



Metadiscourse in English and Chinese research article introductions

Discourse Studies

15(2) 129–146

© The Author(s) 2013

Reprints and permissions:

sagepub.co.uk/journalsPermissions.nav

DOI: 10.1177/1461445612471476

dis.sagepub.com



Loi Chek Kim and Jason Miin-Hwa Lim

Universiti Malaysia Sabah, Malaysia

Abstract

The present study examines the use of metadiscourse in English and Chinese research article introductions in the field of educational psychology. The corpus for this study comprises 40 introductions of research articles – 20 Chinese and 20 English – in the field of educational psychology. Hyland's (2004) model of metadiscourse has been employed as the analytical framework for the present study. The similarities and differences in the use of metadiscourse (i.e. the interactive and interactional resources) between the two sets of texts are looked at from a socio-cultural point of view. The findings of the present study provide some insights into the teaching and learning of academic English writing for Chinese ESL (English as a Second Language) students.

Keywords

Academic English writing, educational psychology, interactional, interactive, metadiscourse, socio-cultural factor

Introduction

Metadiscourse refers to linguistic items which serve the textual and interpersonal functions of language (Crismore et al., 1993). Textual functions/meanings are used by writers to make connection parts of ideational material within a text in order that the meaning in context is explicit and logical to the readers (Connor, 1996; Crismore and Abdollehzadeh, 2010; Enkvist, 1990; Grabe, 1985; Halliday and Hasan, 1976), while interpersonal metadiscourse assists writers to convey 'their personalities, their evaluations of and attitudes toward ideational material, shows what role in the communication situation they are choosing, and indicates how they hope readers will respond to the ideational material' (Vande Kopple,

Corresponding author:

Loi Chek Kim, Universiti Malaysia Sabah (UMSKAL), PPIB, Jalan Sungai Pagar, 87000 Wilayah Persekutuan Labuan, Malaysia.

Email: cheryl.loi@otagoalumni.ac.nz

2002: 2–3). Early studies of metadiscourse mainly focused on textual meaning (e.g. coherence and cohesion) (see Connor, 1984; Enkvist, 1990; Hinds, 1990; Kaplan, 1966; Scollon, 1991). Metadiscourse studies have also been conducted to examine the use of metadiscourse on both textual and interpersonal meanings (see e.g. Abdollahzadeh, 2007; Hyland, 2000; Marandi, 2002; Mauranen, 1993; Simin, 2004; Vande Kopple, 1985). Some studies of metadiscourse have pedagogical implications for the teaching of compositions (Crismore et al., 1993) as well as academic writing (Hyland, 2010; Jalilifar and Alipour, 2007). There is also burgeoning past contrastive research comparing the use of metadiscourse in writing of different languages and cultures. Such research has shown that the use of metadiscourse is language- and culture-specific (e.g. Crismore et al., 1993; Mauranen, 1993).

Contributing to this line of research, this article undertakes a contrastive study investigating the use of metadiscourse in academic writing, focusing on English and Chinese research article (henceforth as RA) introductions. The article first examines the similarities and differences in the use of metadiscourse between the two sets of data. In what follows, this article will discuss possible contextual and/or socio-cultural factors that may account for these similarities and/or differences. The findings have pedagogical implications in teaching English academic writing to Chinese ESL students.

Responding to a growing interest in the interactive character of academic writing, the present study employs Hyland's (2004) model of metadiscourse in academic texts. According to Hyland, metadiscourse is not simply 'discourse about discourse', but also comprises the 'interactive' element used by writers to 'explicitly organize their texts, engage readers, and signal their attitudes to both their material and their audience' (Hyland, 2005, cited in Hyland, 2010: 126). Swales (2004: 218) has a similar view that an academic prose is 'richly persuasive rather than flatly expository'. Hyland (2004) divides metadiscourse used in academic texts to two categories, namely *interactive* resources and *interactional* resources. The function of interactive resources is to enable the writer to achieve explicit information flow based on the writer's preferred interpretations, and this helps guide readers throughout the text (Hyland, 2004, 2010). The interactive resources include transitions, frame markers, endophoric markers, evidentials and code glosses. As for interactional resources, their function is to 'organize a discourse or the writer's stance towards either its content or the reader' (Hyland, 2000: 109). The interactional resources thus help the writer involve himself in the text to convey the information more explicitly to the reader. In this way, the use of interactional resources would make the text more personal and easier to follow. In other words, these metadiscourse features control the level of personality in a text. The interactional resources comprise hedges, boosters, attitude markers, engagement markers and self-mentions. Table 1 presents Hyland's (2004) model of metadiscourse in academic texts.

The research questions

The major research questions addressed in the present study are as follows:

1. What are the similarities and differences in the use of metadiscourse between English and Chinese RA introductions?
2. What could possibly be the factor(s) contributing to the use of metadiscourse in both sets of data?

Table 1. A model of metadiscourse in academic texts.

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

Source: Hyland (2004: 139).

Methods

This study is a combination of qualitative and quantitative research that includes both a quantitative data tabulated to illustrate the use of metatextual features and a description of the types of metatextual features found in the corpus. It is important to consider the comparability of genre under investigation in order to present valid findings within a more representative corpus written by the different groups of writers, instead of interpreting the results as reflecting genre-related differences (Adel, 2006). Considering the above concern, corpora involving the academic genre, that is, English and Chinese RA introductions, are selected for the present study. The corpora are comparable in terms of the selected field (educational psychology), the type of paper (experimental papers) and the journals (a prestigious journal published in the respective country), and both sets of RA introductions were selected from publications in the five years preceding the year in which the sampling was made (i.e. RAs published from 2003 to 2007). This decision was based on the possibility that RA genre might involve the following: the structure of a genre may possibly change depending on

rhetorical needs during various time periods and situations as observed in Swales and Najjar's (1987) study.

Educational psychology, which is often defined as the science of teaching and learning – especially in formal educational contexts (Scheurman et al., 1993), was selected as it is the field that the researcher is most familiar with; she has been involved in the teaching profession for about 20 years. In addition, there is material available from comparable disciplines for both sets of data.

The 20 English RAs were selected from *The Journal of Educational Psychology* and were written by first-language English speakers (primary and co-authors) who have obtained their schooling and tertiary education in the language in a native English-speaking country (this was revealed by an email enquiry). These authors are affiliated with higher institutions in native English-speaking countries (mainly with American institutions). The majority of these English-speaking writers are American (35), followed by British (five), Australians (two) and New Zealander (one). However, this is not meant to suggest there are no differences between American, British, Australian and New Zealanders' speech and writing. Clyne's (1987) views are similar:

As may be expected, it is difficult to distinguish between 'cultural styles' and differences determined by individuals and schools. Similarly, we cannot take it for granted that discourse structures are the same for Americans, British and Australians or for East and West Germans, Austrians and Swiss. (Clyne, 1987: 215–216)

Nevertheless, the above criteria for the selection of the English corpus (i.e. written by first-language English speakers) should be acceptable for the purpose of the present study, which compares rhetorical patterns of RA introductions written in the two languages.

The 20 Chinese RAs were selected from *心理发展与教育* (*Psychological Development and Education*) and were written by Chinese writers who have obtained their schooling and most of their tertiary education in the language in China. All of these Chinese writers are affiliated with the higher institutions in China. The above two journals were selected as being representative of prestigious refereed journals in the field of educational psychology published in their respective countries (the USA and mainland China).

Initially, 60 articles were selected from each journal based on judgment sampling. Using random-stratified sampling method, 20 articles were then extracted from the 60 articles for each language to form the actual corpus of the present study. The 60 articles were first stratified into five subgroups based on the year of publication (2003–2007), followed by a simple random sampling to select articles from each of the five subgroups in proportion to their representation in the total population. Table 2 presents details of the selection of the English and Chinese corpora.

The modest size of 40 RA introductions was considered to be justified, considering that the present study is a combination of qualitative and quantitative research which includes a description of the metatextual features and a discussion on the potential socio-cultural factors as well as the presentation of quantitative data. Observations are restricted to the corpus. The present study thus does not attempt to allow generalizations about the use of metadiscourse in all English and Chinese RA introductions in the field of educational psychology. In addition, Chinese writers (henceforth called specialist informants) were invited

Table 2. Selection of English and Chinese corpora.

Journal	Year of publication	Total populations (judgment sampling)	Actual sample (random-stratified sampling)
<i>Journal of Educational Psychology</i>	2003	9	3
	2004	6	2
	2005	12	4
	2006	12	4
	2007	21	7
Total		60	20
心理发展与教育 (<i>Psychological Development and Education</i>)	2003	6	2
	2004	12	4
	2005	12	4
	2006	15	5
	2007	15	5
Total		60	20

to provide their feedback via email in order to gain insights into the text data and discover about their own writing practice and thoughts about writing for publication.

Results and discussion

Hyland's (2004) model of metadiscourse in academic texts was taken as a starting point for the analysis of the present study. As noted above, Hyland divides metadiscourse used in academic texts into two categories, namely interactive resources and interactional resources. The function of interactive resources (viz. transitions, frame markers, endophoric markers, evidentials and code glosses) is to help guide readers throughout the text. As for interactional resources (viz. hedges, boosters, attitude markers, engagement markers and self-mentions), their function is to involve the reader in the argument.

All occurrences were analyzed carefully, taking the sentence context into consideration to ensure they acted as metadiscourse. The results of the metadiscourse analysis were subjected to quantitative analysis, which included the following:

- the general distribution of metadiscourse in each category;
- the density of metadiscourse in each category.

The results use metadiscourse density to permit comparison across samples of different sizes. Metadiscourse density is defined as number of metadiscourse per sentence. Tables 3 and 4 show the results.

As shown in Tables 3 and 4, both English and Chinese RA introductions use far more interactive than interactional forms. Evidentials and transitions (58.6% and 18.5% of all interactive uses respectively) were the most frequent metadiscourse used in English introductions. Similarly, evidentials and transitions are largely found in Chinese introductions

Table 3. Metadiscourse in English RA introductions.

	Interactive				Interactional					
	Transition	Evidentials	Code glosses	Frame markers	Endophorics	Engagement markers	Hedges	Boosters	Attitude markers	Self-mentions
Counts	276	876	105	89	148	48	196	69	15	27
No. of sentences	1447	1447	1447	1447	1447	1447	1447	1447	1447	1447
Average density	0.19	0.6	0.07	0.06	0.1	0.03	0.14	0.05	0.01	0.02

Total for Interactive = 1494 (average density = 1.03).

Total for Interactional = 355 (average density = 0.25).

Table 4. Metadiscourse in Chinese RA introductions.

	Interactive				Interactional					
	Transition	Evidentials	Code glosses	Frame markers	Endophorics	Engagement markers	Hedges	Boosters	Attitude markers	Self-mentions
Counts	55	178	26	19	39	0	24	9	0	8
No. of sentences	346	346	346	346	346	346	346	346	346	346
Average density	0.16	0.51	0.08	0.05	0.11	0	0.07	0.03	0	0.02

Total for Interactive = 317 (average density = 0.92).

Total for Interactional = 41 (average density = 0.12).

(56% and 17.4% of all interactive uses respectively). This is followed by hedges in English introductions (55% of all interactional uses) and endophorics in Chinese introductions (12.3% of all interactive uses). Attitude markers are used the least by English writers (4.2% of all interactional uses), while Chinese writers do not empty any attitude markers at all (see the Potential socio-cultural factors section for an explanation from the socio-cultural perspective). In addition, Chinese writers do not empty any engagement markers (see aforesaid section). Self-mentions show very low frequencies across the two sets of introductions. This may reflect that in this genre (academic writing), writers prefer to appeal to readers in an impersonal way using the inanimate subject construction (e.g. *The present study investigates. . .*) instead of we- or I-pronoun patterns (e.g. *We investigate . . .*; *I now advocate . . .*).

As noted above, the most frequent sub-category in the corpus is evidentials, which forms at least 50% of all interactive uses in both sets of the data. The evidential forms used in both sets of the data are references to other sources to lay the groundwork for one's research as well as to support the writers' arguments or statements. Citations are used in most cases. Ahmad (1997) suggests that the use of citations to support a writer's arguments gives the reader the impression that the writer is well informed about the literature context related to his domain of study. Some of the examples found in the corpora are as follows:

- E20 Cohen (1994) argued that there is no need for the group to engage in discussion on how they will manage the task or how they will negotiate meaning.
- E15 Cooley (1902) originally proposed the *looking-glass self* phenomenon, in which significant others' opinions about an individual are internalized as the individual's self concept.
- E2 L. A. Johnson et al. (1997) examined comprehension of narrative passages among fourth-, fifth-, and sixth-grade students with LD who were taught a story grammar-based strategy along with goal setting and self-instructions.
- E18 Medicine (2000) suggested that children must be able to cooperate with adults and peers in order to succeed in school. Children who are not behaviorally competent on entry into kindergarten and first grade are at greater risk not only for later behavior problems, but also for academic failure, relative to their peers (Peth-Pierce, 2001; Raver, 2002; Raver & Knitze, 2002).
- C20 大量研究表明,
Most research shows that, ...
- C17 许多研究表明,
Many studies reveal that, ...
- C11 Mayer 等人^[2]认为,
Mayer et al.^[2] consider, ...
- C3 Reys 等人相信... ..
Reys et al. believe ...
- C15 国外有关于学业自我概念的研究表明... ..
Foreign studies on academic self-concept show that ...

C19 Wenden^[4] 也曾经提出,

Wenden^[4] also has pointed out, ...

As noted, there are also a great number of transitions in the two sets of data. In the corpora, coordinating conjunctions such as ‘also’, ‘and’, 也 (also), 并且 (furthermore), are used by writers to express the link between clauses. It is this link that allows writers to explicitly define the key concept and provide a clarification. Some examples are as follows:

Defining the key concepts

E18 Behaviors are **also** highly contextual with respect to both setting and age.

C20 自尊是个体人格的核心因素之一, 也是... ..。

Self-esteem is one of the core elements of an individual’s personality, **and**

Provide clarification

E15 Thus, analyses for the second alternative model tested whether students’ perceptions of others’ beliefs and behavior would predict their own self perceptions **and**, in turn, performance above and beyond the effects of previous achievement.

C7 并且这样的学生会有更高的学业成绩^[2], ...

Furthermore, these students will achieve better academic results^[2], ...

Transitions are also used to construct interaction. This reflects the feature of the inter-activeness of metadiscourse. Transitions such as conjunctions are used to show cause and effect (e.g. because, thus, 所以 (therefore), 因此 (thus)) in order to get readers’ acceptance for the importance of the newly proposed study through claiming the centrality of new knowledge and contribution, as well as through justifying the purpose or the focus of the study.

Centrality claim

E14 Language is fundamental to education **because** it is the major form of representation of cultural knowledge and the principal medium of instruction.

C11 所以近年来, 心理学家们开始越来越重视对这方面的研究。

Thus, in recent years, psychologists have begun to put more emphasis on this aspect of the research.

Purpose of the study

E10 Finally, this study examines learning for adults past their years of formal education. This is important **because** the changes in the trajectories of abilities throughout the life span give us reason to believe that the determinants of learning are different for adults than they are for school-age children (e.g., see Baltes, Kleigl, & Dittmann-Kohli, 1988; Lorge, 1937; Masunaga & Horn, 2000; Schweizer & Koch, 2001).

C1 如前所述亲子关系已经被证实是对中学生的心理健康有影响的重要外因之一, ...
... 因此, 本研究结合考查感觉寻求与亲子关系对中学生心理健康的影响。

As noted earlier, the parent–child relationship has been confirmed to be one of the important external factors influencing secondary school students’ mental health ...

Therefore, this study examines the joint influences of sensation seeking and parent–child relationship on secondary school students’ mental health.

The focus of the study

E7 **Specifically**, this project examined the impact of a group of student and classroom predictors on students’ descriptive writing at the end of first grade and on the growth of descriptive writing from first through third grade.

C1 因此本研究重点考察以下三方面的内容：(1) ... (2) ... (3) ... 。

Therefore, the present research focused on the following three aspects: (1) ... (2) ... and (3) ...

In the corpora, transitions such as the contrastive forms (e.g. ‘however’; ‘despite’; ‘although’ as well as 但是; 但 (both mean ‘but’)) are largely used to start off statements of gap indication in the literature or counter-claiming. Such statements locate the current research in the context of previous research and debate by stating how the current study fills the past gap or justifying how the current research differs from previous work. These contrastive forms are “antithetic discourse markers” that “exhibit connectivity and were sentence-initial concessive conjuncts appearing in the form of adversatives” (Lim, 2012: 234). The use of a contrastive at the beginning of the statements allows ‘writers to manoeuvre themselves into line with what they expect reader may think to head off objections or counterclaims’ (Hyland, 2004: 138). According to Hyland (2004), this is to gain more sympathy or acceptance from the readers on the writers’ views. In this way, the presence of metadiscourse is to engage readers with the material rather than to help guide readers through the text. Some of the examples found in both sets of data are as follows:

E13 **Despite** an abundance of descriptive research suggesting the promise of this approach, experimental studies that demonstrate its benefits are largely absent.

E10 **Although** some of these issues have been examined in prior research (Ackerman et al., 2001; Beier & Ackerman, 2005; Snow, 1963; Sorenson, 1933), this study also advances the literature in that it integrates the examination of multiple individual-differences determinants of learning in one study.

E2 **However, although** numerous studies have reported on the benefits that accrue to students from cooperative learning experiences, few have reported on what actually happens in groups that facilitates learning, and fewer still have reported on students’ perceptions of their cooperative learning experiences.

C13 有学者认为，人际关系不协调已成为困扰大学生的主要问题... 但相应的实证研究尚缺乏。

Some scholars believe that interpersonal disturbance has become a major problem among undergraduates ... **However**, there is still a lack of corresponding empirical research.

C3 可见，以往研究对 ... 进行了探讨，而有关MD 儿童估算的情感因素的探讨研究，国内外文献尚 不多见。

As observed, previous research has explored ... **but** domestic and international research literature on the emotional factors of MD (mathematical disability) children's computational estimation is still rare.

- C5 近些年来一些学者从学生的角度探讨了教师的形象^[1-4], **但**大部分研究多集中于 ...
... 很少有研究涉及到中学生现实生活中所接触的教师形象与他们心目中的理想教师形象的对比研究, ...

In recent years, some scholars investigated the perceptions of teachers from students' perspectives^[1-4]; **however**, most of these studies have focused on ...
There are **very few studies** that have compared students' actual and ideal images of their teachers ...

As noted, hedges are also heavily presented in both English and Chinese introductions (55% versus 58.5% respectively from the interactional form of each language). As noted by Hyland (2004: 139), this sub-category of interactional form is used to 'withhold writer's full commitment to proposition' in order to establish 'a relationship with readers to persuade them of interpretations' (Hyland, 2000, cited in Hyland, 2004: 137). Some of the hedges used in the corpora are 'tended to', 'less likely', 'could', 'appears to', 'may', 可能 (perhaps), 希望 (hopefully). The use of a great number of hedges in the introductions suggests that both English and Chinese writers cautiously anticipate readers' reactions when indicating a gap or past research. That is, they appear to be aware of possible counter-argumentation from the readers, while seeking acceptance for their claims. The following exemplifies the above phenomenon:

- E20 This is a concern because there is some evidence that children's perceptions of cooperative learning change as they move up through the grades where they are **less likely** to participate in such experiences.

- E18 Boys **appear** to be at greater risk than girls.

- E15 Research on domain-specific constructs such as those linked specifically to math/science coursework, which we adopted in the current study, **may** yield a different pattern of results concerning the effects of peers on achievement.

- C1 权威型的家长则有**可能**对青少年行为有更多干涉, 有利于防止青少年结识不良同伴群体, ...^[15]。因此, 本研究结合考查感觉寻求与亲子关系对中学生心理健康的影响。Authoritative parents **tend to** intervene more frequently in adolescents' behaviour. This helps prevent the adolescents from associating with deviant peer groups ...^[15]. Therefore, this study examines the joint influences of sensation seeking and parent-child relationship on secondary school students' mental health.

- C1 并且认为这**可能**与独生子女受到家长的更多关注有关。
In addition, this is **perhaps** due to the greater parental attention given to their only child.

More examples of both the interactive and interactional forms can be found in Table 5.

In addition to the above similarities between English and Chinese introductions, generally, the two sets of data differ in some ways in the use of the metadiscourse. Referring

Table 5. Examples of metadiscourse employed in the corpora.

Category	English	Chinese
<i>Interactive</i>		
Transitions	Furthermore; because; however; although; also; moreover; thus; despite; in contrast; in addition; but also; additionally; therefore	然而; 但是; 而且; 所以; 又; 另外; 除了; 虽然; 也; 并且; 以及; 因此
Frame markers	Third; to summarize; finally; Specific goals of the study were to evaluate; One goal of this project was to investigate; The goal of the current study was to assess; The central goal of this study is to examine; first; consequently	本研究的目的就在于; 本研究查阅了; 首先; 第一类为
Endophoric markers	Similarly; this type; in so doing; these problems; that is; if so; these questions; Figure 1; these results; these theories; this view; these studies; that message; these authors; given these methods; this 54-item version of the MRQ; likewise	这方面的研究; 可见; 这是; 鉴于以上的不足; 这种; 这类研究; 两者; 综上所述; 前三种研究; 前面提到的; 这个; 鉴于上述问题; 这样的; 在这方面; 上述研究均表明; 如前所述; 它; 究其原因; 从上述研究中; 前者; 后者; 这些研究结果; 这两类
Evidentials	Cohen (1994) argued that; Medicine (2000) suggested that; Cooley (1902) originally proposed; Eccles-Parsons, Adler, and Kaczala (1982) reported that; According to the Gf-Gc theory; as noted by many early researchers; Cameron, Hunt, and Linton (1996) proposed; As noted by Guthrie and Wigfield (2000)	有研究表明; 大量研究表明; Mayer 等人 ^[4] 认为; Reys 等人相信; 在 Reys 等人的研究中发现; 国外有关于学业自我概念的研究表明; Harackiewicz 对大学生研究发现; Wenden ^[4] 也曾经提出; 近年来我国的研究表明; 一些研究也初步表明; 而Farh 等认为; Leiter 提出; 以往研究证实
Code glosses	For example; such as; the following questions	对下述内容; 比如; 如; 分为两种类型; 例如; 包括 ^[9] 项技能; 主要问题如下; 下列四个特性; 两个目的: 一是 ... 二是 ...; 可以说; 以下几个方面; 也就是说
<i>Interactional</i>		
Hedges	tended to; less likely; could; appears to; may; more likely; perhaps; seems likely that	可能; 希望
Boosters	Significantly; it is apparent that; there is no doubt that; certainly; in fact; it was critical; even; particularly noteworthy; must	无疑; 尤其; 事实上
Attitude markers	Interestingly; unfortunately,	—
Engagement markers	see Harter, 1999; see also Kochenderfer and Ladd, 1997; see Skinner (1996); consider	—
Self-mentions	We, our, I	我

to Tables 2 and 3, overall, there is a lower density of metadiscourse used in Chinese RA introductions compared to that of English (average density of 1.03 versus 1.28; about 1.2 times lower) to help orient the readers in the logical development of text (interactive) and to control the level of personality in a text (interactional).

Potential socio-cultural factors

There are possibly two interpretations for the differing density of metadiscourse in English and Chinese RA introductions. First is the differing length of the two sets of data. That is, the Chinese introductions are very much shorter than the English introductions. In a shorter text, less metadiscourse is needed to structure less elaborate statements. However, since the use of metadiscourse is closely related to its socio-cultural contexts (Crismore et al., 1993), the lower use of metadiscourse in Chinese introductions could also be ascribed to Chinese being a more reader-responsible prose (Hinds, 1987; Lee, 2001) which puts more demands on the reader to determine the relationship between the parts of the texts and the text as a whole. In other words, coherence features in Chinese put more expectations on the reader to make the connection. Thus, a piece of writing in Chinese is considered cohesive to the extent that the reader's expectations match the writer's intent to imply such connections.

However, a closer look at the metadiscourse analysis shows that the gap between the two sets of data in the interactional form is greater than that of the interactive form. That is, Chinese introductions are about two times lower than English introductions in the interactional form (average density of 0.12 versus 0.25) compared to about 1.1 times lower in the interactive form (0.91 versus 1.03). Moreover, as shown earlier, the two categories of the interactional form (i.e. engagement markers and attitude markers) are not employed in Chinese introductions at all. This perhaps explains that a bigger contributing factor causing Chinese introductions to be more reader-responsible (less reader-friendly) is that the writer controls the level of personality in a text to establish a more distant relationship between author, text and reader. 'Reader responsibility' as a characteristic of Chinese prose may have been influenced by the two cardinal principles of Confucius's teaching, namely *Ren* (humanity, love) and *Li* (propriety) (Lu, 2000). In relation to rhetoric, *Ren* (humanity and love) must accept the presence of others (audience) (Powers and Gong, 1994; see also Loi and Sweetnam Evans, 2010). To achieve this, mutual communication is essential in the rhetorical structure of a text to develop human relationships. These relationships are established when the reader infers the intentions of the writer through a cooperative interpretation of the text together with, for example, the attitude, the communication of commitment to the arguments, etc. In order to give room for the readers to interpret the text according to their personal knowledge and perception, the text needs to be reader-responsible to a certain extent. In other words, a lower level of personality in the text is expected here.

However, as seen above, Chinese introductions employ relatively more interactive compared to interactional forms. This shows that in fact, Chinese writers do put emphasis on bridging information in the texts to make their arguments explicit. Thus, the reader-responsible prose may have influenced academic writing to a lesser extent in the use of the interactive form compared to the interactional form. This is because academic

writing involves processes more complex than ‘technical matters in which “appropriate” skills are acquired and novices become members of an expert community’ (Lea and Street, 1998: 170). It also demands the acquisition of several linguistic practices which are embedded in complex sets of discourses, identities and social meanings. That is, in academic literacy practices, writers are required to be able to ‘switch practices between one setting and another, to deploy a repertoire of linguistic practices appropriate to each setting and to handle the social meanings and identities that each evokes’ (Lea and Street, 1998: 159). This complexity makes it necessary for writers to organize their texts in manners that readers are most likely to understand. The use of metadiscourse is essential to enhance such understanding. As shown in the following examples, Chinese writers tend to use the interactive form quite frequently (reflecting a shorter distance between metadiscourse) in a long sentence to provide enough cues to secure an understanding of their arguments and ideas. Metadiscourse (the interactive form) has emphasis added and translations are provided in parenthesis.

- C1 这主要基于以下两点 (**the following two points**) 考虑:首先,**(First)** 感觉寻求是一种人格特质,体现为个体对不同水平刺激的偏好,中学生的刺激获得可能性,**也就是 (is also)** 感觉寻求可实现程度,要受到父母的限制,**反过来 (in contrast)** 这种限制对不同感觉寻求水平的个体可能 (**probably**) 产生不同的影响,从而感觉寻求与亲子关系之间发生交互作用,这种 (**this type**) 交互作用的直接结果很可能 就是个体的心理健康水平;其次,如前所述 (**as noted earlier**) 亲子关系已经被证实是对中学生的心理健康有影响的重要外因之一,感觉寻求则可能是对中学生心理健康有影响的一种重要内因,外因要作用于内因才能发挥作用,研究又 (**and**) 已证实亲子关系对感觉寻求具有重要影响,那么可以推测亲子关系对心理健康的影响至少部分是通过影响感觉寻求实现的,也就是说 (**in other words**),感觉寻求在亲子关系与心理健康之间起到中介作用。
- C7 前者 (**former**)是指学习者从事学习活动的目的是为了获得新的技能,提高自身的能力,掌握新的知识,目的指向活动本身,后者 (**latter**) 是指学习者成就行为的目的是为了向他人表现自己的能力,得到他人对自己能力的认可,获得对自己能力的有利评价,避免消极评价,目的指向他人;后来的研究又 (**further**) 进一步将成就目标分为三类 (**three types**):掌握目标,成绩接近目标和成绩回避目标。

As shown in the earlier analysis, similar to English introductions, Chinese introductions use more interactive than interactional forms as well as largely use evidentials and transitions. These similarities probably reflect the influence of English as an international language (see Shi, 2002) and English as an academic lingua franca (Ammon, 2007; Björkman, 2011; Dewey, 2007) on Chinese academic writing. Chinese scholars are well aware of the need to conform to styles and conventions of English rhetoric (including close resemblance with regard to the presence of metadiscourse) in order to have their English and Chinese academic papers accepted and published in international and even local/regional journals. One Chinese specialist informant emphasized that Chinese scholars (especially those in the field of English language studies) closely followed the English writing conventions of international academic publications. Commenting on her own experience, she noted that she often pays close attention to English writing conventions used in ‘overseas’ scholarly

journals (overseas-based internationally indexed journals) when writing academic papers in Chinese:

是的，“与国际接轨”这个表达也体现在学术论文写作方面，尤其是外语界的学者，更注重国外重要学术期刊所刊发的论文写作方法。我在写中文论文时，经常参考的是国外期刊发表过的论文，比较注意模仿他们的论文写作方法。国内对国外期刊要求的重视，主要不是证明英语的重要性，而是说明我们更加注重学术论文写作的规范性，注重学习国际重要刊物所要求的论文质量。(Chinese specialist informant 1, e-mail correspondence)

Yes, [English being an international language has had an influence on the publications in China]. The expression “corresponding more to international standards” is also reflected in academic writing. Particularly, Chinese scholars in the field of foreign languages [English], pay closer attention to methods of writing in [English] papers published in academic journals abroad. When I am writing an article in Chinese, I often refer to published articles in overseas journals and pay more attention to their style/method of writing. We are expected to examine foreign articles closely, not primarily to prove the importance of English, but so that we can learn more about the norms of the academic writing tradition and the important writing conventions for international academic publications.

Another Chinese specialist informant noted that English is the international language of research and scholarship and this has had a significant impact on the academic publications of both Western trained and locally trained Chinese scholars in China. He further claimed that some authoritative Chinese journals chose to follow the international conventions of academic publications; and even that the structure and conventions of Chinese academic papers are becoming more similar to those of English:

英语对中国的出版确实产生了很大的影响，无论是 west-trained 学者还是中国自己培养的学者，在学术研究领域的出版方面代后收到英语作为国际化语言的主要影响，也许这种影响还要持续影响很多年，即使是出版中文的文章，一些权威的中文期刊（包括中英文双版的期刊），他们有一些自己的出版规范和要求，总体的趋势还是向国际（欧洲和北美）的出版系统和规范进行统一化，当然还会保留中国文化本身的一些约定俗成的出版规范，这是有利于国际化和全球范围内的科学研究交流。从我自己的经验来看，我们在写中文文章的时候主要还是根据中文期刊的稿约撰写文章，这些稿约的格式与规范与英语背景的规范有相同的地方，也有原有的一些约定俗成的格式，总体来说，从结构和规范上中英文的一致性还是越来越接近。(Chinese specialist informant 2, email correspondence)

Indeed, English being an international language has a great impact on publications in China. It has a major impact on the scholarly publications of both Western-trained and locally trained scholars in China. This impact will probably continue for many years even for publications in Chinese. Even though some authoritative Chinese journals (including Chinese and English dual versions of journals) have their own specifications and requirements, the overall trend still follows the conventions of international (European and North American) academic publications. Of course, these journals retain some common Chinese publication conventions, which is conducive to the international and global exchange of scientific research. From my own experience, when I write Chinese articles for publication, it is important for me to follow the publication conventions specified by the Chinese journals. These conventions are similar to those used in the English academic publications while retaining some of the original Chinese publication conventions. In general, the structure and the norms of academic publications in China are becoming increasingly similar to those used in English academic papers.

These findings are consistent with Shi's (2002) study, in which participants (Chinese professors in TESOL (Teachers of English to Speakers of Other Languages)) observed that "as a result of the influence of English", Chinese academic papers "are pretty much based on Western models" or have "gradually gotten the English style, especially in journals" (Shi, 2002: 631). Shi further elaborates:

All the Western-trained Chinese professors of TESOL that I interviewed were committed to publishing. Although they published predominantly in Chinese, most of them preferred to follow the conventions of English language academic publications, which they had learned in the West. By following English writing conventions, they saw themselves as pioneers who were contributing to a change in academic publications in China. Some saw this shift as a result of the influence and power of English as an international language. (Shi, 2002: 632)

In addition, the pressure on scholars from their institutions to publish internationally might have been the reason why Chinese academic papers are adopting similar rhetorical strategies used in English papers for engaging readers in the writer's perception towards 'both the propositional information and the readers themselves' (Hyland, 1998: 443). This is reflected in a Chinese informant's comments (as presented below) that incentives are given to Chinese scholars at the institutional level to publish internationally in journals listed in the Euro-American article databases (center-based journal databases) such as the *SCI (Science Citation Index)* and *EI (Engineering Index)*. This means there is an expectation for Chinese academics in general to publish internationally, especially in center-based journal databases, to enhance international access to Chinese academics' publications and their reputation in the international academic community.

英语作为一种国际语言的确对中国的出版物有着非常大的影响。就我所学的心理学专业而言，中国的几本心理学核心期刊，如心理科学、心理发展与教育的论文写作格式要求及版面设置和国外的心理学期刊基本一致。在中国的一流的高等学府里，要求教师在SCI、EI上发表论文有着不等的奖励，最高的一篇SCI奖励1万五千元人民币，最低的也有1千元人民币。所以，在这种情况下，很多高校教师在撰写论文的时候，都直接是以英语写作的。(Chinese specialist informant 3, email correspondence)

English, being an international language, has had a very significant impact on publications produced in China. For example, in my field (psychology), the format requirements and layout setting in several of China's core psychology journals – such as *Science of Psychology* and *Psychological Development and Education* – basically follow the general layout of foreign [English] publications. China's leading tertiary institutions reward lecturers who publish their articles in English journals listed in SCI and EI [Euro-American article databases] with a range of financial incentives. The highest amount awarded for a publication in SCI-listed journals is 15,000 yuan while the lowest is 1,000 yuan. Therefore, many college/university lecturers will write academic papers directly in English.

Conclusion and pedagogical implications

The above findings show that Chinese RA introductions share some similarities in the use of metadiscourse with that of English. They do, however, differ in the density of metadiscourse used in the introductions. The lower density of metadiscourse in Chinese

RA introductions has been ascribed to two possible reasons: the shorter length of the articles, and Chinese writing being a more reader-responsible prose mainly due to the low use of the interactional form of metadiscourse. The similarities in the use of metadiscourse in Chinese RA introductions compared to that of English suggest that Chinese academic writing has probably undergone some changes (e.g. becoming less reader-responsible by using more metadiscourse features) under the influence of English as an international language and English as an academic lingua franca. For this reason, ESL Chinese students need to be aware of this change as it is attested in the literature that 'Chinese writing favours simplicity and its cohesiveness is interpreted from the context' (Miranda, 2003: 296) (see also Hinds, 1990), and student L1 writing does have an influence on their L2 writing to a certain extent (Kaplan, 1966; Miranda, 2003). Teachers and language instructors can offer a useful approach in teaching metadiscourse by introducing students to both interactive and interactional forms of metadiscourse. As shown in the findings, an academic prose (e.g. RA introductions) is not only informative, but interactive in achieving the effects the writer has on his/her readers. Prior to writing students' own academic prose, they can be asked to engage in a metadiscourse analysis in research articles of a selected discipline. This will help students understand how metadiscourse can guide the reader through the text and involve the reader in argument – as Hyland best put it, 'metadiscourse, . . . reveals how writers seek to represent themselves, their texts, and their readers as they frame, scaffold, and present their arguments and research findings in ways recognized and valued by their disciplines' (Hyland, 2010: 141). In addition, enhancing students' awareness of the importance of the use of metadiscourse to produce an English academic prose which is more reader-friendly (a term borrowed from Hyland, 2004) and acceptable to the English audience is equally important.

The present study is based upon an investigation of Chinese and English RA introductions in the field of educational psychology. The general aim of the study was to provide a description of English and Chinese RA introductions in the use of metadiscourse. The corpus of 20 Chinese and 20 English RA introductions is not small considering the qualitative and the quantitative nature of the study. However, the corpus does not provide sufficient findings to allow generalizations about the rhetorical structures of all English and Chinese RA introductions in the field of educational psychology. One way to verify the results is to undertake investigations using larger sample sizes from various journals of the same language.

Acknowledgements

The authors would like to express their special thanks to the specialist informants who contributed their ideas/opinions to this paper. They are Wu Hong-yun (s.i. 1), Zhang Xue-min (s.i. 2) and Wong Cui-ping (s.i. 3) among others.

References

- Abdollahzadeh E (2007) Writer's presence in Persian and English newspaper editorials. Paper presented at the international conference on Systemic Functional Linguistics in Odense, Denmark.
- Adel A (2006) *Metadiscourse in L1 and L2 English*. Amsterdam: John Benjamins Publishing Company.

- Ahmad UK (1997) Scientific research articles in Malay: A situated discourse analysis. Unpublished doctoral dissertation, University of Michigan.
- Ammon U (2007) Global scientific communication: Open questions and policy suggestions. *AILA Review* 20: 123–133.
- Björkman B (2011) The pragmatics of English as a lingua franca in the international university: Introduction. *Journal of Pragmatics* 43: 923–925.
- Clyne M (1987) Cultural differences in the organization of academic texts: English and German. *Journal of Pragmatics* 11(2): 211–247.
- Connor U (1984) A study of cohesion and coherence in English as a second language students' writing. *Papers in Linguistics: International Journal of Human Communication* 17: 301–316.
- Connor U (1996) *Cross-cultural Aspects of Second-language Writing*. Cambridge: Cambridge University Press.
- Crismore A and Abdollezadeh E (2010) A review of recent metadiscourse studies: The Iranian context. *Nordic Journal of English Studies* 9(2): 195–219.
- Crismore A, Markkanen R and Steffenson MS (1993) Metadiscourse in persuasive writing: A study of texts written by American and Finnish university students. *Written Communication* 10(1): 39–71.
- Dewey M (2007) English as a lingua franca and globalization: An interconnected perspective. *International Journal of Applied Linguistics* 17(3): 332–354.
- Enkvist NE (1990) Seven problems in the study of coherence and interpretability. In: Connor U and Jones AM (eds) *Coherence in Writing: Research and Pedagogical Perspectives*. Alexandria, VA: TESOL Inc., pp. 11–28.
- Grabe WP (1985) Written discourse analysis. In: Kaplan RB (ed.) *Annual Review of Applied Linguistics* 5. Rowley, MA: Newbury House, pp. 101–123.
- Halliday MAK and Hasan R (1976) *Cohesion in English*. London: Longman Group Ltd.
- Hinds J (1987) Reader versus writer responsibility: A new typology. In: Connor U and Kaplan RB (eds) *Writing across Languages: Analysis of Second Language Text*. Rowley, MA: Newbury House, pp. 9–21.
- Hinds J (1990) Inductive, deductive, quasi-inductive: Expository writing in Japanese, Korean, Chinese, and Thai. In: Connor U and Johns AM (eds) *Coherence in Writing: Research and Pedagogical Perspectives*. Alexandria, VA: TESOL Inc., pp. 87–109.
- Hyland K (1998) Persuasion and context: The pragmatics of academic metadiscourse. *Journal of Pragmatics* 30: 437–455.
- Hyland K (2000) *Disciplinary Discourses: Social Interactions in Academic Writing*. Harlow, Essex: Pearson Education Limited.
- Hyland K (2004) Disciplinary interactions: Metadiscourse in L2 postgraduate writing. *Journal of Second Language Writing* 13: 133–151.
- Hyland K (2005) *Metadiscourse*. London: Continuum.
- Hyland K (2010) Metadiscourse: Mapping interaction in academic writing. *Nordic Journal of English Studies* 9(2): 125–143.
- Jalilifar A and Alipour M (2007) How explicit instruction makes a difference: Metadiscourse markers and EFL learners' reading comprehension skill. *Journal of College Reading and Learning* 38(1): 35–52.
- Kaplan RB (1966) Cultural thought patterns in intercultural education. *Language Learning* 16: 1–20.
- Lea MR and Street BV (1998) Student writing in higher education: An academic literacies approach. *Studies in Higher Education* 23(2): 157–172.
- Lee S (2001) A contrastive rhetoric study of Korean and English research paper introductions. Unpublished doctoral dissertation, University of Illinois.

- Lim JMH (2012) How do writers establish research niches? A genre-based investigation into management researchers' rhetorical steps and linguistic mechanisms. *Journal of English for Academic Purposes* 11(3): 229–245.
- Loi CK and Sweetnam Evans M (2010) Cultural differences in the organization of research article introductions from the field of educational psychology: English and Chinese. *Journal of Pragmatics* 42(10): 2814–2825.
- Lu X (2000) The influence of classical Chinese rhetoric on contemporary Chinese political communication and social relations. In: Heisey DR (ed.) *Chinese Perspective in Rhetoric and Communication*. Stamford, Connecticut: Ablex Publishing Corporation, pp. 3–23.
- Marandi S (2002) Contrastive EAP rhetoric: Metadiscourse in Persian vs. English. Unpublished PhD dissertation, University of Tehran, Iran.
- Mauranen A (1993) *Cultural Differences in Academic Rhetoric: A Textlinguistic Study*. New York: Peter Lang.
- Miranda YPL (2003) Structure and cohesion of English narratives by Nordic and Chinese students. *Proceedings of the 19th Scandinavian Conference of Linguistics* 31(2): 290–302.
- Powers JH and Gong G (1994) East Asian voice and the expression of cultural ethos. In: Yancey KB (ed.) *Voices on Voice: Perspectives, Definition, Inquiry*. Urbana, IL: National Council of Teachers of English, pp. 202–225.
- Scheurman G, Heeringa K, Rocklin T and Lohman DF (1993) Educational psychology: A view from within the discipline. *Educational Psychologist* 28(2): 97–115.
- Scollon R (1991) Eight legs and one elbow: Stance and structure in Chinese English compositions. Paper presented at International Reading Association, Second North American Conference on Adult and Adolescent Literacy, Banff, p. 21.
- Shi L (2002) How western-trained Chinese TESOL professionals publish in their home environment. *TESOL Quarterly* 36(4): 625–634.
- Simin S (2004) Metadiscourse knowledge and use in Iranian EFL writing. Unpublished Master's Thesis, Isfahan University, Iran.
- Swales JM (2004) *Research Genres: Exploration and Applications*. Cambridge: Cambridge University Press.
- Swales JM and Najjar H (1987) The writing of research article introductions. *Written Communication* 4(2): 175–192.
- Vande Kopple WJ (1985) Some exploratory discourse on metadiscourse. *College Composition and Communication* 36: 82–93.
- Vande Kopple WJ (2002) Metadiscourse, discourse, and issues in composition and rhetoric. In: Barton E and Stygall G (eds) *Discourse Studies in Composition*. Cresshill, NJ: Hampton Press.

Author biographies

Loi Chek Kim obtained her PhD in Linguistics from the University of Otago, New Zealand. She has contributed to book chapters as well as published books and journal articles. (Journal of Pragmatics, Journal of English for Academic Purposes, etc.).

Jason Miin-Hwa Lim is an associate professor of English at the Malaysian University of Sabah. He has 46 research-based publications, including journal papers in *System* (Elsevier), *Discourse Studies* (Sage), *Journal of English for Academic Purposes* (Elsevier), *Iberica* (Spain), *English for Specific Purposes* (Elsevier). He was a Fulbright Research Scholar at the University of Michigan in Ann Arbor in 2009 and 2010.