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Qatari student writers' metalinguistic understanding of transitions in L2 English written argument

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ABSTRACT

Research in metadiscourse has foregrounded the multiple ways in which writers build a relationship with readers through internal discourse. Yet, few studies consider the relationship between the texts writers create and the metalinguistic thinking which informs their decision-making as writers. This paper draws on data from a larger study which sought to address this gap by investigating both the occurrence of metadiscourse in students' writing and their metalinguistic understanding of metadiscourse usage in their own texts. The sample comprised 195 students who wrote argument texts in both L1 Arabic (first language) and L2 English (second language), generating a corpus of 390 texts. Interviews were conducted with a sub-sample of 41 students to determine their metalinguistic thinking. In this paper we focus on *transitions* – the internal devices which mark the steps and connections in the discourse. The analysis evidences a limited metalinguistic understanding of the metadiscoursal function of transitions but a strong understanding of the linking function of transitions. This understanding tends to foreground transitions' textual rather than interpersonal role, emphasising the semantic and ideational. The paper argues that developing students' metalinguistic understanding of this interpersonal role would empower them to make more strategic, informed use of transitions in their own writing.

ABSTRACT (ARABIC)

المستخلص

لقد أشارت الدراسات السابقة في السمات الدقيقة للخطاب الكتابي إلى طرق متعددة يبني من خلالها الكتاب علاقتهم بالقراء من خلال الخطاب الداخلي للنص. ومع ذلك، فإن القليل من الدراسات تبحث العلاقة بين النصوص التي يكتبها الكتاب والتفكير "فيما وراء اللغوي" الذي يسترشدون به في صنع القرار بوصفهم كتاب. ويستمد البحث الحالي نتائجه من دراسة أكبر سعت إلى سد هذه الفجوة البحثية من خلال البحث في كل من السمات الدقيقة للخطاب الكتابي في كتابات الطلاب وفهمهم "ما وراء اللغوي" لاستخدام تلك السمات الدقيقة في نصوصهم المكتوبة. واشتملت عينة البحث على 195 طالباً كتبوا نصوصاً حجاجية باللغتين العربية (اللغة الأم) والإنجليزية (اللغة الثانية)، مسفرة عن مدونة مكونة من 390 نصاً كتابياً. وقد أجريت مقابلات مع عينة مكونة من 41 طالباً لتحديد تفكيرهم "فيما وراء اللغوي". ويركز الباحثون في هذا البحث على أدوات الربط – تلك الروابط التي تحدد الخطوات والعلاقات في الخطاب الكتابي داخل النص. وأوضحت نتائج البحث الحالي محدودية فهم الطلاب اللغوي لوظيفة روابط النص الخطابي، ولكنها تشير أيضاً إلى فهم القوي لوظيفة تلك الروابط. وبميل فهم الطلاب القوي لوظيفة الروابط إلى تقديم الروابط كتنسيق نصي وليس كأسلوب للتفاعل مع القارئ مؤكداً على المعنى الدلالي والفكري لتلك الروابط. ويؤكد هذا البحث على أهمية تنمية فهم الطلاب لما وراء اللغوي لهذا الدور التفاعلي لتلك الروابط، وذلك من شأنه أن يمكنهم من استخدام الروابط بشكل أكثر استراتيجية واستنارة في كتاباتهم.

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PLAIN LANGUAGE SUMMARY

This study is about understanding how students write in a way that connects with their readers. Specifically, it looks at the use of transition markers - the words that help shift from one idea to another in writing. The research involved 195 students who wrote essays in both their native language, Arabic, and a second language, English, making up 390 essays in total. To get a deeper insight, 41 of these students were interviewed to learn how they think about using these transition markers. The main finding was that students are quite good at using transition markers to link their ideas together, but they do not really understand how these words can also help manage the relationship with the reader. The study suggests that if students were taught more about this, they could become even better at writing in a way that engages their readers.

Introduction

The field of research on metadiscourse has drawn attention to the way that texts, both spoken and written, not only communicate ideas and arguments but also point to and comment on the text itself (for example, Crismore et al., 1993; Hyland, 2005; Ozdemir & Longo, 2014). This has been researched with particular frequency in the genre of written argument, revealing an interplay between the making of arguments, the signposting of the writer's position with regard to those arguments, and the structuring of the text. Specifically, metadiscourse has foregrounded the ways in which writers build a relationship with readers through internal discourse, a discourse which refers to the text itself, in contrast to external discourse, which is the substantive propositional content of the text. Internal discourse works 'to organise the discourse for readers' (Hyland, 2002, p. 1101) and is evident where textual choices engage readers, signal the flow of ideas, and indicate the writer's stance towards those ideas. This research is important in surfacing the subtle interplay of internal and external discourse in the shaping of written argument, and, crucially, it has focused on the function of the metadiscourse in the overall text rather than merely identifying typical linguistic forms.

Yet, despite a substantial body of research undertaking textual analysis of metadiscourse used in writing (for example, Adel, 2006; Alharbi, 2021; Hyland et al., 2022), few studies consider the relationship between the texts writers create and the metalinguistic thinking which informs their decision-making as writers. The ability to produce an effective written argument involves more than just linguistic skill and performance; it also depends on the writer's grasp of how language choices can create a rhetorical impact. (Myhill et al., 2023b). Metalinguistic thinking refers to the capacity to reflect on and monitor language and how it is used, drawing on an explicit understanding of language. Therefore, enhancing students' awareness of metalinguistic aspects and their role in metadiscourse can be effective in fostering an understanding of reader engagement and the author's stance (Myhill et al., 2023a). This article seeks to address this gap by investigating students' metalinguistic understanding of metadiscourse usage in their own texts, drawing on data from a study which focused on the argument writing of Qatari L1 Arabic students. This study was mixed methods, involving a corpus study analysing students' use of metadiscourse in their argument writing and student interviews. This article draws principally on the qualitative interview data, though the

relevant corpus results are presented to contextualise the qualitative findings. We focus specifically on transitions—‘devices (mainly conjunctions) used to mark additive, contrastive, and consequential relations’ (Hyland & Jiang, 2022, p. 4), which mark the steps and connections in the discourse. We chose this focus because, despite studies showing the frequency of usage of transitions in students’ texts (e.g. Hyland & Jiang, 2022), no studies seek to investigate students’ metalinguistic understanding of their own usage of transitions. The article will show that the students’ metalinguistic understanding of transitions was more strongly oriented towards the textual, semantic function with limited recognition of the interpersonal function. We argue that developing students’ metalinguistic understanding of this interpersonal role would empower them to make more strategic and informed use of transitions in their own writing.

Theoretical framework

Metadiscourse theory and transition markers

Metadiscourse refers to text elements designed to enable readers to engage with and interpret a text. It is fundamentally reader-oriented in that it helps readers ‘to organise, classify, interpret, evaluate and react’ to the ideas in the text (Vande Kopple, 1985, p. 83) and distinguishes between the substantive material in the text, the propositional or topical material in the text, and the metadiscourse which supports engagement with that material. For some (for example, Mauranen, 1993), metadiscourse refers only to the textual organisation, which signals and signposts topic shifts, sequences and connections across the text for readers. In contrast, for others (for example, Hyland, 2005), metadiscourse also includes the ways in which writers engage their readers and how they express their own position as writers (for a fuller discussion of this, see Ädel, 2006; Ädel & Mauranen, 2010). In the study reported here, we adopted the latter view, conceptualising metadiscourse not simply as textual features which support reader comprehension but also as interpersonal, including ‘the ways writers project themselves into their discourse to signal their attitude towards both the content and the audience of the text’ (Hyland & Tse, 2004, p. 156).

There have been multiple taxonomies developed to describe metadiscourse, such as those offered by Vande Kopple (1985), Crismore et al. (1993), Hyland (2005), Ädel (2010), and Yue (2020). There is a reasonable degree of commonality underpinning these models, though variations in terminology are evident, and some only consider textual metadiscourse - references to features of textual organisation. In our conceptualisation of metadiscourse and the data analysis, we have drawn on Hyland’s taxonomy (2005) because of its emphasis on how metadiscourse is crucial to the navigation of a reader-writer relationship. Hyland’s taxonomy distinguishes between *interactive* metadiscourse, which helps to organise the text using evidentials, endophoric markers, code glosses, frame markers and transitions, and *interactional* metadiscourse, which engages readers through engagement and attitude markers, hedges, boosters and self-mentions. However, despite this distinction, Hyland and Tse avoid binary distinctions between textual (interactive) and interpersonal (interactional) discourse, arguing that ‘all metadiscourse is interpersonal in that it takes account of the reader’s knowledge, textual experiences, and processing needs and that it provides writers with an armoury of rhetorical appeals to achieve this’ (2004, p. 161).

The current article focuses on the category of transitions, which expresses relationships between main clauses marking additive, contrastive, causal and consequential logic using, for example, adverbials (e.g. *moreover*, *in addition*) and conjunctions (e.g. *but*, *and*). They not only create cohesion across the text, but they also 'ease the reader's burden of making connections between preceding and subsequent propositional information' (Cao & Hu, 2014, p. 19). Empirical studies focusing only on transitions are rare. Walková (2020), for example, analysed how transitions are addressed in English for Academic Purposes textbooks. More typically, transitions are referred to in broader studies looking at metadiscourse in general or, more rarely, interactive metadiscourse. Of these, some have explored differences across disciplines and research paradigms. Cao and Hu (2014) found cross-paradigmatic differences in the use of comparative and inferential transitions and disciplinary differences between applied linguistics and psychology in comparative transitions. Similarly, Hyland and Jiang (2022) analysed 441 articles in the *Journal of English for Academic Purposes* into four categories: textual (language-focussed), critical (critical discourses), pedagogical (teaching-oriented), or contextual (more sociological in orientation). They found more transitions in contextual papers and, to a lesser extent, in textual papers. They attribute this to 'different methodological and epistemological practices' (2022, p. 11) across the EAP community. Other studies have investigated cross-linguistic differences: for example, more transitions in Chinese than in English (Gardner & Han, 2018), in Malay than Arabic (Zakaria et al., 2018), and in Turkish than English (Ozdemir & Longo, 2014). Differences by genre have also been explored, with high use of transitions found in research article abstracts (Ashofteh et al., 2020), in students' Master's theses and research articles (Alharbi, 2021), and argumentative genres compared with factual genres (Gardner & Han, 2018). Methodologically, these studies have tended to use corpus methods, eliciting quantitative data about transition usages.

Relevant to the concerns of this paper, Burneikaitė (2008) argues that L2 writers over-use transitions compared with L1 writers. This finding is echoed in related research, which does not use the term 'transitions' but nevertheless explores linguistic forms, such as linking adverbials or logical connectors, which are often transitions. Milton and Tsang (1993) found an excess of logical connectors used by Hong Kong students when writing in L2 English compared with L1 English writers. Leedham and Cai (2013), Garner (2013), Appel and Szeib (2018), and Appel (2020) found that linking adverbials were over-used by L2 writers, and Tapper's (2005) study revealed an over-use of connectives by L2 writers. Shaw (2009) found that student writers in *both* L1 and L2 over-use linking adverbials compared to expert writers in the language.

Metalinguistic understanding

The research on transitions, however, is problematic in several ways. One problem relates to the concepts used—metadiscourse research, understandably, uses the term 'transitions', but other studies often cited in metadiscourse research, including those referred to above, use other concepts such as 'logical connectors' or 'linking adverbials', which are not always synonymous with the definition of transitions, and often include frame markers. Even within metadiscourse research, there is some inconsistency in what is included in the textual analyses—both Cao and Hu (2014) and Hyland and Jiang (2018), for example, exclude the conjunctions 'and' and 'or' from their analysis of transitions. Another problem is the concept

of 'overuse'—how overuse is established is rarely explained and seems to rely heavily on the high frequency of use rather than analysing how the transitions are used in texts and whether that usage is appropriate. Common to all the studies cited above is the use of corpus or textual analysis to identify and compare the occurrence of transitions, but there is little research which analyses in depth how transitions are used, and none that we are aware of has investigated writers' thinking, their metalinguistic understanding about how they use transitions.

The concept of metalinguistic understanding shares the prefix 'meta' with metadiscourse, signalling their common concern with what happens above or beyond the discourse or the language. Metalinguistic understanding refers to those moments when language users switch from simply using language to looking at the properties of the language itself (Cazden, 1976), allowing 'the individual to step back from the comprehension or production of an utterance to consider the linguistic form and structure underlying the meaning of the utterance' (Malakoff, 1992, p. 518). Gombert (1992) argued that metalinguistic understanding comprised two key strands—the capacity to reflect on language and how it is used and the individual's parallel capacity to monitor and intervene in how they comprehend or produce language. Although metalinguistic understanding is clearly linked to the field of linguistics, it is principally researched from a cognitive perspective (for example, Gombert, 1992; Kellogg, 1994; Karmiloff-Smith et al., 1996). Indeed, Pinto and El Euch (2015) describe it as 'a cognitive faculty which allows conscious and intentional reflection on language' (p. 36) [our translation].

In the context of writing and learning to write, metalinguistic understanding is sometimes seen as synonymous with grammatical knowledge, grammatical accuracy, and the identification and naming of grammatical forms. But in recent years, there has been a shift from form-focused metalinguistic understanding to a more functional view (Schlepppegrell, 2013; Myhill et al., 2020b), largely prompted by the work of the Sydney School (Halliday, 1978), which focuses more on the relationship between language choices and meaning in written text, taking account of the social context in which texts are produced. So, for example, in the current article, we are more interested in *why* a writer might choose to use a particular transition rather than the fact that it *is* a transition. Our own research, including this study, has been theoretically framed by a dual cognitive and sociocultural perspective, concerned with both student thinking about language choices in writing and how social contexts shape that thinking, particularly in classroom and curriculum contexts. We have shown how using authentic texts can model how texts work (Myhill et al., 2018) and make connections between reading and writing (Myhill et al., 2020a). We have considered that explicit teaching of metalinguistic understanding from a functional perspective can support writing development (Jones et al., 2013; Myhill et al., 2020b) and effective decision-making as writers (Myhill, 2019), and we have evidenced the importance of metalinguistic talk in fostering secure metalinguistic understanding (Newman & Watson, 2020; Myhill et al., 2020c). As this review of empirical studies indicates, the use of transitions has been investigated largely through corpus methods, which offer numerical descriptions of usage, and in other studies, the focus has been on logical connectors or linking adverbials, concepts which include transitions, but also include other forms of connectors. These studies also suggest that students over-use transitions or linking adverbials. Yet it remains the case that no studies, to our knowledge,

have investigated students' metalinguistic understanding of transitions: in other words, exploring students' thinking about their usage rather than focusing only on quantitative textual evidence of usage.

This article, therefore, seeks to address the gap in metadiscourse research on how writers view the role of transitions in their own writing and to answer the research question—what is the nature of undergraduate students' metalinguistic understanding of their use of transitions in their own written argument? Specifically, we wanted to explore students' capacity to explain their choice of a transition marker in relation to its rhetorical or communicative purpose and how it supported the relationship with the reader.

Methodology

This article draws on data from a larger study funded by the Qatar National Research Fund, which investigated students' use and understanding of metadiscourse in their own writing. Using students' own writing as a platform for exploring authorial choice is potentially beneficial (Watson & Newman, 2017). This mixed-methods study involved the creation and analysis of a corpus of student argument writing and subsequent interviews with a sub-sample of the student writers to determine their metalinguistic understanding. The study was initiated by concerns in the Qatari university about students' mastery of written argument, which is a prominent focus of teaching in the English (L2) programme, particularly because students are required to succeed in written argument to progress with their degree studies. The teaching of written argument focussed heavily on direct instruction on how the text should be written and included teaching about 'linking words', which includes transitions. There was also a desire not only to explore patterns of usage through a corpus study but to connect this with exploring students' metalinguistic understanding of these patterns. Using corpus-based activities may provide a flexible route into metalinguistic understanding, which maintains links with an authentic discourse (Sealey & Thompson, 2007). The study was cross-linguistic, comparing metadiscourse in students' written argument in both English (L2) and Arabic (L1), based on the recognition that expectations of the written argument are not necessarily the same in English and Arabic.

The corpus analysis

A learner corpus was generated from 195 Qatari undergraduate students, whom each wrote two written arguments, one in Arabic (L1) and one in English (L2), in response to two writing prompts (Ahmed et al., 2024). The writing prompts provided were for argumentative essays on technology-related topics and their impact on communication and education. The first prompt questioned whether telephones and emails have made communication between people less personal, while the second prompt explored the role of technology in enhancing students' ability to learn more information and do so more quickly. A cross-over design was used to avoid task effects, with half the participants undertaking Task A in English and the other half Task B, and vice versa for the Arabic text. The final dataset, therefore, comprised 390 texts. Participants were given 50 min to write an essay on either topic. The data included in the corpus were from essays written in both English and Arabic. [Table 1](#) below shows the corpus make-up.

Table 1. English-Arabic corpus make-up.

Corpus	# texts	Mean no. of words per text	SD	Range in word length per text	Corpus Tokens
Arabic	195	498.71	84.56	251–808	97,248
English	195	504.51	94.87	263–1158	98,379

The Docuscope text analysis tool (Carnegie Mellon University, [n.d.](#)) was used: this allowed for the creation of a customised dictionary for analysis of metadiscourse, which used Hyland's (2005) taxonomy of metadiscourse (Table 2).

Hyland and Tse (2004) emphasise that the distinction between propositional and metadiscourse elements of a text is not always clear, and this is particularly true for transitions, the focus of this article. Particular care was taken, therefore, to check that only metadiscourse transitions were identified in the analysis, following guidance from the literature (Hyland, 2005) on how transitions should be classified by considering whether or not the use of a transition relates to external (propositional) or internal (metadiscursive) realities (Table 3).

By way of exemplification of this process, statement *a* below shows an example of metadiscourse transition, while statement *b* is an example of non-metadiscourse:

- a. The study in our time has become very important and seeks to develop, **so** technology is one of
- b. the most important means that lead to the success of the student (Metadiscursive, consequence)
- c. Phones can let you to order services **and** make clarify related to a service without physically go to the place (Non-metadiscursive)

The writing conversation interviews with students

To answer the research question, this paper reports primarily on the student interview data. The interviews were conducted with a sub-sample of 41 students who had contributed to the learner corpus and were willing to be interviewed. Each one was interviewed twice, and their written arguments were discussed separately in English and Arabic. These were discourse-based interviews which 'may focus on a text type, text, or section/feature of a text: the specific focus at any one moment in time may be something as small as a specific use of a full stop, to patterns of vocabulary or grammar, such as the use of particular pronouns

Table 2. The framework for analysis.

Interactive Metadiscourse	Interactional Metadiscourse
Transitions	Engagement:
Frame markers	Directives; Interjections; Appeals to Knowledge; Questions; Reader Pronouns
Endophoric markers	Stance and Attitude:
Code glosses	Attitude Markers; Boosters; Hedges
Evidentials	

Table 3. Guiding principles for transitions (from Hyland, 2005, p. 51).

Relation	External	Internal
Addition	Adding <i>activities</i>	Adding <i>arguments</i>
Comparison	Comparing and contrasting <i>events</i> , things and qualities.	Comparing and contrasting arguments and <i>evidence</i>
Consequence	Exploring <i>why</i> and <i>how</i> things happen.	Drawing <i>conclusions</i> or <i>countering arguments</i>

across a text, to a specific convention emblematic of academic discourse, such as the use of citations' (Lillis, 2009, p. 203). In our own research into metalinguistic understanding of writing, we have called these 'writing conversations' (Myhill, 2016) because this is a more transparent description of our approach to the interview—to engage in a conversation with the writer about their own writing and their metalinguistic understanding of the language choices they have made. As Lancaster (2016, p. 120) argues, these interviews, focused on students' own writing, 'can help foster the kinds of meta-reflective capacities needed to call forth prior writing experiences and strategies and identify points of similarity and difference across writing contexts'.

The purpose of these interviews was to elicit students' metalinguistic understanding of the metadiscourse used in their own writing. The writing conversations were shaped by a semi-structured interview schedule (see Appendix A), which aligned with corpus analysis metadiscourse taxonomy. We knew it would be unlikely that students would be familiar with the metalanguage of metadiscourse, so more everyday language was used for the questions, but still targeting metadiscourse terms. For example, we asked, 'Did your structure help the reader?' rather than asking, 'Did you use any transitions or frame markers?'. A crucial aspect of the interviews, however, was that the interviewers had read the students' texts in advance to note the usage of metadiscourse. In the interviews, they used the actual examples of metadiscourse in the texts to open up discussion. In practice, it was this student and text specific discussion which constituted most of the interview. This made the students' own writing the focal point of the interview, in line with the methodological choice to use 'writing conversation' interviews.

The interviews were analysed qualitatively in Nvivo using hybrid coding (Fereday & Muir-Cochrane, 2006), which involved both 'top-down' deductive coding and 'bottom-up' inductive coding. The deductive coding was operationalised through a coding framework aligned with the taxonomy used for the corpus analysis, enabling 'a detailed analysis of some aspect of the data' (Braun & Clarke, 2006, p. 84), in this case, metadiscourse. In practice, this involved identifying those data segments which addressed the metadiscourse terms in the coding framework. The first cycle of inductive coding responded to the high number of student comments coded to Reader Pronouns and Transitions, allowing for richer insights into students' metalinguistic thinking about these concepts. A second cycle of inductive analysis coded the full dataset for comments which, though not directly related to metadiscourse, informed our interpretation of their metalinguistic understanding. For example, a large number of comments related to their perceptions of the textual expectations of the argument genre. Braun and Clarke (2006) argue that inductive coding ensures that 'the themes identified are strongly linked to the data themselves... without trying to fit it into a pre-existing coding frame, or the researcher's analytic preconceptions' (2006, p. 83). This hybrid approach strengthened both a close relationship between the corpus and interview analysis processes, but without sacrificing the richness and nuance of the interview data.

This article draws principally on the deductive coding of students' comments on metadiscourse and the subsequent inductive coding cycle of the Transitions theme. The findings presented below represent the analysis of *all* the interviews, both about English and Arabic texts. However, in practice, although separate interviews focused on the texts written in English and Arabic, the students cross-referred constantly to the other language and made many generic comments across both texts. This made it difficult to determine any clear distinctions in metalinguistic understanding between writing arguments in Arabic and

English. However, there were occasions when students did explicitly discuss differences between English and Arabic. These codes can be seen in the Final Codebook (Appendix B).

The University of Exeter Ethics Committee for Education (ST1819-007) and Qatar University Institutional Review Board (QU-IRB 1062-EA/19) gave full ethical approval for this study.

Findings

The outcomes of the corpus analysis of transitions

As noted in the methodology, substantial manual work needed to be undertaken when capturing interactive features with high levels of multifunctionality. For example, the tagging of transitions of addition was particularly low for the metadiscursive function because features such as ‘and’ often connected content points or ideas rather than arguments. Table 4 shows the difference in search success of DocuScope and the subsequent manual checking: the data for all Interactive metadiscourse is included for comparison purposes, as it reveals the lower level of accuracy of DocuScope in identifying transitions.

Table 5 presents the analysis of transitions in the written English and Arabic arguments. Again, they are presented with the overall results for Interactive metadiscourse to permit contextual comparison. The skewness and kurtosis measures suggest that the distribution of transitions across the sample is normal in both the English texts (skewness: 0.65; kurtosis: 0.17) and Arabic texts (skewness: 0.21; kurtosis: -0.20). The table shows both the raw numbers and the relative frequencies per 1,000 words.

Table 5 clearly shows that transition markers have the highest frequencies across both English and Arabic arguments and account for a high proportion (about two-thirds) of all interactive metadiscourse used. Of course, this is largely because the opportunity to use a transition also occurs more frequently—at clause and sentence levels—and one sentence may contain multiple transition markers. Nonetheless, transitions are evidently an important group, not simply in signalling steps in the argument and relationships between arguments but also in enabling the text ‘to accommodate readers’ understandings, guide their reading,

Table 4. Search success with interactive metadiscourse in English.

Interactive	DocuScope Tagging	Actual Occurrences	Overall accuracy (%)
Transitions	7,286	2,854	39.17
Frame markers	1,332	565	42.42
Endophoric markers	184	37	20.11
Code glosses	1,238	1,103	89.10
Evidentials	35	27	77.14

Table 5. Interactive metadiscourse across English and Arabic essays.

Interactive	English raw (relative frequency) tokens	English median	Arabic raw (relative frequency) tokens	Arabic median
Transitions	2,632 (26.75)	12.00	1,695 (17.43)	8.00
Frame Markers	448 (4.55)	2.30	542 (5.57)	3.00
Endophoric Markers	32 (0.33)	0.16	1 (0.01)	0.00
Code Glosses	679 (6.90)	3.00	424(4.36)	2.00
Evidentials	16 (0.16)	0.00	2 (0.02)	0.00
TOTAL	3,807 (38.70)		2,664 (27.39)	

and make them aware of the writer's preferred interpretations. It therefore contributes to the interpersonal features of a text' (Hyland & Tse, 2004, p. 164).

Students' metalinguistic understanding of the function of transitions

The qualitative deductive analysis of the student interviews identified their comments on the interactive features of written argument and how they had used them (or not) in their writing. Table 6 presents the outcomes, showing both the number of interviews in which a comment was made by a student (thus giving a sense of the representativeness of this data) and the frequency of comments made. As each of the 41 students were interviewed twice (once about their English texts, and once about their Arabic texts), the total number of interviews was 82. Transitions were asked about directly in every interview where the student had used a transition marker in their writing, but not all did. Equally, some students, when asked about why they used a transition marker, did not reply, or made a response which was not about transition markers. Overall, the data show that their comments focused with considerably greater frequency on *transitions* than any other interactive category.

Because of the high frequency of comments on *transitions*, a further inductive analysis of the data attributed to this category was undertaken to explore student metalinguistic understanding of transitions in more depth. The outcomes of this analysis are presented in Table 7 below:

One cluster of responses was coded as *Giving Examples and Unelaborated Comments*, where students simply identified their use of transitions in their own writing, with no meaningful comment on that usage. This provides no insight into their metalinguistic understanding, and this will not be discussed further. In presenting the analysis below, responding students are identified by their unique student number (S1-S41).

Over a third of all comments referred in some way to the *Linking and Connecting* function of transition markers. Although no students were familiar with the metadiscourse term 'transitions', three students made a direct reference to the way in which linking supported the reader, helping 'the reader to understand and to link the ideas' (S25) to organise 'the reader's thoughts and makes his ideas sequential as he reads' (S26); and to avoid comprehension problems for the reader: 'if I did not choose linking words, as you mentioned before, the reader would not be able to understand what's the relationship' (S4). However, the dominant metalinguistic understanding of transitions was related to a purely textual function of connectivity between ideas, sentences, and paragraphs with no reference to their role in guiding the reader through the text. Typical comments maintained that linking words were 'to connect ideas and to move smoothly between ideas and collect all the sentences and connect them to each other' (S8), to make 'the text clearer and connected' (S18), and to 'connect an idea to another' (S41). One student saw the place of these transitions as

Table 6. The outcomes of the deductive coding of comments on interactive metadiscourse.

Interactive Category	Interviews Represented	Number of comments
Transitions	62	111
Evidentials	18	31
Frame Markers	23	29
Code Glosses	8	9
Endophoric Markers	0	0
Total	71	180

Table 7. The outcomes of the inductive coding of comments on transitions.

Transitions sub-codes	Definition	Interviews Represented	Number of Comments
Linking and Connecting	Comments which refer to the linking function of transitions, including references to sequencing	31	39
Awareness of Function	Comments which refer to the function of the transition words, e.g. to provide additional information, to contrast, or to express consequence	17	22
Ideational Focus	Comments which refer principally to transition words in relation to ideas and their arrangement, including moving between ideas	13	16
Coherence, Cohesion and Flow	Comments which refer to how transition words and phrases contribute to the overall cohesion, coherence or flow of the writing	11	13
Giving Examples or Unelaborated Comments	Comments which simply identified examples of the transition words or made generalised statements about transitions.	12	14
Conflation	Comments which discuss words and phrases from different metadiscoursal categories as part of the discussion of transition words	6	7

writer-oriented ‘because they help me to clarify my thoughts and the sequence of my ideas’ (S33).

While comments which referred to the linking and connecting function of transitions were the most frequent, the sub-code, *Awareness of Function*, showed an understanding of how transitions signal additionality, comparison and contrast, or consequence. The student comments on these pointed principally to the semantic function of the transition word in relation to the ideas being communicated. One student commented on additionality in terms of both linking and expanding ideas: ‘I have used stuff like ‘in addition’ here, linking or to further develop on an idea’ (S12). However, the majority explained solely the semantic function. For instance, one student (S8) explained their use of the transition, ‘As a result’, by stating ‘I stated an idea and then explained its consequences’. Similarly, another student (S14) described their use of transitions like ‘Furthermore’, ‘in addition to’, and ‘besides that’ as a means to ‘increase the number of points and additions’. Another student (S26) explained the use of ‘on the one hand’ and ‘on the other hand’ thus: ‘I used ‘on the one hand’ to highlight the first team and then ‘on the other hand’ to talk about the second team, explaining that there is a contradiction’. The idea of contrast was also referenced - ‘When I wrote ‘on the other hand’, he [the reader] understood that this point is going to contrast the previous paragraph’ (S4). Only the final comment makes an indirect reference to a reader, suggesting that these students did not perceive these transition words as part of building a reader-writer relationship.

To an extent, those data segments attributed to Cohesion, Coherence and Flow build on the idea of linking and connecting but specifically discuss notions of cohesion. Here, there was some awareness of a writer’s purpose for using transition words, particularly that ‘it makes it easier to read and helps with the flow of reading and writing’ (S1) and that it can ‘facilitate reading and text flow’ (S31) and ‘connect the structure of the flow of information’ (S31). Others drew attention to the cohesion created by transition markers, for example, to

'help me to have the subject coherent and easier to read' (S14), and that 'it adds cohesion and flow so that reading get is easier. You are not kind of like struggling, so struggling to connect the pieces' (S9). One student talked of her personal desire for her writing to be 'complete and coherent' because she does 'not like the ideas being scattered, and even when the person reads the article, he knows exactly what I am talking about' (S14). There is definite reader awareness here, with an emphasis on ensuring the reader is clear about the writer's message. Two comments focused more on the barriers to communication when transition markers are not used, noting that the text 'would not be clear, and we will feel that there is something missing' (S17) and that 'the text will be disrupted' (S29).

The category, Ideational Focus, captured comments which were more strongly focused on the ideas being expressed, suggesting, for example, that transition markers 'emphasise my idea' (S31), 'help me arrange my ideas' (S25), or that they discriminate between ideas: 'this idea is different from the first idea, or here is an example, here is an explanation like this' (S15). For some, there was some grasp of how transition markers relate to readers, supporting navigation or information flow: 'To tell the reader where to find the place of supporting and opposing teams and their points of view' (S18) and making 'it easier for the reader to move smoothly from one point to another' (S36). However, of the 13 data segments coded to this category, six specifically referred to the idea of transition or moving 'from one idea to another' (S12). Transition markers were viewed as 'a strategy used to facilitate the transition from one idea to another' (S18), acting as 'signals that show that I have moved from one idea to another' (S28) and ensuring 'a smooth transition between ideas' (S21).

Although taxonomies of metadiscourse discriminate between Frame Markers and Transitions, the students rarely made these distinctions. There was some overlap between these two categories, particularly in the conflation of sequencing and linking. As the students did not know the metalanguage of metadiscourse, to an extent, this is understandable. Data coded to Conflation shows students citing sequencing adverbials with additionality adverbials: 'In the topic sentence, I mentioned that there are many reasons for the opposing team and enumerate them using firstly, moreover, additionally, lastly' (S26); and considering sequencing adverbials as linking adverbials: 'at the beginning of each paragraph there is a link word - firstly, second, third' (S35). One student, in describing their use of conjunctions and adverbials, talks in one sentence about code glosses, frame markers and transitions, explaining 'but, however- for contrast; - also - for addition; - firstly, secondly, finally, to sum up - for sequence; and - for instance, for example - for giving examples' (S16). Students' comments in the Frame Marker sub-code also expressed their perception that 'these words help to arrange and move from one sentence and one idea to another through these links' (S36). This pattern of response suggests that these students group these adverbials together, perhaps as an umbrella grouping for words which link and organise text, accounting for the higher frequency of comments on Linking and Connecting. This may reflect the instructional context and the strong emphasis in much ESOL teaching on the idea of 'connectives', a term which itself conflates both linking and sequencing.

Discussion

In discussing these findings, it is important to recall that in the Qatari context from which the data are drawn, written argument is not taught using the terminology of metadiscourse, and the term 'transitions' was not part of their metalanguage. However, their instructors

addressed transitions through the concept of 'linking words', which encompassed both transitions and frame markers. This instruction was text-focused, rather than focused on how the use of 'linking words' supported the reader in following the argument. Our interest in this article is not in whether they know and understand the metalanguage of metadiscourse but in whether they understand the metadiscoursal function of transitions in building an awareness of the reader's perspective on the text.

In their writing conversation interviews, the students made a large number of comments on transitions, perhaps because the presence of transitions was high in their texts, which allowed more probing of understanding during the interviews. The data suggest that, for most students in this study, the way transitions function in argument is strongly oriented to the communication of ideas and arguments - a principally ideational function—rather than considering their interpersonal function to 'help readers interpret pragmatic connections between steps in an argument' (Hyland, 2005, p. 50). Their metalinguistic understanding of the metadiscoursal function of transitions was limited, with only a small number commenting on how the use of transitions might support the reader: these, however, seemed to relate more to comprehension of ideas ('making it easier to read' - S1) than to organisation and signalling of the relationships between arguments.

In contrast, the interviews evidenced a strong metalinguistic understanding of transitions as words which link and connect, creating cohesion and a flow of ideas, and students frequently grouped together transitions and frame markers as linking structures, often with an emphasis on the semantic purpose of the transitions. This is highly likely to be attributable to the pedagogical context, which used the notion of linking words in instruction. A consequence of this emphasis on linking meant that students did not distinguish between adverbials, which usually link across sentences, and conjunctions, which usually link clauses, seeing them all generically as 'linking words'. Liu (2008) observes that conjunctions do not operate above clause level and link syntactically as well as semantically, whereas adverbials can link both inter- and supra-sententially; and Gardner and Han (2018) argue that understanding this distinction is useful because of the mobility of the adverbial within a clause or sentence, compared with the conjunction. However, Gardner and Han (2018) appear to adopt a rather prescriptivist stance towards beginning sentences with a conjunction, regarding these as incorrect. This suggests that understanding the distinction is oriented more towards a metalinguistic understanding of what is *accurate* rather than *why* these linking words or phrases are used, and *how* they support the reading of the text. This is an interesting example to discuss because the conjunctions 'and' and 'but' are sometimes used at the start of a sentence, including in published written arguments. Hyland and Jiang (2018) diachronic study of research articles found that sentence-initial 'but' had increased over time, and they suggest it has 'something of an informal flavour' (2017, p. 24). A more specific analysis of sentence-initial 'and' and 'but' is provided by Bell (2007)—he found that sentence-initial 'and'/'but' are common in academic writing and argued that they offer a way to create cohesion which other forms of co-ordination do not (2007). We would argue that developing a metalinguistic understanding of how and why linking words are used, including non-normative usages such as sentence-initial conjunctions, might foster greater authorial agency for writers and more informed decision-making.

One implication of our results is that metadiscourse theory and the concept of transitions might prove a helpful way to enrich students' metalinguistic understanding of how relationships between arguments are expressed and how they can support readers by anticipating

readers' needs. The notion of 'linking words' may be too generic, encompassing a broader category of words and phrases than the concept of transition, and at the same time focusing more on the textual than the interpersonal. Generating metalinguistic thinking about how transitions function might heighten students' understanding of 'the extent to which the text is constructed with the readers' needs in mind' (Hyland & Tse, 2004, p. 49). Similarly, a metalinguistic approach creates space for consideration of the judicious use of transitions and the different positional possibilities for transitions, for example, the prosodic effect of sentence-initial 'and' and 'but' and of non-sentence-initial adverbials. Walková's (2020) study of how transitions are addressed in EAP textbooks is unusual in having a sharp focus on transitions from a pedagogical perspective, arguing that pedagogy and theory are not well-aligned. She shows that textbooks emphasise the semantic function of transitions and suggests greater pedagogical attention be given to the stylistic aspects, such as avoiding over-use and knowing alternative phrases and combinations. The students in our study also demonstrated a stronger understanding of the semantic and ideational aspects of transitions, perhaps reflecting the contextual effect of textbooks and writing instruction. We argue that a pedagogy which foregrounds a metalinguistic understanding of how transitions function might facilitate student learning about the different effects and purposes of transitions in supporting the reader rather than seeing them as linking words, principally performing a principally semantic, ideational function. In particular, encouraging metalinguistic thinking could heighten student writers' understanding of transitions as interpersonal as well as textual, able to 'denote how the writer intends the connections between elements of the discussion to be understood' (Hyland, 2005, p. 76). Previous research showed that experimental group students who received metalinguistic instruction showed a higher level of knowledge and were better at using English possessive determiners than those in the control group (Serrano, 2011). This metalinguistic thinking might be helped by instructional contexts which use authentic texts as the basis for discussion (Myhill et al., 2018) and which promote metalinguistic talk as a tool for the exploration of the functions of different transitions in these texts (Myhill et al., 2020c; Watson et al., 2021). Such an approach acknowledges Kellogg's argument that 'to be successful, the instructor must teach the student how to think as well as write' (1994, p. 213).

Conclusion

This study offers valuable insights into students' metalinguistic understanding of transitions in written argument, and contributes perspectives complementary to the more numerous textual analysis of transition usage in corpus studies. However, it is not without limitations. Firstly, the data draws from students' texts and students' interviews, but there is no empirical data on the writing instruction which led to the composition of these texts. This would have allowed for a more in-depth analysis of what transitions they used, their understanding of why they used them, and how this related to what they were taught. Equally, eliciting the teachers' pedagogical thinking and decision-making in teaching written argument and the extent to which assessment or curriculum specification governed this decision-making would have added a further dimension to the study. Further research might usefully design studies which incorporate lesson observations and teacher interviews in addition to corpus analysis and student interviews to secure a richer, contextualised understanding of the situation. Secondly, from the conceptual perspective of metalinguistic understanding, further

research might also explore the impact of enhanced metalinguistic understanding on the quality of student writing, and might track the development of students' metalinguistic understanding over time through longitudinal studies.

To conclude, metadiscourse, as a theory, is directly oriented towards showing how language choices relate to the way in which the writer manages the reader-writer relationship: it 'offers a framework for understanding communication as social engagement. It illuminates some aspects of how we project ourselves into our discourses by signalling our attitude towards both the content and the audience of the text' (Hyland, 2005, p. 4). This view, drawing on Halliday and his theorisation of metafunctions (Vande Kopple, 2012; Hyland, 2017), attends to the interpersonal as well as the textual aspects of generating writing. The notion of interpersonal aspects of writing is emphasised as it develops metalinguistic insights and how the participants can collectively construct knowledge (Gonzalves, 2021). The data reported here, narrowing the focus specifically to transitions, shows that students' metalinguistic understanding of transitions tends towards a textual view, giving primacy to semantic and ideational connections between ideas, with a rather limited understanding of their role in how they also attend to readers' needs and writers' intentions. Hyland and Tse's argument that 'all metadiscourse is interpersonal in that it takes account of the reader's knowledge, textual experiences, and processing needs and that it provides writers with an armoury of rhetorical appeals to achieve this' (2004, p. 161) is also a reminder that pedagogical attention might usefully seek to foster students' metalinguistic understanding of the interpersonal role of transitions, enabling student writers to make more strategic and informed language choices in shaping their argument texts.

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The authors report that there are no competing interests to declare.

Ethical approval

The University of Exeter Ethics Committee for Education (ST1819-007) and Qatar University Institutional Review Board (QU-IRB 1062-EA/19) gave full ethical approval for this study.

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