

English-to-Hindi translation divergence study of English phrasal verbs

Pursotam Kumar^{1*}, Anil Kumar Thakur²

^{1,2}Indian Institute of Technology (BHU) Varanasi, India; pursotamkumar.rs.hss19@itbhu.ac.in (P.K.) anil.hss@iitbhu.ac.in (A.K.T.)

Abstract: English phrasal verbs pose complex semantic interpretations and cause significant problems in their translation into the target language. The paper selects some frequent and highly polysemous English phrasal verbs listed with 10 or more senses in the English WordNet, collects sample English sentences from the British National Corpus and examines their Hindi translation equivalents in terms of the morpho-syntactic structure of Hindi verbs and the representation of semantic information. This study attempts to present the semantic equivalence in rendering the identical semantics in the verbal system of both languages under consideration. The study found that the most frequent and common way of realising the concepts represented by English phrasal verbs in Hindi is by incorporating the compound verb constructions in the Hindi language. Besides that, we observe multiple mapping patterns of English phrasal verbs in Hindi, including the simple Hindi verb (v), compound verb (v1-v2), and conjunct verb (noun/adjective/adverb-verb) constructions.

Keywords: English-Hindi, Phrasal verbs, Semantic equivalence, Translation divergence,

1. Introduction

English phrasal verbs are well-known for their complexity. The complexity includes the identification as well as the contextualization of their highly polysemous use. They have been studied from both identification and contextualization perspectives, particularly in the context of their computational application, in recent decades (Tu & Roth, 2012). In the context of multilingual application, a comparative study becomes imperative. The present paper compares the multi-sense contextual distribution of some of the most frequent and polysemous English phrasal verbs with their Hindi counterparts with a view to identifying their divergence and mapping patterns. The paper takes Liu's (2011) list of 150 most frequent phrasal verbs in the English language and looks up their potential number of senses in the English WordNet. Further, we select the 13 most polysemous phrasal verbs listed with 10 or more senses in the English WordNet and examine their sense distribution in the British English corpus BNC (British National Corpus). The English examples thus obtained are manually translated into Hindi to observe divergence and mapping patterns for the selected phrasal verbs. English phrasal verbs constitute a significant aspect of English language structure, embodying a fusion of verb and particle to convey nuanced meanings and actions. For instance, *take out*, *come up*, *get off*, etc. However, when translating English phrasal verbs into Hindi, a language with distinct syntactic and semantic structures, challenges emerge that often lead to divergence in conveying the intended meaning. This paper delves into the intricate dynamics of translating English phrasal verbs into Hindi, exploring the complexities arising from syntactic and semantic complexities between the two languages under consideration, English and Hindi.

English phrasal verbs are one of the most notoriously challenging aspects of English language vocabulary, often determining fluency and command over the language. They present a great deal of challenges in the process of translation. The major challenges arise from their highly polysemous

context-specific semantic interpretation that affects the choice of direct equivalence in the target language. This lack of direct/formal equivalence governs the phenomena of translation divergence. The acquisition and comprehension of English phrasal verbs has always been a challenging task for non-native speakers of English. Phrasal verbs are a special type of multi-word verb that consists of a lexical verb and one or more particles. They often have several different meanings depending on the context in which they are used. For non-native speakers, understanding and correctly using phrasal verbs can be a major challenge. This is because phrasal verbs are often idiomatic, meaning that their meaning cannot be deduced from the individual words that make them up. This can make it difficult for non-native speakers to guess the meaning of a phrasal verb based on their knowledge of the individual words. In addition, many phrasal verbs present multiple meanings, making them even more challenging for non-native speakers to master. For example, the phrasal verb "pick up" can mean to pick up a physical object, to learn something, or to improve.

Translation divergence is a natural phenomenon that occurs while translating the source language structure into the target language. It occurs when there is a difference in the grammatical or lexical system of two or more languages (Dorr, 1994). Translating English phrasal verbs into Hindi, a language with distinct grammatical structures, challenges emerge that often lead to divergence in conveying the intended meaning. The translation of English phrasal verbs (PVs) into Hindi is a challenge as they represent a vast range of meanings that cannot be inferred from the individual semantics of the constituent elements of PVs. The lexical, syntactic and semantic idiosyncrasies of PVs are at the root of translation problems. With their non-compositional semantics, polysemous nature, semantic productivity, and creative and context-specific uses, PV translation into the target language is not properly dealt with. Languages exhibit intricate syntactic, semantic, and grammatical structures that may not have direct equivalents across different languages. Machine translation systems may struggle to accurately capture and convey these complexities, leading to divergence in translations. Phrasal verbs pose challenges for machine translation systems, as they may produce multiple possible interpretations, resulting in divergent translations. Divergence is a key aspect of translation between two languages. Divergence occurs when sentences that are structurally similar to those in the source language do not translate into sentences that are similar in structures in the target language. Divergence assumes special significance in the domain of Machine Translation. The intuitive idea here is that structurally similar sentences in the source language (SL) should translate into sentences that are structurally similar in the target language (TL). However, this assumption is violated due to divergence, which arises when the natural translation of one language into another results in a very different form than that of the original (Dorr, 1993). However, the identification of divergence is important for various aspects of MT, such as word-level alignment (Dorr et al., 2002). Machine translation systems and language learners may encounter difficulties in processing and interpreting divergent translations, hindering their ability to grasp the nuances and subtleties of PVs. Translation divergence poses challenges to producing accurate and contextually appropriate translations across different language pairs. Translation divergence refers to the phenomenon where the translation of a text from one language to another results in variations, discrepancies, or differences in meaning and structure. This phenomenon is pervasive across all types of translation, including human translation, machine translation, and language learning contexts, and arises from a combination of linguistic, and contextual factors. Languages exhibit distinct syntactic, semantic, and grammatical structures that can lead to differences in how concepts are expressed and interpreted. These structural disparities often contribute to translation divergence, as literal or direct translations may fail to capture the full meaning or nuances of the original text. One of the primary challenges in translating English phrasal verbs into Hindi lies in the fundamental differences between the two languages' grammatical structures. While English employs a flexible word order and relies heavily on prepositions and particles to convey meaning, Hindi relies more on complex verb constructions, leading to variations in the grammatical structure of verbs and semantic interpretation. As a result, direct translation of English phrasal verbs into Hindi often proves inadequate in capturing the subtleties and nuances inherent in the original expressions. Furthermore,

semantic disparities between English and Hindi pose additional hurdles in the translation process. English phrasal verbs frequently carry connotations that may not have direct equivalents in Hindi. As a result, translators must navigate a complex landscape of linguistic differences to accurately convey the intended meaning while preserving the idiomatic essence of the phrasal verb. Moreover, the contextual occurrences in which phrasal verbs are used play a crucial role in their translation. English phrasal verbs often reflect context-specific meaning that may not have direct parallels in Hindi-speaking contexts. Translators must, therefore, possess a deep understanding of both languages and their respective semantic nuances to effectively bridge the gap between them. In light of these challenges, this paper aims to analyse the divergence in English-to-Hindi translation of phrasal verbs, shedding light on the factors contributing to discrepancies in meaning and interpretation. By examining examples, we seek to elucidate the complexities inherent in their translation process and propose strategies for mitigating divergence to achieve more accurate and contextually relevant translations. Through this exploration, we hope to contribute to a deeper understanding of cross-linguistic connection, facilitating more effective translation practices in the realm of English-to-Hindi phrasal verb translation. With this consideration, the present paper fulfils the following objectives.

1. To identify the divergence in mapping English phrasal verbs in Hindi.
2. To explore the grammatical structure of the Hindi verbal system used to represent the various context-specific senses of English phrasal verbs.

English and Hindi, including some other Indian languages, have been compared in the context of divergence studies in recent decades, particularly in the context of machine translation applications (Dave et al., 2001; Sinha & Thakur, 2008; Chatterjee et al., 2005; Gupta & Chatterjee, 2003; Chatterjee & Balyan, 2011; among others). However, we have not found a comparative study of English phrasal verbs with Hindi (except an initial study by Chatterjee & Balyan, 2011). Chatterjee and Balyan (2011) propose a semantic-based disambiguation strategy to resolve the context of the phrasal verbs for better English-to-Hindi machine-translation output. They found that Hindi has different verbs for each of the senses, and some have a single Hindi verb as an equivalent expression. The study focuses only on resolving the context of EPVs with less or no emphasis paid to explore the grammatical structure of Hindi verbal systems accounting for the semantic productivity of English PVs. A systematic study of the Hindi verbal system representing the various contextual occurrences of EPVs is noticeably lacking. Therefore, the present study explores the grammatical structure of the Hindi verbal system used to contextualise the senses of English PVs. This study will fill this gap in the cross-lingual study of English VPCs and their Hindi equivalents. By doing so, we will establish a cross-linguistic semantic correspondence between the verbal system of both languages, English and Hindi. The availability of cross-linguistic distinctions makes a straightforward transfer from the source language to the target language, and information from this is beneficial for both language pedagogy and the creation of a bilingual dictionary, multi-word lexicon extraction/generation, etc.

2. English Phrasal Verbs and Equivalence

Phrasal verbs represent one of the prominent and ubiquitous features of the English language. They are prevalent in spoken and written form and are considered a specificity of the English language. Their complex syntactic and semantic structure causes difficulties in their acquisition/learning, comprehension, and production in speech or writing (Celce-Murcia & Larsen-Freeman (1999); Cornell (1985)). The non-compositional semantics of phrasal verbs make them difficult to learn for native as well as non-native speakers of English. This causes unpredictable semantics from both the constitutive elements of English phrasal verbs. They are often classified based on their syntactic and semantic patterns. The syntactic classification of phrasal verbs includes the features of transitivity (intransitive and transitive) and separability (inseparable and separable) (Bolinger, 1971; Live, 1965; Fraser, 1976; Quirk et al., 1985). The transitive phrasal verbs require an object, as in, *she took up the carpet*. With most transitive constructions, the verb and particle are separated by the insertion of the nominal element, the direct object and result in a separable construction, as in, *she took the book down from the top shelf*. In

contrast, in inseparable constructions, the verb and the particle share a close bond and are termed joint configurations of phrasal verbs. Bolinger (1971) notes that the joint configuration of verb and particle may be more favoured when the sense of the particle is not literal. In split or separable constructions, if the object is a pronominal (it, you, her, him, etc.), the verb and the particle are always separated, as in *she will take you down in the lift*, not **she will take down you in the lift*. The separability features associated with phrasal verbs cause major problems in their identification and contextualisation. Apart from the complex syntactic patterns, phrasal verbs pose complex semantic interpretations. The semantic classification of phrasal verbs has been carried out based on the compositionality of the constituent elements. They have multiple meanings, which are compositionally formed through the interaction between the polysemy networks of both the verb and the particle. The semantic network rises from central or literal to extended or abstract senses. The semantic classification of phrasal verbs ranges from fully compositional/literal (i.e., each component contributes its meaning, as in, *I picked up the kids' clothes that were lying on the floor.*) to non-compositional/idiomatic (as in, *when you live in a country you soon pick up the language.*). They are semantically classified as literal, semi-idiomatic/aspectual and idiomatic/non-compositional (Dehe', 2002). The literal phrasal verbs are those where the verb and the particle both retain their literal basic meaning and contribute individual semantics in the meaning of composite structure. For instance, the literal sense of the particle *up* denotes the movement of an entity from a lower to a higher position or place, and the central sense of the verb *take* is 'to get hold of something'. If these two literal senses are combined, the semantics of the phrasal verb *take up* turns out to be 'getting hold of something and lift up' as in, *she took up the carpet*. In literal constructions, the particle contributes its directional meaning to the verb. The second semantic classification is semi-idiomatic or aspectual constructions, where the verb retains its basic literal meaning, and particles specify its meaning by adding a sense of completion to the entire expression and denoting a completed action. For example, the particle *up* in *eat up*, *use up*, and *drink up* does not imply 'direction' or movement from a lower to a higher position' but adds a sense of 'entirely, completely rather than the spatial directional meaning. The particle implies that the action has reached its end or is completed. The third semantic category is the non-compositional or idiomatic phrasal verbs where the meaning of the phrasal verb is unpredictable from the individual meaning of the constituent elements, verb and particle as in *give up*, the individual semantics of *give* and *up* cannot account for the semantics of phrasal verb *give up* 'to quit' as in *she gave up alcohol at the age of 35*. In idiomatic or non-compositional constructions, particles completely change the meaning of the verb to a novel unseen meaning.

In the recent decade, English phrasal verbs have been examined particularly in the context of their semantic equivalence in various language pairs. Sakhoddinova (2023) examines the equivalence of phrasal verbs in Uzbek and points out that Uzbek lack formal equivalence for phrasal verbs. In another study, Novakov and Lazović (2022) present a comparative study of the Romanian and Serbian translation equivalents of English phrasal verbs with the particles *off* and *up*. The study analyses the translation equivalents, pointing to the similarities and differences in both languages. Romanian and Serbian languages lack formal equivalents of English phrasal verbs. The study found that the spatial directional senses of these two particles are represented by the verb with certain prefixes in both languages under consideration. The Serbian translation involves prefixed verbs as frequent construction as an equivalent expression for English phrasal verbs as Serbian verbal prefixes, like English particles, can denote both literal and extended abstract meaning (Klajn, 2003; Novakov, 2018; Novakov, 2019). The study shows that the translations differ in terms of morphological and syntactic means used in translating. In another study, Usmanovna (2021) identifies the essence of some semantic correspondences in the English and Russian verb systems while translating English phrasal verbs into Russian. Russian language has a highly developed system of verb prefixes. Like adverbial particles in English, Russian prefixes are lexically strong. They acquire different shades of meaning in different usages. The study found that the Russian verb prefixes resemble English adverbial particles in their semantic function. Thus, when translating from English into Russian, the meaning of the English adverbial component of a phrasal verb is conveyed mainly with the help of Russian prefix, which most

accurately reflects the nature of the action or state being described. HÁLOVÁ (2020) present a corpus-based study of the most frequent phrasal verbs in English and their respective Czech equivalents. The study analyses the lexico-semantic properties of phrasal verbs in English and their possible Czech equivalents. The study observes that some Czech prefixes and adverbs or prepositions seem to correspond with a particular English particle. The Czech language does not know the term “phrasal verb”, but it creates new verbs on a similar semantic level through the process of affixation. Due to a different linguistic typology, the Czech prefixation is compared to English phrasal verbs, which have a morphologically different process. (Vorobiova et al., 2018) present a study on English phrasal verbs with the particle out in the aspect of their Ukrainian translation equivalents. The study illustrates the principal ways of rendering verbal complexes under consideration in the Ukrainian language. The researchers distinguish two ways of translating the lexical units in question – morphological and syntactic. Morphological way implies rendering phrasal verbs by means of predominantly Ukrainian prefixal verbs, less likely – non-prefixal verbs, and syntactical – with the help of free or stable word combinations.

3. Methodology

The paper's methodology comprises a selection of phrasal verbs and preparation of English-Hindi bilingual parallel translation equivalents by translating contextual occurrences of phrasal verbs in Hindi. The present paper selects the 13 most polysemous English phrasal verbs as identified in Liu's (2011) comprehensive list of the 150 most frequent phrasal verbs in English. These selected phrasal verbs have ten or more senses in the English wordnet. The selected phrasal verbs are *break up* (19 senses), *take in* (17 senses), *pick up* (16 senses), *set up* (15 senses), *take out* (14 senses), *take up* (13 senses), *turn out* (12 senses), *come up* (12 senses), *give up* (12 senses), *get off* (11 senses), *come out* (11 senses), *make out* (10 senses) and *put out* (10 senses). These phrasal verbs were selected due to their frequency of occurrences and their highly polysemic nature. This includes the combination of ten lexical verbs (*break, take, pick, set, turn, come, give, get, make, and put*) and four particles (*up, out, in, and off*). In these selected combinations, the particle *up* combines six lexical verbs (*break, pick, set, take, come and give*), and the particle *out* combines five verbs (*take, turn, come, make and put*). We randomly selected 50 English sentences for each selected PV from the British National Corpus (BNC) to instantiate the contextual uses of the selected phrasal verbs. The dataset consists of 650 English sentences with their corresponding Hindi translation. Further, we analysed the Hindi translation equivalent of phrasal verbs based on a structuralist approach pointing to the grammatical structure of Hindi equivalent verb forms.

4. Findings

Translation is merely a complex process that involves the semantic representation of the source language structure and meaning into the target language without affecting the meaning and intent of the source language structure. This includes the identification of the most appropriate natural equivalents in the target language that corresponds to the meaning and/or form of the linguistic unit in the source language while avoiding the source language interference. Translating English phrasal verbs into Hindi is full of complexities due to their complex semantic, grammatical, and stylistic variation. The Hindi language lacks such special phrasal lexemes termed phrasal verbs (verb-particle combinations), where particles either modify or alter the meaning of the verb. English can express semantic nuances with one phrasal verb. On the other hand, Hindi most frequently uses compound verb constructions that consist of two verbal elements: the first verb (v1) is termed polar, and the second one (v2) is termed a vector verb and hence resembles English phrasal verbs in their semantic functions. However, certain instances of English phrasal verbs follow diverse mapping patterns in Hindi, ranging from simple to complex Hindi verbs. Simple Hindi verbs consist of single-word verbs, e.g. *nikal* ‘exit’, *chal* ‘go’ etc. In contrast, Hindi complex verb represents the grammatical sequence of verb/adverb/noun/adjective-verb combinations and are further categorised as compound (verb-verb (v1-v2)) and conjunct verb (noun(N)/adjective (ADJ)/adverb (ADV)-verb(V)) constructions. The

polysemy of English phrasal verbs presents another issue in translation. Hence, the significance of context in which a phrasal verb is used plays an imperative role while translating from one language to another, as the context itself provides the appropriate interpretation of the specified action. Therefore, providing the most natural and accurate equivalence is quite a complex task while dealing with the translation of English phrasal verbs into Hindi.

The Hindi translations of selected English phrasal verbs involve simple and complex Hindi verbs. The Hindi complex verbs are the combinations of verb/noun/adjective/adverb-verb. The verb(v1)-verb(v2) combinations are termed compound verb constructions, whereas noun/adjective/adverb-verb combinations are termed conjunct verb constructions. The Hindi verbal structure used to represent the semantics of English phrasal verbs comprises simple verbs (monolexemic verbs (v)), compound verbs (verb-verb (v1-v2)), and conjunct verbs (noun(N)/adjective (ADJ)/adverb (ADV)-verb(V)).

The example set (1) presents simple Hindi verbs as equivalent expressions for English phrasal verbs.

Example set (1): 'put on' and 'pick up'

(1a) She **puts on** gloves and **picks up** her fan.

(1b) *vaha dastAne pahanatI hai aur apanA paMkhA uThAtI hai.*

{she gloves put on be-PR and her fan pick up be-PR}

In example (1), the Hindi equivalent of the phrasal verbs *put on* and *pick up* is *pahan* 'wear' and *uThA* 'lift up', respectively. The Hindi verb *pahan* and *uThA* represents the semantics of both the verb and particle. Therefore, what is represented in English by two grammatical elements is represented by a single-word verb in Hindi.

The Hindi complex verbs, as an equivalent expression for English phrasal verbs, involve both conjunct and compound verbs. The conjunct verbs are the combinations of *noun-verb*, *adjective-verb* or even *adverb-verb* constructions (e.g., *gaThana karnA* (N-V) 'literal; form do'; *ghoShit honA* (ADJ-V) 'literal; declare happen'; and *bAhar rakhnA* (ADV-V) 'literal; out put'. On the other hand, compound verbs are the combinations of two verbal elements that is v1 + v2 sequence. The v1 is termed as polar verb and the v2 as vector verb (e.g., *A jAnA* (V1-V2) 'literal; come go'). The phrasal verbs presented in examples (2-4) below involves Hindi conjunct verb as equivalent Hindi expression.

In the example set (2), the Hindi equivalent '*gaThana karnA*' of the phrasal verb *set up* is a conjunct verb of the grammatical sequence noun + verb. The first element *gaThana* (noun) of the Hindi conjunct verb denotes the lexical semantic content of the phrasal verb *set up* and the second element *karnA* is the verbal operator that marks the semantics of performing an action.

Example set (2): 'set up'

(2a) The government **set up** a commission to investigate the crime.

(2b) *sarakAra ne aparAdha kI jAMcha ke lie eka Ayoga kA gaThana kiya.*

{government ERG crime GEN investigation for a commission of form do-PST}

In the example set (3), the Hindi equivalent '*ghoShit honA*' of the phrasal verb *come out* is a conjunct verb of the grammatical sequence adjective+ verb. The first element *ghoShit* (adjective) of the Hindi conjunct verb denotes the lexical semantic content of the phrasal verb *come out* and the second element *honA* is the verbal operator that marks the semantics of realised station after some process.

Example set (3): 'come out'

(3a) The exam results **come out** in August.

(3b) *parIkShA ke natIje agasta meM ghoShit hote haiM.*

{exam of results august in declare happen be-PR.}

In the example set (4), the Hindi equivalent '*bAhar rakhnA*' of the phrasal verb *put out* is a conjunct verb of the grammatical sequence adverb + verb. The first element *bAhar* (adverb) of the Hindi conjunct verb denotes outward directional movement of an entity and marks the lexical-semantic content of the particle *out*. The second element *rakhnA* is the verbal operator that marks the semantics of performing an action of placing something. It is evident that for each constituent of English phrasal verbs (verb and particle) there exists a distinct semantic equivalent in Hindi. The distinct grammatical elements of the Hindi conjunct verb represent the semantics of the English verb and the particle.

Therefore, there exists a one-to-one semantic correspondence for each individual element of English phrasal verbs in Hindi. The directional sense of the particle *out* is represented by the first element *bAhar* (adverb) of the Hindi conjunct verb.

Example set (4): ‘put out’

(4a) Remember to **put out** the dustbin tonight.

(4b) *Aja rAta kURedAna ko bAhar rakhnA yAda rakheM.*

{tonight dustbin ACC out put remember do.}

In the example set (5), the Hindi equivalent ‘*nikAl le*’ of the phrasal verb *take out* is a compound verb (v1-v2). The v1 *nikAl* of the Hindi compound verb denotes the sense of removing something from somewhere. Therefore, it can take care of the semantics of English verb and particle both. The directional sense of the particle is lexicalised in the v1 of the Hindi compound verb. The v2 *le* denotes the consequential state of action. Hook (1979) points out that the “Use of compound verbs allows the mind to travel across the phases of an action. Using the simple verb illuminates a single stage. Thus, the sense encoded in the English sentence by the phrasal verb *take out* is represented by two verbal elements in Hindi.

Example set (5): ‘take out’

(5a) We’ll **take out** the battery first.

(5b) *hama pahale baiTarI nikAl leMge.*

{we first battery ACC remove take-FUT}

Further, we present a quantitative analysis of the grammatical structure of the Hindi equivalent of the English phrasal verbs. The frequency count and percentage distribution of the grammatical structure of Hindi verbs used to realize the multiple senses of English phrasal verbs are presented in Table (1) below. It is evident that the Hindi compound verb constructions are the frequent category of the Hindi verbal system used to represent English phrasal verbs.

Table 1.
Frequency and percentage distribution of grammatical structure of Hindi verbs.

	Grammatical structure of Hindi verbs	Frequency count (Total= 650)	Percentage
1.	V	140	22 %
2.	V-V	315	48%
3.	N-V	45	7%
4.	ADJ-V	60	9%
5.	ADV-V	90	14%

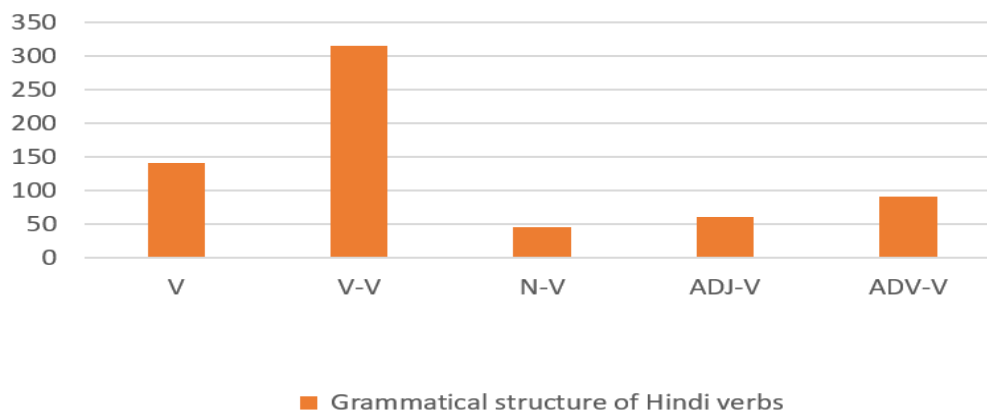


Figure 1.
Grammatical structure of Hindi verbs.

The graphical representation of the frequency and percentage distribution of grammatical structure of Hindi verb forms for EPVs is presented in Figure 1.

These five grammatical structures can further be categorized into three verbal types: simple verb (v), conjunct verb (noun(N)/adjective (ADJ)/adverb (ADV)-verb(V)) and compound verbs (v1-v2). The fig.2 below presents the same.

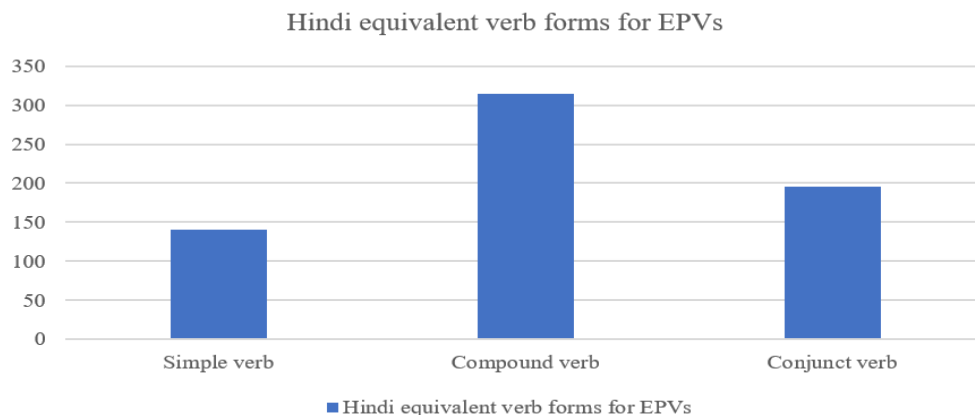


Figure 2.
Hindi equivalent verb forms for EPVs.

The most frequent Hindi verb form as an equivalent expression for English Phrasal Verb (EPV) is a compound verb, which is a combination of verb-verb that together represents the semantics of English phrasal verbs. In Hindi conjunct verbs, the ADV-V combinations are found to be most frequent, where the first adverb of the Hindi conjunct verb overtly marks the spatial directional senses of the phrasal verb particles. Hindi compound and conjunct verbs together constitute Hindi complex verbs. Therefore, on a broad scale Hindi equivalent of EPVs can be categorised as simple and complex Hindi verbs. The fig.3. below presents the occurrences of simple and complex Hindi verbs as an equivalent expression for English phrasal verbs.

Figure 3. Hindi equivalents of English phrasal verbs

Hindi equivalents of EPVs

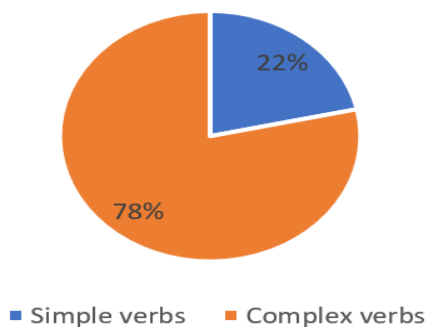


Figure 3.
Clearly shows that for the most part English phrasal verbs requires Hindi complex verb as an equivalent expression with 78 percent of occurrences. However, certain senses of these phrasal verbs require simple Hindi verbs that constitute 22 percent of occurrences.

5. Discussion

English and Hindi are inflectional languages as they add inflectional morphemes to their words, either as prefixes, infixes, or suffixes. However, Hindi is more inflectional as it abounds in terms of nominal inflexion, case inflexion, and verb inflexion (Jha, 2018). We have observed that the Hindi translation equivalents of the English phrasal verbs following the pattern lexical verb (LV) + particle tend to show a distinctly different structure from the English morpho-syntactic structure. In most cases, the translatability of English phrasal verbs in Hindi as compound verbs is peculiar. However, Hindi also exhibit simple and conjunct verb constructions as an equivalent expression for English phrasal verbs. It is difficult to decide when an English phrasal verb will be substituted by a compound verb such as *le jA* 'literal; take go' for the phrasal verb *take away*) or a simple verb (*samajhnA* 'comprehend' for *make out*) in Hindi. Like many South Asian Languages, Hindi is rich in complex verbs (compound and conjunct verbs). They are either the combination of noun/adjective/adverb-verb or verb-verb where noun, adjective/adverb or first verb contributes the semantic content and the verb or second verb accounts for the syntactic information of the construction. Noun/adjective/adverb and verb combinations are termed conjunct verbs, whereas the combinations of two verbs are called compound verbs.

Our study reveals some interesting cross-lingual structural and semantic divergences between English and Hindi, particularly in the context of mapping English PVs in Hindi. The two languages have their unique grammatical structure and belong to two distantly related language families. Therefore, the occurrence of divergence in translation is obvious. One of the marked divergences is that Hindi does not have phrasal verbs in the sense that they exist in English. Hindi does not have the combination of verb and particle where the particle modifies the meaning of the verb and/or completely changes from compositional to idiomatic. However, Hindi employs a variety of grammatical mechanisms to convey the meanings expressed by English phrasal verbs. Hindi compound verbs are sometimes compared with English phrasal verbs. However, based on the analysis of the collected data, it is evident that English phrasal verbs frequently require complex verbs as their Hindi translation equivalents.

6. Conclusion

The paper discussed the divergence observed in the Hindi translation equivalents of certain polysemous English phrasal verbs from the standpoint of morpho-syntactic structure of Hindi verbs and the representation of semantic information. The paper points out the diverse patterns of the Hindi translation equivalents, including simple Hindi verbs, compound and conjunct verb constructions. In conclusion, translation divergence is a complex and multifaceted phenomenon that underscores the challenges and intricacies of cross-linguistic distinctions. By understanding its causes and implications, translators, educators, and technology developers can work towards producing more accurate, appropriate, and contextually relevant translations that foster effective communication and mutual understanding across language barriers.

References

- [1] Bolinger, D. (1971). *The Phrasal Verb in English*. Cambridge: Harvard University Press.
- [2] Celce-Murcia, M. & Larsen-Freeman, D. (1999). *The grammar book: An ESL/EFL teacher's course* (2nd ed.). Boston: Heinle & Heinle.
- [3] Chatterjee, N., & Balyan, R. (2011, December). Context resolution of verb particle constructions for English to Hindi translation. In *Proceedings of the 25th Pacific Asia Conference on Language, Information and Computation* (pp. 140-149).
- [4] Chatterjee, N., Goyal, S., & Naithani, A. (2005, September). Resolving pattern ambiguity for english to hindi machine translation using WordNet. In *Proceedings of the international workshop Modern approaches in translation technologies, Borovets, Bolgarija, 24. september 2005* (pp. 18-25).
- [5] Cornell, A. (1985). Realistic Goals in Teaching and Learning Phrasal Verbs. *IRAL*, 23 (4), 269-280.
- [6] Dave, S., Parikh, J., & Bhattacharyya, P. (2001). Interlingua-based English-Hindi machine translation and language divergence. *Machine Translation*, 16, 251-304.
- [7] Dehé, Nicole. (2002). *Particle Verbs in English: Syntax, Information Structure and Intonation*. Linguistik Aktuell /Linguistics Today 59, John Benjamins, Amsterdam/Philadelphia.
- [8] Dorr. B.J. (1993) Machine translation: a view from the Lexicon. *MIT Press, Chicago*.

- [9] Dorr, B.J. (1994). Machine translation divergences: A formal description and proposed solution. *Computational linguistics*, 20(4), 597-633.
- [10] Dorr, B. J., Pearl, L., Hwa, R., & Habash, N. (2002). Duster: A method for unraveling cross-language divergences for statistical word-level alignment. In *Machine Translation: From Research to Real Users: 5th Conference of the Association for Machine Translation in the Americas, AMTA 2002 Tiburon, CA, USA, October 8-12, 2002 Proceedings 5* (pp. 31-43). Springer Berlin Heidelberg.
- [11] Fraser, B. (1976). *The Verb-Particle Combination in English*. New York: Academic Press.
- [12] Gupta, D., & Chatterjee, N. (2003). Identification of divergence for English to Hindi EBMT. In *Proceedings of Machine Translation Summit IX: Papers*.
- [13] HÁLOVÁ, Alžběta. *A lexico-semantic analysis of phrasal verbs in English and their Czech equivalents/Lexiko-sémantická analýza frázových sloves v angličtině a jejich české ekvivalenty*. Online. Bachelor's thesis. České Budějovice: University of South Bohemia in České Budějovice, Faculty of Education. 2020. Available from: <https://theses.cz/id/j1d7hs/>.
- [14] Hook, P. E. (1979). Hindi Structures: Intermediate Level. The University of Michigan.
- [15] Klajn, I. (2003). *Tvorba reči u savremenom srpskom jeziku 2*. [Word formation in the contemporary Serbian language 2]. Beograd: Zavod za udžbenike i nastavna sredstva/Institut za srpski jezik SANU: Novi Sad: Matica srpska.
- [16] Liu, D. (2011). The most frequently used English phrasal verbs in American and British English: A multicorpus examination. *TESOL quarterly*, 45(4), 661-688.
- [17] Live, A.H. (1965). The discontinuous verb in English. *Word*, 21, 428-451.
- [18] Novakov, P. (2018). 'Engleski višičlani glagoli sa glagolima kretanja *come, fall, walk* i njihovi srpski prevodni ekvivalenti' [English multi-word verbs with the verbs of motion *come, fall, walk* and their Serbian translation equivalents] in *Jezici i kulture u vremenu i prostoru 7/2*. S. Gudurić and B. Radić-Bojanić (eds.). Novi Sad: Filozofski fakultet, pp. 335-344.
- [19] Novakov, P. (2019). 'Partikule *up, off* i *down* u engleskim fraznim glagolima i srpski glagolski prefiksi: prostorna i proširena značenja' [Particles *up, off* and *down* in English phrasal verbs and Serbian verbal prefixes: spatial and extended meanings] in *Jezici i kulture u vremenu i prostoru 8/1*. S. Gudurić, S. and B. Radić-Bojanić (eds.). Filozofski fakultet: Novi Sad, pp. 223-235.
- [20] Novakov, P., & Lazović, M. (2022). English Phrasal Verbs with the Particles Off and Up and Their Romanian and Serbian Translation Equivalents. *Romanian Journal of English Studies*, 19(1), 7 - 14. DOI: <https://doi.org/10.2478/rjes-2022-0002>.
- [21] Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). *A comprehensive grammar of the English language*. New York: Longman.
- [22] Sakhoddinova, M. (2023). Lexical and Grammatical Features of English Phrasal Verbs and Problems of Rendering them into Uzbek. *Builders Of The Future*, 1(01).
- [23] Sinha, R. M. K., & Thakur, A. (2008). A study of the translation divergence in English and Hindi MT. *CSI Journal*, 38(3).
- [24] Tu, Y., & Roth, D. (2012). Sorting out the most confusing English phrasal verbs. In *SEM 2012: The First Joint Conference on Lexical and Computational Semantics—Volume 1: Proceedings of the main conference and the shared task, and Volume 2: Proceedings of the Sixth International Workshop on Semantic Evaluation (SemEval 2012) (pp. 65-69).
- [25] Usmanovna, R. L. (2021, November). Some ways to translate English phrasal verbs into Russian. In *E-Conference Globe* (pp. 10-13).
- [26] Vorobiova, O., Fedorenko, Y., Kupar, M., & Martirosyan, L. (2018). Peculiarities of Rendering English Phrasal Verbs into Ukrainian. *International Journal of Engineering & Technology*, 7(4.8), 687-691. <https://doi.org/10.14419/ijet.v7i4.8.27441>