, they were establishing themselves as knowledgeable in their respective fields. All points of view should be poised with enough legitimacy and confidence. The frequency of boosters and the functions performed by the four markers support this. The second actors are the journal reviewers. These are professors from Moroccan universities with whom PhD candidates interact face-to-face on many occasions (e.g., at conferences and in workshops). As a result, the candidates come to know what degree of reader engagement is acceptable. That is, having a clear conceptualisation of the target discourse community preferences possibly dictates the functions and types of interactional markers to use. An arena like this creates a less competitive research space.

The use of language as a whole and its many linguistic resources, metadiscourse being one of them, are considered to be socially and culturally bound (Halliday, 1973; Hyland, 2005). This covers rhetorical conventions. Arabic, the L1 of this study's target writers, is a language where persuasion often equates to assertion. An assertive stance should be taken for Arab writers to convince readers of their arguments (Alharbi & Swales, 2011; Shouby, 1951). Additionally, as Alharbi (1997) suggested, Arab writers, emphasise content rather than reader engagement. Research in contrastive rhetoric has shown, over the years, that rhetorical conventions do transfer from L1 to L2, influencing writing in L2 (e.g., Hinds, 1987; Kaplan, 1966; Mauranen, 1993; Valero-Garcés, 1996; Wei & Zhang, 2020, to name a few). This argument of transfer can explain the favouritism towards boosters and the quality of significance granted to the many abstract statements found. Alghazo et al. (2021) reported similar findings.

There is one last reason one can attribute to the limited interpersonality shown that has to do with the diachronic change in metadiscourse usages across disciplines. Hyland & Jyain (2018) investigated metadiscourse usage over the last 50 years in hard and soft disciplines. It was revealed that writers of soft disciplines such as applied linguistics increasingly used less interactional resources. The argument explaining this is rooted in discipline evolution. For over 50 years, many soft discipline theories have been

researched so much that they are treated as factual. This resulted in writers relying less on reader appeals as a means to garner support for their claims. A similar line of argumentation can account for the limited functionality exhibited.

## 5. Conclusion

### 5.1 Limitations

Having reported and discussed the results of this study, it is time to acknowledge its limitations. First, the corpus should not be held as representative of its target population. This is driven mainly by how the corpus is compiled. As Biber (1994) recommends, a representative corpus is underlined by 1) a robust sampling frame and 2) a randomised sampling procedure. Since both requirements are absent from this study, it would be unsound to draw conclusions about the entire Moroccan L2 graduate writers of English. Second, the lack of an inter-rater reliability score can render the results to be arguably flawed. This leaves the door open for other researchers to have different judgements regarding the types and functions of the markers found. Thankfully, the small size of the corpus helps mitigate this.

### 5.2 Implications and Suggestions for Future Research

I may have put down the significance of this study, stating its limitations. Still, it very much has implications for researchers and instructors. On the one hand, researchers, especially in Morocco, can use quantitative and qualitative means to explore if L2 writers of academic English are aware of

- i. The existence of metadiscourse
- ii. The many roles of metadiscourse
- iii. The know-how of metadiscourse usage
- iv. The interactional nature of academic writing
- v. The rhetorical conventions of academic writing

They can also perform large-scale corpus-based studies investigating the degree to which academic writing courses cover the five elements above. On the other hand, academic writing instructors in Morocco and elsewhere may feel inclined to construct writing courses that increase graduate students' academic writing proficiency. From the many levels that can be attributed to said proficiency, the following are distinguished:

- i. Being familiar with metadiscourse, its uses, and its significance.
- ii. Being aware of rhetorical conventions of various academic writing genres (e.g., abstracts, research articles, conference papers, ... etc.)
- iii. Being able to differentiate between the rhetorical conventions of English and their mother tongue, which is Arabic in this case.

As it may be noticed, the recommendations above take a bottom-up approach to academic writing and its subsequent research. It is almost always the case that researchers take the end product of graduate students, i.e., research articles, abstracts, and/or dissertations, to be inspected for not only metadiscourse usage but also citation patterns and schematic structures. This is to uncover the academic writing shortcomings of students and to potentially remedy them. Nevertheless, few studies take the other way around. Considering the end-product of students rather than the students themselves as the primary source of input informing future and improved writing courses can be lacking in certain aspects. First, there would always be discrepancies between what the genre and discipline conventions say and what students actually write. Second, most recommendations attained would be driven solely by the end product. I firmly believe that studies investigating academic writing from both a bottom-up and a top-down approach could lead to the soundest academic writing pedagogies.

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