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Study on Hedges and Boosters in the Conclusions of Research Articles

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This study aims to examine similarities and differences in the use of hedges and boosters in the conclusions of English research articles (RAs) written by Korean writers and English native writers and also compare them with other sub-genres (i.e., abstract, introduction). It is differentiated from previous studies which have focused on other sub-genres or students' writing. 60 conclusions of RAs in the discipline of applied linguistics (30: written by Korean writers, 30: written by English native writers) are selected from four leading journals published domestically and internationally, and analyzed based on Hyland's model (2005a). The results show that there is no statistically significant difference between both groups, but Korean writers use booster slightly more than native writers, while native writers choose hedges more often. Second, there is no salient sub-genre-based variation (i.e. conclusion-specific), compared with other sub-genres. Third, journal-based variations are not statistically significant, either. Pedagogical implication is that RA writers should recognize the importance of hedges and boosters in RA, practice how to use them efficiently and develop better methods of use. With other metadiscourse markers, extending the corpora into various disciplines and application of qualitative approach are recommended for future research.

[hedge/booster/conclusion/English for academic purposes/L2 writing]

I. INTRODUCTION

More and more research articles (RAs) prepared in other countries as well as in Korea are written in English and published in domestic or international journals. RA writers should pass competitive procedures to publish their RAs in journals. That is, RAs are accepted and published in journals after writers prove the validity, originality and

logicality of RAs to readers and discourse community. In order to publish RAs, RAs should be great themselves, but writers often use various linguistic strategies to show respect for members of discourse community or highlight originality and validity of their RAs. Of various linguistic strategies writers use, with hedges, they express politeness and respect to readers and discourse community so that they accept RAs more readily, whereas writers emphasize originality and validity of their ideas with boosters. Hedges are metadiscourse markers[1] to express a statement more comfortably, avoiding strong delivery of a statement because writers do not want to cause any inconvenient situations and offend readers in discourse. Boosters, on the other hand, are metadiscourse devices to appeal a statement more clearly, emphasizing that a statement is more original and logical. With various metadiscourse markers, writers persuade readers to accept writers' statement without much difficulty. Of metadiscourse markers, hedges and boosters are preferred the most. Although RAs are generally regarded logical with clearly presented evidence for each idea, writers often use various sophisticated discourse markers including hedges and boosters. They select appropriate hedges and boosters, considering specific readers and discourse community because they should pass the stringent review procedures. It is said that the successful use of hedges and boosters play a significant role in the publication of RAs. Thus, a considerable amount of studies has been done about them (Abdi, 2002; Dahl, 2004; Hu & Cao, 2011; Hyland, 2005a; Hyland & Tse, 2004). Previous studies of hedges and boosters have been done in various genres (e.g., student essay, newspaper, business letter, RAs), English proficiency, cross-cultural, cross-journal or cross-linguistic areas (Hafner & Wang, 2018; Kim & Suh, 2014; Kim & Uhm, 2013; Shim, 2015, 2017; Thompson, 2001).

Recent studies for hedges and boosters in the genre of RA have been focused on the sub-genres (e.g., abstract, introduction) or cross-discipline areas (Hyland, 1998b; Millan, 2008; Vold, 2006a, 2006b). Other parts of RAs such as the conclusion have been paid little attention (Khamesian, 2015; Yoon, 2005). Since writers not only summarize their statement but also highlight the originality or validity of their ideas once again in the conclusion, they use various linguistic strategies (e.g., politeness) to make readers and discourse community accept their statement without difficulty. Thus, various hedges and boosters are often found in the conclusion of RAs.

In response to the issues identified above, this study aims to examine the use of

[1] Metadiscourse is a device which helps writers carry their ideas to readers, lead them to the statement writers want and interact between writers and readers. It does not affect the proposition of the text but conveys writers' opinion of the proposition and helps readers judge the discourse. There are several kinds of metadiscourse markers; Transitions, Frame markers, Endophoric markers, Evidentials, Code glosses, Hedges, Boosters, Attitude markers, Self-mentions, Engagement markers.

hedges and boosters in the genre of the conclusions of RAs written in English by Korean writers and English native ones from a comparative perspective. Comparing the use of hedges and boosters in the conclusions of RAs written by both groups, this study aims to investigate any similarities or differences in the use of hedges and boosters employed by both groups, find any cultural or genre-based influences and offer an in-depth understanding about what writers take into account in the use of hedges and boosters. This study is expected to give significant implications for Korean writers who want to publish RAs in English in domestic journals or international ones and also support for the development of effective L2 academic writing program. Specifically, this study seeks to answer the following research questions:

1. What are similarities/differences in the use of hedges and boosters in the conclusions of RAs written in English by Korean writers and English native ones in the discipline of applied linguistics?
2. Are there any sub-genre- or journal-based variations in the use of hedges and boosters employed by both groups?

II. LITERATURE REVIEW

1. Definition of Hedges and Boosters

Hedges and boosters are linguistic strategies of communication which emphasize or decrease writers' statement. Both in RA play a significant role, adjusting a rhetorical and interactive tenor and conveying both epistemic and affective meanings. Namely, they carry writers' attitude to the audience as well as the degree of confidence about the proposition.

One of the most distinguishing metadiscourse markers, hedges (e.g., probable, as far as I know, may) embody a weakening of a statement through modification and qualification and function as indicators which show the information as opinion rather than accredited fact. They make the claims "fuzzier or less fuzzy" (Lakoff, 1972, p.195) to avoid any personal offense or responsibility. With hedges, writers show respect or politeness to the audience. That is why hedges are also referred as down-toners or mitigators (Silver, 2003). See the following example.

(1) This finding *suggests* that the experiment *may* not have been done in right circumstances.

In the example of (1), the writer expresses his/her opinion with much care and weakens it with some hedges (i.e., suggest, may). The writer avoids clear conclusion in case there might be contrary evidence and does not want to take responsibilities. The writer also wants to show modesty to the audience so as to get some support.

On the other hand, boosters (e.g., obviously, surely) are devices which convey writers' conviction and assertion of proposition with confidence. With boosters, writers represent a clear claim about a proposition. In addition, boosters help writers promote involvement and solidarity of the audience. Boosters are also called amplifiers or emphasizers (Hyland, 2005a). See the following example.

(2) Commercial activities in China will *definitely* create unprecedented opportunities. Employment rate will *highly* increase.

In the sentence of (2), the writer emphasizes his/her ideas with certainty and amplifies them with boosters (i.e., definitely, highly). The appropriate use of booster strengthens writer's ideas by inducing mutual agreement needed to draw the same conclusions as the writer.

The balanced skillful use of hedges and boosters in a text signals writers' intention to convey the opinion effectively and to communicate with readers more smoothly. These rhetorical choices can be influenced by writers' English proficiency, cultural contexts of writers, audiences or publications.

2. Precedent Studies

Considerable studies have reported that L2 writers have difficulties in the use of hedges and boosters regardless of genres (Allison, 1995; Hu, Brown & Brown, 1982; Hyland & Milton, 1997). Researchers have explained that L2 writers' statement generally shows a direct and unqualified voice, compared with native writers' one. According to them, As the English proficiency of L2 writers rises, their use of hedges and boosters becomes better. That is, English proficiency is a critical factor of the use of hedges and boosters in L2 writing.

On the other hand, quite a few studies have also been done in the use of hedges and boosters in RAs. Vold (2006b) investigated the use of hedges in a corpus of 120 research articles written in English, French and Norwegian, and found cross-linguistic differences. He reported that the English and Norwegian RA used more hedges than French RA. Kong (2006) examined 80 RAs written in Chinese and English in the discipline of the humanities, social sciences, and hard sciences and found language- and culture-specific differences in the use of hedges.

Another group of studies (Abdi, 2002; Hyland, 1998a, 1998b, 2005b; Millan, 2008;

Vassileva, 2001; Vold, 2006a, 2006b) investigated the use of hedges and boosters across disciplines and found disciplinary influences. Hyland (1998a) analyzed the use of hedges and boosters in 56 RAs from eight disciplines and found quite a few differences in the use of hedges and boosters among natural sciences, humanities and social sciences. Abdi (2002) examined the use of interactional metadiscourse markers including hedges and boosters across disciplines in 55 RAs from natural and social sciences and found significant interdisciplinary differences in the use of hedges and little difference in the use of boosters. Hyland (2005b) corroborated his earlier finding that there were conspicuous differences in the use of hedges and boosters between soft areas (e.g., humanities and social sciences) and hard areas (e.g., natural sciences) in 240 RAs of eight disciplines.

Meanwhile, abstract, a sub-genre of RA, has been studied considerably (e.g., pragmatic functions, linguistic features or rhetorical structures of abstracts) (Dahl, 2009; Hu & Cao, 2011; Hyland & Tse, 2005a, 2005b; Lindeberg, 2004; Stotesbury, 2003). Hu and Cao (2011) analyzed 649 abstracts of RAs in the field of applied linguistics and examined hedges and boosters in English and in Chinese abstracts. They found that the empirical RAs' abstracts used more boosters than non-empirical RAs' ones. Also, the RAs' abstracts published in English journals included hedges more often than those published in Chinese journals. However, Chinese RAs' abstracts in the Chinese journals used more boosters than their counterpoint English ones. Recently, Friginal and Mustafa (2017) investigated the linguistic features of English abstracts of RAs in four disciplines published in the United States and Iraq. They found cross-cultural differences between both groups and highlighted the cross-cultural comparison (e.g., conventional discourse pattern, rhetorical preference) should be taught for effective academic writing.

Quite a few studies have also been done on the use of hedges and boosters in English texts written by Korean and English native writers (Back, 2011; Choi & Ko, 2005; Eun, 2008; Jang, 2010; Lee, 2017; Shim, 2015, 2017; Uhm, Kim, Nam & Oh, 2009;). Choi and Ko (2005) compared Korean graduate students' English RAs in the discipline of applied linguistics/TESOL with RAs published in international journals in the same field. They found a similar frequency of hedges between both groups, but Korean students had a tendency to make stronger statement with modal verbs. Shim (2015) explored the use of metadiscourse markers employed in English-authored RAs' introductions and Korean-authored English RAs' introductions in the discipline of applied linguistics. She collected 95 RAs' introductions and analyzed them, based on Hyland's model (2005a). She reported that hedges were used the most in both groups while boosters were preferred a bit more by Korean writers.

Compared with other sub-genres of RA, the conclusions have been little studied domestically or internationally (Khamesian, 2015; Yoon, 2005). Yoon (2005) examined

the use of the hedges and boosters in the discussions of RAs written by Korean and native writers in the field of applied linguistics and found that Korean writers use boosters more than native writers, which makes Korean writers' writing look more assertive than native ones. Khamesian (2015) investigated the use of lexico-semantic hedges employed in the results and discussion section of RAs in the field of civil engineering. He found that hedges employed in this field are used to generalize the statement and allocate greater weights to the methods, procedures and equipment rather than the argument. Based on these previous studies, this study aims to investigate cultural-, sub-genre- or journal-based influences on the use of hedges and boosters employed in the conclusions of English- authored RAs and Korean-authored ones in the field of applied linguistics.

III. METHODOLOGY

1. Corpora

To build parallel sub-corpora of the conclusions of RAs prepared by both groups, the first step was to choose the field of RAs. Applied linguistics was selected since this field is my major, thus I can perceive real meaning of the hedges and boosters in the context without much difficulty. The next step was to select authentic and comparable journals published domestically and internationally. Two leading journals published in Korea were chosen; *English Teaching, Foreign Languages Education*. The research field of *English Teaching* is education of English, while the area of *Foreign Languages Education* is education of various foreign languages including English. Both are nationally renowned and fully acknowledged by a lot of Korean linguists. Other two international journals were also selected: *TESOL Quarterly, Journal of English for Academic Purposes*. *TESOL Quarterly* is published in the United States and its research area is the education of English as a foreign language. Whereas *Journal of English for Academic Purposes* is published in the Netherlands and its field is the rhetoric or education of English for academic writing. Although both are famous for the stringent review procedures, a lot of researchers submit their journals since both journals are internationally renowned for high qualified RAs

The third step was to set the boundary of the conclusion since every scholar does not share the same concept of the conclusion. RAs do not use the same title for the conclusion (some RAs use *Discussion*) while several RAs divide it into two parts (i.e., *Discussion & Conclusion*). The part after *Result* except *Acknowledgement* was selected for this study.

Based on these criteria, 60 conclusions were finally retrieved from the web-sites of four journals, published from 2015 to 2019. 15 conclusions were chosen from each journal, thus 30 conclusions were prepared by Korean writers and 30 conclusions by English native ones. When I chose 30 journals prepared by native authors, I checked authors' nationalities and backgrounds using Google one by one. In the case RAs were done by plural writers, they were chosen only when the first author is an English-native. The corpus contained 47,391 words in total, with an average of 790 words per conclusion (see Table 1).

TABLE 1

Profile of the Parallel Sub-Corpora

	Korean-authored text		native-authored text	
	FLE	ET	JEAC	TQ
No. of conclusion	15	15	15	15
average words per conclusion	708	745	648	1,058
Total no. of words	10,623	11,181	9,714	15,873

Note. FLE: *Foreign Languages Education*; ET: *English Teaching*; JEAC*: Journal of English for Academic Purposes*; TQ: *TESOL Quarterly*.

2. Data Analysis

Based on Hyland's model (2005a), the use of hedges and boosters employed in the data was investigated with the Concordance program of *AntConc (3.5.8).* The Concordance program, an analysis tool of *AntConc*, shows all the examples in which specific expression is used in the context. After the data were investigated, they were checked again one by one whether they were really used as hedges and boosters in the context. If they did not play a role of hedges and boosters in the context but were used as their root meaning, they were excluded from the data, as exemplified in the uses of *suggest* in the following examples (3) and (4) :

(3) They *suggest* collaborative research between first and second language literacy researchers may be one way to "re- examine personal and professional attitudes about teaching language- minority learners" (p. 393). (*TESOL Quarterly* #29)

(4) My findings *suggest* too that the greater exposure afforded by learning in an ESL context also increases use in the L2. (*Journal of English for Academic Purposes* #8)

Suggest in the context of (3) is used as its root meaning, proposing some ideas, whereas the same linguistic form in the context of (4) is used as a hedge, expressing some ideas indirectly. Only the cases used like (4) were adopted for this study. After collecting the data with these procedures, the independent *t-test* was conducted to investigate any similarity or difference in the use of hedges and boosters between both groups. One-way ANOVA was also utilized to examine the preference of hedges and boosters among four journals and *Duncan's new multiple range test* (MRT) was used for post-hoc analysis. MRT has been adopted often by previous studies because it differentiates sub-groups clearly. The statistical program used in the study was SPSS 25.0.

IV. RESULTS AND DISCUSSION

1. The Use of Hedges and Boosters between Both Groups

The frequency of hedges and boosters employed by both groups was examined for the first step (see Table 2). Hedges are generally considered as the most frequently used discourse marker in academic texts (Hu & Cao, 2011; Hyland, 1994, 1996, 2015; Shim, 2015, 2017; Stotesbury, 2003). Table 2 coincides with this tendency about the use of hedges. Hedges are used over two times more than boosters by both groups.

TABLE 2
Frequency of Hedges and Boosters

	Korean writers			Native writers			*t*	*p*
	No.	*M*	*SD*	No.	*M*	*SD*		
booster	30	5.63	3.13	30	5.80	5.92	-0.136	0.892
hedge	30	15.50	6.02	30	18.23	9.31	-1.350	0.183

According to Table 2, native writers used hedges (M = 18.23, SD = 9.31) more than Korean writers (M = 15.50, SD = 6.02). However, it is not statistically meaningful at the .05 of significance level (t = -1.350, p = 0.183). In the use of boosters, native writers used boosters (M = 5.80, SD = 5.92) slightly more than Korean writers (M = 5.63, SD = 3.13). But it is not statistically meaningful at the .05 of significance level (t = -0.136, p = 0.892), either. Thus, it can be said that the frequency of hedges and boosters in the conclusions of RA between both groups is not statistically different.

The preference of 75 hedge expressions (Hyland, 2005a) was examined between both groups and the list of preference was made (see the Table 3).

TABLE 3
Preference of Hedges Used by Both Groups

No.	Hedge expressions	Korean writers	Native writers	Total
1	argue*(-s/ed)	5(2%)	20(6%)	25(4%)
2	could	26(9%)	50(16%)	76(12%)
3	indicate*(-s/ed)	21(8%)	10(3%)	31(5%)
4	may	61(21%)	71(22%)	132(22%)
5	often	15(5%)	15(5%)	30(5%)
6	rather	31(10%)	28(9%)	59(10%)
7	seem*(-s/ed)	31(10%)	14(4%)	45(7%)
8	should	53(18%)	36(11%)	89(14%)
9	suggest*(-s/ed)	31(10%)	41(13%)	72(12%)
10	would	19(7%)	37(11%)	56(9%)

-* : It includes inflected forms of the verb.

Table 3 shows that a modal verb *may* is preferred the most of hedge expressions by both groups. Other modal verbs (e.g., could, should, would) are also preferred. Through the Concordance program of *AntConc*, the use of these modal verbs was observed in the situations that the writers want to weaken their statement to avoid offense from the audience as shown in the examples of (5) and (6).

(5) Studies such as this *may* be used to encourage teacher candidates to think honestly about what factors they consider when assessing learners. (*TESOL Quarterly* #14)

(6) First, the results *may* be difficult to generalize due to the small number of participants. (*English Teaching* #12)

There are two modal verbs which show clearly different preference by both groups (i.e., should, could, would). *Should* is preferred by Korean writers, which is used for avoiding assertive statement and attempting careful approach to the statement as shown the example of (7).

(7) One thing that is certain, though, is that we *should* not expect the changes that would have occurred if criterion-referenced testing had been adopted instead. (*English Teaching* #21)

Meanwhile, *could, would* are selected mainly by native writers. *Could* of the example (8) is used for proposing the writer's ideas for future research to the discourse

community carefully and guide readers to the field the writer considers with prudence as shown. *Would* of the example of (9) is employed for careful suggestion of some ideas and avoidance of hasty generalization.

(8) Future research *could* usefully explore how well writers of different L1s recall congruent and incongruent collocations, and whether there are differences in discipline-specific and core academic collocation recall. (*Journal of English for Academic purposes* #1)

(9) Although one *would* expect this to be a problem in English as a second language (ESL) contexts, some participants noted that individual differences are greater than L1 differences, so the mixed class is not really any more difficult than a single- L1 group with different skills and abilities. (*TESOL Quarterly* #19)

In the case of verbs as hedge expressions, four verbs (i.e., argue, indicate, seem, suggest) were frequently selected by both groups. Of them, *indicate* and *seem* are preferred by Korean writers, while *argue* and *suggest* are selected mainly by native writers. Here are the examples of (10), (11), (12) and (13)

(10) All this accepted, on the basis of the evidence presented in this paper, I would still *argue* that our best way forward in supporting our students is to use an expert/apprentice dichotomy as the starting point for EAP writing instruction, and to draw on relevant multiple exemplars of text genres in a teaching/learning cycle such as that outlined in Martin (2009). (*Journal of English for Academic purposes* #5)

(11) Second, findings also *suggest* these ELLs likewise developed epistemologically and ontologically, displaying transformed perspectives and value- creative actions toward climate change resulting from their learning (Ikeda, 1991–2015; Makiguchi, 1981–1988). (*TESOL Quarterly* #20)

In the example of (10), the writer not only persuades readers persistently but also sets the conclusion carefully. The verb *argue* shows the biggest difference of the use of hedge verbs between both groups. *Argue* is selected mainly by native writers (a token of 20 out of 25) while only a few instances are found in Korean-authored text (a token of 5 out of 25). *Suggest*, another hedge verb is also preferred by native writers (a token of 41 out of 72). As shown the example of (11), writers do not claim their statement but propose carefully with hedge verb *suggest* to get some agreement from the discourse community.

Whereas, Korean writers adopt *indicate, seem* as hedge verbs as shown in the following examples (12) and (13).

(12) What is more, the current study *indicated* EFL learners' in favor of being offered with sufficient amount of feedback earlier from preliminary drafts. (*English Teaching* #25)

(13) Thus, further studies *seem* necessary to confirm or disconfirm the independent effects of PSE on L2 reading in order to understand the exact nature of PSE's influence on ELL's actual L2 proficiency. (*Foreign Languages Education* #3)

In the example of (12), the subject is not the writer but the current study since the writer does not want to appear directly in the sentence and *indicate* is chosen as hedge device. The writer wants to mitigate the claim and to avoid an assertive attitude in order to get some support from the discourse community. In the example of (13), *seem* is adopted as hedge device so that the writer can tone down the voice of the statement. Except for verbs of hedge expression, other devices were adopted (i.e., often, rather x). The preference of both groups with them is not much different.

Meanwhile, the preference of 48 booster expressions (Hyland, 2005a) was also investigated between both groups and the list of preference was made (see the Table 4).

TABLE 4
Preference of Boosters Used by Both Groups

No.	Booster expressions	Korean writers	Native writers	Total
1	always	2(1%)	8(6%)	10(4%)
2	believe*(-s/-ed)	6(4%)	3(2%)	9(3%)
3	clear(-ly)	9(6%)	17(12%)	26(9%)
4	demonstrate*(-s/-ed)	10(7%)	9(6%)	19(7%)
5	establish*(-s/-ed)	9(6%)	11(8%)	20(7%)
6	find*(-s/found)	48(34%)	34(24%)	82(29%)
7	in fact	4(3%)	6(4%)	10(4%)
8	know*(-s/knew, known)	8(6%)	15(11%)	23(8%)
9	show*(-s/shown)	28(20%)	26(19%)	54(19%)
10	think*(-s/thought)	18(13%)	11(8%)	29(10%)

As shown in the Table 4*, find* is the most preferred booster device by both groups. In the below examples of (14), the writer clarifies the result of research and summarizes

their statement with *find* of the booster device. In the example of (15), the writer reports the statement and attempts to highlight the certainty in the propositional information in the context. In the case that the evidence is enough to convince and support the statement, booster can be employed to show the writer's certainty. Besides *find*, *establish* and *demonstrate* are also preferred as boosting devices by both groups.

(14) Unlike many previous studies on the effect of gender on anxiety, this study *found* no gender effect on anxiety and performance. (*Foreign Languages Education* #7)

(15) I have *found* that once students become aware of the importance of Theme and thematic structure in creating a logical flow of ideas in text, they are able to read dense academic articles more easily and write paragraphs which present more nuanced arguments. (*Journal of English for Academic Purposes* #15)

(16) Second, the present study is meaningful in that it *demonstrated* the positive effect of note-taking training on the students' notes by analyzing the changes of quality of the notes before and after the training through the direct elaboration of the students' notes. (*Foreign Languages Education* #12)

(17) In presenting this study, I explained how it is a continuation of the study (Ellis, 2003, 2013) that *established* that Australian TESOL teachers' language experiences do inform their professional identity and influence their pedagogical practices. (*English Teaching* #18)

In the examples of (16) and (17), both sentences are boosted by two verbs *establish* and *demonstrate*, which are employed to build the validity of the statement. With these boosters, writers attempt to convince readers that the studies build up writers' statement. Other boosting verbs (i.e., believe, show, think) are chosen mainly by Korean writers, while *know* is preferred by native writers. Korean writers prefer verbs as boosting devices while native writers adopt various forms (i.e., always, clear(-ly), in fact) as shown in the example of (18) and (19).

(18) Reflecting on my own practice, it is *clear* that merely asking the group to share quick self- introductions was *clearly* unsatisfactory in terms of helping incoming members move from the periphery of the group and claim membership. (*TESOL Quarterly* #16)

(19) *In fact*, one must not discard the possibility that general EAP collocations might well be harder to acquire incidentally, since they could be less noticeable when compared with the more targeted and concentrated way in which EAP users are exposed to discipline-specific collocations. (*Journal of English for Academic Purposes* #1)

In the example of (18), two boosters (i.e., clear, clearly) are found, so that the writer attempts to clarify and emphasize the statement. With boosters, readers get some help to understand the writer's statement more clearly. In the example of (19), *in fact* plays a significant role of both boosting and topic-switching. With these two roles, the writer attempts to emphasize the statement as well as get readers' attention. As shown in previous studies (Hinkel, 2005; Hu & Cao, 2011; Shim, 2015;), boosters are found in L2 writers' texts more frequently than native writers' ones. Thus, L2 writers' text looks more assertive than native ones. It means that English proficiency can affect the use of boosters. Meanwhile, any salient difference of the frequency of booster employed in the texts of the present study was not found between both groups. It can be said that Korean writers have almost same writing proficiency as native ones.

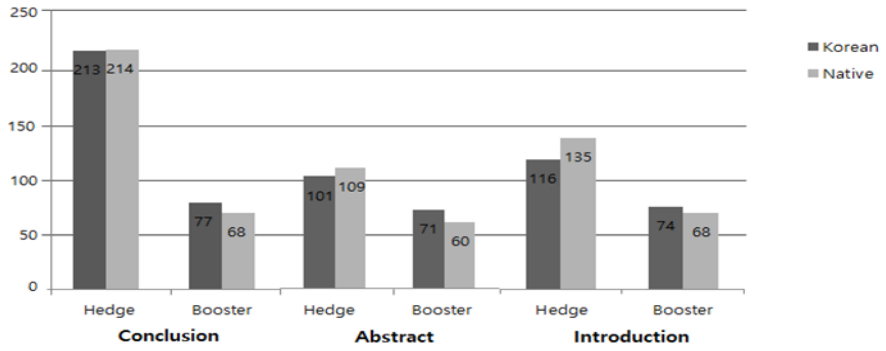
2. Comparison among Sub-Genres

The use of hedges and boosters analyzed in the present study was also compared with their use of other sub-genres (e.g., abstract, introduction, students' essay) excerpted from previous studies (Hu & Cao, 2011; Kim & Suh, 2014; Shim, 2015, 2017) which were analyzed with Hyland's model (2005a). Of them, the studies about RAs (Shim, 2015, 2017) were adopted to compare with the present study since the method of statistical analysis was almost same with this study.

As shown in the Figure 1, instead of a salient difference in the use of hedges and boosters among sub-genres of RAs between both groups, the pattern of their use is similar among sub-genres. That is, native writers use hedges slightly more than boosters regardless of sub-genres, while Korean writers prefer boosters miscellaneously. It is said that English proficiency of Korean writers who prepare RAs in English is almost as same as native ones. Although they acquire fluent English writing proficiency, their rhetoric shows their own writing style distinguished from native ones. Thus, this feature can be said to be a cultural variation. Namely, Korean writers generally prefer boosters to native writers, while native writers select hedges more often. This is in line with previous studies (Hinkel, 2005; Hu & Cao, 2011; Kim & Suh, 2014; Shim, 2015, 2017).

FIGURE 1

Frequency of Hedges and Boosters in RA (per 10,000 words)



3. Comparison among Journals

Meanwhile, the use of hedges and boosters in conclusions employed by both groups among four leading journals was examined and analyzed statistically as shown in the Table 5.

TABLE 5

Frequency of Hedges and Boosters Used in Conclusion among Journals

	FLE			ET			JEAP			TQ			*F*	*p*
	No.	*M*	*SD*	No.	*M*	*SD*	No.	*M*	*SD*	No.	*M*	*SD*		
booster	15	5.27	3.86	15	6.00	2.27	15	4.20	1.74	15	7.40	8.00	1.244	.302
hedge	15	15.27	6.97	15	15.73	5.13	15	15.47	8.31	15	21.00	9.70	1.923	.136

Note. FLE*: Foreign Languages Education*; ET: *English Teaching*; JEAC: *Journal of English for Academic Purposes*; TQ: *TESOL Quarterly*.

Table 5 reports that there is no statistically significant difference in the mean value of hedges used in four journals at the .05 of significance level (F = 1.923, p = 0.136) and shows the mean value of hedges used in journals (FLE: M = 15.27, SD = 6.97; ET; M = 15.73, SD = 5.13; JEAP: M = 15.47, SD = 8.31; TQ: M = 21.00, SD = 9.70). Table 5 also indicates that the mean value of boosters found in each journal is not statistically different at the .05 of significance level (F = 1.244, p = 0.302) since the mean value of boosters found in each journal is like this; FLE: 5.27, SD = 3.86; ET: M = 6.00, SD = 2.27; JEAP: M = 4.20, SD = 1.74; TQ: M = 7.40, SD = 8.00. Thus, it can be said that frequency of hedges and boosters used in four journals is not significantly different.

One might think there exist specific differences among journals (e.g., popular topics,

writing style, discourse community, regulations of publication). Thus, when writers want to publish RAs in a journal, they investigate several journals from various angles. After that, they select a journal that looks to match with their RA. They attempt to adjust RAs a bit to the journal's style (e.g., expressions or design of tables) since RAs should pass rigorous review procedures. Through this procedure, they make an effort to show not only some respect to the discourse community or their publishing culture but also the originality and validity of RAs. That is the reason the use of hedges and boosters is necessary in RA writing. If writers select leading journals domestically or internationally, the competition becomes fiercer. RAs can be refined through these stringent procedures. After these competitive reviews, RAs are finally published in journals. As shown in the Table 5, no significantly statistical difference of the use of hedges and boosters between both groups is found among these four journals, although they are published in different countries. Because these journals are published in different countries, we know that the discourse community or cultures of publications are not the same. No salient statistical difference of the use of hedge and boosters among journals can result from the three reasons; First, the discipline of these journals is the same. Second, proficiency of English writing of both groups is almost the same. Last, journals themselves do not affect the writing style of RA seriously in case disciplines are similar. These results are consistent with Lindeberg's (2004) and Hu and Cao's (2011) contention that RA's high quality demand of leading journals and strict peer-review procedures make RA diluted and weakened from writers' own writing style.

V. CONCLUSION

This study attempted to reveal any similarities or differences of the use of hedges and boosters in the conclusions of English RAs written by Korean writers and English natives in the discipline of applied linguistics and also examined any sub-genre- or journal-based variations in the use of hedges and boosters employed by both groups. Based on Hyland's model (2005a), 60 conclusions of RAs from four leading journals were selected for the study, examined and analyzed statistically. Several features were found. First, there is no statistically significant difference in the use of hedges and boosters in the parallel corpora in spite of miscellaneous differences between both groups. It can result from several things. First, Korean RA writers have almost same writing proficiency as natives, which they express their statement freely without language barriers. A skillful use of hedges and boosters is possible only when writers acquired complex syntactic knowledge, richer vocabulary, and greater pragmatic competence. Second, no salient differences of the use of hedges and boosters between

the conclusions and other sub-genres were found. Rather, regardless of sub-genre types, they showed similar rhetorical styles. Korean writers select boosters slightly more than native ones, while native writers used hedges more than Korean ones. Third, no salient journal-based variation was found although journals are published in different countries. It means that journals do not affect that much in case the disciplines are similar. This finding is in line with Hu and Cao (2011) and Shim (2017).

RA is regarded so logical or non-emotional that contents of RA is significant and linguistic strategies are not significant. However, if writers use appropriate linguistic strategies in preparation of RAs, their RAs will be accepted by the discourse community with more ease. Therefore, it is necessary that the significant role and effective usage of hedges and boosters in RA should be taught to Korean writers who want to publish RAs in English in domestic or international journals. They should recognize the importance of hedges and boosters in preparation of RA, practice how to use them efficiently and develop better methods of use.

Especially in the field of science, quite a few Korean RA writers are busy expressing their ideas in English without considering linguistic strategies (e.g., hedges, boosters). It can be because their English writing proficiency is not sufficient and they also do not know the concept of linguistic strategies. Their RAs in which hedges and boosters are not used appropriately might not be accepted smoothly by discourse community although their research is creative and valid. Thus, the curriculum of academic writing for Korean writers should include the use of hedges and boosters and let them know the concept of hedges and boosters and how to use them. If so, their writing will be improved and their ideas will be accepted with more ease.

In future research, it is recommended to examine the corpora from various disciplines to clarify how much disciplines may affect the use of hedges and boosters. Second, the research should broaden the scope to other metadiscourse markers since this study focused only on two types of metadiscourse markers. Third, the qualitative approach (e.g., interview) is also recommended to examine underlying features of the use of hedges and boosters. I really hope that the finding of this study can advance cross-cultural/linguistic communication in the field of applied linguistics and build up the development of effective L2 academic writing program.

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