

A Comparative Corpus-based Study on the Use of Phrasal Verbs by Turkish EFL Learners and L1 English Speakers

Nebahat Badem*, Tuğba Şimşek

Adana Alparslan Türkeş Science and Technology University, School of Foreign Languages, 01250 Sarıçam, Adana, Turkey

Corresponding Author: Nebahat Badem, E-mail: nebahatbadem@gmail.com

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ABSTRACT

This quantitative study aims to reveal the most frequently used phrasal verbs (PVs) by L1 speakers of English and Turkish EFL learners in written and spoken registers. With the purpose of spotting any overuse and/or underuse by Turkish EFL learners, it compares their usage to L1 English speakers' through four corpora – two learner corpora and two native corpora. Additionally, the study investigates the most frequent adverbial verb particles (AVPs) and lexical verbs (LVs) in phrasal constructions comparing learners and native speakers. The results show that although LV types differ to a large extent, Turkish EFL learners display a similar profile to L1 English speakers in terms of types of PVs and AVPs. However, these verbs and particles are significantly underused, especially in spoken register – a result that contradicts previous research. Specifically, within the scope of this study, regardless of the register Turkish learners tend to favour few AVPs out of the mostly used ten while leaving out the others. The findings might be of use to EFL teachers regarding raising their students' awareness on the contextual use of PVs in different registers with a combination of both implicit and explicit teaching in mind. In addition, learners can benefit from the ready-made PV lists to enhance their prospective usage in meaningful contexts.

INTRODUCTION

Several researchers highlighted the importance of multiword knowledge in the development of native like fluency (Godwin-Jones, 2018; Moon, 1997; Schmitt, 2004; Wray, 2002). Gardner & Davies (2007) suggest that learning multiword structures such as idioms, phrasal verbs, and collocational phrases is essential to English, and using these units, which are very common and highly productive, adds “a definite richness to the language” (p. 339). However, teaching and learning of these multiword units has always been problematic due to methodological issues and the assessment techniques (Chen, 2013; Read, 2000). Learners might feel under pressure or challenged due to the quantity of PVs, their multiple meanings, and complicated syntactic structures (Lee, 2015). Riguel (2014) suggests that the constraints emerging due to L1's linguistic characteristics are another difficulty to learn these semantically and syntactically complex units. As these multiword units pose a challenge for the learners, they might tend to avoid these structures in their language output; interestingly even learners whose L1 possesses PV structures frequently show avoidance (Gardner & Davies, 2007).

In light of the findings from research, it can be deduced that PVs are commonly used by native speakers of the English language. However, deciding on the most frequently used PVs by native speakers and teaching these to EFL learners has been challenging for language teachers as they mostly rely on their intuition instead of frequency-based research results (Darwin & Gray, 2000). Therefore, it bears utmost significance that their instruction for language learners in classrooms should be informed by authentic language to reflect their use in context. For that reason, there is a need for corpus-based studies which investigate the authentic usages of phrasal verbs in different registers (Lee, 2015) and identify the avoidance, underuse, and/or overuse behaviours of language learners from different L1 backgrounds as each group's behaviours and needs are different. Results of these studies and frequency lists of PVs emerging from them could be enlightening resources for preparing language teaching materials and valuable guides for language teachers.

Therefore, the aim of this study is twofold: (1) to identify the most frequently used phrasal verbs by native speakers of English and Turkish EFL learners and reveal any possi-

ble overuse and/or underuse, (2) to compare the frequency results of the AVPs and LVs as well as their usage to find whether the most frequently used phrasal verbs in these EFL learners' interlanguage are parallel with those by native speakers of English in written and spoken registers. This study seeks answers to the following research questions:

1. To what extent do Turkish EFL learners use AVPs in written and spoken registers compared to English native speakers?
2. What are the most common AVPs in phrasal verb constructions in native and non-native written and spoken corpora?
3. Does the number of lexical verb types in phrasal verb constructions of Turkish EFL learners and native speakers differ in written and spoken registers?
4. What are the most common lexical verbs in phrasal verb constructions in native and non-native written and spoken corpora?
5. To what extent does the usage of phrasal verbs differ in written and spoken registers in native and non-native English?

LITERATURE REVIEW

Phrasal Verbs

Biber et al. defined phrasal verbs as "... multi-word units consisting of a verb followed by an adverbial verb particle (e.g. *carry out*, *find out*, or *pick up*)" (1999: 403). All of these AVPs hold core spatial or locative meanings; yet, they might also carry extended meanings (Biber et al., 1999). Four major kinds of multi-word combinations suggested by Biber et al. (1999: 403) are as follows:

- verb + adverbial particle: phrasal verbs, e.g. *pick up*
- verb + preposition: prepositional verbs, e.g. *look at*
- verb + particle + preposition: phrasal-prepositional verbs, e.g. *get away with*
- other multi-word verb constructions, notably: verb + noun phrase (+ preposition), e.g. *take a look (at)*; verb + prepositional phrase, e.g. *take into account*; verb + verb, e.g. *make do*.

In addition to this definition and categorization by Biber et al. (1999), phrasal verbs have been defined and categorized by many researchers in various ways. This variety of definitions and categorizations arises from different approaches to these multiword units. While some of these phrases are considered as prepositional phrases by some researchers, other researchers may consider them as phrasal verbs. Furthermore, the nature of these multiword units in terms of having literal and figurative meanings leads to disagreement among researchers. The fact that even researchers lack a consensus on this issue could be an explanation for the difficulties language learners commonly experience in their learning processes.

One of the possible reasons as to why learners find these multiword units daunting could be their semantic nature in terms of having literal or figurative meanings (Chévez Herra, 2013; Karakuş, 2017; Yıldız, 2016). Another possible reason could also be that the use of these units differs from

one genre to another as they are used more in fiction and spoken register (Biber et al., 1999; Liu, 2011) compared to written register and academic prose in particular. Yet another reason why these multiword units are challenging could be differing usages and frequencies among varieties of English. For example, one study conducted with this aim of revealing the variety differences between American and British English shows that American English has a higher frequency of usage of PVs compared to British English (Liu, 2011). Besides, Liu (2011) also concluded not only frequency differences but also usage differences arise between two varieties. This difference, for instance, could also confuse learners in deciding on which variety to learn without clear, specific, and professional guidance.

Phrasal Verbs in EFL Context

Above mentioned difficulties lead learners to certain behaviours such as overusing, underusing, and/or avoiding these structures all together. Many researchers explored such behaviours of English learners from various L1 backgrounds with multiple factors such as proficiency levels and existence of PVs in the languages in hand.

Given these problems, several researchers aimed to provide learners, teachers, and material developers with corpus-informed frequency based phrasal verb lists to present the most common PVs used by L1 speakers of English. One of the leading studies was conducted by Gardner & Davies (2007) in the field using BNC to elicit top 100 phrasal verbs in English. This guiding list by Gardner & Davies (2007) was resorted to by many researchers in their studies. Building on Gardner & Davies (2007), Liu & Myers (2018) created another list of phrasal verbs in English using COCA with a specific reference to cross register difference between spoken and academic written language and how meanings of PVs change depending on the register. Taking a cognitive perspective, Spring (2018) also presented a list of PV particles and meanings claiming that this list presents 95% of most used PV meanings. Despite these illuminating lists with various foci, the potential problems have remained.

Waibel (2007) studied PVs in written register comparing German and Italian advanced EFL learners' usages to each other and these usages to American native speakers'. The results showed German learners used even more PVs compared to native speakers while Italians used considerably fewer PVs than native speakers. A possible explanation for this result was that in contrast to German, Italian does not have an equivalent structure for PVs. Therefore, Italian EFL learners presented an underuse profile. Nevertheless, despite Italian learners' underuse of phrasal verbs, their written production was lexically no less diverse regarding PVs than German EFL learners'.

Despite the common assumption that learners whose L1 does not have PV constructions underuse or avoid these multiword units, there are also studies showing that learners whose mother tongue possesses PVs might also avoid these semantically and syntactically challenging language units. Hulstijn & Marchena (1989) revealed Dutch EFL learners avoid PVs not for structural but for semantic reasons as

they think that these phrases are too “Dutch-like” (p. 241) considering the lack of contrast between their L1 and the target language.

Riguel (2014) conducted a corpus-based study to compare L1 French EFL learners’ PV usages in writing to their native counterparts. The results showed that there was an underuse of PVs by French EFL learners and they preferred the single word equivalents. The researcher attributed this result to the lack of a similar linguistic feature between L1 and the target language as French does not possess PV constructions. This result is parallel to Dagut & Laufer (1985) who concluded that Hebrew EFL learners showed avoidance of PVs as Hebrew does not have PV constructions. Another study in French EFL learner context is Gilquin (2015) who investigated written and spoken registers and concluded that native speakers use more PVs in spoken than in written register while French EFL learners have the opposite pattern. Moreover, they displayed an underuse of PVs in both spoken and written production. French EFL learners’ most common particles were *on*, *back*, *out*, and *up* (Gilquin, 2015: 73) and the verbs were *go*, *come*, *bring*, and *take* (2015: 75).

Ryoo’s (2013) research on Korean EFL learners’ PV uses in written register revealed that although there is an overall underuse of PVs by Korean learners, top 4 most frequent AVPs (e.g. *up* and *out*) and verbs (e.g. *go* and *come*) were identical to the ones used by native speakers. Comparing their findings to the list created by Gardner & Davies (2007), they revealed that more than half of the 20 verbs used in PV constructions were the same as native speakers of English.

Focusing on proficiency level, Chen (2013) investigated Chinese university students’ use of PVs compared to their British and American counterparts. The results of the study revealed that L1 Chinese EFL learners’ use of PVs did not differ significantly from their native novice counterparts although an underuse exists compared to American university students. It was also noted that the learners did not tend to avoid using PVs in their actual writing, although the Chinese language did not possess phrasal verbs. She claims that not the L1 background of the learners but other factors such as language proficiency level might affect avoidance, overuse or underuse.

PVs might also be difficult especially for L1 speakers of verb-framed languages such as Portuguese, Spanish, and Italian (Fadanelli, 2012) as English is a satellite-framed language. Fadanelli (2012) conducted a study to investigate Brazilian EFL learners’ PV usage to determine whether they used similar PVs to native speakers of English at a similar rate. The findings revealed that Brazilian EFL learners showed a significant level of avoidance; moreover, numerous PVs used by Brazilian learners did not appear among the most common PVs used by L1 English speakers. The researcher suggested that contrasting linguistic characteristics of learners’ L1 to target language, in that case being a verb-framed language, might be an underlying reason for avoidance.

Phrasal Verbs in Turkish Context

Usage-based studies exploring PV usages of Turkish EFL learners and their overuse – underuse and avoidance are

considerably few in number. Three such studies focusing on avoidance and some other studies with different methodologies are presented.

Yıldız (2016) compared the use of PVs by Turkish (B1-B2 levels) and Norwegian (B2 level) EFL learners and native speakers of English to find out whether there is an avoidance tendency in using these structures. The findings showed Turkish EFL learners avoid using PVs as a whole and they avoid those with a figurative meaning even more. In contrast, Norwegian EFL learners do not avoid PVs in general; however, they avoid those with a literal meaning. With a reference to the proficiency levels of the learners as well as the existence of these multiword unit structures in their L1, he elaborates that Turkish EFL learners with B2 level English use figurative PVs more frequently than Turkish EFL learners with B1 level English, which shows that proficiency level has an effect on the avoidance of PVs. Furthermore, that Turkish does not have this structure and Norwegian does seem to affect the overall results of the study. A similar result regarding the avoidance of figurative PVs emerged in Chévez Herra (2013) that the participants favoured literal PVs instead of figurative ones.

Karakuş (2017) studied preferences of Turkish EFL learners in using PVs or synonymous one-word verbs. Similar to Yıldız (2016) and Chévez Herra (2013), figurative PVs were avoided more than literal phrasal verbs probably due to their semantic complexity. Task type was found to have affected the preferences of learners since one-word verbs appeared more frequently in the translation task in this study. Akbulut (2018) also investigated the avoidance behaviour of Turkish EFL learners in using multi-word verbs. She concluded that avoidance of multi-word verbs increases as English proficiency level gets lower.

Apart from these three, there are also other studies with different foci utilizing various methodologies. Taking a cognitive perspective, Karahan (2015) investigated whether awareness-raising about PVs contributes to Turkish EFL learners’ learning process. Employing an experimental design, she implemented a one-session treatment with the learners. In the end, the results were inconclusive since the experiment group slightly outperformed the control group with a statistically non-significant difference. Another study compared phrasal verbs in four upper-intermediate level English course books used in Turkey to COCA and BNC (Kartal, 2018). The results revealed the books differed greatly in their selections of PVs. It was implied a few of the PVs in the books were extremely rare in COCA and BNC. With a different purpose, Girgin (2019) aimed to understand Turkish EFL student teachers’ perceptions towards the use of corpus-informed materials in their phrasal-prepositional verb learning. He also sought gender-based similarities and differences. The results showed positive perceptions towards corpus-informed materials, especially by female learners. Finally, there is also a study claiming that Turkish possesses PV structures (Özgen & Koşaner, 2015). Yet, the examples provided are very few in number and they are also used in a restricted sense. Therefore, it can be concluded that the Turkish language lacks PV structures.

Literature review for studies in Turkish EFL context reveals a need for a systematic and comprehensive investigation of a corpus-based analysis of the usages of PVs in written and spoken registers. Even though there are some studies on PVs with various methodologies, to the best knowledge of the researchers, there is no such study conducted in this context. Therefore, this study is significant in terms of revealing an overall and characteristic profile of PV usage by Turkish EFL learners and L1 speakers of English in written and spoken registers in a comparative fashion.

METHODOLOGY

Four corpora were employed to extract the PV usages by Turkish EFL learners and L1 English speakers in written and spoken registers for comparison purposes. In order to sustain reliability of the study, the need to utilize comparable corpora was considered. Therefore, for written register, a sub-corpus of ICLE (International Corpus of Learner English), TICLE (Turkish International Corpus of Learner English) and LOCNESS (The Louvain Corpus of Native English Essays) were chosen. For spoken register, a sub-corpus of LINDSEI (The Louvain International Database of Spoken English), LINDSEI-TR (the Turkish component of LINDSEI) and LOCNEC (The Louvain Corpus of Native English Conversation) were selected.

TICLE was compiled of argumentative essays written by Turkish university students. It consists of 280 essays. The learners' proficiency levels are upper intermediate and advanced. The average length of the essays is 712 words and the topics covered in these essays are parallel to those in ICLE (Can, 2010).

LOCNESS originally contains argumentative essays and literary-mixed essays written by American university students and argumentative and literary essays written by British university students, and British A-level argumentative essays. The length of the essays is about 500 words, which lines with that of ICLE. It should be noted that three subsections of LOCNESS were excluded from the corpus, for they were literary-mixed essays which were not relevant to the study.

LINDSEI-TR was compiled as a comparable spoken learner corpus to LOCNEC for the purpose of conducting contrastive interlanguage analysis. It consists of 58 interviews of similar length. The interviewees were Turkish university students with an advanced proficiency level of English (Kilimci, 2014).

LOCNEC was specifically designed to be a reference corpus for LINDSEI. The 50 interviews were held with British English speakers who were studying at Lancaster University at the time (De Cock, 2004).

The sizes of the four corpora are in Figure 1:

Three tools were utilized for data analysis. Firstly, frequencies of AVPs were elicited via Sketchengine (Kilgarriff et al., 2004: 105-116) (www.sketchengine.com). The elicited AVPs were double checked using Longman Phrasal Verbs Dictionary as a reference guide to decide which structures are considered as PVs. The statistical significance of the results was examined with loglikelihood calculator.

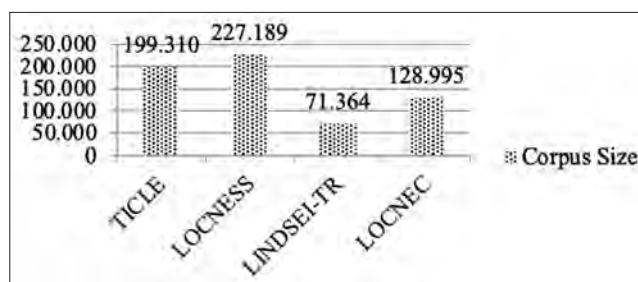


Figure 1. The sizes of the corpora

The data analysis steps are as follows: first, via Sketchengine (Kilgarriff et al., 2004: 105-116), lexical verbs followed by an AVP within seven words were searched in the four corpora to reveal their frequencies. The structures that were searched for were decided in accordance with the classification by Biber et al. (1999). Out of Biber et al.'s classification, two constructions such as "verb + adverbial particle: phrasal verbs, e.g. *pick up*" and "verb + particle + preposition: phrasal-prepositional verbs, e.g. *get away with*" were selected for this study (Biber et al., 1999: 403). We called both structures as AVPs. Therefore, this single label is operational for both "verb + adverbial particle" and "verb + particle + preposition" as the analysis is also conducted without separating these two sub-categories. As for word range, Ryoo (2013) set her search criteria to two intervening words at this step of the analysis. As the rationale, she explained that their analyses revealed almost no instance of PVs with longer separations. Also, she referred to Gardner & Davies (2007) stating that the PV construction with more than two intervening words would result in false instances of PVs. Yet, in this study, instances of PVs were found even at this range of seven words. In addition, all AVPs were manually checked through concordance lines in the four corpora to eliminate erroneous usages. The PVs that were not agreed on were looked up in the Longman Phrasal Verbs Dictionary. Those which were not in this reference dictionary were excluded from the data. This process of manual check, which was the second step of the data analysis, was also encountered in some other studies such as Chen (2013) and Gilquin (2015). As the final step, all the calculations were comparatively analysed using the loglikelihood calculator to see differences between native and non-native corpora across two registers.

FINDINGS

The Use of Adverbial Verb Particles

The results of the analyses that were conducted to answer the first two research questions are presented in this section. Table 1 presents the results for Turkish EFL learners' use of AVPs in written and spoken registers. Table 2 presents the equivalent results for native speakers. Both tables reveal total frequencies of particles (as prepositions or AVPs) in each corpus and how productively they are used in PV constructions as AVPs.

Top 10 AVPs in PV constructions in both corpora are presented. The most common two out of these ten AVPs in both

Table 1. Frequencies of AVPs in TICLE and LINDSEI-TR

TICLE				LINDSEI-TR			
Particle	Total freq.	As AVP	% As AVP	Particle	Total freq.	As AVP	% As AVP
up	216	134	62.03	out	36	22	61.11
out	143	103	72.02	up	85	12	14.11
on	955	18	1.88	down	17	9	52.94
down	22	11	50	along	11	7	63.63
up with	10	10	100	off	5	3	60
across	20	9	45	on	156	3	1.92
along	17	6	35.29	around	42	2	4.76
over	86	5	5.81	over	16	2	12.50
away	44	4	9.09	in	1112	1	0.08
off	12	3	25	up with	1	1	100
Total	1525	303	19.86	Total	1481	62	4.18

Table 2. Frequencies of AVPs in LOCNESS and LOCNEC

LOCNESS				LOCNEC			
Particle	Total freq.	As AVP	% As AVP	Particle	Total freq.	As AVP	% As AVP
out	391	258	65.98	out	305	194	63.60
up	354	256	72.31	up	318	187	58.80
down	126	73	57.93	off	133	75	56.39
off	87	61	70.11	down	127	51	40.15
on	1337	31	2.31	on	610	24	3.93
away	109	20	18.34	over	122	17	13.93
over	269	18	6.69	around	72	11	15.27
upon	79	14	17.72	in	1614	11	0.68
around	114	13	11.40	away	88	7	7.95
through	12	10	83.33	through	75		9.33
up with	13	10	76.92				
Total	2891	764	26.42	Total	3464	584	16.85

registers are *up* and *out*. The remaining AVP types show similarities between the two corpora even though their frequencies differ. In the written corpus TICLE, *across* and *away* are used in PVs although they do not exist in the spoken corpus LINDSEI-TR. Similarly, *around* and *in* are found in PVs in LINDSEI-TR while they do not present themselves in TICLE. A striking result is that the percentages of particles as AVPs in two registers differ greatly from one another, which was an unexpected result. While 19.86% of the particles are used in PVs in TICLE, only 4.18% of them are used in LINDSEI-TR. One surprising result is that the particle *up with* is solely used as an AVP in PVs as shown in Table 1. All 10 usages of the particle in TICLE are found in PV constructions and the only use of the same particle in LINDSEI-TR also presents itself in a PV construction.

Top 11 AVPs in LOCNESS and top 10 AVPs in LOCNEC in phrasal verb constructions are presented. The reason why there is 11 AVPs for LOCNESS is because the frequency of the particles *through* and *up with* were equal (n = 10). The most common 5 AVPs in both registers are *out*, *up*, *down*, *off*, and *on*. The rest of AVP types are significantly similar between the two corpora even though their frequencies dif-

fer. In the written corpus LOCNESS, *upon* and *up with* are used in PVs although they do not exist in the spoken corpus LOCNEC. Similarly, *in* is found in PVs in LOCNEC with a very low percentage as an AVP (0.68%) while it does not present itself in LOCNESS. Overall, while 26.42% of the particles are used in PVs in LOCNESS, 16.85% of them are used in LOCNEC. One noteworthy result is that even though the particle *through* is used as a particle in both corpora, the usages in LOCNESS are almost entirely in phrasal verb constructions (83.33%) while they are very few in number in LOCNEC as AVPs in phrasal verb constructions (9.33%).

Lexical Verb Types

The analysis results for the third research question are presented in this part. Table 3 displays the raw and relative frequency results for lexical verbs in each corpus for both written and spoken registers.

Table 3 shows the absolute and normalized frequency (per 10,000 words) results for the four corpora since the sizes of the corpora differed from one another greatly. Nevertheless, the results seem to be relatively in line with the

Table 3. Frequencies of total lexical verb types in phrasal verbs and phrasal verbs in LOCNESS, LOCNEC, TICLE, and LINDSEI-TR

Corpus	LV Types in PVs	Normalized Frequency Per 10,000	Total Frequency of PVs	Normalized Frequency Per 10,000	Corpus Size
LOCNESS	184	8.09	786	34.59	227,189
LOCNEC	114	8.83	594	46.04	128,995
TICLE	74	3.71	308	15.45	199,310
LINDSEI-TR	20	2.80	62	8.68	71,364

sizes of the corpora. These figures suggest that compared to native corpora, learner corpora have less productive usages of LVs in PV constructions. Similarly, learners use fewer PV constructions. Another interpretation could be that native speakers of English use more lexical verb types in their PV constructions in spoken register than they do in written register while Turkish EFL learners use more lexical verb types in their PV constructions in written register than they do in spoken register, which presents an overall contrasting usage between these two groups.

The Use of Lexical Verbs

The analysis results for the fourth research question are presented in this section. Tables 4 – 7 present the results for both English native speakers and Turkish EFL learners' use of lexical verbs in written and spoken registers. All tables display top 20 lexical verbs in PV constructions and the AVPs that are used to form these constructions. Table 4 and Table 5 present the results for native speakers while Table 6 and Table 7 give the equivalent results of the learner group.

L1 English speakers use verbs such as *go*, *take*, *bring*, and *carry* as the most common lexical verbs in PV forms in their written language. The most frequent particles used to construct phrasal verbs in this corpus are *up*, *out*, *down*, and *off*.

L1 English speakers use verbs such as *go*, *come*, *get*, and *take* as the most common LVs in PV forms in their spoken language. The most frequent particles used to form PVs in this particular corpus are *out*, *up*, *off*, and *down*.

One common result from these two tables is that the most frequent particles used to construct PVs are the same in both registers with a different order regarding their frequencies. Another similarity in between the two registers is that the lexical verbs *go* and *take* are both used as the two of the most productively used LVs in phrasal verb forms. Additionally, while the verbs *come* and *get* are also frequently used in written register, the other two of the most common LVs *bring* and *carry* are not found among the top 20 lexical verbs in PV constructions in spoken register.

Turkish EFL learners use verbs such as *go*, *grow*, *give*, *bring*, and *come* as the most common LVs in PV forms in their written language. The most frequent particles used to construct PVs in this specific corpus are *up* and *out*, which is a striking result since the frequencies of other AVPs are quite low ranging from 1 to 12 the most.

Turkish EFL learners use verbs such as *go* and *get* as the most common lexical verbs in PV forms in their spoken language. The most frequent particles used to construct PVs in this corpus are *out* and *up*.

When the results from written and spoken registers are compared, it is seen that the most frequent particles used to construct PVs are the same in both TICLE and LINDSEI-TR while the order of the AVPs is different in the two corpora. One significant result from the analysis of PV constructions in TICLE is that the particles *up* and *out* are used excessively as they constitute 62.33% of all the AVP usages in PV constructions. It might be an indicator of an overuse of these particles as the frequencies of the others are considerably low. Moreover, in written and spoken registers *go* is the most common lexical verb used in PVs.

When the four corpora are compared, it is found that the most common lexical verb used in PVs is *go*. Furthermore, *out* and *up* are the most common AVPs in PV constructions in the four corpora. The number of the AVP types is found to be the same for written and spoken registers of Turkish EFL learners, which is 10 while L1 English speakers use 13 AVP types in their spoken register and 16 AVP types in their written register. The results indicate that L1 English speakers use more AVP types in both registers than Turkish EFL learners do. One unexpected result from Table 6 and Table 7 is that the AVP types in written register by native speakers outnumbered those in their spoken register.

When registers in particular between two groups are compared, the results for the written register show that out of top 20 LVs functioning in PV constructions, 15 are the same despite their distinctive frequencies. The results for the spoken registers of both groups showed a similar pattern. Out of top 20 lexical verbs functioning in PV constructions, 11 are the same with their distinctive frequencies. This result implies that Turkish EFL learners tend to use similar LVs in their PV constructions to those of L1 English speakers.

The same comparison for AVPs in between two groups shows that for written register, there are 10 AVPs in TICLE and 16 AVPs in LOCNESS used with the top 20 lexical verbs in PV constructions. Out of these, 9 are the same with distinctive frequencies. The spoken register results reveal 10 AVPs in LINDSEI-TR and 13 AVPs in LOCNEC that are used with the top 20 lexical verbs in PVs. All 10 AVPs that are used in LINDSEI-TR are also used in LOCNEC as the most common AVPs in PV constructions. In line with lexical verb types, the AVPs used by both groups in both registers throughout the four corpora are remarkably similar.

Table 4. Verb-particle frequencies of top 20 lexical verbs functioning in phrasal verb forms in LOCNESS

Verb	out	up	off	on	down	apart	upon	along	around	over	aside	up with	in	through	away	down on	Total
go	13	1	4	13	7	0	0	2	1	0	0	0	0	7	0	0	48
take	8	7	4	0	1	0	0	0	0	7	0	0	0	0	13	0	40
bring	6	27	0	0	2	0	0	0	0	0	0	0	0	0	0	0	35
carry	30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	31
come	4	6	2	0	6	0	0	2	1	0	0	7	0	0	0	0	28
grow	1	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
make	4	16	3	0	0	0	0	0	0	0	0	0	0	0	0	0	23
end	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
get	11	3	3	0	0	0	0	0	1	1	0	0	0	2	0	0	21
give	2	17	0	0	0	0	0	0	0	0	0	0	0	0	1	0	20
look	0	3	0	0	0	0	8	0	2	1	0	0	0	0	0	5	19
point	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
set	5	11	0	0	1	0	0	0	0	0	2	0	0	0	0	0	19
find	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
turn	5	1	5	1	0	0	0	0	1	2	0	0	0	0	0	0	15
break	1	0	0	0	12	1	0	0	0	0	0	0	0	0	0	0	14
pick	3	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
cut	0	1	4	0	7	0	0	0	0	0	0	0	0	0	0	0	12
put	2	1	1	2	2	0	0	0	0	0	0	1	1	0	0	0	10
run	5	2	1	0	1	0	0	0	0	1	0	0	0	0	0	0	10
Total	136	154	27	16	39	1	8	4	6	13	2	8	1	9	14	5	443
% of PV	17.30	19.59	3.43	2.03	4.96	0.12	1.01	0.50	0.76	1.65	0.25	1.01	0.12	1.14	1.78	0.63	56.36

Table 5. Verb-particle frequencies of top 20 lexical verbs functioning in phrasal verb forms in LOCNEC

Verb	out	up	off	on	down	along	around	over	up with	in	through	away	across	Total
go	48	11	10	7	13	3	3	6	0	1	2	0	0	104
come	21	17	1	1	4	1	0	6	0	2	2	0	3	58
get	19	21	5	3	2	0	0	0	0	0	0	4	0	54
take	16	1	2	3	3	0	0	0	0	1	0	0	0	26
pick	3	18	0	0	0	0	0	0	0	0	0	0	0	21
end	0	14	0	0	0	0	0	0	0	0	0	0	0	14
set	0	7	3	0	0	0	0	0	0	1	0	0	0	11
show	0	0	11	0	0	0	0	0	0	0	0	0	0	11
sit	0	1	0	0	10	0	0	0	0	0	0	0	0	11
stand	2	9	0	0	0	0	0	0	0	0	0	0	0	11
start	0	1	10	0	0	0	0	0	0	0	0	0	0	11
stay	3	3	0	3	0	0	0	2	0	0	0	0	0	11
work	11	0	0	0	0	0	0	0	0	0	0	0	0	11
find	9	0	0	0	0	0	0	0	0	0	0	0	0	9
make	2	7	0	0	0	0	0	0	0	0	0	0	0	9
walk	6	0	1	0	0	0	0	0	0	0	2	0	0	9
move	4	1	0	2	0	0	0	0	0	0	0	1	0	8
turn	5	0	1	0	2	0	0	0	0	0	0	0	0	8
wake	0	8	0	0	0	0	0	0	0	0	0	0	0	8
put	0	1	4	0	1	0	0	0	1	0	0	0	0	7
Total	149	120	48	19	35	4	3	14	1	5	6	5	3	412
% of PV	25.08	20.20	8.08	3.19	5.89	0.67	0.50	2.35	0.16	0.84	1.01	0.84	0.50	69.36

Overuse and Underuse of Phrasal Verbs

The analyses conducted to answer the last research question are presented in this section. While Table 8 presents the comparison results between TICLE and LOCNESS for the written register, Table 9 presents the results between LINDSEI-TR and LOCNEC for the spoken register.

There is a statistically significant ($p < 0.01$) underuse of phrasal verbs in TICLE ($LL = -158.17$) when compared to LOCNESS. Along with the results that have been presented so far, this result also indicates that Turkish EFL learners use far fewer phrasal verbs in their written register compared to L1 English speakers. Although they use similar AVPs and lexical verbs in their PV constructions, they use these multiword units relatively less frequently and productively.

A statistically significant ($p < 0.01$) underuse of phrasal verbs in LINDSEI-TR ($LL = -240.66$) when compared to LOCNEC is clearly observed. In line with the results that have been uncovered, the relative frequency and loglikelihood calculation results from Table 9 also indicate that native speakers of English use far more PVs in their spoken register than Turkish EFL learners do. Similar to the results for written register, spoken register results also show that Turkish EFL learners use similar AVPs and lexical verbs in their PV constructions to those used by L1 English speakers. However, the usage of these constructions by Turkish EFL learners is noticeably less frequent and productive. This result contradicts previous research as PVs are projected to

be used in spoken register more frequently than written register (Biber et al., 1999).

To sum, both written and spoken register results show an overall underuse of PV constructions by Turkish EFL learners. This underuse may have resulted from the fact that even though they were able to use similar LVs and AVPs to L1 English speakers, their usage differed from the native usage regarding frequency results.

DISCUSSION

The Use of Adverbial Verb Particles

The results for the first two questions revealed that Turkish EFL learners use AVPs in written and spoken registers in a parallel fashion to English native speakers. 3 out of the most frequent AVPs are the same for all corpora, which are *up*, *out*, and *down*. In addition, 9 out of 10 AVPs in TICLE were the same as those in LOCNESS and 10 out of 10 AVPs in LINDSEI-TR were the same as those in LOCNEC. These results are in line with Gilquin (2015) in terms of the most frequent AVPs in written register, which were *on*, *back*, *out*, and *up* in that study. The results from TICLE also presented *up*, *out*, *on*, and *down* as the most common AVPs, 3 out of which are the same as Gilquin (2015). In addition, the results show *up* and *out* as the most frequent AVPs, which are the same as Ryoo (2013). Similarly, 7 out of 10 mostly used AVPs in written register are the same as the ones in Waibel (2007), which are

Table 6. Verb-particle frequencies of top 20 lexical verbs functioning in phrasal verb forms in TICLE

Verb	out	up	off	on	down	along	over	up with	away	across	Total
go	31	1	0	11	2	0	0	0	0	0	45
grow	0	35	0	0	0	0	0	0	0	0	35
give	0	22	1	0	0	0	0	0	0	0	23
bring	0	22	0	0	0	0	0	0	0	0	22
come	5	2	0	0	1	1	1	4	0	8	22
carry	20	0	0	0	0	0	0	0	0	0	20
get	1	2	0	1	1	5	1	0	0	0	11
break	3	3	0	0	0	0	0	0	0	0	6
take	2	2	0	0	0	0	1	0	1	0	6
wake	0	6	0	0	0	0	0	0	0	0	6
find	5	0	0	0	0	0	0	0	0	0	5
lock	0	4	0	0	1	0	0	0	0	0	5
make	1	4	0	0	0	0	0	0	0	0	5
put	2	0	0	0	0	0	0	3	0	0	5
turn	5	0	0	0	0	0	0	0	0	0	5
build	0	4	0	0	0	0	0	0	0	0	4
keep	1	0	0	0	0	0	0	0	3	0	4
end	0	3	0	0	0	0	0	0	0	0	3
leak	3	0	0	0	0	0	0	0	0	0	3
point	3	0	0	0	0	0	0	0	0	0	3
Total	82	110	1	12	5	6	3	7	4	8	238
% of PV	26.62	35.71	0.32	3.89	1.62	1.94	0.97	2.27	1.29	2.59	77.27

up, out, down, on, away, off, and over. Another researcher who reported similar results was Fadanelli (2012), presenting up, out, off, back, and down as the AVPs used in PVs, 4 of 5 are the same as the top 5 AVPs in TICLE.

Lexical Verb Types

The results for the third research question showed that, on the contrary to the AVPs, lexical verb types differed significantly between Turkish EFL learners and native speakers of English in both registers. While English L1 speakers used more lexical verb types in their spoken productions than their written productions, Turkish EFL learners used fewer lexical verb types in their spoken productions than their written productions. Gardner & Davies (2007) also referred to lexical verb types in general in their study. However, they did not make a comparison of lexical verb types in different registers. It seems that investigating lexical verb types in PVs is an area of research which holds great potential in this study field as there is an apparent lack of studies whose results could provide a comparison.

The Use of Lexical Verbs

The results for the fourth research question revealed that Turkish EFL learners’ usage of lexical verbs in their PV constructions in written register is mostly similar to those of L1 English speakers as 15 out of top 20 LVs are the same. As for the spoken register, 11 out of 20 LVs in learner corpus

are the same as those in native speaker corpus, which shows a partial similarity between these two groups. The results of the current study are in line with Gilquin (2015) as 5 out of 7 common LVs in spoken register are the same, which are go, get, come, give, and look. Furthermore, the results for written register are also parallel since 4 out of 7 the most frequent LVs are the same, which are go, bring, come, and carry. Additionally, the results of this study are also in line with Waibel (2007) as 5 out of 10 the most common LVs are the same, which are go, get, bring, come, and take for the written register. Like German EFL learners, Italian EFL learners also used go, bring, come, get, take, give, and break as the most common LVs in their PVs, which are the same as 7 out of 10 the most common LVs in this study. Finally, the results of our study show parallelism to Ryoo (2013), as the findings demonstrate that 4 out of 5 most common LVs in PVs are the same – go, give, come, and grow.

Overuse and Underuse of Phrasal Verbs

The results for the fifth research question display an overall statistically significant underuse behaviour of Turkish EFL learners in their PV usages in both registers. In particular, their usage in spoken register is strikingly distinctive from their native speaker counterparts, which is an unexpected result based on previous research as spoken register would yield more usage of PVs (Biber et al., 1999). This overall result lines with Gilquin (2015) as those learners also use

Table 7. Verb-particle frequencies of top 20 lexical verbs functioning in phrasal verb forms in LINDSEI-TR

Verb	out	up	off	on	down	along	around	over	up with	in	Total
go	15	1	0	2	0	0	1	1	0	0	20
get	1	1	0	0	1	7	0	0	0	0	10
break	3	0	0	0	3	0	0	0	0	0	6
give	0	5	0	0	0	0	0	0	0	0	5
come	1	0	0	0	0	0	0	0	1	1	3
look	0	0	0	0	1	0	1	0	0	0	2
show	0	0	2	0	0	0	0	0	0	0	2
turn	1	0	0	0	1	0	0	0	0	0	2
check	1	0	0	0	0	0	0	0	0	0	1
end	0	1	0	0	0	0	0	0	0	0	1
fall	0	0	0	0	1	0	0	0	0	0	1
insist	0	0	0	1	0	0	0	0	0	0	1
put	0	1	0	0	0	0	0	0	0	0	1
rip	0	0	1	0	0	0	0	0	0	0	1
set	0	1	0	0	0	0	0	0	0	0	1
shoot	0	0	0	0	1	0	0	0	0	0	1
sit	0	0	0	0	1	0	0	0	0	0	1
stand	0	1	0	0	0	0	0	0	0	0	1
step	0	0	0	0	0	0	0	1	0	0	1
take	0	1	0	0	0	0	0	0	0	0	1
Total	22	12	3	3	9	7	2	2	1	1	62
% of PV	35.48	19.35	4.83	4.83	14.51	11.29	3.22	3.22	1.61	1.61	100

Table 8. Loglikelihood calculation results comparing TICLE and LOCNESS

	O1	%1	O2	%2	LL
PV Use	308	0.15	786	0.35	- 158.17

O1 is observed frequency in TICLE

O2 is observed frequency in LOCNESS

%1 and %2 values show relative frequencies in the texts.

+ indicates overuse in O1 relative to O2,

- indicates underuse in O1 relative to O2

Table 9. Loglikelihood calculation results comparing LINDSEI-TR and LOCNEC

	O1	%1	O2	%2	LL
PV Use	62	0.09	594	0.46	- 240.66

O1 is observed frequency in LINDSEI-TR

O2 is observed frequency in LOCNEC

%1 and %2 values show relative frequencies in the texts.

+ indicates overuse in O1 relative to O2,

- indicates underuse in O1 relative to O2

fewer PVs in speech than in writing. Besides, results of several studies reveal that EFL learners from various L1 backgrounds such as Portuguese, Dutch, French, Korean, and Italian underused PVs in their written language (Fadanelli, 2012; Hulstijn & Marchena, 1989; Riguel, 2014; Waibel, 2007). In terms of Turkish context, the results of the current study are in line with Yıldız (2016) who found out that Turkish EFL learners tend to avoid using PV structures in

their language production. The particular reasons behind the avoidance behaviour were not investigated within the scope of the present study; yet, Karakuş (2017) reported a tendency to use one word equivalents of PVs when available especially in translation task. Therefore, this tendency could also be interpreted as an avoidance behaviour of Turkish EFL learners as in this study.

CONCLUSION

This study mainly aimed to investigate the use of phrasal verbs – one of the most common yet problematic multi-word units in English – from a comparative perspective. It focused on comparing the usage of phrasal verbs in written and spoken registers by two groups, namely native speakers of English and Turkish EFL learners.

In the end, the study revealed that Turkish EFL learners are able to use PV structures to some extent in terms of common LVs and AVPs; yet, they lack the competence to use them in a similar way to native speakers of English in terms of frequencies of PVs in both registers, which resulted in an overall underuse.

The limitations of this study are three-fold. Initially, this study resorted to one dictionary to ensure whether the PVs encountered in corpora are listed as PVs. For crosscheck purposes, more dictionaries can be consulted in future studies. In addition, analysing the use of PVs by various proficiency levels could lead to illuminating results. Finally, we

acknowledge that using a different data analysis from log-likelihood such as mixed-effects modelling might elicit different results in future studies.

As for the suggestions, several lists are already presented for language teachers and material developers to overcome the potential problems of learning and teaching these multiword units (Gardner & Davies, 2007; Liu & Myers 2018; Spring, 2018). Additionally, language teachers are suggested to rely on these lists as well as the meaning and use of different PVs instead of their intuition while teaching (Chávez Herra, 2013). Also, it is recommended English language teachers present these units in a contextual style rather than having their students memorize these lists without using them in context. Besides, as can be inferred from the studies, an explicit way of teaching should be considered by language teachers since these verbs require a conscious awareness by the learners, especially whose L1 is typologically different from the target language (Karahan, 2015). Furthermore, research favours a combination of implicit and explicit vocabulary instruction in a contextualized approach which contributes to the retention of target lexical items (Godwin-Jones, 2018). Finally, the register differences should be noted by the teachers as each register necessitates a different way of usage of PVs.

Regarding Turkish EFL learners in particular, the instruction they receive should be better informed with particular usages of PVs in various registers. Their awareness for spoken register should be specifically raised. Additionally, they should be guided as to how they could use these structures productively without favouring a limited set of verbs and particles. Language teachers are suggested to benefit from corpus methodologies to reflect real-life usages onto their instructions. Material developers are also suggested to base their development processes on corpus data following cutting-edge technology. Finally, language teachers should keep the typological differences between Turkish and English in mind from the very start in their teaching to help raise awareness.

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