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Come on, carry on: Phrasal verb use in undergraduate writing at a South African university

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ABSTRACT

The phrasal verb (PV) plays an important role in the attainment of proficiency in English. However, research suggests that its use creates problems for learners of English worldwide, with the result that many learners appear to employ avoidance strategies when using this structure. The use of the phrasal verb has not been researched to any great extent in the South African context, a deficiency that this research study hoped to address. Using WordSmith Tools 8.0 to analyse a 5 603 404 token corpus of undergraduate writing, PV use by South African first- and second-language speakers of English was investigated and reported on. The results are in contrast to those of previous research in that they suggest that second-language speakers use phrasal verbs more in their first year of undergraduate study, and that this tendency tapers off as their studies progress. First-language speakers show a similar but less marked pattern of PV use. The results also indicate a preference for one-word alternative verbs by both groups, which is again in contrast to research conducted elsewhere, where the first-language speakers displayed a preference for PV use over one-word alternative verbs. It is suggested that further research is required to verify these results.

Keywords: phrasal verb, avoidance, proficiency, second-language learner, multi-word verb, one-word alternative

1. Introduction

When the difficulties faced by second-language learners (L2) of English come up in conversation, it is normally, and rightly so, issues such as subject-verb agreement, tense forms, and plural formation that are mentioned. Yet, in practice, these aspects by no means represent the greatest problems faced by L2 learners. For example, the use of articles and prepositions, essential for achieving proficiency in English, have been identified as highly problematic aspects of the English language (Al-Shujairi & Tan, 2017:124; Celce-Murcia & Larsen-Freeman, 1983:260). A third such language structure is the phrasal verb (PV) (Celce-Murcia & Larsen-Freeman, 1983:265; Darwin & Gray, 1999:65).

PV use is problematic for several reasons. Firstly, being a multi-word verb with a *verb + particle* combination (see the next section for a full definition), the meaning of the verb in the PV combination may differ from its original meaning (for example, *carry* and *carry on*) (Alshayban, 2018; Morales, 2000). Secondly, the meaning of some of the more idiomatic PVs (for example, *bottle up*, *blow over* and *tune out*) is obscure (Aldukhayel, 2014; Kamarudin, 2014; Mazaherylaghab, 2015). Thirdly, students whose mother tongue does not have a similar language structure might find the unfamiliarity of the PV structure perplexing (Blais, 2012; Chu, 1996). While this list includes the main issues pointed out by research to date, it is by no means definitive.

So far, South African English L2 learners' use of the PV has not been investigated to any great extent, and neither, for that matter, has the use of the PV by mother tongue speakers (L1) of English. In truth, the relevance of PV use by L2 learners can only be fully understood when contrasted to PV use by L1 speakers.

Consequently, while the primary aim is to report on L2 PV use, this research study will report on PV use by both L1 and L2 students with reference to undergraduate student writing in the South African context. While specific problems in PV use have been identified by researchers elsewhere, this study will not specifically be focussed on finding errors, but rather on observing and reporting on PV use.

The following sections will provide a background to the study, followed by a review of the literature. The problem statement and research aims will be given, as well as the theoretical framework of the study. Thereafter, the methodology will be explained, and the data analysis and findings discussed.

2. Background

A PV is a multi-word verb that is defined as a syntactic unit consisting of a verb proper combined with an adverbial particle which may or may not be adjacent to the verb (Chen, 2013:423; Gardner & Davies, 2007:341; Wilcoxon, 2014). Three types of PVs are normally recognised, namely literal (the verb proper and particle retain their individual meanings, as in "**Take off** your coat."), figurative or idiomatic (the verb and particle combination takes on a new meaning, as in "I hope that he will **carry out** the instructions."), and "completive" or "aspectual" (the verb and particle combination describes a completed action, as in "She has **used up** all the butter.") (Darwin & Gray, 1999:68; Liao & Fukuya, 2004:196-197). The PV has traditionally been thought of as informal and therefore more likely to be found in speech and informal writing than in formal writing (Celce-Murcia & Larsen-Freeman, 1983:265; McArthur, 1989; Myers, 2018:11). On the other hand, some researchers argue that there is sufficient evidence to show that PVs are used across all registers (Darwin & Gray, 1999:66; McPartland-Fairman, 1989:1).

The amount of research that has been conducted globally into the use of PVs by L2 learners with various mother tongues (Blais, 2012; Chu, 1996; Gaston, 2004; He, 2017; Kamarudin, 2014; Mazaherylaghab, 2015; McPartland-Fairman, 1989; Morales, 2000; Qiu, 2018) suggests the importance with which PV use is viewed as a sign of English competency. Indeed, Chen (2013:420) asserts that PV use by L1 students "is considered an important difference between their writing and [L2] learner writing". Furthermore, PV use is seen as key if L2 speakers want to sound more like mother-tongue speakers (Haidera, Saedb, Husseinc, Al-Abbasd & Meqdadie, 2020:1185).

Research into PV use also provides us with ample evidence of its problematic nature for L2 learners. This is especially apparent when L2 PV use is compared to L1 PV use (Mazaherylaghab, 2015; McPartland-Fairman, 1989; Qiu, 2018). Research suggests that the strategy most often employed by L2 students to cope with the PV is to avoid using it (Dagut & Laufer, 1985; Gaston, 2004; Hulstijn & Marchena, 1989; Laufer, 2000). However, not all of the studies draw the same conclusions about the avoidance behaviour of L2 learners, as will be seen in the next section, where some of the research into PV avoidance will be discussed.

Why is research into PV use necessary in the South African context, where English is an official language and the suggestion of an L1/L2 divide thus seems out of place? The following explanation is offered as clarification. The National Language Policy Framework (*Department of Home Affairs,* 2002) places South Africa in the unique position of having 11 official languages. This has necessitated the emergence of a *lingua franca*, a role that has fallen to English. However, according to the Census of 2011 (*Statistics South Africa*, 2012), English is the first language of only 9.6% of South Africans. This means that most South Africans are

second-language (and sometimes even third-language) speakers of English, and so are faced by the many issues with which learners of English struggle world-wide, such as those mentioned previously.

Presumably, the educational policy of English as the medium of instruction in South African schools from Grade 4 is meant to address this issue. However, evidence suggests otherwise as not only do most students struggle with English at school (Millin, 2015; Nel & Muller, 2010), but a large proportion of those who manage to obtain admission to university find it difficult to meet the demands of English in the academic environment (Pineteh, 2014).

The next section will provide information about previous research into PV use. While the focus will be on PV avoidance as an L2 strategy for dealing with this structure, other issues that emerge from research will also be covered.

3. Literature review

Previous research into the use of the phrasal verb

Dagut and Laufer (1985) conducted one of the first investigations into PV avoidance by L2 learners. The participants in their study were Hebrew-speaking L2 learners of English, described as EFL students of varying English proficiency, but with the added proviso that these students had had at least seven years of exposure to English at school. This suggests that their English proficiency was comparable to that of the average South African L2 student. The researchers initially attempted to confirm what they perceived as avoidance, and then to determine the extent of the avoidance. First of all, a multiple-choice test was used to establish L1 preference for PVs, ranging from literal to idiomatic, rather than one-word equivalent verbs. Multiple choice, verb translation and memorisation tests, based on the 15 most frequently used PVs, were then completed by 60 L2 students to determine their preferences. The results suggested that L2 students preferred to use one-word equivalent verbs rather than PVs. Furthermore, where PVs were used, literal rather than more idiomatic PVs were favoured. It was evident to the researchers that the students had an awareness of PVs, which clearly suggested that their preference for one-word alternative verbs was a choice rather than a result of ignorance (Dagut & Laufer, 1985:77-78). It was therefore concluded that their PV avoidance was influenced by their mother tongue, Hebrew, not having an equivalent language structure. This was therefore seen as a "corroboration of the dominant role of L1 in the L2 learning process" (Dagut & Laufer, 1985:78).

Hulstijn and Marchena (1989) questioned the conclusion reached by Dagut and Laufer (1985) and set out to investigate whether PV avoidance was semantic rather than syntactic in nature. Because of the nature of their research, which aimed at rebutting previous research, they used a similar, but not identical research design to that of Dagut and Laufer (1985). The participants

were Dutch L2 learners, divided into six groups, half of which represented an intermediate level of English proficiency (learners who had not yet completed their schooling, but would have had instruction in English for at least five years), and half of which represented an advanced level (first-year university students of English). Their exposure to English makes these students comparable to the average South African L2 student. The participants completed a multiple-choice task based on PVs and their one-word equivalents, a PV memorisation task, and a translation task. PV avoidance was evident once again in the following scenarios: firstly, where the grammatical structure of the mother tongue was completely dissimilar to that of English; secondly, where the grammatical structure of the two languages was so similar that it seemed to create suspicion and prompted an avoidance of direct transfer; and, thirdly, where idiomatic PVs were encountered (Hulstijn & Marchena, 1989:250). Both groups displayed these tendencies, although they were less marked in the case of the advanced students. In basing their research on Dutch students, whose language also features a PV construction, Hulstijn and Marchena (1989:251) were able to demonstrate that PV avoidance is not necessarily linked to unfamiliarity with this grammatical feature, and that such behaviour could have semantic reasons, in addition to the syntactic reasons previously proposed by Dagut and Laufer (1985). Subsequently, Liao and Fukuya (2004:212) have criticised these results because of the fact that the proficiency levels of the participants were not sufficiently taken into consideration when the results were computed.

A further research study that was based on that of Dagut and Laufer (1985) and in response to Hulstijn and Marchena (1989), was the one conducted by Laufer and Eliasson (1993). Again, a similar research design was used in that a multiple-choice and translation test was given to the participants to complete. The participants consisted of 87 Swedish university students at an intermediate level of English proficiency, which suggests a proficiency comparable to that of South African L2 university students. Swedish, like English, has a PV grammatical construction. The overall aims of this study were to investigate whether there was a general pattern of English PV avoidance by the Swedish L2 learners, whether there was a difference in the way the learners treated English PVs that were similar to Swedish PVs compared to those that differed from Swedish PVs, and whether idiomatic English PVs were more noticeably avoided than literal PVs. The investigation included a comparison with the results generated by the Hebrew students in the Dagut and Laufer (1985) study. This inclusion strengthened the validity of the study for two reasons: the two groups were comparable as far as level of proficiency in English was concerned, but differed as far as the presence of PV construction in the mother tongue was concerned. Laufer and Eliasson (1993:48) concluded from the results that "the best predictor for avoidance is L1-L2 difference", and that the other two aspects explored did not meaningfully influence avoidance. Although the researchers added a proviso that the results might differ for L2 learners at lower levels of proficiency, it is clear that they believed "L1-L2 difference" to be true regardless of proficiency level.

A further study into PV avoidance was that of Liao and Fukuya (2004). The 85 participants in their study consisted of English mother-tongue speakers, as well as Chinese L2 learners at an advanced and intermediate level of proficiency. The Chinese language does not have a PV grammatical structure. It is important to note that the L2 participants were students in North America and were therefore in an immersive environment where they were likely to have encountered PV use because of its colloquial nature, a scenario comparable to that of South African L2 students. Again, the study used similar tests to those of Dagut and Laufer (1985), although different PVs were used. Of the fifteen PVs that formed part of the tests, eleven were idiomatic. As idiomatic PVs have previously been found to be more problematic that literal PVs, it is possible that this imbalance in the choice of PVs used in the tests could have affected the results adversely, a fact acknowledged by the researchers themselves (Liao & Fukuya, 2004). The results of this study indicated that PV avoidance is most prevalent among L2 students at lower levels of proficiency and is also more prevalent for idiomatic PVs. The researchers concluded that avoidance can convincingly be linked to a lack of a similar grammatical structure in the mother tongue, but that familiarity with PV use increases as proficiency increases (Liao & Fukuya, 2004:211). Liao and Fukuya (2004:213) further argue that the same conclusions would have been drawn by previous research studies (Dagut & Laufer, 1985; Laufer & Eliasson, 1993) had the proficiency levels of L2 learners been taken into consideration.

4. Problem statement and research aims

While research suggests a connection between L2 PV use and competence in English, there is a lack of research on this topic into the South African situation, especially in the use of a reasonably extensive longitudinal corpus of both L1 and L2 student writing. In fact, employing such a corpus to investigate PV use is rare, as can be seen from the studies referred to in the previous section. Furthermore, this researcher is aware of only one other global study into PV use that made use of a longitudinal corpus (Chen, 2013).

The present article is aimed at providing some clarity in this regard. The aim is primarily to be informative and not to search for the erroneous use of the PV. As evident in the research discussed in the previous section, L2 PV use should be investigated in conjunction with L1 PV use so that meaningful comparisons can be made. Therefore, the PV use in the writing of South African L1 and L2 students will be investigated. The investigation will include a comparison of PV use relative to that of one-word alternative verbs in L1 and L2 writing, so as to obtain a comprehensive picture of PV use.

The research aims of this study are as follows:

- To determine how L1 students use PVs in their writing.
- To determine how L2 students use PVs in their writing.
- To determine whether there is a difference in PV use between L1 and L2 students.
- To determine whether students' use of PVs change during their undergraduate degree.

5. Theoretical framework

The discussion on research into L2 PV use in Section 3 highlighted the problems associated with PV use, which, in turn, affect competence in English. It is postulated that similar patterns of and problems with PV use will be identified in South African L2 writing. This study can therefore primarily be seen as corpus-based, although the corpus-driven aspects of the study must also be acknowledged, in that patterns of PV use apparent in the corpus will inform the study.

Corpus linguistics, which can be defined as "dealing with some set of machine-readable texts which is deemed an appropriate basis on which to study a specific set of research questions" (McEnery & Hardie, 2012:1), was used as the theoretical framework in this study. A corpus of machine-readable texts allows for the use of software tools such as WST which produce concordance lists (for use in qualitative analysis) and frequency lists (for use in quantitative analysis) (McEnery & Hardie, 2012:2).

6. Methodology

Research design

In the present article, quantitative data collection, which deals with the statistical analysis of numbered data (Creswell, 2009:4), will be used to calculate the frequency of use of different PVs. Qualitative data collection, which explores individual meaning (Creswell, 2009:4), in this case by means of inspecting concordance lines, will be used to verify the validity of PVs. Qualitative and quantitative data collection are considered of equal importance in corpus linguistics (McEnery & Hardie, 2012:2). Furthermore, when both approaches are employed, in what is called mixed methods research, the study is strengthened (Creswell, 2009:4).

Development of the corpus

The Wits-Psy corpus, created by Cooper (2016), is a longitudinal corpus consisting of texts produced by Psychology students at the University of the Witwatersrand across a three-year degree. The metadata of the participating students were captured when the corpus was created,

which made it possible for the manipulation of the data to suit the present study. For example, as the focus here is on L2 PV use compared to first-language (L1) PV use, the data needed to be separated into L1 and L2 student groups for the three-year degree. Furthermore, since this study looked at PV usage among L1 and L2 students over this period and not at the PV usage by specific students, the selection of assignments to be examined was not restricted to students who had completed all the required assignments over the course of their three-year degree.

After dividing the data into L1 and L2 for 2011, 2012 and 2013 (the three years of undergraduate study for these participants), the data were tagged for parts of speech using Sketch Engine (Kilgarriff, Rychlý, Smrž & Tugwell, 2004) so that *verb + particle* combinations from which PVs are comprised could be identified. WordSmith Tools 8.0 (WST) (Scott, 2021) was then used to analyse the tagged data by means of concordance and frequency lists.

A profile of the participants

Information about the participants in this study is based on the profiles provided by Cooper (2016) in the creation of the Wits-Psy corpus. These were students at the University of the Witwatersrand (Wits) in Johannesburg who enrolled for psychology for all or part of a three-year course, from 2011 to 2013. Psychology students were selected because of the high number of registrations for this subject, as well as the substantial number of students who continued with the subject until their third year. The likelihood of having an adequate number of participants represented in the corpus was therefore high.

Of the 782 students who registered for psychology in 2011, 208 fulfilled the requirements necessary for inclusion in Cooper's study in that these students submitted a prescribed number of assignments per year, and successfully completed the required three years of study. The metadata and assignments of these students were collected for the corpus, and grouped by academic year. As students had the choice of submitting a certain percentage of the required assignments each year, the number of submissions per assignment varied.

Data collection

The Concord option in the WST program (Scott, 2021) was used to generate a concordance list for the data, grouped according to each research question, using "<VV*>*" as the search word and "<RP>*" as the context word. This combination instructs the program to select all verbs and verb forms (VV*) that are followed by any adverbial particles (RP), even if the verb and particle are separated by other words. The resulting cluster list, which reported high frequency clusters related to the search information (that is, all PVs found in the data – see Table 2), was then saved, along with the concordance list (that is, the actual text sentences where the PVs had been found), which was used to manually check that PVs identified in the cluster list had been identified correctly.

Next, the frequency counts per PV were converted to PV uses per million words (according to the standard used by Biber, Johansson, Leech, Conrad and Finegan [1999] – see Section 5.5.1). For this, a further report generated by WST, which provided the number of words or 'tokens' per file, was used. Table 1 illustrates the total number of tokens for the L1 and L2 data in the corpus.

Table 1: Total number of L1 and L2 file tokens for use in conversion of frequency counts to number of uses per million words

N	Filename	Tokens	Filename	Tokens
1	Wits-Psy - Aug 2011 L1	339 257	Wits-Psy corpus - Aug 2011 L2	248 789
2	Wits-Psy - May 2011 L1	331 634	Wits-Psy - May 2011 L2	216 296
3	Wits-Psy - Sept 2011 L1	357 558	Wits-Psy - Sept 2011 L2	244 065
4	Wits-Psy - Oct 2012 L1	497 228	Research corpus - Oct 2012 L2	289 621
5	Wits-Psy - Aug 2012 L1	489 804	Wits-Psy - Aug 2012 L2	357 230
6	Wits-Psy - March 2012 L1	462 401	Wits-Psy - March 2012 L2	313 069
7	Wits-Psy - May 2012 L1	572 489	Wits-Psy - May 2012 L2	385 020
8	Wits-Psy - April 2013 (3017)[1] L1	183 169	Wits-Psy - April 2013 (3017) L2	88 962
9	Wits-Psy - April 2013 (3018) L1	167 303	Wits-Psy - April 2013 (3018) L2	88 435
10	Wits-Psy - Aug 2013 (3019) L1	97 204	Wits-Psy - Aug 2013 (3019) L2	68 729
11	Wits-Psy - Aug 2013 (3023) L1	160 798	Wits-Psy - Aug 2013 (3023) L2	132 890
12	Wits-Psy - Aug 2013 (3034) L1	226 200	Wits-Psy - Aug 2013 (3034) L2	89 043
13	Wits-Psy - March 2013 (3001) L1	285 583	Wits-Psy - March 2013 (3001) L2	153 411
14	Wits-Psy - March 2013 (3020) L1	72 952	Wits-Psy - March 2013 (3020) L2	99 006
15	Wits-Psy - May 2013 (3015) L1	187 317	Wits-Psy - May 2013 (3015) L2	105 940
16	Wits-Psy - May 2013 (3021) L1	167 406	Wits-Psy - May 2013 (3021) L2	155 997
17	Wits-Psy - Oct 2013 (3013) L1	164 485	Wits-Psy - Oct 2013 (3013) L2	68 930
18	Wits-Psy - Oct 2013 (3022) L1	182 723	Wits-Psy - Oct 2013 (3022) L2	144 097
19	Wits-Psy - Sept 2013 (3016) L1	142 307	Wits-Psy - Sept 2013 (3016) L2	86 861
	Total number of tokens	5 087 818	Total number of tokens	3 336 391

[1] This number is a course code that is used to distinguish the two assignments submitted in April.

Because the aim was to establish the overall patterns that are characteristic of L1 PV use, the L1 data for all three years of the course (2011, 2012 and 2013) were used. Using the number of L1 tokens, total frequency counts were converted to number of uses per million words using the formula:

x*(1000000/y)

where x = total frequency count per L1 PV and y = total number of L1 tokens. For example, for the PV *grow up*, the total frequency count (x) is 339 (see Table 3) and the total number of tokens (y) is 5 087 818 (see Table 1 above). Therefore, the number of uses per million words for the PV *grow up* is:

339*(1000000/5078818) = 66.629 (rounded up to 67).

The same process was repeated for L2 PV use. However, for the sake of space, only the process for L1 PV use is shown in detail. As can be seen in Table 1, the total number of tokens for L2 over the three years was 3 336 391, approximately 2/3 of the L1 tokens.

The cluster and concordance reports were then generated for the one-word alternatives of the ten highest frequency PVs in each case (L1 and L2), in order to establish whether students were more inclined towards the use of PVs in their writing, or towards the use of one-word alternatives. Using the information generated, L2 PV use was then compared to L1 PV use.

Finally, the longitudinal nature of the corpus was used to compare 2011 L2 PV use to 2013 L2 PV use to see whether the patterns of use had changed over that period. This process was repeated for L1 students. The results of the 2013 L2 PV use were then compared to the 2013 L1 PV use to see whether L1 and L2 PV use had become similar over time.

7. Data analysis and findings

Patterns of PV use in South African L1 student writing

The first aspect investigated was the patterns of PV use in South African L1 student writing. The cluster list generated by WST for the L1 data across the three years of study was used to identify frequently used PVs in L1 writing. All irrelevant clusters were deleted from the list. For example, Table 2 shows a sample of the cluster list that was generated by WST from L1 data. Any cluster that does not include a verb (such as *up in, out of, up of* and *up to*) was considered irrelevant and deleted.

Table 2: Sample of cluster list generated from L1 data for 2011-2013

N	Cluster	Freq.	Related
1	UP IN	225	UP IN A (54), GROWING UP IN (52), BROUGHT UP IN (37), UP IN THE (28), GROW UP IN (27), GREW UP IN (23), GROWN UP IN (21), UP IN AN (19), GROWS UP IN (15), BROKEN UP INTO (7), CAUGHT UP IN (7), UP IN SOUTH (5), MOVING UP IN (5)
2	MADE UP	166	MADE UP OF (144), IS MADE UP (98), ARE MADE UP (16), BEING MADE UP (6), MADE UP BY (5), NETWORKS MADE UP (5)
3	OUT OF	156	OUT OF THE (29), OUT OF SCHOOL (16), OUT OF HER (13), KICKED OUT OF (12), ACTING OUT OF (6), OUT OF CONTROL (6), OUT OF THEIR (5), MOVING OUT OF (5), ARISE OUT OF (5)
4	UP OF	154	MADE UP OF (144), UP OF THE (31), UP OF TWO (14), UP OF A (9), UP OF THREE (7), UP OF DIFFERENT (5)
5	UP TO	154	UP TO BE (22), UP TO HER (17), LIVE UP TO (13), GREW UP TO (13), UP TO THE (11), STANDS UP TO (9), GROW UP TO (9), LOOK UP TO (8), OPENS UP TO (7), LIVING UP TO (7), UP TO DATE (6), GROWS UP TO (6), LOOKS UP TO (5), LEADING UP TO (5)
6	OF THE	152	UP OF THE (31), OUT OF THE (29), OF THE BRAIN (6), OUT OF THEIR (5)
7	MADE UP OF	144	MADE UP (166), UP OF (154)
8	CARRIED OUT	136	CARRIED OUT BY (29), BE CARRIED OUT (29), CARRIED OUT IN (22), WAS CARRIED OUT (17), IS CARRIED OUT (10), ARE CARRIED OUT (10), CARRIED OUT TO (10), CARRIED OUT AND (8), STUDY CARRIED OUT (8), BEEN CARRIED OUT (6), BEING CARRIED OUT (5), WERE CARRIED OUT (5), CARRIED OUT ON (5)
9	GROWING UP	135	GROWING UP IN (52), CHILDREN GROWING UP (16), WHILE GROWING UP (13), AS GROWING UP (10), GROWING UP WELL (10), GROWING UP WITH (9), ARE GROWING UP (8), CHILD GROWING UP (8), WHEN GROWING UP (6)
10	TO BE	109	UP TO BE (22), OUT TO BE (14), TO BE CARRIED (12), HAVE TO BE (6), NEEDS TO BE (6)

Secondly, the list was sorted by cluster so that all the variations of the lexical verb in the *verb + particle* combination (for example, *grow up/grows up/growing up/grew up*) could be grouped together to find the total frequency count for the base form of the PV (for example, *grow up*). The list was then "cleaned up" so that only the base form along with the total frequency count for all forms of the PV was retained while the other forms of the PV were deleted, to facilitate further manipulation of the list (such as the sorting that followed). Where doubt existed as to whether a certain phrase was indeed a PV or not, the concordance list, which shows the phrase embedded in its original sentence, was consulted. The resultant list was then resorted according to frequency count, so that the PVs most often used by L1 students became apparent. In order to enable valid comparison across corpora of different sizes, frequency count was converted to the number of uses per million words (see explanation below). The results of this investigation into the 10 PVs most frequently used by L1 students are shown in Table 3.

Table 3: Ten most frequently used PVs in L1 student writing

Phrasal verb	Total frequency count (includes all versions of the base form of the verb)	Use per million words
GROW UP	339	67
MAKE UP	253	50
CARRY OUT	195	38
BRING UP	83	16
ACT OUT	67	13
POINT OUT	62	12
SET OUT	55	11
PICK UP	47	9
GO ON	40	8
PASS DOWN	39	8

Biber *et al*. (1999) indicate PV use of "over 40 times per million words" as noteworthy. The *Longman Spoken and Written English Corpu*s (LSWE) used by Biber *et al.* (1999) consists of 40 026 000 words, substantially more than the 5 600 000 words of the Wits-Psy corpus, which could cast doubt as to the validity of using a similar benchmark. However, LSWE frequency counts are based on the sub-corpora within the LSWE, "normalized to a common basis, per million words of text" (Biber *et al*., 1999:38). These sub-corpora range between 2 480 800 and 6 904 800 words, and are therefore not vastly different from the Wits-Psy corpus, of which the largest sub-corpus has 5 087 818 words. The benchmark of 40 uses per million words is used throughout for the LSWE, irrespective of the difference in size of its sub-corpora. The same benchmark for establishing importance as that used for the LSWE is consequently used in this study.

Accordingly, Table 3 indicates that only the use of the PVs *grow up, make up* and *carry out* as notable. It should be mentioned that the count for the third PV, *carry out,* has been rounded up so that it falls within the "40 times per million words" category. Such rounding up is not without precedent. In their work on the LSWE, Biber *et al*. (1999:39) "report rounded frequencies" because of the variety of factors that have an impact on frequency reporting.

The next seven most frequently used PVs in Table 3 have also been included to afford more information for later discussion. A further eight PVs were also identified as being used in L1 student writing, ranging from five to seven uses per million words, but they were not included in the table because their low use did not seem to warrant inclusion at this stage.

To understand more fully whether PV use was noteworthy, it was contrasted to the use of one-word alternatives for the PVs in the table. *Collins Online English Dictionary* (2021) was used to find the most likely alternative or alternatives for each of the PVs. If no useable alternative was found, the *Merriam-Webster Online* Dictionary (2021) was also consulted. Even then there were occasions where no distinct alternative could be found, such as for the PV *grow up*. The closest possibility was then used (in this case, the verb *mature*), and the concordance list used to check whether the alternative word was being used as an appropriate replacement for the PV in question. Table 4 shows the results of the investigation into the L1 use of one-word alternatives to PVs.

Table 4: L1 one-word alternatives to ten most frequently used PVs

Phrasal verb	PV use per million words	One-word alternative	Total frequency count (includes all versions of the base form of the verb)	One-word alternative use per million words
GROW UP	67	*mature*	84	17
MAKE UP	50	invent	12	2
CARRY OUT	38	perform	954	188
		accomplish	62	12
BRING UP	16	raise	249	49
ACT OUT	13	*demonstrate*	0	0
		illustrate	0	0
POINT OUT	12	indicate	532	105
SET OUT	11	present	108	21
		arrange	35	7
		display	0	0
PICK UP	9	gain	560	110
		grasp	56	11
GO ON	8	continue	540	106
PASS DOWN	8	bequeath	0	0
		leave	289	57
		transfer	137	27
		bestow	11	2
		donate	2	0

The italicised words indicate words that are not necessarily suitable alternatives to the corresponding PVs (as discussed in the previous paragraph), and their uses needed to be checked against the concordance list. For example, while the table includes the number of uses per million words for *mature* as 17, this statistic should be interpreted with caution as the

concordance list indicated its being employed in the sense of "developing character" (as in "as individuals mature, they learn to act out their inherent temperament…") rather than of "spending formative years" (as in "… the environment they've grown up in…"). Even without this proviso, the use of *mature* can be considered negligible because of its low frequency, compared to that of the PV *grow up*.

Similarly, the other italicised words (*demonstrate* and *illustrate*), while present in L1 student writing, were not used in the same sense as the PV *act out*. Representative examples of the use of *act out* in the concordance list suggest that the PV is being used either "to demonstrate or illustrate by pantomime or by words and gestures" (as in "participants will be required to act out difficult, real-life [situations]"), or "to give overt expression to (repressed emotions or impulses) without insightful understanding" (as in "as individuals mature, they learn to act out their inherent temperaments"). No clear one-word synonym exists for these uses of *act out*, *demonstrate* and *illustrate* being the closest.

On the other hand, the concordance list for the one-word alternative verb *demonstrate* shows that the word was not used in either of the meaning senses given above, if one considers representative examples such as "[i]n this essay I will demonstrate how different parts of the brain perform", and "…theory of psychosocial development will demonstrate the effects of violent crime on the child". Likewise, the one-word alternative verb *illustrate* is not used in either of the meaning senses given above. Representative examples are "[t]he purpose of this essay is to illustrate how normal development is at risk…", and "[a]ll of these examples illustrate that Mr Gekko has the final say in decisions…".

A similar situation appears to be true for the PV *pass down*. The following phrases are representative examples of the use of this PV by students: "Violence is unfortunately being passed down through the generations", and "[t]his ideological role is then passed down as natural and normal". As *Collins Online English Dictionary* (2021) does not recognise *pass down* as a PV, *Merriam-Webster Online Dictionary* (2021) was used to find suitable one-word alternatives for this PV. Only one definition is given, namely "to give (something) to a younger person especially within the same family" (*Merriam-Webster Online Dictionary*, 2021). The most suitable one-word synonyms for this definition are *bequeath, leave, transfer, bestow* and *donate*. No concordance list was produced for *bequeath*. Representative examples for *leave* show that the word is used in a different sense to that of *pass down*: "…which will leave the child with expectations…", and "…events in early childhood that leave a mark on an individual as an adult…". Likewise, representative examples in the concordance list for *transfer* suggest that the word is used in a different meaning sense, as can be seen in "…information can be transferred between the two hemispheres…", and "…[t]his area is important in transferring new information into long term memory as well…". The same is true for *bestow*, as the following representative examples show: "…a thing the value or meaning of which is bestowed

upon it by those who use it… ", and "…who endeavour to fulfil the duties bestowed on them, by the position they hold…". Finally, there are only two entries given in the concordance list for *donate*, neither of which suggest that the word is used in the sense suggested above: "…such as orphaned, sperm donated children, adopted children strive to…", and "…would take two hours of her time and donate it to the community every week…".

Consequently, even though two of the one-word alternative verbs to *pass down* (*leave* and *transfer*) appear to be used more frequently than the PV, these words are not, in fact, true synonyms for the PV in this case, and their use is consequently left out of the calculation to compare PV use to one-word alternative verbs. The table indicates six occurrences when one-word alternative verbs (highlighted in grey) were preferred over the ten PVs. Consequently, the use of the one-word alternative verbs was preferred to the corresponding PVs in 60% of cases.

Patterns of PV use in South African L2 student writing

The second aspect that was investigated was the patterns of PV use in South African L2 student writing. The same process was followed here as had been used to identify PV use in L1 student writing (see Section 5.5.1). Again, the 10 PVs most frequently used by L2 students were extracted. The results are given in Table 5.

Table 5: Ten most frequently used PVs in L2 student writing

Phrasal verb	**Total frequency count** (includes all versions of the base form of the verb)	**Use per million words**
GROW UP	302	91
MAKE UP	166	50
CARRY OUT	127	38
END UP	115	34
FIND OUT	58	17
COME UP	53	16
GO ON	44	13
POINT OUT	37	11
PICK UP	29	9
TURN OUT	29	9

Using the measurement of PV use "over 40 times per million words" being noteworthy (Biber et al., 1999), we see that the PVs *grow up*, *make up* and *carry out* (this last if rounded up – see Section 5.5.1) stand out. Again, the next seven most frequently used PVs have also been

included in the table. Further PVs used in L2 student writing that have at least five uses per million words are *bring up, look up, set up, go through, take up, set out, act out, beat up,* and *leave out,* but they are not included here for the sake of space.

The one-word alternatives for the PVs shown in the table above, again using the *Collins Online English Dictionary* (2021) to find the most appropriate alternatives, is shown in Table 6.

Table 6: L2 one-word alternatives to most frequently used PVs

Phrasal verb	PV use per million words	One-word alternative	Total frequency count (includes all versions of the base form of the verb)	One-word alternative use per million words
GROW UP	91	*mature*	25	7
MAKE UP	50	invent	5	1
CARRY OUT	38	execute	18	5
		perform	815	244
END UP	34	arrive	20	6
		land	1	0
FIND OUT	17	determine	402	120
COME UP	16	arise	149	45
GO ON	13	continue	425	127
		persevere	5	1
POINT OUT	11	indicate	250	75
		specify	16	5
PICK UP	9	gain	305	91
		grasp	40	12
TURN OUT	9	become	1046	314

The PV *grow up* again presents us with the problem of a one-word alternative, namely *mature*, that is not a true synonym when its use is checked in the concordance list, and it will therefore be disregarded. In the other cases where the use of the PV seems to have been preferred over

that of the one-word alternative, evidence suggests that L2 students prefer one-word alternatives, except in cases where a one-word alternative is not readily available. The table indicates seven occurrences when one-word alternative verbs (as highlighted in grey) were preferred to the ten PVs. From these results, then, it appears that one-word alternatives are preferred to the corresponding PVs in 70% of cases.

Main differences in the use of phrasal verbs by L1 and L2 students

The third aspect that was investigated in this study was the comparison of PV use in the writings of L1 and L2 students. The information generated by the previous two questions were used. The results are given in the Table 7.

Table 7: Comparison of L1 and L2 PV use in student writing

L1		L2	
Phrasal verb	**PV use per million words**	**Phrasal verb**	**PV use per million words**
GROW UP	67	**GROW UP**	91
MAKE UP	50	**MAKE UP**	50
CARRY OUT	38	**CARRY OUT**	38
BRING UP	16	END UP	34
ACT OUT	13	FIND OUT	17
POINT OUT	12	COME UP	16
SET OUT	11	**GO ON**	13
PICK UP	9	**POINT OUT**	11
GO ON	8	**PICK UP**	9
PASS DOWN	8	TURN OUT	9

The first observation is that the first three most frequently used PVs in student writing are the same for L1 and L2 students. In fact, the use per million words of the PVs *make up* and *carry out* appear to be exactly the same for these two PVs, at 50 and 38 occurrences per million words respectively. These three PVs are the only PVs of which the use is notable. As previous research suggests that L1 and L2 students do not make use of PVs to the same extent, possibly because of avoidance by L2 students of unfamiliar grammatical structures (Dagut & Laufer, 1985;

Hulstijn & Marchena, 1989; Laufer & Eliasson, 1993), this concurrence is somewhat unexpected. An explanation might be that all students doing the course were required to do the same assignments, using the same sources. For example, if an assignment is set on the effects of carrying out positive behaviour, then the PV *carry out* will inevitably occur quite frequently. Nevertheless, further investigation will be required to support this suggestion.

Further similarities between L1 and L2 PV use are apparent from the table. The PVs *point out*, *pick up*, and *go on* appear on the list of the ten most used PVs in both L1 and L2 writing, and show reasonably similar, although not noteworthy, use per million words.

However, there are also differences in PV use between L1 and L2 students. The most frequently used PV by both L1 and L2 students, namely *grow up*, was used 24 times more per million words by L2 students than by L1 students. Furthermore, comparing total PV use by L1 and L2 students suggests that PVs appeared 56 times more often per million words in the L2 writing than in the L1 writing. It would appear from these findings that L2 students are more likely to use PVs in their writing than do L1 students.

Changes in L2 and L1 students' use of PVs during their undergraduate degree

The research question on which this section is based was aimed at determining whether L2 students' use of PVs changed over the course of their undergraduate degree, and whether it became more closely aligned to that of L1 speakers. Previous research in this field suggests that initial L2 PV use would be far lower than that of L1 PV use, but increasing as English language competency improves (Liao & Fukuya, 2004; Siyanova & Schmitt, 2007), and a similar pattern was expected to emerge here.

The data on L2 PV use for 2011 and 2013 (the first and last years of study for the participants) were extracted separately and are presented in Table 8. This was done to determine whether changes had occurred in PV use over the course of the degree. The overall L1 PV use was included in the table in order to see whether L2 PV use had become more aligned with L1 PV use over time.

A similar pattern to that seen in Table 7 is evident in Table 8 below, in that the three most frequently used PVs (albeit not in the same sequence), and the only PVs of which the use is noteworthy, were the same for the duration of the degree for all students, whether L1 or L2. These three PVs are highlighted in the table in medium grey (*grow up, make up*, and *carry out*). The only other PV that showed up in the writing of both L1 and L2 students in 2011 and 2013

was *point out* (highlighted in dark grey). Seven of the ten PVs shown in the table were used in the writing of L1 students for the duration of the degree, compared to six out of ten PVs used in the writing of L2 students, which might suggest the habitual inclusion of certain PVs by each group in its writing.

Table 8: Changes in L2 and L1 students' use of PVs in the course of their undergraduate degree

L2 2011		**L2 2013**		**L1 2011**		**L1 2013**	
Phrasal verb use	**PV use per million words**	**Phrasal verb use**	**PV use per million words**	**Phrasal verb use**	**PV use per million words**	**Phrasal verb use**	**PV use per million words**
GROW UP	151	CARRY OUT	59	GROW UP	102	CARRY OUT	54
MAKE UP	52	GROW UP	26	MAKE UP	62	MAKE UP	39
CARRY OUT	28	MAKE UP	26	CARRY OUT	41	GROW UP	37
COME UP	27	END UP	25	BRING UP	25	SET OUT	16
END UP	20	FIND OUT	15	FIND OUT	13	PASS DOWN	16
FIND OUT	18	SET UP	15	ACT OUT	10	TAKE UP	14
BRING UP	13	GO ON	12	SET OUT	10	ACT OUT	13
BEAT UP	7	POINT OUT	11	POINT OUT	7	PLAY OUT	11
SUM UP	7	ACT OUT	9	COME UP	6	BRING UP	10
POINT OUT	7	SET OUT	9	COME OUT	6	POINT OUT	9
Totals	**330**		**207**		**282**		**219**

An interesting pattern emerges when the differences in use are investigated (see Figure 1). The first-year L2 student writing shows the highest use of the three most noteworthy PVs (231 occurrences per million words), followed by first-year L1 student writing (205 occurrences per million words), third-year L1 student writing (130 occurrences per million words), and L2 third-year student writing (111 occurrences per million words).

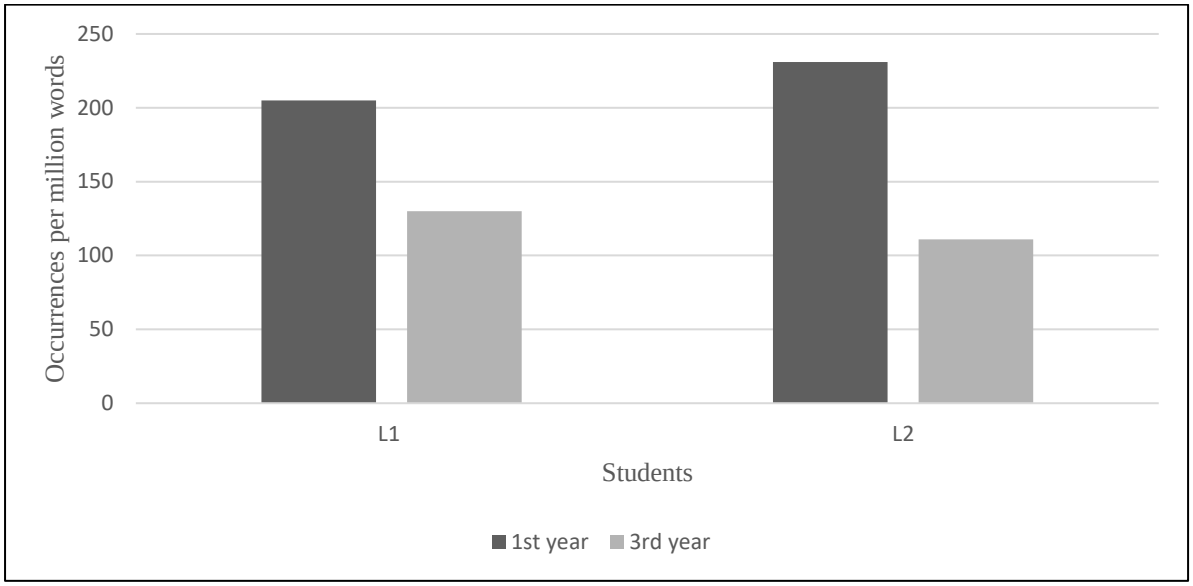

Figure 1: Comparison of first- and third year L1 and L2 student PV use

A similar pattern is evident when the use of all ten PVs in Table 8, per group, is totalled. It is clear that PV use is noticeably higher for L2 students in their first year of study than for L1 first-year students, using 48 more PVs per million words. After that year, their PV use is markedly scaled back. By the third year of study, L2 students used 123 fewer PVs per million words than they did in their first year, and 12 fewer PVs than the third-year L1 students. While 12 fewer PVs per million words is not a large margin, it is nevertheless notable in that it underscores the decrease in PV use by L2 students during the course of the degree. The L2 students go from being the group with the highest PV use in the first year of study, to the group that has the lowest PV use in the third year of study.

There are few longitudinal studies of PV use, and it is therefore not possible to assess whether the results discussed above indicate a general trend. A quantitative study done by Chen (2013), also using a longitudinal learner corpus, showed that L2 PV use dropped considerably in the second year of study. By the third year of study, PV use had returned to the first-year level. While these results are not entirely similar to those recorded in this study, they do indicate a similarity in that the expected increase in PV use did not materialise.

Chen (2013:97-98) suggest three possible reasons for this. Firstly, it might be that improved English proficiency did not necessarily equate to improved PV proficiency, due to the problematic nature of PVs. Secondly, overexposure to PV use in the classroom might have put learners off, either because of overuse, or of a greater awareness of their complexity. Thirdly, learners might have become conscious of the informal nature of PVs, and learned to avoid their use.

8. Conclusion

The results will be discussed in two parts. In the first instance, it appears that L2 students prefer the use of one-word alternatives to the use of PVs, as was expected. However, a similar preference by L1 students for the use of one-word alternatives seems to contradict previous findings (Dagut & Laufer, 1985; Laufer & Eliasson, 1993; Liao & Fukuya, 2004). As avoidance of an unfamiliar grammatical structure has been suggested for the preference of one-word alternatives to PVs (Dagut & Laufer, 1985; Liao & Fukuya, 2004), it is not quite clear why the L1 students in this study should show the same preference. Furthermore, the presence or absence of a PV construction in the various mother tongue languages represented by the L2 students was not investigated in this study, and therefore the influence of the L1 on the L2 cannot be determined.

In the second instance, the pattern of PV use by L2 students compared to that of L1 students differs from that reported in previous research (Chen, 2013; Liao & Fukuya, 2004). Here, rather than becoming adept at and increasing their use of PVs over the course of an academic career, as was seen in, for example, Liao and Fukuya (2004:211), the first-year L2 students in this study appear to use PVs to a markedly greater degree than they do in their third year of study, and also more than do L1 students. A possible reason for this is that L2 students might be using an informal register at the start of their studies (the PV being prevalent in colloquial and informal writing) and learn to use a more formal register as they progress. This issue might also be a valuable research topic for future research.

9. Limitations of the study

The complications involved in identifying serviceable one-word alternative verbs for PVs illustrate that such semantic pairing necessarily involves a high degree of inference, and that it is by no means an exact science. For this reason, the proposed alternatives should be regarded with some caution as they are, at best, approximate synonyms and so do not function as exact synonyms.

A second limitation is that, even though a substantial corpus was used in this study as far as size is concerned, it was restricted to undergraduate students from a single university and a single discipline. The results recorded here are therefore of limited value if they cannot be replicated in a study that investigates a wider variety of participants and universities.

Finally, as stated previously, the primary focus of this research was to provide information about South African L2 undergraduate PV use rather than to report incorrect PV use. Nevertheless, useful insight could be provided if the concordance lines were examined for such cases, as further strategies for coping with the PV might be highlighted in this way.

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