The Stance of Semi-Popular Articles about Language Learning

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ABSTRACT

This study aims to analyze how the writers of semi-popular science articles express their stances when writing about language learning discipline. This research used corpus-based analysis approaches with the help of AntConc application to analyze the stance marker in the corpus. The analysis is conducted by adopting Hyland's framework of stance. The data source of this research is 81 articles about language learning from various university and institution web magazines. The result found that in expressing their stance, the writers of semi-popular science articles employ many hedges in form of the modal verb to mark their tentative and carefulness, booster in the form of reporting verb to increase the newsworthiness of the articles, attitude marker in the form of a positive adjective to express their positive attitude toward the study, and self-mention in the form of the singular pronoun when referring to researcher and plural pronoun when referring to the writer themselves.

Keywords: *Semi-popular science articles, Science popularization, Stance.*

INTRODUCTION

As stated by Osborne (2000), science can affect the most major decision in society. Therefore, the public needs to be able to interpret basic science information. Additionally, science information also will help people gain knowledge and technical skills that may be beneficial for their life (Osborne, 2000). For that very reason, science popularization is needed to make scientific information accessible to public audiences. Therefore, scientists are required to communicate science and their research not only to fellow scientists in their field but also to scientists and experts from other fields, as well as to the lay public and policymakers (Rakedzon et al. 2017). One of the attempts to communicate science to the public is by science popularization. Science Popularization refers to the process of reformulating and recontextualizing scientific articles to make them accessible to the public (non-specialist) audiences. The process usually involves journalists or reporters who play the role of mediator between the science community and the public. Aside from science popularization, there exists a distinct genre that is semi-popularization. A semi-popular article is an article with science coverage information written by a researcher or professional science communicator that has been recontextualized from a research article. To participate in the science popularization process it is important to understand the strategy to recontextualize science articles into

popular science or semi-popular articles. One of the most popular recontextualization strategies was proposed by Ken Hyland, it is called proximity. Hyland (2010) used the term "Proximity" to refer to the writing strategy which takes readers' background knowledge, objection, expectations, and reading purposes into account.

Hyland (2010) proposed five facets of proximity that the writer should consider in the recontextualization process, that five aspects are : (1) *Organization,* how the writers positioned certain content in the article; *(2) Argument,* how the information is framed to be understood by the readers; *(3) Credibility,* the strategy used to convince the reliability of their information's source; *(4) Stance,* the writers' claim towards the process and the findings of the research; *and (5) Engagement,* how the writer connect with the readers through word choices. In this study the researcher will focus only to explore one facet of proximity, that is stance, especially in semi-popular genres. Such a limitation will give a chance for the researcher to do a more detailed and focused investigation compared to if the researcher examines all the five facets of proximity. Moreover, according to Hyland (2005), stance together with engagement plays a very crucial role in negotiating an idea in various genres of written communication, including in semi-popular science articles. Then, how the writer's stance was expressed in a semi-popular genre is important to be investigated to understand how the writers of semi-popular articles persuade readers to accept an argument especially since this genre

targeted university students as the readers. The result of this study can also serve as a reference to university students who want to try recontextualizing research articles into semi-popular articles.

Various studies have been conducted to explore stance-taking in different genres. Hyland (2005) investigated the interaction between writer and reader in academic discourse. In that study, Hyland proposed two major components that establish writer interaction with their readers in academic discourse: stance and engagement. The analysis of stance in the academic genre found that from the four stance markers, scientists mainly used hedges to express their stance. hedges are the most frequently used stance marker with a total of 14,5 frequency every 1000 words. This result was expected since hedges are generally accepted as a set of words that are usually related to academic discourse. The amounts of hedges found in research articles indicate the scientist's carefulness and modesty in explaining their finding. They avoid presenting the information as a certainty and choose to present it rather than as a possibility.

Fu & Hyland (2013) examine the difference of stance expressions in two journalistic genres, popular science, and opinion pieces. The result shows that the popular science text employed boosters and hedges to negotiate significance and tentativeness uses self-mention to recount the voices of the scientists themselves, and used the expression of personal attitude to encourage the reader's buy-in with the importance of the text. The study also found that opinion text generally used stance markers more frequently than

popular text. The study also reveals an interesting fact, that hedges are the most dominant stance marker found in the articles, the frequency of hedges in the popular text is only 4,8 per 1000 words, while in opinion pieces hedges appear only 3 times every 1000 words. This is because hedges function to tone down an argument, and therefore such an element is avoided in popular genres since it can potentially reduce the newsworthiness of the text.

Another study that explores stance is Crosthwaite et al. (2017). Crosthwaite et al. (2017) examine the difference between students and professional researchers in expressing their stance in the academic genre. The finding shows that in writing academic reports, learners significantly used a higher frequency of linguistic devices used for hedging and self-mention compared to that of the professional researcher. The two texts also showed a similar amount of booster and attitude markers. This finding is closely related to Hyland (2005) that in the academic genre, the writer relies much on hedges to express their stance.

A recent study about stance taking was conducted by Qiu & Jiang (2021). The study examines how stance was expressed in 3MT Journal Presentation. The study found that, unlike scientists who dominantly used hedges to express stance in research articles, the presenter of the 3MT presentation relies on frequent use of self-mention. They choose self-mention as the tool to create a personal dialogue with the speakers. It also found that the presenter of the 3MT presentation used an attitude marker more frequently compared to writers

of research and popular articles to express their personal feelings. It also showed that hedges and boosters were employed less frequently compared to other stance markers since it potentially reduced the newsworthiness of the information presented.

To the best knowledge of the researchers, at least at the time of writing this paper, almost no comprehensive study has been reported to focus on the usage of stance in semi-popular science articles. With this consideration in mind, the researcher chose to focus to investigate stance in semi-popular articles as an effort to fill the gap from the previous studies. Semi-popular articles investigated are limited to semi-popular articles about language learning because such limitations will give a chance for the researcher to do a more detailed investigation about how stance was expressed in a specific domain.

METHOD

The present study aims to examine the characteristics of how writers take their stance in semi-popular science articles in the language learning discipline. The data for this study are words, phrases, and sentences containing the writer's stance. The data source is 81 semi-popular science articles about language learning collected from various university web magazines. The 81 articles were categorized into three sub-corpora based on what is being talked about in the articles with the consideration that writers of semi-popular science articles will use different rhetorical features when they talk about different topics. On the other hand, the researcher also generates a list of potential stance

markers. The list is composed of 274 words adapted from Fu & Hyland (2013) and Qiu & Jiang (2021), including 99 hedging devices, 62 boosting devices, 105 attitude markers, and 8 self-mentions.

The three sub-corpora and potential wordlist of stance marker were then fed into AntConc software so it will show the frequency of each word in the wordlist that can be found in the corpora. Next, the researcher carried out a manual analysis to make sure that each word functions as stance. After the manual analysis, the researcher enters the data of stance markers in each corpus to the table. Next, the researcher compares the result of the analysis of the three corpora to see if there is any difference in how the writers express their stances on different topics. Last, the researcher interprets the quantitative data from the analysis to know how the writer of a semi-popular science article about language learning expresses their stance.

with 12,6 general frequencies. According to Fu and Hyland (2014) hedges allow writers to present their interpretation of the finding while still allowing space for doubt and discussion. Hedges help writers to show their carefulness and modesty in interpreting the data from the research. In the case of the nature of language learning corpus, hedges were realized in 53 different forms. The most frequent hedging device used is in the form of the modal verb "may" which appears 49 times or about 1,6 cases per 1000 words. In most cases, the hedging device "may" is followed by a verb. As can be seen in the examples.

(1) *implying the use of a second language may affect the types of decisions we make*
(2) *suggests that emotions may influence language acquisition processes*

Table 1. The stance in 'The Nature of Language Learning Corpus			
	Hits	**Frequency per 1000 words**	**Most frequent words**
Hedges	390	12,6	May, could, suggest
Booster	350	11,3	Found, show(s)
Self-Mention	284	9, 2	She/he, we
Attitude Marker	209	6, 8	Important, significant

FINDINGS AND DISCUSSION
Analysis of stance in 'The Nature of Language Learning Corpus
The analysis of the corpus shows that **hedges** are the most dominant stance marker found in the corpus

The second most frequent hedging device employed in the corpus is the modal verb "*could*" with a total of 46 occurrences or 1,5 occurrences per 1000 words. Almost in all cases of "*could*" as a hedging device, the

word "*could*" is followed by a verb, as can be seen in the examples below.

(3) *This could imply that developmental milestones necessary to start school are also delayed*

(4) *... with the hope that the findings could boost bilingualism in adults*

We can see that, while the words are different, the two most frequently used hedging devices in "nature of language learning corpus" are all in the form of modal verbs of possibility such as '*may*' and '*could*' as the hedging device. It suggests that in expressing their stance, the writers of semi-popular science articles about language learning are tentative and cautious. Hence, they chose to present the information as a possibility rather than an accredited fact.

The second most frequent stance marker found in the corpus is **a booster.** Reporting verbs such as "*found*", and "*show*" are the most employed boosting devices in this corpus. This shows the writer's attempt to engage readers into the text by upgrading the newsworthiness of the findings since reporting verbs is a language device that is closely related to news articles. The boosting device found in the corpus is mostly followed by the "that clause" that accounts for the finding of the research. This finding shows that the writer of semi-popular articles used booster mainly to account for the finding of the research, not their judgment. This finding is aligned with Crosthwaite et al. (2017) that professional writers tend to focus on the finding rather than on their personal feeling or action. This finding is expected if we

consider the background of the semi-popular writer that is mostly a researcher or professional science communicator.

(5) *Contrary to much belief, the researchers found that ability to read in a first language is less important in SFL reading than proficiency in the new language being learned*

It is interesting to notice that different from the other two corpora, in 'the nature of language learning' corpus **self-mention** is in the third position in terms of frequency instead of attitude marker. In the corpus, self-mention is realized by the pronoun "*she/he*", interestingly, most of the pronoun does not refer to the writer of the text, but refer to the scientist who has done the research, for example:

(6) *We went in thinking second-language readers may not be able to predict the way monolinguals do," she added. "But when we take into account that some bilinguals are very skilled at negotiating the environmental and linguistic pressures that are exerted on them.*

(7) *Similarly, he said, fostering a child's decoding skills can help them make connections and understand the similarities and differences in the sounds different letters make in each language*

The researcher assumes that this has something to do with the fact that the domain of research about the nature
 of language learning is more complicated compared to the two other domains. So, in the process of recontextualizing it into a semi-popular article, the writer of the

semi-popular article frequently quoting the original statements of the researcher followed by the singular pronoun "*she/he*" to avoid mistakes in the recontextualization process.

The analysis reveals that **the attitude marker** is the least employed stance marker found in the corpus. The most frequent attitude marker use in the corpus is all in adjective; *significant*, as can be seen in the examples.

(8) *the study has important implications not only for understanding biology…*

(9) *they found significant levels of "frame-shifting" (changes in self-perception) in bicultural participants.*

It is interesting to notice that while Hyland (2005) said that attitude markers can express a writer's positive or negative attitude. The most dominant attitude marker found in the corpus is all in the form of positive adjectives. This implies the writer's attempt to engage the reader, with the use of adjectives like "*important*" and "*significant*" the writer tries to engage readers with their positive attitude toward the study and highlighting the importance of the study.

It can be seen from the table that, similar to the "nature of language learning" corpus, the "benefit of language learning" corpus also employs **hedges** as the most dominant stance marker. This finding suggests the writer's carefulness and modesty when they talk about the nature of language learning or the benefits of language learning. Hedges can be found in the corpus with 13,1 occurrences per 1000 words. "*May*" is in the first position of the most frequently used hedges with 1,6 general frequencies. Similar to the previous corpus, "*may*" is mostly followed by a verb. The modal verb of possibility as the most frequent hedging device is identical with the previous corpus. This suggests that the writer of semi-popular articles about language learning use the same language features when talking about the nature of language learning and the benefits of language learning.

The analysis also suggests **Booster** as the second most frequently used stance marker in the corpus with 8,7 occurrences per 1000 words, identical with the "nature of language learning" corpus, reporting verbs like "*found*" and "*show(s)*" is the most dominant words employed

Table 2. The stance in the Benefit of Language Learning Corpus			
	Hits	**Frequency per 1000 words**	**Most frequent words**
Hedges	89	13,1	May, suggest(s),
Booster	59	8,8	Found, show(s)
Attitude Marker	50	7,4	Important, significant
Self-Mention	28	4,6	We, she/he

Analysis of stance in the Benefit of Language Learning Corpus

as boosting device. This once again shows the writer's attempt to engage readers into the text by upgrading the newsworthiness of the articles, since reporting verbs is a language device that is closely related to news articles. Also similar to the "nature of language learning" corpus, in most cases, the boosting device is followed by *that clause*. This implies that the writer of semi-popular articles used booster mainly to account for the finding of the research, not their judgment.

The table also shows us that **attitude markers** are in the third position in terms of frequency of stance markers. Like the previous corpus, all the attitude markers only account for the writer's positive attitude, not negative. The positive adjectives "*Important"* and "*significant"* are the most frequently used words the writer used to mark their attitude toward the research. This, once again suggest the writer's attempt to engage the reader of the articles, with the use of adjectives like "*important*" and "*significant*" the writer tries to engage readers with their positive attitude toward the study and highlighting the importance of the study.

Different from the "nature of language learning" corpus where self-mention is in the third placement regarding the frequent. Self-mention is the least used stance marker found in the "benefit of language learning" corpus with only 4,16 occurrences per 1000 words. It is also interesting to notice that different from the "nature of language learning" corpus, the "benefit of language learning" corpus tends to use the plural pronoun "*we*" rather than the singular

pronoun "*he/she*" to mark self-mention. This may be related to the fact that the topic of the benefit of language learning is more familiar to the public compared to the topic of the nature of language learning. So, in the recontextualization process, the writer of semi-popular articles about language learning rarely feels the need to refer to the original researcher of the research articles. So, self-mention appears only little in this corpus, and mostly refers to the semi-popular writer and not the original scientist who has done the research.

(10) *We discovered that people using a foreign language were not any more concerned with maximizing the greater good*

Analysis of stance in the Method of Language Learning Corpus

Table 3. The stance in the Method of Language Learning Corpus

	Hits	Frequency per 1000 words	Most frequent words
Hedges	150	13,7	Could, might, may
Booster	117	10,7	Show(s/ed), found
Attitude Marker	87	8	Important, significant
Self-Mention	46	5,5	We, she/he

Identical with the "nature of language learning" and "benefit of language learning" corpus, hedges are also the most frequent stance marker found in the "method of language learning" corpus with 13,7 occurrences every 1000 words. The top three most frequent hedges are all in the form of modal verbs; *could*, *might*, and *may*. Similar to the two

previous corpus, modal verbs as hedging devices are usually followed by verbs. The examples of the use of *could*, *might*, and *may* as hedges can be seen from the excerpt below.

(11) *A new study could hold the key to learning languages, teaching children color, or even studying complex theories.*

(12) *We suspected that eye gaze might be important earlier when babies are first learning the sounds of a new language.*

This consistency of hedges and hedging devices "*may*" that always appear as the most frequently used stance marker suggest that the writers of semi-popular articles are always careful and modest in expressing their stance regardless of the topic of the articles.

The second most frequently used stance marker in the "method of language learning" corpus is **Booster**, with the words "*show*" and "*found*" as the most frequently used boosting devices. This finding is Identical with the previous two corpora. The shows the writer's consistent attempt to engage readers into the text by upgrading the newsworthiness of the articles, since reporting verbs is a language device that is closely related to news articles. Also identical with the two previous corpora being analyzed, the boosting device in this corpus is usually followed by *that clause*.

We can also decipher from table 6 that attitude markers appear 7,9 times every 1000 words. The top two words that the writers use to mark their attitude are *significant.* This finding is also identical with the two previous corpora, this confirms the writer's consistency in expressing their attitude regardless of the topic

being discussed in the articles. For Instance:

(13) *The team confirmed a significant relationship between the two personality traits and English language proficiency…*

The least used stance marker that can be found in the corpus is self-mention with 5,5 occurrences per 1000 words. Similar to the 'benefit of language learning' corpus, the most frequent words the writer used to imply self-mention is the plural pronoun "*we*" rather than the singular pronoun "*she/he*". The researcher assumes, this once again has something to do with the fact that the topic of the method of language learning is more familiar to the public compared to the "nature of language learning" topic which is highly scientific with much scientific jargon. In recontextualizing the topic that is already familiar to laypeople, the writer of semi-popular science articles does not need to refer much to the original scientist who has done the research. So, the self-mention mainly only refers to the writer and not to the scientist.

Analysis of Stance Across the Three Corpora

The analysis of semi-popular articles about language learning shows that writers use all the four kinds of stance markers proposed by Hyland (2005) in expressing their stance. The result also shows that hedges are the most frequently used stance marker in semi-popular articles with 13 occurrences every 1000 words. This result holds significant implications when we compare it to the frequency of hedges in research articles and popular articles. Hyland's (2005) result, for instance, reveals that hedges in research

articles appear 14,5 times every 1000 words. In another study about stance in popular articles, Fu & Hyland (2013) reveal that hedges only appear 4,8 times every 1000 words. This comparison of the frequency of hedges across different types of the text suggests that the writer of semi-popular articles, which mostly are also a scientist, used hedges as the linguistic feature that is closely related to academic discourse to express their stance.

Booster is the second most frequent stance marker found across the three corpora. Contrast to hedges which express uncertainty, boosters allow writers to emphasize certainty (Qiu & Jiang, 2021). Across the three corpora, the booster is mainly expressed through **reporting verbs**. In the 'the nature of language learning and 'the benefit of language learning' corpus, the word "*found*" comes as the most used boosting device. Meanwhile in 'the method of language learning' corpus, "*shows*" is the most used hedging device. In almost all cases, the boosting device is followed by "*that clause*" that accounts for the finding of the research. This finding shows that in boosting claims, professional writers tend to focus on the finding rather than on their personal feeling or action (Crosthwaite et al., 2017).

The analysis also reveals that the corpus of "nature of language learning" employed **self-mention** more frequently compared to the two other corpora. Comparison to the benefit corpus is (LL=16.16, p < 0.0001 , %DIFF=99.99) and to the method corpus is (LL=14.53, p < 0.0001, %DIFF=67.08). The researcher assumes that this has something to do with the fact that the domain of research about the nature of language learning is more complicated compared to the two other domains. So, in the process of recontextualizing it into a semi-popular article, the writer of the semi-popular article frequently quoting the original statements of the researcher followed by the singular pronoun "*she/he*" to avoid mistakes in the recontextualization process. This finding is similar to Hyland (2013) that often in popular articles, self-mention is realized by first-person quotes from the scientist.

From the finding, we can see that **attitude marker** are the third most employed stance marker in the 'benefit of language learning and 'method of language learning' corpus and come as the least used stance marker in the 'nature of language learning' corpus. In all the three corpora, the attitude marker is most explicitly expressed by **the adjectives** "*important*" and "*significant*". Fu and Hyland (2014)

Article's type	Length (words)	Hedges	Booster	Attitude Marker	Self-mention	TOTAL
The nature		390	350	209	284	1233
/1000 words	30839	*12,6*	*11,3*	*6,8*	*9,2*	***40***
The benefit		89	59	50	31	229
/ 1000 words	6732	*13,1*	*8,8*	*7,4*	*4,6*	***34***
The method		150	117	87	60	414
/ 1000 words	10886	*13,7*	*10,7*	*8*	*5,5*	***38***
TOTAL		13	10,8	7,1	7,7	38,6

Table 4. The Stance Across the Three Corpora

stated that attitude markers indicate writer positive and negative feelings toward the study. In the case of semi-popular articles almost all attitude markers express the writer's positive attitude toward the study, it is rare to find attitude markers that express the writer's negative attitude. In popularization articles, the writer used attitude markers to point out what is interesting about the study while trying to pull readers to engage with the text (Hyland, 2010), and a similar case is found in semi-popular articles. With the use of adjectives like "*important*" and "*significant*", the writer tries to engage readers with their positive attitude toward the study and highlighting the importance of the study.

The finding shows that all the four types of stance markers proposed by Hyland (2005) can be found in the corpus. The total stance marker can be found in the corpus is 38,6 per 1000 words with Hedges contributed as the most dominance stance marker with 13 occurrences per 1000 words, followed by booster which appears 10,8 times every 1000 words, self-mention with 7,7 occurrences per 1000 words, and attitude marker as the least used stance marker with 7,1 occurrences per 1000 words. In his study about stance and engagement in the academic genre, Hyland (2005) revealed that hedges are the most frequently used stance marker with a total of 14,5 frequency every 1000 words. While in my study about stance in semi-popular articles, especially about language-learning, hedges are also the most dominant stance marker with 13 general frequencies per 1000 words. This is aligned with Munoz (2015) that semi-popular articles are usually

written by researchers. So, the characteristic of how they express their stance in their writing is similar to that of a research article in the sense that they are careful and tentative in expressing their stance. Most of the time they chose to present information as a possibility rather than fact. This is proven with the number of modal verbs of possibility as hedging devices found in the corpus, that way they allow the readers to form their own opinion and make their conclusion about the finding.

In general, stance in semi-popular articles appears more frequently compared to research articles. This is reasonable since the semi-popular article targeted semi-lay people and not scientists. So, the writer of semi-popular articles needs to express their stance more frequently to build mutual understanding between them and the targeted audiences.

The finding of this study gives information about what type of stance marker and words that the writer of semi-popular articles usually used when they write an article about language learning. Hopefully, the finding of this study can provide a reference on what kind of stance marker and words that are proper to use when the students of the English Language Education Program need to recontextualize a research article into a semi-popular article.

CONCLUSION

From the analysis of the three corpora about language learning It can be concluded that the writer of semi-popular science articles used all forms of stance markers proposed by Hyland (2005) to express their stance

when writing articles about language learning. The nature of how they use each stance marker will be explained in the following paragraphs.

In articles about language learning, **Hedges** always come up as the most dominant stance marker across the three corpora and writers mainly employ **modal verbs** of possibility such as '*may*' and '*could*' as the hedging device. It suggests that in expressing their stance, the writers of semi-popular science articles about language learning are tentative and cautious. Hence, they chose to present the information as a possibility rather than an accredited fact.

While overall appear less frequently than hedges, **boosters** are nevertheless a common stance marker that can easily be found in semi-popular science articles about language learning. It is the second most employed stance marker across the three corpora. **Reporting verbs** such as "*found*", and "*show*" are the most employed boosting devices across the three corpora. This shows the writer's attempt to engage readers into the text by upgrading the newsworthiness of the findings.

Out of three corpora being analyzed, two corpora have **attitude markers** as the third frequently used stance marker. While differing in frequency, in all the three corpora, the writers identically employed **adjectives** such as "*important*" and "*significant*" to mark their positive attitude toward the study and highlighting the importance of the findings to the readers.

Self-mention is the least employed stance marker except in the 'nature of language learning' corpus where it appears more frequently than the attitude marker. It

is also interesting to notice that in the 'nature of language learning' corpus, self-mention more frequently refers to the original researcher rather than to the writer who did the popularization process. This has something to do with the fact that the domain of research about the nature of language learning is more complicated compared to the two other domains. So, in the process of recontextualizing it into a semi-popular article, the writer of the semi-popular article frequently cites the original statements of the scientist who has researched to avoid mistakes in the recontextualization process. Therefore, the singular pronoun "*she/he*" is more frequently found in the 'nature of language learning' corpus, while in the two other corpora, self-mention is realized by the **plural pronoun** "*we*" which refers to the team of writers of the article and scientists who did the research.

In conclusion, writers of semi-popular science articles used hedges and self-mention in expressing their stance to indicate their tentative and carefulness in the recontextualizing process. They use booster and attitude markers to express their stance partially as an attempt to draw the reader's attention.

Regarding the conclusion of this research, the researcher realizes that this study is far from fully exploring stance taking in semi-popular genres since the data source is limited to semi-popular articles with the topic related to language learning. Therefore, the researcher suggests for other researchers conduct further research on this topic with more diverse data sources to get more insight on how the writer of semi-popular science articles expresses

their stance in their writing.

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