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Gauging the Association of EFL Learners' Writing Proficiency and their Use of Metaphorical Language

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Gauging the Association of EFL Learners' Writing Proficiency and their Use of Metaphorical Language

Ha Hoang and **Frank Boers**

Abstract

This study examines whether higher-proficiency learners of English as a foreign language (EFL) produce expository writing that exhibits a greater density of metaphorically used words and expressions than what is found in texts produced by lower-proficiency peers. A comparison was made between essays written by 257 undergraduate English majors at three different year levels at a university in Viet Nam. The proportion of metaphorical language making up these essays was indeed found to be positively related to the students' year levels and also to the grades awarded to the essays by independent assessors. A closer inspection of the data revealed that this positive association between proficiency and quantity of metaphorical expressions held true exclusively for grammatically correct instances of metaphorical language. The findings suggests that learners stand to gain considerably—in terms of perceived writing proficiency—from using words in their non-basic senses, as long as this use is also grammatically target-like.

Keywords: metaphorical language; polysemy; vocabulary; L2 writing proficiency; accuracy.

Since the seminal work by Lakoff and Johnson (1980), there has been growing recognition that metaphor is part and parcel of everyday discourse. Lakoff and Johnson see metaphor as "understanding and experiencing one kind of thing in terms of another" (1980, p. 5). For example, expressions such as *budgeting time, saving time, using time profitably,* or *losing time* are metaphorical because the intangible notion of time is likened to a more concrete thing, such as money. Similarly, expressions such as *a chronic budget deficit, a financial injection, economic recovery*, and *a healthy economy* suggest that one of the ways in which people have come to understand issues in economics is by seeking analogies with human health and illness. Naturally occurring discourse thus abounds with expressions that are metaphorical (e.g., Cameron & Deignan, 2006; Musolff & Zinken, 2009; Zanotto, Cameron, & Cavalcanti, 2008), even though users may not often be aware of their metaphorical nature, especially during real-time communication.

If metaphorical expressions constitute a substantial part of a language's means to package messages, it follows that developing a command of this repertoire of expressions is an integral facet also of second language (L2) learning. The present study investigates the extent to which such a command is manifested in L2 writing by language majors at different levels of proficiency. Along this line of research, Littlemore, Krennmayr, Turner and Turner (2014) found a greater density of metaphorically used words in essays sampled from more advanced EFL learners (according to CEFR assessment criteria) in comparison with those sampled from less advanced learners. Their finding suggests that L2 writers in effect become increasingly versed in the use of metaphor as they become more proficient. The corpus of essays analysed by Littlemore et al. was rather diverse, however, not only in terms of the

independent variable under examination—proficiency levels, but also in terms of the writers' backgrounds, the topics they wrote about, and the length of the pieces of writing. The present study examines whether the pattern detected by Littlemore et al. is paralleled in a corpus of essays collected from a more homogenous group of L2 writers—EFL learners who share the same L1 and who are studying for the same degree at the same university. More specifically, the corpus analysed here consists of 257 essays—all on the same topic and all of roughly comparable length—collected from English language majors from three year levels in an undergraduate programme at a university in Viet Nam. In addition to the comparison of year levels (as a proxy of proficiency level), the study also investigates whether the dimension of metaphorical language use also distinguishes students' writing within one and the same year level.

Literature Review

Research on metaphor in L2 education has proliferated in the past three decades (Holme 2004; Littlemore & Low 2006; see also Author 1 for a review). One strand of this research considers the metaphors used by teachers and learners as a reflection of their conceptualizations of learning processes, educational practices, and student/teacher roles (Wan & Low, 2015; Wan, Low, & Li, 2011).

Another strand of research has investigated how raising learners' awareness of metaphor can benefit their vocabulary learning, such as their learning of idioms, phrasal verbs, and words that have developed figurative uses more generally. Quasi-experimental studies within this strand (see Author 2 for a review) have produced rather compelling evidence that helping learners to appreciate the connection between established figurative uses of word or phrases (e.g., the use of *weed* in *We need to weed*

out corruption) and their original, literal meanings (e.g., the use of *weed* in the context of gardening) renders these words or phrases more memorable.

A third, related strand of research has examined the extent and nature of comprehension problems experienced by learners when they are confronted with native speakers' use of metaphors. For example, Littlemore (2001) found that the metaphorical language used by university lecturers was a major source of confusion for international students. In a larger scale study on international students' comprehension of university lectures, Littlemore, Chen, Koester, and Barnden (2011) found that about 42% of the words or phrases that their participants failed to understand were used metaphorically. Moreover, these students were very seldom aware of their misinterpretations. Cross-cultural differences are a likely cause of such comprehension problems (Littlemore, 2001, 2003), and several scholars have suggested there is a need for professional development initiatives that raise lecturers' awareness of metaphor and how they can scaffold students' metaphor interpretation (Camiciottoli, 2005; Littlemore, Holloway, MacArthur, & Cienki, 2013; Low, Littlemore, & Koester, 2008).

Compared to the above strands of research on metaphor in L2 education, fewer studies have examined learners' *production* of metaphorical language in their L2. Although it has been asserted that L2 learners tend to avoid using figurative expressions such as idioms (Irujo, 1993; Kecskés, 2007), recent studies reveal that learners do often resort to metaphors to express their ideas (MacArthur, 2010; Nacey, 2013). As already mentioned, a study on metaphor in L2 writing that bears close resemblance to the investigation reported in the present article is the study by Littlemore, Krennmayr, Turner, and Turner (2014), who examined metaphor use in L2 English writing samples collected at five proficiency levels (20 ESOL exam scripts for each proficiency level) of

the Common European Framework of Reference (CEFR). The authors found an increase in the rates of metaphorically used words from lower to higher proficiency levels, a finding which suggests that learners make more use of figurative language as their proficiency develops. Based on these findings, Littlemore *et al.* (2014) proposed a set of descriptors regarding metaphor use for each level of the CEFR. It is worth mentioning that the association which Littlemore *et al.* (2014) found between metaphor density and proficiency level did not distinguish between the learners' uses of metaphorical language that conform to the conventions of English grammar and instances of metaphorical language that manifest spelling mistakes or morphological and/or syntactic errors. Littlemore *et al.*'s more qualitative inspection of a small sub-sample of their collection of essays did, however, suggest that it may be a distinction worth making.

The study reported in the present article addresses the following primary question: Is there a positive association between the quantity of metaphorical language exhibited in EFL learners' writing and (a) these learners' year levels in a B.A. programme and (b) the quality of their writing according to independent assessors? A secondary research question concerns the role of grammatical accuracy in L2 writers' metaphorical language.

Research Method

Data collection

Essays were originally collected from 396 Vietnamese learners of English who were doing a four-year B.A. in English Language. Roughly equal numbers of students participated per year level of the program ($N_{Y1} = 98$, $N_{Y2} = 100$, $N_{Y3} = 99$, $N_{Y4} = 99$).

The students' participation in the study was voluntary. They were informed the research was about writing in a second language, but the precise research objective—investigating their use of metaphorical language—was revealed to them only after the study was completed.

The participants were given 50 minutes to write in class an essay of at least 250 words to express their opinion on the following topic*: Some people believe that, in the modern world, we do not need literature and should stop reading literary works. To what extent do you agree or disagree with this opinion?* The same task was used in all four year levels. Dictionary use was not allowed. This type of in-class writing activity is routinely used in this study program.

Text length, as an indicator of quantity of content and development of ideas, is a likely variable in the assessment of expository writing (Ferris, 1994; Kamimura & Oi, 2001; Sasaki, 2000). In addition, it has been demonstrated (Littlemore *et al.*, 2014) that the metaphoric density in learner writing can fluctuate considerably. This fluctuation is probably related to the content being discussed—given the nature and function of metaphor, metaphorical language is more likely to emerge when subject matter becomes relatively abstract. It stands to reason, then, that counts of metaphorical language in very brief essays with little content risk not being representative. It is for these reasons that we excluded from the initial corpus those essays which fell far short of the 250-word text length that was stipulated in the task instruction. Most of the Year 1 students failed to meet this word count requirement (71 out of 98 submitted essays were under 200 words), leaving too small a sample for comparison with the other year levels. It was therefore decided to exclude Year 1 from the final analysis. Any essays from the other year groups which were shorter than 200 words were also excluded. The final corpus

consisted of 83 essays written by Year 2 students, 81 by Year 3 students, and 93 by Year 4 students (see Table 1). Mean essay length was 280 words (SD = 57).

Apart from examining an association between quantities of metaphorical language in the essays and the students' year levels, we also wished to examine whether greater quantities of metaphorical language were associated with greater writing quality within each year level. For this purpose we recruited five experienced teachers who had been teaching writing between 8 and 27 years, and asked them to independently grade the essays. The essays were distributed randomly to the teachers so that each essay was marked blind by two different teachers. The teachers were not informed of the objectives of the research project or the year level of the students. They were asked to rate the essays holistically on a grading scale of 0-10. This holistic approach to grading essays is what they were familiar with. We deliberately refrained from providing the teachers with an analytical score sheet because the intention of the investigation was to gauge the strength of association of L2 writers' metaphorical language use and readers' general impression of the writing quality. The degree of inter-rater agreement calculated as Pearson r was .85 ($p < .001$). The mean score of the two grades for each essay was used in the below quantitative analyses.

Identifying and quantifying metaphorical language in a learner corpus

In metaphor research, there are two influential procedures for identifying metaphorical language: Metaphor Identification Procedure (MIP) and Vehicle Identification Procedure (VIP). In both, the researcher tries to determine whether the meaning conveyed by a lexical unit in a given context differs from that lexical unit's basic or literal meaning. MIP, introduced by the Pragglejaz Group (2007) essentially

uses the word as unit of analysis. For every running word in a text, the researcher determines (with the aid of a dictionary) whether it is used in its basic sense or in an extended metaphorical sense (see Steen 2007 for a detailed analysis). Identifying metaphorical meaning thus hinges on whether there is a contrast between the contextual meaning and the basic sense of a word. The original MIP has since been elaborated in MIPVU (Steen et al., 2010), especially in terms of the boundaries of the unit of analysis, to include units such as polywords. VIP (Cameron, 2003) takes a more flexible approach and proposes the use of the broader notion of "vehicles" of metaphors, i.e., what non-literal words or phrases are being used to talk about a "topic". For instance, in *Writing a thesis is a journey*, the topic is *writing a thesis* and the vehicle is *a journey*. Vehicle units vary in size. For example, in *Writing this thesis was a long and difficult journey and I sometimes lost my sense of direction*, the vehicle unit is considerably longer (also see, e.g., Cameron, 2007; Cameron et al., 2009; Cameron & Maslen, 2010). Using vehicle rather than word as a unit of analysis may result in slightly different estimates of what proportion of a given text consists of metaphorically used language. The word *difficult* in the above example of the longer vehicle unit, for instance, might not be counted as metaphorical under a procedure such as MIP, but would be considered an integral part of the larger metaphorical unit under VIP.

In this study, although we also followed guidelines from MIP to search our learner corpus for instances of metaphorical language (see below), we decided to adopt the VIP proposal to consider vehicle terms, for two reasons. First, it is undeniable that a lot of metaphorical discourse is phraseological and thus transcends a word-level analysis. Common examples include figurative idioms (e.g., *Get the green light; Pay the price; Sit on the fence*) and phrasal verbs (e.g., *Find out; Cheer up*). Corpus-based

work, in particular, has provided compelling evidence that metaphor is often expressed by means of multi-word units (e.g., Cameron & Deignan, 2006; Deignan, 2005; Hanks, 2004; Naciscione, 2010; Sanford, 2014). The second reason for adopting 'vehicle' as (a flexible) unit of analysis in the present study lies with the nature of the texts examined here—compositions written by L2 learners. It is worth mentioning in this regard that neither MIP nor VIP was originally intended for the identification of metaphorical language in *learner* discourse. Both are procedures for identifying metaphorical language, but they do not distinguish between grammatically 'target-like' and 'non-target-like' instances of metaphorical language, for instance. However, for the purpose of examining the role and potential impact of L2 learners' use of metaphorical language, it would seem worth taking into consideration the idiosyncratic nature of learner language (Ellis & Larsen-Freeman, 2009), which tends to exhibit features which expert speakers may consider non-target-like. As shown further below, L2 learners may use a word metaphorically but in a way that does not conform to the grammatical conventions of the language (see also MacArthur, 2010; Nacey, 2013; Philip, 2005). In order to gauge the association specifically of target-like metaphorical language with writing quality, it needs to be distinguished from non-target-like metaphorical language. This will often require taking into account the syntagmatic co-text of a metaphorically used word, and thus the larger vehicle unit that the word is part of.

The first step in the procedure used in the present study, however, was to identify and tally metaphorical units in the students' essays regardless of whether they conformed to the grammatical conventions of English. Units were identified by the first author as potentially metaphorical if their meaning in the given context was figurative, in contrast with their basic, more concrete sense. The *Macmillan Dictionary*

(http://www.macmillandictionary.com) served to determine the basic sense of words (cf. Pragglejaz Group, 2007; Steen et al., 2010). For example, of the many senses of *build* listed in this dictionary, the basic sense is *to make a building or other large structure by putting its parts together*. Its use in *build a relationship*, for example, would be considered metaphorical because a relationship is not a physical structure. To establish the reliability of the identification procedure, the second author independently coded 20 essays, using the same procedure. Altogether 439 potential instances of metaphor were identified in these 20 essays, and the two coders differed on only 21 of these, i.e., the inter-coder agreement reached 95%, which is a good rate according to Portney and Watkins (2009). The discrepancies were found to lie with uses of prepositions that were deemed metaphorical by the first coder but not by the second. This disagreement almost exclusively concerned an item which recurred across most of the essays because the students recycled it from the writing prompt – the prepositional phrase *in the modern world*. This was considered metaphorical by the first coder, who argued that world here is an abstract world, but as non-metaphorical by the second coder, who argued that world here still includes physical space. Given that no agreement was reached about this item even after discussion, and given that this phrase did not help to discriminate metaphor densities across the essay (as almost all students 'recycled' it from the writing prompt), it was decided to exclude it from the count.

The second step was to determine whether a unit identified as metaphorical conformed to the conventions of English grammar. The following were considered as cases of non-target-like language use.

1. Incorrect spelling; for example, *pursure* [instead of *pursue*].

2. Incorrect part of speech; for example, *A person is able to deep into the*

imaginations of countries [of] other people.

3. Inflectional errors; for example, *Each story will <u>helps</u>*.

4. Missing or wrong function words (e.g., prepositions); for example, *Most people were born and grow up <u>go hand in hand</u> poetics and stories* [where we would expect *with* after *go hand in hand*].

5. Errors of valency and colligation; for example, *It helps keep the traditional and cultural values and <u>flourish</u> the people's soul* [where *flourish* is used as a transitive instead of intransitive verb].

Results

The collection of 257 student essays comprises a total of 72,122 running words. Altogether, 13.49% of the running words in this corpus of learner essays belong to metaphorical units according to the identification procedure used. More particularly, 11.25% of the running words in the corpus belong to grammatically correct metaphorical units (according to the aforementioned criteria).

Below table shows, per year level, the mean grades that the essays received, the mean per-text proportion (as a percentage) of metaphorical language, and the latter broken down for tallies of grammatical and ungrammatical instances of metaphorical language). It shows that the mean writing grades and the proportions of metaphorical language increase systematically from one year level to the next, but also that this increase concerns those instances of metaphorical language that were also grammatically target-like.

Year level	Writing grades		Per text % of metaphorical language		Per text % of grammatical metaphor		Per text % of ungrammatical metaphor	
	M	SD	M	SD	M	SD	M	SD
2 (n = 83)	5.27	1.19	12.66	2.95	9.75	3.08	2.91	1.51
3 (n = 81)	5.88	1.23	13.29	3.38	11.56	3.39	1.73	1.08
4 (n = 93)	6.06	1.23	14.15	3.14	12.33	3.30	1.81	1.31

A one-way ANOVA indicates that there are significant between-group differences in terms of average grades: $F(2, 254) = 9.77$; $p < .0001$. Tukey post-hoc tests for pair-wise comparisons show that the mean grades for year two were significantly lower (at $p < .01$) than those for years three and four. Applying ANOVA to the proportions of metaphorical language in general yields $F(2, 254) = 4.95$; $p = .008$. A significant difference (at $p < .01$) is found between year two and year four. Focusing on the proportions of grammatically correct instances of metaphorical language, ANOVA produces $F(2, 254) = 14.34$; $p < .0001$, and significant differences (at $p < .01$) between year two and years three and four. In the case of metaphorical units deemed ungrammatical, ANOVA produces $F(2, 254) = 21.02$; $p < .0001$, and the Tukey post-hoc tests indicate significant differences (at $p < .01$) between year two and years three and four.

Turning now to the question of whether the proportions of metaphorical language are associated with the writing quality of the texts as perceived by the EFL teachers, Pearson correlations were computed. The association was found to be strong

and significant (for all 257 essays together, $r = .652$, $p < .0001$), and similar across the three year levels. The strong association within each year group suggests that proportions of metaphorical language are one of the features of writing that may distinguish comparatively proficient and less proficient L2 writers within a single proficiency bracket. The associations are particularly strong, however, when only metaphorical units that are grammatically correct are counted. For the whole corpus together, $r = .708$; $p < .0001$), and computations per year group produce r .651, .696 and .695 for years two, three and four, respectively (all $p < .0001$). As could be expected, counts of metaphorical units manifesting a grammatical (or orthographic) error, fail to show this positive association with writing grades. Instead, the association is negative (for all 257 essays together, $r = -.234$; $p = .00015$), and this holds for all year groups (r -.087, -.149 and -.228, for years two, three and four, respectively), although significance is reached only in year group 4 ($p = .028$).

At this point, it should be mentioned that, although we excluded from the analysis all essays that fell far short of the text length stipulated in the task instruction (see Method), the remaining variation in text length may nonetheless have influenced the assessment of writing performance (Ferris, 1994; Kamimura & Oi, 2001; Sasaki, 2000). In order to determine if it might have been this variable rather than the proportions of metaphorical language that made the difference, a multiple regression analysis including the two factors may be helpful. Applied to the whole corpus of 257 essays, this produces $R = .737$ (Adj. $R^2 = .539$), with both factors contributing significantly (at $p < .0001$) to the model. This illustrates indeed that the role of essay length cannot be underestimated, but – as signalled by the Pearson correlation coefficients in Table 3 – the per-text proportion of metaphorical language has the

greater predictive power. A similar regression model, but this time with counts of metaphorical units deemed grammatically correct (rather than counts of all metaphorical units), has even greater predictive power: $R = .793$ (Adj. $R^2 = .626$). Applying this regression to the grades for the three year levels separately produces R .727 (Adj. R^2 .517), .785 (Adj. R^2 .607) and .814 (Adj. $R^2 = .655$), for years one, two and three, respectively. Both the proportion of (grammatical) metaphorical language and essay length contribute significantly ($p < .0001$) to the explanatory power of all of these models, but each time it is the former factor that contributes the most. These findings lend additional support to the impression that metaphorical language—at least when it is free of grammatical error—is a dimension of second language writing that is closely associated with perceived writing quality

Discussion

These results are consistent with Littlemore *et al.* (2014), who found a greater ratio of metaphorically used words in essays written by advanced L2 learners than in essays written by less proficient learners. The results also complement Littlemore *et al.*'s in two respects. First, they suggest that metaphorical language use is a feature of writing that can discriminate between writing performance not only between but also *within* groups of learners deemed to be of similar general proficiency.

As an example for this, we present here two excerpts from the Year 4 group. The metaphors in these excerpts are underlined.

Excerpt 1:

> *The second <u>thing</u> that <u>makes</u> reading literary works rewarding is that it*
>
> *<u>cultivates</u> one's soul and <u>shapes</u> one's <u>way</u> of thinking. A literary work*

invites the readers into a new world. It can be a utopia somewhere or just a mundane place. Whatever the destination is, literature makes us think about our real life and view the world in a deeper angle. I have read a lot of books, and one of which – Rainbow's End – truly transformed me. Through this novel, I have learnt that life is beyond what we see everyday, it is something that is more meaningful. Moreover, I have became aware of lives in stark places such as Africa, Middle East, etc. where people are fighting constantly to keep their body and soul together. In other words, reading literature helps me to reflect on myself and the world around me.

Excerpt 2:

Secondly, literature is a way to reflect our daily life for the next generation or our ancestors. Thanks to many literary works, we know how our ancestors lived. This helps us to evaluate, compare and try to change our attitudes or our behaviour to something that is not really good. For instance, Truyen Kieu is a good example to illustrate my opinion. Thanks to it, we know how Vietnamese women's life was. Their life was very hard, very difficult. They had no right to have education, to vote, and so on. So, by reading these literary works, people, especially young people can compare and make some positive changes to make their world better.

Excerpt 1 is taken from an essay of 311 words; excerpt 2 is from one of 327 words. The two paragraphs have more or less the same ideas and structure: the writers started with a topic sentence which says how reading literary works can change one's

life perspective, went on to further explain the idea, gave an example and then concluded the paragraph. We can see a striking difference between the two excerpts in the proportion of metaphorically-used words/phrases: 16% vs. 6%. Although metaphorical language alone does of course not determine the perceived quality of the writing, the differing quantities of metaphorical units in these excerpts are nonetheless consistent with the positive relation we found: Excerpt 1 is from an essay that received grade 8/10, while Excerpt 2 is from an essay that received only 5.5/10.

The other respect in which the present study complements Littlemore *et al.*'s is by demonstrating that the association between ratios of metaphorical language use and writing proficiency is particularly strong if the metaphorical language is grammatically target-like. By contrast, proportions of grammatically (including orthographically) 'malformed' units of metaphorical language were found in our data to be negatively related to perceived writing quality.

The finding that it is target-like use of metaphorical language that is strongly associated with general proficiency and with perceived writing quality is consistent with findings from studies on writing development and lexical aspects of writing quality. Metaphor use means using a metaphorical sense of a word that has been derived from its basic sense, as when *shape* is used to mean *influencing the way that a person, idea, or situation develops* rather than *forming something into a particular shape*. It has been shown that when L2 learners gain proficiency, their knowledge of different word senses—polysemy—increases (Schmitt, 1998). Crossley, Salsbury, and McNamara (2010), for example, have described how L2 development is characterized by learners' growing mastery of the different senses of same word, i.e., their growing mastery of polysemy. In the vast majority of the instances attested in our corpus of essays, the

metaphorical word uses were ones that have been conventionalized in the language, as judged by their inclusion in a dictionary. Essays with high ratios of conventionalized metaphorical language contain a range of words used in non-basic senses, and thus are likely to display the writers' command of polysemous items.

The metaphorical units categorised also display the participants' use of an extended sense of a word/phrase in its usage context of target-like syntagmatic and paradigmatic patterns. This thus reflects their control of grammatical and particularly collocational properties of words, which has been shown to be a strong predictor of perceived writing quality. In Baba's (2009) study of summary writing in L2, for example, writers were found to make use of knowledge of the collocational behaviour of the prompt words in the writing tasks in order to produce quality summaries. In another study, Crossley, Salsbury, and McNamara (2014) elaborate on the importance of "collocational accuracy" for L2 writing to be perceived as high-quality. Among the several lexical measures they examined, collocational accuracy was found to be the strongest predictor of writing grades in their data. In recent studies, Crossley and colleagues (Crossley & McNamara, 2012; Crossley, Salsbury, & McNamara, 2009; Crossley et al., 2010, 2014) have also provided evidence that taking into account the different components of vocabulary knowledge such as collocational accuracy, word meaningfulness, and extended meanings of words would provide a more accurate insight into L2 learners' lexical proficiency in productive tasks. Since metaphor often manifests itself in the form of multiword expressions, and since expressions showing non-target-like syntagmatic patterning were excluded from the count of metaphorical units, the strong association found in the present study between writing grades and conventional metaphor use is consistent with this finding by Crossley and colleagues.

As has been shown so far, making meaning via metaphors often draws on 'deep' productive word knowledge. This is because the use of target-like metaphorical language requires learners to display their knowledge of written form, extended word meanings, and the syntagmatic patterns of the word used with the extended meaning. These are aspects of the learners' productive knowledge of word form, meaning and use (Milton & Fitzpatrick, 2014; Nation, 2001). It has been shown (e.g., Engber, 1995) that when learners use words correctly, they tend to get higher writing scores, even if raters do not specifically scrutinize their vocabulary profile. Because writing quality is the outcome of the interplay of a whole range of features in tandem (Friginal, Li, & Weigle, 2014; Jarvis, Grant, Bikowski, & Ferris, 2003; Schoonen et al., 2003), when learners can exhibit mastery of different aspects of word knowledge, including knowledge of the non-basic senses of words, their work is likely to be perceived as quality writing (all else being equal).

Conclusions and limitations

We set out to investigate the relationship between the quantity of L2 learners' metaphorical word uses and (a) their year levels (as a proxy of their general English proficiency) and (b) the grades given to their essays. It was found that the quantity of metaphorical language increased systematically by the year levels, the use of metaphorical language correlated positively with the writing performance as assessed by EFL teachers, and this was particularly so when the instances of metaphorical language conformed to the conventions of English grammar. In other words, the quantity of target-like metaphorical expressions can potentially help distinguish writers of different levels of proficiency as well as individual writers of approximately the same level of

proficiency.

In a sense, mastery of metaphorical language and depth of vocabulary knowledge and can be considered two sides of the same coin. What the findings reported here suggest is that instruction which gives due attention to figurative language can at least serve as a channel for L2 learners' and learner-writers' engagement with polysemy, and thus foster deep vocabulary knowledge. Knowledge of conventional figurative language use allows the L2 learners to achieve precision in lexical choice, especially when a word has different extended senses, or when many words have synonymous senses but different usages. As mentioned in the literature review, several quasi-experimental studies have demonstrated that engaging learners with figurative language and raising their awareness about the mechanisms of meaning extensions via metaphors can effectively promote the kind of vocabulary knowledge that, according to the findings reported here, benefits the perceived quality of their writing.

It needs to be acknowledged that the data presented here only permit the demonstration of an association, not necessarily a causal relation about the extent to which the metaphorical language employed by student writers exert an influence on the grades they are awarded. Interviews with the raters of students' writing could be useful to better assess the influence (if any) of the metaphorical nature of the students' wordings. The absence of such introspective data is a clear limitation of the present study. In addition to interviews, a comparison between holistic and analytic rating approaches might also shed light on what facet of the assessment is likely to be influenced by the use of metaphorical language.

Apart from this, a few more limitations to this study need to be acknowledged. One is the absence of longitudinal data that may elucidate how individual L2 writers'

metaphor use evolves as they become more proficient and experienced L2 users. The study should ideally have also included a language proficiency test to capture participants' proficiency levels, the results of which could have served as a more precise reference point than the year of study the students were in. In addition, the fact that the majority of the participants were female may also have influenced the nature of the writing samples, as gender is known to have a bearing on writing in general (Gelati, 2012) and on the use of metaphors (Hussey & Katz, 2006). Future studies along this research line may need to address these issues.

In future studies, it may also be worth distinguishing between different kinds of metaphorical units. It is conceivable, for instance, that a common metaphorical use of a highly frequent word such as a preposition (e.g., *under control*) will make less of an impression than a non-literal use of a low-frequency word (e.g., *a fledgling democracy*), or—depending on the genre being practiced—a more creative use of metaphor intended for rhetorical effect. In addition, further qualitative investigation into the different degrees of novelty/ conventionality of learner metaphor use (cf. Nacey, 2013) may also be relevant to unfold learners' developing command of different word senses.

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